SPECIAL STUDIES SERIES

SUPPLYING WASHINGTON'S ARMY

Erna Risch



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by
Erna Risch



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Foreword

The Bicentennial celebration of the American Revolution occasioned a spate of writing about that conflict in both its national and international contexts. In the process scholars reexamined the military aspects of the struggle, both from the British and American sides, and looked anew at the Continental Army forged by General George Washington. These works have taken their place on a very large bookshelf of volumes on the military history of the American Revolution that commenced to flow from publishers almost as soon as the conflict ended. Much has been written on how the Continental Army was raised, how it fought, and how it barely survived; but in all this literature there is little more than fragmentary coverage of its supply system. The present account fills a large void in this area, bringing together for the first time a mass of data on the various institutions involved in keeping Washington's troops in the field. It should have a large impact on future accounts of the problems and operations of the Continental Army and serve as a standard reference on its supply system for decades to come.

Supplying Washington's Army is the second volume published in the relatively new Special Studies Series. Designed to cover specialized topics, this series offers a vehicle for publishing particularly worthy monographs initially produced by Army historians for limited distribution. In some instances it may include outside scholarly works appropriate for Army sponsorship. The present volume falls into the category of an outside work, although its author, Dr. Erna Risch, was long associated with the Army Historical Program, first as Chief Historian of the Quartermaster Corps and later as Chief Historian of the Army Materiel Command. This work, however, was prepared entirely after her retirement from federal service, inspired by her continuing scholarly interests. The volume is offered by the U.S. Army Center of Military History to soldiers, scholars, and the public as a contribution to a long-neglected field in the literature on the American Revolution—and as a worthy addition to the works stimulated by the celebration of the Bicentennial.

Washington, D.C.
14 March 1980

JAMES L. COLLINS, JR.
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The Author

Dr. Erna Risch received her Ph.D. from the University of Chicago, and after extensive teaching experience at Duquesne University, she joined the Historical Section of the Quartermaster General of the U.S. Army in 1943. She became Chief of that section in 1960. In the Army reorganization of 1962, she transferred to the newly created Army Materiel Command as its Chief Historian. She served in that position until her retirement in 1966. Dr. Risch is the author of numerous special studies of Quartermaster Corps activities, of the volume *Quartermaster Support of the Army: A History of the Corps, 1775-1939,* and of *The Quartermaster Corps: Organization, Supply, and Services,* Volume 2, in the United States Army in World War II Series. She is also coauthor, with C. L. Kieffer, of a second volume on Quartermaster organization in that series.

Preface

Military operations of the American Revolution have been fully covered in numerous volumes, but these works have included relatively little analysis of how the Continental Army was kept in the field. Accounts have described how Revolutionary soldiers left bloody tracks in the winter snow as they marched without shoes to defeat the British at Trenton. Their stamina and fortitude have been extolled in descriptions of the distress they suffered at Valley Forge. The curious reader, however, is left to wonder how the soldier was clothed and armed and why there was such a shortage of provisions. This study seeks to provide answers as to how the main Continental army, the army directly under General George Washington's control, was maintained in the field for eight years.

Five supply services were established to provide logistical support to the Continental troops: the Quartermaster's Department, the Commissariat, the Clothing Department, the Ordnance Department, and the Hospital Department. This study traces the evolution of these administrative agencies during the war and discusses the contributions made by key personnel who directed them. Against this background of administrative developments, it describes improvisations as well as regular procedures used in conducting supply operations. The chiefs of these agencies were attached to Washington's staff, but procedures they introduced moved out from the main army to the separate armies, which operated with considerable independence despite Washington's title of Commander in Chief of the whole Continental Army. The separate armies, in turn, were supported by deputies, though the supply chiefs did not necessarily exercise any close supervision over these subordinates.

A functional treatment is employed in discussing supply of the troops. Consequently, there is no analysis of the logistical support provided for all the campaigns of the war. References to a campaign are made to show problems that developed or changes that evolved in the handling of supply. Given the limits set for this study, these references are necessarily to campaigns involving the main Continental army. This approach is not meant to deny the significance of western operations or the campaigns of the Northern and Southern Armies. The logistical problems confronting them were as difficult and the conditions as distressing as any encountered in supplying Washington's army.

This study thus does not offer a comprehensive analysis of logistical

operations in the American Revolution. Such an account would have to include an analysis of supply in the British army in America. The role played by the states in logistical operations would also have to be covered.

The larger part of this volume is based on original sources. Of basic importance are the Papers of the Continental Congress and the Revolutionary War Records located at the National Archives and Records Service in Washington, D.C. The author is grateful to the assistants who provided aid in working with those records. Various other manuscript collections provided a considerable body of supplementary and enlightening material. The author wishes to acknowledge the help given by the staff of the Manuscript Division, Library of Congress, and is most appreciative of the courtesies extended by the directors and librarians of the American Philosophical Society, the Pennsylvania Historical Society, the New-York Historical Society, the Huntington Library, and the William L. Clements Library.

The author is much indebted to the U.S. Army Center of Military History for the encouragement and support extended in the preparation of this volume. Particular thanks are due to Dr. Stetson Conn, former Chief Historian of the center, and Dr. Robert W. Coakley for their constructive criticism of the manuscript, and to John Elsberg, who served as editor.

Any deficiencies in this book are to be ascribed only to the author.

Washington, D.C.
14 March 1980

ERNA RISCH

Contents

Chapter		Page
1.	THE CONTINENTAL ARMY	5
	Appointment of Supply Chiefs	9
	Gradual Evolution of a War Department	11
	Mercantile Capitalism	13
	Common Features of Supply Organization	15
	Lack of a Stable Currency	17
	Supply by Expropriation	20
	Phases of Logistical Support	23
	Preparations and Sources of Supply	24
	Size of Continental Forces	26
2.	ORGANIZATION OF THE QUARTERMASTER'S DEPARTMENT	29
	Appointment of Officers	30
	Organization Under Mifflin	33
	First Regulatory Measure	36
	Mifflin's Services and Resignation	38
	Appointment of Greene	42
	Criticism of the Department	47
	Reform of the Department	53
	Appointment of Pickering	58
3.	LAND TRANSPORTATION	64
	Need for Organic Transportation	67
	Manufacture of Wagons	69
	Establishment of the Wagon Department	70
	Procedures and Abuses	72
	Appointment of James Thompson	74
	Proposals for an Enlisted Wagon Corps	75
	Wagons on the Supply Lines	80
	Congressional Action	86
	Changes in the Wagon Department	89
	Distress on the Supply Lines	90
	Preparations for the 1781 Campaign	91

Chapter *Page*

4. FORAGE DEPARTMENT 97

Supply and Cavalry 98
Increased Demands in New York 99
First Regulatory Measure 100
Reasons for Forage Deficiency 103
Biddle's Reform Proposals 105
Problems Confronting Biddle 109
Biddle's Resignation and Recall 115
Forage Supply Under Pickering 119

5. OTHER QUARTERMASTER SUPPORT. 128

Water Transportation 128
The Boat Department 132
Sheltering the Troops 140
Quartermaster Artificers 152

6. ORGANIZATION OF THE COMMISSARIAT 159

Appointment of Trumbull 160
Criticism of the Department 165
Regulation of 1777 168
Appointment of William Buchanan 173
Continuation of the Issuing Department. 176
Regulation of 1778 179
Regulation of 1780 183

7. SUBSISTING THE ARMY UNDER THE COMMISSARIAT . 188

Adoption of a Uniform Ration. 189
The Ration and Health. 192
Preparation of Food 193
Flour Supply Under Trumbull 197
Importance of Salt 198
Meat Supply Under Trumbull. 200
Magazines 203
Supply During the Winter of 1776–1777 204
Background for Valley Forge. 207
Suspension of Meat Procurement 210
Competitive Measures for Flour Supply 212
Factors Hampering Meat Supply. 218
Preparations Under Wadsworth 221

Chapter Page

Flour for a Joint Venture 222
Interference in Commissariat Matters 224
Transfer of Convention Troops 226
Depreciation and Supply 227
Distress at Morristown 228

8. FROM COMMISSARIES TO CONTRACTORS 229

Criticism of the System 232
Possible Allied Cooperation 234
Breakdown of the Specific Supplies System 238
Limited Application of the Contract System 242
Contractual Authority 244
The Yorktown Campaign 246
Contractual Arrangements 251
Contract for a Moving Army 254

9. ORGANIZATION OF THE CLOTHING DEPARTMENT . . 259

Role of the Quartermaster's Department 259
Congressional Actions 260
Appointment of Clothier General Mease 265
Multiplicity of Purchasing Agents 267
Mease's Resignation 268
Washington's Proposals 271
Regulatory Legislation 275
Appointment of James Wilkinson 276
Legislative Action 279
Appointment of John Moylan 281

10. CLOTHING THE TROOPS 282

Lack of Uniformity in Dress 282
Payment by Wage Stoppage 283
Problems Confronting Mease 285
Clothing Crisis, 1777–1778 289
Arrival of Imports 293
Clothing for Officers 296
Shoe Supply 298
Continuance of Clothing Shortages 304

11. EVOLUTION OF THE ORDNANCE DEPARTMENT . . . 310

Growth of Field Organization 310
Origins of the Civil Branch 312

Chapter Page

Appointment of Commissary General Flower 314
Regulation of the Department 318
Revised Regulation for Field Organization 321
Improvement of Field Arrangements 322
Reduction of Field Organization 324
Extent of the Commissary General's Department 324
Artillery Artificers 327
Economy Measures 331

12. SUPPLY OF ORDNANCE AND ORDNANCE STORES . . 334

Foreign Procurement 335
Scarcity of Powder 339
Manufacture of Powder 342
Continuing Scarcity of Powder 344
Domestic Production of Arms 346
Variety of Arms 347
Scarcity of Arms 348
Factors Contributing to Arms Shortage 351
Supply of Cannon 356
Domestic Production of Cannon, Shot, and Shells 359
Delivery and Distribution 362
Issue and Accountability 365
Supply Deterioration 367

13. THE HOSPITAL DEPARTMENT 373

Hospital Facilities 374
Scarcity of Drugs and Instruments 377
Wounds, Fevers, and Smallpox 378
Prewar Preparations 380
First Organization of the Hospital Department 381
Congressional Supervision 383
Regimental Versus General Hospitals 384
Departmental Difficulties 390
Procurement of Hospital Stores 392
Procurement of Medicines and Surgical Instruments . . . 394
Procurement of Other Hospital Supplies 398
The Rising Tide of Complaints 399
Dismissal of Morgan and Stringer 401
Reorganization of the Hospital Department 402
Rush-Morgan-Shippen Feud 405
Elimination of the District Organization 409

Chapter *Page*

Prerogatives of Officers 411
Appointment of Dr. John Cochran 413

14. A CONCLUDING COMMENTARY 416

Supply Limitations 417
Importance of French Aid 419
Responsibility for Supply Shortages 420
Supply Abuses 422
Conduct of the Populace 423
The Secret Committee and Abuses 424
Supply Chiefs and Trade 426
Charges Against Subordinate Supply Agents 429
Inquiries and Court-Martials 432
Evaluation of Supply Agencies 433
Patriotism and Profits 437

BIBLIOGRAPHY 439

INDEX 447

Maps

No.

1. New England Area Departmental Boundaries. 2
2. Mid-Atlantic Area Departmental Boundaries 3

Illustrations

George Washington at Princeton 7
Thomas Mifflin 35
Stephen Moylan 35
Nathanael Greene 60
Timothy Pickering 60
Edward Carrington 62
Supply Train En Route to Valley Forge 81
Henry Dearborn 95
Clement Biddle 102
Reconstruction of Soldiers' Hut at Valley Forge State Park. 151
Joseph Trumbull. 182
Jeremiah Wadsworth 182

Page

Valley Forge: A Foraging Party 212
Robert Morris 243
James Wilkinson 277
Henry Knox 312
Benjamin Flower 317
Knox's Transportation of Artillery From Ticonderoga 358
James Craik 376
James Tilton 376
Reproduction of a Hospital Hut at Valley Forge 377
John Morgan 397
William Shippen 397
Benjamin Rush 405
John Cochran 414

Illustrations courtesy of the following sources: George Washington at Princeton (Charles Willson Peale) is from the U.S. Capitol Collection; portraits of Mifflin, Greene, Dearborn (all by Charles Willson Peale), and Wadsworth (attributed to James Sharples) are from the Independence National Historical Park Collection; portraits of Moylan, Pickering, Wilkinson, Knox, and Craik, and the illustrations on pp. 81, 151, 358 are from the National Archives; portraits of Carrington and Rush, and Valley Forge: A Foraging Party (Harrington Fitzgerald), are from the Library of Congress; portraits of Biddle (Bernard Uhle, after unidentified miniaturist) and Morgan are from the Historical Society of Pennsylvania; portrait of Joseph Trumbull (John Trumbull) is from the Connecticut Historical Society; portrait of Morris is from the Department of State; portrait of Flower is from The Star-Spangled Banner Flag House Association; portraits of Shippen, Cochran, and Tilton are from the National Library of Medicine.

SUPPLYING WASHINGTON'S ARMY


NEW ENGLAND AREA
DEPARTMENTAL BOUNDARIES
As of summer 1776
0
50
MILES
NORTHERN
EASTERN
MIDDLE
NEW HAMPSHIRE
MASSACHUSETTS
CONNECTICUT
R. I.
NEW JERSEY
NEW YORK
Charlotte
Lake Champlain
Tryon
Crown Point
Ticonderoga
Lake George
Fort George
Fort Schuyler
Saratoga
Mohawk R.
Schenectady
Albany
Ulster
Dutchess
Hudson R.
Connecticut
Cloverack
Claverack
Camaan
Salisbury
Sharon
Poughkeepsie
Newburgh
Fishkill
New Windsor
West Point
Stirling Ironworks
Stony Point
Haverstraw
Verplanck's Point
Westchester
King's Ferry
Northampton
Orange
Newton
Ringwood
Pompton
Totowa
Andover Ironworks
Mt. Hope
Hackensack
Danbury
Derby
Middletown
Durham
New London
Norwich
Pomfret
Providence
Brookfield
Worcester
Springfield
Framingham
Roxbury
Prospect Hill
Cambridge
Watertown
Medford
Salem
Portsmouth
Long Island

MAP I


MIDDLE
Northumberland
Northampton
Berks
Lancaster
Cumberland
Bedford
York
Chester
Bucks
Philadelphia
PHILADELPHIA
NEW JERSEY
Delaware R.
Delaware Bay
Chesapeake Bay
SOUTHERN
Baltimore
Annapolis
Alexandria
Fredericksburg
Williamsburg
Yorktown
Portsmouth
Gloucester Town
Newcastle
Dumfries
Fairfax
Charlottesville
Fredrick Town
Winchester
Bush R.
Head of Elk
Christiana
Reading
Lebanon
Middletown
Carlisle
Lancaster
Trenton
Princeton
Burlington
Brunswick
Newark
Elizabethtown
New York City
Long Island
Hackensack
Raritan
Somerset C.H.
Monmouth C.H.
Valley Forge
Whitemarsh
Coryells Ferry
Easton
Bethlehem
Pottsgrove
Conwall Furnace
Brandywine Cr.
MID-ATLANTIC AREA
DEPARTMENTAL BOUNDARIES
As of summer 1778
MILES

MAP 2

CHAPTER 1

The Continental Army

Posterity would regard as "fiction" the circumstances under which Americans achieved victory in the War for Independence. So wrote General George Washington as the conflict was drawing to a close. He thought that future generations would find it hard to believe that the force employed by Great Britain to subdue the rebels "could be baffled . . . by numbers infinitely less, composed of men oftentimes half starved, always in rags, without pay, and experiencing, at times, every species of distress which human nature is capable of undergoing."[1] Predominantly agrarian, the colonies could produce sufficient food to support an army, but a lack of adequate transportation hindered the delivery and distribution of provisions. Some industry did exist, but this widely scattered small shop and household manufacture was incapable of the large-scale production needed to meet wartime requirements. When the first shots of war rang out in April 1775, the rebelling colonists, divided among themselves on objectives, had neither an army nor a navy. They lacked a strong centralized government to direct operations and had no stable currency for financing a war. How, thus handicapped, could they raise and keep an army in the field for eight years until, with foreign assistance, they attained victory?

The Continental Army evolved from the militia organization familiar to the colonists. When war began in the Massachusetts Bay colony in April 1775, the colonists who gathered to confront British regulars were militiamen. Four days after the battles of Lexington and Concord the Massachusetts Provincial Congress voted to raise an army of 30,000 men and requested the other New England colonies to join in this effort. The New England colonies then began the process of forming from their various militias a volunteer army enlisted for the rest of the year. In June the Continental Congress took over the New England army besieging Boston and reinforced it with ten rifle companies from Pennsylvania, Maryland, and Virginia, the first soldiers drawn from outside New England. Congress thereby created the Continental Army.

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1. George Washington, *The Writings of George Washington*, ed. John C. Fitzpatrick, 30 vols. (Washington, 1931–39), 26:104 (to Maj Gen Nathanael Greene, 6 Feb 83). Hereafter cited as Fitzpatrick, *Writings of Washington*.

The delegates unanimously elected George Washington to be commander of all forces then raised, or to be raised, for the defense of American liberty. To Washington fell the unenviable task of trying to whip up enthusiasm for reenlistment among the New England troops whose terms of service expired at the close of that year. From this nucleus he built the Continental Army, but the unpatriotic attitudes he encountered discouraged him.

> Such a dearth of public spirit, and want of virtue, and stock-jobbing, and fertility in all the low arts to obtain advantages of one kind or another, I never saw before and pray God I may never be witness to again. . . . Could I have foreseen what I have, and am likely to experience, no consideration upon Earth should have induced me to accept this command.[2]

Despite the small number who were willing to enlist—a persistent problem throughout the war—the actual creation of the Continental Army was more readily accomplished than its maintenance in the field. Even by the time the war ended in 1783, Congress had failed to develop satisfactory administrative agencies capable of providing essential logistical support.

Colonial leaders were handicapped by a lack of practical experience with supply agencies, but they were well aware of the importance of both men and supplies in military operations. In anticipation of possible conflict with the mother country, they had initiated preparatory measures directed not only toward the improvement of the militia but also toward the accumulation of military stores of all kinds. However, since few men initially envisaged independence from Great Britain and engagement in a protracted war, it is doubtful that they appreciated the scope of the support required by an army.

In the later years of the war, moreover, the enthusiastic support given to the troops besieging Boston in 1775 was eroded by war-weariness. By the spring of 1781 Washington was in despair.

> Instead of having Magazines filled with provisions, we have a scanty pittance scattered here and there in the different States. Instead of having our Arsenals well supplied with Military Stores, they are all poorly provided, and the Workmen all leaving them. Instead of having various articles of Field equipage in readiness to deliver, the Quarter Master General . . . is but now applying to the several States to provide these things for the Troops respectively. Instead of having a regular System of Transportation established upon credit—or funds in the Qr. Masters hands to defray the contingent expenses of it we have neither the one nor the other and all that business, or a great part of it being done by Military Impress, we are daily and hourly oppressing the people—souring their tempers—and alienating their affections.[3]

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2. Ibid., 4:124 (to Joseph Reed, 28 Nov 75).
3. George Washington, *The Diaries of George Washington*, ed. John C. Fitzpatrick, 4 vols. (Boston, 1925), 2:207-09 (May 1781).



GEORGE WASHINGTON AT PRINCETON

Such prewar supply measures as colonial leaders took were within the framework of their experience with the militia system. Under that system militiamen reporting for an expedition against the Indians brought their own arms and accouterments. Their guns might be any kind, from muskets to fowling pieces, or even none at all. In most colonies the local authorities maintained an emergency supply of powder and weapons paid for by the towns or counties. Militiamen brought their own provisions as well, for expeditions were usually of short duration. If accomplishing their objective required more than a few days, colonial authorities customarily appointed one or more commissaries, or agents, who served only for the duration of the expedition. The commissary purchased any rations that were needed, but since the prescribed articles of food could be readily procured, no prior logistical planning was required.

No staff officers were included in the militia organization of any colony, nor were any considered necessary. Even in an eighteenth century professional army, staff officers existed only in time of war. Their omission in America from the militia organization did not imply that its officers were unaware of the positions occupied by staff officers in European armies. Their knowledge of staff organization, however, came largely from reading. Some colonists serving in the French and Indian War had observed British staff operations. A few had acquired first-hand experience in the British Army's supply and hospital operations, but their participation had been limited to duties at the lowest level of the staff departments, such as acting as a commissary or as a surgeon's mate.[4] Dr. James Craik, who served in the Hospital Department of the Continental Army during the Revolutionary War, had been surgeon to Maj. Gen. Edward Braddock's expedition, but he appears to have been an exception to the general rule. The colonist more commonly had served as a surgeon's mate in the British Hospital Department, as Dr. John Cochran had done in the French and Indian War. He acted as Director of the American Hospital Department during part of the Revolutionary War. As far as the records show, no colonist ever filled a staff position in the British Ordnance or Quartermaster's Departments. For the more protracted wars against the French in which the colonial volunteer forces participated, the British Army provided the staff planners and staff officers.

As a result of British operations in the French and Indian War, some colonial leaders took an increased interest in the technical military literature of the day. The most popular textbook in the British Army was a work written by Humphrey Bland, entitled *A Treatise of Military Discipline*.

4. Robert Ogden was appointed a commissary in New Jersey in March 1776. He had many years of experience. Since 1744 he had served as a commissary to the King's troops whenever they had been quartered in New Jersey. Washington Papers, 39:90 (Ogden to Washington, 18 Jan 77), Manuscript Division, Library of Congress.

Washington acquired a copy in 1755. On his recommendation, southern militia officers thereafter studied Bland.[5] Washington also obtained and studied an English translation by Capt. Thomas Otway of a French study on the art of war.[6] Timothy Pickering, member of the Board of War and Quartermaster General during the last years of the Revolution; Henry Knox, Chief of Artillery during the Revolution; and Nathanael Greene, military strategist and ablest of the Revolutionary Quartermasters General, were familiar with *The Memoirs of Marshal Saxe*.[7] During the Revolutionary War the most popular and widely read work was a British text, *The Military Guide for Young Officers*, by Thomas Simes.[8]

These military works not only familiarized the colonial leaders with matters of drill, tactics, and organization but also described supply duties of staff officers and stressed their importance. Captain Otway, emphasizing the role of subsistence supply in military operations, warned that hunger was more fatal than the sword. Simes cautioned that the staff properly existed only in time of war; he noted that the Quartermaster General ranked as the first of all staff officers and described his duties in detail. Staff officers of the Continental Army drew upon such studies, their knowledge of the organization of the British Army, and practical experience gained during the initial campaigns of the Revolutionary War to evolve the supply services.

Appointment of Supply Chiefs

Recognizing the need for staff officers, the Continental Congress on 16 June 1775 promptly authorized appointment of a Quartermaster General and a Commissary General of Stores and Provisions for the Continental Army. A few weeks later it also established a Hospital Department, but it did so without consulting any doctors. Except for the skeletal organization it established for the Hospital Department, Congress left decisions concerning the nature of the supply departments to the newly appointed supply chiefs.

The delegates to the Continental Congress acted more slowly in appointing staff officers to handle ordnance and clothing, though they were at once concerned with the procurement of these supplies. At Washington's request, Congress in July authorized the appointment of a Commissary of Military Stores. The latter, however, was simply a field officer responsible for the receipt and issue of ordnance stores. The Chief of Artillery fur-

5. See John W. Wright, "Some Notes on the Continental Army," *William and Mary College Quarterly Historical Magazine*, 2d ser. 11 (1931): 83–86.

6. This study by Count Turpin de Crisse, *Essai sur l'Art de la Guerre*, was published in Paris in 1754. The English translation by Captain Otway appeared in London in 1761.

7. Published in Paris in 1730, this work appeared in English in 1761 and was widely read in the colonies.

8. Based on Bland and Saxe, this two-volume work was reprinted in Philadelphia in 1776.

nished such ordnance staff support as Washington required. Congress did not establish other essential parts of an ordnance department until January 1777. Shortly before that date, it also had authorized, and Washington had appointed, a Clothier General. Throughout this eighteen-month period Congress neither defined the functions of the supply chiefs nor formulated any regulatory plan to govern their activities.

The supply efforts of the Continental Congress have generally been dismissed as inept. Its administrative shortcomings are clear, but supplying the Continental Army was only one of many problems demanding resolution by a Congress that lacked clear specific powers. It had to raise and train an army, create a navy, appoint commanders, send diplomats to Europe, regulate commerce, negotiate with the Indians, and issue paper money to finance military operations. Yet its authority was limited to what the individual states would permit or what public opinion would support. It could recommend and even enact measures, but it could not enforce them; their effectiveness depended upon the voluntary support of the states. Ratification of the Articles of Confederation in 1781 still did not provide a strong executive or a Congress with full power to act.[9]

It is thus not surprising that the Continental Congress, preoccupied with such a variety of problems, left the details of developing adequate organizations and procedures to supply officers. By 1777, however, the delegates became imbued with a veritable "rage for reformation" in the wake of increasing complaints about neglect of the soldiers by the Hospital Department and mounting criticism of the activities of purchasing commissaries in Pennsylvania and New Jersey.[10] Supply abuses and failures loomed especially large in the face of defeats suffered by Washington in New York and losses sustained by the Northern Army.

One regulatory measure followed another during the spring of 1777 as the Continental Congress sought to improve the organization of the supply services and to eliminate the abuses that had been uncovered. In the process, functions and duties of the three supply departments established in 1775 were specifically enumerated, and procedures to be followed by their officers were set forth in such minute detail as to paralyze supply operations. Oddly enough, though Congress had by this time added a Clothier General and a Commissary General of Military Stores to the staff officers, it did not provide regulatory measures for their guidance. Congress was thus repeating the procedure that it had followed in establishing the original staff posts. During the remaining years of the war Congress would repeatedly return to the reorganization of the supply services.

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9. See Edmund C. Burnett, *The Continental Congress* (New York, 1941).

10. Richard Henry Lee, *The Letters of Richard Henry Lee*, ed. J. C. Ballagh, 2 vols. (New York, 1911), 1:352 (to Washington, 20 Nov 77).

Gradual Evolution of a War Department

The fact that the Continental Congress initially exercised only a limited amount of supervisory control over the supply agencies resulted not only from the muliplicity of problems confronting it but also from the very nature of its organization and the lack of any executive department to exercise control.[11] Such supervision as Congress did exercise was accomplished through special committees sent to visit the troops. Temporarily appointed committees usually arrived at headquarters at times of crisis, such as after the withdrawal of Washington's army from Long Island in the summer of 1776. These special committees consulted with General Washington, occasionally with boards of officers, and always with the chiefs of the supply agencies. After receiving a committee's report, Congress took specific supply actions.

As problems confronting Congress became increasingly complex, it soon resorted to the use of standing committees of delegates to perform certain executive duties. Of particular importance to supply were two committees established in the fall of 1775. On 18 September Congress created a Secret Committee of nine members, any five of whom constituted a quorum for conducting business. When its membership dwindled to two, Congress on 5 July 1777 established a Commerce Committee, vesting in it the powers formerly granted to the Secret Committee.[12] These powers had primarily to do with the procurement of supplies abroad as authorized by Congress. On 29 November 1775 Congress also established the Committee of Secret Correspondence, which later, on 17 April 1777, became the Committee for Foreign Affairs; it was primarily concerned with diplomatic relations and foreign aid.[13] While the two committees created in 1775 were partly identical in membership—Robert Morris, for example, served on both—they were nonetheless distinct. Like some of the other standing committees, such as the Board of Treasury, they developed into separate departments.

Although the Secret Committee and the Committee of Secret Correspondence were concerned with procuring supplies abroad and obtaining foreign aid, they had only incidental contact with the chiefs of the supply services. The Continental Congress, for instance, occasionally directed the Secret Committee to furnish the Quartermaster General with invoices of arriving cargoes acquired on the government's account. Without the foreign aid secured by these committees, however, the supply services could not

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11. For a detailed analysis of the growth of the executive department, see Jennings B. Sanders, *Evolution of Executive Departments of the Continental Congress, 1774–1789* (Chapel Hill, 1935), pp. 4 ff.

12. Worthington C. Ford et al., eds., *Journals of the Continental Congress*, 34 vols. (Washington, 1904–37), 2:253–54 (18 Sep 75); 8:533–34 (5 Jul 77). Hereafter cited as *JCC*.

13. Ibid., 3:392 (29 Nov 75); 7:274 (17 Apr 77).

have provided enough support to keep the Continental Army in the field, nor could the Revolutionary War have been brought to a successful conclusion. In addition to these two committees, there were other standing committees—the Cannon Committee, the Clothing Committee, and the Medical Committee—also engaged in procurement activities.[14] The Medical Committee, until it was discontinued in 1781, was the only committee that exercised supervision over a related supply service, the Hospital Department.

Despite opposition to the creation of an executive branch, the Continental Congress gradually moved in that direction. It took its first step toward creating a war department when it established a Board of War and Ordnance on 12 June 1776. Washington had for some time been urging the necessity of a war office. When informing him of the action taken, John Hancock, President of the Continental Congress, concluded that "a new and great event in the history of America" had occurred.[15] However, since this first board consisted of five delegates of Congress, it was little more than another standing committee, deliberating and reporting to Congress. Inasmuch as the board was responsible, among other duties, for all the artillery, ammunition, and other military stores of the Continental Army, Congress shortly ordered the Secret Committee to deliver to the Board of War all arms, ammunition, and other military stores then under its care or thereafter imported or purchased by it.[16]

Duty on the board proved too onerous for men who were also serving in Congress. Before the end of 1776 Congress appointed a committee to draft a better plan for conducting its executive business. Congress, however, delayed action on the report for one reason or another. It was 17 October 1777 before it resolved to establish a Board of War consisting of three persons who were not members of Congress.[17] The board's membership underwent some subsequent changes, but its supply duties remained relatively constant. It was chiefly concerned with keeping accounts of ordnance and all other military stores; storing and preserving them; laying before Congress estimates of needed stores; and superintending the building of arsenals, foundries, magazines, barracks, and other necessary public buildings.

Congress appointed former Quartermaster General Thomas Mifflin and former Commissary General Joseph Trumbull as members of the revised board.[18] Both were considered to be well informed on the problems of their

14. *JCC*, 6:1064.

15. (1) Ibid., 5:434. (2) Fitzpatrick, *Writings of Washington*, 5:128, 128n. (to Pres of Cong, 13 Jun 76).

16. *JCC*, 5:831 (27 Sep 76).

17. Ibid., 7:241, 242 (8 Apr 77); 9:818–20 (17 Oct 77).

18. (1) Ibid., 9:962–63 (24 Nov 77); 971 (27 Nov 77). (2) Edmund C. Burnett, ed., *Letters of Members of the Continental Congress*, 7 vols. (Washington, 1921–36), 2:571–72 (Elbridge Gerry to Trumbull, 27 Nov 77). Hereafter cited as Burnett, *Letters*. (3) Trumbull never took his seat on the Board of War, for ill health prevented his attendance at meetings. He died less than a year later, on 23 July 1778.

respective former supply departments and well qualified to bring about improvements in their operations. Yet two years elapsed before Congress specifically placed these two supply departments under the direction of the Board of War on 25 November 1779.[19] Records do not reveal any close supervision exercised by the Board of War over the Quartermaster's and Commissary Departments even then, and this action did not eliminate all difficulties in the departments. The board had much more authority over operations in the Ordnance Department.

Some fourteen months after bringing the supply departments under the control of the board, Congress abolished that agency, replacing it with a War Office headed by a Secretary at War. This development stemmed from ratification of the Articles of Confederation. It was 30 October 1781, however, before Congress elected Maj. Gen. Benjamin Lincoln to fill the office; he accepted on 26 November. His duties, initially much the same as those formerly performed by the Board of War, were expanded in April 1782.[20] An executive department with supervisory control over all supply departments had finally evolved, but by the time Secretary Lincoln took over their supervision, Lord Cornwallis had surrendered at Yorktown. Though the Continental Army was maintained on a war basis in 1782 as a precautionary measure, there was no need to provide supplies for active campaigns. Instead, during the closing months of the Revolutionary War, Secretary Lincoln presided over the reduction of the Army and the liquidation of the supply services.

Mercantile Capitalism

In developing supply organizations, the colonists had recourse to both their practical experience and their academic knowledge of British supply agencies. On the other hand, in developing supply procedures, particularly those essential in the procurement field, the supply chiefs relied upon the experience and the knowledge of the colonial merchants. Indeed, Congress sought out merchants to serve as supply chiefs, and in many instances merchants eagerly sought positions as purchasing agents.

Whether directed by committees in the Continental Congress or by supply officers, procurement was handled by merchants. In Congress Robert Morris, a Philadelphia merchant, replaced Thomas Willing, his business partner, as chairman of the Secret Committee and dominated its foreign procurement. The merchants on that committee included, among others, Philip Livingston and Francis Lewis of New York and John Langdon of Portsmouth, New Hampshire; some were also on other procurement standing committees. In the Continental Army Thomas Mifflin, a Philadel-

19. *JCC*, 15:1312.
20. Ibid., 21:1087, 1141; 22:177–78 (9 Apr 82).

phia merchant, became the first Quartermaster General, and Jeremiah Wadsworth, the most important Connecticut trader during the Revolutionary War, served as the Commissary General of Purchases in 1778 and 1779. Not only chiefs of supply departments but most, if not all, of their purchasing deputies were merchants.

The merchant alone had the knowledge, the trade connections, and the necessary credit to handle procurement. For the most part, his business was a personal venture in which he utilized his personal connections and took advantage of the mutual patronage they afforded him.[21] Though the corporate form of business organization was known, it was seldom used in the American colonies on the eve of the Revolution. Customarily, a merchant directed his own business or entered into a partnership. The firm of Otis and Andrews, which was active in providing clothing for the Continental troops, and that of Willing and Morris, which was deeply involved in filling powder and other supply contracts for the Secret Committee, are illustrative of partnership organization during the Revolution. Whether working in partnership or singly, the merchant was quite likely to be engaged in more than one business. It was also not unusual for several persons to join their capital and goods in a single project without formal partnership, the expenses and profits being divided in proportion to investment.

Colonial mercantile business was not characterized by any great degree of specialization. The merchant's role involved the functions of shipper, banker, wholesaler, retailer, warehouseman, and insurer—functions which today would be handled by specialized personnel. However, though a merchant might be able to perform all of these functions, they were recognized on the eve of the Revolution as separate activities. The individual merchant did not have to perform all of them in order to sell his goods. He could, for example, ship his merchandise in a vessel of another shipowner, consigning it to an agent for sale.

The development of the agent, that is, the commission merchant and broker, was the outstanding feature of business in the eighteenth century.[22] The agent bought and sold goods on commission for his clients at home or abroad. He arranged shipment, handled insurance, honored bills of exchange drawn upon him by his trusted customers, and, in short, did everything he could to promote his clients' interests as if they were his own. The merchant's most valuable asset was his reputation for honesty and for scrupulous attention to the details of the business placed in his hands. By

21. Mercantile practice has been analyzed and described in such studies as Robert A. East, *Business Enterprise in the American Revolutionary Era* (1938; Peter Smith reprint, 1964); William T. Baxter, *House of Hancock* (New York, 1965); Margaret E. Martin, *Merchants and Trade of the Connecticut River Valley, 1750–1820*, Smith College Studies in History, vol. 24 (Northampton, Mass., 1939).

22. Virginia D. Harrington, *The New York Merchant on the Eve of the Revolution* (1935; Peter Smith reprint, 1964), p. 68.

1775 some merchants had become primarily commission merchants or brokers, but all important merchants acted as agents for one another. The agent's commission was a percentage of the gross value of the goods handled.

Long before the Revolution the payment of commissions to purchasing commissaries and quartermasters had become an established business procedure. Though contracts for providing supplies to British troops during the French and Indian War were placed with English merchants, the latter had agents in the colonies to act for them. Provincial troops participating in that war also had to be supplied. For the attack on Crown Point, for example, Rhode Island appointed a New York merchant as its agent to supply its troops with food and clothing, negotiate money bills for the province, and sell all produce sent to him as payment for the colony's account. For this service he received commissions of 5 percent for purchases, 2½ percent for money, and 7½ percent for storage and sale.[23]

During the Revolutionary War, the merchants who acted as agents for the Continental Congress and for the states in the procurement of supplies were paid a commission on the value of their purchases. They utilized their own credit to obtain supplies and incurred debts for which they were personally liable. That the payment of commissions opened the way to abuses was a fact initially ignored and subsequently roundly condemned but never wholly eliminated until Robert Morris, late in the war, introduced the system of contracts into Continental Army procurement operations.

Common Features of Supply Organization

All of the supply agencies had certain common organizational features. They divided their organizations into two units. The field units handled primarily the receipt and issue of supplies to the troops. In consequence, they moved with the troops of Washington's army or with those of a separate army. In 1775 the Commissary and Quartermaster's Departments were the major supply agencies. The first Quartermaster General, Thomas Mifflin, and the first Commissary General of Stores and Provisions, Joseph Trumbull, each shaped his field organization to provide support for the three divisions into which Washington divided his troops in 1775. Backing up the field units were departmental units that procured and delivered supplies needed by the Continental Army. Initially, these were little more than groups of merchants who acted as a procurement arm for each supply chief. The functions of these units expanded in time to include, among other duties, supervision of repair work, production of military items, and establishment and management of magazines. This expansion occurred rapidly after the main army left Boston in April 1776. It then became necessary, for example,

23. Ibid., p. 296.

to appoint a deputy in the Quartermaster's Department to take care of supplies left behind by Washington's troops. Unlike the field units, the departmental units developed into fixed subordinate organizations of the supply agencies, administered by deputies. Within a few months after the troops departed, the assistant quartermaster general assigned to Boston was being referred to as the deputy of the Eastern Department.

The idea of dividing the country into military departments was a natural consequence of the establishment of separate armies. When Washington designated Maj. Gen. Philip Schuyler as head of a separate army in June 1775, he named Schuyler's area of command the Northern Department. In the beginning the department was often also referred to as the New York Department, but this title was soon abandoned. The Continental Congress took no formal action to name either the Eastern or the Northern Departments, nor did it indicate the area included in each. However, in late February 1776 Congress formally established two other military departments. The Middle Department included Delaware, Maryland, New Jersey, New York, and Pennsylvania. The Southern Department embraced the Carolinas, Georgia, and Virginia.[24]

The establishment of subordinate departmental units of the supply agencies in each of the military departments was a feature that the Continental Congress incorporated in the regulations for the supply departments that it adopted in 1777 and retained for the next three years. As long as military operations remained limited in the southern states before 1779, these regulations were not applied to the Southern Department as a whole but only to the Southern District, that is, the state of Virginia. Making a regulatory measure equally applicable to all military departments, however, had a consequence that Congress probably had not foreseen. It permitted an expansion of supply personnel out of all proportion to the need. Certainly, neither the Eastern Department after the evacuation of Boston nor the Northern Department after the battle of Saratoga required the same number of personnel as did the Middle Department, where continuing active operations had to be supported. It was 1780 before Congress, in the interest of economy, sharply curtailed departmental units of the supply agencies in the military departments. This reduction was linked to congressional action making the states responsible for providing specific supplies—beef, pork, flour, rum, salt, and forage—to the Continental Army. Reduction of departmental personnel was increased when Congress later resorted to the use of contracts for such supplies. In the closing months of the war, the supply services existed for the most part as field units, as they had when first

24. *JCC*, 4:174 (27 Feb. 76). In actual practice the northern part of New York continued to be a part of the Northern Department; only the southern half of the state was included in the Middle Department.

established in 1775, while Robert Morris as Superintendent of Finance directed procurement and overall supply operations.

Lack of a Stable Currency

The supply departments were dependent on the measures that the Continental Congress instituted to finance the war. Without adequate funds the supply departments could not procure the supplies and equipment essential for maintaining an army in the field. Yet the Revolution had begun before any funds were made available. Except for issuing paper money, bills of credit redeemable at a future date, Congress had no means to purchase supplies. Paper money "provided the sinews of war in the first five years of the Revolution."[25] As in other areas, the delegates were following earlier precedents. In reviewing measures taken to finance the war, a Treasury report in the spring of 1781 noted that the use of paper money "was an expedient, which was well known, and had often been practised to good effect in the several colonies" as a remedy for the chronic insufficiency of the money supply.

The Continental Congress began by issuing 2 million dollars in June 1775, and it increased the amount to 6 million before the end of the year. Wartime requirements soon demanded additional paper money. Before the end of 1776 a total of 25 million dollars was in circulation, and further issues followed rapidly.The necessity to augment the strength of Washington's army by calling out and equipping the militia had increased expenses, as had the need to replace equipment and supplies lost in the retreat from Long Island in August 1776. Concerned that such emissions of paper money would result in depreciation, Congress sought to raise funds by supplementary means. It turned to a lottery and to the sale of government bonds, then called loan certificates. Neither was sufficiently productive, and Congress was compelled to issue more paper money.

Congress also resorted to requisitions on the states. Until 1777 the delegates made no effort to encourage the states to raise funds through taxation. In theory the states had the power to levy taxes, but in reality they were in no position to do so. They already were issuing paper money to finance their own wartime expenditures, including equipping their militia. But with Continental paper money beginning to depreciate, Congress on 22 November 1777 recommended to the states that they raise 5 million dollars in taxes. This was the first of many requisitions, none of which would yield much in the way of funds for the Treasury. Entries in the Treasury books

25. (1) E. James Ferguson, *The Power of the Purse* (Chapel Hill, 1961), p. 44. In developing this section, the author is indebted to this analysis of public finance in the Revolution. (2) See also *JCC*, 19:403–20, for a review of measures to finance the war.

reveal that "as long as Congress managed to pay its way with paper money, it received little financial support from the States."[26]

The Continental Congress obtained some foreign loans, but they provided only a small amount of money before 1780. Moreover, none of that money was spent within the United States except what was drawn on the American commissioners in Paris to pay the domestic interest on the loan certificates. The early loans and subsidies from France and Spain were vital, however, in obtaining war materiel from French arsenals. Both foreign loans and state payments to the Treasury became important after Cornwallis surrendered at Yorktown. Until then, currency finance had sustained the war.

Congress was well aware that successful prosecution of the war depended upon maintaining the value of the Continental currency. In issuing paper money in 1775, the delegates had taken care to support its value by making each colony responsible for withdrawing from circulation an assigned quota of the total emission of the Continental paper money. Unfortunately, the states, under the compulsion of their own needs, returned that paper money to circulation as fast as they could. The Continental dollar began to show a slight decline in value in the fall of 1776. By early 1778 five paper dollars were worth only about one of specie.

Prices rose noticeably in 1778. Little more than two months after assuming the duties of Quartermaster General, Nathanael Greene in June expressed alarm at the department's expenses. Land transportation was costly, the Quartermaster General noted, and everything needed by the troops was selling at enormous prices. He had already drawn on the Treasury for 4 million dollars which, he assured Gouverneur Morris, "seems to be but a breakfast for the department."[27] Prices were rising not only as a consequence of currency depreciation but also as a result of a booming war economy that was causing a real price inflation. Prices for domestic products and services rose as civilians and military supply agents competed for them, while the increasing scarcity of foreign goods in the market made all imports expensive. During the course of the war, prices on the domestic market rose from 50 to 100 percent over those charged in prewar days in terms of constant money value. They rose many times more in terms of Continental and state currencies.[28]

Beginning in 1779, the financial situation deteriorated rapidly. Before the end of the year 30 dollars in Continental money did not have the purchasing power of one specie dollar. The impact on all supply depart-

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26. (1) Ferguson, *The Power of the Purse*, p. 35. (2) *JCC*, 19:408–09 (18 Apr 81).

27. George W. Greene, *Life of Nathanael Greene*, 3 vols. (New York, 1871), 2:82–83 (1 Jun 78).

28. See Anne Bezanson, *Prices and Inflation During the American Revolution* (Philadelphia, 1951).

ments, but particularly upon the Quartermaster's and the Commissary Departments, which had the largest share of responsibility for procuring supplies and services at the inflated prices in the domestic market, was severe. They complained that a lack of funds hampered their operations and attributed most of their difficulties to the depreciation of the currency. The want of "timely supplies" of money had delayed preparations for the campaign of 1779, charged Assistant Quartermaster General Charles Pettit.[29] Had funds been furnished promptly, he insisted, they could have been used more effectively and would have greatly lessened the indebtedness of the department. Lack of funds, Greene claimed, deprived the Quartermaster's Department of opportunities to make contracts or gain credit. His deputies were obliged to employ innumerable agents to collect supplies from people who would have furnished them gladly if the currency had been on a more stable footing. Because more agents had to be used to procure supplies, expenditures were substantially increased, and the Quartermaster's Department consequently was suspected of being wasteful in its operations. The Commissariat was beset by the same difficulties, so much so that Commissary General Jeremiah Wadsworth despaired of keeping the troops alive.[30]

The Treasury, however, was in no condition to provide the funds requested by the supply departments. The depreciation of the currency combined with the delay of the states in complying with requisitions constantly left the Treasury with inadequate funds. John Mathews, a congressional delegate, was convinced that all embarrassments arose from the "backwardness of the states in responding to the requisitions of Congress."[31] Even when a supply chief received a warrant for funds, the Treasury usually could give him only part of it, and that weeks after he had received the order. In such a situation money "moulders away in dribs," lamented Assistant Quartermaster General Pettit, who handled the funds of the department in 1779.[32] He was unable to provide deputies with adequate funds, though they kept messengers in constant attendance at his office for the purpose. All purchasing quartermasters and commissaries were much in debt and hard pressed by their creditors. The deputies pointed out that they would be able to obtain additional credit only by agreeing to new terms less favorable to the government, that is, by contracting not to fix the price of purchased articles until the time of payment. It therefore would be to the

29. (1) RG 11, Papers of the Continental Congress, item 155, 1:257 (Pettit to Pres of Cong, 17 Nov 79), National Archives. Hereafter cited as RG 11, CC Papers. (2) Letters to and from Maj Gen Nathanael Greene, 1778–1780, 5:28 (Pettit to Pres of Treasury Board, 19 May 79), American Philosophical Society. Hereafter cited as APS, Greene Letters.

30. RG 11, CC Papers, item 173, 4:243–44 (Greene to Pres of Cong, 12 Dec 79); item 78, 24:129 (Wadsworth to same, 24 Nov 79).

31. Burnett, *Letters*, 6:93–94 (to Greene, 20 May 81).

32. APS, Greene Letters, 8:86 (to Greene, 30 Oct 79).

interest of sellers to raise prices more rapidly than they might otherwise have done.

Congress was greatly alarmed by the spiraling costs of the supply departments. In 1776 the expenditures of the Commissary and Quartermaster's Departments totaled 5,399,219 dollars. The following year they increased to 9,272,524 dollars, and in 1778 they more than quadrupled to 37,202,421 dollars. These increases were deceptive, Pettit maintained, for they reflected the depreciation of the currency; the sums fell far short of demands and were insufficient to "keep the machine in motion." Whatever the validity of Pettit's explanation—and some delegates agreed with him—a congressional committee in 1779 reported that expenditures of the two departments would amount to at least 200 million dollars that year.[33]

As governmental finances virtually collapsed, no explanation found more popular acceptance than alleged corruption in the supply departments and the payment of commissions to purchasing commissaries and quartermasters. It was commonly believed that they deliberately offered unnecessarily high prices for supplies in order to secure large commissions for themselves. Obviously, there were other explanations, not the least of which was the close tie between opposition to taxation and the Revolution, a tie that left the states reluctant to impose and collect taxes or to give that authority to Congress. The progressive depreciation of the currency eventually spawned the expression "not worth a Continental." Greatly alarmed by the state of affairs, Congress on 3 September 1779 decided to limit the issue of paper money to 200 million dollars and to halt emissions entirely when that amount was in circulation. Before the year ended, Congress thrust support of the war on the states by adopting the system of specific supplies.[34]

Supply by Expropriation

From the beginning of the war, the Continental Army in emergencies seized whatever it needed. Such action gave rise to many claims for compensation. It was not until 1779 that the Continental Congress, in response to a request from Quartermaster General Nathanael Greene, provided a ruling on such claims. It then held that all articles commandeered for the use of the troops during marches or encampments were to be paid for at a rate reflecting their real worth.[35]

A clear case of how property was expropriated for the use of the Army

33. (1) RG 11, CC Papers, item 155, 1:257 (Pettit to Pres of Cong, 17 Nov 79). (2) *JCC*, 14:561–62 (7 May 79); 662 (28 May 79).

34. For a discussion of the system of specific supplies, see below, Chapter 8.

35. (1) *JCC*, 13:133 (2 Feb 79). Congress ruled against compensatory claims arising from the Army's trespass on private property from necessity, accident, or other causes, particularly from any wanton devastations committed by the troops. (2) RG 11, CC Papers, item 155, 1:83–85 (Greene to Pres of Cong, 1 Feb 79).

was that of Robert Temple. When the main Continental army lay at Cambridge in 1775, Temple owned a nearby farm. His orchard was cut down to build abatis; his nursery was cut down to make fascines; his fences were burnt for fuel; his houses and outhouses were used for barracks; and his walls were pulled down to get the stone to underpin the barracks. In laying the farmer's case before Congress for settlement early in 1779, Greene wrote that Temple had a just claim covered by the ruling of Congress. By the use of his property the government had saved the expense of building barracks and the cost of buying and hauling wood and stone to the troops.[36]

A far more pervasive expropriation occurred when the Continental Army was supplied by impressment, a practice common to European armies at the time. Under impressment, supplies needed by the troops were obtained by an armed force. The officer in charge of the impressment party gave a certificate to the owner of the seized goods which set forth the amount of money due him. The officer could be either a supply agent—a quartermaster, commissary, or foragemaster—or an officer of the line assigned to impress duty. The certificate was a draft which the impressment officer drew upon the supply department normally responsible for furnishing the goods seized. Large numbers of such certificates were drawn on the Quartermaster's and Commissary Departments, which were so heavily dependent on domestic procurement. The supplies they commonly impressed were provisions, forage, teams, and wagons.

The need for transportation gave rise to the first authorization for impressment. On 4 November 1775 the Continental Congress recommended that the legislatures of the New England states empower Washington to impress wagons, horses, vessels, and other necessities for the transportation or march of his army. This power was to be delegated to the Quartermaster General.[37] Subsequently, Washington was authorized to impress goods and services in numerous emergencies. Clearly, Congress believed that an emergency justified the use of impressment. It later urged that in the use of impressment every possible attention be paid to the laws of the states and the rights of individuals. When military operations became centered in the Middle Department and impressment was resorted to with increasing frequency, Congress requested the states to pass laws authorizing and regulating impressment by the Continental Army.[38] Washington, however, was a reluctant user of impressment because of the animosity it aroused. Yet impressment was necessary to keep his army in the field. Seized horses and wagons moved Washington's troops from New York City in 1776 and permitted provisions to be transported to the troops at Valley Forge early in 1778. Beginning in 1779 and continuing until the

36. Ibid., item 155, 1:91–92 (to John Jay, 20 Feb 79). For another application of the ruling, see item 173, 4:317 (Greene to Udny Hay, 25 Dec 79).
37. *JCC*, 3:323–24.
38. Ibid., 10:273 (20 Mar 78).

contract system became effective throughout the country, supply chiefs increasingly had to rely on impressment. As prices skyrocketed with the rapid depreciation of the currency, they spent such funds as the Treasury granted them almost upon receipt.

The situation was no different in the Southern Army. When Maj. Gen. Nathanael Greene assumed command in 1780, he found that the troops would have to live upon the country for there was no money in his military chest. The Southern Army was usually in that predicament. When Brig. Gen. Anthony Wayne was ordered to march his detachment to the Southern Department, Congress in May 1781 authorized him to impress provisions and forage when necessary for his support.[39] By that time the main Continental army in New York was also being supported by impressment. Quartermaster General Timothy Pickering assured his deputy William Keese that a warrant of impress would be the only means for providing forage to the troops left in that state when Washington moved south against Cornwallis. Nor did conditions improve for Pickering after Cornwallis surrendered. Early in 1782 when his deputy in Virginia, Richard Claiborne, complained of his difficulties, the Quartermaster General advised him that all the deputies were in arrears; it had never been possible to obtain from the Treasury sufficient funds to relieve them. Pickering himself was similarly handicapped. All Quartermaster business at posts in New York, when Washington's army was there, had been "effected almost wholly by persuasion and impresses." The money paid for services and supplies was "comparatively but as the dust in the balance."[40]

Pickering could lecture his deputy on operating without funds, but Claiborne was in an impossible situation. In the course of the Yorktown campaign Governor Thomas Nelson of Virginia had vigorously and extensively used his authority to impress wagons, horses, tools, and everything else needed by the allied French and American forces. So oppressive did the burden of impressment become in Virginia that the inhabitants resisted by every means. Early in January 1782 Virginia enacted a law subjecting to imprisonment anyone who exercised the right of impressment under any authority other than that of legislative enactment by the state. Pickering could not believe the state had taken such action.[41]

Certificates were given not solely for impressed supplies. Frequently, supplies were "freely given to relieve the necessities of the Army," as the

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39. (1) Greene Papers, vol. 2 (Thomas Polk to Greene, 10 Dec 80), William Clements Library. (2) Burnett, *Letters*, 6:93–94 (John Mathews to Greene, 20 May 81). (3) *JCC*, 20:516 (18 May 81).

40. RG 93, Revolutionary War Records, Letter Books of Col. Timothy Pickering, 82:81–82 (to Keese, 26 Aug 81); 83:34 (to Claiborne, 4 Jan 82), National Archives. Hereafter cited as RG 93, Pickering Letters.

41. (1) Washington Papers, 190:24 (2) Much detailed information on impressment for the Yorktown campaign is to be found in *Calendar of Virginia State Papers*, 11 vols. (Richmond, 1875–93), vols. 1 and 2, passim.

Board of War pointed out in seeking congressional action to regularize payment of certificates.[42] In all cases the inhabitants, whether they gave their supplies freely or had them taken forcibly, found difficulty in getting paid for the certificates tendered for their supplies by impressment officers or by line officers drawing unauthorized certificates on the supply departments. Neither the supply departments nor the Treasury had funds for redeeming them. "After a tedious circuity of applications," the holder of a certificate was left unsatisfied. Worse yet, before 1780 certificates carried no interest, and the sum designated on the certificate for payment declined in real value as paper money depreciated. Public credit consequently suffered; by 1779 certificates were sold for "trifling considerations when persons could be found who had confidence enough in them to purchase."[43]

With supplies being obtained largely through impressment and owners being compelled to accept certificates in payment, the states found it expedient to accept such certificates for state taxes levied for Continental purposes. In the summer of 1780, through the efforts of Pickering, Congress then began issuing certificates that were stated in specie values and bore interest until paid.[44] In the general financial settlement after the war, certificate indebtedness was included as part of the federal debt. By that time, however, much of the debt resulting from certificates issued by Continental supply departments had been absorbed by the states. The states had themselves issued certificates to obtain supplies. No one can say how many certificates were issued during the war. E. James Ferguson estimates that those issued by Continental officers "must have approximated, in nominal amount, the entire sum of Continental currency."[45]

Phases of Logistical Support

It is clear that the difficulties encountered by all supply departments in supporting the Continental Army after 1778 stemmed from the deteriorating financial situation. The supply crisis at Morristown in the winter of 1779–80, the inability of the supply departments to make preparations for campaigns in the last years of the war, the fact that the troops continued to live on the verge of starvation in the midst of plenty, the need to rely on the trickle of supplies obtained by impressment when payment for supplies might have produced a more than adequate stream of support for the Army—all resulted from the collapse of Continental finances.

By contrast, the first phase of logistical support from 1775 through 1778 was characterized less by lack of funds, depreciation, and rising prices—

42. *JCC*, 13:276 (5 Mar 79).
43. Ibid.
44. (1) RG 93, Pickering Letters, vol. 126 (to Pres of Cong, 12 Aug 80). (2) *JCC*, 17:463–65 (26 May 80); 760–61 (23 Aug 80).
45. Ferguson, *The Power of the Purse*, p. 63.

though these were beginning to have their effect before the end of the period—than by administrative failures stemming from the actions, and at times the inaction, of the Continental Congress. Its propensity for appointing deputies without delineating their authority or relationship with their supply chiefs contributed to controversies that hampered supply. In consequence, when both the Northern Army and the main Continental army were in retreat before the enemy in 1776, critical reports of supply deficiencies were laid before Congress. That body itself fled to Baltimore when the British approached Philadelphia. It was against this background that, early in 1777, Congress turned to reform and reorganization, particularly of the Commissary Department. After months of investigation that produced uneasiness among commissaries, if not their complete demoralization, Congress provided for a reorganization of the Commissariat in the midst of the campaign of 1777. This timing inevitably led to shortages of rations at Valley Forge.

Three months after the passage of this act, Congress was again fleeing from the British, moving this time from Philadelphia to Lancaster, Pennsylvania. Its mood was one of alarm and dissatisfaction with the Continental Army and its Commander in Chief. Having stubbornly clung to the act reorganizing the Commissariat despite growing criticism, Congress now neglected the most important staff post in the Army. It accepted Thomas Mifflin's resignation as Quartermaster General early in October 1777 and for the next four months made no effort to find a successor. The breakdown in transportation that contributed so much to the suffering at Valley Forge could have been avoided or at least mitigated only if there had been vigorous Quartermaster leadership, such as that later demonstrated by Nathanael Greene. This first phase of logistical support ended with Congress abandoning its reform efforts, failing to take any action to improve the Clothing Department, approving the appointment of Greene and Jeremiah Wadsworth, respectively, as Quartermaster General and Commissary General of Purchases, and leaving them both free to pursue their duties. When criticism of these supply departments later led to renewed reform efforts, they were impeded by the financial breakdown that marked the years after 1778.

Preparations and Sources of Supply

Early in the war the supply departments developed a common approach to preparing for campaigns. Supply chiefs and their subordinates made preparations for the next year's campaign while the troops lay in winter quarters. During these months quartermasters had tentage washed, aired, and stored, ready for spring; tentmakers repaired and made new tents; artificers overhauled boats and mended harnesses; quartermasters had horses "recruited," that is, fed and cared for to restore them to usefulness in another hard campaign; and the Quartermaster's Department let contracts for

a wide variety of articles to be delivered by April or early May, when the new campaign would begin. At the same time men and women made musket cartridges for the Ordnance Department, and artificers repaired and built wagons, repaired arms, and attended to the numerous items needed by the Artillery. Commissaries were equally busy, having begun their preparations in the late fall with the butchering of hogs. Under their direction, pork was pickled, barreled, and deposited in magazines with other provisions, while barrels and candles were produced by coopers and candlemakers. Washington had to wait for spring to see if the clothing, medical supplies, and ordnance that Congress had ordered abroad would arrive.

The domestic market provided the first and immediate source of supplies for the Continental Army. Provisions, forage, wagons, horses, and oxen were all available. In 1775 the colonies could produce some powder, muskets, and even cannon, but wartime demands quickly made it evident that imports would have to provide the bulk of the ordnance, ordnance stores, medical supplies, and clothing that the Continental Army would need. The Continental Congress turned to the West Indies and Europe for needed supplies.

In the early years of the war such imports were supplemented by the cargoes of ships captured by privateers and American naval vessels. While besieging Boston in 1775, Washington took it upon himself to fit out vessels to prey on British supply ships, and they met with considerable success. In the fall of 1775 Massachusetts and some of the other colonies began issuing letters of marque and reprisal to merchantmen. Under this authority they could make prizes of all enemy ships and cargoes captured at sea. Congress authorized privateers in March 1776. During the war some 2,000 or more privateers preyed on British commerce and obtained many needed supplies for the country. Their aggressiveness on occasion led to the seizure of goods being shipped on the government's account.

American naval vessels captured British supply ships and merchantmen as well as British warships. The first regulations covering such captures were enacted by Congress on 25 November 1775; Congress took for the public treasury half the value of a prize if it was a warship and two-thirds if it was a merchantman. This division caused so much discontent among naval personnel—the British government had a long-established policy of not participating in prize money—that Congress modified its position. In October 1776 it gave up its right to any part of a captured warship and claimed only half of the proceeds of captured merchantmen.[46] Privateers retained all the proceeds of prizes taken by them. Such cargoes were sold either to private tradesmen or to state or Continental purchasing agents interested in acquiring ordnance, clothing, or other useful articles.

46. JCC, 3:374–75 (25 Nov 75); 6:913 (30 Oct 76).

To handle naval prizes brought into American ports, the Marine Committee of Congress appointed Continental Agents.[47] As soon after a sale as possible, the latter made a just distribution of the proceeds among the officers and men who had captured the prize. The Continental Agents took the share of goods belonging to the Continental Congress from any merchantman seized by the Navy and forwarded goods that were needed by the Continental Army to the appropriate supply chief at the direction of the Board of War.

Size of Continental Forces

Until Charles H. Lesser edited the monthly strength returns of the Continental Army, such information was not readily available, for returns for the most part were unpublished and scattered in various manuscript depositories.[48] In consequence, considerable reliance was placed on a report prepared in 1970 by Henry Knox, then Secretary at War until it became suspect. In response to a request from the House of Representatives, Knox estimated that about 396,000 men had enlisted in the Continental Army and the state militias from 1775–83.[49] Of these, 232,000 served as regulars in the Continental Army and 164,000 were members of state militias. His yearly figures on the number of troops enlisted in the Continental Army were taken from official returns in the War Office, but they cannot be accepted at face value. The data on militia is even more suspect since it included a conjectural estimate of militia drawn into service. The strength figures for both the Continental Army and the militia need to be qualified because of the many short-term enlistments, the repeated reenlistments, and the fragmentary nature of the records.[50] A total enlistment of 396,000 men during the Revolutionary War has been judged to be far too high. It has been estimated that of the total population, some 200,000 to 250,000 men were of military age, and that less than half of them, or about 100,000, actually bore arms, frequently under repeated enlistments.[51]

No reliable data exists, but the population of the thirteen colonies has been estimated at from 2½ to 3 million. Of these inhabitants, perhaps 600,000

47. For a list of agents, see Peter Force, ed., *American Archives*, 4th (6 vols.) and 5th (3 vols.) series (Washington, 1837–53), 5th ser., 2:1113–14. Hereafter cited as Force, *Am. Arch.*

48. Charles H. Lesser, ed., *The Sinews of Independence: Monthly Strength Reports of the Continental Army* (Chicago, 1976).

49. *American State Papers*, Class V, *Military Affairs*, 7 vols. (Washington, 1832–61), 1:14–19.

50. For further comment on the Knox report and the uses to which it was put, see Lesser, *The Sinews of Independence*, pp. xxxiii–xxxv.

51. (1) Howard H. Peckham, *The War for Independence* (Chicago, 1958), p. 200. (2) T. Harry Williams estimates the actual number of men serving for any appreciable time at 150,000. *Americans at War* (Baton Rouge, 1960), p. 10.

were Negroes.[52] Identification by race is not included in troop strength returns. Generally, the Negro soldier in the Revolution was apt to be unidentified by name in company rolls, being designated instead as "a Negro Man," or "Negro Name unknown." Though there are no reliable figures available on the number of Negroes in the Army, it has been estimated that 5,000 served "in the patriot forces."[53] An initial policy of excluding Negroes from the Continental Army soon gave way, under the pressure of manpower deficiencies, to one of accepting their service. Except for adamant opposition in Georgia and South Carolina, most states, particularly in the North, enlisted Negroes, especially free Negroes.[54] Though some participated in combat as infantrymen, they often served in a noncombat capacity as orderlies, waiters, or cooks. Frequently, too, they were assigned to duties in support of combat operations in the Wagon and Forage Departments, which were created within the Quartermaster's Department in 1777, and in the Commissary Department.

The army that Washington himself commanded was not large. Taking into account only the number of men present and fit for duty, his troops never exceeded 24,000. Only eight times during the war did the monthly strength figures exceed 20,000 men. The peak was September 1778 when the total was 23,552.[55] Through 1779 Washington's fighting force ranged in size from 10,000 to 20,000 men, swelled during campaigns by militia and levies, that is, state troops drafted from the militia and called into Continental service to strengthen the Continental line. Washington's army dwindled after 1779 to less than 10,000 men and at times to considerably less than that number. In 1781 when Washington met with the Comte de Rochambeau to plan an allied operation against the British, he estimated that the Continental troops that could take the field would number 8,250 and could be increased to 10,250. When the allied siege of Yorktown was about to begin, Washington's army numbered less than 5,000.[56]

Even when the troops in the separate armies, on detachments, and at various posts are added to the troops in the main army, the total number for whom the supply agents had to make provision still was not large. Yet they found difficulty in making preparations. Strength figures for any given period were never firm. Although Congress specified in regulations the allowances

52. Don Higginbotham, *The War of American Independence* (New York, 1971), p. 389.

53. Benjamin Quarles, *The Negro in the American Revolution* (1961; Norton Library ed., New York, 1973), pp. ix, 74, 77.

54. Although South Carolina was unwilling to give slaves the status of soldiers even in a noncombat capacity, it used hired slaves in its military hospitals and boatyards. Slave labor was used extensively outside the Continental Army by the states to help build fortifications and to work in lead mines, tanneries, foundries, and other industries producing military supplies. See ibid., pp. 99–102.

55. Lesser, *The Sinews of Independence*, pp. 84–86.

56. (1) Fitzpatrick, *Writings of Washington*, 22:102–03 (return, 22 May 81). (2) Lesser, *The Sinews of Independence*, p. 208 (monthly return, 26 Sep 81).

of clothing, rations, forage, and the like to soldiers, officers, and staff personnel, all too often it inadvertently omitted whole groups from the regulation. These groups nonetheless had to be supported by the supply agencies. When militia were called out in a crisis to supplement the strength of the Continental Army, supply officers were greatly handicapped in their efforts to provide adequate support. To meet recurring emergency needs, they often were compelled to resort to hurried, improvised measures. Despite the fact that such improvisation was not unusual, they recognized the advantages—particularly the savings—that would accrue from advance planning. Unfortunately, they usually lacked the required funds for undertaking it, and Congress by its actions demonstrated no awareness of the problem. Neither in 1775 nor in later campaigns did Congress or the states show any appreciation of the fact that supplies could not be obtained on the spur of the moment.

CHAPTER 2

Organization of the Quartermaster's Department

When Washington took command of Continental troops at Cambridge on 3 July 1775, he found a heterogeneous and undisciplined force of some 17,000 men, all of whom had enlisted for only short terms. His army also lacked all essential staff officers. Of the latter, none was more important than the Quartermaster General. In an eighteenth century army he functioned as would a later-day chief of staff. He had no direct authority over troops, yet he was continually with the commanding general, whose orders almost always passed through his hands. He necessarily knew the secret of army movements. As Washington later described his qualifications, the Quartermaster General had to be a "man of great resource and activity, and worthy of the *highest* confidence." His duties included gathering information, assisting the commanding general in planning marches, and distributing march orders to the general officers. He thoroughly explored the field of operations, opened and repaired all roads on the line of advance and retreat, selected proper points for bridges, and examined fords. He laid out the camp and assigned quarters.[1] In addition to these duties in the field, the Quartermaster General was also responsible for the procurement of various kinds of materiel needed to enable an army to march with ease and to encamp with convenience and safety. He and his assistants procured and furnished all camp equipment and tents. When the army went into winter quarters, he provided the lumber and other articles needed to build huts for the troops. He transported the troops and all supplies. He procured horses, oxen, and pack animals and provided the forage for their maintenance. He furnished wagons when the troops moved by land and boats when they went by water. His transportation duties also included providing wagons to haul army supplies to magazines, to posts, and to encampment sites. In view of all these functions, the Quartermaster General had to be not only a competent military officer but also an able administrator and a versatile businessman, familiar with the resources of the country and capable of drawing them out.

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1. (1) Fitzpatrick, *Writings of Washington*, 36:309 (to Secretary of War, 4 Jul 98). (2) Thomas Simes, *The Military Guide for Young Officers*, 2 vols. (Philadelphia, 1776), I:8–9.

Appointment of Officers

The Continental Congress did not neglect arranging for a Quartermaster General. On 16 June 1775 it passed a resolution that called for a Quartermaster General for the main Continental army, who was to be paid 80 dollars per month, and a deputy, under him, for the separate army, who was to receive 40 dollars per month.[2] It did not itself appoint the Quartermaster General but authorized Washington to do so, much to the dismay of John Adams. The latter believed that all staff officers should be appointed by Congress, since he felt they ought to act as a check on the Commander in Chief.[3]

On 14 August 1775 Washington appointed as his Quartermaster General Maj. Thomas Mifflin, a 31-year-old Philadelphia merchant then serving as one of his aides-de-camp. Mifflin's business background was obviously an asset and initially he used it to good effect. However, when both supplies and funds became more difficult to obtain, the prosaic duties of his office proved irksome, and he yearned for the glory to be won by commanding troops in the field. Before the end of 1775 Congress established the rank of his office as that of a colonel in the Continental Army.[4] In addition to Mifflin, who held the office during two separate periods, three other men—Stephen Moylan, Nathanael Greene, and Timothy Pickering—served as Quartermasters General to the Continental Army during the American Revolution. Of the four, Greene was the most effective.

Congress appointed deputy quartermasters general to act with separate armies in the field and other deputies to serve in the military departments as these were established. It initially gave each the rank of colonel in the Continental Army and made the appointments without consulting the Quartermaster General, though all of these deputies were considered to be under his direction. On occasion Congress delegated its appointing authority to the commanding general of a separate army.

In response to a plea from Maj. Gen. Philip Schuyler, commander of the Northern Department, Congress appointed Donald Campbell deputy quartermaster general of that department on 17 July 1775, a month before Washington designated Mifflin Quartermaster General. Subsequently, during the retreat of American troops from Canada in June 1776 following the disasters at Quebec and Trois Rivieres, Brig. Gen. John Sullivan, Schuyler's second in command, assigned Maj. Udny Hay to carry out the duties of deputy quartermaster general, for Campbell was being held to face a court-martial.[5] So competently did Hay fill this assignment that Congress

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2. *JCC*, 2:94.
3. Burnett, *Letters*, 1:174, 177–78 (Adams to James Warren, 23 and 26 Jul 75).
4. (1) Fitzpatrick, *Writings of Washington*, 3:419 (GO). (2) *JCC*, 3:445 (22 Dec 75).
5. (1) RG 11, CC Papers, item 153, 1:18 (Schuyler to Pres of Cong, 11 Jul 75). (2) *JCC*, 2:186. (3) At a court-martial held at Crown Point in July 1776, Campbell was sentenced to be cashiered.

brevetted him a lieutenant colonel in January 1777 on the express condition that he remain in the Quartermaster's Department.[6] Instead of assigning him to the post of deputy quartermaster general in the Northern Department, however, it appointed him an assistant deputy quartermaster general at Ticonderoga.[7]

When an alarmed Congress in 1776 directed Washington to send Maj. Gen. Horatio Gates to take command of the forces in Canada, it empowered the latter to appoint such officers as he thought proper. Gates designated Morgan Lewis as deputy quartermaster general for those forces.[8] By the time Gates arrived at Albany, however, the troops under General Sullivan had evacuated Canada, and there were no forces for him to command. General Schuyler, who thought that only Sullivan was being displaced by the action of Congress, held on to his command of the Northern Department. Congress supported him, and the appointments that Gates had made for Canada were no longer valid. Morgan Lewis had been at considerable expense to equip himself for his appointment. He therefore hastened to Philadelphia, where his father, Francis Lewis, was serving as a delegate from New York. There he solicited redress from the Continental Congress. On 12 September 1776 Congress appointed him deputy quartermaster general of the army in the Northern Department.[9] He served in that capacity and subsequently as deputy quartermaster general of the Northern Department until a reorganization of the Quartermaster's Department in 1780 eliminated the post.

Departing from its action in appointing a deputy quartermaster general for the entire Northern Department, Congress assigned such officers in the Southern Department by state areas. Late in March 1776 it appointed William Finnie, a Williamsburg merchant, as a deputy quartermaster, rather than deputy quartermaster general, in that department. Though not

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General Gates, in reviewing the proceedings, decided he did not deserve to be cashiered. In consequence, Congress continued him in his former rank and pay, though he no longer served in the Quartermaster's Department. See ibid., 7:29, 45, 114, (11 and 18 Jan, 18 Feb 77).

6. Originally, the department was designated the Quartermaster General's Department, but soon the shortened form—Quartermaster's Department—came into general usage.

7. Udny Hay was a Quebec timber merchant who lost his possessions there by favoring the American cause. Obliged to flee, he joined the American forces, was appointed a captain in Col. Moses Hazen's regiment in January 1776, and was soon promoted to the rank of major. He served in the Quartermaster's Department until his resignation on 16 October 1780. (1) *JCC*, 11:554–55. (2) Force, *Am. Arch.*, 5th ser., 3:744–45. (3) Washington Papers, 172:61 (Hay memorial, 25 Apr 81).

8. Morgan Lewis was a young man of 21 only recently graduated from Princeton when he joined a rifle company at the outbreak of the Revolution; shortly thereafter he became a member of the staff of General Gates.

9. (1) Burnett, *Letters*, 2:48–49 (Francis Lewis to Mrs Gates, 13 Aug 76). (2) RG 11, CC Papers, item 149, 2:417 (Lewis commission).

specified in his appointment, Finnie's area of activity was Virginia, where earlier in the year Governor Patrick Henry had appointed him deputy quartermaster general for the state. Finnie established himself at Williamsburg. Considering himself to be subordinate to the Quartermaster General, he applied to Mifflin for instructions.[10] He failed to receive any, but Quartermaster personnel in areas remote from the main Continental army often functioned independently. They were encouraged to do so, since the Quartermaster General was seldom well enough informed to advise them on any course of action. Like Morgan Lewis, Finnie continued in office until the 1780 reorganization of the Quartermaster's Department led to the appointment of Maj. Richard Claiborne as deputy quartermaster for Virginia on 1 January 1781.[11] On 7 May 1776 Congress appointed Nicholas Long deputy quartermaster general in North Carolina. It gave him the rank of colonel in the Continental Army. Long continued in this office throughout the war. In the summer of 1777 Congress directed the Quartermaster General to appoint a deputy quartermaster general in the state of Georgia, but it is doubtful that Mifflin ever made the appointment.[12]

There was neither occasion nor need for Congress to make any appointments for the Southern Army before 1778. The gallant defense of Charleston and the victory over the British at Sullivan's Island in June 1776 were accomplished largely by the provincial forces of South Carolina, although Maj. Gen. Charles Lee had been sent to take command of the Southern Department. The defeat of the British led to a lull in military operations in the south until the fall of 1778. Maj. Gen. Robert Howe was then in command of the Southern Army, with Col. Francis Huger as his deputy quartermaster general. The latter was compelled to resign, however, under pressure exerted by President Rawlins Lowndes of South Carolina, who refused to advance him more money until he had accounted for what he had already received. General Howe recommended the appointment of Col. Stephen Drayton as a replacement, and Congress elected him to the post on 17 November 1778.[13]

Authority to appoint not only the deputy quartermaster general but all staff officers necessary for the Southern Army later was vested in its commanding general. Congress granted this authority both to Maj. Gen. Horatio

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10. (1) *JCC*, 4:239 (28 Mar 76). (2) Force, *Am. Arch.*, 4th ser., 4:129 (18 Jan 76); 5th ser., 1:491–92 (to Mifflin, 2 May 76; to Pres of Cong, 17 Aug 76).

11. RG 93, Pickering Letters, 126:26 (to Bd of War, 19 Aug 80, and enclosures).

12. (1) *JCC*, 4:332. (2) The records, however, show a Col. Peter Tarling serving as deputy quartermaster general to the troops in Georgia in the fall of 1777. Ibid., 8:596–97 (1 Aug 77); 9:785–86 (8 Oct 77).

13. Ibid., 12:1138. Congress supported the action taken by President Lowndes; by a resolution of 9 February 1778 it had granted him power to suspend from pay and employment any staff officer in the state appointed by the head of his department and not immediately by Congress. See 11:552–53 (29 May 78).

Gates, who replaced General Howe, and to Maj. Gen. Nathanael Greene, who succeeded Gates. General Gates appointed Capt. Joseph Marbury as his "field quartermaster general." Greene, more experienced in supply operations, appointed Lt. Col. Edward Carrington deputy quartermaster general for the Southern Army. Under Carrington's direction the various branches of Quartermaster activity were organized to support Greene's operations in the south.[14]

Organization Under Mifflin

The organization of the Quartermaster's Department in 1775 was relatively simple. It was designed to provide support to the three divisions into which Washington organized his army. A division was made up of two brigades, averaging six regiments each. One division, constituting the right wing, lay at Roxbury; a second division was posted at Prospect and Winter Hills; and a third division, the center, was located at Cambridge.

In harmony with this troop organization, the Quartermaster's Department in the field was, under Quartermaster General Mifflin's direction, also organized in three units. The headquarters unit at Cambridge employed a staff of nineteen. Five were clerks who kept accounts and records. Two other clerks operated an issuing store to distribute camp utensils and other equipment to the troops. One clerk and an assistant received and delivered wood to the troops, and another clerk and an assistant operated a lumber yard. Two men were employed to run the stables and a granary. One superintendent supervised the work of "all smiths, armourers, and nailers in the Army," and a second superintendent directed the work of fifty carpenters. The Cambridge Quartermaster unit also included two wagonmasters and a barrackmaster and his clerk. In addition, a captain commanded a separate company consisting of an undesignated number of carpenters who were constantly employed on the wagon train used to haul supplies. The two smaller units of the Quartermaster's Department were each headed by an assistant quartermaster general appointed by Mifflin. John Parke directed an office at Roxbury; John Gizgage Frazer headed an office serving both Prospect Hill and Winter Hill. Congress subsequently allowed them the pay of a captain in the Continental Army.[15] Each employed one clerk and one wagonmaster. Roxbury, Winter Hill, and Prospect Hill each also had one clerk to receive and deliver wood to the troops in those areas.[16] Excluding various artificers, Quartermaster General Mifflin in the winter of 1775–76

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14. (1) Ibid., 17:510 (14 Jun 80); 18:994–96 (30 Oct 80). (2) RG 11, CC Papers, item 155, 6:479 (Greene to Pres of Cong, 7 Dec 80).

15. *JCC*, 5:418–19 (15 Jun 76).

16. (1) Washington Papers, 23:36 (personnel list, January 1776). (2) Fitzpatrick, *Writings of Washington*, 3:427, 515 (GO, 16 Aug and 22 Sep 75).

employed a staff of twenty-eight. The organization was well suited to the needs of a stationary army.

In addition to this field organization, Mifflin utilized the services of merchants in various parts of the country to purchase forage, lumber, tentage, tools, and other articles required by the Quartermaster's Department. Unlike the personnel in the field organization, who were paid salaries and eventually given ration allowances fixed by Congress, the purchasing agents worked on a commission basis. They customarily received a 2 to 2½ percent commission on the money they spent in making their purchases.

The movement of the main army to New York following the British evacuation of Boston in March 1776 led to an expansion of the Quartermaster's Department. Under orders from Washington, Mifflin proceeded to Norwich, Connecticut, to prepare needed transportation at that location for troops and supplies. He then went to New York to provide accommodations there.[17] Assistant Quartermaster General Parke stayed on at Cambridge only long enough to forward designated quartermaster supplies before he hurried to join Mifflin at New York. Assistant Quartermaster General Frazer remained in the Boston area in charge of the department's supplies that had been left behind. Within a few months he was succeeded by Thomas Chase, who eventually was given the title of deputy quartermaster general in the Eastern Department.[18] Meanwhile, in New York Mifflin quickly perceived the advantages of having a local man, familiar with the resources of the state, working in his department. Consequently, on 11 May 1776 Washington announced the appointment of Hugh Hughes as assistant quartermaster general. He was a former New York City school teacher who was serving as a commissary of military stores for the state.[19]

Five days later Congress elected Mifflin a brigadier general of the Continental Army. Since by law the rank of the Quartermaster General was fixed as that of a colonel in the Army, Mifflin resigned the supply post to accept his promotion. Until his successor was selected, the burden of directing Quartermaster activities in New York fell on Hughes. Since a battle in New York was likely, Washington considered it important to appoint a new Quartermaster General at once. He selected Stephen Moylan, another member of his military family, who had been serving as an aide-de-camp since 7 March 1776. Congress appointed him to the post on 5 June.[20] Moylan,

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17. Ibid., 4:429–30 (to Mifflin, 24 Mar 76).

18. (1) Ibid., 4:463–67 (to Parke, 3 Apr 76). (2) Hugh Hughes Letter Books (to Chase, 17 Jul 76), New-York Historical Society.

19. (1) Fitzpatrick, *Writings of Washington*, 5:38. (2) Force, *Am. Arch.*, 4th ser., 5:268 (N.Y. Provincial Cong, 15 Feb 76). (3) The New York Convention had appointed Hughes a commissary of military stores on 16 February 1776. *Memorial and Documents in the Case of Colonel Hugh Hughes* (Washington, 1802), p. 3.

20. (1) *JCC*, 4:359 (16 May 76); 5:419. (2) Some members of Congress had favored the appointment of Joseph Trumbull, the Commissary General of Stores and Purchases. Their dis-



THOMAS MIFFLIN



STEPHEN MOYLAN

an Irish immigrant who had been engaged in the shipping business in Philadelphia since 1768, was an ardent patriot. He assumed his duties in the midst of preparations being made in anticipation of the arrival of the British. The active operations that followed the British landing on Long Island on 22 August required much transportation and a steady flow of supplies. Whether Moylan had the administrative talents necessary for executing the duties of his post cannot, on the basis of available evidence, be determined. Washington, however, blamed the Quartermaster's Department for the heavy loss of supplies sustained in the evacuation of New York City in September, conveniently forgetting that in the earlier evacuation from Long Island the main army had lost all the wagons, carts, and horses that the Quartermaster's Department had sent for its use.[21]

Moylan had been Quartermaster General for little more than three months when a congressional committee arrived on 24 September to inspect the state of the army in New York. After three days of investigation the committee persuaded Colonel Moylan to resign in order to pave the way for the reappointment of Mifflin as Quartermaster General.[22] Much to the

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inclination to see Walter Livingston succeed Trumbull and Washington's recommendation of Moylan reconciled them to the latter's appointment. Burnett, *Letters*, 1:478 (Elbridge Gerry to Trumbull, 8 Jun 76).

21. (1) Fitzpatrick, *Writings of Washington*, 6:170 (to Sam Washington, 5 Oct 76). (2) Force, *Am. Arch.*, 5th ser., 2:570–72 (Moylan to Pres of Cong, 27 Sep 76).

22. (1) Ibid. (2) Late in 1776 Moylan, on orders from Washington, organized and took command of a regiment of dragoons. He served in the Cavalry until ill health forced him to return home to Philadelphia after the surrender of Cornwallis at Yorktown.

satisfaction of Congress and Washington, General Mifflin reluctantly accepted reappointment as Quartermaster General, retaining his rank and pay as brigadier general. Anticipating congressional approval, Washington announced his reappointment on 28 September, and Congress confirmed it on 1 October.[23] Mifflin threw himself into the task of supporting the army in New York. The retreat to White Plains and the loss of Fort Washington considerably dampened patriotic ardor. With his army dwindling in size and with terms of enlistment soon to expire, Washington sent his Quartermaster General to Philadelphia to inform Congress of the situation and to obtain relief. Mifflin employed his considerable talents of persuasion in rekindling enthusiasm for the war and in turning out the Philadelphia militia to support Washington.[24]

Mifflin returned to camp on 9 December 1776, but his stay was brief. Having informed Washington that all military stores still remained in Philadelphia, exposed to possible capture by the British, Mifflin was at once ordered by the general to return to Philadelphia to take charge of the stores. There, in response to orders from Congress, he also engaged in raising troops in the counties neighboring Philadelphia. For his success in bringing the militia into service, Congress promoted him to major general on 12 February 1777. Mifflin appreciated the honor conferred on him but pointed out that during the 1776 campaign his time had been divided between the command of a brigade and the duties of the Quartermaster's Department. In consequence, his services "could not be made so useful to the Public" as he wished. He therefore hoped that "some one Line" of service would be marked out for him in the future, preferably in command of troops rather than as Quartermaster General.[25]

First Regulatory Measure

When Washington's army went into quarters in the winter of 1776–77, Mifflin remained in Philadelphia and gave much thought to improving the organization of his department. Washington approved his proposals and submitted them to the Continental Congress. On 14 May 1777 Congress adopted his plan, which incorporated the experience gained in the campaigns of 1775 and 1776.[26] Congress thereby for the first time provided de-

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23. (1) Fitzpatrick, *Writings of Washington*, 6:125–26. (2) *JCC*, 5:838. (3) For congressional satisfaction with this appointment, see Burnett, *Letters*, 2:106, 114, 116, (Gerry to Gates, 27 Sep 76; Caesar Rodney to Thomas Rodney, 2 Oct 76; William Ellery to gov of R.I., 5 Oct 76).

24. (1) Force, *Am. Arch.*, 4th ser., 3:1439 (Robert Morris to Pres of Cong, 27 Sep 76). (2) Fitzpatrick, *Writings of Washington*, 6:352 (to Gov Jonathan Trumbull, 12 Dec 76).

25. (1) Ibid., 6:352 (to Pres of Cong, 9 Dec 76). (2) *JCC*, 7:153. (3) RG 11, CC Papers, item 161, fols. 8–9 (Mifflin to Pres of Cong, 12 Mar 77).

26. (1) Washington Papers, 42:116 (Mifflin to Washington, 9 Mar 77). (2) Fitzpatrick, *Writings of Washington*, 6:283–84 (to Mifflin, 13 Mar 77). (3) Mifflin's proposals and Wash-

tailed regulations for the department. Following Mifflin's recommendation, it called for a more specialized division of duties by authorizing the creation and staffing of separate Forage and Wagon Departments within the Quartermaster's Department. It authorized the Quartermaster General to appoint such assistants and to make such arrangements for conducting the business of his department as he and the Commander in Chief thought best. He was to submit the names of all departmental personnel to the Board of War. For the first time Congress provided for a system of returns, culminating in a consolidated general return, to be submitted monthly by the Quartermaster General to the Board of War, the Commander in Chief, and the commander of each military department. Any subordinate refusing or neglecting to submit a monthly return was to be dismissed from the service. To promote uniformity in the submission of returns, the Quartermaster General was to furnish a form to be used for this purpose.

The Quartermaster General and the deputy quartermasters general in the several military departments had full power, with the consent of the Commander in Chief or the commander of the military department, to dismiss any Quartermaster official neglecting his duties. The regulation provided for the continuation of a deputy quartermaster general for each military department, designating his rank as that of colonel. In addition, the regulation called for the Quartermaster General, with Washington's approval, to appoint one deputy quartermaster general, with the rank of lieutenant colonel, for each division of the Continental Army, and an assistant, with the rank of captain, for each brigade. Most of these appointments were made in July 1777. Like the deputies for the military departments, the new deputies were to be paid a fixed salary, which Congress now raised in view of rising prices.[27] On 1 July Washington announced the appointment of Col. Henry Emanuel Lutterloh as deputy quartermaster general for the main Continental army.[28] During the prolonged absence of Mifflin from camp in 1777, the administration of Quartermaster activities with the main army in the field devolved upon Lutterloh and his assistants. His office included a clerk, a paymaster, and an assistant deputy quartermaster general, as well as a second deputy to supervise an issuing

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ington's letter were referred to a committee, which brought in a report on 16 April 1777, only to have it recommitted. See *JCC*, 7:191, 272, 292, 355–59 (21 Mar, 16 Apr, 23 Apr, and 14 May 77).

27. Fitzpatrick, *Writings of Washington*, 8:336–37 (GO, 2 Jul 77). The pay of a deputy quartermaster general of a grand division was set at 75 dollars per month; that of an assistant deputy quartermaster general, at 40 dollars per month. At the same time, Congress raised the pay of the Quartermaster General to 166 dollars per month in addition to his pay as a line officer.

28. (1) Ibid., 8:327–28 (GO, 1 Jul 77). (2) Lutterloh had seen service as a major in the Quartermaster General's Department of the army of the Duke of Brunswick. At the suggestion of Washington, who thought this practical knowledge might be useful, Mifflin appointed Lutterloh a deputy in his department on 14 June 1777. Ibid., 8:179 (to Mifflin, 4 Jun 77).

store, presided over by a storekeeper and his assistant. There was also an assistant deputy quartermaster general in charge of the Continental horse yards, who had the help of an assistant and four hostlers.[29]

No return of the personnel who handled supply operations in the Quartermaster's Department under Mifflin has been found, but correspondence provides some information on the organization. The Quartermaster General maintained an office in Philadelphia manned by Col. Anthony Butler and four assistants. This office undoubtedly handled applications for funds and maintained close relations with the Continental Congress. At various places throughout the country were the offices of the deputy quartermasters general of the military departments and districts. Morgan Lewis still directed Quartermaster activities in the Northern Department, as Thomas Chase did at Boston for the Eastern Department. Hugh Hughes remained in New York, as deputy quartermaster general, with his headquarters at Fishkill. William Finnie continued to operate out of Williamsburg, Virginia, for the Southern District. To these earlier appointees, Mifflin added other district deputy quartermasters general. In Pennsylvania, where division of a state into districts was most pronounced, he appointed Robert Lettis Hooper at Easton, Mark Bird at Reading, John Davis at Carlisle, and George Ross at Lancaster. In Delaware he appointed Francis Wade at Wilmington. Each of these offices had assistant deputy quartermasters general and clerks. The list is no doubt incomplete, but it serves to show the marked expansion of the Quartermaster's Department in 1777.

Mifflin's Services and Resignation

Mifflin spent little time with Washington's army after 9 December 1776. In addition to drafting his plan for reforming the organization of the Quartermaster's Department and watching its slow progress through Congress, Mifflin, in the winter of 1776–77, was busily engaged in making preparations for the next campaign. Hampered by lack of funds, he wrote the President of the Continental Congress of the consequences to be expected and hoped that he would not be charged with neglect of duty.[30] Despite the difficulties, his preparations moved along satisfactorily. He would have gladly relinquished the post of Quartermaster General for a command assignment, but his hints to Congress and Washington about a separate command went unanswered.

In late May 1777 Mifflin informed Washington that he had provided al-

29. RG 11, CC Papers, item 192, fol. 159 (personnel list, Jan 78). The department in the field also included a wagonmaster general and a commissary general of forage to direct transportation and forage activities.

30. Ibid., item 161, fol. 6 (Mifflin to Hancock, 6 Feb. 77).

most every article needed for the coming campaign. He was still in Philadelphia, fully occupied in reforming the Quartermaster's Department under the new plan adopted by Congress and in settling the innumerable, intricate accounts of expenses remaining from the previous campaign. Moreover, several members of Congress thought his presence in Philadelphia was necessary. He reported to Washington that he would have to remain there unless "the Business of the Army cannot be executed to your Satisfaction" by Lutterloh at camp. With the opening of the campaign drawing near, Washington wanted his Quartermaster General at headquarters.[31] He was torn, however, between this desire and his need to use Mifflin's services to draw out troops for the defense of Philadelphia and to reconnoiter the area around Philadelphia likely to be the scene of action. He ordered Mifflin to search out probable British landing places and to report back on places that would make good American encampments. Washington also directed Mifflin to gain accurate knowledge of all roads and bypaths on both sides of the Delaware River where enemy troops were likely to operate.[32] It was on Washington's orders that Mifflin returned to Philadelphia after appearing at headquarters early in June and again in July 1777.

Until the British took Philadelphia, Mifflin cannot be accused of neglecting his duties as Quartermaster General, for he faithfully and competently executed the orders given him by Congress and by Washington. There is more basis for criticism regarding his performance during the closing months of the campaign and during the winter encampment at Valley Forge. When the British occupied Philadelphia and the Continental Congress fled to York, Mifflin retired to Reading, Pennsylvania. Distressed by the American defeats, he submitted his resignation as Quartermaster General and major general to Congress on 8 October 1777, pleading ill health.[33] He sent no word to Washington but remained at Reading, "a chief out of war, complaining, though not ill, considerably malcontent," brooding over his loss of favor at headquarters and his failure to achieve his ambition of a separate command.[34]

A month later Congress accepted his resignation as Quartermaster General. Since Mifflin's friends in that body were determined to retain his valuable services, Congress at the same time appointed him to the Board of War, permitting him to retain his commission, though not his pay, as a major general. Pleased by this action, Mifflin proposed to wait on Congress for

31. (1) Washington Papers, 47:116–17 (Mifflin to Washington, 27 May 77). (2) Fitzpatrick, *Writings of Washington*, 8:64–65, 134–35 (to Mifflin, 15 and 28 May 77).

32. Ibid., 8:204 (to Pres of Cong, 8 Jun 77); 492–94 (to Mifflin, 28 Jul 77); 293–95 (to Joseph Reed, 23 Jun 77).

33. RG 11, CC Papers, item 161, fols. 16–18 (Mifflin to Pres of Cong).

34. (1) Alexander Graydon, *Memoirs of a Life* (Harrisburg, 1811), pp. 278, 282. (2) See also Octavius Pickering and Charles W. Upham, *The Life of Timothy Pickering*, 4 vols. (Boston, 1867–73), 1:205–07 (Pickering to Col Alexander Scallem, 17 Feb 78).

orders as soon as it made arrangements for the Quartermaster's Department.[35]

Congress, however, was in no mood to apply itself to problems of supply organization. Alarmed and disgruntled by the necessity to flee Philadelphia, the delegates were further dissatisfied by Washington's defeat at Germantown. Many of them became increasingly critical of the Commander in Chief and were more inclined to blame him than to assist him by enacting measures to improve supply operations.[36] On 8 November 1777 Congress declined to appoint a new Quartermaster General. Despite the fact that it had accepted Mifflin's resignation the previous day, it passed a resolution desiring him to continue in office and investing him with full authority to act until another Quartermaster General was appointed.[37] Four months elapsed before Congress made the appointment.

Mifflin had no intention of assuming the burdens of that office again. He expressed the view that Lutterloh could "now take the whole" upon himself, as he had been doing for months. Congress had not provided the funds necessary for Mifflin to prepare for the next campaign, and he warned Lutterloh that he would have nothing to do with the department except to settle his accounts.[38]

However willing Lutterloh was to execute Quartermaster functions at camp, he lacked an overall knowledge of the department and of the country's resources. He was blamed for shortcomings for which he had no responsibility.[39] Meanwhile, Washington was obliged to act as his own Quartermaster General, as he frequently had during the campaign of 1777. Since July, he complained on 23 December, he had received no assistance from his supply chief.[40] The lack of an active Quartermaster General and the failure of Congress to take appropriate action contributed greatly to the distress of the troops at Valley Forge in the winter of 1777–78.

In December 1777 Washington suggested that two or three members of the Board of War or a committee of Congress should come to camp and, in consultation with him, prepare a plan to correct all abuses and make new arrangements. On 10 January 1778 Congress finally agreed to send a committee to Washington's headquarters, though there was some delay before it began

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35. (1) *JCC*, 9:874 (7 Nov 77). (2) Richard Henry Lee, *Memoir of the Life of Richard Henry Lee*, 2 vols. (Philadelphia, 1825), 2:174 (12 Nov 77).

36. For an analysis of the congressional mood, see Burnett, *The Continental Congress*, pp. 267 ff.

37. *JCC*, 9:882 (8 Nov 77).

38. RG 11, CC Papers, item 192, fols. 217–19 (Anthony Butler to Lutterloh, 17 Jan 78).

39. Ibid., item 192, fols. 191–92 (Lutterloh to Joseph Reed, 31 Jan 78). (2) For an estimate of Lutterloh's abilities by the committee at camp, see ibid., item 33, fols. 128–29 (to Congress, 12 Feb 78). (3) Washington Papers, 70:44 (Lutterloh to Washington, 22 Mar 78).

40. Fitzpatrick, *Writings of Washington*, 10:194 (to Pres of Cong, 23 Dec 77).

its work.[41] After conferring with Washington on various Army matters, it was clear to the members that appointment of a Quartermaster General was an "immediate Necessity." Unless the department was administered "by very superior abilities, but little can be expected from our Exertions during the next Campaign," the committee wrote Congress on 28 January. It went on to suggest General Schuyler for the post. If his appointment was inexpedient, it wanted to be informed immediately, as it had others under consideration.[42]

At the same time, the Board of War was preparing a report that called for Congress either to appoint a Quartermaster General with power to reform his department with the approbation and concurrence of the Board of War, or to adopt a reorganization plan for the department that Mifflin had submitted. The latter had proposed dividing the department into military and civil branches. The duties of the military branch would be discharged by the Quartermaster General, and those of the civil branch would be divided among three officials—a commissary of forage, a commissary for horses and wagons, and a purchasing agent for tents, tools, and other quartermaster supplies. The estimates and orders of the Quartermaster General or the Board of War would govern the purchases made by these three officers. Congress adopted the Mifflin plan on 5 February 1778, ordering the Board of War to prepare suitable regulations for the Quartermaster's Department.[43]

Two days later Congress directed the committee at camp to consult with General Washington and report to Congress the names of candidates for the positions included in the Mifflin plan. This letter apparently never arrived. The committee, convinced in turn that its letter about the appointment of Schuyler had gone astray, wrote again to the President of Congress on 12 February, describing the conditions at Valley Forge and requesting instructions. Another week went by before Congress began to suspect that the copies of its resolutions sent to the committee had miscarried. On 20 February the President of Congress sent duplicates to the committee. Alarmed over this delay in bringing relief to the troops at Valley Forge, Congress changed its instructions the following day. It authorized the committee, in conjunction with General Washington, "forthwith to make the proper appointments" for the Quartermaster's Department.[44]

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41. *JCC*, 10:39–40, 41 (10 and 12 Jan 78). The delay was occasioned by the fact that Congress had included the three new members of the Board of War—Mifflin, Maj. Gen. Horatio Gates, and Timothy Pickering—on the committee. Gates had strong reasons for not wanting to go to headquarters—the Conway letter affair was sufficient in itself—and Mifflin and Pickering had similar reasons. Congress excused them from attendance at camp and added other members to the committee.

42. RG 11, CC Papers, item 33, fol. 71 (28 Jan 78).

43. *JCC*, 10:102–03 (30 Jan 78); 126–27 (5 Feb 78).

44. (1) Ibid., 10:138 (7 Feb 78). (2) RG 11, CC Papers, item 33, fols. 128–29 (committee to Pres of Cong, 12 Feb 78); item 192, fols. 221–23 (Pres of Cong to committee, 20 Feb 78). (3) *JCC*, 10:186 (21 Feb 78).

The committee was clearly diffident about making these appointments, for it proposed discarding the plan approved by Congress. Since its arrival at camp, it had closly examined the existing administration of Quartermaster affairs. The committee had concluded that many abuses had crept into the system. "The number of little piddling pilfering Plunderers in the Character of Deputies, & Deputies Assistants is sufficient almost to form an Army," it protested. The expense was almost "infinite." On some supplies purchasing agents were allowed the then enormous commission of 5 percent, while 2½ percent was paid on every ounce of forage consumed. Furthermore, the committee feared that government teams had transported private property at government expense instead of needed supplies. Success in administering the Quartermaster's Department, the committee held, would depend principally on the character of the men directing it and not upon "paper systems." Analysis of the plan adopted by Congress convinced the committee that the plan would not work. The number of independent officers would be productive of conflicting decisions, confusion, and controversies that the Commander in Chief would have to settle. He would end by being his own Quartermaster General.

Appointment of Greene

Discarding the plan adopted by Congress, the committee proposed the appointment of a Quartermaster General and two assistant quartermasters general. By persuasion and appeals to patriotism, the committee induced Maj. Gen. Nathanael Greene to accept the post of Quartermaster General. With time growing short and much still to be done to ready the army for possible action, Washington added his arguments in favor of acceptance. Out of personal devotion to his Commander in Chief, a reluctant Greene relinquished the chance of winning glory on the battlefield and agreed to accept the comparatively prosaic duties of Quartermaster General.

The committee suggested the selection of John Cox, an eminent Philadelphia merchant, and Charles Pettit, a lawyer and accountant who had been secretary to Governor William Livingston of New Jersey, as his assistant quartermasters general. Greene chose the two men. Both were related to Joseph Reed, one of the members of Congress appointed to the committee. Under the committee's arrangements, Greene would perform the military duties of the department and direct all purchases and issues, Cox would make all purchases and examine all stores, and Pettit would keep all accounts and all cash. The committee proposed to compensate these three men by allowing them a 1 percent commission on the money spent by the department, to be divided as they decided among themselves. They subsequently agreed that each man would receive one-third of 1 percent.[45]

45. RG 11, CC Papers, item 33, fols. 185, 187–95 (committee to Pres of Cong, 24 and 25 Feb 78).

The committee conceded that paying a commission was a temptation to peculation and that such payments should generally be avoided, but it considered that in this instance an exception could be made. It could not compensate these men with an adequate salary without arousing demands for an increase in pay from every other officer. In any event, the committee argued, the only way to avoid peculation was to obtain the services of men of property, morals, and character, as it had done. The committee submitted its proposal and nominations to Congress in the expectation of a speedy decision. With preparations still to be made for the approaching 1778 campaign, Congress had no alternative but to adopt the proposal in early March and appoint the nominees.[46]

When Greene assumed his duties on 23 March, he built his organization on the framework established by Mifflin. Army brigade quartermasters were retained, but the divisional deputy quartermasters general were eliminated. At least two of the latter reappeared in other assignments—Cornelius Sheriff as a deputy quartermaster general in Pennsylvania and James Abeel, formerly deputy for Greene's division, as a deputy quartermaster general and superintendent of stores, stationed initially at Reading, Pennsylvania, and then at Morristown, New Jersey. Unlike Mifflin, Quartermaster General Greene was generally with Washington's army in the field; his headquarters staff included, in addition to a wagonmaster general and a commissary general of forage, a deputy quartermaster general, various clerks, and an auditor of accounts. As necessitated by his responsibilities, one of the assistant quartermasters general, Charles Pettit, maintained his office at Philadelphia after the British evacuated the city in June. The other, John Cox, traveled extensively as purchaser and inspector of stores.

Greene had no intention of replacing the departmental and district deputy quartermasters general who had worked for Mifflin. Perhaps he had already come to the conclusion that "old agents are like chronick diseases difficult to shake off."[47] In any case, he proposed to keep those deputies who had filled their posts competently, as he informed Hugh Hughes, whose services he wished to retain. The latter, however, refused to serve under Greene. It soon became apparent that Hughes felt he had been superseded, deprived of his rank, and left to "the will and pleasure of those put over me." He sharply rejected Greene's references to profits and emoluments; he had served under Mifflin, he informed Greene, for nothing more than his wages and rations.[48]

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46. *JCC*, 10:210–11 (2 Mar 78).

47. "Letters of General Nathanael Greene to Colonel Jeremiah Wadsworth," *Pennsylvania Magazine of History and Biography* 22 (1898): 212 (14 Apr 79).

48. Hugh Hughes Letter Books (Greene to Hughes, 31 Mar 78, and reply, 6 Apr 78; Greene to Hughes, 16 Apr, and reply, 23 Apr 78).

Although Hughes refused to serve, many of Mifflin's other deputy quartermasters general continued at their posts, particularly those serving in Pennsylvania.[49] Mifflin had begun the practice of assigning deputies to supervise Quartermaster activities in given districts. Greene continued this system, but he lacked information on how the districts had been divided or allotted by Mifflin. For example, he appointed John Davis as deputy quartermaster general on the western side of the Susquehanna with the privilege of making purchases on the borders of Virginia and Maryland, only to discover that this district had to be reduced in size. In retaining Archibald Steele as deputy quartermaster general at Fort Pitt in Pennsylvania, Greene learned that Steele's district already included Westmoreland and Bedford Counties in Pennsylvania, Washington County in Maryland, and Berkeley County in Virginia.[50]

Any hope that Greene's organization would result in a reduction in the number of deputies in Pennsylvania must have dimmed rapidly. In March 1779 there were still seven deputies in Pennsylvania, and each had assistants, wagonmasters, and clerks. In addition, John Mitchell, appointed deputy quartermaster general at Philadelphia, had an office staff of clerks, bookkeeper, cash keeper, and messengers. He also directed a storekeeper and three porters; an assistant for boats, as well as masters, mates, and sailors for three schooners; a deputy wagonmaster general and six wagonmasters; a superintendent of a wood and board yard; and a superintendent of barracks. The Continental stables at Philadelphia also were under Mitchell's charge. Jacob Hiltzheimer, superintendent of these stables and a former subordinate in Mifflin's organization, employed a clerk, 4 conductors, 17 hostlers, 2 wheelwrights, and a laborer.[51]

Other states also were well supplied with Quartermaster personnel. Greene appointed Nehemiah Hubbard deputy quartermaster general in Connecticut. Hubbard had received his training in the store and ships of Jeremiah Wadsworth's uncle, and he was closely associated with Wadsworth in procurement activities throughout the war. His office at Hartford included an assistant, a clerk, a deputy wagonmaster general, an express rider, two carpenters, a conductor of teams, and eighteen teamsters. In addition, he had assistants at Fairfield, Litchfield, Norwich, Sharon, and Windham. His personnel totaled forty-one. Ephraim Bowen, deputy quartermaster general for Rhode Island, was a member of a prominent mercantile family of that state. He maintained his office at Providence and

49. These included George Ross at Lancaster, Robert Patten at Lebanon, and John Davis at Carlisle, as well as Robert L. Hooper at Head of Elk, whose post was usually grouped with those in Pennsylvania.

50. Papers of John Davis, 1:53, 112 (Greene to Davis, 23 Mar and 9 May 78), Manuscript Division, Library of Congress.

51. RG 11, CC Papers, item 173, 2:53–56 (circular letter, Greene to Pa. deputies, 26 Mar 79); item 39, 52:373–74 (return, 17 Apr 80).

employed assistant deputy quartermasters general at six other towns in the state, together with a deputy wagonmaster general, wagonmasters, storekeepers, artificers, and clerks.[52] At Springfield, Massachusetts, Deputy Quartermaster General William Smith employed a staff of forty.[53] Other deputies included Henry Hollingsworth of Maryland, Moore Furman of New Jersey, and Udny Hay, chosen by Greene to take over the direction of Quartermaster activities in New York from Hugh Hughes.

As heretofore, the Quartermaster's Department included the deputy quartermasters general of the Southern, Eastern, and Northern Departments. Under the regulations their staffs also expanded. For example, in the Northern Department Morgan Lewis employed a clerk, a storekeeper, and three assistants in his office at Albany, and an assistant deputy quartermaster general each at Bennington, Fort Schuyler, Saratoga, Schenectady, and Stillwater. At Albany he also directed a deputy wagonmaster general, three wagonmasters, and an overseer of the public stables; a deputy barrackmaster general and an assistant; a commissary of forage, two assistants, and two foragemasters; a superintendent of carpenters and another for the blacksmith's shop; and a captain in charge of bateaumen. There was also a captain of bateaumen at Schenectady and a barrackmaster at Saratoga.[54]

The Quartermaster's Department under Greene became by 1780 a sprawling, loose organization with a Quartermaster General, 2 assistant quartermasters general, 28 deputy quartermasters general, and 109 assistant deputy quartermasters general. It employed storekeepers, clerks, barrackmasters, express riders, laborers, and artificers, as well as superintendents of government property, roads, stables, woodyards, and horse yards. Its Forage Department included a commissary general of forage, an assistant, 25 deputies, and 128 assistant deputy commissaries, as well as clerks, foragemasters, measurers, collectors, weighers, stackers, superintendents, and laborers. Its Wagon Department employed, in addition to a wagonmaster general and 11 deputies, a large number of wagonmasters, wagoners, packhorsemasters, and packhorsemen. In its boat department there were superintendents, masters of vessels, mates, and boatmen.

The number of personnel in the Quartermaster's Department, which had expanded steadily under Mifflin, increased even more sharply during Greene's administration, particularly as subordinate departments were organized and staffed and as a network of subordinate offices drew upon the resources of the middle and New England states chiefly for the support of the

52. (1) APS, Greene Letters, 12:53 (Hubbard return, 1 Apr 79); 10:109 (Bowen return, 15 Feb 79). Hubbard did not include the personnel at Danbury. (2) East, *Business Enterprise in the American Revolutionary War*, pp. 73, 97.

53. APS, Greene Letters, 11:11 (Smith return, 3 Feb 79).

54. Ibid., 10:39 (Lewis return, 1778).

main Continental army. Posts throughout these states had to be supported, but there was no longer a Northern Army to be supplied. Although military operations in the Southern Department had resumed in 1778, supply support of the Southern Army was largely dependent upon the southern states, particularly Virginia and North Carolina. By 1780 the Quartermaster's Department employed almost 3,000 people—mostly stationed in the Middle and Eastern Departments and with Washington's army—at an estimated monthly payroll of 407,583 dollars exclusive of the commissions paid the Quartermaster General, the two assistant quartermasters general, the commissary general of forage, and the purchasing deputy quartermasters general.[55] Since Washington's army never exceeded 24,000 men and often numbered considerably less, the proportion of Quartermaster supply personnel had become excessive.

In a separate but related development, combat officers by 1778 had become irritated by the propensity of Congress to attach military rank to staff appointments in the Quartermaster's Department. Washington and his line officers viewed all staff officers, except the Quartermaster General, as civilians who had no military functions but were engaged in carrying out civilian duties in support of the Continental Army. They felt no animosity when Congress fixed the rank of the Quartermaster General as a colonel, for in an eighteenth century army he was an officer of the line who executed both military and civilian duties.[56] Nor did they object when Congress assigned the rank of colonel in the Continental Army to each deputy quartermaster general it appointed to a separate army. That officer's duties were, after all, akin to those of the Quartermaster General with the main Continental army. It was another matter, however, when Congress provided the rank of colonel for each deputy quartermaster general appointed to a military department. Greene later observed that the latter's duties were "so distinct from any idea of military rank, that I apprehend they have no necessary Connection nor relation." It was even more galling to line officers when in 1777 Congress attached the rank of lieutenant colonel to the posts both of wagonmaster general and of deputy quartermaster general of a division of the Continental Army and gave the rank of captain to the latter's assistant in each brigade. It is readily understandable why Maj. Gen. Johann Kalb complained: "My blacksmith is a captain. The numerous assistant quartermasters are for the most part people without any military education, often the common tradesmen, but collectively colonels. . . . The army swarms with colonels."[57]

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55. Washington Papers, 161:77.

56. No other chief of a supply agency in the Revolutionary War was given military rank, nor were subordinates, except for the Commissary General of Military Stores, to whom Washington gave the rank of lieutenant colonel because he commanded companies of artillerymen and Artillery Artificers.

57. Friedrick Kapp, *The Life of John Kalb* (New York, 1884), p.132.

The issue of rank was pointedly raised when Greene offered the appointment of deputy quartermaster general in New York to Udny Hay. To accept would cancel his former appointment by Congress as assistant deputy at Ticonderoga with the rank of lieutenant colonel. Hay was ready to act under either the old or the new appointment provided his military rank was preserved. Greene referred this problem to Congress. On 29 May 1778 that body ruled that Udny Hay could not keep the military rank of his old appointment. It further resolved that no persons thereafter appointed on the civil staff of the Continental Army were to be entitled to any rank in the Army by virtue of such a staff appointment.[58] Complimentary titles of rank, however, continued to be used by staff personnel throughout the war.

Criticism of the Department

Under Greene's direction, preparations for the campaign of 1778, though much delayed, were handled to the satisfaction of both Washington and Congress. Criticism of the department subsided and Greene had freedom to administer it with little or no interference from Congress. Prices for supplies and services, however, rose alarmingly during the year. With prices soaring and expenditures in the department mounting, complaints and criticisms began to grow in volume, as noted by a congressional delegate on 31 October 1778. He had, he stated, learned of frauds and abuses on the part of certain individuals in the department. Congress appointed a committee of three to conduct an inquiry.[59]

Early in November Greene wrote to Congress about problems requiring its attention. Congress decided that it was necessary for it not only to take speedy and vigorous measures for regulating both the Commissary and Quartermaster's Departments but also to give constant attention to the two departments. It appointed a committee of three to "superintend" them.[60] This supervisory committee carried out its functions for a little more than a year, when its duties were taken over by the Board of War. During 1779 Congress appointed still other committees to promote reform in one phase or another of the activities of the supply departments.

Since the payment of commissions to purchasing agents was suspected of being a major factor contributing to the high costs of the war, even the commissions paid to the heads of the Commissary and Quartermaster's Departments came under review in January 1779. Greene, who was in Philadelphia, proposed to the Committee of Conference that the Quartermaster General and his two assistant quartermasters general each be paid a

58. *JCC*, 11:554–55.
59. Ibid., 12:1083.
60. Ibid., 12:1114–15 (10 Nov 78). Letters from the Quartermaster General and matters pertaining to his department were referred to this committee. See, for example, 13:150.

salary of 3,000 pounds sterling and expenses instead of commissions. This amount apparently had been approved by the President of Congress in discussions with Greene. The latter agreed either to serve for the proposed salary or to continue under the existing contract. If neither of these offers was satisfactory, he proposed to quit the department entirely. The head of the Commissary Department took the same position.[61]

When it was hinted to Greene that some members of Congress thought he was "making a fortune too rapidly," he sought to clarify his position in mid-April by writing to James Duane, the head of the Treasury Board. He acknowledged that the emoluments were "flattering to my fortune but not less humiliating to my military pride." Greene wrote that he had always preferred service in the line, and only the persuasions of Washington and the congressional committee had led him to serve as Quartermaster General. Profit, he noted, had not dictated that course, for he had offered to serve a year as Quartermaster General without pay other than what he received as a major general. When the committee had refused that offer, he had proposed serving on the same terms granted to Cox and Pettit. Moreover, he had been instrumental in getting Cox to accept a smaller commission than he had wanted. Greene had not sought the appointment nor did he wish to continue holding it, he wrote Duane, and if his past conduct was not satisfactory, he wanted "to quit a business wherein I cannot please."[62]

In the course of his stay in Philadelphia, Greene had reported to the Treasury Board the funds that his department would need for the period until 2 March 1779. By late April, however, the department had not been able to get one half that amount. The Treasury was hard pressed on every side, and the demands were infinitely greater than it could satisfy. "The business of financing is in a poor way," Greene wrote Washington. He sought to impress on Congress the disagreeable consequences that might follow "from starving the Quarter Masters Department at this critical season." His department was in considerable debt, he asserted to the congressional committee charged with supervising it, and he would not be able to carry out orders from the Commander in Chief unless he received the needed funds. Greene also informed the committee that the jealousies and suspicions about the payment of commissions in his department and its considerable but unavoidable expenditures, combined with the obloquy to which he was exposed, would compel him to resign for the sake of his reputation if Congress did not act.[63]

On 23 April Congress considered a report from the Board of War on the salaries of Quartermaster officers and referred it to the supervisory com-

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61. RG 11, CC Papers, item 173, 4:191–92 (Greene to John Jay, 15 Feb 79).

62. (1) Ibid., item 155, 1:127–34 (16 Apr 79). (2) See also Washington Papers, 104:82–83 (Greene to Washington, 24 Apr 79).

63. (1) Ibid. (2) *JCC*, 13:490 (22 Apr 79); 14:503 (23 Apr 79).

mittee. The latter, after conferring with the Quartermaster General, was to report the next day.[64] On 11 May 1779 Congress took action relative to salaries in the department. It did not concern itself with the salaries of the Quartermaster General or the assistant quartermasters general, but it resolved that all deputy quartermasters general who were paid commissions were not entitled to either salary or rations. Those who received no commissions, whether stationed at a post or in the field, were to be paid a salary. The resolution also fixed the salaries to be paid all other Quartermaster personnel. All salaried personnel were granted a subsistence allowance and the same clothing allowance as an officer of the line, provided they engaged for a year or longer.[65]

In the meantime, the congressional committee on the Treasury had reported on 31 March that it was impracticable to carry on the war by paper emissions given the enormous expenses of the Commissary and Quartermaster's Departments. The cause of these alarming costs, it charged, arose from allowing commissions to purchasers in these departments. The two departments, it recommended, ought to be put "on a different footing with respect to the expenditures of public money." Furthermore, a committee should be appointed both to investigate their contingent expenses and to consider and report on practical measures of retrenchment and reform. Congress took no action until 28 May 1779 when it appointed a committee of three to report on possible retrenchments and reforms and a second committee to draft a plan for improving the expenditure of public money by the departments. With the addition of these two committees to the supervisory committee and the committee on the Treasury, Congress now had four committees looking into the activities of the staff departments and devoting their efforts toward reform.[66] Remembering Greene's earlier threat to resign, Congress also acted to retain his services. On 7 June it unanimously resolved that it had full confidence in his integrity, although it added that some of his subordinates had undoubtedly abused their positions. It promised that justice would be done to all by the speedy enactment of measures to distinguish the faithful from the unfaithful servant.[67]

On 9 July Congress resolved that the executive authority of each state should be requested to examine the conduct of every person within the state employed either in the Quartermaster's or Commissary Departments. In cases of misbehavior "or strong suspicion thereof," the state executive was to remove or suspend anyone who was not an officer immediately appointed by Congress. The executive could order the person's prosecution at the expense of the United States and appoint another in his place, although

64. Ibid., 14:503–04.
65. For details of pay and allowances, see ibid., 14:573–74.
66. Ibid.,13:491–92 (31 Mar); 14:519–20 (27 Apr); 533 (29 Apr); 661–62 (28 May 79).
67. Ibid., 14:695 (7 Jun 79).

notice would have to be given to the Board of War and to the Quartermaster General or Commissary General. The executive powers were also to inquire into the number of persons employed in the departments and discharge immediately any they judged unnecessary.[68]

Greene felt that this resolution put the staff wholly in the power of the state executive officers and would give "the last finishing stroke to our Department."[69] The mischievous consequences were apparent at once. Udny Hay, deputy quartermaster general for the lower division of the state of New York, indicated that unless the act was repealed, he and all his assistants would resign. Greene advised the President of Congress that the resolution vested either too much or too little power in the state authority. If the states had the right to judge the agents and the power to dismiss delinquents and superfluous officers, he argued, each state ought to be held responsible for the duties of those officers. Greene had no objection to committing the whole business to the direction of the states, but he did not believe that state control would be less expensive or equally beneficial to the operations of the Continental Army.

Returning to the subject of commissions, Greene observed in late July that critics had used them to promote jealousy and discontent. If the use of commissions was an evil, it was comparatively small, he added, since most of the staff officers were on salary. The emoluments of office in the Quartermaster's Department were far from being as inviting as generally imagined. Some particular districts, he pointed out, were profitable, but the work was extensive and fatiguing. Judging by the difficulties he encountered in engaging good men and by the willingness of those in office to give up their appointments, he had no reason to suppose that suitable agents could be employed at less cost.[70]

Congress rejected Greene's arguments. Several Quartermaster and Commissary officers had acknowledged that it was impossible to supervise the conduct of subordinates at remote posts. Congress emphasized that its resolution of 9 July had simply established proper regulations for detecting the misconduct of such officers. The regulations were intended to discriminate between those who behaved well and those who abused their trust; they should therefore give no "apprehension" to officers who had faithfully discharged their duty. Congress directed that no subordinate could resign without permission and that permission should not be granted in the midst of a campaign; if it was granted, the head of the department was to be held responsible for all consequences.[71]

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68. Ibid., 14:812–13 (9 Jul 79).

69. APS, Greene Letters, 11:5 (to Pettit, 24 Jul 79).

70. (1) RG 11, CC Papers, item 173, 2:157–73 (Greene to Jay, 28 Jul 79). (2) See also APS, Greene Letters, 11:4 (to Pettit, 29 Jul 79).

71. *JCC*, 14:944–45 (11 Aug 79).

Meanwhile, on 23 July the committee appointed to regulate and reduce expenses in the departments had brought in a report. Congress evidently intended giving careful study to this elaborate, detailed report, for it ordered sixty copies printed for the use of its members. Months passed, however, without further action. It was 18 October before a committee of the whole considered the plan briefly, but it came to no conclusion. Congress laid it aside until 4 December, when it passed the plan to a new committee.[72]

While these reform efforts were under way in the summer of 1779, new complications arose to plague Quartermaster officers. The New Jersey legislature enacted a law to raise one million pounds, but in addition to taxing all citizens for their real and personal estates in New Jersey, the law singled out the assistant quartermaster general and the deputy quartermasters general in the state. It levied a specific tax of not more than 10,000 pounds or less than 1,000 pounds on them as Continental officers. Deputy Quartermaster General Moore Furman resigned at once, and Assistant Quartermasters General Charles Pettit and John Cox waited only to learn the outcome of a memorial presented by them to Congress in mid-June.[73]

Apparently overlooking the discriminatory nature of the law, the committee to whom Congress referred the memorial piously noted on 28 June that every inhabitant of a state ought to contribute in proportion to the value of his estate, real or personal, however acquired; if the memorialists felt themselves aggrieved, the committee concluded, they should apply to the government of New Jersey for redress. Cox and Pettit responded by pointing out that if one state could tax Continental staff officers, the practice could spread to other states, with disastrous consequences. They submitted their resignations. On 8 July Congress thereupon directed the two officers to continue to discharge their duties until action could be taken on their letter, which it referred to a committee. Cox and Pettit professed they were unwilling to do anything to injure the public service and "cheerfully" yielded to Congress' order. Since they still might be assessed the tax, they asked to be indemnified if this occured while they continued to serve.[74]

After studying the matter, the congressional committee made its report on 6 August. Acknowledging that New Jersey had the right to tax all property, however acquired, the committee could only recommend that the state be called upon to revise its law to remedy the specific harmful effects that arose from it to the service of the United States. If, in the meantime, Pettit and Cox were compelled to pay the tax, the committee proposed that Congress indemnify them, "relying on the Justice of the Legislature of New

72. Ibid., 14:872–80. For congressional action, see 15:1186 (18 Oct); 1187 (19 Oct); 1349 (4 Dec 79).

73. (1) RG 11, CC Papers, item 102, fols. 237–38 (Pettit to Jay, 17 Jun 79). (2) *JCC*, 14:744–45 (18 Jun 79). (3) See also APS, Greene Letters, 6:96 (to Jay, 24 Jun 79).

74. (1) *JCC*, 14:779–80, 810 (8 Jul 79). (2) RG 11, CC Papers, item 192, fols. 240–44 (Pettit and Cox to Jay, 7 Jul 79); item 155, 1:545–46 (to Pres of Cong, 9 Jul 79).

Jersey to refund any sum which may be chargeable against the United States by reason of such indemnity."[75] Congress heard the report but took no action. In October 1779 Pettit was assessed 1,000 pounds under the New Jersey law; he again appealed to Congress and called attention to the report of the committee. Congress passed on to other matters, and Pettit was left to pay the bill.[76]

From the beginning of 1779 Greene had awaited the formulation of a plan for the Quartermaster's Department. At the end of the year, having successfully supplied Washington's army through two campaigns, he felt it was an opportune time for leaving the department, and he wrote the President of Congress to this effect. In proposing to resign, he took the opportunity to stress the difficulties confronting the department. He cited the depreciation of the currency as the principal cause of all his difficulties. He added that losses sustained by individuals and by those districts which had been most ready to supply on credit had taught others to be cautious. He pointed out that among both individuals and states there was a growing disposition to be wary. Greene found that each state was so concerned for the benefit of its own inhabitants that the public interest suffered. Whenever the law of a state obliged the people to part with their property for the use of the Continental Army, the local magistrates would not execute the law unless supply agents paid for the property. People had become so dissatisfied with the failure of the department to pay its debts that they had begun to sue supply agents. Some state laws were so strict and magistrates were so protective of property rights that forage officers, operating under a press warrant granted by the Commander in Chief, had been prosecuted and heavily fined for taking forage along the march of the troops. Greene added that he would be happy to give all assistance in developing regulations for the department.[77]

A month elapsed without a reply, and Greene pressed for an answer.[78] The situation was clearly becoming critical. The troops were living from hand to mouth, sustained by emergency requisitions on the states and the repeated use of impressments. Difficulties in the Quartermaster's Department increased daily. Greene had hoped that Congress would adopt some plan for the department's relief, he informed Washington, but his hopes were in vain.

> The cloud thickens, and the prospects are daily growing darker. There is now no hope of cash. The agents are loaded with heavy debts, and perplexed with half-finished contracts, and the people clamorous for their pay, refusing to proceed in the public business unless their present demands are discharged. The constant run of expenses, incident to the department, presses hard for further credit, or immediate

75. *JCC*, 14:930–33 (6 Aug 79).

76. (1) RG 11, CC Papers, item 155, fols. 253–55 (Pettit to Pres of Cong, 20 Oct 79). (2) *JCC*, 15:1198–99 (22 Oct 79).

77. RG 11, CC Papers, item 173, 4:243–54 (12 Dec 79).

78. Ibid., item 155, 1:196 (to Pres of Cong, 13 Jan 80).

supplies of money. To extend one is impossible; to obtain the other, we have not the least prospect. I see nothing, therefore, but a general check, if not an absolute stop, to the progress of every branch of business in the whole department.[79]

He concluded that "it is folly to expect that this expensive department can be long supported on credit." He insisted that there was no lack of resources in the country; the defect lay in a want of proper means to draw those resources into public use.

Reform of the Department

A year had gone by since Congress had initiated efforts to reform the staff departments. On 20 January 1780 Congress returned again to the report of the committee on regulating and retrenching the expenses of the supply departments and simply disposed of the problem by assigning the whole question of reform to three commissioners, one of whom was to be a member of Congress. They were to inquire into the expenses of the staff departments and the means of bringing about retrenchment, discharge supernumerary and delinquent officers, and abolish unnecessary posts. They were to visit Washington's headquarters and, in conjunction with the Commander in Chief, devise measures for promoting economy in the staff departments and then report their proposals to Congress. Congress chose former Maj. Gen. Philip Schuyler as the congressional commissioner and elected Timothy Pickering, then a member of the Board of War, and General Mifflin as the two other commissioners.[80] Schuyler was absent from Congress. When he arrived early in March, he declined to serve as a commissioner; later he also demurred from serving on a committee, whose members included Roger Sherman of Connecticut and Allen Jones of North Carolina, to advise the commissioners. He had no wish to assist Mifflin and Pickering, for he considered both to be unfriendly to Washington. The appointment of Mifflin to superintend the staff departments struck Greene as "extraordinary," especially as he was "still under an impeachment for misconduct in this very business." He considered it a "design more to embarrass than facilitate the public business."[81]

Mifflin, Pickering, and the two members of the advisory committee worked out an elaborate reform plan. "I am afraid," Schuyler wrote Washington, "it will not only be inadequate but if adopted would give additional Soreness to the wounds already given" the Quartermaster General.[82]

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79. Jared Sparks, *Correspondence of the American Revolution*, 4 vols. (Boston, 1853), 2:371–74 (26 Jan 80).

80. *JCC*, 16:75–77, 79 (20, 21, and 22 Jan 80).

81. Greene, *Life of Nathanael Greene*, 2:265 (Greene to Pres Joseph Reed, 9 Feb 80).

82. (1) Burnett, *Letters*, 5:92 (22 Mar 80). (2) The report required eighteen pages of printed text in the *JCC*. See 16:293–311.

Schuyler characterized the plan submitted for the consideration of Congress on 27 March 1780 as the first part of a "voluminous system." This part dealt with the Quartermaster's Department. The second part was to govern the business of the Department of the Commissary General of Issues, established in June 1777, while the third part was to regulate the Hospital Department. Congress ordered the committee to confer with Quartermaster General Greene on the plan.

Greene, who had gone to Philadelphia "confident that there is party business going on again," conferred with the advisory committee on the same day that the report was submitted. "The scheme is too complex and tedious," he wrote Washington, "for such heavy and pressing demands as are frequently made on the department." He noted that "General Schuyler and others think it will starve the army in ten days" and added that the plan would reduce the duties of the Quartermaster General to almost nothing and greatly add to the Commander in Chief's work load. Three days later he wrote, "The more I view it, the less I like it and the stronger my conviction is that it is calculated not less to embarrass your Excellency, than to disgrace and injure me."[83] Schuyler found the plan "replete with absurdity." He informed Washington that "the States are to do all," and added that Roger Sherman "roundly asserts that System will strike off four thousand Officers from the Civil departments."[84] Congress considered the report but came to no decision, and thus another ambitious reform plan was discarded.

Meanwhile, Greene had advised many members of Congress to send a committee to headquarters to confer with the Commander in Chief and the heads of the staff departments to develop a more workable plan. Congress concluded that such a committee was the only solution, and on 6 April it decided to refer the proposed reform plan to a new committee to make such alterations as might be necessary after conferences at headquarters.[85] After days of debate Congress adopted instructions for the committee. The committee members were to confer both with Washington on the propriety of reducing the number of regiments and with the Commissary General and the Quartermaster General on the best method for effecting reforms in their departments.[86] The committee was also instructed to examine closely the management of the Hospital, Hide, and Ordnance Departments, to insti-

83. (1) Greene, *Life of Nathanael Greene*, 2:274–75, 275–76 (Greene to Washington, 22 and 28 Mar 80). (2) Washington Papers, 132:30–32 (Greene to Washington, 31 Mar 80).

84. (1) Burnett, *Letters*, 5:107–08 (5 Apr 80). (2) See also Washington Papers, 131:88–89, for a brief of this report and Washington's comments on its provisions.

85. (1) Ibid., 132:81–82 (Greene to Washington, 3 Apr 80). (2) *JCC*, 16:332–33 (6 Apr 80). (3) Congress voted its thanks to Mifflin and Pickering for their efforts. See ibid., 16:364 (14 Apr 80).

86. Subsequently, Congress discharged the committee from reporting on the first portion of its instructions, since a reduction of troops was not considered expedient at the time. Ibid., 17:472 (30 May 80).

tute regulations, and to supervise the execution of any plans adopted. From time to time the committee was to inform Congress of the measures taken, transmitting the names and occupations of persons whom it discharged and of any new officers whom it found necessary to appoint. On the following day Congress elected a committee of three to go to headquarters, namely, Schuyler, John Mathews of South Carolina, and Nathaniel Peabody of New Hampshire.[87]

The committee ordered some minor reform in the Quartermaster's Department at Philadelphia and proceeded to headquarters to consult with Greene. Although at first distrustful of the committee, Greene cooperated fully in the efforts to bring about reform.[88] With Schuyler opposed to the reform plan drafted by Pickering and Mifflin, the committee at headquarters dropped it from consideration and formulated a new plan. In mid-June Schuyler returned to Philadelphia to lay the plan before Congress. Realizing the need to avoid any delay, the committee would have placed the plan in operation immediately if it had been authorized to determine the pay of the staff officers.[89]

Congress considered the committee's report from time to time during the next four weeks. Pettit informed Greene that one complaint against the report was that it was too long and could not be understood by the members of Congress, yet he had heard that five or six pages had been added to it. He noted that Congress had come to a decision on salaries, allowing the Quartermaster General 166 dollars a month. "You may look on your fortune as made," Pettit jested.[90]

Finally, on 15 June 1780 Congress approved a revised and, according to Schuyler, much mutilated plan.[91] Reform and retrenchment had been the twin goals established by Congress in January 1779. Now, eighteen months later, their impact was spelled out in this new regulatory plan. Personnel was sharply reduced, leaving an organization that was understaffed. The Quartermaster General was allowed only one assistant quartermaster general, appointed by Congress. The plan authorized the Quartermaster General to appoint an officer with the main army and one for each separate army; they were designated deputy quartermasters rather than deputy quartermasters general.

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87. Ibid., 16:357, 362 (12 and 13 Apr 80). Congress had created the Hide Department in June 1777.

88. (1) The committee ordered the discharge at Philadelphia of 17 carpenters, 1 assistant storekeeper, 1 assistant barrackmaster, his clerk, and 4 messengers. Burnett, *Letters*, 5:121 (committee to Greene, 19 Apr 80). (2) See RG 11, CC Papers, item 155, 1:244–47, 248–50 (Greene to committee, 3 and 6 May 80); item 139, 2:85 (committee to Greene, 5 May 80).

89. (1) Ibid., item 155, 3:527–29 (Schuyler to Pres Samuel Huntington, 17 Jun 80). (2) *JCC*, 17:522–23 (17 Jun 80).

90. (1) Ibid., 17:579–80, 587, 589, 607 (30 Jun and 5, 6, and 12 Jul 80). (2) Greene, *Life of Nathanael Greene*, 2:297–98 (Pettit to Greene, 2 Jul 80).

91. *JCC*, 17:615–33.

Unquestionably, the Quartermaster's Department had more than a few supernumerary officers on its staff by the summer of 1780. Much of the expansion of the department can be attributed to earlier congressional regulations that had applied a uniformity in Quartermaster organization to all military departments regardless of need. In addition, under these regulations every deputy quartermaster general assigned to a district had felt justified in setting up elaborate supporting offices with assistants, clerks, foragemasters, wagonmasters, storekeepers, and laborers.

In pursuit of reform and economy, Congress ruthlessly abolished the existing departmental organization. It abandoned its practice of establishing subordinate Quartermaster organizations in the military departments. Instead, it authorized the Quartermaster General to appoint one deputy quartermaster for each state, but only where he judged the appointment necessary. Each appointment had to be approved by the Board of War and by the executive of the state in which the deputy was to be employed.

At the same time, Congress took cognizance of the fact that the adoption the previous February of the system of specific supplies had affected Quartermaster responsibilities.[92] That system, which made the states responsible for the supply of forage, permitted Congress to eliminate the Forage Department and retain only a small field organization to support the Continental Army. Since the regulatory plan made the state deputy quartermasters responsible for wagon transportation, Congress also abolished the Wagon Department except for a field organization. The Quartermaster General was authorized to appoint one commissary of forage and one wagonmaster for the main army, deputies for each separate army, and such foragemasters, assistants, conductors, clerks, and laborers as were required.

In support of the retrenchment urged by the Treasury, Congress abolished the payment of commissions. This desirable measure was intended to eliminate abuses that at least some critics attributed to all purchasing Quartermaster officers. Admittedly, there were some who had pocketed handsome commissions, but the larger part of Quartermaster personnel had been on a salaried basis since 1775. It is debatable to what extent the increasing expenditures of the department can be attributed to rascally quartermasters who gave higher than necessary prices for supplies in order to garner larger commissions. The depreciating currency and real price inflation stemming from a booming war economy undoubtedly were significant factors.

Congress specified the salaries to be paid the various officers of the department in lieu of commissions. In setting these salaries, however, it did not take into account the inflationary trend of the previous two years.

92. For the system of specific supplies, see below, Chapter 8.

The Quartermaster General was called upon to pay his state deputies according to the duties they performed, but none was to receive more than 134 dollars a month. Formerly a salaried deputy was allowed rations and forage, but this practice was now stopped. The deputy's assistant, also denied rations and forage, was to be paid no more than 75 dollars a month. But even these salaries, which might be described as niggardly, were unlikely to be paid on time. In consequence, after Timothy Pickering became Quartermaster General, he remarked that "if the public keep those they employ (and who must generally depend on their employment for their subsistence) without pay, they will find means to help themselves: and thus a thousand irregularities and abuses are introduced."[93] The deputy quartermaster for the main army was drawn from the line and paid 35 dollars per month in addition to his pay in the line.[94] Congress was so destitute that in April 1780 it requested the states to provide back pay for their lines in the Continental Army and to make up the losses those troops had suffered from being paid in depreciated currency.[95] Nonetheless, Congress was ever optimistic that competent supply officers could be found who would willingly assume onerous duties for very modest rewards. The impact of the reorganization plan of 15 July 1780 drastically reduced both the number of personnel in the Quartermaster's Department and the payroll to support them.

When Congress adopted the new regulatory plan, it resolved to continue Greene as Quartermaster General and directed him to implement its provisions. Greene did not receive a copy of the plan until 26 July, when he promptly resigned. He had intended to continue in office during the active part of the campaign of 1780, provided matters were left on such a basis as to permit him to conduct the business satisfactorily. But Congress now ignored the experience of 1777 and again introduced changes during that time of year when fighting could be expected. Greene viewed the introduction of this new system in the middle of a campaign as a dangerous experiment that would lead to "a physical impossibility of performing the duties that will be required of me." He wrote the President of Congress that the department under the plan would be inadequately staffed; no provision had been made for his two principal officers, Cox and Pettit, on whom he had relied for the conduct of the department's business, and he feared that other subordinates would leave "an employment which is not only unprofitable but rendered dishonorable."[96]

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93. RG 93, Pickering Letters, 82:68 (to Samuel Miles, 7 Aug 81);123:177–80 (to Gov Trumbull, 15 Dec 80).

94. When Maj. Richard Pratt resigned as deputy quartermaster for the main army, he was succeeded by Lt. Col. Henry Dearborn on 30 June 1780. He served until the end of the war. See Fitzpatrick, *Writings of Washington*, 22:286–87 (GO, 30 Jun 80).

95. Ferguson, *The Power of the Purse*, pp. 18–81.

96. RG 11, CC Papers, item 155, 1:399–402 (Greene to Pres of Cong, 26 Jul 80).

During the time the plan had been under consideration in Congress, another controversy had developed between that body and Greene. The issue involved the responsibility of the Quartermaster General. In the course of an interchange of letters between Assistant Quartermaster General Pettit and the Treasury Board, a doctrine—described by Greene as strange, new, and unexpected—had emerged that implied that the Quartermaster General was responsible for the expenditure of public money by his appointees. This view was quite different from that which the Commander in Chief, the committee of Congress, and Greene had accepted at the time of his appointment. He felt himself responsible for calling his subordinates to account but not accountable for them, and he informed Congress and the current committee at headquarters that he would not hold office "on any other footing." He requested from Congress an expression of its views.[97]

In response, Congress resolved on 24 July 1780 that it was "essential to the public interest, as well as incident to the nature of all offices entrusted with the disbursements of public monies, that those who exercise them should be responsible for such disbursement, whether it be made immediately by themselves or by agents appointed by and responsible to them." However, since abuses and frauds might happen despite all customary precautions, Congress "will determine on the circumstances as they arise, and make such favorable allowances as justice may require."[98]

In submitting his letter of resignation to Congress, Greene wrote:

> Systems without Agents are useless things and the probability of getting the one should be taken into consideration in framing the other. Administration seem to think it far less important to the public interest to have this department well filled, and properly arranged, than it really is, and as they will find it by future experience.[99]

His letter was mildly critical, but the use of "administration," which recalled to mind the early days of struggle against the administration in Great Britain, precipitated a storm in Congress that for a brief period appeared likely to sweep Greene out of the Army entirely.[100] Punitive efforts failed, and in the end wiser counsels prevailed.

Appointment of Pickering

Congress accepted Greene's resignation on 5 August and appointed as his successor Timothy Pickering, who had helped draft the regulatory plan of

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97. Ibid., item 155, 1:303–14, 315–25 (Greene to Pres of Cong, 19 Jun 80, and enclosures); 327–30 (Greene to committee, 14 Jul 80).

98. *JCC*, 17:656–58 (24 Jul 80).

99. RG 11, CC Papers, item 155, 1:399–402 (Greene to Pres of Cong, 26 Jul 80).

100. (1) Greene, *Life of Nathanael Greene*, 2:320–21 (Ezekiel Cornell to Greene, 29 Jul 80); 324 (Cox to Greene, 7 Aug 80). (2) William B. Reed, *Life and Correspondence of Joseph Reed*, 2 vols. (Philadelphia, 1847), 2:240–41 (Reed to Greene, 19 Aug 80). (3) Fitzpatrick, *Writings of Washington*, 19:366–70 (to Joseph Jones, 13 Aug 80).

15 July. It gave him the rank of colonel but added the pay and rations of a brigadier general over and above the 166 dollars a month allowed the Quartermaster General under the plan. At Washington's request Greene continued to perform the duties of Quartermaster General until Pickering's arrival at camp on 22 September, seven weeks after his appointment.[101] Pickering was delayed in part by the need to put the new plan into effect and to appoint new officers. By the time he reached camp, Quartermaster preparations for supporting a campaign in 1780 had, for all practical purposes, come to an end, and Pickering was not immediately involved in supplying active military operations. Indeed, only the fact that no campaign was undertaken that summer prevented what might have been dire consequences, for it took Pickering the rest of the year to complete making appointments and reorganizing the department in conformity with the plan.

Pickering did not welcome his appointment, for he judged that little honor was to be acquired from the performance of his duties. He feared, he wrote the President of Congress, that the public might be more likely to attribute any shortcomings in the department to negligence and mismanagement than to "the singular circumstances of our affairs." In accepting the appointment, he hoped that Congress would justly evaluate his efforts.[102]

Staffing the Quartermaster's Department under the new plan posed some difficulties, but Pickering was fortunate when Charles Pettit accepted reappointment in August as assistant quartermaster general. As he had under Greene, Pettit resided near Congress, was responsible for applying through the Board of War to the Treasury Board for needed funds, and kept the accounts of the department. Within ten months, however, he resigned, and Congress followed his recommendation to abolish the post. It called on the Quartermaster General to assume the duties of the office.[103]

Convinced that the need for economy had caused the reorganization of the Quartermaster's Department "after four years wasteful profusion," Pickering acted accordingly.[104] Although Congress had authorized one deputy quartermaster for each state if the Quartermaster General judged this number necessary, Pickering, where possible, grouped states under one deputy. Jabez Hatch was thus appointed deputy quartermaster for Massachusetts, Rhode Island, and New Hampshire, and Donaldson Yeates served in the same capacity for Maryland and Delaware. John Neilson was appointed deputy quartermaster for New Jersey, Ralph Pomeroy for

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101. (1) *JCC*, 17:700 (5 Aug 80). (2) Fitzpatrick, *Writings of Washington*, 20:54–55 (to Pickering, 15 Sep 80).

102. RG 11, CC Papers, item 192, fol. 17 (to Pres of Cong, 7 Aug 80).

103. (1) Ibid., item 155, 1:333–36 (Pettit to Pres of Cong, 9 Aug 80); item 78, 18:395 (same to same, 12 Jun 81). (2) *JCC*, 20:677–78 (20 Jun 81). (3) His line pay plus the amount allowed him as Quartermaster General brought Pickering's salary to 291 dollars a month plus twelve rations per day. Pettit as assistant quartermaster general was paid 166 dollars per month.

104. RG 93, Pickering Letters, 123:118 (to Lutterloh, 21 Nov 80).



NATHANAEL GREENE



TIMOTHY PICKERING

Connecticut, and Richard Claiborne for Virginia. Pickering retained Nicholas Long in North Carolina and returned Hugh Hughes to duties he had earlier performed for Mifflin in New York. In Pennsylvania he appointed Samuel Miles deputy quartermaster, thereby eliminating seven or eight deputy quartermasters general of the previous administration.[105] Each of these appointments had to be approved by the executive of the state in which the officer was to be employed, and the Quartermaster General made a return of such appointments immediately to the Board of War.

Pickering hoped that the credit of the Quartermaster's Department might be recovered by the appointment of men "of the most unblemished Character in whose upright conduct the people could perfectly confide."[106] In view of the depreciation of the currency and the other difficulties that had hampered supply officers, however, it is not surprising that he experienced some difficulty in filling the posts of state deputy quartermaster. In some instances he appealed to the governors for aid. Their aid was not necessarily forthcoming. In Connecticut, for example, Pickering's failure to reappoint Nehemiah Hubbard, who had ably served Greene in that capacity, caused Governor Jonathan Trumbull to comment unfavorably about inconveniences arising from "changes in System during the war."[107] It was January 1781 before the appointment of the deputy quartermaster for Connecticut was made. Five months elapsed after Pickering accepted the office of

105. Ibid., 126:4–5 (to Pres Reed, 10 Aug 80); 7 (to John Mitchell, 11 Aug 80); 24–25 (to Bd of War, 19 Aug 80).

106. Ibid., 126:52–54 (to Jonathan Trumbull, Jr., 7 Sep 80).

107. Ibid., 123:177–80 (to Gov Trumbull, 15 Dec 80).

Quartermaster General before he could complete the appointment of all the state deputy quartermasters.

The Yorktown campaign severely tested the organization that Pickering had set up. It appears that Washington felt that the success of the campaign was too important for him to rely wholly on Pickering and his small staff to transport men and supplies. Washington himself acted as his chief supply officer.

As soon as the campaign ended, economy and retrenchment again became the goals of Congress and also of Superintendent of Finance Robert Morris, to whom Congress had given the responsibility of supplying the Army by using private contractors instead of relying on the states. Under the system of specific supplies the number of posts handling provision and forage furnished by the states had multiplied. With the use of contractors, neither commissaries nor quartermasters were needed to receive and deliver such supplies, and most of the posts that had been functioning in the districts of the state deputy quartermasters could be abolished. This conclusion was reached at a conference late in 1781 attended by the Superintendent of Finance, the Secretary at War, and the Quartermaster General. Pickering issued orders which resulted in the retention of only fourteen posts from Virginia to Massachusetts.[108] An ardent believer in economy, Pickering enthusiastically supported this retrenchment of posts and personnel. He tried to make his actions more palatable to the state deputy quartermasters, whose authority and responsibilities were thus being sharply curtailed, by arguing that "the more the public expenses are reduced, the better they [the deputies] will be supported in their necessary business, and the more punctually paid for their Services."[109]

Complaints of inadequate pay soon were lodged with Pickering. He brought the matter first to the attention of the Board of War and subsequently to that of the Superintendent of Finance. A committee of Congress to whom the matter was referred reported on 7 March 1782 that it was inexpedient to add to the pay or subsistence allowed officers in the Quartermaster's Department. A week later Congress, taking into account the fact that supplying the Continental Army by contract had considerably lessened the business of the Quartermaster General, reduced his allowance from 3,492 dollars per annum—plus rations and other allowances valued at 1,904 dollars per annum—to the same pay and allowances received by a major general.[110]

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108. RG 93, Pickering Letters, 83:96–98 (to Robert Morris, 19 Feb 82).

109. Ibid., 82:119–21 (to Pomeroy, 19 Dec 81). See also 82:229–31 (to Aaron Forman, 13 Dec 81); 113–18 (to Hatch, 18 Dec 81); 83:16–20 (to Hughes, 10 Jan 82); 25–35 (to Claiborne, 16 Jan 82).

110. (1) Ibid., 82:191–94 (to Bd of War, 20 Sep 81); 83:115–17 (to Robert Morris, 22 Feb 82). (2) *JCC*, 22:119 (7 Mar 82); 129–31 (14 Mar 82).



EDWARD CARRINGTON

At the same time, Congress rescinded the power it had previously given to the commanding general of the Southern Army to appoint officers in the Quartermaster's Department serving with his army. This authority was vested in the Quartermaster General, who was now authorized to appoint an additional deputy quartermaster for the Southern Army. This additional officer was to be subordinate to the principal deputy quartermaster of that army, Lt. Col. Edward Carrington. The latter was allowed 75 dollars per month and four rations per day in addition to his pay and subsistence as an officer in the line. The additional deputy received the pay provided in the act of 15 July 1780, that is, 35 dollars per month in addition to his pay in the line.

Before the end of 1782 Congress enacted new legislation, effective 1 January 1783, for governing the department. It continued Pickering as Quartermaster General but further reduced the personnel in his department. It gave him authority to appoint one deputy quartermaster, one wagonmaster, one commissary of forage, and one director and one subdirector of a company of artificers for the main army. He was to appoint a deputy quartermaster, a deputy commissary of forage, a deputy wagonmaster, and a director and subdirector of a company of artificers for the Southern Army. He was also authorized to appoint as many assistants as both armies required to perform the duties of brigade quartermasters, storekeepers, clerks, and wagon conductors. With the approval of the Secretary at War, the Quartermaster General was also to appoint as many assistants to reside in the states as the public service required. The pay scale was further reduced.[111]

111. Ibid., 23:682–86 (23 Oct 82); 693 (29 Oct 82). By oversight, the act omitted any mention of rations. This had to be rectified by an amendment. The pay of the Quartermaster General was now set at 166 ⅔ dollars per month.

Pickering was thoroughly dissatisfied with these arrangements, which, he charged, cut his salary in half, provided inadequate pay for his staff, and lumped under the head of assistants a number of officers whose duties varied widely—from principal assistants in the Quartermaster General's office, to the deputy quartermaster of a state, to a storekeeper responsible for camp equipage and stores. The salary of 30 dollars a month set by Congress was not adequate for the duties they performed and made it impossible for him to retain men of ability and integrity.[112] Hopeful that the law would be amended, he made no new appointments. Congress, however, took no further action before the war ended. By the close of 1782, except for a few assistants in Pennsylvania and New York, the state organizations of the department had virtually disappeared. Responsibilities, organization, and personnel contracted under the impact of continuing financial difficulties. In the closing months of the war Quartermaster personnel employed with the main army dwindled to forty-two, including the Quartermaster General. Pickering himself was eager to be released from his duties, but the necessity to settle accounts and dispose by sale or storage of government property kept him in office for two more years until Congress abolished the office of Quartermaster General on 25 July 1785.[113]

112. RG 11, CC Papers, item 192, fol. 125 (Pickering to Pres of Cong, 4 Dec 82).

113. (1) RG 93, Pickering Letters, 86:60 (to Maj Gen Benjamin Lincoln, 25 Feb 83). (2) RG 94, Estimates of Pay, 103:147 (return, 25 Feb 83). (3) *JCC*, 29:584.

CHAPTER 3

Land Transportation

The American colonies in 1775 were sparsely settled and largely rural in character. Only a few centers of population were large enough to be classed as cities. On the eve of the Revolution main roads connected the principal port towns. All important places in Connecticut, Massachusetts, and Rhode Island were connected by stage wagons. Such conveyances provided transportation between Boston and New York as well. Indian trails across New Jersey had been improved to provide routes between Philadelphia and New York City via Burlington and Perth Amboy or by way of Bordentown and New Brunswick. The existing roads, however, can scarcely be described as providing a good network of communications. They were little more than cleared paths which not infrequently fell into disrepair.

In this day of rapid transportation it is difficult to appreciate the slowness of eighteenth century travel. In 1771 it required two days for a traveler to cover the ninety miles between Philadelphia and New York using the new, improved wagon that an enterprising proprietor with considerable imagination had called "The Flying Machine."[1] Four years later it took Washington ten days to travel from Philadelphia to Cambridge to take command of the Continental Army, although he was delayed by the courtesies extended to him en route. Express riders in the Revolutionary War could cover the distance between Philadelphia and Yorktown only by four to six days of hard riding.

The nature of the terrain accounted for much of the slowness of traveling. South of the flatlands of New Jersey the country widened out into a piedmont cut by numerous rivers that effectively impeded movement unless there was a ferry or a ford upstream. Much of the land was heavily forested, and there were many marshes and swamps. Against this background of inadequate roads and rugged terrain, the movement of troops and supplies had to be accomplished by the Quartermaster's Department.

As the war developed, the Continental Army was on the defensive. The British, by reason of their seapower, could land troops anywhere along the coast; to move inland, they could utilize the bays as well as the tidewater rivers to the fall line or head of navigation. The main Continental army

1. Seymour Dunbar, *A History of Travel in America* (New York, 1937), p. 184.

occupied a central position from which Washington could dispatch support against an enemy thrust in any direction. What Washington called his "line of communications" extended from posts on the Hudson River to Head of Elk on Chesapeake Bay. This line lay just above the head of navigation of the tidewater rivers and was therefore at a distance from possible British landings. Washington moved his forces along this route "to parry the blows of the enemy."[2]

In supporting the main army, the Quartermaster's Department transported supplies along this line of communications, and the Commissary Department and the Forage Department established provision and forage magazines at designated intervals. In consequence, Head of Elk developed into a major transit point and magazine for provisions being drawn from the southern states to support troops coming from that area. Trenton, on the Delaware River, became a major provision magazine for forces moving along the line of communications from Trenton to the Highlands of the Hudson in New York. It early became policy to establish magazines remote from the seacoast and the shores of navigable rivers. The wisdom of this policy was underscored when the British seized stores at Head of Elk as they moved to occupy Philadelphia and when they destroyed supplies at the Peekskill post on the Hudson and at other vulnerable places. Carlisle, York, Reading, Lancaster, Allentown, and other places in Pennsylvania became deposit points from which the Quartermaster's Department transported supplies to support the troops on the line of communications.

The very center of the logistical problems of the Revolution lay in the transportation of men and supplies. The success or failure of the Quartermaster General was in part judged by the ease with which he enabled the troops to take the field and by his ability to keep them supplied during a campaign and after they settled in winter quarters. One of the rare occasions when Washington found the transportation provided for his army satisfactory was in the campaign of 1778. He praised Quartermaster General Nathanael Greene for the "great facility" with which he had enabled the main army and its baggage to move from its winter quarters at Valley Forge in pursuit of the enemy and, after the battle of Monmouth, to march to the Highlands of the Hudson.[3] The prodigious feat of moving French and American forces from the Hudson southward 450 miles to Yorktown to confront Cornwallis, however, required the combined efforts of the Quartermaster's Department, the Superintendent of Finance, the governors of Virginia and Maryland, and a number of line officers who were closely supervised and directed by Washington.

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2. (1) Wright, "Some Notes on the Continental Army," *William and Mary College Quarterly*, 2d ser. 11 (1931): 204. (2) See also Oliver L. Spaulding, *The United States Army in War and Peace* (New York, 1937), p. 50.

3. Fitzpatrick, *Writings of Washington*, 12:277 (to Pres of Cong, 3 Aug 78).

The transportation demands of Washington's army in 1775 required no extensive organization. On 29 July Congress authorized Washington to appoint a wagonmaster general for his army. He selected John Goddard, who earlier in the year had been engaged in carting hogsheads of flints, casks of leaden balls, barrels of linen, and other supplies from Boston to Concord.[4] He was appointed on 9 August, five days before Thomas Mifflin's appointment as Quartermaster General was announced. When Mifflin established his three-unit organization of the Quartermaster's Department to support the three divisions of the main army, Goddard became one of the two wagonmasters in the Cambridge unit. The other two units, at Roxbury and at Winter Hill and Prospect Hill, each employed one wagonmaster.

In 1775 the Quartermaster's Department established the policy of hiring wagons and drivers to provide transportation for the troops. Although Washington instructed Goddard to hire a sufficient number of teams for the service of the army's three divisions, none of the wagons were organic to any specific division. When a division required wagons, Goddard provided them, but only on order of its commanding officer or on order of the Commander in Chief.[5]

Although Washington's transportation needs were modest in the fall of 1775, quartermasters had so much difficulty hiring wagons that impressment appeared to be the only solution. In March 1776, however, when the army fortified the heights of Dorchester, a move that eventually forced the British to evacuate Boston, Mifflin did not need to resort to impressment. He was successful in obtaining a sufficient number of ox teams and carts to deliver entrenching tools, fascines, and hay screwed into large bundles of seven or eight hundredweight.[6] Impressment was again avoided when the troops moved to New York, since the Massachusetts General Court agreed to provide 300 wagons to transport the army's military stores to Norwich, Connecticut. Water transportation completed delivery of the stores to New York. The wagons were allotted to the Commissary of Military Stores and to the Quartermaster's Department. A conductor accompanied each brigade of thirty teams transporting ordnance stores on the march to Norwich. To ensure proper delivery, a wagonmaster and some of the clerks of the Quartermaster's Department accompanied the wagons hauling that department's stores. Washington directed Goddard to institute a procedure for holding each driver accountable for the load he received in order to prevent any losses en route. A clerk recorded each driver's name and place of residence and required a bill of lading for the wagonload. The driver was

4. For Goddard's earlier carting services, see "Extracts from the Account Book of John Goddard of Brookline," Brookline Historical Publication Society, *Publications* no. 15 (1898), pp. 47–53.

5. Fitzpatrick, *Writings of Washington*, 3:411 (GO, 9 Aug 75).

6. James Thacher, *A Military Journal During the American Revolutionary War* (Boston, 1827), p. 40.

obliged to carry with him a copy of this bill of lading; the receiver of the supplies endorsed the back of the copy, thereby converting it into a certificate of delivery. Only by producing this certificate would the driver be paid for his services.[7]

Washington's army experienced no immediate shortage of transportation in New York. However, when the troops were forced to withdraw from Long Island at the end of August 1776, they left behind the wagons, carts, and horses that Quartermaster General Stephen Moylan had provided. Transportation demands then outran supply despite the Quartermaster General's efforts to obtain more wagons. The immediate need to remove stores from New York City to places of safety made the problem acute. Some subsistence, hospital, and artillery stores were hurriedly put on boats and shipped up the Hudson. Demands for wagons to move the army's baggage also increased.[8]

In this emergency the Quartermaster's Department resorted to impressment of wagons and horses in the city and also in neighboring areas. Brig. Gen. Hugh Mercer ordered Clement Biddle to obtain wagons in New Jersey. Since July Biddle had held a congressional appointment as deputy quartermaster general for the flying camp that Congress had established in New Jersey for the defense of the middle states. He had also been functioning in that capacity for the militia of Pennsylvania and New Jersey ordered to rendezvous at Trenton.[9] Biddle impressed about 300 wagons, which arrived at the ferry opposite Fort Washington, New York, on 4 September. At about the same time, under authority of a warrant to impress issued to him by Washington, Maj. Gen. William Heath ordered Assistant Quartermaster General Hugh Hughes to hire, impress, and send to New York City all the wagons and teams that he could obtain in the state.[10]

Need for Organic Transportation

When Mifflin was reappointed Quartermaster General late in September 1776, the congressional committee inspecting the state of Washington's army conferred with him concerning supplies needed by the army. Mifflin promptly demanded the purchase of 200 wagons, with 4 horses each; 50 ox teams, with 2 oxen each; and 50 drays, with 1 horse each. He believed that hired and impressed teams could not be depended upon to move the army's

7. Fitzpatrick, *Writings of Washington*, 4:465–66 (to John Parke, 3 Apr 76).

8. Force, *Am. Arch.*, 5th ser., 2:570–72 (Moylan to Pres of Cong, 27 Sept 76).

9. The flying camp was set up at Perth Amboy, N.J. The appeal Congress sent out for militia to report to the flying camp failed to bring the desired number. Those who did come stayed only briefly, and by the end of 1776 the flying camp had passed out of existence.

10. (1) Force, *Am. Arch.*, 5th ser., 2:183 (Biddle to Heath, 5 Sep 76); 332–33 (Heath to Hughes, 14 Sep 76). (2) Fitzpatrick, *Writings of Washington*, 6:2 (to Heath, 1 Sep 76).

baggage and equipment. He also wanted a wagonmaster and deputy as well as 20 conductors on captain's pay.[11] To each conductor he intended to assign the care of 10 wagons. To man this wagon service he proposed to detail soldiers from the line as wagoners when teamsters could not be hired. Congress authorized an allowance of one-eighth part of a dollar over and above the soldier's regular pay for this extra duty. It also provided Mifflin with 300,000 dollars for procuring the wagons, animals, and other supplies he deemed essential.[12]

Authorization of teams was more easily accomplished than their procurement. The transportation emergency in the fall of 1776 was eased only when the New York Convention came to the aid of the Quartermaster's Department by granting the Quartermaster General or his agents the power to impress in Dutchess and Westchester Counties such horses, wagons, and ox carts as were necessary for the use of the main army.[13]

Even before this crisis developed, Maj. Gen. Charles Lee had stressed the need for organic transportation. Writing from Charleston, South Carolina, where he had been sent to counter the British threat to that port, he recommended on 2 August that Congress make some "regular establishment for wagons." The purchase of one, if not two wagons, for each company of the Continental Army was necessary to permit expeditious movement. He added that "at present it is sometimes as much as impossible to march an hundred miles, although the fate of a Province depended upon it, as if the soldiers wanted legs."[14]

Congress seemed persuaded of the need. Early in December 1776 it directed the Board of War to purchase immediately ten or twelve covered wagons for the Artillery. Later that month it called for better regulation of the wagons in the Northern Army; Congress allowed two wagons to each company on a march, and one wagon to the colonel, one to the lieutenant colonel and major, one to the staff of a regiment, and one to the director of the hospital. Each wagon was to be drawn by two horses, except for the wagon allowed the colonel, which was to be drawn by four horses.[15]

Despite Washington's preoccupation with the need to infuse new courage into his army after its dismal retreat through New Jersey, he also was giving some attention to the transportation problem. Convinced that the great loss of supplies in 1776 had resulted from a lack of teams, Washington informed Congress on 20 December that he intended to have Mifflin provide each of his regiments with a sufficient number of wagons to enable the troops

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11. Apparently Goddard had ceased to function as wagonmaster general long before the fall of 1776, for the records reveal no further evidence of his activities.
12. *JCC*, 5:839–40 (2 Oct 76).
13. Force, *Am. Arch.*, 4th ser., 3:264 (22 Oct 76).
14. Ibid., 5th ser., 1:720 (Lee to Bd of War, 2 Aug 76).
15. *JCC*, 6:999, 1051–52 (2 and 30 Dec 76).

to move "from place to place differently from what we have done, or could do, this campaign."[16] When the main Continental army settled into winter quarters at Morristown in January 1777, Washington announced in General Orders that 1 wagon with either 4 horses or 4 oxen would be allowed to 80 men. Two weeks later, on 31 January, he directed Mifflin to provide as many wagons as each battalion needed for its baggage, ammunition, and entrenching tools. He wanted the manufacture of special ammunition carts, and he suggested the production of light, strong, covered "chaises marine"—two-wheeled wagons—to carry artillery and regimental ammunition. His emphasis was on lightweight vehicles, for he did not want his army encumbered with heavy and unwieldy wagons.[17]

Manufacture of Wagons

In the winter of 1776–77 Mifflin turned his attention to the manufacture of ammunition wagons. Early in March 1777 he assured Washington that the ammunition wagons were coming in fast and that production of other types of wagons was well under way. Assistant Quartermaster General Hugh Hughes had advised Washington that 50 four-horse wagons being made at Pomfret, Connecticut, and 50 two-horse wagons being constructed at Fishkill, New York, would be ready by 1 April. Another 65 wagons would have to be contracted for, Hughes wrote, unless a company of wheelwrights could be raised at Peekskill to undertake the work. There was a possibility, however, of getting 20 to 30 built at Providence, Rhode Island. Since those undertaking production of the wagons looked to the Quartermaster's Department for the considerable amount of iron that was required, he had ordered about 30 tons brought from Hackensack, New Jersey, to Peekskill.[18]

Washington continued to supervise closely the preparation of wagon transportation. On 13 March, in planning a greater coordination of Continental Army forces, he warned Mifflin that his estimate of regiments in the Eastern and Southern Departments was too low and therefore his calculation of wagons and horses would necessarily have to be increased. Moreover, he noted that brigade wagons for carrying entrenching tools had been omitted from the estimate. These should be made, he instructed Mifflin, so that they could be locked to provide better security for the tools.[19]

In addition to receiving wagons produced under contract, the Continental Army from 1778 onward could also depend upon getting wagons

16. Fitzpatrick, *Writings of Washington*, 6:406 (to Pres of Cong, 20 Dec 76).
17. Ibid., 7:9 (GO, 14 Jan 77); 83 (to Mifflin, 31 Jan 77).
18. Washington Papers, 42:116 (Mifflin to Washington, 9 Mar 77); 40:81 (Hughes to Washington, 3 Feb 77).
19. Fitzpatrick, *Writings of Washington*, 7:283–84 (to Mifflin, 13 Mar 77).

produced by the Regiment of Artillery Artificers. Early in January 1778 Washington asked Brig. Gen. Henry Knox how many ammunition wagons could be made by the Artillery Artificers. The answer would enable the Quartermaster General to regulate wagon procurement accordingly. Knox indicated that the Artillery Artificers would not only prepare the traveling forges but would also make the covered ammunition wagons. He expected the Artillery Artificers at Carlisle and at Springfield, Massachusetts, to make about 200 of these wagons by spring.[20]

Although the Artillery Artificers made the wagons needed by the Artillery, the Quartermaster's Department procured the horses required for pulling the wagons and fieldpieces. In preparing for the campaign of 1778, Knox estimated that the Artillery would need 1,049 horses. He listed 106 fieldpieces requiring an average of 4 horses each; 50 ammunition wagons needing 5 horses each; and 60 ammunition wagons—for the spare ammunition—using 6 horses each. In response to an inquiry from Washington, Knox reported that he had given Deputy Quartermaster General Henry Lutterloh an estimate of the horses and harnesses that he required. This procedure was followed during the remaining years of the war.[21]

Estimates of horses and wagons needed for the next campaign were customarily prepared shortly after the troops went into winter quarters. The Quartermaster's Department then initiated contracts for wagons, and the Artillery Artificers began their production. At that time, too, Army wagons were repaired. Under Quartermaster General Greene's direction, subordinates sent in reports on the number of wagons with the various divisions of the Continental Army, tabulating those fit for service, those unfit and not worth repairing, and those that could be repaired by using parts from irreparable wagons.[22]

Establishment of the Wagon Department

During the campaign of 1776, the transportation duties of the Quartermaster's Department expanded greatly, yet there was no parallel development of an administrative organization within the department to direct these activities. The burden rested on the Quartermaster General or, in his absence, on the assistant quartermaster general. Washington thought the department ought to be "eased of part of the load which is at present thrown

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20. Washington Papers, reel 46, ser. 4 (to Knox, 8 Jan 78, and Knox to Washington, same date). For the Regiment of Artillery Artificers, see Chapter 11.

21. (1) Ibid. (2) See also Papers of Henry Knox, RG LM-39, reel 8 (Pickering to Knox, 12 Feb 82, and reply, 13 Feb 82), National Archives.

22. RG 11, CC Papers, item 173, 4:185, 187 (Greene to Hay, 26 Feb 79, and to Capt John Starr, same date).

upon it." Quartermaster General Mifflin too often had to act "entirely out of his proper line."[23]

Mifflin included a provision for the creation of a subordinate Wagon Department, headed by a wagonmaster general, in his plan for the reformation of the Quartermaster's Department which Washington submitted to Congress in March and which emerged as a regulation on 14 May 1777. The language of the resolution was none too clear, but Congress authorized the Quartermaster General to appoint a wagonmaster general, as well as a wagonmaster for each military department. Actually, this last officer in practice was called a deputy wagonmaster general. The deputy quartermaster general's office in the Northern Department employed a deputy wagonmaster general as well as five wagonmasters.[24] A deputy wagonmaster general was also appointed in the main army. These officers received all horses, oxen, wagons, and carts that the Continental Army required, but they could neither purchase nor hire them without the express order of the Commander in Chief, the commanding officer of the military department, the Quartermaster General, or the deputy quartermaster general of a military department. The regulation establishing the Wagon Department remained in effect until 1780, when Congress drastically reorganized the Quartermaster's Department following the adoption of the system of specific supplies.

Obtaining an able officer to direct the work of the Wagon Department posed difficulties. As early as January 1777 Washington had advised the President of the Continental Congress that he was looking for a qualified person to serve as wagonmaster general. His search ended in failure, and he turned to Mifflin in the hope that he would have better success in filling this important post. Finally, on 14 May, he announced the appointment of Joseph Thornbury as wagonmaster general of the Continental Army.[25] About a month later Congress, which was still inclined at this time to attach rank to staff positions, gave Thornbury the rank of a lieutenant colonel. It provided no rank for enlisted wagonmasters serving with the Army. On 22 August Washington ordered that they were not to assume the title of captain or major, as apparently they had began doing, but were to be known as division or brigade wagonmasters.[26]

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23. Fitzpatrick, *Writings of Washington*, 7:65 (to Pres of Cong, 26 Jan 77).

24. (1) *JCC*, 7:357–59 (14 May 77). Congress set the pay of the wagonmaster general at 75 dollars a month and that of a wagonmaster or conductor at 40 dollars a month. (2) RG 11, CC Papers, item 173, 1:269–70 (personnel list, June 1780).

25. (1) Fitzpatrick, *Writings of Washington*, 7:65 (to Pres of Cong, 26 Jan 77); 36 (to Capt Edward Snickers, 19 Jan 77); 303–04 (to Mifflin, 19 Mar 77); 8:60 (GO, 14 May 77). (2) Washington's first candidate for the post refused on the grounds of advanced age, the second died before the letter offering the post arrived, and the third declined on the grounds of ill health.

26. (1) *JCC*, 8:476 (18 Jun 77). (2) Fitzpatrick, *Writings of Washington*, 9:122 (GO, 22 Aug 77).

Since Mifflin resigned on 8 October and then refused, despite Congress' orders, for all practical purposes to function as a caretaker Quartermaster General in the winter of 1777–78, an adequate Wagon Department failed to materialize. Thornbury served only seven months and left no impress on the department. Deputy Quartermaster General Lutterloh tried, but without success, to provide the wagons needed by the main army. The breakdown of transportation was such, according to the congressional committee writing on 12 February from Valley Forge, that "almost every species of camp transportation is now performed by men, who without a murmur, patiently yoke themselves to little carriages of their own making, or load their wood and provisions on their backs."[27]

Procedures and Abuses

The many General Orders issued by Washington during 1777 illuminate both the procedures and the abuses practiced in the Wagon Department. Shortly after Congress adopted its first regulatory plan for the Quartermaster's Department, Washington, on 8 June, directed the Quartermaster General to settle with the brigadiers the proper allowance of wagons for their respective brigades. He was to furnish the wagons to make up any deficiency immediately.[28]

The Commander in Chief soon directed that the wagonmaster general receive a copy of at least that part of the order of march that related to his department. Washington advised him not to quit the encampment from which the army was to move until the wagons were in motion and the wagonmasters were with their assigned brigades of wagons. He expected the wagonmaster general and his deputies to see that a suitable distribution of forage was made and that horses were properly fed and managed. He charged that the carelessness of the wagonmasters in feeding and managing the horses had caused great numbers to founder and die.[29] Washington directed that wagonmasters give strict orders to the wagoners forbidding their riding army horses too hard, regardless of the circumstances. Offenders were liable to immediate punishment by order of any commissioned officer who saw them. He instructed wagonmasters to permit no women to get into the wagons unless they had authorization in writing from the brigadier. When men fell sick on the march, they were not to be put into heavily loaded wagons but were to be left to be taken by empty wagons which were to follow in the rear.[30]

Washington's orders directed that on all marches the wagonmasters

27. RG 11, CC Papers, item 33, pp. 128–39 (to Pres of Cong, 12 Feb 78).
28. Fitzpatrick, *Writings of Washington*, 8:202 (8 Jun 77).
29. Ibid., 8:348, 498 (4 and 29 Jul 77).
30. Ibid., 8:348–49, 412–13, 456 (4, 15, and 23 Jul 77).

were to restrain the wagoners from seizing or destroying fences, grain, or grass unless these items had been appropriated by the Quartermaster General or his deputy so that owners might receive restitution. In this instance, as in others, orders were not executed, for in less than three weeks the Commander in Chief had to reiterate that wagoners were to stay with their horses to prevent any damage to corn, flax, or other crops. If damage occurred through their negligence, they would be severely punished.[31] Early in July 1777 Washington directed wagonmasters to see to it that the head of one wagon followed closely on the tail of another when wagons were on the move. But before the end of the month he observed that wagonmasters often were not with the wagons committed to their charge and permitted them to proceed in a straggling, disorderly state. It was their duty, he repeated, to be constantly with the wagons, riding back and forth to see that they moved in good order.[32]

There was an almost constant emphasis on the need for officers and men to divest themselves of unnecessary baggage. The experience of the last campaign, Washington observed in May, had abundantly shown the "absurdity of heavy Baggage" and the disadvantages resulting from it. On a day of battle the baggage wagons were to be driven off the field. When he received intelligence that enemy troops were readying themselves for action, Washington in September again "strictly enjoined" officers and men to pack up and send off all spare baggage until the battle was over. Since a "very imperfect obedience" had been paid to earlier orders, he now became more specific and ordered that "officers should retain their blankets, great coats, and three or four shifts of under cloaths, and that the men should besides what they have on, keep only a blanket, and a shirt a piece, and such as have it, a great coat." All trunks, chests, boxes, other bedding, and clothes were to be sent off in the baggage wagons. He hoped that no one would have "so little sense of propriety" as to deem this measure a hardship. It would be folly, he pointed out, to hazard the loss of the army's baggage for the sake of "a little present convenience." As the next year's campaign approached, Washington was still wrestling with the baggage problem.[33]

The detailed attention that Washington felt obliged to give to the Wagon Department makes clear that Thornbury was an ineffectual wagonmaster general. That there was a need for improvement was emphasized also in suggestions offered by Deputy Quartermaster General Lutterloh, who headed the Quartermaster's Department in camp while Mifflin lingered at Reading and Philadelphia in the fall of 1777. Lutterloh observed that "wherever our Baggage marches the Soldiers and Waggoners plunder all houses & destroy every thing." He pointed out that it was the duty of the

31. Ibid., 8:349, 446 (4 and 21 Jul 77).
32. Ibid., 8:348, 498 (4 and 29 Jul 77).
33. Ibid., 8:129 (26 May 77); 9:181, 192–93 (5 and 7 Sep 77); 11:161–62 (27 Mar 78).

wagonmaster general or his deputies to prevent such actions. Either the wagonmaster general or his deputy ought always to remain with the army, for it was his duty to keep the wagons and wagonmasters in order on the march. At the end of the year Lutterloh again stressed that it was the responsibility of the wagonmaster general to supervise his subordinates. He wrote that the wagonmaster general should examine the condition of the teams by going himself to the divisions and having the wagons and horses paraded for that purpose, and that he should discipline wagoners who neglected their animals or who were absent without leave. This discipline, Lutterloh held, would prevent many excesses and robberies. All wagonmasters and conductors, he declared, should be ordered to see that their horses were well fed and cleaned, for their neglect of the animals had vastly increased expenditures for horses.[34]

Appointment of James Thompson

Washington fully appreciated the need for reform in the Wagon Department. Apparently there had been no wagonmaster general with the main army for some time, for early in 1778 he advised the committee of Congress sent to the camp at Valley Forge that a wagonmaster general was a necessary officer. There would be a great saving to the public, he maintained, if the duties of the office were discharged by an active, careful man, who would make "a judicious choice of deputies, and not be himself above his business, as has been the case with most of those heretofore in this line. They have been apt to indulge fantastical notions of rank and importance; and assume titles very inapplicable to their stations." For the future he wanted no rank allowed to any of them "from the highest to the lowest."[35]

Although Washington asserted that he had no wagonmaster general, he did at the time have an officer, James Thompson, acting in that capacity. No information has been uncovered on his background; it is not known whether he had served as a deputy in the Wagon Department with the main army or how and by whom he was appointed. Thompson wrote that he assumed the duties of acting wagonmaster general on 22 December 1777. At that time he found no account books of any kind in his office, and no returns had been made to the Wagon Department of personnel appointed by the deputy quartermasters general. In consequence, he was unable early in 1778 to provide the committee of Congress at Valley Forge with a list of all personnel in the Wagon Department. The best he could do was to submit a return of such personnel with the main army.[36]

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34. Washington Papers, 56:120 (postscript to missing letter, Lutterloh to Washington, 19 Sep 77); 63:117 (Lutterloh to same, 25 Dec 77).
35. Fitzpatrick, *Writings of Washington*, 10:390–91 (to committee, 29 Jan 78).
36. RG 11, CC Papers, item 155, 1:385 (Thompson to committee, 4 Feb 78).

When Maj. Gen. Nathanael Greene became Quartermaster General in March 1778, he retained the services of James Thompson as wagonmaster general. He served ably in that capacity until the reorganization of the Quartermaster's Department in 1780. By that time the Wagon Department had expanded to include personnel not only with the main army and in the military departments but also with the offices of at least some other deputy quartermasters general assigned to districts. In addition to the wagonmaster general, there were 11 deputy wagonmasters general; 108 enlisted wagonmasters, 3 wagonmasters taken from the line, and 2 hired civilian wagonmasters; 256 enlisted wagoners, 104 wagoners taken from the line, and 272 hired civilian wagoners; as well as 45 hired packhorsemasters and 26 hired packhorsemen. All were employed on salary; in 1780 the monthly payroll amounted to 72,371 dollars.[37]

Proposals for an Enlisted Wagon Corps

Providing enough wagoners was a critical problem. Mifflin had hired civilian wagoners in 1775; in the fall of 1776 he proposed that whenever a sufficient number could not be hired, soldiers be detailed from the line. When the 1776 campaign ended, Washington, in January 1777, directed the Quartermaster General to hire wagoners from among the inhabitants and not employ soldiers. The following month he added that other wagoners and drivers were to be engaged specifically for the Artillery. He ruled that all such persons would be considered in actual service during their time of engagement and would be thereby excused from duty in the militia.[38]

Mifflin, however, was not successful in hiring civilian teamsters and had to use soldiers. Washington lamented that this action weakened his army's strength, but there was no other solution. When Maj. Gen. Israel Putnam refused to detail soldiers to act as teamsters for the Artillery, Washington in July 1777 overruled him, pointing out that it would never do to convert into wagoners artillerymen who were so much needed with their fieldpieces. Other soldiers, he argued, could be spared more easily for this service. He therefore ordered Putnam to detail to the Artillery the required number of soldiers qualified to be wagoners. Concluding that the Quartermaster's Department was abusing the authority granted to it to take wagoners from the line, Washington put a stop to the practice in January 1778, but he had to reverse his position during the campaign of that year.[39]

Some officers in the Quartermaster's Department had proposed solutions to the problem of obtaining wagoners. When Mifflin was absent in

37. Washington Papers, 161:77 (Memo of Estimate of Expenses of Quartermaster Generals's Dept, 1780).

38. Fitzpatrick, *Writings of Washington*, 7:77 (GO, 29 Jan 77); 143 (GO, 13 Feb 77).

39. Ibid., 8:451–52 (to Putnam, 22 Jul 77); 10:309 (to Lutterloh, 15 Jan 78).

Philadelphia in 1776, Assistant Quartermaster General Hughes was left to administer the department. By the end of that year he concluded that detailing soldiers from the line to serve as wagoners was both unsatisfactory and wasteful. He proposed to Washington that teamsters be enlisted for a period of at least a year. The result would be better care of teams and wagons. As long as teamsters were detailed from the line and knew they could return to their regiments when they chose, they felt, he argued, no responsibility for their teams. The consequent lack of care given to the horses, Hughes pointed out, rapidly diminished their usefulness.[40] No response came from Washington, who at the time was engrossed in the campaign.

A year later Deputy Quartermaster General Lutterloh also suggested reform. All the ruin of the Continental Army's horses, he charged, stemmed from the practice of engaging teamsters for short periods of time. He proposed to enlist them for the duration of the war, grant them the same clothing provided to soldiers, and enforce the wearing of a "plate" on the breast with such identifying markings as U.S. Wagoner for Stores, for Commissary, for Forage, for Artificers, or for Division.[41]

Although Lutterloh's suggestion did not result in the formation of a teamsters corps enlisted for the duration of the war, a report in the summer of 1778 showed the names of some 200 wagoners with the Army, some enlisted for 3 years, some for 1 year, and a few for 6 months. The latter did not receive any clothing.[42] The difficulty of obtaining teamsters led Washington to authorize Quartermaster General Greene to direct the wagonmaster general or his deputies to enlist wagoners from the militia then in service. On the recommendation of James Thompson, Washington also ordered that all soldiers discharged from the hospital by the Director General or surgeons and judged unfit for camp duty were to be sent to the Quartermaster General, who was to employ as wagoners those who were fit for this duty.[43] Considering the hard duty performed by wagoners, it is doubtful that many were obtained from this source.

As preparations for the campaign of 1779 were being made, Thompson surveyed conditions in his department. He found that most of the Continental teams with the Continental Army were still being driven by wagoners taken from the line. Like his predecessors, he thought this practice would be fatal to many teams. Men from various parts of the country had been enlisted as wagoners for a year, as Hughes had suggested in 1776, but a year's enlistment was so short that it expired just as the wagoner had learned his duties. Moreover, the greater inducements offered for enlisting in the line prevented the

40. Force, *Am. Arch.*, 5th ser., 3:1475–76 (Hughes to Washington, 29 Dec 76).
41. Washington Papers, 63:117 (Lutterloh to Washington, 25 Dec 77).
42. RG 11, CC Papers, item 173, 4:353 (return, August 1778).
43. (1) Fitzpatrick, *Writings of Washington*, 12:290 (GO, 7 Aug 78); 13:248 (GO, 12 Nov 78). (2) Greene, *Life of Nathanael Greene*, 2:409 (Greene to Washington, 11 Nov 78).

Wagon Department from obtaining reenlistments. Thompson therefore proposed that wagoners be enlisted for the duration of the war and be offered the same bounty that soldiers were given.[44]

General Greene considered the duty of a wagoner both laborious and disagreeable, and he had observed that wagoners were often subjected to abuse from officers of the line who mistakenly thought anyone had a right to correct a wagoner. The bounty then being given, that is, a suit of clothes, plus wages which amounted to 10 pounds a month did not attract teamsters. They could get easier and more agreeable work in the civilian market, where merchants offered 16 to 20 pounds a month. Greene recommended to Washington that wagoners be enlisted for the duration of the war and that, in addition to the usual bounty given to men enlisted as soldiers, they be given the same wages that merchants offered to wagoners engaging for annual service. The cost of this bounty, he admitted, was considerable, but the expense of undertaking annual enlistments and supporting wagon conductors engaged in wagoner recruitment was equally so. Moreover, the department was currently always distressed by its lack of wagoners and the uncertainty of recruitment.[45]

In forwarding this proposal to the Committee of Conference, Washington merely stressed granting the bounty. Considering the "high encouragements" wagoners already had, however, he "was not sanguine of success." Concerned about the wagon service, Greene sent Wagonmaster General Thompson to Philadelphia to provide any information that the committee or Congress might require.[46] On the basis of the committee's report, Congress on 16 March 1779 authorized the Commander in Chief to enlist wagoners for the duration of the war in such numbers as he judged necessary. In addition to receiving the existing monthly pay, clothing, and subsistence allowed to wagoners, men enlisting as wagoners were to receive the same bounties granted to volunteers enlisting in Continental battalions for the entire war. Congress also directed the Quartermaster General to establish regulations for this corps of wagoners, appoint a paymaster and muster-master for the corps, and make a return of the names of wagoners to the Board of War.[47]

Greene was distressed by these resolutions, which offered so much less in inducements to wagoners than what he had proposed and left him no leeway to bargain for their services. Fixing the wages of the wagoners at 10 pounds per month, as the resolutions did, was wholly inadequate, he informed Washington, for no man could be engaged for that pay. Given the fluctuating state of the country's money, no one would engage for a long period unless

44. APS, Greene Letters, 4:100 (to Greene, 24 Feb 79).
45. RG 11, CC Papers, item 173, 4:177–80 (Greene to Washington, 24 Feb 79).
46. (1) Ibid., item 155, 1:107 (Greene to James Duane, 9 Mar 79). (2) Fitzpatrick, *Writings of Washington*, 14:158 (to committee, 27 Feb 79).
47. *JCC*, 13:320–21 (16 Mar 79).

the terms of his pay were linked to changes in the buying power of the currency. What Greene had sought was flexibility to adjust the wagoners' wages to those that teamsters were getting for annual service in the civilian market.

The appointment of a muster-master and a paymaster for the wagon service, Greene continued, was impossible. The wagoners had such varied duties, he argued, and they were generally so detached that they could not be mustered and paid in the way directed by Congress without the appointment of as many deputies as there were divisions in the army in which the wagoners might serve. This expense would be useless and unnecessary. In the past the names of all wagoners and the time and conditions of their enlistments were registered in the wagonmaster general's office. The abstracts for payments were made out by the wagon conductors and presented to the wagonmaster general for inspection; if they were correct, he wrote orders requesting payment on the abstracts. The auditor of accounts in the Quartermaster office examined the abstracts and approved them for payment if he determined them to be correct. The wagonmaster general, Greene argued, was the best judge of the qualifications of wagoners and consequently the best judge of their fitness for service. On 24 March Washington forwarded Greene's recommendations for amendment of the resolutions to Congress and hoped for "an early determination."[48]

On 17 April 1779 Congress repealed its earlier resolutions. It then directed the Commander in Chief to enlist a competent number of wagoners for nine months or for the duration of the ensuing campaign. It further directed that the enlisted wagoners were to receive a suit of clothes as a bounty and no more than 40 dollars per month. The Quartermaster General was to establish such regulations for the conduct, mustering, and pay of the wagoners as the Commander in Chief judged expedient and approved. These regulations and the number of wagoners enlisted were to be reported from time to time by the Quartermaster General to the Board of War.[49] The hope of a wagon corps enlisted for the duration of the war was lost, never to be revived again during the Revolution.

So little time now remained before the opening of the campaign that Greene appealed for Washington's instructions. For Washington's consideration, he enclosed an estimate of the number of wagoners that would be required—a total of 1,071.[50] The reduced state of the main army made it im-

48. (1) Washington Papers, 101:62 (Greene to Washington, 24 Mar 79). (2) Fitzpatrick, *Writings of Washington*, 14:289–90 (24 Mar 79).

49. *JCC*, 13:467–68 (17 Apr 79). On 13 April the Board of War had brought in a report on Greene's letter. Congress agreed to part of it, postponed another part, and recommitted a third part. See 13:444.

50. The breakdown of Greene's estimate of 1,071 wagoners was as follows. Each brigade had 4 regiments, each of which had 4 wagons. Each brigadier general was allowed one wagon.

possible for Washington to furnish that many wagoners from the line. There was no alternative but to engage as many wagoners as possible on the best terms that Greene could get. Since the Quartermaster General was going to Philadelphia, Washington on 19 April directed him to report to Congress or the Board of War on this decision and the necessity that dictated it. As a result, on 23 April Congress empowered the Quartermaster General to employ as many wagoners as were needed, upon the best terms that he could obtain, provided they were approved by the Commander in Chief.[51] Congress thereby eliminated its earlier restrictions on the wages of wagoners and, after two months of consideration, left the wagon service about where it was at the beginning of the war.

That the wage proposals of Congress had been unrealistic became evident when the various deputy quartermasters general set to work directing the enlistment of wagoners in the spring of 1779. Nehemiah Hubbard in Connecticut, still attempting to follow the congressional guidelines, indicated that he would allow 60 dollars per month without clothing, or 40 dollars per month plus one complete suit of wagoner's clothes, at the expiration of the nine-month tour of duty if the wagoner could produce a certificate of faithful performance of duty from the quartermaster of the division in which he had served. If men could not be obtained on these terms, Hubbard proposed to raise the pay 10 dollars a month, but the prospects of engaging wagoners in Connecticut appeared to him to be "none of the best."[52]

Wagoners proved so difficult to engage that Deputy Quartermaster General John Mitchell at Philadelphia sent about thirty teams to camp without drivers. Greene ordered that if he sent any more driverless teams, Wagon-

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There was one wagon in each brigade for entrenching tools and another for spare ammunition. Two drivers were allowed for the traveling forges, and each brigade was also allowed 4 commissary wagons and 4 forage wagons, making a total of 29 wagons for each brigade. The 19 brigades of the Continental Army, excluding the Southern Army, required a total of 551 teams. The Artillery needed 230 drivers—one wagoner for each of the 38 fieldpieces and the 38 ammunition wagons for them with the brigades, as well as one driver for each of the 30 fieldpieces in the Artillery Park and the 30 ammunition wagons for them; the Artillery total also included one wagoner for each of the 50 spare ammunition wagons, 8 baggage wagons, 6 commissary wagons, and 20 forage wagons, plus 6 wagoners for the traveling forges and 4 for the wagons of the Artillery Artificers. In addition, the Cavalry and Marechaussee required a total of 28 drivers; the generals and staff of Washington's army required another 47 wagoners. The main army also needed 40 teamsters for the wagons carrying quartermaster stores, 50 for commissary wagons, 60 for the forage wagons, and 20 wagoners for the wagons hauling hospital stores; to this total of 170 wagoners Greene added 10 wagoners for the Corps of Engineers and Sappers and 15 more to drive the wagons carrying the tools and baggage of the artificers of the line. Washington Papers, 104:14–15 (to Washington, 19 Apr 79).

51. (1) Fitzpatrick, *Writings of Washington*, 14:410–11 (to Greene, 19 Apr 79). (2) *JCC*, 14:502–03 (23 Apr 79).

52. RG 93, Misc Numbered Docs 24064, fols. 5–6 (Hubbard to assistant deputy quartermaster general at Danbury, 27 Apr 79).

master General Thompson was to return them to Mitchell for use in Pennsylvania. In mid-June 1779, when the British had already moved against Stony Point and Verplanck's Point on the Hudson, the Quartermaster's Department was still trying to engage wagoners to drive the wagons of Washington's staff and the wagons not attached to any regiment. Such was the shortage that Greene wrote Deputy Quartermaster General Udny Hay at West Point to send all the wagoners employed on the east side of the Hudson to Middlebrook, New Jersey; all business would come to a halt until they arrived.[53] Despite all efforts, there never were enough wagoners hired and, as in the past, men continued to be detailed from the line. In the summer of 1779 Greene proposed to the wagonmaster general that soldiers detailed as wagoners receive half the pay allowed to the wagoners in addition to their regular pay. They were not, however, to draw any clothing from the quartermaster store unless the cost was deducted from their pay.[54]

Wagons on the Supply Lines

Providing wagons and wagoners for the Continental Army in the field was only part of the transportation function of the Quartermaster's Department. Transporting supplies to the troops was equally important and was beset by many difficulties. A major problem was the lack of a good system of roads. Horse-drawn wagons made slow progress over poor roads, and those drawn by ox teams moved even slower. In many areas snow-packed roads in winter brought transportation of supplies to a virtual halt until sleds could be substituted for wagons, and spring thaws caused wagons to become mired in mud.

The Quartermaster's Department early in the war established a policy of using boats wherever possible in lieu of wagons for transporting supplies. With the British Navy on patrol, however, the use of coastal water routes was much restricted, and the bulk of military supplies had to be hauled laboriously in wagons. The poor condition of roads was a contributory cause to the breakdown in transportation that brought such suffering at Valley Forge. So bad were the roads in February 1778 that not a single wagon carrying provisions was able to reach camp. In March the wagons of Berks County in Pennsylvania were constantly employed in carrying flour and forage to the Schuylkill River for shipment by water to camp, for the roads to Valley Forge were still impassable for wagons carrying a full load. As late as the end of April, Col. Benjamin Flower, Commissary General of Military Stores, found the road between Lebanon and Carlisle in such poor condition that wagons carried no more than two-thirds of a load. He called on the

53. APS, Greene Letters, 6:66 (to Thompson, 14 Jun 79); 6:65 (to Cox, same date); 6:69 (to Hay, 14 Jun 79).

54. RG 11, CC Papers, item 173, 2:243 (Greene to Thompson, 2 Jul 79).



SUPPLY TRAIN EN ROUTE TO VALLEY FORGE

Pennsylvania Executive Council to direct the road supervisors to make repairs.[55]

In 1775 the Quartermaster's Department established the policy of hiring wagons and drivers to haul supplies from magazines and posts along supply routes to Army encampments. This policy was continued throughout the war. On orders of the Commissary General of Stores and Purchases, John Goddard—who later that year became wagonmaster general—provided wagons to haul provisions to the troops stationed about Boston. He submitted a weekly return to the Commander in Chief of the number of teams in service and the work they had performed during the preceding week. Because of the scarcity of forage in the area, Goddard, in contracting with wagon owners, called upon them to provide the forage needed by their teams. The prices paid for the hire of wagons took into account the cost of forage incurred by the owners. Often quartermasters detained hired wagons long beyond the time for which the owners had contracted to serve, and their forage supply became exhausted. In that situation the owners resorted to the public forage magazines to feed their teams. Congress formalized this procedure in the

55. (1) *Pennsylvania Archives*, 1st ser. (Philadelphia, 1852–56), 6:252 (Blaine to Pres Thomas Wharton, 12 Feb 78); 450 (Flower to council, 28 Apr 1778). (2) RG 11, CC Papers, item 155, 1:389 (James Young to Lutterloh, 2 Mar 78).

regulation of 14 May 1777; such teams were supplied upon the basis of a written order.[56] Before the wagonmaster signed a discharge, however, he directed the foragemaster to endorse on it the quantity and quality of forage that had been consumed. The cost of such forage was then deducted from the money due the owner. This procedure was retained throughout the war.

Almost from the beginning of the war the Quartermaster's Department encountered trouble with teamsters on the supply lines. As the main army was preparing to move to New York, Washington learned that some drivers had dropped their wagonloads of supplies on the road at Waltham, Massachusetts. He ordered Goddard to see that these supplies were forwarded immediately. This incident undoubtedly occasioned his order that a wagonmaster and clerks of the Quartermaster's Department accompany quartermaster stores to New York.[57] Conductors protected the transportation of ordnance stores to New York. Throughout the war wagoners often abandoned Continental Army supplies on the road in favor of more lucrative employment by sutlers and private merchants, or because payment for their service was not promptly made by the Quartermaster's Department. Early in March 1778, for example, John Chaloner, a deputy commissary of purchases, was much concerned about getting provisions to the camp at Valley Forge. He wrote to James Young, Pennsylvania's wagonmaster general, "I am just now informed that a number of County wagons coming from Lancaster with flour, have laid down their loads on the Horse Shoe road, and gone home, a practice so destructive to the publick weal as this is, I doubt not you will do your utmost to prevent."[58] There were other abuses as well. Brig. Gen. John Sullivan, writing from Albany in May 1776, complained bitterly that "every kind of abuse is practised there that men long versed in villainy could devise." He had discovered that at Stillwater, New York, wagoners had drawn off the pickling brine from a number of barrels of pork to lighten their loads, regardless of the fact that the pork would inevitably spoil before it reached the troops in Canada.[59]

The very methods of operation followed by wagoners on the supply lines produced abuses, as Deputy Quartermaster General Abeel reported in the

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56. The order had to be signed by one of the following: the Commander in Chief, the commanding officer of the military department or of the post where the magazine was located, the Quartermaster General or the deputy quartermaster general of the military department or one of his assistants, or the wagonmaster general or any other wagonmaster. *JCC*, 7:356 (14 May 77); 17:615–35 (15 Jul 80).

57. Fitzpatrick, *Writings of Washington*, 4:465–66 (to Assistant Quartermaster General Parke, 3 Apr 76).

58. (1) *Pennsylvania Archives*, 1st ser., 6:320 (2 Mar 78). (2) When wagoners in the Northern Department refused to carry supplies until their wages were paid, one officer complained to General Schuyler in the summer of 1776 that it was "shameful that publick officers are obliged to give their notes for money on interest to carry on the service." Force, *Am. Arch.*, 5th ser., 1:795 (4 Aug 76).

59. Ibid., 4th ser., 6:502 (to Washington, 18 May 76).

summer of 1778. Some wagonmasters only drove their wagons 9 or 10 miles a day, even though, he asserted, they could easily cover 20. Moreover, if they arrived at a magazine early in the afternoon, instead of cutting straw and drawing their fodder and provisions in readiness for an early start in the morning, they spent the greater part of the next day performing these duties and thus were able to travel only 3 or 4 miles. In addition, they habitually stopped at every tavern on the road. To overcome these practices, Abeel had made agreements with wagonmasters that they would travel a steadily paced 20 miles a day or face having their wages reduced. This was the only way to "compel them to do their duty." Such agreements, he insisted, were easier on the horses, for wagoners who loitered at taverns en route often then moved on "as if the Devil was Driving them." Such a practice ruined good horses, particularly when the wagoners did not give the animals time to cool before feeding them.[60]

Although hiring wagons on the supply lines was considered the most desirable procedure, impressment was resorted to more and more after military operations became centered in the Middle Department. In 1777 the demand for wagons in Pennsylvania by both the state and the main Continental army was so great that the cost of hiring them was forced upwards. To check the rising cost, Congress set a fee of 30 shillings a day for a wagon, four horses, and driver. Quartermasters, however, found it very difficult to hire wagons at this low rate. In December 1777 President Thomas Wharton of the Pennsylvania Executive Council suggested that the state's delegates "hint to Congress" that it allow a wagon owner 45 or 50 shillings per day. In view of the high costs of wagon maintenance, some owners, he added, considered even that price too low, particularly since private merchants offered them 3 and 4 pounds a day. Moreover, not only was the current Continental pay inadequate but owners were not being paid.[61]

In the face of the difficulty in hiring wagons, the Quartermaster's Department resorted to impressment during the campaign of 1777. Impressment, however, aroused resentment, and its repeated use led the inhabitants of Pennsylvania to attempt to conceal their wagons when military press parties were sent out to bring supplies to Valley Forge.[62] Impressment worked particular hardships on those inhabitants who lived close to the camp, for they were repeatedly called upon to furnish wagons and teams. Others, more distantly situated, escaped this burden entirely.

Late in December 1777 the Pennsylvania Executive Council attempted to equalize this burden and make its impact uniform on all the state's inhabi-

60. Letter Book of Col James Abeel, Deputy Quartermaster General, 10 May–10 September 1778 (to Greene, 7 Jun 78), Manuscript Division, National Archives. Hereafter cited as Abeel Letter Book.

61. *Pennsylvania Archives*, 1st ser., 6:116–17 (Wharton to delegates, 20 and 26 Dec 77).

62. Washington Papers, 67:71 (Greene to Washington, 15 Feb 78).

tants. It appointed a wagonmaster in each county, who in turn designated a deputy wagonmaster in each township. The latter was required to report the names of all wagon owners in each township and the number of wagons each owned. Under orders of the state wagonmaster general, county wagonmasters were to call out wagons in rotation so that every wagon owner would be required to perform a tour of duty.[63]

In order to obtain wagons and teams, Continental deputy quartermasters general thereafter had to apply to the state wagonmaster general, for they no longer had authority to impress in Pennsylvania. Unfortunately, they often encountered delays in getting the wagons they requested, particularly if the county wagonmaster happened to be away when the state wagonmaster general's order reached him. At times the county wagonmaster could not get a constable to execute a warrant for bringing in teams after the owners had refused to provide them. Moreover, there was no guarantee that the quota of wagons called for would be filled. Several brigades of wagons coming from Lancaster County, for example, which were each supposed to have not less than twelve teams, went to camp with only seven.[64]

State Wagonmaster General James Young was distressed that his efforts to assist the Quartermaster's Department produced no better results. Even when wagons and drivers appeared, there was no certainty that they would perform their duty. For example, some twenty to thirty wagons came from Northampton County in February 1778 in response to orders of the county wagonmaster. They made one trip for provisions to Head of Elk, and then the wagoners deserted. Young advised Deputy Quartermaster General Lutterloh that he was recommending to President Wharton and the Executive Council of Pennsylvania that a party of militia accompany every brigade sent to camp in order to compel the wagoners to do their duty.[65] By March 1778 Washington had received so many complaints that he requested Wharton to give some attention to the enforcement of the state's wagon law. He did not know, he wrote, whether it was a deficiency in the law or inactivity on the part of the officers executing it that was causing the difficulties. The council assured Deputy Quartermaster General Lutterloh of its support, attributing the lack of wagons not to any unwillingness to cooperate but to the failure of the Quartermaster's Department to pay wagon owners for their services.[66]

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63. *Pennsylvania Archives*, 1st ser., 6:124 (22 Dec 77).

64. Ibid., 1st ser., 6:324–25 (Deputy Quartermaster General George Ross to Col George Gibson, 2 Mar 78).

65. (1) Ibid., 1st ser., 6:320 (Chaloner to Young, 2 Mar 78); 321–22 (same to Biddle, 26 Feb 78). (2) Washington Papers, 68:125 (Biddle to Lt Col John Laurens, 5 Mar 78). (3) RG 11, CC Papers, item 155, 1:389 (Young to Lutterloh, 2 Mar 78); 393 (same to same, 3 Mar 78).

66. (1) Fitzpatrick, *Writings of Washington*, 11:45–48 (7 Mar 78). (2) Washington Papers, 69:43 (Lutterloh to Washington, 10 Mar 78). (3) *Pennsylvania Archives*, 1st ser., 6:352–53 (council to Lutterloh, 10 Mar 78).

Pennsylvania's wagon law was not the only difficulty facing the Quartermaster's Department in the winter of 1777–78. The deputy quartermaster general at Lancaster reported in December that he was hampered in obtaining teams because so many were employed by the militia. Even more detrimental to his efforts to get wagoners was the law governing militia service. Wagon owners offered to furnish their teams and do a two-month tour of duty with the Continental Army provided that they would be excused from militia service. They pointed out that if they failed to appear when called to duty while on service for the Army, they were subject to fines amounting to the cost of providing a substitute.[67]

When Greene became Quartermaster General in March 1778, the need to improve the wagon service demanded his immediate attention. He familiarized himself with the Pennsylvania wagon law, and then, carrying a letter of introduction from Washington, he called on Wharton and the Executive Council of Pennsylvania to propose amendments to the law. In particular, he was eager to obtain exemptions from militia duty for those Pennsylvanians who were employed as wagonmasters and teamsters in the Continental service. On 13 April the council responded that many individuals entered the wagon service for a short time merely to evade the militia law. If the Quartermaster's Department gave a certificate for a regular enlistment, whether of a year or a shorter time, that could be shown to the county lieutenant, he would exempt the individual from the fine. The council proposed instructing the county lieutenants to this effect.[68]

For its part, the Executive Council pressed for a settlement of accounts in cash. Repeated complaints had been made by owners whose wagons had been in Army service that when their accounts were settled they received only certificates showing the amount of money due them instead of cash. This practice, the council pointed out to Greene in May, had a "mischievous effect," rendering service disagreeable and requiring force to draw out the wagons. The use of force only "increases the dislike and sours the mind." Now that Greene was the head of the department, it hoped that this cause of complaint would be removed. Unfortunately, debts contracted by Greene's predecessor could not be discharged by him, but the department, Assistant Quartermaster General Pettit wrote, hoped to pay all current contracts.[69]

These optimistic hopes of 1778 gave way the next year to the harsh necessity of having to operate on credit and defer payments as long as possible. When Deputy Quartermaster General Thomas Chase complained in October 1779 that teamsters in the Boston area refused to cart supplies unless they

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67. Ibid., 1st ser., 6:69–70 (Ross to Col Thomas Jones, 6 Dec 77).

68. (1) Fitzpatrick, *Writings of Washington*, 11:241–42 (to Pres Wharton, 10 Apr 78). (2) *Pennsylvania Archives*, 1st ser., 6:416 (council to Washington, 13 Apr 78).

69. Ibid., 1st ser., 6:483 (council to Greene, 7 May 78); 513–15 (Pettit to Pres Wharton, 16 May 78).

were paid for their work as they did it, Greene could only sympathize with the wagoners: "They have generally been kept so long out of their money that by the time they receive it, it has depreciated one half its value."[70]

In theory, the Quartermaster's Department provided all wagon service on the supply lines needed by the other staff departments. In actual practice, emergencies resulted in exceptions to the rule. When the Commissary Department was reorganized in 1777, Congress specifically provided that the Commissary General of Purchases and his subordinates were to apply to the Quartermaster General or his officers for the wagons, teams, and horses needed in their districts. If at any time, however, it became necessary for them to hire wagons and teams, the prices they paid were not to exceed the rates stipulated by Congress or the Quartermaster General. The Commissary of Hides and his deputies were also specifically authorized to hire or impress wagons for the use of that department.[71]

In emergencies, competition between quartermasters and commissaries for wagons and teams naturally resulted, and prices as a result varied considerably. When Deputy Quartermaster General Udny Hay in New York complained of such a situation early in 1779, Greene pointed out that the commissaries were not under his control, and he could not restrain them, though he agreed that a uniform price would be more satisfactory and less expensive to the public. To this end, he wished that all departments requiring transportation would govern themselves by the price offered by the Quartermaster's Department.[72] Greene could see the problem and urge corrective measures, but he had no authority to enforce them.

As prices rose in 1779, the expenditures of the Quartermaster's Department spiraled upward. Wagon hire for the supply lines became increasingly expensive in all areas. Deputy Quartermaster General Chase reported, for example, that at Boston carting cost 5 dollars a mile, "and if paid would ruin the money entirely." His application to the Massachusetts General Court for assistance, he reported to Greene, had as yet brought him no teams. Deputy Quartermaster General Moore Furman in New Jersey informed Greene that he could get about sixty wagons but no drivers, for they could get higher wages at home.[73]

Congressional Action

In June 1779 the committee of Congress appointed to devise a plan for improving the expenditure of public money by the Quartermaster's and Com-

70. APS, Greene Letters, 4:24 (Chase to Greene, 21 Oct 79).
71. *JCC*, 8:445–46 (10 Jun 77); 9:794–95 (11 Oct 77).
72. RG 11, CC Papers, item 173, 4:129–32 (Greene to Hay, 16 Feb 78).
73. APS, Greene Letters, 7:19 (Chase to Greene, 2 May 79); 41 (Furman to Greene, 7 May 79).

missary Departments brought in a report. Congress thereupon resolved that the Quartermaster General should be empowered to allow 13⅓ dollars, one ration, and forage for one wagon with four horses and a driver per day. If horses were shod at government expense, the cost was to be deducted from the wages. Congress went on to recommend that the states exempt all wagoners from militia duties and any related fines while they were employed in the service of the United States and that the length of time of such service should be considered as their tour of duty in the militia.[74]

When Greene received these resolutions, he wrote to John Jay that such exemptions from militia service and fines would be advantageous to the Wagon Department. He might well have doubted, however, the effectiveness of either state or congressional action in this area. Deputy Quartermaster General John Davis at Carlisle, Pennsylvania, was attempting to send supply wagons to Fort Pitt in the spring of 1779. He had given the enlisted wagoners certificates of service, but these certificates were held to be insufficient by the local authorities, who imposed militia fines. Davis inquired of the Quartermaster's Department if he should pay the fines or whether an order to exempt the wagoners from militia duty could be obtained from the Pennsylvania Executive Council. Without such exemption, he wrote, he could get no drivers. Apparently, lieutenants in the western counties were unaware of the council's action the previous year. Other states were seemingly unaware of the congressional action of June 1779. In August Deputy Quartermaster General Nehemiah Hubbard called the attention of the governor of Connecticut to the congressional resolution; wagoners whom he had enlisted had been drafted by the state for a two-month tour of duty at New London, Connecticut.[75]

If Greene was pleased to have congressional support for exempting wagoners from fines imposed upon them for failure to report for militia duty, he found utterly incomprehensible that part of the resolution that set wages for wagon hire. He argued that it would be impossible to make the regulation effective. The proposed wages, he informed the President of Congress, were far lower than what the Quartermaster's Department was frequently obliged to give. As long as money fluctuated in value, it would be impossible to set wages even in one state let alone in all. The wages given in private business, he pointed out, would always to a large degree govern those which his department had to give.[76]

In the matter of wagon hire, as in other supply functions, the Quartermaster's Department attributed its difficulties to lack of funds. However willing Congress might have been to grant the needed funds, the Treasury

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74. *JCC*, 14:726–27 (14 Jun 79).

75. (1) APS, Greene Letters, 5:47 (Davis to Pettit, 21 May 79). (2) RG 93, Misc Numbered Docs 24065, fols. 17–18 (Hubbard to Trumbull, 21 Aug 79).

76. APS, Greene Letters, 6:98 (to Jay, 20 Jun 79).

could not produce the money in 1779, for it was itself without funds. The continuing depreciation of the currency handicapped supply at every turn.

As the winter of 1779–80 began, Greene had to supply the troops quartered at Morristown while again making preparations for the next campaign. Conditions at Morristown were worse than what they had been at Valley Forge. Deep snow that subsequently melted to turn roads into quagmires prevented the transportation of flour. Only the timely assistance of local magistrates staved off starvation at the camp. Lack of funds hampered all efforts to prepare for the campaign, in which Washington hoped to have French assistance. Deputy Quartermaster General Robert Lettis Hooper, for example, in February 1780 had some wagons at Easton, Pennsylvania, including some assigned to the Artillery Park, but he lacked funds to pay the artificers for doing the necessary repair work.[77] In response to a query in March from Washington, Greene wrote that he was mortified to have to confess that because of insufficient support he was unable to make the preparations necessary for moving the troops southward or for putting them in motion in the northern states. Two months later, lest Washington think that conditions had improved, he reiterated his inability to move the Army. Wagons which he had depended on to provide transportation had been sold by their manufacturers because the Quartermaster's Department had been unable to fulfill the contracts that had been negotiated. Other contracts had simply been left unfinished. Army horses which had been sent into the country to winter and recuperate were starving, and many had perished for want of forage. Even if all the horses had been made fit for service, he wrote, their number would have been insufficient to put the Army in motion.[78]

In the absence of funds, transportation on the supply lines could be accomplished only by impressment. To move a large quantity of flour within four days from Trenton to New Windsor, New York, in June 1780, Washington had to send an impress party under General Knox into the neighboring counties of Pennsylvania and New Jersey. Washington had appealed to President Joseph Reed of the Pennsylvania Executive Council for the use of 250 wagons, but Knox anticipated getting little help from Reed, who had written that the number of wagons in the state was "amazingly diminished." In the past Lancaster County had reported 1,620 wagons; it now had only 370, and other counties had fallen off similarly in the number of wagons reported. The miserable wages allowed by Congress, Reed declared, had caused many farmers to break up their teams. The main reason for the deficiencies of transportation from Trenton, however, was not so much a lack of wagons as a lack of money to pay for them. Assisted by the strenuous

77. Ibid., 1:75 (Hooper to Greene, 27 Feb 80).

78. (1) Fitzpatrick, *Writings of Washington*, 18:157–58 (to Greene, 26 Mar 80). (2) RG 11, CC Papers, item 155, 1:228–31 (Greene to Washington, 2 Apr 80). (3) Washington Papers, 135: 22 (Greene to Washington, 11 May 80).

efforts of Deputy Quartermaster General Furman at Trenton, Knox managed to transport 3,500 barrels of flour to New Windsor.[79]

Changes in the Wagon Department

Confronted with an empty treasury, Congress in the winter of 1779–80 eliminated the use of money in the supply process by devising the system of specific supplies. With conspicuous lack of foresight, however, it failed to provide for the transportation of the provisions to the troops; the states were only to gather their quotas of specific supplies in magazines within their respective borders. It was July 1780 before Congress, after prolonged delay, adopted a new regulatory measure for the Quartermaster's Department which, among other things, corrected that oversight. Under the regulation the deputy quartermaster in each state furnished the means of transportation for all public property in the state. They were also made responsible for keeping proper registers of persons, teams, packhorses, and conditions of service.[80]

Having lopped off the Wagon Department's responsibility for transportation on the supply lines, Congress also dealt with the remaining functions it performed for the Continental Army in the field. It authorized the Quartermaster General to appoint one wagonmaster with the main army and a deputy for each separate army except the Southern Army. The Quartermaster General also was to appoint as many deputies or assistants, clerks, and conductors as the service required. The wagonmaster and deputies were to keep exact registers of all persons and teams employed with the Army, distinguishing between private and public property. Each also had to keep exact registers of all payrolls. The wagonmaster and the deputies were to make returns to the Quartermaster General of all persons, teams, and horses employed, noting where and with whom they served. They were also to record in these returns the number of horses that died, were stolen, or strayed, and the number of harnesses that were lost. The wagonmaster and the deputy in a separate army were to give all the orders for teams from the horse yard and for harnesses from the store. The Quartermaster General was responsible for establishing a horse yard with the main army to receive and issue all the army's horses.

Congress further authorized the Quartermaster General, with the approval of the Commander in Chief or the commander of a separate army, to take officers from the line of the Continental Army to fill these Wagon Department positions. According to Quartermaster General Pickering, this practice

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79. Ibid., reel 67, ser. 4 (Washington to Knox, 21 Jun 80; Reed to Washington, 22 Jun 80; Knox to Washington, 25 Jun 80).

80. *JCC*, 17:623–24, 628–29 (15 Jul 80).

was common in foreign armies. Soldiers could be taken from the line also to serve as conductors. Pickering selected Maj. Thomas Cogswell from the line as the wagonmaster with the main army. Washington announced his appointment on 30 September 1780.[81] As directed by Congress, Pickering also appointed a superintendent of the horse yard with the main army. His staff included an assistant, a clerk, and four hostlers. In addition to keeping an exact register of all receipts and deliveries, he maintained a record of all horses that were sold as unfit for service, that died, or that were stolen, and he made a monthly return to the Quartermaster General.

This organization of the Wagon Department continued virtually unchanged until the end of the war. Only one modification was made. In the fall of 1782 Congress revoked the power it had given to Maj. Gen. Nathanael Greene when he took command of the Southern Army to appoint his Quartermaster officers and vested this authority in the Quartermaster General. He was authorized to appoint one deputy wagonmaster for the Southern Army and as many conductors as were needed.[82]

Distress on the Supply Lines

By the time Pickering assumed the duties of Quartermaster General with the main army in the field in September 1780, all prospects of an allied offensive with the French had vanished "like the Morning Dew."[83] Pickering soon faced the problem of supplying Washington's troops in their winter camps, which stretched from West Point to Morristown. Lack of funds made it impossible for the deputy quartermasters to hire wagons and teams on the supply lines. Some wagonloads of clothing had been lying at Springfield, Massachusetts, since the summer for lack of teams to forward them.[84] Nor were sufficient wagons available to haul provisions, the supply of which continued precarious under the system of specific supplies. Enlistment grievances and the hardships imposed by inadequate clothing and scanty rations caused the troops of the Pennsylvania line to mutiny at Morristown on 1 January 1781, a precedent that others followed.

Unable to hire wagons and teams, the Quartermaster's Department applied to the justices in the counties for assistance in obtaining wagons but failed to get their support in the face of war weariness and the disinclination of many wagon owners to provide further service without pay. Requests to justices for teams to move flour from Ringwood, New Jersey, to New Windsor

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81. (1) For the pay scale Congress set for the department's personnel, see ibid. (2) Washington Papers, 152:121 (Pickering to Washington, 28 Sep 80). (3) Fitzpatrick, *Writings of Washington*, 20:102 (GO, 30 Sep 80).

82. *JCC*, 23:683, 693 (23 and 29 Oct 82).

83. Fitzpatrick, *Writings of Washington*, 19:403, 437 (to Pres of Cong, 20 and 24 Aug 80).

84. Washington Papers, 158:25 (Jonathan Trumbull to Washington, 21 Nov 80); 41 (William Story to Washington, 22 Nov 80).

in the spring of 1781 brought only excuses that the roads were bad, the forage exhausted, and the money lacking to pay the expenses of turning out teams. Even when justices did get teams to report, the number was frequently less than the department had called for. Of 82 double and 75 single teams requested, only 11 double and 17 single teams reported at Ringwood. Washington reluctantly agreed to issue impress warrants to transport the flour.[85]

Under the compelling need to provision the troops, the Quartermaster's Department resorted to dubious methods to move rations to Washington's army. When Deputy Quartermaster Hughes reported in April 1781 that wagoners refused to transport provisions unless part of their money was paid when they picked up the load and the rest when they delivered it, Pickering directed the sale of part of the provisions to defray the cost of forwarding the remainder. This method was liable to abuse, as Washington pointed out, and it was a wretched way of doing business, as Pickering informed Congress, for the army sorely needed the provisions being sold. Washington himself, in his anxiety to provision his troops, turned over to the Quartermaster's Department part of the money sent by the paymaster general of Massachusetts to pay the troops of that state's line. The money was to be used by the department to meet the expenses of transporting to camp flour from New Jersey and salt meat from Connecticut.[86] Such measures, however, were expedients that brought only temporary relief.

Preparations for the 1781 Campaign

If the Quartermaster's Department was unable to provide sufficient transportation to support the troops in winter quarters, it was clearly in no position to make adequate preparations for the campaign of 1781. One of the first actions that Pickering had taken on arriving at camp late in September 1780 to assume his duties was to put a stop, with Washington's approval, to all further purchases of horses and wagons by the Quartermaster's Department. In October Pickering advised Samuel Miles, his deputy quartermaster in Pennsylvania, to inspect all the horses being held in that state that had been acquired for the campaign of 1780. Unfit horses, he directed, were to be sold immediately before the United States was put to any more expense. He was aware that this action would result in a great loss to the government, but it was better, he argued, to give these horses away than to keep them over the winter when neither sufficient forage nor pasturage would be available for

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85. (1) Ibid., 169:51 (Deputy Quartermaster Richard Platt to Lt Col David Humphreys, 29 Mar 81). (2) RG 93, Pickering Letters, 125:89, 97 (to Humphreys, 6 and 10 Apr 81). (3) Fitzpatrick, *Writings of Washington*, 22:504–05 (to Pickering, 26 Apr 81).

86. (1) Washington Papers, 171:23 (Pickering to Hughes, 17 Apr 81). (2) RG 11, CC Papers, item 192, fol. 57 (Pickering to Pres of Cong, 30 Mar 81). (3) Fitzpatrick, *Writings of Washington*, 22:5 (to Pickering, 28 Apr 81); 21–22 (to Pres of Cong, 1 May 81).

their maintenance. By December Pickering confessed himself "distressed beyond measure for the want of funds." He had written repeatedly to Assistant Quartermaster General Pettit at Philadelphia for money particularly for the Wagon Department so that he could pay the wagoners, reenlist them, and send the horses to winter quarters.[87]

In January 1781 Pickering, as was customary, reviewed the transportation situation for Washington. Recalling that Congress had authorized the sale of some horses and the purchase of oxen for the next campaign, Pickering reported that he had sold horses that could not be made fit for useful service. The proceeds, however, were not enough to billet the remaining horses for a month, let alone to enable him to purchase oxen to replace the horses sold. The horses on hand were barely sufficient for moving the fieldpieces, the ammunition wagons, and the wagons of officers who were entitled to them. Later, however, he concluded that the horses being wintered in Pennsylvania, New Jersey, and New England, together with the ox teams that were to be obtained, would provide ample transportation for the army.

Although Pickering thought that an assessment on the states was the only means by which teams could be obtained, Washington, as in the past, directed that they be hired. He overruled a proposal by Pickering that ox teams be used by New England troops, who were accustomed to them, and horse teams by the troops of other states. Washington directed that ox teams be provided for the transportation of common baggage and provisions for his army but that horses be furnished for the use of the Artillery and Cavalry. He approved Pickering's suggestion to furnish two-horse tumbrels for the use of officers and for the transportation of camp kettles. The tumbrels were cheaper and easier to make than wagons. Many officers had been allowed two-horse wagons, but none had ever been provided, and in the past the Quartermaster's Department had been obliged to furnish four-horse wagons instead.[88]

With these instructions, Pickering went ahead with his preparations. Ralph Pomeroy, deputy quartermaster in Connecticut, advertised for ox teams on Pickering's orders. The response was good, but he was obliged to contract for them at a higher price—10 shillings per day—than he had hoped to pay. Pomeroy felt it was advisable to pay this rate since he had learned that there likely would soon be competition from agents procuring teams for the French troops.[89] Pickering intended to obtain all the ox teams in New England except for forty-six that he expected to get in New York and New Jersey. It was the end of April, however, before he asked Deputy Quartermaster Neilson in New Jersey to contract for ox teams. If none could be had, Neilson

87. RG 93, Pickering Letters, 126:125 (to Miles, 4 Oct 80); 123:138–42 (to Pettit, 1 Dec 80).

88. (1) Washington Papers, 162:129–31 (Pickering to Washington, 14 Jan 81). (2) Fitzpatrick, *Writings of Washington*, 21:204–06 (to Pickering, 10 Feb 81).

89. Washington Papers, 169:10 (Pomeroy to Pickering, 25 Mar 81).

was to report on the number of four-horse teams that he could obtain and the terms for hiring them.[90] This request came rather late in the season, as Pickering himself acknowledged, for Washington had set early May as the time for having the teams in readiness.

Pickering had counted on having ready for service sufficient Continental horses, made fit during the winter in Pennsylvania and Connecticut. On the eve of allied operations, however, he found their number disappointing. In January Deputy Quartermaster Miles had estimated that about 1,200 horses were recuperating in Pennsylvania; in June he reported there were only 649. Similar discrepancies showed up in reports from other deputy quartermasters. In consequence, Pickering gave orders to hire four-horse teams, but by mid-July neither Miles in Pennsylvania nor Hughes in New York had reported any success. Many owners of teams that had been employed in the past were reluctant to seek reemployment since their wagons had been worn out. The army had spare wagons, however, and Pickering proposed to furnish each owner of a horse team with a wagon and gears, appraised at their just value, if he would engage for the campaign. The appraised value in effect would be an advance payment to the owner, but Deputy Quartermaster Neilson doubted the efficacy of the proposal.[91]

With the army in motion, Pickering sent an urgent request on 12 July 1781 to Deputy Quartermaster Pomeroy in Connecticut to hurry on the ox teams that he had engaged. He had to have horses, he wrote Deputy Quartermaster Hughes in New York. "I am constrained to do what I ever intended to avoid, *to promise certain payment at a day, when the money was not in my hands.*" This action was necessitated by a call from General Knox for 100 horses to bring the light artillery into the field. While Hughes initiated efforts to hire teams, Pickering, on a warrant obtained from Washington, had Henry Dearborn—the deputy quartermaster with the main army—impress teams immediately. As horses began arriving from Pennsylvania, Pickering suspended this impressment.[92]

When plans for the campaign suddenly shifted focus from an attack on New York to a march against Cornwallis in Virginia, the number of wagons and teams on hand was still insufficient. All the ox teams on both sides of the Hudson had to be collected to supply twenty-four teams to General Knox at the Artillery Park at New Windsor. This action was necessary, Pickering advised Deputy Quartermaster Hughes on 18 August, even if all other business was in consequence suspended. Five days later, with the allied American and French army on the March, Pickering asked Maj. Gen. William Heath,

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90. RG 93, Pickering Letters, 125:207–09 (to Neilson, 30 Apr 81).

91. Washington Papers, 179:97 (Pickering to Washington, 12 Jul 81).

92. (1) RG 93, Pickering Letters, 82:14–15 (to Pomeroy, 12 Jul 81); 22–24 (to Hughes, 14 Jul 81); 29–31 (to Washington, 19 Jul 81); 42 (to Dearborn, 20 Jul 81). (2) Fitzpatrick, *Writings of Washington*, 22:399 (to Pickering, 20 Jul 81).

in command of the American force remaining in New York, for temporary use of the teams with his troops. Since the latter were at a fixed camp, the teams could be spared to transport additional stores—entrenching and artificers' tools, sandbags, clothing, and boats—with the detachment moving south. Heath apparently thought otherwise, and it took an order from Washington the next day to obtain the teams.[93]

Pickering remained in the rear to supervise transportation and to determine the number of wagons to accompany the troops or meet them along the way, although he wrote that he would not "meddle" with the Artillery.[94] Washington, en route to Virginia, also gave attention to the need for wagons. He requested the Marquis de Lafayette, who was already in Virginia, to report on the number of wagons and horses that might be collected in that state for the use of the allied troops. Washington also wrote to Governor Thomas Nelson of Virginia. He informed Maj. Gen. Benjamin Lincoln, then at Trenton, that he had not yet made precise arrangements with Pickering on the number of wagons and teams that were to go from Trenton to Head of Elk. He ordered General Lincoln to make these arrangements, adding that all the covered wagons would be needed in Virginia. To cover any emergency that might arise, Washington issued an impress warrant to the Quartermaster General or the deputy quartermaster with the American detachment, but it was to be used only when absolutely necessary.[95]

Pickering believed that neither wagons nor horses were likely to be obtained in Virginia. Consequently, he decided to send along as many wagons as were necessary to move the troops without depending on the country through which they passed. He informed Deputy Quartermaster Dearborn that Quartermaster stores were being transported in 23 wagons, clothing in 11, boats in 30, and spare provisions in 11, making a total of 75 wagons. Since the boats would only have to be hauled to Head of Elk, where clothing and spare provisions would be distributed, there would be plenty of spare teams and wagons to permit Dearborn to select the best to be sent on to Virginia from Head of Elk. Pickering, who earlier in the troop movement had induced Washington to issue a General Order calling on the officers to reduce the amount of their baggage, still hoped that General Lincoln at Trenton could persuade them to leave behind the "great proportion of their lumber."[96]

Despite the distance to be covered and the broad rivers to be crossed, the troops and their stores, Pickering could report on 3 September, were doing well and moving with unusual rapidity. Even the ox teams were supporting

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93. (1) Ibid., 23:41 (to Heath, 24 Aug 81). (2) RG 93, Pickering Letters, 127:226 (to Hughes, 18 Aug 81); 127:217 (to Heath, 23 Aug 81).

94. Ibid., 82:176 (to Dearborn, 31 Aug 81).

95. Fitzpatrick, *Writings of Washington*, 23:33–34 (to Lafayette, 21 Aug 81); 55–57 (to Gov Nelson, 21 Aug 81); 59–60 (to Lincoln, 28 Aug 81); 62–63 (impress warrant, 28 Aug 81).

96. (1) RG 93, Pickering Letters, 82:166–67 (to Washington, 21 Aug 81); 176–78 (to Dearborn, 31 Aug 81). (2) Fitzpatrick, *Writings of Washington*, 23:37–38 (GO, 22 Aug 81).



HENRY DEARBORN

the march at least as well as the horses. Meanwhile, on 1 September he had directed Deputy Quartermaster Donaldson Yeates of Maryland to be ready to receive and land at Christiana Bridge the stores of the troops who were embarking on that date at Trenton; some 700 tons of stores were to be transported to Head of Elk.[97]

At the end of August the Quartermaster General was still in Philadelphia, but Deputy Quartermaster Edward Carrington of the Southern Army was then at Williamsburg. Under orders from Lafayette, Carrington requested the governor of Virginia to impress wagons for three to eight weeks' service and to provide 100 horses immediately for the French artillery and for the use of French field officers. Although delivery of wagons and horses had been promised, none were on hand when the French fleet of Admiral Francois, Comte de Grasse, arrived. The troops he brought from the West Indies were unable to move for lack of wagons to transport their baggage. To bring them to Williamsburg, Carrington had to make use of wagons already "scantily appropriated to other necessary uses," and their baggage had to stay where it was, subject to accidents.[98]

When Pickering arrived at Williamsburg in mid-September, a scarcity of wagons still hampered operations. The shortage remained so acute that when the allied troops marched to Yorktown, Washington ordered his own baggage wagons to be used for the transportation of ordnance and stores and requested that the wagons of all general, field, and other officers be employed

97. RG 93, Pickering Letters, 82:181–82 (to Hughes, 3 Sep 81); 180 (to Yeates, 1 Sep 81).
98. *Calendar of Virginia State Papers*, 2:401–02 (Carrington to Gov Nelson, 7 Sep 81).

in the same service. The transportation of the heavy artillery and stores from their landing place on the James River six miles to the camp before Yorktown was carried on tediously and slowly until the wagon trains that had been en route overland from Head of Elk arrived during the first week in October.[99]

The closing months of the war saw the Quartermaster General preparing another estimate of the Continental Army's transportation needs, which now had to be cleared with the Superintendent of Finance. Washington had decided that for economic reasons ox teams should be used for the wagons of regimental officers in the campaign of 1782. Moreover, he concluded that purchasing rather than hiring these teams would be more practical, although this decision would have to be made by Robert Morris, the Superintendent of Finance. Pickering submitted his estimate of transportation needs to Morris and noted that funds would be needed for hiring wagoners, since Washington had directed that none be taken from the line.[100]

In authorizing purchase, Morris directed that arrangements should be made for delivery of the ox teams at the time they would be needed for the campaign—that is, about 1 May. Payment of part of the money due would be made on delivery and the rest in two or three months. He instructed the purchasers, however, not to pay high prices just for the sake of credit, since the period of credit would be short and the whole amount due might be paid on delivery.[101]

Pickering sent orders to his deputies in New England, but they were unable to buy teams on credit. The notes furnished by Morris for payment were unacceptable, and until the states paid their taxes, he had no cash. By the fall of 1782 Pickering was directing the disposal of some of the oxen to pay the accounts due for the maintenance of the rest of the animals.[102] The end of the war removed the need to improvise any other measures for supplying the Continental Army with land transportation.

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99. Fitzpatrick, *Writings of Washington*, 23:167 (GO, 2 Oct 81); 186 (to Edward Rutledge, 6 Oct 81).

100. (1) Washington Papers, 191:126–27 (Pickering to Washington, 15 Feb 82). (2) Fitzpatrick, *Writings of Washington*, 23:494–95 (to Pickering, 10 Feb 82). (3) RG 93, Pickering Letters, 82:83 (to Morris, 12 Feb 82); 83:102–05 (to same, 19 Feb 82).

101. Papers of Robert Morris, Letter Book B, fols. 456–57 (to Pickering, 12 Feb 82). Manuscript Division, Library of Congress.

102. RG 93, Pickering Letters, 83:238 (to Washington, 23 Apr 82); 84:185–87 (to Elisha Wales, 7 Oct 82).

CHAPTER 4

Forage Department

If transportation was the crux of the supply problem during the American Revolution, the heart of the transportation problem was forage supply. Without an adequate supply of forage, the supply teams, the regimental wagons, the Artillery, and the Cavalry could not be kept in motion. Yet a scarcity of forage continually plagued the Continental Army. An administrative unit devoted solely to solving the problems of an adequate forage supply did not begin to develop in the Quartermaster's Department until the summer of 1777.

The Quartermaster's Department had a limited responsibility for providing forage to teams bringing supplies to camps and posts. Under contract arrangements, such supply teams were customarily furnished with forage by their owners. In emergencies, or when supply teams were detained at camps by quartermasters for such a long period of time that the owners' forage became exhausted, the Quartermaster's Department provided supplemental forage, deducting costs from the contract. The department was wholly responsible for furnishing forage for the horses of the Cavalry; for horses used to pull artillery pieces, ammunition wagons, and traveling forges; and for the many horses and at times oxen needed for the wagons that hauled regimental baggage, commissary stores, quartermaster stores, hospital stores, and the tools of artificers of the line.

When the war began, the number of animals to be supported was small. The horses of officers comprised most of them, but a scarcity of forage developed almost at once, as the Quartermaster General, who had responsibility for its supply, reported. Washington believed this scarcity was an artificial one, created by persons monopolizing the supply of forage in order to raise prices and profit by the Continental Army's distress. He called upon the Massachusetts legislature to remedy the situation by fixing prices and by compelling sale if necessary.[1]

The request for state price regulation was to be repeated on many occasions during the Revolution. The Continental Congress itself had included the idea of price regulation in the articles of association it had adopted in 1774. Economic regulation was an accepted fact of colonial life on the eve of the Revolution. The introduction during the war of regulatory price con-

1. Fitzpatrick, *Writings of Washington*, 3:455–56 (29 Aug 75).

trols, as well as wage controls, was based on past practice.[2] In time supply officers of the Continental Army themselves were forced to set prices for commodities and wages for artisans.

Supply and Cavalry

Forage demands increased as transportation needs expanded when Washington's army moved to New York. For the first time that army was engaged in a campaign of movement, and the policy of relying on hired teams, provisioned by their owners, failed. The department turned to impressment, but both hired and impressed teams now had to be furnished with forage. It had not anticipated the forage demands of operations involving the movement of large numbers of troops, and it was slow to develop adequate forage magazines. At the direction of the Quartermaster General, purchase orders for hay, oats, corn, and rye flowed from the office of Assistant Quartermaster General Hugh Hughes, but the supply by no means caught up with the demand.[3] Early in July 1776 the forage on hand was only what was absolutely necessary to feed the army's work and artillery horses. In consequence, when Governor Jonathan Trumbull of Connecticut ordered three regiments of horse to New York, Washington had to send word quickly that he would welcome the men if they could be persuaded to leave their horses behind since forage could not be found to support them.[4]

This incident was later used by Charles Francis Adams to support his charge that Washington was ignorant of the importance of cavalry as a military arm. He added that the terrain in New York and New Jersey was especially suited to cavalry action. He further charged that Washington failed to develop a sufficiently large mounted force and that the legion organization used—that is, an organization comprising both infantry and cavalry—was ill-advised.[5] These views have been brought into question and refuted, but little or no attention has been given to the lack of forage as a factor restricting the use of the Connecticut horse.[6] The difficulty of providing ample forage and pasturage in fact would limit any extensive use of the Continental Cavalry in the main army to the end of the war.

The supply of forage remained inadequate throughout the campaign of 1776. In that year the Continental Army had neither cavalry nor transporta-

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2. See Richard B. Morris, "Labor and Mercantilism in the Revolutionary Era," in Morris, ed., *Era of the American Revolution* (Harper Torchbook ed., New York, 1965), pp. 76 ff., for a detailed analysis of mercantilism in the Revolutionary period.

3. Hugh Hughes Letter Books (6 and 12 Apr; 14 May; 22, 25 and 27 Jul; and 6 Sep 76).

4. *Am. Arch.*, 5th ser., 1:124–25 (Washington to Lt Col Thomas Seymour, 8 Jul 76).

5. See Chapter 3, "Washington and Cavalry," in C.F. Adams, *Studies, Military and Diplomatic, 1775—1865* (New York, 1911).

6. (1) Wright, "Some Notes on the Continental Army," *William and Mary College Quarterly*, 2d ser., 11 (1931): 189-92. (2) Frederic G. Bauer, "Notes on the Use of Cavalry in the American Revolution," *The Cavalry Journal* 47 (1938): 136-43.

tion organic to its divisions that had to be supported by the Quartermaster's Department. By the close of 1776 the Cavalry had been organized, and both Washington and Congress were taking measures to provide organic transportation. The forage responsibilities of the Quartermaster's Department increased accordingly. Yet no particular part of the Quartermaster staff had sole responsibility for handling forage supply.

Even after Congress established the Forage Department in 1777, problems in supplying forage remained. Congress had directed that the Cavalry be organized in four regiments.[7] But the difficulty of supporting and equipping the Cavalry was such that it was impossible to bring the four regiments to full strength—it is doubtful whether the regiments were ever at full strength during the war—and by February 1778 the regiments had to be dispersed to separate localities to be supplied with forage. In the following September Congress, because of the great expense and difficulty of supplying forage, questioned whether the Cavalry should be retained with the main army or be dispersed to various states where the horses could be better provisioned.[8]

Washington's correspondence reveals that he fully appreciated the advantages of using the Cavalry, but the supply of forage was not the only limiting factor. Cavalrymen had to be clothed, equipped, and mounted. They needed pistols, carbines, and swords. Some swords were procured from James Hunter's ironworks in Virginia, but carbines and pistols had to be imported. Washington urged the importation of large quantities of horse accouterments from France. Saddles, boots, and other leather articles, he reported in 1780, were of such poor quality that they lasted only for one campaign.[9] Horses suitable for Cavalry service were expensive and not always available. Throughout the war equipping the small Cavalry force continued to be a problem.[10] When Col. Stephen Moylan's Cavalry regiment, for example, was ordered to join the Southern Army after Yorktown, it could not move for lack of horses, accouterments, arms, and clothing.[11] It is doubtful whether the large mounted force envisaged by Adams could have been equipped and supported in the American Revolution.

Increased Demands in New York

When Thomas Mifflin was reappointed Quartermaster General in 1776, the increased demands for forage in New York required his immediate

7. *JCC*, 6:993 (29 Nov 76).

8. (1) RG 11, CC Papers, item 192, fols. 209-11 (Quartermaster Thomson to Lutterloh, 6 Feb 78). (2) *JCC*, 12:905 (11 Sep 78).

9. Fitzpatrick, *Writings of Washington*, 11:322–23 (to Moylan, 29 Apr 78); 18:148–50 (to Bd of War, 25 Mar 80).

10. In establishing the Cavalry in 1776, Congress had proposed a force of 3,000, but in 1780 it numbered only 1,000.

11. Fitzpatrick, *Writings of Washington*, 23:319 (to pres of Pa., 3 Nov 81). See also 17:212–13 (2 Dec 79); 21:189 (to Pickering, 5 Feb 81).

attention. Congress furnished him 300,000 dollars to procure the supplies he had indicated were necessary for the support of the main army. These supplies included, among other items, 25,000 bushels of Indian corn, 15,000 bushels of oats, 10,000 bushels each of rye meal and spelts, and 1,800 tons of hay.[12] Mifflin called upon William Duer, then serving as president of the New York Convention, to purchase forage and deposit it in magazines that Washington thought should be "remote from the North River." Mifflin advised Duer that he would depend on him for all his supplies of grain, hay, and straw. He added that since Congress allowed a commission of 2½ percent on such purchases, he expected Duer to charge that amount. To avert competition, which would cause prices to spiral upwards, Mifflin requested Duer not to send any of his purchasing agents into Connecticut to obtain forage, since he had asked Jeremiah Wadsworth to undertake forage procurement in that state.[13]

That the activities of Duer and his agents did not meet the forage needs of the main army became evident on the eve of the 1777 campaign. Washington had ordered Maj. Gen. Nathanael Greene and Brig. Gen. Henry Knox to examine the fortifications on the Hudson and the conditions at each post. On 18 May Greene advised Assistant Quartermaster General Hughes that all the posts complained of a lack of forage and that some of his deputies attributed this lack to the neglect of Duer's agents. If this charge was correct, Hughes ought no longer to depend on the agents, Greene suggested, but should himself take immediate measures for establishing magazines that could provide a sufficient supply.[14]

First Regulatory Measure

When Congress enacted its first regulatory measure for the Quartermaster's Department on 14 May 1777, it authorized the Quartermaster General to appoint within his department a commissary of forage (subsequently designated commissary general of forage by Washington) for the Continental Army and one for each military department. These commissaries purchased and stored in magazines such quantities of forage as the Quartermaster General or the deputy quartermaster general of any military department ordered, in accord with whatever regulations those Quartermaster officers prescribed. In addition, the commissary general of forage appointed a foragemaster, paid 40 dollars a month, at each magazine, who received all purchased forage and delivered it as directed. The foragemaster gave a receipt for the forage he received to the commissary general of forage, who

12. *JCC*, 5:839–40 (2 Oct 76).

13. Force, *Am. Arch.*, 5th ser., 2:1137, 1252 (Mifflin to Duer, 20 and 26 Oct 76); 1266 (Hughes to a Capt Kierse, 27 Oct 76).

14. Washington Papers, 47:51 (Greene to Hughes, 18 May 77).

then submitted it to the Quartermaster General or the deputy quartermaster general of a military department as a voucher in support of his account. Congress also attempted to spell out in general terms the forage to be allowed to each Continental Army officer.

The regulation further directed the commissaries of forage to make a monthly return to the Quartermaster General or to the deputy quartermaster general of a military department of all their purchases, specifying to what foragemaster and magazine delivery had been made so that the foragemaster could be held accountable. The foragemaster, for his part, could issue only on the written order of the Commander in Chief, the commanding officer of a military department, the commanding officer of the post where the magazine was established, the Quartermaster General, the deputy quartermaster general of a military department, the wagonmaster general, or any other wagonmaster. The foragemaster was to keep an account of all such issues and make a monthly return to his superiors in the Quartermaster's Department, indicating the amount of forage in the magazine at the beginning of the period covered, the quantity received since the last return, the expenditures since that return, and the remainder on hand.[15] Had the records called for been maintained, the status of forage supply at any given time would have been available, but the maintenance of supply records was always haphazard during the Revolution.

On the basis of the congressional regulation, an adequate organization for handling forage supply should have been developed. Unfortunately, in the months that followed Quartermaster General Mifflin was preoccupied with recruitment, and he resigned before the end of 1777. Mifflin made little contribution to the development of the Forage Department. On 1 July 1777 Washington in a General Order announced the appointment of Clement Biddle as commissary general of forage for the main army.[16] He had been serving as a deputy quartermaster general and acting as a commissary of forage. Such organizational developments as occurred—and these were mainly with the troops in the field—were made under his guidance. The field organization with the main Continental army by the end of the year included three foragemasters stationed near the army to receive forage from the inhabitants and to issue it. A fourth foragemaster supervised the Moorhall magazine at Valley Forge; he had an assistant and two measurers detailed from the army. In addition, each division of the main Continental army had a foragemaster as well as an assistant and a measurer, the last two usually detailed from the army. The Artillery Park had two foragemasters, an assis-

15. *JCC*, 7:355-59 (14 May 77).

16. Fitzpatrick, *Writings of Washington*, 8:327–28. Biddle's appointment carried no rank in the Continental Army, for Congress had attached none to this position. He was addressed as colonel, however, perhaps by reason of his membership in the Philadelphia regiment known as the Quaker Blues.



CLEMENT BIDDLE

tant, a straw cutter, and a measurer; the Cavalry had a foragemaster and an assistant; and headquarters also had a foragemaster. The field organization totaled forty-five in addition to Biddle.

The civil arm of the Forage Department included the purchasers and the personnel employed at deposit points where magazines were established. In Pennsylvania there were three magazines, each of which had a foragemaster, an assistant, and a measurer. A fourth magazine in the state employed only a foragemaster. In New Jersey there were eight magazines, each employing a foragemaster and a measurer. All of these personnel were employed on a salaried basis. Additional personnel were hired occasionally for storing and forwarding forage deposited at temporary locations, and laborers were sometimes hired to cut straw and to load or unload forage.

The magazines at Berks, Lancaster, and Northampton Counties, Pennsylvania, were under the immediate direction of Quartermaster General Mifflin. No records have been found to indicate the number of men Mifflin employed at these magazines or the number of agents who purchased forage under his orders. At Chatham, Princeton, and Trenton, New Jersey, forage was supplied by Assistant Deputy Quartermaster General Moore Furman. Deputy Quartermaster General Henry Hollingsworth, stationed at Head of Elk, stored and sent forward the grain brought from Maryland and Virginia. Biddle employed additional purchasing agents in other parts of Maryland, New Jersey, and Pennsylvania. He also hired a number of wagons for hauling forage, each twelve wagons being supervised by a wagonmaster assisted by a conductor. These employees were generally from

the place where the wagons had been hired and were constantly changing as wagons were relieved by others every month.[17]

Reasons for Forage Deficiency

In part, the lack of forage in the winter of 1777–78 was attributable to the absence of a functioning Quartermaster General and the limited scope of Biddle's authority. On becoming commissary general of forage for the main army in the summer of 1777, Biddle had sought instructions from Quartermaster General Mifflin. As directed by Congress, Mifflin was supposed to formulate regulations for this branch of his department. He failed to do so, but from time to time he responded to Biddle's inquiries for guidance. Thus, he directed Biddle to extend his area for purchasing forage as far as necessary without interfering with other commissaries who were establishing forage magazines on Mifflin's orders. When Biddle wanted information on the location and size of magazines, Mifflin replied that the magazines would be proportioned according to troop strength, but that he could not settle the question until late June. In response to Biddle's inquiry, Mifflin authorized him to appoint his own assistants, allowing them a captain's pay or 2½ percent commission on their disbursements until ordered otherwise by Congress. Biddle himself was allowed the same commission on his purchases. As to prices to be paid for forage, Mifflin directed Biddle to buy as cheaply as he could and to be careful not to inflate prices.

By the end of 1777 Biddle was being left to his own devices, for Mifflin wrote, "You will use your own Judgment and collect Grain &ca wherever you think proper." In January 1778 he advised Biddle to request Deputy Quartermaster General William Finnie at Williamsburg, Virginia, to send 50,000 bushels of corn and wheat to Head of Elk. The Board of War had given Finnie orders to purchase for the Forage Department. The next month Mifflin reiterated his former position. "You will take your own measures to procure Forage for the Army," the Quartermaster General wrote, for it was impossible for him to assist Biddle.[18]

The forage deficiency resulted also from the complete breakdown of transportation. Conditions at Valley Forge steadily deteriorated. In view of the dire straits of Washington's army, the Pennsylvania General Assembly empowered Washington to appoint any number of persons to buy all the forage that was necessary to support the army or in danger of being seized by the enemy. When an owner refused to sell, the forage could be seized, and a certificate could be given specifying price, quality, and quantity if payment

17. RG 11, CC Papers, item 155, 1:379–81 (return, 30 Jan 78).
18. Ibid., 1:365-67 (Queries and Answers, 28 Jun 77, and later notations).

could not be made at the time.[19] Neither impressment nor purchase of forage, however, could bring relief when the army was sadly handicapped by a shortage not only of wagons but also of horses. The committee of Congress at Valley Forge reported to Congress on 12 February 1778 that "if the enemy attacked at this point, the Artillery would fall into their hands for want of horses to remove it."[20]

A few days later Washington directed Biddle to impress all the wagons he could find and send them to camp loaded with forage. If some forage was not delivered soon, he wrote, not a horse would be left alive, but Biddle informed General Greene that the prospect of getting any wagons was poor. Greene therefore asked Washington to send from camp all wagons that could be spared. He planned to impress wagons beyond Brandywine, Greene reported, but if the inhabitants had any wagons or harnesses, they were concealing them. If they were, Washington replied, make "severe examples of a few to deter others—our present wants will justify any measures you can take."[21] Greene then sent out impressment parties to relieve the distress of the camp at Valley Forge.

In March Biddle explained the handicaps under which he had operated. As early as December 1777, he wrote, he had called on Deputy Quartermaster General Lutterloh for wagons. He had obtained only a few, and thus on 26 January 1778 he had submitted an estimate for 150 wagons, stating they were absolutely necessary for foraging. Lutterloh had asked the president of the Pennsylvania Executive Council for 260 teams, including those demanded by Biddle, and President Thomas Wharton had issued orders for them. Late in February between 20 and 30 had come from Northhampton, had made one trip for provisions to Head of Elk, and had then deserted. Eleven more teams had come from Lancaster County on 4 March, but these also had been employed to carry provisions, not forage. Biddle had received not one of the 150 wagons he had requested, while those already in his possession had been prevented from bringing supplies by the extremely bad roads and the distance the forage had to be hauled.

Biddle wrote that he had managed to bring a few supplies down the Schuylkill River by boat, but he had received only a small amount of forage from Reading. No magazines, moreover, had been laid up in the back country of Pennsylvania—a failure that he attributed to the repeated changes in purchasing agents. He himself had been largely restricted to the environs of camp in collecting forage, and when, under Washington's orders, he had extended his operations, he had not been able to control the numerous pur-

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19. *Pennsylvania Archives*, 1st ser., 6:66 (6 Dec 77). See also pp. 92–93, 104 (Biddle to Pres Wharton, 14 Dec, and reply, 17 Dec 77).

20. RG 11, CC Papers, item 33, fols. 128–29 (to Pres of Cong, 12 Feb 78).

21. (1) Fitzpatrick, *Writings of Washington*, 10:464 (to Biddle, 15 Feb 78). (2) Washington Papers, 67:71, 73 (Greene to Washington, 15 Feb, and reply, 16 Feb 78).

chasers. Still another cause for the forage deficiency was a lack of money to hire wagons and pay for forage.

Biddle anticipated, however, that conditions would soon improve. By mid-March the roads would become passable and no longer would impede the movement of forage and provisions. He was employing some sixty wagons to go to Head of Elk, Lancaster County, the upper part of Bucks County, and the Delaware River to build up magazines, he reported. Indian corn was now coming up the Chesapeake Bay in volume to Head of Elk. The greatest difficulty would be to supply the army until mid-March, but he hoped to do so by using river transportation and such wagons as he had. In support of his position, he furnished the congressional committee at camp a return of the forage he had obtained during the first four days of March.[22]

Biddle's Reform Proposals

Based on his experience, Biddle drew up proposals for improving the Forage Department. Submitted in late January 1778 to the committee of Congress then at camp, his proposals included the appointment of a commissary general of forage who would purchase forage on orders of the Board of War or the Commander in Chief. This officer would direct the entire Forage Department rather than simply serve as the commissary of forage for the main army. He would have a deputy so that either he or his deputy would always remain with Washington's army to see that a constant supply of forage was brought to camp while the other was forming magazines. Biddle further proposed the appointment of a foragemaster and a measurer for each brigade; the foragemaster would keep an account of all forage received and issued, making returns at the end of each month to the Board of War, the Quartermaster General, and the commissary general of forage. Similar returns would be made by the foragemaster at each magazine, who would be assisted by a clerk, a measurer, and laborers. When forage needed on marches could not be conveniently drawn from magazines, the brigade foragemasters were to procure it as directed by the commissary general of forage or his deputy, who would pay for it when presented with the foragemasters' certificates. Since forage personnel occasionally had been subjected to unjust treatment, Biddle wanted them to be "secure from insult," with "a mode of Arrest & Tryal established" for their protection.[23]

Biddle recommended that the number of horses drawing forage that were

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22. Ibid., 68:125 (Biddle to Lt Col John Laurens, 5 Mar 78).

23. (1) Ibid., 63:219–21 (Observations on the Forage Dept, 25–26 Jan 78). Though unsigned, this paper clearly represented Biddle's ideas. (2) Washington wrote to the committee of Congress about the need for new regulations for the Forage Department, "the particulars of which, the Gentleman at the head of it, will be best able to point out." Fitzpatrick, *Writings of Washington*, 10:389 (29 Jan 78).

allowed to officers should be fixed, so that demand could be estimated with some degree of certainty. The amount of forage for wagon and draft horses, he thought, should be based on returns supplied by the Quartermaster General, wagonmasters, or conductors of horses in the train; forage for officers' horses should be drawn by brigade and regimental quartermasters. Forage for the light cavalry should be obtained by the quartermaster or, when on detachment, by the commanding officer. When forage was received from the inhabitants while a party was on command (that is, detached for such work as woodcutting), the commanding officer or quartermaster was to certify to the commissary general of forage the quantity of forage received, mentioning the number of horses being supplied and their regiments or troops.

Biddle considered it desirable that civilians engaged as foragemasters, measurers, and straw cutters be exempted from militia duty while serving in the field or at magazines. To prevent delays, the commissary general of forage, he urged, should be authorized to hire or in an emergency to impress a sufficient number of wagons and horses to haul forage to the troops and magazines. He proposed that the commissary general of forage employ persons to form magazines in the different districts at such places as the Board of War or the Commander in Chief ordered.

While the committee of Congress at camp was considering the need for new regulations for the supply agencies, Washington called attention to the practice of giving commissions on purchases instead of granting a salary. He intended no "insinuation" against Biddle, he informed the committee, but commissions opened "wide a door to fraud and peculation." He added further that foragemasters were not as accurate as they ought to be in receiving or delivering forage, "depending too much upon the farmers reports and their own conjectures." He felt that the public consequently paid for much more than what was received.[24]

Faced with the urgent need of finding a new Quartermaster General to prepare for the approaching campaign of 1778, Congress abandoned its efforts to enact a new regulatory measure for the Quartermaster's Department. When it appointed Maj. Gen. Nathanael Green Quartermaster General in March, it gave him authority to appoint foragemasters and made him responsible for their conduct.[25] Greene continued Biddle in his post as commissary general of forage but with much wider authority than he had enjoyed under Mifflin.

Early in February Biddle had outlined a plan for establishing a chain of forage magazines in the Middle Department. His plan designated the location points for magazines in Maryland, New Jersey, and Pennsylvania and reiterated his ideas on the receipt and delivery of forage that he had included

24. Ibid.
25. *JCC*, 10:210 (2 Mar 78).

in his earlier proposals for improving the Forage Department.[26] Greene studied the plan, approved it, and, in consultation with Washington, perfected its application to Washington's lines of communications. He agreed with Biddle that no time was to be lost in determining proper places for forage magazines.

By the end of March Greene furnished Biddle with a general outline of the chain of magazines to be established, though the quantity of particular stores to be laid in on the North River and at intermediate posts to camp would have to be regulated by circumstances. Greene instructed Biddle to lodge on the banks of the Delaware River from Trenton northward 200,000 bushels of grain and as much hay as he could obtain. He was also to deposit 200,000 bushels of grain at Head of Elk and all the hay that he could procure within forty miles of camp at intermediate posts from Head of Elk to camp. He was also to place 100,000 bushels of grain and a proportionate quantity of hay on the line of communications from Reading on the Schuylkill River through Lancaster to Wright's Ferry on the Susquehanna River, and to distribute 100,000 bushels of grain and a proportionate quantity of hay among the several posts on the line of communications between the Delaware and Hudson Rivers. Finally, he was to have 400,000 bushels of grain and a proportionate quantity of hay placed at Allentown, Pennsylvania, and at Trenton and other points to the south in New Jersey. Greene further instructed Biddle to screw all hay into bundles; he was to obtain a number of screws for that purpose and employ laborers to do the work either at farmers' barns or at the magazines. In purchasing grain, Biddle was to give preference to all other types of grain over wheat—oats, corn, and rye, in that order.[27]

Biddle lost no time in starting to develop the chain of forage magazines on the lines of communications. He was well acquainted with the new Commissary General of Purchases, Jeremiah Wadsworth, and the instructions he drafted for the Forage Department's purchasing agents show that he had obviously come to certain agreements with Wadsworth. In line with Greene's instructions, the purchasing agents were to give preference to all other grains over wheat. However, if they had to purchase wheat, they were to take 20 hundredweight of flour out of each 100 bushels of wheat and turn over the flour taking a receipt for it, to the subsistence commissary of the district in which the wheat was purchased. The subsistence commissaries, in turn, were to send all by-products left from milling wheat to the nearest forage magazine. Biddle set the prices to be allowed for forage at the rates established by the states. He emphasized that his purchasing agents were not to interfere with the purchase of wheat by the subsistence commissaries. They

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26. RG 11, CC Papers, item 155, 1:373-77 (9 Feb 78). Though unsigned, this plan was obviously drafted by Biddle.

27. (1) Greene, *The Life of Nathanael Green*, 2:57–58 (Greene to Biddle, 30 Mar 78). (2) Fitzpatrick, *Writings of Washington*, 11:177 (to Greene, 31 Mar 78).

were to have hay screwed in bundles, employing laborers to set up presses for the purpose, and they were to hire wagons for hauling forage under terms prescribed by Biddle. He directed them to keep separate accounts for these two expenditures. Biddle also drafted rules for the receipt and issue of forage at magazines. He set forth how accounts were to be kept and, for the information of the foragemasters, appended a list of the number of riding horses for which officers could draw forage.[28]

In accordance with the proposals he had made, Biddle introduced some changes in the Forage Department. In lieu of the four foragemasters and their assistants with the main Continental army, he employed six assistant commissaries of forage. One was designated the paymaster; another was given care of any magazine established with the main army; and some of the others occasionally were detached with divisions. All other Forage Department personnel with the divisions were eliminated. Instead, each brigade had a foragemaster and a measurer. Biddle also employed foragemasters and measurers at landings and at temporary magazines formed when the army moved. He dismissed such personnel when they were no longer needed. All of these personnel with the army in the field remained on a salaried basis.

Purchasing agents continued to be paid a 2½ percent commission on purchases. For the most part, these purchasers were also deputy quartermasters general in the Quartermaster's Department. They made their purchases within a military department, as Deputy Quartermaster General Morgan Lewis did in the Northern Department; or within a state, as Deputy Quartermasters General Ephraim Bowen and William Finnie did in Rhode Island and Virginia, respectively; or within a particular area, as Deputy Quartermaster General William Smith did at Springfield, Massachusetts, and for thirty miles to the east. Pennsylvania was divided into six areas, in five of which forage was purchased by deputy quartermasters general.[29] In those few instances where purchasing agents were not deputy quartermasters general, they nonetheless were paid at the same rate of commission as the deputies.[30] Biddle appointed his brother Owen Biddle as his deputy or agent at Philadelphia; the latter was to purchase forage for that city, direct all

28. Hugh Hughes Letter Books (Biddle to Hughes and enclosures, 22 Apr 78).

29. The five deputy quartermasters general purchasing forage in Pennsylvania included the following: Archibald Steele for Fort Pitt and environs, William Davis for Cumberland and York Counties, Jacob Morgan for Berks County, Cornelius Sheriff for Chester County, and Robert Lettis Hooper for Northampton County and for Sussex County in New Jersey. Other deputy quartermasters general serving as purchasing agents for forage included Henry Hollingsworth for the Eastern Shore of Maryland, Moore Furman for New Jersey except Sussex, Nehemiah Hubbard for Connecticut, and Francis Wade for Delaware.

30. Such purchasing agents included Col. Philip Marsteller, who bought forage in Lancaster County, Pa.; Thomas Richardson, who was appointed purchasing agent for the western shore of Maryland; and Andrew Bostwick, the deputy commissary general of forage for the Eastern Department, who purchased in New York.

purchases west of Delaware, and forward forage to Trenton. In addition to the 2½ percent commission allowed on his purchases, he apparently was allowed a commission on the sums he paid to other purchasers whose work he directed. Although this case indicated a liberality in the payment of commissions, Clement Biddle established a tighter framework for purchases by limiting the number of his agents to fifteen. This number, however, did not constitute the total of purchasers, for the agents were allowed to employ necessary assistants.[31]

Problems Confronting Biddle

In April 1778 Biddle entertained high hopes of having sufficient funds to procure forage and establish adequate magazines. By September, however, difficulties were developing to prevent a "certain and regular supply." The consumption of forage was so great and its transportation subject to so many delays that Biddle was much concerned about supply. Large quantities of oats and corn were coming to camp from Maryland and Virginia by way of Head of Elk, Trenton, and New York. Supplies also were arriving from Delaware. Biddle pointed out that these states would have to continue to be the sources of supply since the middle states were generally much drained of forage. Biddle hoped that the legislatures of Pennsylvania, New Jersey, New York, and Connecticut would take measures to limit the price of forage, induce farmers to deliver hay and grain in the fall; winter, and spring when it was most wanted, and furnish wagons as well. At Biddle's suggestion, Washington sent a circular in September to the governors of Rhode Island, Connecticut, New York, and New Jersey and to the president of the Massachusetts Council. The Commander in Chief feared, however, as he wrote to Greene, that "depreciation of our money is the Root of the evil, and that, until it can be remedied, all our endeavors will be in vain."[32]

Greene had gone to Boston on business, and from there he had reported to Washington the increasing demand for forage and the "growing extravagance of the people." Hay was 60 to 80 dollars a ton and rising; corn, 10 dollars a bushel; oats, 4 dollars. Carting cost 9 shillings a ton per mile, and the "people [were] much dissatisfied with the price." He had explained to the governments of Rhode Island, Connecticut, and Massachusetts the need for legislation to fix prices upon some reasonable basis. He did not know what effect this appeal would have, he informed Washington, but unless something was done, "there are no funds in the universe that will equal the ex-

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31. RG 11, CC Papers, item 173, fols. 101–02 (List of Persons Employed in Forage Dept, 29 Oct 78).

32. (1) Washington Papers, 83:117 (Biddle to Pettit, 6 Sep 78); 84:6 (Pettit to Washington, 10 Sep 78). (2) Fitzpatrick, *Writings of Washington*, 12:478 (to govs, 22 Sep 78); 479 (to Greene, 22 Sep 78).

pense." Deputy Quartermaster General Chase at Boston also reported rising prices in September and added that state wagonmasters "were bidding upon Continental wagonmasters."[33]

Despite Biddle's efforts to promote amity between forage purchasers and subsistence commissaries, complaints were laid before Congress. On 12 September 1778 it directed forage purchasers not to buy any wheat for forage except in cases of absolute necessity. Six weeks later Congress forbade all purchase of wheat for forage except by its order.[34] By mid-November, as the need for forage became critical, Greene requested that Washington grant a warrant to impress. Reluctant as ever to resort to this method, Washington delayed, but when Greene renewed his request six days later, Washington yielded.[35] On 30 November Congress resolved that if forage agents could not purchase at reasonable rates, they were to apply for assistance to the state executive or legislative authority, or to a properly authorized person. It further recommended to the state governments that they take measures to aid the foragemasters in procuring a speedy supply.[36]

In the meantime, states near the main army had acted to assist it in obtaining forage. The execution of the laws they passed, however, caused Biddle to view the legislation as restrictive. New York, for example, had enacted a law appointing certain persons in every town to collect forage and determine how much each farmer could spare. Unfortunately, application of the law did not work as advantageously for the army as the legislature had anticipated. "Men judge so differently from one another," Greene commented, "and many from motives of tenderness to their Neighbors take so sparingly from the People, that our Supplies are very deficient notwithstanding we see the Country full of forage."[37] New Jersey enacted similar legislation. In issuing a proclamation relative to it, Governor William Livingston cautioned the magistrates not to take too much from the inhabitants. "I think they stood in no need of such Advice," Biddle dryly observed.[38] In an effort to relieve the scarcity, Greene in November consulted with Commissary General Jeremiah Wadsworth on the forage problem. Wadsworth maintained that he had no wish to accumulate in magazines grain or flour that, for want of forage for the animals, could not be transported to the troops. Wheat, however, was so scarce that every measure, he urged, should be taken to provide forage without using it.[39]

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33. Greene, *Life of Nathanael Greene*, 2:143 (Greene to Washington, 16 Sep 78). (2) RG 11, CC Papers, item 173, 1:303–04 (memo, Chase to Greene, 17 Sep 78).

34. *JCC*, 12:906, 1064 (12 Sep and 26 Oct 78).

35. Washington Papers, 92:17, 143 (Greene to Washington, 14 and 20 Nov 78); 126 (warrant, 20 Nov 78).

36. *JCC*, 12:1177 (30 Nov 78).

37. Washington Papers, 92:17 (Greene to Washington, 14 Nov 78).

38. (1) APS, Greene Letters, 9:13 (Biddle to Greene, 25 Jan 79). (2) For the practices of magistrates, see RG 11, CC Papers, item 173, 4:109–11 (Greene to Livingston, 14 Feb 79).

39. Greene, *Life of Nathanael Greene*, 2:411–12 (Greene to Pettit, 16 Nov 78).

Congress had been exploring ways of reducing forage consumption. In September it had proposed dispersing the Cavalry to places where the horses could best be supplied with forage. It prohibited all officers from keeping any horses within forty miles of the main body of Washington's army unless they had permission from Congress or the Commander in Chief. Congress directed the Quartermaster General to consult with the Commander in Chief about whether it was possible to reduce the number of teams with the army or to substitute ox teams for many of the horse teams. Washington replied that there could be no reduction of teams; he had only the minimum number necessary, which in fact would be insufficient in case rapid movement was required. Nor could oxen be substituted for horses. The only relief, he suggested, would be to winter the horses where they could be more easily supplied with forage.[40] Biddle also urged the use of pasturage for the horses in order to save forage. He had talked with the assistant commissary general of purchases, and they had agreed that an order for purchasing all cattle fit for butchering in the vicinity of camp ought to be issued early. Earlier sale of cattle by the farmers would save forage so sorely needed by the army.[41]

Even when forage was accumulated, the maintenance of deposits for given purposes was not readily accomplished. Deputy Quartermaster General Moore Furman of New Jersey had been collecting forage at Trenton, the starting point from which all flour and many other necessaries moved to the army. Despite orders to avoid the wagon routes, a troop of 100 men and horses arrived and stayed at the post in the fall of 1778. In addition, Brig. Gen. Casimir Pulaski sent his quartermaster and about thirty horses with orders to provide for his legion. Appealing to Congress in October, Furman wrote that if horses were quartered at Trenton or any post on the route of the wagons, all the forage he had provided would be consumed in a month or two at most. Once that supply was exhausted, he could not replace it, and not a team would be able to move supplies to the army.[42]

Army officers were not always amenable to restrictions imposed by supply officers to preserve forage. On his way to Boundbrook, New Jersey, late in November 1778, after orders for dispersing horses to distant pastures had been issued, Quartermaster General Greene passed through Elizabethtown and to his great surprise found that Colonel Moylan's Light Dragoons had not been sent off. Moreover, Lord Stirling refused to do so in any immediate future. If the horses were left there, Greene advised Washington, the post would have to abandoned for want of forage.[43]

As the campaign of 1778 drew to a close, Washington had to take forage

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40. (1) *JCC*, 12:903, 906 (11 and 12 Sep 78). (2) Fitzpatrick, *Writings of Washington*, 12: 491 (to Pres of Cong, 23 Sep 78).
41. Washington Papers, 85:27 (Biddle to Pettit, 21 Sep 78).
42. RG 11, CC Papers, reel 95, item 78, 9:186–87 (to Joseph Reed, 23 Oct 78).
43. Washington Papers, 93:143 (30 Nov 78).

supply into consideration in selecting the site for the winter quarters of his army. In Pennsylvania, New York, and New Jersey the supply of both provisions and forage had been greatly reduced because a large part of the land had not been cultivated or only partially cultivated, since so many of the farmers had served as militiamen, teamsters, and artificers. For three years the Middle Department had been the major theater of operations. The country had been exposed to the depredations of the enemy, and a large part of it had been in British possession. When the main army went into winter quarters in November 1778, it became necessary to distribute it in camps at Middlebrook, Elizabethtown, and Ramapo, New Jersey; at West Point and Fishkill, New York; at Danbury, Connecticut; and at Providence, Rhode Island. To provide forage for the horses, the Cavalry was dispersed to Durham, Connecticut; Lancaster, Pennsylvania; and Winchester, Virginia. Forage had to be provided not only for the Cavalry horses but also for the main army's riding and wagon horses. Biddle estimated the total number at 10,000.[44]

In view of the forage scarcity, Biddle in December submitted proposals designed to lessen the demand in camp, and Washington endorsed them. Biddle recommended that all spare horses be sent from camp as soon as possible, and that the Artillery horses and the army's wagon horses also be sent away since country teams, which found their own forage, could be hired to haul wood, straw, and other materials needed for hutting the troops. He further proposed enforcing a strict compliance with the resolve of Congress that no officer, unless he had special permission entitling him to forage, should keep a horse within forty miles of camp. Nor should any officer, he added, keep more horses than he was allowed in General Orders. To prevent any waste of hay and grain, he intended to have racks and troughs prepared. He also proposed to erect large scales for weighing loads of hay and to enclose a hay yard as soon as artificers could be spared. He had already ordered scales and measures for issuing forage. He suggested, too, that orders be sent to the separate military departments and also to detachments for putting these proposals into effect.[45]

Despite orders, a reduction of the number of horses maintained at various posts failed to be made. Writing from Philadelphia in January 1779, Biddle reported that the consumption at that post was "beyond all bounds," though Assistant Quartermaster General Pettit was doing all he could to reduce the number of horses. Four months later, when Brig. Gen. Alexander McDougall visited Peekskill, he found that "every branch of a department had horses—sufficient for a Field Marshall's suite." He promptly sent all

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44. APS, Greene Letters, 10:21 (Biddle's report, 25 Nov 78).

45. (1) RG 11, CC Papers, item 173, 1:289–90 (Biddle to Greene, 5 Dec 78). (2) Fitzpatrick, *Writings of Washington*, 13:451 (GO, 22 Dec 78).

the public and useless horses away from the post to where they could be provided with forage.[46]

In January 1779 Biddle could report that his department had managed "tolerably well for Forage in Camp but my resources in Monmouth begin to fail & I fear will fall short before the River opens."[47] His prospects, however, for an improved supply of forage in the early months of the year seemed most unfavorable. A real scarcity of forage existed in almost every state as a result of the great amount of land carriage used by the government and by private citizens. His purchasers reported that they were getting much less forage than they had expected. At the same time, prices rose constantly as the value of currency depreciated in 1779. With supply much exhausted in New Jersey even before that year, more and more dependence had to be placed on drawing forage from Virginia and Maryland. In February, however, the presence of enemy warships in the Chesapeake Bay prevented Deputy Quartermaster General Finnie of Virginia from sending any forage to Head of Elk. Well aware of the distress this interruption caused, Pettit asked Congress to take measures to protect this shipping route so essential to the welfare of Washington's army.[48]

As the time approached for the opening of the 1779 campaign, Biddle reviewed for Greene the status of forage supply. A flow of forage from Virginia and Maryland could not be depended upon, he wrote, in view of the continued presence of British cruisers in the Chesapeake Bay. Nor could he procure forage in New Jersey until the new grain was harvested. In these circumstances, his department would have to rely on pasturage to support the army's horses. The existing method of procuring pasturage by applying to the magistrates, however, posed difficulties. He explained that neither the inhabitants nor the magistrates in New Jersey who applied the state's forage law would allot meadows that were ready to be mowed or let the army's horses go into them. The upland pastures alone would not keep the horses alive until grain could be procured. Thus, he argued, it would be necessary not only to use all the pastures near the troops but also to cut the grass and even grain that was ripe or nearly ripe to assist in supporting the horses. He requested orders late in May 1779 from the Commander in Chief. He had provided scythes to prevent the waste of grass as much as possible. Fatigue parties would be needed to assist the foragemasters when the meadows were taken. He added that since Pennsylvania could not subsist the Cavalry and spare horses that were then in the state, no forage could be expected from

46. (1) APS, Greene Letters, 9:13 (Biddle to Greene, 25 Jan 79). (2) Washington Papers, 105:78 (to Washington, 1 May 79).

47. APS, Greene Letters, 9:13 (Biddle to Greene, 25 Jan 79). See also 8:7 (same to same, 27 Jan 79).

48. Ibid., 4:7 (Biddle to Greene, 11 Feb 79); 6 (same to same, 20 Feb 79); 79 (Pettit to Pres of Cong, 19 Feb 79).

that quarter. In New York magistrates allotted pastures in much the same way as in New Jersey.[49]

In forwarding Biddle's letter to Washington, Greene stressed the impossibility of supporting the horses by applying to the magistrates for pastures. Given the army's frequent need in a campaign to march and quickly change positions, such applications were not feasible since they would produce tedious delays. He considered it necessary for the Commander in Chief to give orders to the commissary general of forage to procure forage in the best manner he could. Knowing Washington's penchant for abiding by the laws of the states, he added, "I would wish to make the Law of the State the rule of my Conduct in all Cases where it can be adher'd to without ruin to the Service but a partial evil had much better be endur'd than a general ruin take place."[50]

Washington replied that the laws of each state were to be observed "as far as it can be done." If necessity compelled it, some deviation could occur, but to prevent complaints and charges of wanton exercise of power, Biddle should use every means to obtain forage "in the ordinary way." If he was unsuccessful, he was to make written requisitions to the magistrates for pasturage and meadows. If they failed to make the requested allotment, "the exigency of the Public Service must decide the conduct you are to pursue."[51] This reply scarcely answered Biddle's request for guidance, and it led Greene to comment that Washington must have misunderstood "the nature of the application and the powers solicited." Washington's letter seemed to "breathe and enjoin a stout conformity to the laws of the State save in particular cases and under pressing circumstances." But as matters then stood, the need for forage would require a "general deviation." Foragemasters would think themselves bound by Washington's instructions, and in a few weeks half the horses of the army would be lost. The troops could become vulnerable to attack and baggage might be lost. Greene was certain that the people would be more reconciled to measures that inconvenienced them if they understood that the security of the army was at stake and that the measures did not originate from negligence or abuse of power by the staff.[52] Washington, however, did not change his position.

Lack of funds increasingly hampered the Forage Department's procurement efforts in 1779. By law the civil magistrates of New Jersey were empowered to settle the price of forage in the county or township in which it was collected, but no two of them were ever of the same opinion, Deputy Quartermaster General Furman reported, no matter how closely the counties or townships in which they lived were situated. Under a law enacted by the state,

49. Washington Papers, 108:97 (Biddle to Greene, 27 May 79).
50. Ibid., 108:96 (Greene to Washington, 27 May 79).
51. Fitzpatrick, *Writings of Washington*, 15:178 (to Biddle, 29 May 79).
52. Washington Papers, 109:36 (30 May 79).

forage could not be removed from a farm until payment had been made, but Furman had no money and thus could not purchase. Moreover, farmers were losing all confidence in money, and its rapid and continued depreciation, he added, would soon make it impossible to get supplies for the army even with money.[53]

In May 1779 Owen Biddle, the assistant of the commissary general of forage at Philadelphia, informed Assistant Quartermaster General Pettit, through whom the Quartermaster's Department received its funds, that unless he got some money, it would be impossible to feed the horses in the public service. He appended a list of agents and places needing funds that totaled 1,944,000 dollars. The commissary general of forage had repeatedly requested money but had failed to receive any. The main army had been out of short forage several times in the past weeks. Owen Biddle did not have even one week's supply on hand when there should have been 60,000 bushels. Magazines would have to be formed for the winter cantonment of the Cavalry and worn-down horses; attention also would have to be given to the support of packhorses with Col. Daniel Brodhead at Fort Pitt. To illustrate his needs, Biddle enclosed a letter from Deputy Quartermaster General Archibald Steele at Fort Pitt who reported that he had 1,600 horses but not one bushel of forage for them; rising prices would cause grain to cost 20 dollars a bushel, and Steele reported that he would need at least 80,000 bushels that year.[54] In this situation credit—when and if it could be obtained—and impressment were the only means by which the animals of the army could be subsisted. To move the troops into winter quarters in November 1779, Washington had to authorize the impressment of forage as the army marched through New York and New Jersey.

Biddle's Resignation and Recall

When Congress, lacking money, eliminated its use by resorting to the system of specific supplies in December 1779, it directed that when a state undertook to furnish its quota of articles under that system, the purchase of such articles by commissaries and quartermasters in the state was to cease.[55] One week later New Jersey passed an act to provide provisions and forage for the use of the army and appointed purchasing agents in the various counties, naming Azariah Dunham as superintendent. Clement Biddle did not receive the congressional resolution until 1 February 1780, and at Dunham's request, his purchasers had continued to act in New Jersey. On that date, however, Biddle discontinued purchasing and made requisitions on Dunham.

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53. RG 11, CC Papers, item 78, 5:367–69 (Furman to Cox and Pettit, 29 Jun 79).
54. APS, Greene Letters, 5:20 (18 May 79).
55. *JCC*, 15:1391.

Though the latter wrote to his state purchasers, he received no response and gave Biddle no encouragement to rely on them for supplies.

The supply situation continued to deteriorate. Biddle had no more hay, and on 24 February he informed Greene that the grain in magazines also would soon be exhausted. He had neither money nor authority to purchase. About the same time, Deputy Quartermaster General Furman reported to Greene that very little forage remained at Trenton. Informed of the situation, Washington directed Biddle to obtain an accurate account of purchases from Durham, and if the supply was not sufficient, he was to lay before the New Jersey General Assembly the state of the magazines and the need to supply forage until navigation and the condition of the roads permitted bringing forage from the south. On 6 March Washington described for Congress his forage difficulties.[56] Some three weeks later, on 29 March, Pennsylvania forbade purchase of forage by agents of the Quartermaster's Department. Lack of funds had prevented the latter from building magazines. The department, however, had 2,000 horses in the state, and most required care to restore them to fitness for the coming campaign. The officers in charge of them could not pay for their maintenance, Greene explained to the president of the Pennsylvania Executive Council, and he requested forage for them.[57]

Biddle had intended to resign at the close of the 1779 campaign, but the forage difficulties encountered when the troops went into winter quarters at Morristown, he wrote Washington in mid-May 1780, had led him to remain in the hope of contributing some remedy. With the adoption of the system of specific supplies, the duties of his office were reduced to calling forage from the magazines, directing its issue to the troops, and requesting the allotment of pasturage. The office, he felt, could be readily filled by another. Moreover, he had received preemptory orders from the Treasury Board to deliver his accounts and vouchers to its office in Philadelphia for final settlement by 1 June. The board had threatened that if he failed to comply, he would be prosecuted as a delinquent and advertised as a public defaulter. His deputies had already resigned and were waiting to settle their accounts; his assistant in Philadelphia would no longer serve; and he himself would have to report personally to the Treasury Board. He had already obtained Greene's permission to resign, he informed Washington, but he added that he was willing to serve at Philadelphia for the rest of 1780 to call forth and forward forage. Washington expressed approval of his conduct as commissary general of forage and acknowledged "that the army [had] at several times in very critical circumstances, derived great advantages" from his service.[58]

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56. (1) Washington Papers, 128:127 (Biddle to Greene, 24 Feb 80). (2) Fitzpatrick, *Writings of Washington*, 18:50–51 (to Greene, 25 Feb 80); 93–94 (to Pres of Cong, 6 Mar 80).

57. RG 11, CC papers, item 155, 1:232–35 (Greene to pres of Pa. Council, 30 Mar 80).

58. (1) Washington Papers, 135:76 (Biddle to Washington, 16 May 80). (2) Fitzpatrick, *Writings of Washington*, 18:383 (to Biddle, 18 May 80).

When Washington learned that a land and sea force would soon arrive from France to cooperate with the Continental Army against the British, he requested Biddle to remain at his post because of his "experience, activity, and intire knowledge" of the country's forage resources. "The Department you filled is a very important one, and on a proper discharge of its duties, our abilities to move in case of active operations will greatly depend." He indicated that he would clear matters with the Treasury Board. Biddle replied that he would willingly remain in the service as long as necessary. Washington at once wrote to the Treasury Board that Biddle's services were so essential that it would be better to defer the settlement of his accounts.[59]

Biddle, late in May 1780, immediately began preparations. He pointed out the need to apply to the executive authorities of Delaware, Maryland, Pennsylvania, and Virginia not only to hasten delivery of forage under the system of specific supplies to designated places but also to assist in transporting it to such other places as directed by the Quartermaster General or the commissary general of forage. Washington assured Biddle that the committee of Congress then at Morristown had already written a circular letter to the states urging them to furnish their supplies, and that he had designated places for depositing forage. He approved Biddle's selection of Trenton as a site for a major forage magazine. It soon became necessary to grant Biddle authority to impress in order to provide forage for Washington's camp. The Commander in Chief added that if foragemasters were sued in consequence of the execution of their duty, "the public must bear them harmless"; he could not stop "the process of the law."[60]

In the course of a brief stay in Philadelphia, Biddle did everything in his power to learn the amount of forage that was being procured by Pennsylvania, Delaware, Virginia, and Maryland and to have a large part of it sent to Trenton. Pennsylvania had procured very little grain, he reported to Greene in July, and none was to be expected until after harvest. Delaware had procured some grain and had passed a law to collect the remainder of its quota. None, however, had as yet arrived, and he feared that the lack of money to pay transportation costs to Trenton would cause delay. The same situation prevailed in Maryland as in Delaware. Deputy Quartermaster General Finnie of Virginia had collected nearly 200,000 bushels of grain, chiefly Indian corn, and Biddle had directed him to transport as large a part of 100,000 bushels as he could to Head of Elk, holding the rest to be shipped by water in case of the arrival of the French fleet. Lack of funds to pay transportation costs, however, caused shipments from Head of Elk to come slowly to camp.[61]

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59. (1) Ibid., 18:426–27 (to Biddle, 27 May 80); 446–47 (to Treasury Bd, 29 May 80). (2) Washington Papers, 136:109 (Biddle to Washington, 28 May 80).

60. (1) Ibid., 136:110 (Biddle to Washington, 28 May 80). (2) Fitzpatrick, *Writings of Washington*, 18:447–48, 504 (to Biddle, 29 May and 11 Jun 80).

61. RG 11, CC Papers, item 39, 3:259–60 (Biddle to Greene, 6 Jul 80).

Biddle's report, which Greene forwarded to Washington, was not encouraging. Forage was so necessary in all offensive operations that nothing could be undertaken without it. Assessing the situation further, Greene reported that very few were impressed with its importance and thay many thought it could be obtained on the "spur of occasion." Such might be the case, Greene admitted, if the demand was small, but a large supply could be obtained with any certainty only if measures were taken in advance. If the business was left on a "precarious and uncertain footing, ten to one but we shall be obliged to abandon with disgrace." Greene added that he saw no preparations being made nor any prospect of putting Washington's army in condition to operate offensively or even to carry out a defensive plan. He was not convinced that "either administration, or the several states consider the present preparation in the light of a serious intention to offensive operations."[62]

Quartermaster General Greene's assessment was accurate. Biddle applied to the justices, or magistrates, in New Jersey and to the contractor appointed by the state for the county in which the main army lay—it was then at Camp Preakness in the northern part of the state—for pasturage and permission to cut meadow grass in the vicinity of camp to subsist the horses. He got little assistance, even though his foragemasters met with the justices and the contractor for days. The justices declared that they could not subsist the horses any longer in the neighborhood of the camp, and Biddle added that this claim would be repeated at every place that Washington might have occasion to halt. They felt, he informed Washington, that they had no right to take more than what each farmer could conveniently spare, and they commonly consulted the owner on the quantity he could spare. Biddle had proposed to replace what might be taken with hay from other parts of the country, but the inhabitants rejected that proposal. Pasturage and grass were to be had within a few miles of camp, and he inquired whether Washington would issue a warrant to impress. The foragemasters would have to be assured, he added, that they were justified in executing the warrant, since many had been sued, confined, and put to considerable expense in the fall of 1779 while impressing forage.

Convinced of the absolute necessity of impressment, Biddle wrote again the same day to Washington, asserting that the choice was either to allow the horses to perish or to break into the enclosures of the farmers. He took the liberty of drafting and enclosing the form of a warrant; he left the distance it was to extend and the time period to be filled in by Washington if he approved the form. He suggested five miles around the camp as the distance for impressing forage. Washington on 11 July 1780 authorized that distance and limited the use of the warrant to a ten-day period.[63]

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62. Ibid., 3:255-58 (Greene to Washington, 7 Jul 80).

63. (1) Washington Papers, 141:69, 70 (Biddle to Washington, 11 Jul 80). (2) Fitzpatrick, *Writings of Washington*, 19:158–59 (11 Jul 80).

Three days later Dunham, the superintendent of purchases in New Jersey, raised a new question. He doubted whether the laws of the state authorized the state contractors to procure pasturage for teams employed in transporting supplies purchased outside the state. He therefore wanted an order from the Commander in Chief or the committee of Congress at camp. The latter entreated him to take effectual measures to procure and furnish the forage needed for the horses and trains employed in such transportation. By this time the impressment warrant had expired and Biddle needed an extension, Washington granted it for another ten-day period, extending the distance to ten miles.[64]

Late in July 1780 Greene sent letters from both Furman and Biddle to the committee of Congress at camp to provide it with information on the state of the Forage Department. There appeared to be little probability of getting any considerable stock of forage in New Jersey. In was tedious, Greene asserted, to go with the magistrate through a whole neighborhood in search of pasturage and to have to take it in the divided state in which it was usually laid out for the convenience of the inhabitants rather than for the accommodation of the service. This procedure was prejudicial to forage supply both on the line of communications and with the army. The magistrates, Greene noted, would always favor the local people, who were their neighbors. He believed that "this is the first Army whose support was made to depend altogether upon an order of people naturally full of little jealousies and idle prejudices and who cannot be impressed with the importance of the Service."[65]

The Commander in Chief issued impress warrants for ten-day periods in the areas about the camps at Peekskill and Tappan, New York, and at Teaneck, New Jersey, on 2, 13, and 23 August 1780. He dispatched Greene on a forage expedition into the area around Bergen, New Jersey, and so informed Congress. He issued another ten-day warrant to Biddle on 6 September.[66] When plans for a Franco-American offensive against the British again failed to materialize, as they had the previous year, Washington's small, ill-supplied army was compelled to lie idle in the Highlands of the Hudson. Though not yet apparent, the war in the north for all practical purposes had come to an end.

Forage Supply Under Pickering

In the meantime, Congress in July 1780 had reorganized the Quartermaster's Department, appointing Timothy Pickering to succeed Greene as

64. (1) Burnett, *Letters*, 5:279 (committee to Dunham, 19 Jul 80). (2) Washington Papers, 143:21 (warrant, 22 Jul 80).

65. RG 11, CC Papers, item 155, 1:347–49 (Greene to committee, 24 Jul 80).

66. Fitzpatrick, *Writings of Washington*, 19:305-06 (to Biddle, 2 Aug 80); 431-32 (to Greene, 24 Aug 80); 437-38 (to Pres of Cong, same date); 20:5 (to Biddle, 6 Sep 80).

its head. Since all forage needed by the Continental Army was now procured by the states under the system of specific supplies, purchasing agents in the forage branch of that department could be eliminated. The state deputy quartermasters issued all forage at posts. In consequence, foragemasters and their assistants also were no longer needed at issuing posts. The only forage personnel retained in the Quartermaster's Department were those appointed to serve with the Continental Army. Congress authorized the Quartermaster General to appoint one commissary of forage for the main army and a deputy commissary for each separate army, as well as such foragemasters, clerks, and laborers as the service required. The duties of the commissary of forage and of a deputy with a separate army were to provide forage and pasturage in the neighborhood of a camp by purchase or other means as the case might require; to make seasonable requisitions on the state deputy quartermasters for needed forage; and to receive and issue forage to the troops. Congress now eliminated the payment of all commissions to personnel in what remained of the Forage Department. Except for the head of the department, who had been paid a commission, this provision introduced no change since forage personnel serving with the Continental Army had always been on a salaried basis. Foragemasters were to be detailed from the line; they were to receive, in addition to their pay in the line, 10 dollars per month.

When Pickering reorganized the Quartermaster's Department under the plan of 1780, he appointed Henry Lutterloh as commissary of forage with the main army.[67] Convinced that the need for economy had led to the reorganization of the Quartermaster's Department, Pickering was determined to practice it vigorously. In November 1780 he commended Lutterloh for abolishing the positions of two assistant commissaries of forage who had been held over from Biddle's administration and who had been serving with the two wings of the main Continental army. Lutterloh had inherited one other assistant from Biddle, whose responsibilities had included charge of the magazine with the main army. Since there were no magazines, however, and no prospect of any, this assistant, Pickering pointed out, also could be dismissed. In any case, he wrote, foragemasters could do all the necessary work. Lutterloh was left with one assistant, whose services were required at the Artillery Park.[68]

Washington had requested Biddle to carry on until his successor in the Forage Department arrived in camp. With his customary willingness, Biddle continued to provide forage for the main army. Much of it was ob-

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67. (1) Washington Papers, 126:104–05 (Pickering to Washington, 28 Sep 80). (2) See *JCC*, 17:615–35 (15 Jul 80). (3) Congress set the salary of the commissary of forage at 75 dollars per month and two rations per day; that of the deputy at 40 dollars per month and one ration per day.

68. RG 93, Pickering Letters, 123:118–19 (to Lutterloh, 21 Nov 80).

tained by impressment, the owner of the forage receiving a certificate for future payment. By act of Congress, however, no certificate was to be considered valid unless signed by the new Quartermaster General, but Pickering remained in Philadelphia for some forty days after his appointment on 5 August, preoccupied with organizing his department. To avoid any possibility that he would be held personally accountable for the forage he was collecting, Biddle asked for instructions. Washington advised him to continue giving certificates, keeping an exact account. He assured Biddle that he would induce Pickering to provide payment of the certificates that Biddle issued in these circumstances.[69]

In October 1780, though both Pickering and Lutterloh were now at camp, Washington could not discover any effective measures that they had taken to establish magazines of hay or grain. He appealed to Congress to take steps for his army's relief "before we are overtaken by Winter."[70] Before the end of the month Pickering was pleading with the Council and General Assembly of New Jersey to adopt some measures for providing the army with forage. Greatly alarmed, he also wrote to the President of Congress about the failure of forage supply. Hundreds of horses had already perished. All the grain that had been brought to the main army was less than the quantity needed to supply the riding horses; the wagon horses had none and had subsisted on pasturage with a little hay. Pasturage was then failing and forage was being collected for twenty miles around the camp by military authority. The states were taking no other measure to fill their quotas, Pickering added, than to appoint agents to purchase forage, when the total current amount of money brought into the public treasury would have been insufficient for the purpose. He called on Congress to provide a remedy before it was too late.[71]

Congress referred Pickering's letter and one from Deputy Quartermaster John Neilson in New Jersey to a committee. The latter's report attributed the scarcity of hay to a failure of crops that season. Since the campaign of 1780 was drawing to a close, Congress proposed to solve the forage shortage by authorizing the Commander in Chief to remove from camp all riding horses that were not absolutely necessary. In addition, the Quartermaster General was to send all the main army's wagon horses that could be spared to one or more states where forage could be provided for them on reasonable terms. Moreover, if the Commander in Chief thought it preferable, some of the horses could be sold and draft oxen substituted for them in the next campaign. Congress directed the Quartermaster General to apply to the executive authorities of the states nearest the encampment of the main army to fur-

69. (1) Washington Papers, 151:40 (Biddle to Greene, 15 Sep 80). (2) Fitzpatrick, *Writings of Washington*, 20:55–56 (to Biddle, 15 Sep 80). Washington advised Congress of his action. See 20:51–52 (16 Sep 80).

70. Ibid., 20:106 (1 Oct 80).

71. (1) RG 93, Pickering Letters, 126:168–69 (to N.J. Council, 20 Oct 80). (2) RG 11, CC Papers, item 192, fols. 41–43 (Pickering to Pres of Cong, 30 Oct 80).

nish such quantities of forage as would enable him to form proper magazines for the use of the army. It also ordered him to call on the more distant states to furnish intermediate posts with forage for transporting provisions and stores to the army and for providing for the horses removed from camp. Congress further directed the Commander in Chief to make a return to the Board of War of all horses, government and privately owned, that were kept in camp at government expense, and also of the number sent away, noting where they were kept and how they were employed.[72]

This resumé of forage measures taken in the past was hardly a solution to the problem, as Pickering was quick to point out. The main body of Washington's army, he noted, was to winter in the Highlands of the Hudson. Forage could most easily be obtained from the towns in western Massachusetts and from Connecticut. What New York could supply would be taken if it was not furnished. Magazines should be established at Claverack, New York, and at Springfield and Boston, with smaller ones at intermediate posts. If Deputy Quartermaster Jabez Hatch at Boston could be supplied with money, Pickering informed John Hancock, "nothing more will be wanting." Pickering had hoped that Congress would develop some effective way for procuring forage, "but there has appeared too little energy everywhere," he wrote. "Sister States have discovered little sympathy for the distresses of those which are the Seat of war. Such small assistance has been given by the Southern States that Jersey had been (tho' unavoidably yet) cruelly oppressed." Most of the short forage and all the long forage consumed by the main army in the campaign of 1780 had been taken in New Jersey and chiefly by "military authority which has lately occasioned bloodshed." Commenting on the efforts of the states to purchase forage, he reiterated his belief that these efforts would fail because all the money in circulation would be insufficient. "It is demonstrably clear that nothing in the power of the States, save taxes in kind, will now enable them to form magazines of provisions and forage." He wrote to Governor Jonathan Trumbull of Connecticut in much the same vein, and he appealed to Pennsylvania for forage.[73]

When Washington's army arrived at its winter quarters, Pickering sent the horses of the Artillery and of the spare ammunition wagons to Berks and Lancaster Counties in Pennsylvania, and those of the Pennsylvania line to Berks and Northampton Counties. He advised his assistant deputy quartermasters at Easton, Lancaster, and Reading to provide for these horses or prevail on the farmers to take care of them. They were to sell old and worn-out horses. The rest of the army's horses were sent to the western counties of Massachusetts and Connecticut.[74]

72. *JCC*, 18:1045–47 (10 Nov 80).

73. RG 93, Pickering Letters, 123:107–11 (to Hancock, 20 Nov 80); 111–12 (to Joseph Reed, 21 Nov 80); 113 (to Trumbull, same date).

74. Ibid., 123:135-38 (to Assistant Deputy Quartermasters Jacob Weiss, Easton; Richard Miles, Reading; and Philip Marsteller, Lancaster, 30 Nov 80; to Deputy Quartermaster Samuel Miles, 30 Nov 80).

During the winter of 1780–81 even Washington's horses lacked forage. Commissary of Forage Lutterloh frequently had not a single bushel of grain on hand. In the midst of this acute shortage, men stopped forage wagons on the road. Washington forbade such action, pointing out that some horses consequently had a full supply while others starved. If any thought their horses neglected, he added, and if they obtained no remedy by applying to the commissary of forage, they could present the matter to headquarters, and everything that the scantiness of the magazines permitted would be done. In March 1781 Lutterloh called on Udny Hay, then serving as the agent of New York, for forage, but his reply held out no hope of any improvement in the situation. In the meantime, Lutterloh was being soundly criticized for his neglect of the horses when, as he observed, "my power only is confin'd to writing, and making *seasonable* applications."[75]

In Pennsylvania forage was also scarce and costly, and the post at Philadelphia, as in the past, had a very large number of horses. Generally, more than 200 had to be cared for at the Continental stables. When Congress questioned an estimate submitted by Deputy Quartermaster Samuel Miles for funds to purchase hay and corn for the post, Pickering tartly replied that the most obvious and important retrenchment, and the one which appeared most practicable, would be to cease supplying the horses of members of Congress and those few kept by officers of the civil list. It was true, he added, that these expenses were supposed to be repaid by the owners of the horses, but not only were the bills paid in depreciated currency but they were also estimated too low—by a fourth, according to Jacob Hiltzheimer, who was still in charge of the government stables.[76]

When Washington learned in May 1781 that the French were sending a fleet under Admiral Francois de Grasse to cooperate with the American forces and with the French troops then stationed at Newport under the command of Lt. Gen. Jean, Comte de Rochambeau, he met with Rochambeau to formulate plans. These plans at first called for an attack on New York by land and sea. The French troops at Newport moved to Westchester County in New York to join the American forces in July. Since no forage magazines had been established, the French and American forces, when they lay near Dobbs Ferry in Westchester County, took forage by turning their horses and oxen into available fields, except those in which grain was ripening. Some of the farms and estates had been confiscated by New York; others belonged to persons called "refugees" who had fled in fear of the British. Under a law enacted by the New York legislature on 1 July 1781, the state agent, Udny Hay, was allowed to collect for Washington's forces forage and other sup-

75. (1) Fitzpatrick, *Writings of Washington*, 21:141 (to Pickering, 25 Jan 81); 214 (GO, 11 Feb 81). (2) Hugh Hughes Letter Books (Lutterloh to Hughes, 20 Mar 81).

76. (1) *JCC*, 20:700 (26 Jun 81). (2) Burnett, *Letters*, 6:131–32 (Pres of Cong to Pickering, 28 Jun 81). (3) RG 11, CC Papers, item 192, fols. 71–73 (Pickering reply, 10 Jul 81).

plies which might be found on the confiscated estates in Westchester County. Hay argued that the United States was therefore indebted for the forage taken by the allied army. Pickering insisted that the United States should not be charged for the forage consumed since the forage would have fallen into the enemy's hands or perished on the ground if the army had not been encamped at Dobbs Ferry. This controversy between Hay and Pickering, initiated in the midst of the preparations that had to be made for the allied offensive against the British, remained unsettled when the war ended.[77]

When Washington received word on 14 August that de Grasse was sailing for the Chesapeake Bay, plans quickly shifted to an attack on the British under Cornwallis in Virginia. Maj. Gen. William Heath was placed in command of the troops remaining in the Highlands, and the allied troops began their movement southward on 21 August. To provide forage for Heath's troops, Pickering appointed William Keese as deputy commissary of forage, allowing him a salary of 45 dollars per month and two rations per day. Pickering advised him that "*purchase* of forage will probably seldom happen" for lack of money. Procurement on credit "is allways to be preferred to any other mode," but he quickly added that "a warrant of impress, I fear, will be for the most part your only resource."[78]

Commissary of Forage Lutterloh accompanied the troops moving to Virginia. En route Washington requested the governor of Virginia to establish forage magazines, and he also appealed to the governor of Maryland to send forage. A lack of sufficient water transportation at Head of Elk necessitated travel by land for some of the troops and stores. Washington informed Lutterloh of the route the wagons would take and instructed him to prepare forage deposits at each stopping point.[79] He wrote that he had received assurances of aid from Maryland and Virginia, but no doubt remembering failures of timely assistance on other occasions, he provided Lutterloh with an impress warrant, to be used if necessary. "The March," he emphasized, "must not be retarded for want of Supplies within your Department." Washington informed Pickering of the orders given to Lutterloh and directed the Quartermaster General to join the army as soon as possible.[80]

When Pickering arrived at Williamsburg on 16 September, he learned not only that forage supply was very limited but that none had been collected on the route Lutterloh was following. He informed the latter of the situation.

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77. For details of this controversy, see Pickering and Upham, *The Life of Timothy Pickering*, 1:316–28.

78. RG 93, Pickering Letters, 82:81–82 (to Keese, 26 Aug 81).

79. To avoid delays caused by the need to ferry wagons across rivers, Washington informed Lutterloh that the route would be from Head of Elk via Bush River to Baltimore, to Elk Ridge Landing, to Bladensburg, to Georgetown, and from thence to the Falls of the Rappahannock (avoiding the Occoquan Ferry), to Caroline Court House, to Newcastle, to Williamsburg.

80. Fitzpatrick, *Writings of Washington*, 23:55–58 (to Gov Thomas Nelson and Gov Thomas Sim Lee, 27 Aug 81); 104–05 (to Lutterloh, 7 Sep 81); 106–07 (to Pickering, 8 Sep 81).

Not only did Lutterloh have to provide forage for his train but he also had to comply with Pickering's order to procure, by impressment if necessary, sufficient forage to make up at least half loads for his wagons and bring it to camp. At the same time, the Quartermaster General warned Lutterloh not to delay too long in getting the forage for the country "is already much stripped for near thirty miles from hence." Impressment of forage was the method used to support the animals on their journey with the troops to Yorktown, during their stay there, and on their return to the north after the surrender of Cornwallis.[81]

Subsequently, Pickering sent Deputy Quartermaster Richard Claiborne instructions from Washington on paying for the forage taken and the damage done by the combined forces in Virginia. Pickering directed Claiborne to confer with the Quartermaster General of the French troops in Virginia in order to determine the "mode by which the proportion shall be estimated" and the manner in which payment should be made for the forage consumed by the French troops. Pickering proposed that the United States pay all forage costs and damages, provided the French Quartermaster General paid Claiborne the amount due for the French army's share of these forage costs. Claiborne was to distribute the money so obtained among the inhabitants in proportion to the damage they had sustained, and to give each individual a certificate for the balance due him. For this purpose Pickering sent Claiborne 525 specie certificates.[82]

In the winter of 1781–82 Superintendent of Finance Robert Morris experimented with supplying forage by contract. The firm of Smith and Lawrence contracted to supply the posts north of Poughkeepsie, New York, and for this purpose the contractors were furnished with a copy of the 1780 congressional regulation for the Quartermaster's Department as a guide for issuing forage. A similar contract was made for supplying forage to the New Jersey posts. A number of adjustments, however, had to be made in the issue of forage by the contractors because the regulation of 1780 had failed to include a considerable number of individuals who were allowed forage. Except for regimental surgeons, the whole Hospital Department, for example, had not been included, an omission that was corrected by Congress on 30 September 1780.[83]

On the last day of April 1782 these contracts expired. At Pickering's suggestion, and with the approval of the Superintendent of Finance, the procurement and issue of forage in New Jersey was turned over to the deputy

81. (1) Ibid., 23:335 (impress warrant to Pickering, 5 Nov 81). (2) RG 93, Pickering Letters, 82:89 (to Lutterloh, 26 Sep 81).

82. Ibid., 82:136-39 (to Claiborne, 7 Dec 81).

83. (1) Ibid., 82:146–50 (to Smith and Lawrence, 26 Dec 81); 83:37 (to Assistant Deputy Quartermaster Aaron Forman, 18 Jan 82). (2) *JCC*, 23:886–87.

quartermaster in that state.[84] Washington appealed to the governor of New York for assistance in providing for the horses and ox teams of the army there until the Superintendent of Finance could take effectual measures. However, the prices at which New York proposed to furnish forage through its state agent were so high that Morris rejected the offer. Instead, he gave Pickering a number of drafts which he was to use to obtain funds by negotiating an exchange with the receivers of public taxes in the several states located east of Pennsylvania. Pickering believed he would be able to keep up a regular supply of forage since Morris indicated that other drafts would be furnished from time to time.[85]

Procurement of forage was made more difficult by the competition of agents who were purchasing for the French troops. They not only made prompt payment, Pickering complained, but "they actually lodged money with the farmers before they took away a particle of forage," and the prices they paid were as high as those the Quartermaster General could give in purchasing on credit. Indeed, Pickering's procurement on credit had to be limited to the purchase of hay; "grain commanded cash in hand," he informed Morris. In the fall of 1782 the deputy quartermaster in Connecticut thought he could procure a considerable quantity of grain for forage in lieu of taxes at prices equivalent to those paid by the French agents in cash provided he could pay the arrearages due the farmers for forage and pasturage furnished since the first of that year. Pickering laid this proposal before Robert Morris and urged that a supply of forage be obtained in this way. An unusually severe drought had greatly reduced the corn and buckwheat crops, he warned, and prices inevitably would rise sharply.[86]

Pickering continued to be apprehensive about obtaining a sufficient supply of forage for the main army in New York. He decided to procure hay at the current cash prices by paying for it with salt, an article needed by the farmers. To pay off former debts to the farmers, he once more appealed to Morris for notes. That his efforts to provide an adequate supply of forage failed was made evident by the complaints registered "from the Major General down to the lowest Staff Officer entitled to keep a Horse." In December 1782 Washington was compelled to purchase forage for his horses using his private funds. He warned Pickering that all business which needed to be done by officers on horseback would have to cease and that timely notice would have to be given to the Postmaster General that the dragoons would no longer be able to carry the mail. Their horses had been without forage for so many days that "the Dragoons were obliged to bring the last weeks mail from Morris Town a considerable part of the distance on their backs."[87]

84. RG 93, Pickering Letters, 83:129–62 (1–2 May 82).

85. (1) Fitzpatrick, *Writings of Washington*, 24:428–29 (to Gov George Clinton, 11 Jul 82). (2) Washington Papers, 203:41 (Pickering to Washington, 6 Aug 82).

86. RG 93, Pickering Letters, 84:131–33 (to Morris, 19 Sep 82).

87. (1) Ibid., 85:265–66 (to Lutterloh, 11 Nov 82). (2) Fitzpatrick, *Writings of Washington*, 25:464–66 (to Pickering, 25 Dec 82).

During 1782 the number of posts was sharply reduced, the number of staff officers who were allowed forage for their horses was cut back, and the Continental Army dwindled in size. Demands for forage consequently were reduced, but its scarcity was more pronounced in the winter of 1782–83 than it had been in 1775.

In summary, the administration of forage supply in the Revolutionary War followed much the same pattern found in other supply areas. Supplying forage for the Continental Army did not receive much attention at the beginning of the war since demand was not great. A growing awareness of the problem developed only when Washington's army engaged in a campaign of movement in 1776 that required the use of many more workhorses. Yet no one part of the Quartermaster's staff administered the department's responsibility for supplying forage. Sporadic purchases and impressment haphazardly met the army's forage needs at that time. In 1777 Quartermaster responsibility for forage supply widened to include providing forage not only for riding and Artillery horses but also for the Cavalry and for those horses allotted to divisions as part of their organic transportation. In May of that year Congress established a Forage Department, but, as in the case of so many other supply agencies, it failed to provide centralized control and left implementation to the officers of the Quartermaster's Department. The Forage Department had promise, but it was sorely hampered by a lack of vigorous direction by Quartermaster General Mifflin and by the limited authority given to Clement Biddle, commissary general of forage for Washington's army. When Greene in 1778 increased Biddle's authority, the latter initiated needed reforms. Biddle was an able administrator whose work won Washington's approval. Unfortunately, the Forage Department, like all supply agencies in 1779, was beset by spiraling costs and a lack of funds. Except for keeping a modest field organization, Congress eliminated the Forage Department in 1780. Once again Washington's army was dependent for all practical purposes on impressment for its supply of forage. Efforts in the last two years of the war to procure forage under contract were not too successful. Congress never found an adequate solution to the problem of forage supply for the Continental Army. Peace finally made unnecessary any further efforts to do so.

CHAPTER 5

Other Quartermaster Support

Water Transportation

Handicapped by the difficulties of land transportation, the Quartermaster's Department early adopted the policy of using water routes wherever possible, primarily to expedite the movement of supplies but also, on occasion, of troops. The department was following an established practice, for the American colonists from pioneer days had utilized the country's navigable waters for travel and trade. The first settlers had built small boats—schooners, sloops, and piraguas—to sail the bays and coastal waters that separated settlements. When they pushed inland, they used rivers as water routes. On the larger rivers sloops and schooners were common, but simpler boats—canoes, skiffs, pirogues, and bateaux—also furnished a ready means of transportation.

At the beginning of the Revolution when the Continental Army lay before Boston, the Quartermaster's Department had little need for water transportation. Nevertheless, even in 1775 the Quartermaster General included 50 pounds per month for boat repair in a monthly estimate of expenses in his department.[1] Once the British evacuated Boston, Washington wanted to dispatch his troops quickly to New York. He ordered Quartermaster General Thomas Mifflin to Norwich, Connecticut, to make arrangements with Brig. Gen. William Heath and Brig. Gen. John Sullivan for the embarkation of their brigades and to contract for such transports as were necessary for the movement of the troops with their stores and equipment.[2] A considerable number of transports were used. General Sullivan, for example, utilized twenty-three vessels in bringing his troops down Long Island Sound.[3] Following the arrival of Washington's army in New York in the spring of 1776, the Hudson River became a vital supply artery, and boats of every description were much in demand. In time the Quartermaster's Department established a policy of engaging privately owned sloops and schooners whenever possible and of constructing and maintaining government-owned boats only when necessary. Generally, the latter were bateaux, scows, and barges.

The first widespread use of water transportation, however, antedated

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1. Force, *Am. Arch.*, 5th ser., 2:1318.
2. Fitzpatrick, *Writings of Washington*, 4:429–30 (to Mifflin, 24 Mar 76).
3. Douglas S. Freeman, *George Washington*, 6 vols. (New York, 1948–52), 4:77.

Quartermaster activity on the Hudson. It occurred in the Northern Department in 1775 when boats were used to transport both men and supplies, though this effort was not under the direction of the Quartermaster's Department. Late in June Congress ordered Maj. Gen. Philip Schuyler, commander of the Northern Department, to build boats for securing the waters adjacent to the captured forts of Ticonderoga and Crown Point and for dispatching an expedition into Canada.[4] With the arrival of Washington in New York, the Quartermaster's Department assisted Schuyler by shipping up the Hudson nails, oakum, junk, and other supplies needed to build boats. The latter included bateaux, piraguas, and other vessels for use on Lake Champlain.[5]

While Schuyler coped with the problem of providing water transportation in the Northern Department, Assistant Quartermaster General Hugh Hughes contracted with the masters of privately owned sloops on the Hudson to deliver supplies to Washington. No example of these contracts has been found, but vessels apparently were usually engaged by the day. Their tonnage and the time they were employed were recorded, and payment was at a rate of so much per ton per day. When settlement, for example, was to be made for the vessels used in the Yorktown campaign, Superintendent of Finance Robert Morris considered that the price for transports should not exceed one shilling per ton. Vessels, however, might also be "engaged freight at a price per Barrel." On the Potomac River in the fall of 1781, the cost ran "3 [shillings] pr Barrel Virginia Currency."[6] On the Hudson and later in the Yorktown campaign, sloop masters and their hands were allowed to draw rations; the cost was deducted from the final settlement due the owner for the use of his boat and from the wages paid the crew.

In addition to hiring vessels to transport supplies, the Quartermaster's Department in June 1776 began building boats. In anticipation of the arrival of the British at New York, Washington instructed Hughes to build six gondolas, or row galleys. Hughes sent out a purchasing agent to Staten Island, New York; to Elizabethtown, Rahway, and Newark, New Jersey; and to other nearby towns to contract for ship timber and two-inch planks, knees, scantlings, and oars. Benjamin Eyre was engaged to build these gondolas as well as bateaux. Hughes called on the various town committees

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4. (1) *JCC*, 2:109–10 (27 Jun 75). (2) For logistical problems involved in transporting provisions for 10,000 men from Albany to St. John's in Canada, see Force, *Am. Arch.*, 4th ser., 6:565–66.

5. (1) Hugh Hughes Letter Books (to Schuyler, 17 and 31 May 76). (2) Washington Papers, 27:106 (return, 4 Jun 76). (3) Fitzpatrick, *Writings of Washington*, 5:74–75 (to Schuyler, 22 May 76). (4) Force, *Am. Arch.*, 4th ser., 6:562–63 (Maj Gen Israel Putnam to Washington, 24 May 76).

6. (1) Morris Letter Book B, fols. 412–13 (to Deputy Quartermaster Donaldson Yeates, 28 Jan 82). (2) RG 93, Pickering Letters, 82:133 (to Assistant Deputy Quartermaster Joshua George, 23 Nov 81).

to assist his purchasing agent, and he sent another agent up the Hudson to obtain charcoal.

Although Hughes acted vigorously, the construction of boats did not advance to the point where the department could meet Washington's needs in the New York campaign. To enable the troops to accomplish the retreat from Long Island under cover of night, Hughes had to impress "all the Sloops, boats, and water craft from Spyghten Duyvil in the Hudson, to Hellgate on the sound."[7] As the main army moved into New Jersey, Congress recommended that the Pennsylvania Council of Safety send one of its galleys along the New Jersey shore of the Delaware River from Philadelphia to Trenton to move all types of river craft to the Pennsylvania side in order to prevent their use by the enemy.[8] Boats available for Washington's use were still largely those that could be impressed to meet specific needs.

In the course of the war the Continental Army often had to cross rivers. There were few bridges of any sort; such as did exist were primitive structures built over small creeks.[9] There were no permanent bridges over broad rivers. Where possible, Washington's army used so-called floating bridges. When the British pressed their campaign in New York in 1776, for example, Washington sent an urgent request to William Duer to procure six anchors and cables of the size commonly used by sloops, in order to moor boats together as a bridge across the Harlem River.[10] The troops of the Comte de Rochambeau and Washington marched over such floating bridges on their way to Yorktown in 1781.[11] Where states maintained and operated floating bridges, as Pennsylvania did on the Schuylkill River, agreements were made between the state and the Quartermaster's Department for their use.[12]

Passage across broad rivers in the Revolutionary War was more commonly accomplished by the use of ferries. Those that were privately owned and operated were usually named for the owner, such as Wright's Ferry on the Susquehanna, Watkins' Ferry on the Potomac, and Coryell's Ferry on the Delaware. Use of private ferries required the payment of ferriage charges. Early in 1779 Quartermaster General Nathanael Greene entered

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7. (1) Fitzpatrick, *Writings of Washington*, 27:461 (to Hughes, 22 Aug 84). (2) Hugh Hughes, *Memorial and Documents in the Case of Colonel Hugh Hughes* (Washington, 1802), p. 9 (Hughes to Washington, 31 Jul 84).

8. *JCC*, 6:1000 (2 Dec 76).

9. Early Pennsylvania legislation, for example, called for such bridges to be ten feet wide with a rail on each side. Dunbar, *A History of Travel in America*, p. 177.

10. Force, *Am. Arch.*, 5th ser., 2:931 (Tench Tilghman to Duer, 7 Oct 76).

11. Thomas Scharf and Thompson Westcott, *History of Philadelphia*, 3 vols. (Philadelphia, 1884), 3:2141.

12. The first floating bridge on the Schuylkill was built under the direction of Maj. Gen. Israel Putnam, who was sent to Philadelphia in December 1776 "to superintend the works and give the necessary directions" to fortify the city as the British approached. When the British occupied the city in 1777, the Continental troops removed the bridge. When the British subsequently evacuated the city, they left intact a floating bridge which the Continental Army took over and

into an arrangement with John Coryell for the use of his ferry. Ferry rates varied according to the size of the river to be crossed. For the use of the Trenton Ferry, Deputy Quartermaster John Neilson agreed to pay its owner one half the price he received from private individuals.[13] On the Hudson and elsewhere there were also public ferries, owned by the Quartermaster's Department and operated by ferrymen who worked for the department. These ferries provided free service for the passage of Continental personnel and property.[14]

It was the responsibility of the Quartermaster General to see that all ferries were in readiness when troops moved out on campaigns. It was considered advantageous, too, if a quartermaster could locate a ford and thus eliminate the delays occasioned by the use of a ferry. To accomplish his preparations, the Quartermaster General also might have troops familiar with the handling of boats detailed from the line to position bateaux, scows, and barges in readiness for ferriage.

The Quartermaster General sent out agents to survey roads. His agents also inspected bridges, made reports on needed repairs, and noted where new bridges might have to be built. He appealed to the states for aid, including the use of militia to repair roads and bridges. On the march a party of "pioneers," detailed by the commanding general of a division, usually moved in front of the column to assist the artificers in repairing bridges and bad places in the roads. The artificers took their orders from the Quartermaster General.[15] It was the spring of 1782, however, before Congress authorized a Corps of Pioneers. It took this action in response to a proposal made by General Greene, then commanding the Southern Army, but it limited the Corps of Pioneers to one year's service with the Southern Army.[16] No such corps served with the main Continental army.

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utilized. This use led to an exchange of views about the bridge early in 1779 between the Quartermaster's Department and the Supreme Executive Council of Pennsylvania, which was settled when Greene proposed paying a rent set by the state if the state reimbursed the department for the repairs it made to the bridge. When a freshet carried away the bridge early in 1780, Deputy Quartermaster General John Mitchell offered to replace it and keep it in repair for a year on condition that Continental troops, teams, and cattle be allowed to pass free of toll. The council accepted this offer and made the department responsible for the operation of the bridge and for the payment of a rent of 700 pounds a month, which was to be collected from private users of the bridge according to a schedule of fees set by the council. (1) Fitzpatrick, *Writings of Washington*, 6:340. (2) APS, Greene Letters, 8:87 (Joseph Reed to Greene, 4 Feb 79); 4:78 (Pettit to Greene, 20 Feb 79). (3) RG 11, CC Papers, item 173, 4:71 (Greene to Reed, 4 Feb 79). (4) *Minutes of the Provincial Council of Pennsylvania*, 13 vols. (Harrisburg, 1850–53), 12:269 (6 Mar 80).

13. (1) APS, Greene Letters, 9:107 (Reed to Greene, 28 Jun 79). (2) RG 93, Pickering Letters, 82:100-101 (to Deputy Quartermaster Claiborne, 17 Oct 81).

14. Ibid.

15. (1) Ibid., 82:167-68 (to Phillip Pye, 2 Aug 81). (2) Fitzpatrick, *Writings of Washington*, 12:90-91 (GO, 18 Jun 78); 23:69-71 (to Maj Gen Benjamin Lincoln, 31 Aug 81).

16. (1) RG 11, CC Papers, item 149, 1:175–78 (Greene to Pickering, 1 Mar 82). (2) *JCC*, 22:148–49 (26 Mar 82).

The Boat Department

When Nathanael Greene became Quartermaster General in 1778, he sought to centralize control by placing all matters relating to the construction and hire of boats and the employment of necessary personnel under the direction of a Boat Department. Little is known of the nature of its organization, but Benjamin Eyre, who had been building boats for the main army as early as 1776, became "superintendent of naval business" for the Quartermaster's Department, as Assistant Quartermaster General Charles Pettit expressed it.[17] Greene contracted with Eyre for his services as superintendent and apparently gave him, among other duties, authority to operate all government ferries and to pay all expenses in connection with their operation and maintenance.[18] Superintendent Eyre's authority, however, was exercised primarily in the Middle Department. On 1 July 1779 he submitted a return of the boats that he had built, their stations, the number of men employed in the Boat Department, and the amount disbursed in building boats from 1 May 1778 to 1 May 1779, the first year of his superintendency.[19] The boats—four schooners, seventeen Durham boats, and a number of scows, flat-bottomed boats, bateaux, and rowboats—were located at Middletown and Wright's Ferry on the Susquehanna, at Watkins' Ferry on the Potomac, at Reading and the falls of the Schuylkill, at Coryell's Ferry and other places on the Delaware, and at Philadelphia.[20]

On 26 June 1779 the Boat Department employed 17 shipwrights under an assistant at Philadelphia; 2 assistants and 3 foremen directed the work of 65 shipwrights at Fort Pitt. The department also employed 125 men, including an assistant and 5 foremen, at Middletown and at Watkins' Ferry on the Potomac.[21] Except for one assistant who was paid a commission, all of these men were salaried. An assistant was paid 20 dollars a day; a foreman, 15 to 16 dollars a day; and a shipwright, usually 12 dollars a day. Elsewhere, Greene's deputy in Connecticut, Nehemiah Hubbard, directed all boat activities for the Quartermaster's Department on the Connecticut River, as Deputy Quartermaster General Udny Hay did on the Hudson. Deputy Quartermaster General Morgan Lewis was responsible for water transportation in the Northern Department.

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17. APS, Greene Letters, 4:78 (20 Feb 79).

18. Ibid., 4:83 (Pettit to Greene, 10 Feb 79); 11:7 (Greene to Pettit, 14 Feb 79). Whether Eyre was paid a commission or a salary for his services is not known.

19. (1) Ibid., 8:21. (2) Washington Papers, 3:92 (return, 1 Jul 79).

20. A Durham boat was a keelboat shaped like an Indian bark canoe—60 feet long, 8 feet wide, and 2 feet deep—which carried a mast with two sails and a crew of five. One steered, and two on each side pushed the boat forward with setting poles. It was named after its builder, Robert Durham of Pennsylvania, who had begun building them about 1750 for use on the Delaware River. Dunbar, *A History of Travel in America*, p. 282.

21. See APS, Greene Letters, 4:104, 111, for returns.

When Timothy Pickering became Quartermaster General in 1780 and made economy his watchword, the Boat Department ceased to exist. Pickering saw the need for a harbor master on the Hudson, where many large craft were employed, and he permitted Hugh Hughes to retain one. He urged a reduction of personnel at public ferries, maintaining that only one superintendent was necessary at each ferry, not one on each side of the river.[22]

Once it had acquired a number of boats for Army use, the Quartermaster's Department in the winter months customarily laid up all boats not necessary for the use of the troops, such as those for the garrison on the Hudson, in order to preserve them for the next year's campaign. Ideally, winter was also the time for making repairs as well as building new bateaux and other boats. After 1778, however, the Quartermaster's Department was always so hampered by a lack of funds that such work could not be regularly accomplished.[23] In consequence, when a campaign required the use of water transportation, preparations had to be made in great haste.

In the fall of 1779, for example, unofficial accounts that the fleet of Admiral Jean, Comte d'Estaing, was nearing the coast produced a flurry of activity in the Boat Department inasmuch as the reports led Washington to hope for a joint campaign against New York. In September Quartermaster General Greene ordered Deputy Quartermaster General Hay to build and repair flat-bottomed boats and directed Capt. Moses Bush at Middletown, Connecticut, to build a number of river scows with higher than customary sides in order to accommodate cannon and wagons.[24] Washington requested Greene to ready all public boats on the Hudson and bring them down from Albany to West Point and to collect all public boats on Long Island Sound. He further directed him to have as many other boats in readiness as Greene judged would be needed. He approved a plan proposed by Greene to have Superintendent Eyre in Philadelphia employ as many ship carpenters as were willing to engage "in the expedition" that was to be sent to build boats on the Hudson.[25] Some members of Congress later expressed much dissatisfaction with the high wages Eyre had allowed the carpenters. While admitting that the wages were enormous, Assistant Quartermaster General John Cox insisted that they were not more than what merchants were paying at the time Eyre engaged the men.[26] To further expedite boat building, Washington ordered all noncommissioned officers and privates in the brigades near West Point who were ship carpenters to report to the Quartermaster General. Deputy Quartermaster General Hay at Fishkill divided these men into

22. RG 93, Pickering Letters, 82:15–21 (to Hughes, 12 Jul 81).

23. (1) RG 11, CC Papers, item 173, 2:149 (Greene to Hay, 16 Nov 79). (2) Fitzpatrick, *Writings of Washington*, 18:364 (to Hay, 15 May 80); 459–60 (to Greene, 31 May 80).

24. RG 11, CC Papers, item 173, 2:95–96 (Greene to Hay, 12 Sep 79).

25. Fitzpatrick, *Writings of Washington*, 16:341–42, 423–24 (to Greene, 26 Sep and 2 Oct 79).

26. APS, Greene Letters, 9:31 (Cox to Greene, 2 Nov 79).

small companies of ten men each. To stimulate production, he promised a reward to the company that turned out the most bateaux. Production, however, was hampered by a lack of boards and planks, which early in October had not yet arrived from Albany.[27]

Greene requested Deputy Quartermaster General Morgan Lewis to hurry the movement of these supplies. Lewis, operating on orders received earlier from Greene, had been repairing and building boats. Early in October he informed Greene that he had sent sixteen bateaux to Fishkill and expected to send forty more within a fortnight. Furthermore, he had called in all boats from the Mohawk River and had employed every available carpenter at Schenectady and Albany.[28]

In Connecticut Deputy Quartermaster Hubbard gathered scows at the government shipyard at Chatham. After consulting with Captain Bush, he reported to Greene that only sixteen of them were suitable for the purpose intended. They would be made ready, Hubbard wrote, adding that Bush thought that if time permitted he could build one scow a day for ten days. Hubbard already had set the sawmills in operation to provide 30,000 feet of planks in ten days. He needed cash, however, to pay the wages of carpenters, who would not engage to work on the scows unless they were paid every Saturday night as in private boatyards. The work did not proceed as fast as Hubbard had expected. At the end of the first week in November, five scows had been completed and twelve were on the stocks. "The lumber of which they are made," he noted, "was standing in the woods when I received my orders."[29] But by that time the anticipated cooperation with the French had failed to materialize, and the boat preparations came to a halt—much to Deputy Quartermaster General Hay's relief. He reported that 193 bateaux had been built, but he was worried about the scarcity of boards available for building barracks, repairing wagons, and making arms chests.[30]

When Washington again hoped for an allied operation by land and sea against the British in 1781, there were few boats on hand, and most of these were in need of repairs. As usual, the major part of the boats had been laid up during the winter months. Deputy Quartermaster Hughes submitted a report in April 1781 on all the government-owned boats on the Hudson and Mohawk Rivers. Most of these—195—were bateaux; only 18 were in good condition, but the major part were reparable. Hughes listed 2 barges, 2 scows, and 3 skiffs in good condition. Of the 12 flat-bottomed boats, 6 were in good condition and 5 were reparable. There were also 2 whaleboats, both

27. (1) Fitzpatrick, *Writings of Washington*, 16:424 (6 Oct 79). (2) APS, Greene Letters, 3:50, 529 (Hay to Greene, 7 and 9 Oct 79). (3) RG 11, CC Papers, item 173, 4:231 (Greene to Lewis, 9 Oct 79).

28. APS, Greene Letters, 3:82 (Lewis to Greene, 7 Oct 79).

29. Ibid., 3:77, 81 (Hubbard to Greene, 11 and 20 Oct 79); 9:63 (same to same, 9 Nov 79).

30. Ibid., 8:52 (Hay to Greene, 29 Oct 79).

of which were in need of repairs. Of the 12 gunboats, only one was in good condition, but 10 were reparable. A sloop and a pettiauger were in good condition, but of the 3 schooners, 2 needed repairs.[31] The report was not unusual. It certainly indicated that the water transportation that would be required in any cooperative effort with the French was not ready.

By 7 June Washington was stressing the "almost infinite importance" of having the boats ready for use and urging Quartermaster General Pickering to take every necessary measure. Three days later, still greatly concerned about the preparation of boats, he requested a return listing all boats from Albany to Dobbs Ferry; they were to be classified as fit for service, reparable, or irreparable. Moreover, he wanted all those fit for service to be collected at once at West Point. Should Pickering not have enough tar for repair work, he was to impress it under a warrant either from the governor of New York or the Commander in Chief.[32]

In this emergency General Schuyler offered to build 100 bateaux in 20 days. Washington requested Pickering to lend Schuyler every assistance in completing the much needed boats.[33] To provide the total of 200 bateaux required for the campaign, an additional 100 bateaux were to be built in 30 days by artificers under the direction of the Quartermaster's Department. Nails and oakum were in great demand, and Pickering urgently appealed to Deputy Quartermasters Samuel Miles and John Neilson to send these supplies from Pennsylvania and New Jersey, promising payment to the wagoners delivering them. He also undertook to obtain assistance from Superintendent of Finance Robert Morris. Miles had already procured and provided a considerable quantity of spikes and deck nails. Although the required small-sized nails were not available in Pennsylvania, Pickering anticipated that he would still be able to meet Schuyler's needs.[34] The search for nails went on. An assistant deputy in New Jersey reported that a Mr. Ogden could furnish 300 pounds weekly for hard money or "the Exchange," an equivalent amount of paper money. This quantity was "pitiful," Pickering lamented, when he needed 1,600 pounds of 8-penny nails and 2,200 pounds of 10-penny nails within 20 days.[35]

In mid-July Washington requested Schuyler to send down the Hudson all the boats that were finished. Most of the allied army was then gathered in New York. On 14 August, however, Washington learned that Admiral de Grasse planned to sail to the Chesapeake Bay. When Washington then boldly shifted his plans from an attack on the British in New York to an entrap-

31. Washington Papers, 169:103 (return, 2 Apr 81).

32. Fitzpatrick, *Writings of Washington*, 22:177–78, 196–97 (to Pickering, 7 and 10 Jun 81).

33. Ibid., 22:235 (to Schuyler, 19 Jun 81); 275–76 (to Pickering, 28 Jun 81).

34. (1) RG 93, Pickering Letters, 82:1–3 (to Neilson, 29 Jun 81). (2) Washington Papers, 178:45 (to Jonathan Trumbull, Jr., 29 Jun 81). (3) See also Fitzpatrick, *Writings of Washington*, 22:288 (to Schuyler, 30 Jun 81).

35. RG 93, Pickering Letters, 82:4–5 (to Aaron Forman, 1 Jul 81); 5 (to Hughes, same date).

ment of Cornwallis in Virginia, he wrote to de Grasse on 17 August that it would be essential for him to send up to the Elk River at the head of Chesapeake Bay all his transports and other vessels suitable for conveying the French and American troops down the bay. Washington assured him that he would endeavor to send as many vessels as could be found in Baltimore and other ports to the Elk, but he warned that he had reason to believe that they would be few in number. At the same time, he wrote to Robert Morris and requested that he take all measures for securing these vessels. Washington added that he was directing Pickering to collect all the small craft on the Delaware River to transport troops from Trenton to Christiana Bridge.[36]

In the meantime, Pickering was making preparations for ferrying the troops across the Hudson. It took a letter from Washington, however, to induce Maj. Gen. Alexander McDougall to detail the 150 men that the Quartermaster General had requested to bring 30 boats from Wapping Creek to King's Ferry. Pickering also urged Deputy Quartermaster Hughes to send scows and every other boat that he could secure.[37] On 19 August Washington dispatched Pickering to King's Ferry to supervise the transportation of the troops—some 4,000 French and 2,000 American—across the river with their artillery, stores, and baggage. Within two days the Americans had crossed the Hudson; only some wagons of the Commissary and Quartermaster's Departments remained behind so as not to delay the passage of the French troops. The crossing of men and supplies was completed by 27 August. To deceive the enemy, Washington mounted 30 flatboats, each able to carry 40 men, on carriages and sent them across the river with the French troops, judging that they also would be useful to him later in Virginia. These boats, together with some clothing, entrenching tools, and other stores, were placed in the care of Col. Philip Van Cortlandt.[38]

Transportation was a primary function of the Quartermaster General, but the movement of troops and their stores by water to Yorktown was for the most part accomplished by direct orders from Washington to subordinates in the Quartermaster's Department and to line officers of the Continental Army. Quartermaster General Pickering arrived in Philadelphia on 30 August, where he remained for the next week, sending out directions to his subordinates. By that time, Washington was demanding his presence with the American detachment. Pickering arrived at Head of Elk on 7 September and at Williamsburg, Virginia, after an overland journey, on 16 September 1781.

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36. Fitzpatrick, *Writings of Washington*, 23:10–11 (to de Grasse, 17 Aug 81); 11 (to Morris, same date).

37. (1) Ibid., 23:16–17 (to McDougall, 18 Aug 81). (2) RG 93, Pickering Letters, 127:226 (to Hughes, same date).

38. (1) Fitzpatrick, *Diaries of George Washington*, 2:255–57. (2) Fitzpatrick, *Writings of Washington*, 23:48–49, 61 (to Van Cortlandt, 25 and 28 Aug 81).

Hearing late in August that de Grasse might already be in the Chesapeake Bay, Washington realized that there was no time to lose in making preparations for water transportation from Trenton to Christiana Bridge and from Head of Elk down the bay to Virginia. The Quartermaster General was then still on the Hudson, so Washington himself wrote to Deputy Quartermaster Miles in Pennsylvania, directing him to engage immediately all craft suitable for navigating the Delaware River that could be found in Philadelphia or in the creeks above and below it and to call on the Superintendent of Finance for any help or advice. He asked Morris to use his influence in Baltimore to get any vessels in that port to come up to Head of Elk to assist in transportation. He supplemented these efforts by writing to Governor Thomas Sim Lee of Maryland, requesting that he aid Morris, who had "the principal agency in procuring water transportation."[39]

At the same time, Morris requested the Baltimore merchants Mathew Ridley and William Smith to engage Chesapeake Bay craft. On 28 August he advised Ridley that he was sending an express to Deputy Quartermaster Donaldson Yeates at Head of Elk to gather as many vessels as he could at that place by 5 September and to apply to Ridley and Smith for any needed advice and assistance. Transports for 6,000 to 7,000 men were to be hired on the best terms that could be obtained and on credit if possible. In a postscript to Ridley, Morris took care to add that procurement of vessels was the proper business of the Quartermaster's Department. If Ridley and Smith engaged any vessels before Yeates arrived at Baltimore, the firm was to turn them over to the deputy quartermaster.[40]

Washington thought there might be insufficient water transportation between Trenton and Christiana Bridge. He advised Maj. Gen. Benjamin Lincoln, who was in charge of embarkation at Trenton, that the delicate question would then arise of how to apportion the craft equally between the French and American troops. Rochambeau, however, elected to have the French troops march by land from Trenton to Head of Elk, thereby making available a larger number of craft for transporting American baggage and troops.[41] Still fearful that there would not be sufficient craft to embark all the American troops, stores, and baggage, Washington directed General Lincoln to confer with Col. John Lamb of the Artillery to determine which cannon, carriages, ordnance stores, and baggage would be most cumbersome and heavy to transport by land and to give preference to sending these stores and equipment by water. He further instructed Lincoln to send from Trenton 100 picked men who were experienced in water transportation to

39. Ibid., 23:50–52 (to Morris, 27 Aug 81); 57–58 (to Gov Lee, 27 Aug 81).

40. (1) Morris Letter Book A, fols. 290–91 (to Yeates, 28 Aug 81); 291–92 (to Mathew Ridley, same date). (2) For a register of the vessels taken into service by Yeates, including their tonnage, valuation, and daily pay, as well as the valuation of the slaves employed on them, see RG 93, Misc Numbered Docs 26800.

41. Fitzpatrick, *Writings of Washington*, 23:59–60, 71–72 (to Lincoln, 28 and 31 Aug 81).

assist in embarking troops and forwarding stores from Philadelphia. He was also to appoint an officer to superintend the embarkation at Trenton and another to supervise the debarkation of men and supplies at Christiana Bridge. The latter was to be accompanied by a number of troops who were to assist in unloading and then forwarding stores and baggage at the debarkation point. Washington enclosed a list of craft being sent to Trenton. A week later he sent Lincoln specific instructions for combat loading the boats.[42]

After arriving at Philadelphia, Pickering on 31 August advised Lt. Col. Henry Dearborn, deputy quartermaster with the main army, that thirty teams were bringing boats. He directed that the carpenters were to repair any damages the boats might have sustained. For this purpose Deputy Quartermaster Neilson was sending a few barrels of tar. Pickering ordered that fifteen of the best boat carriages be selected, disassembled, and put on board the boats, to be forwarded, with such troops as could be carried, to Christiana Bridge. From there all the boats could then be carried overland to Head of Elk in two trips; if only ten boat carriages could be used, three trips would do the job. To prevent delay in putting the boat carriages back together, he directed that all the parts of a particular carriage were to be marked alike. Wagonmaster Thomas Cogswell's branding iron, he suggested, would be most convenient for marking.[43]

Continuing his supervision of transportation, Pickering wrote to Deputy Quartermaster Yeates that the troops would embark at Trenton on 1 September and arrive at Christiana Bridge as soon as wind and tide permitted. He was to give every assistance in landing stores, and Pickering informed him that Brig. Gen. Moses Hazen was going to Christiana Bridge to superintend the business there. Under instructions from Washington, General Hazen was to speed the transportation of supplies to Head of Elk. Colonel Lamb of the Artillery was to assort and forward the ordnance stores that ought to be sent first.[44]

As Washington had anticipated, there were insufficient transports to embark all the troops at Head of Elk. He appealed to the "gentlemen of the eastern shore of Maryland" to send all their vessels to Baltimore in order to transport troops down the bay from that port. The time it would take to march them by land to Williamsburg could not be spared. A week later he requested the assistance of Admiral de Grasse in moving the troops down Chesapeake Bay. Persistent and strenuous efforts brought the troops to Virginia. On 23 September Washington wrote from Williamsburg to Maj. Gen. William Heath

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42. Ibid., 23:69–71 (to Lincoln, 31 Aug 81). The list of boats, probably taken from one made by Miles of water craft engaged at Philadelphia on 30 August 1781, showed a total of 31 craft—4 wood flats, 4 schooners, and 23 sloops—with an estimated total capacity of 4,150 men. See 23:98–101 (to Lincoln, 7 Sep 81).

43. RG 93, Pickering Letters, 82:176–78 (to Dearborn, 31 Aug 81).

44. (1) Ibid., 82:180 (to Yeates, 1 Sep 81). (2) Fitzpatrick, *Writings of Washington*, 23:78 (to Hazen, 2 Sep 81).

that those who had departed from Head of Elk were disembarking and the rest were expected shortly.[45]

In the operation against Cornwallis, Pickering began by issuing orders to various masters of sloops to bring corn from the James River and flour and forage from Head of Elk along with any other stores still remaining there.[46] Early in October Governor Thomas Nelson of Virginia designated Commodore James Barron to take over the direction of the vessels employed in this service, and Pickering's orders were thereafter sent to Barron. Pickering directed him not only to send vessels to the several ports and landings where provisions, forage, and stores were lodged but also to furnish any vessels requested by Wadsworth and Carter, agents for the French army. He was to send vessels to such places as they designated for supplies for that army. Pickering ordered Barron to keep a record of the time of departure and arrival of every vessel. He was to report any delays or improper management by masters of vessels so that they could be discharged, and he was to discharge any vessels found unserviceable. Pickering directed him especially to keep an exact record of services performed for the French. He authorized Barron to issue rations to the crews of the vessels by giving orders to the nearest commissaries.[47] Barrron worked closely with Pickering in discharging vessels unfit for further service and in forming others into squadrons to bring supplies from different ports. During the course of the campaign, a considerable number of schooners and sloops engaged in transporting forage, provisions, and military stores were impressed.[48]

When the American detachment dispersed after the surrender of Cornwallis, Washington instructed Pickering to send the sick and the artillery pieces and ordnance stores by transports to the north. He left it to the Quartermaster General to make the necessary arrangements.[49] To Pickering also fell the task of settling the accounts for water transportation. He communicated with Ridley and Pringle of Baltimore, who had been authorized by Morris to settle with the owners and masters of vessels employed on the Chesapeake Bay in the Yorktown expedition. Although final settlement for these vessels could not be made until the accounts of monies advanced and provisions furnished were received, Pickering proposed paying half their hire as soon as possible to relieve any financial distress. To expedite final settlement, he requested Commissary General of Issues Charles Stewart

45. (1) Ibid., 23:96–97 (circular, 7 Sep 81); 116–17 (to de Grasse, 15 Sep 81); 129–30 (to Heath, 23 Sep 81). (2) For an estimate of vessels taken into transport service at Baltimore by Assistant Deputy Quartermaster David Poe, see RG 93, Misc Numbered Docs 26675.

46. RG 93, Pickering Letters, 82:207–08 (3 Oct 81).

47. Ibid., 82:208–11 (to Barron, 3 Oct 81).

48. See RG 93, Misc Numbered Docs 27593 (Return of Craft Impressed, 30 Oct 81); 27594 (Return of Craft Impressed into Continental Service by Capt George Webb, 29 Oct 81).

49. Fitzpatrick, *Writings of Washington*, 23:281–82 (to Pickering, 27 Oct 81).

to forward the accounts of all rations drawn by the owners of vessels.[50] By November Morris had furnished some funds to Deputy Quartermaster Miles for settling transport hire and had authorized him to sell government-owned schooners and pay the masters and men their wages.[51] As the year ended, craft that had been assembled for the campaign had been dismissed, and during the remainder of the war the boats in use by the Quartermaster's Department dwindled to a few on the Hudson.

Sheltering the Troops

Providing shelter for the troops was an arduous and time-consuming responsibility of the Quartermaster General. Assisted by the Chief Engineer, he marked out encampment sites. His selection of a location for a winter encampment necessitated a considerable amount of riding about the countryside. In his recommendations to the Commander in Chief, he took into account such factors as availability of water and woodland at the proposed site, its accessibility for the delivery of supplies, and its defensive position.[52] Laying out camps and assigning quarters was the initial task. The Quartermaster General also had to supply boards for the construction of barracks and huts, straw for bedding, firewood for cooking and heating, and tentage when the troops were in the field.

The troops at Cambridge in 1775 erected a variety of shelters for their protection. Rev. William Emerson found it "diverting to walk among the camps," for they were as different in their form as the owners were in their dress.

> Some are made of boards, and some of sail-cloth. Some partly of one and partly of the other. Again, others are made of stone and turf, brick or brush. Some are thrown up in a hurry; others curiously wrought with doors and windows, done with wreaths and withes, in the manner of a basket. Some are your proper tents and marquees, looking like the regular camp of the enemy. In these are the Rhode Islanders, who are furnished with tent-equipage, and everything in the most exact English style.[53]

Such was the unmilitary scene that Washington viewed upon his arrival to take command of the Continental Army. Among the tasks that early demanded the attention of Quartermaster General Mifflin was providing quarters for the troops during the siege of Boston. In the fall of 1775 he submitted to Washington an estimate for housing 12,000 troops.[54] He proposed

50. RG 93, Pickering Letters, 82:109 (to Ridley and Pringle, 28 Oct 81); 111 (to Stewart, 28 Oct 81).

51. Morris Diary, 1:91 (22 Nov 81).

52. (1) Fitzpatrick, *Writings of Washington*, 4:514 (GO, 25 Apr 76); 8:492–94 (to Mifflin, 28 Jul 77); 17:118–19 (to Greene, 17 Nov 79). (2) See also Washington Papers, 120:72–73 (Biddle to Greene, 6 Nov 79). (3) RG 11, CC Papers, item 173, 2:281–84 (Greene to Washington, 23 Nov 79).

53. George Washington, *The Writings of George Washington*, ed. Jared Sparks, 13 vols. (Boston, 1834–37), 3:491.

54. Force, *Am. Arch.*, 4th ser., 3:1045 (5 Oct 75).

building 90 barracks at Cambridge and 30 at Roxbury. Each barrack was to house 100 men. Divided into 6 rooms, each barrack was to be 90 by 16 feet in size. By any standards this barrack would provide very cramped quarters. Mifflin estimated that it would cost 12,000 pounds to build the 120 barracks. This sum included not only the cost of the materials but also the additional wages—20 shillings per month—that would be paid to the soldiers detailed to build the barracks. The Revolutionary soldier quickly found that bearing arms was only one of the duties he would be called upon to perform.

Washington concluded that winter would arrive before the troops could be housed in barracks. To shelter his troops, he considered it necessary to appropriate the homes of those citizens who had fled Cambridge, even though many were then returning. He therefore requested the Massachusetts General Court to take action.[55] Although barracks were later built, initially the troops were quartered in private houses.

The construction of these first barracks in Cambridge subsequently raised a problem. Apparently the Quartermaster's Department had failed to enter into any agreement with the owner of the land on which they were built. In the summer of 1779 the owner began dismantling one of the barracks, converting it to his own use, and he threatened to take down all the others. The guard protecting the barracks and magazine confined the owner for an hour, whereupon the latter sued the guard. Failing to obtain any help from the Massachusetts General Court, Deputy Quartermaster General Thomas Chase appealed to the Quartermaster General for instructions. He reported that the barracks had sustained more than 50,000 dollars damage.

Greene advised Chase to negotiate with the owner and to enter into a contract that provided a reasonable compensation for the use of his land. Greene then appealed to the Continental Congress for some action that would ensure permanent security not only for barracks but for all types of government property. He complained that too many people were convinced that they had a right to apply to their own use any government property that "fell in their way, by accident or otherwise." Consequently, thousands of arms as well as various other military stores had been carried away. He suggested that Congress recommend to the states the enactment of laws which would permit the Quartermaster General or his deputies to appoint representatives who would fix the value and rent of the lands on which public buildings stood or were erected, the agreement being binding on both parties. He thought there also ought to be state laws that would impose large fines on inhabitants with government property in their hands who failed to report it to the nearest public agent within ten days after it came into their possession.[56] This

55. (1) Fitzpatrick, *Writings of Washington*, 4:17-18 (6 Oct 75). (2) Lacking tents, a certain number of the Massachusetts troops who had first taken up arms had been accommodated in empty buildings of Harvard College and in empty houses. Allen French, *The First Year of the American Revolution* (Boston, 1934), p. 184.

56. RG 11, CC Papers, item 155, 1:154 (Chase to Greene, 1 Jul 79); 147-50 (Greene to Pres of Cong, 12 Jul 79).

problem of appropriation of government property was not resolved, although it became customary to contract for the use of such privately owned property as buildings, land, and ferries.

Late in November 1775 the Continental Congress resolved that the troops were to be supplied with fuel and bedding at its expense.[57] The Quartermaster General therefore was responsible for providing wood, straw, and blankets as well as camp equipage. Mifflin in October had estimated that an allowance of 1½ cords of firewood per week per 100 men would lead to a consumption of 8,000 cords of wood in six months by Washington's army. The Quartermaster's Department almost at once encountered difficulty in issuing wood to the troops because little or none was brought to camp for sale. Washington suspected that the owners of wood were holding it from the market in order to create an artificial scarcity and raise prices. In response to his request for remedial measures, the Massachusetts General Court called on the selectmen of designated towns to supply wood daily according to quotas that it proposed. The New York Convention later came to the aid of the main army by purchasing and sending cords of wood for its use in 1776 when the troops had moved to New York.[58]

Lacking wood, soldiers in the field helped themselves to fences, trees, and even buildings near their camps. Washington ordered officers commanding the guards to be particularly attentive to prevent such depredations. Subsequently, axmen were detailed from brigades to march with the pickets when the main army moved. The axmen not only prepared timber for repairing roads but when the army arrived at a new encampment, they also cut firewood for their respective brigades. Working under the direction of brigade quartermasters, these men were relieved from all guard and other ordinary duty. However, when an action was expected, they delivered their axes to the brigade quartermasters and rejoined their units.[59]

Though some cords of firewood were obtained by contract, this method of supply appears to have been limited to providing for troops in barracks at posts. The more usual method throughout the war was to detail troops to cut the wood needed by the garrison or camp during the winter. The necessary axes, cross-saws, butte rings, and wedges were furnished by the storekeepers to the brigade quartermasters, who were held accountable for them.[60]

The Quartermaster's Department also provided entrenching tools, as well as froes, handsaws, augers, and other tools used in erecting huts.

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57. *JCC*, 3:377 (27 Nov 75).

58. (1) Fitzpatrick, *Writings of Washington*, 4:17–18, 47–48, (to Mass. legislature, 6 and 27 Oct 75). (2) Force, *Am. Arch.*, 4th ser., 3:1045 (estimate, 5 Oct 75); 4:1318 (2 Dec 75); 5th ser., 3:207–08 (30 Sep 76).

59. Fitzpatrick, *Writings of Washington*, 5:12–13 (GO, 5 May 76); 9:286 (GO, 30 Sep 77).

60. (1) Ibid., 25:59–60 (to Pickering, 24 Aug 82); 134–36 (GO, 7 Sep 82). (2) RG 93, Pickering Letters, 84:97–99 (9 Sep 82).

Quartermasters issued tools only as needed by the troops, but, whether by intent or carelessness, the men frequently failed to return them. Such was the extent of this "embezzlement of the public tools" that Washington in June 1776 directed the Quartermaster General to have each tool branded with the mark "CXIII," meaning "the Continent and the thirteen colonies." After the colonies declared their independence, this brand was changed to "U.S." In the summer of 1776 Washington also introduced the idea of property accountability. All officers commanding a party or detachment detailed to work on any project were to be held accountable for the tools they received; any lost while in their care had to be paid for by the officers. A soldier who lost or destroyed a tool delivered to him had its price deducted from his next pay and in addition was punished "according to the nature of the offense."[61]

The fall of the year usually found Washington concerned with the problem of providing shelter for his troops during the winter months. Anticipating the need for placing troops in barracks when the campaign of 1776 closed, Washington in September urged Quartermaster General Stephen Moylan to begin accumulating the materials necessary for building barracks at King's Bridge, New York, or nearby posts. As long as the enemy did not obstruct the Hudson, he pointed out, these materials could be readily shipped down it. Assistant Quartermaster General Hugh Hughes immediately dispatched a purchasing agent to obtain boards, shingles, bricks, lime, and other needed supplies. In addition, the agent was to engage three companies of carpenters; each was to consist of thirty men, a captain, and other officers, who were all promised the same pay and rations as those already in service.[62]

When Thomas Mifflin resumed the duties of Quartermaster General, efforts to construct these barracks went forward at an accelerated pace. He solicited the aid of the New York Convention in procuring boards. The latter sent out an agent authorized not only to purchase needed supplies but also to impress them if they could not be procured with the owner's consent.[63] William Duer had expressed an interest in constructing the barracks, and Mifflin accepted his offer, hoping that the Quartermaster General's own agents consequently would have to spend little time on this business. Duer apparently acted as Mifflin's superintendent for building the barracks in New York, which, according to instructions received from the Quartermaster General, were to be "calculated for 2,000 men." Washington was then too preoccupied to give attention to either the construction or the precise location of these barracks. Mifflin, however, had consulted the general officers, who advocated building one set of barracks a mile or two east of the

61. Fitzpatrick, *Writings of Washington*, 5:157 (GO, 18 Jun 76); 7:284 (to Mifflin, 13 Mar 77).

62. (1) Force, *Am. Arch.*, 5th ser., 2:257 (Tench Tilghman to Moylan, 9 Sep 76). (2) Hugh Hughes Letter Books (12 Sep 76).

63. Force, *Am. Arch.*, 5th ser., 3:207–08 (30 Sep 76).

mouth of the Peekskill River and another set near the town of Fishkill. They proposed that the barracks be 36 feet long, 19 feet wide, and about 7 feet high in the upright on each side.[64]

Boards proved to be so scarce that a sufficient number could not be procured in time, and it became necessary to complete the barracks with mud walls. To expedite the completion of these winter quarters, Duer applied to the New York Committee of Safety for 100 militiamen to work on the construction. The committee ordered the men out, but it added that since they would be constantly on fatigue duty, they ought to be allowed three eighths of a dollar per day and Continental rations.[65] The barracks were completed, but the main Continental army went into quarters in Morristown in the winter of 1776–77.

In the course of the war, barracks were built at various places—Trenton, Albany, West Point, and elsewhere. Carpenters among the companies of artificers employed by the Quartermaster's Department constructed the barracks. Not infrequently, however, carpenters among the troops were detailed to assist in the preparation of timber for joists, rafters, and the like.[66]

Once barracks were constructed, they were placed under the charge of the barrackmaster general in the Quartermaster's Department.[67] There were deputy barrackmasters general in the military departments. They appointed barrackmasters, who were responsible for receiving and issuing candles, collecting and issuing firewood, and assigning space to those entitled to it. Occasionally, the barrackmaster also located quarters for soldiers in private houses. As might be expected, the number of barrackmasters increased to the point where Washington early in 1779 thought the barrackmaster general ought to be called upon for a list of his appointees so that the Quartermaster General would be able to determine their usefulness and what reductions in personnel might be made.[68]

Until 1779 control over barracks and responsibility for them had been vested in the Quartermaster General. Late in January of that year Quartermaster General Greene, to his surprise, received a letter from a barrackmaster general newly appointed by the Board of War. No report by the board setting forth its reasons for this action has been found, although it may be

64. Ibid., 5th ser., 2:1254 (Mifflin to Duer, 26 Oct 76).

65. Ibid., 5th ser., 3:302 (8 Nov 76).

66. (1) See Washington Papers, 88:63 (Pettit to Washington, 16 Oct 78). (2) In the winter of 1780 Private Joseph Plum Martin and his fellow soldiers arrived at West Point. They were quartered in old barracks until new ones could be built. They began work immediately. They went to a point six miles down the river to hew timber, carried it on their shoulders to the river, and then rafted it to West Point. They had completed this work when carpenters arrived to undertake the construction. By New Year's Day the new barracks were ready. George E. Sheer, ed., *Private Yankee Doodle* (Boston, 1962), p. 209.

67. *JCC*, 7:359 (14 May 77). This first regulatory act for the Quartermaster's Department set the pay of a barrackmaster general at 75 dollars a month.

68. Fitzpatrick, *Writings of Washington*, 14:65 (memo to Committee of Conference, __ Jan 79).

surmised that the appointment grew out of a concern about barracks for Burgoyne's vanquished Convention troops, who were not the responsibility of the Quartermaster General. In any event, Greene received notice of this change not from the Board of War but from its new appointee, Isaac Melcher, who thought it advisable to clarify his duties to prevent misunderstandings with the Quartermaster's Department. Based on his reading of the orders he had received from the board, he considered that his principal duty was to provide and furnish barracks, storehouses, and other buildings on the application of the Quartermaster General or on the order of the commanding officer of a military department. He also believed that he was responsible for supplying such barrack utensils as were allowed and for furnishing wood, straw, soap, and candles. After an appeal for harmony between himself and Greene, he concluded by stating that his duty was principally confined to troops in quarters and that of the Quartermaster General to those in the field.[69]

Some months went by before Greene wrote to inquire about the Board of War's action. Whether Melcher was following the board's intent, or whether he had completely misunderstood his duties—and this seems likely since he also was taking over some supply duties of the Commissary General of Purchases—his responsibilities as barrackmaster general were thereafter restricted to the barracks in Philadelphia and to the barracks of the Convention troops in Virginia.[70]

Six months later, in the interest of economy, Congress abolished Melcher's department. Some two weeks earlier it had directed the Board of War to discharge immediately all supernumerary officers in that department. All duties were returned to the Quartermaster's Department, but with the admonition that they were to be performed without adding officers for the purpose.[71] Thereafter quartermasters also served as barrackmasters.

Even the best barracks must have provided uncomfortable quarters. With bunks rising in tiers against the walls, the barracks were so ill-lit by the small candle allowance that men retired when darkness fell. Nor was there sufficient wood to provide adequate warmth, and vermin infested the straw used for bedding. Lacking tents in the summer of 1776, troops at Ticonderoga were lodged in the old barracks at the fort. General Schuyler wrote, "They are crowded in vile barracks, which, with the natural inattention of the soldiery to cleanliness, has already been productive of disease, and numbers are daily rendered unfit for duty." The Revolutionary soldier ignored sanitary regulations. Joseph Trumbull found the houses sheltering troops at Cambridge "so nasty" that men were growing sick and daily dying. Conditions were no better later in the war, for in 1780 Joseph Plum Martin, a

69. APS, Greene Letters, 1:275 (Melcher to Greene, 25 Jan 79).

70. See Washington Papers, 171:63 (Pickering to Alexander Hamilton, 20 Apr 81).

71. (1) *JCC*, 16:76 (20 Jan 80). (2) APS, Greene Letters, 2:181 (Benjamin Stoddert to Pettit, 26 Jan 80).

Revolutionary soldier, related how, until new barracks could be built, the troops were lodged in the old ones at West Point "where there were rats enough, had they been men to garrison twenty West Points."[72]

Melcher had considered it his duty to furnish barrack utensils—camp kettles, wooden pails, and similar equipment—but Pickering, whose service on the Board of War and as Quartermaster General made him much better informed, stated that barrack utensils had never been regularly supplied. The troops used the utensils they brought with them from the field. When the Secretary at War in 1782 considered issuing a regulation setting forth a formal allowance of barrack utensils, Quartermaster General Pickering judged it best to avoid doing so, for it would be difficult, if not impracticable, to supply the items. If any barrack utensils were to be supplied on a regular basis when the troops were in winter quarters, the demand, he pointed out, would be so great as to occasion considerable expense.[73]

Troops stationed at posts such as West Point or Trenton were garrisoned in barracks, as were those detailed to guard magazines of supplies. On occasion the dispersal of the troops during the winter resulted in some regiments being quartered in barracks. Generally, however, most of the Continental Army lived in the field, sheltered in tents during campaigns or in huts at winter encampments. Tentage was always scarce during the war. Dependent on the importation of duck for tents, Washington in 1775 wanted good care taken of the tents the troops had. As soon as the troops moved into winter quarters, he ordered the tents that had been in use delivered to the Quartermaster General. Thus was established the policy of turning in to the Quartermaster's Department all tents at the end of a campaign so that they could be washed and repaired by artificers under the department's direction and stored and reissued for use in the next campaign.[74]

The Continental Army in 1775 was not a disciplined force, and despite repeated orders Washington found tents "standing uninhabited and in a Disgraceful and Ruinous Situation" after some of his men had been quartered in houses in January 1776. Proper storage and maintenance of supplies was not noticeably improved at a later date. A visitor to Fishkill Landing in December 1776 found tar, tents, and other Continental stores "wasting to a great degree." The dock was afloat with the tar; the tents were in a heap, wet and consequently rotting. Deputy Quartermaster General James Abeel

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72. (1) Force, *Am. Arch.*, 4th ser., 3:50 (Schuyler to Washington, 6 Aug 75). See also 4th ser., 2:1703 (same to Cong, 21 Jul 75). (2) French, *First Year of the American Revolution*, p. 184. (3) Scheer, *Private Yankee Doodle*, p. 209.

73. RG 93, Pickering Letters, 85:207–15 (to Lincoln, 30 Nov 82).

74. (1) Fitzpatrick, *Writings of Washington*, 4:109 (GO, 22 Nov 75). For similar orders of a later date, see 21:73–74 (GO, 9 Jan 81); 25:453–54 (GO, 20 Dec 82). (2) RG 93, Pickering Letters, 83:40–43 (to Brig Gen James Clinton, Col Elias Dayton, Assistant Deputy Quartermaster Forman, 26 Jan 82).

still later charged that many tents had been lost in the campaign of 1777 "owing to their lying wet in the wagons." With this loss in mind, he inquired of Greene at the end of the 1778 campaign whether orders ought not to be given to have all tents dried and sent to Morristown for repair if the troops were coming into New Jersey.[75]

Though tents—bell tents, horseman's tents, wall tents, common tents for soldiers, and marquees for officers—were essential items of supply in the field, their availability was dependent upon the importation of duck and canvas by private merchants or the Secret Committee. As in the case of other needed supplies, the Continental Congress sought unsuccessfully to promote domestic production of hemp, flax, and cotton, and it recommended that the various legislatures consider ways and means of introducing the manufacture of duck and sailcloth.[76]

Initially, and until the Secret Committee was able to procure textiles abroad, the Quartermaster's Department had to rely on whatever fabrics were available in the colonies. The Continental Congress in the summer of 1775 applied to the Committee of Philadelphia for whatever quantity of duck, Russia sheeting, tow cloth, osnaburg, and ticklenburg that could be procured in that city.[77] Any suitable fabric was in demand, for it required 21½ square yards of duck to make a common tent for six men. In October 1776 "country linen fit for tents" was selling at three shillings and sixpence a square yard, but prices spiraled upward, reflecting demand, as the war continued.[78]

Textiles in the colonies were quickly depleted. When Congress on 30 August 1776 directed James Mease, then acting as its agent, to procure in Philadelphia any cloth fit for making tents, the only supply available was a parcel of light sailcloth in the hands of the Marine Committee. Congress thereupon directed that committee to deliver the sailcloth to Mease. At the same time, it directed the Secret Committee to write to the Continental agents in the eastern states to purchase all duck and other cloth fit for tents which they could procure in their respective states. The Marine Committee remonstrated, alleging that none of the Continental vessels could sail if the sailcloth was taken, but it was told that the soldiers would have tents even if "the Yards of those Continental Frigates and Cruizers that had sails made up" had to be stripped.[79]

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75. (1) Jonathan Burton, *Diary and Orderly Book of Sergeant Jonathan Burton*, ed. Isaac W. Hammond (Concord, N.H., 1885), p. 11. (2) Force, *Am. Arch.*, 5th ser., 3:1098 (Henry Schenk to pres, N.Y. Committee of Safety, 6 Dec 76). (3) APS, Greene Letters, 10:49 (Abeel to Greene, 9 Nov 78).

76. *JCC*, 4:224 (21 Mar 76).

77. Ibid., 2:190 (19 Jul 75). See also 3:258 (21 Sep 75); 4:102–03 (30 Jan 76).

78. Force, *Am. Arch.*, 5th ser., 2:988 (Md. Council of Safety to Col Thomas Bond, 11 Oct 76).

79. (1) *JCC*, 5:718–19, 735 (30 Aug and 4 Sep 76). (2) Burnett, *Letters*, 2:109 (Robert Morris to Md. Council of Safety, 1 Oct 76).

By such means the troops were at least partially equipped with tents at the beginning of the war.[80] The loss of tents at Fort Washington, New York, and in the evacuation of New York City, however, exacerbated the shortage. The British raid against Danbury, Connecticut, in April 1777 caused a loss of 1,700 tents, among other stores, and struck a hard blow at the preparations the Quartermaster's Department was making for the 1777 campaign. Late in May the Quartermaster General reported that preparations were complete except in regard to tents. When Washington studied Mifflin's account of the tents he had provided, Washington concluded that some regiments must have drawn more tents than their share.[81] Subsequently, allowances were set forth in General Orders. An order published in September allowed one soldier's tent for the field officers of each regiment, one for every four commissioned officers, one for eight sergeants, drummers, and fife players, and one for every eight privates. In 1779, the Quartermaster General was authorized to issue to each regiment one marquee and one horseman's tent for the field officers; one horseman's tent for the officers of each company; one wall tent each for the adjutant, quartermaster, surgeon and mate, and paymaster; one common tent each for the sergeant major, the quartermaster sergeant, the fife and drum major, and the noncommissioned officers of each company; and one common tent for every six privates, including drummers and fife players.[82]

The Quartermaster's Department continued to be hard pressed to supply tents. Fabric was at a premium. In the process of repairing tents during the winter, quartermasters had their artificers convert the fabric of tents that could not be made serviceable into wagon covers, forage bags, and knapsacks. Twine and cordage were also much in demand. Deputy Quartermaster General Abeel, who served as the agent for camp equipage under Quartermaster General Greene, complained that the repair work of his tentmakers would come to a halt unless he was promptly supplied with twine.[83]

Inflated prices increased the difficulty of procuring new tents. So hampered was the Quartermaster General that he estimated the American troops would lack 1,500 tents if Washington's hopes for a cooperative effort with Admiral d'Estaing materialized in the fall of 1779. In consequence, Washington appealed to Massachusetts to furnish that number of tents. The firm of Otis and Henley, which had been procuring duck and manufacturing tents for the department, extending credit for the purpose, was in dire need of

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80. In September 1776 Washington complained that at least one third of his army lacked tents and that those the troops did have were worn and in bad condition. Force, *Am. Arch.*, 5th ser., 2:257 (Tilghman to Moylan, 9 Sep 76).

81. (1) Fitzpatrick, *Writings of Washington*, 8:145 (to Mifflin, 31 May 75). (2) Washington Papers, 47:19, 116-17 (Mifflin to Washington, 19 and 27 May 77).

82. Fitzpatrick, *Writings of Washington*, 9:213 (GO, 13 Sep 77); 15:162–63 (GO, 27 May 79).

83. APS, Greene Letters, 8:3 (Abeel to Greene, 13 Feb 79); 5:30, 75 (same to same, 19 and 26 May 79).

cash to pay its creditors. Greene promised relief and urged the partners to continue procurement. So gloomy did the prospect of any procurement in the following year become that Greene proposed that tents be obtained by allocating the number wanted to the seaport towns of the New England states and appealing to designated merchants there to obtain the tents.[84]

A report from the Board of War in the fall of 1780 led Congress to order John Bradford, the Continental Agent at Boston, to deliver to the Quartermaster General all the duck in his hands suitable for tents. Pickering planned to order his deputy to receive the duck, have it made into tents, and deliver the tents to Springfield, Massachusetts.[85] But Pickering got no duck, for Bradford said it was all needed by the Navy. Still searching for duck in 1781, Pickering again applied to the Board of War, and Congress ordered Bradford to deliver to the Quartermaster General all duck suitable for tents. Bradford rigidly construed the language of the resolution; the heavy duck he had, he argued, was not proper for tents. Pickering again appealed to the Board of War for help. Apparently the Continental Agent intended to sell the duck to raise money for the Navy, but the Quartermaster's Department had no funds to purchase it. "We leave it to the determination of Congress, whether the essential article of Tents is not of the most consequence to the public," the board reported to Congress late in May 1781. Bradford had on hand at least 1,000 pieces of duck, which at a conservative estimate would make more than 3,000 tents. These tents were essential for the coming campaign in view of the uncertainty about the number of tents that the states would supply. Congress thereupon ordered delivery of the duck to the Quartermaster General, instructing him to use the suitable pieces for tents and to exchange the remainder, except what was necessary for other purposes in the department (such as wagon covers and sails for craft on the Hudson), for light duck or other materials fit for tents.[86]

In early June Pickering submitted a return of tents that included repaired tents, new ones, and those then being manufactured. In addition to marquees, wall tents, and horseman's tents, there were some 2,000 common tents. Over 1,000 more were expected from the states, but Pickering admitted that too much dependence could not be placed on receiving these.[87] Neither on the eve of the Yorktown campaign nor at any time during the war was the Quartermaster's Department able to provide an adequate supply of tents to Washington's army.

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84. (1) Fitzpatrick, *Writings of Washington*, 16:426 (to Jeremiah Powell, 7 Oct 79). (2) APS, Greene Letters, 9:9 (Otis and Henley to Greene, 24 Nov 79). (3) RG 11, CC Papers, item 173, 4:259–61 (Greene to Otis and Henley, 13 Dec 79). (4) Washington Papers, 141:20 (Greene to Washington, 8 Jul 80).

85. (1) *JCC*, 18:962 (21 Oct 80). (2) RG 11, CC Papers, item 192, fol. 37 (Pickering to Pres of Cong, 30 Oct 80).

86. (1) RG 93, Pickering Letters, 123:161–63 (to Board of War, 22 Apr 81). (2) *JCC*, 20:452–53, 550–51 (27 Apr and 28 May 81).

87. Washington Papers, 176:32-37 (Pickering to David Humphreys, 5 Jun 81).

The many flimsy tents furnished the troops provided little shelter in the summer and practically none in the winter. Yet troops often lay in tents in December and sometimes as late as February. "We are still in Tents" on Christmas Day, Surgeon Albigence Waldo recorded, "when we ought to be in Huts." Private Martin recalled that when he arrived in New Jersey in mid-December 1779, heading for Basking Ridge, he helped in clearing a site of snow, in pitching three or four tents that faced each other, and in building a fire in the center. "Sometimes we could procure an armful of buckwheat straw to lie upon, which we deemed a luxury."[88]

As soon as possible after arriving at a winter encampment site, the troops began to build huts. Early in the war no uniformity was imposed on hutting the troops. Much of the sickness among the troops at Valley Forge in the winter of 1777–78 was occasioned, according to Washington, by improper methods used in constructing huts, some of which were sunk in the ground and others covered with earth. To prevent a repetition of the consequences that had resulted from improper hutting, he directed, as the time approached for winter encampment the next year, that all officers were to make sure their men followed the instructions of the Quartermaster General in building their huts. He ordered that the huts were to be roofed with boards, slabs, or large shingles; that they were not to be covered with earth or turf; and that the men were not to dig into the ground except to level the surface. Moreover, he directed that the men were to erect bunks to keep themselves off the ground and build proper stands to preserve their arms and accouterments from damage.[89]

The troops spent some six to eight weeks constructing log huts and continued to live under cover of canvas tents until February 1779, suffering extremely from exposure to cold and storms. The soldiers constructed the huts from the trunks of trees which they cut into various lengths, notching them at the ends so that they could be dovetailed at the four corners. The spaces between the logs were filled with a plastering consisting of mud and clay, and the roof was covered with hewn slabs. A chimney, centered on a wall, was then built of stone, if obtainable, or of smaller pieces of timber; both the outer and inner sides of a timber chimney were covered with clay plaster to protect the wood against the fire. The door and windows, which moved on wooden hinges, were formed by sawing openings into the log walls. James Thacher, a Continental Army surgeon, wrote that in this manner "our soldiers, without nails, and almost without tools, except the axe and saw, provided for their officers and for themselves comfortable and convenient quarters, with little or no expense to the public."[90]

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88. (1) "Diary of Surgeon Albigence Waldo, of the Connecticut Line," *Pennsylvania Magazine of History and Biography* 21 (1897): 312. (2) Sheer, *Private Yankee Doodle*, p. 166.

89. Fitzpatrick, *Writings of Washington*, 13:395 (GO, 14 Dec 78).

90. Thacher, *A Military Journal During the American Revolutionary War*, pp. 155–56.



RECONSTRUCTION OF SOLDIERS' HUT AT VALLEY FORGE STATE PARK

Generally, the soldiers cut the logs for their huts, but in the winter of 1779–80 the Quartermaster's Department made a great effort to provide boards for hutting the troops. As early as mid-September 1779, the Quartermaster General instructed Assistant Quartermaster General Cox and Deputy Quartermaster General Moore Furman at Trenton to procure 200,000 feet of boards. Shipment had to be delayed until the precise location of the camp was selected.[91] But when Washington decided upon a position "back of Mr. Kembles," about three miles southwest of Morristown, the distance that the boards had to be brought and the fact that the troops arrived promptly led to the construction of another "log-house city." When Greene learned of the site, he wrote to some brigade commanders whose troops were already nearby that he hoped there would be sufficient wood in the area for "hutting and firing if it is used properly." The brigade quartermasters were to draw tools as well as a plan for hutting from the storekeeper at Deputy Quartermaster General Abeel's store in Morristown.[92]

Very strict attention was given to allocating ground to the brigades and to building the huts. Washington had instructed the Quartermaster General

91. (1) APS, Greene letters, 9:26 (Claiborne to Cox, 16 Sep 79). (2) RG 11, CC Papers, item 173, 2:75–76, 77–79; 4:207 (Greene to Furman, 17 Sep, 11 Nov, and 1 Dec 79).

92. Ibid., item 173, 4:201 (Greene to St. Clair et al., 16 Dec 79).

to specify the precise dimensions of the huts to be erected, and he warned that any deviation would result in the hut's being pulled down. He thought the placement and form of the Pennsylvania huts at Raritan, New Jersey, the previous winter provided a good model.[93] As built by the troops using the method of construction already described, the soldier's hut, which housed 12 men, was generally 12 feet wide and 15 to 16 feet long. The officer's hut had 2 chimneys, was divided into 2 apartments, and was occupied by 3 or 4 officers. Once the huts were completed, the last thing the troops did was "to hew stuff and build us up cabins or berths to sleep in, and then the buildings were fitted for the reception of *gentleman soldiers*, with all their *rich* and *gay furniture*."[94]

At subsequent winter encampments, Washington continued to insist that huts were to conform to the plan and dimensions set forth by the Quartermaster General. By 1782 he thought that "even some degree of *elegance* should be attended to in the construction of the hut." In Pickering's regulations for hutting in the last winter of the war, huts for both officers and soldiers were increased in size. Instead of one room, the soldier's hut now had two rooms, each about 18 by 16 feet and 7 feet in height.[95]

Quartermaster Artificers

Whether in constructing barracks at a post, building or repairing boats, or maintaining a wagon train in working order, the Continental Army needed artificers both in the field and at posts. When none were available, soldiers had to be detailed from the line. This frequent necessity distressed Washington, since the strength of the force he could put in the field was thereby diminished. Employing artificers at daily wages would have imposed a heavy financial burden; instead, the Continental Army initially resorted to raising companies of artificers. Such companies of skilled civilian workmen were raised by master artisans to perform specific tasks, such as the building of barracks or the construction of bateaux. The master artisan served as the foreman or superintendent of the company.

Mifflin's organization of the Quartermaster's Department in 1775 included civilian artificers, and at least some were organized into companies, headed by master artisans. When Maj. Gen. Charles Lee was sent to supervise the defenses at the southern tip of Manhattan Island early in 1776, he promptly suggested to the Provincial Congress of New York that it establish a corps of artificers. That body at once agreed to create a company of about sixty men, including officers (master artisans). The artificers were to have

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93. Fitzpatrick, *Writings of Washington*, 17:137 (GO, 19 Nov 79).

94. Sheer, *Private Yankee Doodle*, p. 169.

95. (1) Fitzpatrick, *Writings of Washington*, 25:303 (GO, 28 Oct 82). (2) RG 93, Pickering Letters, 84:254–57 (to Washington, 4 Nov 82); 85:243–44 (circular, 7 Nov 82).

the same pay—10 dollars a month—that the companies of artificers at Cambridge received.[96]

Early in 1776 the Northern Department required more artificers than the main Continental army, and initial procedures for raising companies of artificers were developed there. On 6 January General Schuyler entered into an agreement with a master artificer, Jacob Hilton of Albany, to go to Fort George, Ticonderoga, and other places with his men to build bateaux and other vessels as directed. This company of ship carpenters provided its own tools. The men were paid 8 shillings in New York currency a day, and Hilton received 10 shillings. Their wages began on the day they left Albany, but they forfeited them if they left their assigned post without authorization. Schuyler agreed to provide these artificers with a larger ration than was allowed to soldiers.[97] It became customary throughout the war for the Commissary General to issue one and a half rations and one gill of rum per day to an artificer. Similar contracts for raising companies of artificers by master artificers were made later in the year.[98] For the most part these early companies of civilian artificers appear to have been raised only to accomplish specific tasks before being discharged.

Quartermaster General Mifflin introduced a change in this procedure, though it was put into effect months after he had vacated his office. Under orders received earlier from Mifflin, Maj. Elisha Painter in May 1778 directed the enlistment for the duration of the war of a company of artificers consisting of carpenters and wheelwrights, who were to provide their own tools. Each artificer was paid 17⅓ dollars per month and received in addition a 20-dollar bounty and a suit of clothes; he also was entitled to every other perquisite granted by Congress to battalion soldiers in the Continental Army. He was subject to all the rules and regulations of the Continental Army.[99] Mifflin apparently had held out the hope that officers commanding this and subsequent companies—that is, the master artisans—would be commissioned in the Continental Army.

After Nathanael Greene became Quartermaster General, he appointed Col. Jeduthan Baldwin, on 29 July 1778, to the command and superintendency of all the artificers in the Quartermaster's Department belonging to the Continental Army. All officers—most of them were designated captains—commanding companies of artificers had to make returns to Colonel Baldwin of the number of men in their companies. A monthly return submitted by Baldwin on 1 December 1778 listed 18 company commanders. Of these, 11 reported the number of artificers in their companies. Thus, there

96. Force, *Am. Arch.*, 4th ser., 5:260 (Lee to N.Y. Prov Cong, 14 Feb 76); 269 (15 Feb 76).
97. Ibid., 4th ser., 6:1074.
98. See ibid., 4th ser., 6:1071–72, 1074–75 (Schuyler to Gov Trumbull and to pres, Mass. Assembly, 25 Jun 76); 5th ser., 3:1249–50 (memorandum of agreement with artificers, Northern Army, 16 Dec 76).
99. RG 11, CC Papers, item 173, 1:325 (Painter to William Sizer, 5 May 78).

was a company of 43 carpenters at Fishkill. Other companies of carpenters, blacksmiths, and wheelwrights were located at the posts at West Point and Danbury, and with the Pennsylvania and Virginia divisions.[100]

This incomplete return showed a total of 367 artificers enlisted in the companies; it omitted officers and foremen but included some artificers drafted from the Army. Baldwin's total by no means took in all artificers employed in the Quartermaster's Department. The deputy quartermasters general were authorized to employ artificers. Since the companies of artificers were understrength and therefore unavailable to undertake all the work that needed to be done, the deputies hired civilian artificers on a daily or monthly rate, employing them at posts within their areas of authority. While Colonel Baldwin, for example, reported a company of 43 carpenters at Fishkill, Deputy Quartermaster General Udny Hay, whose headquarters was at that post, employed well over 100 other artificers—wheelwrights, smiths, bellowsmakers, saddlemakers, harnessmakers, sailmakers, tentmakers, coopers, and other artificers in his area of authority.[101] These employees were later called district artificers in contrast to the field personnel who were enlisted in the companies of artificers.

Neither group was long satisfied with the conditions of their employment. Depreciation of the currency brought real hardships to district artificers. Most of these men had their families with them, and as the value of the currency dropped, the pay they received was insufficient for their needs. In November 1779 the artificers hired by the day at Fishkill by Deputy Quartermaster General Hay demanded 12 dollars a day. To prove that they had no desire to add to the distress of their country, they proposed to continue working at their existing pay if the price of provisions was reduced to what it had been at the time they had made their agreement. Alternatively, they wanted their wages increased in proportion to the rise in prices of the three most necessary foods—beef, pork, and flour. Moreover, they demanded that their wages be paid monthly, for money depreciated so fast that by the time they received their wages the money had lost more than half its buying power. They threatened to quit the barracks at Fishkill unless their demands were met. The fact that ship carpenters had been brought in about this time from Philadelphia at much higher wages to meet the emergency caused by the possibility of cooperation between Washington's troops and d'Estaing's force only added to the bitter feelings of the artificers in New York. An appeal to Governor George Clinton brought Hay the reply that the district artificers should be paid enough to support their families, for otherwise "the Public Service will derive little benefit from their Services."

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100. (1) Fitzpatrick, *Writings of Washington*, 12:247 (GO, 29 Jul 78). (2) APS, Greene Letters, 10:23 (return, 1 Dec 78).

101. Ibid.

Quartermaster General Greene, to whom Hay referred the matter, reluctantly agreed to pay the wages demanded.[102]

The officers commanding the companies of enlisted artificers, meanwhile, also were complaining of the treatment accorded them. On the basis of verbal promises made by Quartermaster General Mifflin at the time the companies were ordered raised, they thought they were entitled to military commissions, similar to those belonging to the line of the Continental Army. Mifflin, however, had not had any special authority from Congress to support his action. They complained also that their pay, which at first had appeared generous, had not been raised in proportion to the depreciation of money that was occurring in 1779. Moreover, since these officers belonged to no state unit, they received no part of the allowance the states made for their regular officers, nor did they have any prospect of sharing in the land provisions which the states were making for their officers and soldiers in the Continental Army. Since these companies of artificers had all been raised before Greene became Quartermaster General, he referred the complaints to Congress and enclosed a petition signed by captains and lieutenants of companies of artificers recruited in Connecticut, Massachusetts, New Jersey, and New York.[103]

Congress referred Greene's letter and the petition to a committee of three. Apparently nothing happened, and once again the officers of the companies of enlisted artificers petitioned Greene for his help, threatening to resign by September if no action was taken. Some had made application to the Connecticut Assembly for relief, but that body had rejected the appeal and had passed a vote that they were a useless and unnecessary body of men. Greene wrote a letter to Governor Jonathan Trumbull on their behalf in July 1779 emphasizing the importance of their work. A man "can as well feed himself without hands as an Army move without Artificers," he wrote. He appealed to the governor to give to the artificers from his state the same state privileges as were allowed to the line of the Continental Army.[104]

About a month later Greene wrote to the President of Congress, referring to his previous letter and enclosing new petitions that had been sent to him. He noted that there were then 11 companies of artificers, which could be incorporated into 6 or 8 companies and enlisted for 3 years or the duration of the war. He judged the men would be satisfied if put on the same basis as those in Col. Benjamin Flower's Regiment of Artillery Artificers.[105] Greene thought that they merited as much. In other words, he argued that the officers would be satisfied if a regiment of Quartermaster artificers was

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102. (1) Ibid., 3:5 (artificers to Hay, 3 Nov 79); 9:51 (same to same, 5 Nov 79); 55 (Clinton to Hay, 8 Apr 79). (2) RG 11, CC Papers, item 173, 2:113–16 (Greene to Hay, 9 Nov 79).

103. Ibid., item 155, 1:95–98 (to Pres Jay, 6 May 79); 103–06 (petition).

104. Ibid., item 155, 1:167–68 (artificers to Greene, 8 Jul 79); item 173, 2:251–53 (Greene to Trumbull, 20 Jul 79).

105. See Chapter 11.

created and if they and their men had the same rank, remuneration and privileges as were authorized to the personnel of the Regiment of Artillery Artificers. He sent a captain of one of the artificer companies along with the letter to respond to any queries that Congress might raise. Congress postponed consideration of a Board of War report on the petitions in September, and then ordered it recommitted on 28 October 1779.[106] Finally, on 12 November Congress took action. It directed that the eleven companies of artificers raised by the Quartermaster General be re-formed and arranged in such manner as the Commander in Chief deemed proper. This arrangement, transmitted to the Board of War, provided the basis for commissioning the officers, although their rank was restricted to their own corps. Congress ordered that the officers and men of this corps be considered as part of the quotas, for the eighty Continental battalions, of the states to which they belonged. Four days later Congress recommended to the states that this corps of artificers be given "all the benefits provided for officers and soldiers in the line of their quotas . . . except half pay"; that the commanding officers be allowed the same pay and subsistence as lieutenant colonels; and that the pay, subsistence, and clothing of the other officers and of the men be the same as that allowed Flower's Regiment of Artillery Artificers.[107]

Early in February Greene submitted to Washington a return of the Quartermaster artificers enlisted for three years or the duration of the war who belonged to the eleven companies which were to be incorporated in accordance with the resolutions of Congress. The number of artificers was far short of what was necessary, and he thought it would be advantageous to have the companies filled. Because of this deficiency in the companies, many district artificers were employed at posts on daily or monthly wages at greater cost.[108]

Washington thereupon informed the Board of War that he had incorporated the companies into a regiment of ten companies, and he sent Colonel Baldwin with the return to receive the commissions. Washington's plan for enlisting a regiment of artificers called for 1 lieutenant colonel, 1 major, 10 captains and first and second lieutenants, 1 regimental surgeon and mate, 1 regimental paymaster and clothier, 10 clerks (1 for each company), 40 foremen, and 520 privates. Each company was to consist of 52 men—namely, 24 house carpenters, 4 ship carpenters, 4 shop joiners, 10 smiths, 6 wheelwrights, 2 saddlers and harnessmakers, 1 shoemaker, and 1 tailor. If the Board of War approved his plan, he wanted to recruit this regiment immediately. The difficulty of getting sufficient qualified artificers induced him to suggest that enemy deserters who were artificers might be enlisted without danger. Colonel Baldwin's recruiting instructions, however, would need to be modified,

106. (1) RG 11, CC Papers, item 155, 1:159–62 (Greene to Jay, 30 Aug 79). (2) *JCC*, 15:1034, 1091, 1216 (7 Sep, 21 Sep, and 28 Oct 79).

107. Ibid., 15:1261–62, 1275–76 (12 and 16 Nov 79).

108. Washington Papers, 127:105 (Greene to Washington, 8 Feb 80).

since Congress had forbidden the enlistment of deserters. But no such change was made, and recruitment to the desired strength could scarcely have been achieved before Congress, some eight months later, reduced the Regiment of Quartermaster Artificers, as of 1 January 1781, to eight companies, each consisting of sixty noncommissioned officers and privates.[109]

Since the new regiment was to be furnished by the state of Pennsylvania, Quartermaster General Pickering appealed to Washington for clarification of the intent of Congress. He was not clear whether the measure only referred to Baldwin's regiment or whether it also combined Flower's Regiment of Artillery Artificers in the new regiment. Some reform was necessary since Baldwin's regiment had ten companies, only one of which was from Pennsylvania. Colonel Flower's regiment had four companies that belonged to and served in Pennsylvania. A fifth company served in the field. In addition, as Pickering noted, there were four companies of Artillery Artificers serving at Springfield, but these were composed of only a few men. Washington directed Pickering to consult with Brig. Gen. Henry Knox and report their opinion on reduction and combination to him.[110]

A certain amount of dissatisfaction with the Regiment of Quartermaster Artificers had developed by the fall of 1780. In Washington's view, they received high wages but did little work. Moreover, the officers "assumed the appearances and pretensions of officers of the line, instead of accommodating themselves to the spirit of their stations." Soon after becoming Quartermaster General, Pickering proposed various economy measures aimed at personnel reductions. A small portion of the savings, he hoped, would be used to adjust the pay and allowances of officers in his department in order to retain their service. Among his proposals was the abolition of the Regiment of Quartermaster Artificers, whose total pay he estimated at 6,853⅓ dollars a month. To replace it, he suggested the employment of a director of artificers, 4 master workmen, 4 foremen, and 100 journeymen, "who would do as much (and beyond comparison better) work as the regiment." Their pay would amount only to 3,420 dollars a month.[111]

The Board of War approved Pickering's proposals for promoting economy, and on the basis of its report Congress dissolved Baldwin's regiment. The noncommissioned officers and privates whose terms of service had not yet expired and who were serving with the main army were to be formed into one company under such officers as the Commander in Chief directed. The artificers with the Southern Army were also to be formed into one company with officers appointed by the commanding general of that army. All other

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109. (1) Fitzpatrick, *Writings of Washington*, 18:1–2 (to Bd of War, 10 Feb 80). (2) Washington Papers, 127:119 (plan, 10 Feb 80). (3) *JCC*, 18:894 (3 Oct 80).

110. (1) Washington Papers, 157:17 (10 Nov 80). (2) Fitzpatrick, *Writings of Washington*, 20:339–40 (12 Nov 80).

111. (1) Ibid., 21:43 (to Pickering, 1 Jan 81). (2) Pickering and Upham, *The Life of Timothy Pickering*, 1:286–87.

officers of the Regiment of Quartermaster Artificers were to be dismissed. Accordingly, Washington ordered all noncommissioned officers and privates of Baldwin's regiment with the main army, except saddlers and shoemakers, sent to the Artillery Park and put under the command of Capt. Thomas Patton. The saddlers and shoemakers were to remain at Fishkill under the direction of the deputy quartermaster at that post.[112]

Pickering was pleased with the changes effected in the main army. He maintained that annexing the artificers of Baldwin's regiment to the Artillery Park "answered all good purposes he expected from it" by eliminating a "redundancy of idle officers" in the corps. However, at the opening of the 1781 campaign he lacked any artificers for his department in the field, and it was necessary to raise a company. It was 19 May before he could get anyone to undertake this task. To induce artificers to serve just for the campaign, he fixed their pay at one dollar a day and encouraged them to expect, though he did not absolutely promise, one payment in three months and the remainder at the close of the campaign. By applying to Robert Morris, Superintendent of Finance, who granted him funds, he was able to give these artificers two months' pay when the campaign closed. He hoped that they would not go home disgusted, since he might have to raise a new company of artificers should there be another campaign. Lacking funds, he delayed paying the district artificers who remained at posts in New York, although he hoped to do so eventually.[113]

With the troops again in winter quarters after the surrender of Cornwallis, Quartermaster General Pickering directed Deputy Quartermaster Hughes to discharge the district artificers at all posts. They were a burden on the public, costing 200 dollars a day, and their services would not be needed until the next campaign. Whatever work artificers undertook in the future would be paid for on a piecework basis. He contracted with Jacob Reeder to do smith's work for the main army and called on subsistence contractor Comfort Sands to furnish provisions for Reeder and his five hands. The value of the rations was to be deducted from the settlement made for Reeder's work.[114]

Before the war ended, Pickering made arrangements to raise one more company of artificers in anticipation of another campaign. Hampered more than ever by lack of funds, he took care to arrange that their service—and pay and subsistence—did not begin before 1 May. Though there was no campaign in 1782, these last artificers of the Revolutionary War, their number augmented by men detailed from the line, were employed in repairing the post at West Point.[115]

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112. (1) *JCC*, 19:329–30 (29 Mar 81). (2) Fitzpatrick, *Writings of Washington*, 22:80 (14 May 81).

113. Washington Papers, 83:206 (Pickering to Hughes, 4 Jan 82).

114. Ibid., 83:65 (to Hughes, 1 Feb 82, and to Comfort Sands, same date).

115. (1) Ibid., 83:132–33 (to John Parsell, 26 Feb 82); 129–30 (to Capt Stephen Clapp, 26 Feb 82). (2) Fitzpatrick, *Writings of Washington*, 24:133–34 (GO, 18 Apr 82).

CHAPTER 6

Organization of the Commissariat

From 1775 until the summer of 1781 a commissariat system was used to provision the Continental Army. During that six-year period, four men—Joseph Trumbull, William Buchanan, Jeremiah Wadsworth, and Ephraim Blaine—successively directed Commissary affairs with varying degrees of success. The victory at Yorktown virtually ended military operations, but the provisional articles of peace were not signed until 30 November 1782, and the definitive treaty of peace did not follow until 3 September 1783. During these months of watchful waiting, the commissariat system was completely abandoned in favor of a contract system, which had been partially applied on the eve of the Yorktown campaign.

Even before the outbreak of hostilities, the colonies, particularly those in New England, had taken some preparatory measures to accumulate provisions for any emergency. Once the conflict was joined, the New England colonies generally subsisted their soldiers gathered about Boston by resorting to the same procedures that they had utilized on previous occasions when colonial troops had been dispatched on short campaigns or expeditions. The colonies had been accustomed to collecting and issuing provisions to their men through commissaries whose appointments expired upon completion of the mission on which the troops had been sent.

On 22 February 1775 the Massachusetts Committee of Safety, at the direction of the colony's Provincial Congress, appointed a commissary—John Pigeon—to subsist its troops. In October of the previous year the Provincial Congress had established a Committee of Supplies to purchase and store rations, arms, and ordnance stores at Worcester and Concord in readiness for any demands that might be made. When hostilities began, Pigeon delivered provisions to Cambridge, taking orders form Maj. Gen. Artemas Ward, commander of the forces besieging Boston.[1] As soon as the conflict began in April 1775, the Connecticut Assembly took steps to protect its available food supply and also appointed a commissary general to provide rations for its troops at Cambridge. It named Joseph Trumbull,

1. (1) *Journals of Each Provincial Congress of Massachusetts in 1774 and 1775 and of the Committee of Safety and Supplies* (Boston, 1838), pp. 96–97, 518 (22 and 24 Feb 75). (2) Force, *Am. Arch.*, 4th ser., 2:1141 (Ward to Pigeon, 30 Jun 75).

son of Governor Jonathan Trumbull, to the post and designated nine commissaries to assist him in the colony.[2] Though the Connecticut Assembly at first set no renumeration for these commissaries, it subsequently allowed them a commission of 1½ percent on all supplies purchased. New Hampshire and Rhode Island took similar action. New Hampshire appointed Moses Emerson as commissary to supply its troops. Rhode Island designated Peter Phillips as its commissary and authorized him to appoint deputies to assist him in provisioning its troops. Commissary Phillips and the members of the Rhode Island Committee of Safey were also paid 1½ percent upon all purchases they made.[3]

Though in the past necessity had not dictated the organization of a permanent commissariat in any colony, it was obvious that one would be required to maintain troops in the field in any prolonged struggle.[4] In consequence, the Continental Congress established the office of Commissary General of Stores and Provisions for the Continental Army in June 1775, at the same time that it created the post of Quartermaster General. It fixed the Commissary General's pay at 80 dollars a month.[5] However, Congress made no appointment at that time, nor did it define the functions of the office or provide a plan of organization.

Appointment of Trumbull

After Washington took command of the Continental Army, he advised Joseph Trumbull that Congress would have to appoint a commissary general and that he would recommend Trumbull for the post. Washington was much impressed with the efficient way in which the latter had been provisioning the Connecticut soldiers concentrated near Boston. Trumbull thought the appointee ought to come from Connecticut inasmuch as most of the provisions for Washington's troops while they remained before Boston would be drawn from the fertile Connecticut River valley. Since he was thoroughly acquainted with Connecticut's resources, he considered himself well qualified for the post. In any case, he felt it was the only berth

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2. (1) The commissaries were Oliver Wolcott, Henry Champion, Thomas Mumford, Jedediah Strong, Jeremiah Wadsworth, Thomas Howell, Samuel Squier, Amasa Keys, and Hezekiah Bissell. Some of these men later served in the Commissary Department that supported the Continental Army. (2) See also Force, *Am. Arch.*, 4th ser., 2:418 (Conn. Assembly, 26 Apr 75); 574 (11 May 75).

3. Ibid., 4th ser., 2:655 (25 May 75); 1146, 1147, 1151 (R.I. Assembly, 17 May 75).

4. The British army in America also had a Commissary General, but its Commissariat was concerned primarily with the distribution of rations. Procurement was handled under contracts negotiated by the Treasury Board. Provisions were shipped from Cork, Ireland, to provision depots at Quebec, Montreal, New York, Charleston, and Savannah. It was at these points that the British Commissariat took over distribution. Edward E. Curtis, "The Provisioning of the British Army in the Revolution," *The Magazine of History* 18 (1914): 232–33.

5. *JCC*, 2:94 (16 Jun 75).

left worth having, and he solicited the support of influential friends in Congress to obtain the appointment. On 19 July, following the arrival of Washington's recommendation, Congress appointed Trumbull Commissary General of Stores and Provisions for the Continental Army.[6]

Though Congress created the office of Commissary General in the summer of 1775, two years elapsed before it enacted a regulatory measure for the department. In the meantime Trumbull had to evolve a system for purchasing and issuing subsistence. So effective was the plan he instituted that during his tenure the Continental Army was generally well supplied with subsistence. He began by incorporating into one centralized system the supply arrangements that earlier in 1775 the various commissaries had been using to provision the troops of the New England colonies at Cambridge. In this task he was aided by orders from Washington directing these commissaries to make returns of all provisions stored in their magazines and to close their accounts.[7] In building his organization, Trumbull retained the services of some of these commissaries.

Like Mifflin's organization of the Quartermaster's Department, Trumbull's organization of the Commissary Department in the field reflected the distribution of the Continental troops around Boston. By 1776 Trumbull had established four issuing stores, each headed by a storekeeper. The stores at Cambridge and Roxbury each issued provisions to two brigades; those at Prospect Hill and Medford each supported one brigade. Charles Miller, who had earlier served as deputy to Pigeon in provisioning the troops of Massachusetts Bay, headed the principal issuing store at Cambridge and employed the largest number of clerks.[8] Aaron Blaney served as issuing storekeeper at Roxbury. Trumbull appointed Peter Phillips, former commissary for the Rhode Island troops, issuing storekeeper at Prospect Hill, and Moses Emerson, former commissary for the New Hampshire troops, issuing storekeeper at Medford. Each of these storekeepers employed clerks to keep accounts, handle the issue of weekly allowances, weigh provisions, and pay small bills. They also employed laborers, coopers, and cooks. Trumbull's organization in addition included a number of magazine keepers who had charge of supplies at deposit points about twenty miles from camp on roads leading to the magazines at Cambridge and Roxbury. Trumbull had flour deposited at these backup magazines, and he

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6. (1) Ibid., 2:190. (2) Fitzpatrick, *Writings of Washington*, 1:324 (to Pres of Cong, 10 Jul 75). (3) Samuel B. Webb, *Correspondence and Journals of Samuel B. Webb*, ed. Worthington C. Ford, 3 vols. (New York, 1893–94), 1:78 (to Silas Deane, 11 Jul 75); 3:243 (Trumbull to Deane, 6 Jul 75). (4) Burnett, *Letters*, 1:168 (Eliphalet Dyer to Trumbull, 21 Jul 75). Dyer was Trumbull's father-in-law. See 1:170 (Benjamin Harrison to Washington, 21 Jul 75).

7. Fitzpatrick, *Writings of Washington*, 3:378 (GO, 31 Jul 75).

8. Victor L. Johnson, *The Administration of the American Commissariat During the Revolutionary War* (Philadelphia, 1941), p. 15.

also had cattle and hogs driven to them to be slaughtered, salted, and packed to satisfy the demands of Washington's army.

In preparing a personnel report for Trumbull in January 1776, Miller indicated that, in addition to a small salary, it was customary to grant an issuing storekeeper or commissary any savings from the amount allowed for leakage and wastage. This allowance was one-eighth the value of all the provisions he handled. That method of payment, he asserted, encouraged the commissary to be very careful in the performance of his duties. Trumbull sent this suggestion to Congress together with his proposals for per diem salaries and ration allowances for all field employees.[9] Four months later Congress established their remuneration. It ignored Miller's suggestion, but largely followed what Trumbull had proposed. It fixed the pay of the issuing storekeepers at Cambridge and Roxbury at 50 dollars a month each and of those at Prospect Hill and Medford at 40 dollars a month each. It also allowed four rations per day to these storekeepers. At the same time, however, Trumbull was unhappy with the fixed salary paid him since his department's establishment, and he hinted at resignation. "Fatal Consequences" would be the result, Washington wrote the President of Congress, for "he is a Man well cut out for the business; and that where a Shilling is saved in the Pay, a pound may be lost by Mismanagement in the Office." He suggested the propriety of handsomely rewarding the Commissary General, since he held such an important, troublesome, and hazardous office. Before Congress received this letter, it had determined to continue payment of a fixed salary for the Commissary General, but it did increase the amount to 120 dollars a month.[10] Trumbull's hope of being paid a commission was dashed.

In addition to this field organization, Trumbull's department included a procurement arm which consisted of purchasing agents, later referred to as deputies. They were paid a commission instead of a fixed salary. Although the amount of this commission had not yet been set in January 1776 when Trumbull employed purchasing agents at Newburyport in Massachusetts, at New York City, at Providence, and at other places, a commission of 2 to 2½ percent was eventually paid on the funds they spent in the purchase of subsistence. As commissary general for the Connecticut troops in 1775,

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9. Force, *Am. Arch.*, 4th ser., 4:842–44 (Trumbull memorial and enclosures, 23 Jan 76).

10. (1) Fitzpatrick, *Writings of Washington*, 5:120–21 (to Pres of Cong, 10 Jun 76). (2) *JCC*, 4:385–87 (24 May 76). Field personnel other than issuing storekeepers received the following per day:

	Pay	*Rations*
First clerks	4s.8d.	3
All other clerks	3s.4d.	2
Magazine keepers	4s.8d.	3
Coopers	2s.8d.	1
Cooks	2s.8d.	1
Laborers	2s.8d.	1

Trumbull had been assisted by nine purchasing commissaries in Connecticut. After becoming responsible for subsisting the Continental Army, he continued using these agents. Most of these men, as well as other agents he later utilized in procurement, were merchants, experienced in purchasing. Most of his agents, too, were Connecticut men—a fact that bred envy and criticism of that state because some considered it to be prospering unduly by the war.

Although Congress had established a Commissary General of Stores and Provisions, it had not outlined the extent of his authority. Trumbull assumed it encompassed the Continental Army, but when the main army moved to New York, he found his control of all commissary matters threatened. With a lack of attention to overlapping jurisdictions, Congress had promoted confusion by multiplying the number of independent agents authorized to procure subsistence for the troops. In December 1775, for example, it had advanced money to Carpenter Wharton, who had contracted to supply rations to the battalions being raised in Pennsylvania; this practice was not uncommon, but when the Pennsylvania troops moved to New York, Wharton continued to supply them at the direction of Congress.[11]

In the meantime, Congress had requested the New York Convention or the Committee of Safety to contract with proper persons to supply its troops employed in defending that area. It advanced the sum of 35,000 dollars for the purpose. The New York Convention promptly made a contract with Abraham Livingston, a fact that Washington learned when he arrived in New York in April and found Livingston claiming the right to provision all the troops there except those who had arrived from Cambridge. Washington feared this arrangement would produce confusion. The problem was resolved when Abraham Livingston voluntarily relinquished his contract in May.[12] At the end of June, Washington warned that conflicts and competition for subsistence would inevitably result if Congress carried out its proposal to appoint Carpenter Wharton as a commissary for provisioning the flying camp which it had ordered to be established in New Jersey in 1776 for the defense of the middle states. He therefore intervened, insisting that only one man ought to direct the work of the Commissary Department and that this man ought to be Trumbull. The latter, under the impression that he had the authority, was already making arrangements for subsisting the flying camp. Congress modified its arrangements with Wharton. It provided that he should furnish rations to the troops marching from Pennsylvania to New Jersey only so long as Trumbull did not direct otherwise.[13]

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11. Ibid., 3:419 (9 Dec 75); 4:210 (16 Mar 76).

12. (1) Ibid., 4:159–60, 260, 338, 346 (17 Feb, 6 Apr, 9 and 10 May 76). (2) Fitzpatrick, *Writings of Washington*, 4:503–04 (to Pres of Cong, 22 Apr 76).

13. (1) Ibid., 5:190–92 (to Pres of Cong, 28 Jun 76). (2) *JCC*, 5:523 (6 Jul 76).

Far more prolonged was a controversey over commissary affairs in the Northern Department. The episode was "symptomatic of the jealousy that already existed between the New Englanders and the New Yorkers, and its effect was to foment still further the discord between these two groups."[14] Even before Congress appointed Trumbull as Commissary General, it had recommended to Governor Jonathan Trumbull of Connecticut that he appoint commissaries at Albany to receive and forward provisions to the forces on Lake Champlain. Consequently, the governor, on 8 June 1775, appointed Elisha Phelps as commissary for these forces. In accordance with the terms of his appointment, Phelps stationed himself at Albany to receive and forward supplies.[15]

The following month Congress assigned Maj. Gen. Philip Schuyler, a New Yorker, to the command of the Northern Department. He found so much wanton waste and embezzlement of food and utter confusion in subsisting the troops that he requested Congress to appoint a commissary. He recommended his nephew, Walter Livingston, another New Yorker, for the post. On 17 July, approximately a month after Congress had established the Commissary Department but two days before it appointed Joseph Trumbull to head it, Congress designated Livingston as commissary of stores and provisions in the Northern Department.[16] Thus when Schuyler became commanding general of the Northern Department, not only were Connecticut troops brought under his command but a Connecticut commissary, Elisha Phelps, was superseded by a New Yorker. These developments aroused a feeling of jealousy on the part of New England officers and troops.

Congress had actually limited Walter Livingston's appointment to "the present campaign," meaning that of 1775, but he continued to provision the troops in the Northern Department in 1776 and apparently did not consider himself under Trumbull's direction. Instead, he disputed Trumbull's authority and that of Elisha Avery, a deputy sent to Ticonderoga by the Commissary General to accompany Maj. Gen. Horatio Gates, who had been appointed to take command of the army in Canada. Livingston had the full support of Schuyler in this controversy, which only increased the confusion in the commissariat in the Northern Department. In July 1776 Congress settled this dispute in favor of Trumbull when it resolved that the Commissary General had full power to supply the armies both in New York

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14. E. C. Burnett, "The Continental Congress and Agricultural Supplies," *Agricultural History* 2 (1928):116.

15. (1) *JCC*, 2:74–75 (1 Jun 75). (2) See also Force, *Am. Arch.*, 4th ser., 2:973 (Phelps to Mass. Committee of Safety, 12 Jun 75); 1059 (same to N.Y. Cong, 22 Jun 75); 1570–71 (Phelps warrant, 8 Jun 75).

16. (1) *JCC*, 2:186 (17 Jul 75). (2) RG 11, CC Papers, item 133, 2:18 (Schuyler to Pres of Cong, 11 Jul 75).

and in the north, to employ and appoint such persons under him as he judged expedient, and even to dismiss any deputy commissary.[17]

Despite this resolution Livingston persisted in his activities to such an extent that in September Trumbull presented a summary of conditions in the Northern Department to Congress and requested to be relieved from all responsibility. Congress took no action, for by that time Livingston had submitted his resignation. Trumbull was fully supported by the Continental Congress; President John Hancock wrote, "The honour and reputation with which you have hitherto executed the arduous and extensive business of your office, and the satisfaction you have afforded the publick, convince me that you will still continue to render your country all the service in your power." His authority so handsomely sustained, Trumbull agreed to remain in office despite his continuing dissatisfaction with his fixed salary.[18]

Trumbull never had any control over commissary supply in the Southern Department, though in the early years of the war the southern states served as a source of food for the troops operating in the Middle Department. Military operations were limited in the Southern Department before 1779, and such troops as did campaign there were provisioned by the individual states.[19] On 27 April 1776 the Continental Congress appointed William Aylett as deputy commissary general for the troops in Virginia. He operated independently of Trumbull, communicating with the Board of War and the President of the Continental Congress and receiving his instructions from Congress.[20]

Criticism of the Department

The cost of rations inevitably soon attracted the attention of members of Congress who wanted to reduce expenditures. Eliphalet Dyer wrote Trumbull in December 1775 that some members of Congress thought the Continental Army could be supplied by contract at much less expense and with equally good provisions. "They say now the rations Cost the Continent at least a shilling or 14d per diem law[ful] and they have heard persons say in Philadelphia they would undertake for 7d or 8d per diem." Subsistence

17. (1) *JCC*, 5:527 (8 Jul 76). (2) Force, *Am. Arch.*, 5th ser., 1:193 (Washington to Schuyler, 11 Jul 76).

18. (1) Ibid., 5th ser., 2:213–14 (Trumbull to Pres of Cong, 8 Sep 76); 348 (16 Sep 76); 453 (Trumbull to Hancock, 22 Sep 76). (2) *JCC*, 5:752–53 (12 Sep 76).

19. For an example, see the arrangements made by South Carolina in June 1776 when Maj. Gen. Charles Lee took command in the Southern Department. (1) Charles Lee, *The Lee Papers*, New-York Historical Society *Collections*, vols. 4–7 (New York, 1872–75), 5:23, 36. See also 5:174, 233, 241. (2) *JCC*, 7:19–20 (8 Jan 77).

20. (1) RG 11, CC Papers, item 78, 1:23–24 (Aylett to Pres of Bd of War, 3 Oct 76); 33–34 (same to Richard Henry Lee, 26 Nov 76); 73–74, 77–79, 81 (Aylett to Pres of Cong, 13 and 18 Apr, 9 May 77). (2) *JCC*, 6:891–92 (21 Oct 76); 7:46, 92, 121 (18 Jan, 5 and 14 Feb 77). See also 4:315 (27 Apr 76).

supply looked attractive to contractors weighing the possibility of profit. Carpenter Wharton had contracted to supply the Pennsylvania troops ordered to the flying camp in New Jersey at the rate of 7 pence per ration.[21]

As Congress mulled over the idea of supply by contract, General Schuyler added his view that the cost of provisioning the troops in the Northern Department was far too high. He was not impugning the integrity of any commissary, he wrote the President of Congress, but "every man acquainted with publick business must allow that it cannot be carried on, for a variety of reasons, with that economy which prevails in private affairs." He described himself as "far from being a friend to contracts, on account of the chicane that usually attends them," yet a well-supervised contract appeared to him to be the lesser of two evils. A committee appointed to devise ways and means for providing the Northern Army with provisions submitted its recommendations in September 1776. On the basis of this report, Congress resolved that a committee should be sent to contract for rations to subsist the Northern Army. The components of the ration were each to be assigned a value, and the contractor was to pay in money for any part he failed to supply. This proposed contract was to be made along the lines recommended by General Schuyler.[22]

In passing this resolution, Congress characteristically was tampering again with Trumbull's authority to provision the Continental Army, an authority that only two weeks before it had assured Trumbull he possessed. The Commissary General sought the opinion of Elbridge Gerry on supplying the Northern Army by contract, and Gerry agreed that it was "absurd to supply one Army with and the other without a Contract." Fortunately for Trumbull, Congress changed its mind before the end of December. Acting on views expressed by its committee when it returned from Ticonderoga, Congress resolved that the Northern Army could be more advantageously supplied by the Commissary General than by contract.[23]

On the other hand, Congress approved of Aylett's proposal to contract for rationing the troops in Virginia.[24] It also sanctioned contracts for provisioning troops in other instances. However, such contracts were usually used to supply small units separated from the main army or being recruited. Until Robert Morris took over the direction of financial matters as Superintendent of Finance and adopted the contract method, provisioning of the Continental Army was accomplished primarily by commissaries.

The activities of commissaries in the Middle Department stimulated

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21. (1) Burnett, *Letters*, 1:278 (Dyer to Trumbull, 16 Dec 75). (2) *JCC*, 3:419 (9 Dec 75).

22. (1) Force, *Am. Arch.*, 5th ser., 1:1151–52 (Schuyler to Pres of Cong, 25 Aug 76). (2) *JCC*, 5:822, 828 (25 and 26 Sep 76).

23. (1) Burnett, *Letters*, 2:120, 125–26 (Gerry to Trumbull, 8 and 17 Oct 76). (2) *JCC*, 6:1047 (28 Dec 76).

24. (1) Force, *Am. Arch.*, 5th ser., 2:850 (Aylett to John Adams, 3 Oct 76). (2) *JCC*, 5:891 (21 Oct 76).

much more criticism than the cost of the ration. In December 1776 Trumbull went to Hartford, Connecticut, to supervise the procurement and packing of salt provisions in New England for the next year's campaign and, at the same time, to prepare his books for inspection by the auditors of Congress. He appointed Carpenter Wharton to act as his sole deputy with Washington's army during his absence. Washington reluctantly agreed to this arrangement; he thought provisioning the troops during operations in New Jersey would require "an officer of much sagacity and diligence."[25]

Washington was justified in his fears. Wharton proved unsuccessful in provisioning the troops at the very time that the Commander in Chief was attempting to capitalize on the military advantage gained at Trenton. The main army was unable to move for lack of subsistence. Washington charged that he had to delay for two days before crossing the Delaware and then had to permit the troops to "victual themselves where they could." Without removing Wharton, Washington appointed Col. Thomas Lowrey to the post of deputy commissary general. Lowrey had for some time been engaged in provisioning two battalions being raised in New Jersey.[26] He immediately set about purchasing supplies while Capt. Matthew Irwin, whom he selected as his deputy, accompanied the main army. To supplement Lowrey's efforts, Washington authorized Deputy Quartermaster General Francis Wade to seize all beef, pork, flour, and liquor not needed to subsist the inhabitants of eastern New Jersey and to establish a magazine at Newtown in Bucks County, Pennsylvania.[27]

Wharton's procurement methods drew widespread criticism. Early in 1777 both the President of Congress and Washington informed Trumbull of the complaints being made against his deputy. It was charged that Wharton had announced publicly that he was employed to purchase large quantities of rum, pork, and beef and that he was prepared to pay the highest price for each. In commenting on this charge, Roger Sherman wrote Trumbull, "I don't know on what terms you employ people but sure I am it will not do to employ them to purchase on Commissions unless you limit the prices: For the greater prices they give the more will be their profits, which is such a temptation as an honest man would not wish to be led into." Purchasing commissaries in the Middle Department were accused of enhancing prices by competitive bidding in order to swell their commissions. Washington requested Trumbull, who had remained at Hartford

25. (1) Force, *Am. Arch.*, 5th ser., 3:1202–03 (Trumbull to Pres of Cong, 13 Dec 76); 3:1242–43 (Washington to Trumbull, 16 Dec 76). (2) Washington Papers, 37:70 (Trumbull to Washington, 13 Dec 76).

26. (1) Fitzpatrick, *Writings of Washington*, 6:457 (to Robert Morris, 30 Dec 76); 7:60–61 (to Robert Ogden, 24 Jan 77). (2) Washington Papers, 39:5 (Lowrey to Joseph Reed, 8 Jan 77). (3) See also *JCC*, 3:360, 415 (20 Nov and 8 Dec 75); 4:106 (31 Jan 76).

27. Fitzpatrick, *Writings of Washington*, 6:496–97 (to Wade, 11 Jan 77).

wrestling with his accounts, to return and regulate his department, but the order went unheeded.[28]

Regulation of 1777

Criticism of the Commissariat inevitably led to congressional action and reorganization of the department. Investigation of Wharton's mismanagement of Commissary affairs resulted in a report by the Board of War in February 1777 that proposed separation of the purchasing and issuing functions of the Commissary General. This proposal was in agreement with the view of Washington, who had long been of the opinion that the work of the department had become too extensive to be under the management of one man.[29] Congress took no action on the board's report, but it showed interest in a proposal made by William Buchanan, a Baltimore merchant, to supply the Continental Army by contract instead of by the commissary method.[30]

In March Congress initiated an inquiry into the conduct of the purchasing commissaries in the Middle Department by appointing a committee of three for that purpose. The committee reported that many of the charges made against the commissaries were true. Extravagance and dissipation of public funds through fraudulent raising of prices to reap higher commissions had occurred, and the conduct of some of the Commissary Department's personnel had been characterized by a lack either of ability or of integrity. The committee recommended that in the future Congress appoint the commissaries and place them in designated districts under proper supervision and regulations. Impressed with these findings, Congress immediately directed the committee to prepare a draft of regulations for putting their ideas into effect.[31]

In view of the various regulatory measures being proposed, Elbridge Gerry advised Trumbull to come to Philadelphia if departmental affairs permitted. He added that although commissary abuses had been uncovered in the middle states, he had not heard "any person lisp Complaints against the Commissary General." Congress itself had ordered Trumbull to report to Philadelphia as quickly as possible. He arrived on 22 April, reassured Congress on the amount of provisions immediately available, and dismissed Wharton.[32]

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28. (1) Ibid., 7:160–61 (to Trumbull, 18 Feb 77). (2) *JCC*, 7:70 (29 Jan 77). (3) Burnett, *Letters*, 2:314–15 (Sherman to Trumbull, 2 Apr 77).

29. (1) *JCC*, 7:119–20 (14 Feb 77). (2) See, for example, Fitzpatrick, *Writings of Washington*, 8:25–26 (to Brig Gen Alexander MacDougall, 7 May 77).

30. (1) *JCC*, 7:134 (20 Feb 77). (2) Burnett, *Letters*, 2:314–15 (Roger Sherman to Trumbull, 2 Apr 77).

31. *JCC*, 7:177, 266 (14 Mar and 14 Apr 77).

32. (1) Ibid., 7:279 (18 Apr 77). (2) Burnett, *Letters*, 2:334–35 (Gerry to Trumbull, 19 Apr 77); 340 (Roger Sherman to gov of Conn., 23 Apr 77).

The committee drafting a regulation for the department requested that Trumbull, on the basis of his experience in office, submit his ideas on the subject. Trumbull, who had applied to Congress for regulations twelve months earlier, presented a draft of his proposals two days later and urged immediate action to quiet the discontent and uneasiness of his assistants. He apparently was pleased with the idea of dividing his office into two separate departments, but he was diametrically opposed to the continuation of the practice of paying a fixed salary to the Commissary General. He had never been satisfied with that arrangement, and he now again proposed that he be paid on a commission basis—that is, ½ percent of all monies passing through his hands. He wrote to Jeremiah Wadsworth that he was determined to have his own terms or nothing, though at that point he did not know whether he would be asked to remain.[33]

Assuming that he would be consulted from time to time about the preparation of the regulation, Trumbull remained in Philadelphia for the next four weeks. By that time maneuvers in New Jersey were heralding the beginning of the campaign of 1777, and Washington, who had been impatiently awaiting Trumbull's arrival at headquarters, was writing:

> It is the peculiar misfortune of this Army to have, generally speaking, the heads of the different departments always absent, when they are most wanted. Two months was I labouring as hard as a Man could, to get the Commissary General to this place, and had scarce accomplished it, before the Congress ordered him to Philadelphia; from whence, I have used my utmost endeavours, to bring him back, but am answered, that he is detained by order; in the mean while, the Army may starve.

Washington finally informed Trumbull that the main army would have to disperse for lack of food if he did not come to Morristown and procure sufficient supplies.[34]

Disgusted with the fact that the committee never again called for his assistance and unable to learn that any progress was being made in the preparation of the regulation, Trumbull returned to camp. There he found his department in such a demoralized and discontented state as a result of the congressional investigation that he contemplated resigning on 15 June. "An Angel from Heaven could not go on long in my Situation," he wrote his friend Elbridge Gerry. It was apparent that his deputies would leave him to a man if satisfactory arrangements were not made, and in the existing uncertanties the deputies "were not worth a farthing each."[35]

Although Trumbull had not yet been informed, on 10 June Congress had

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33. Ibid., 2:364n (Trumbull to Wadsworth, 17 May 77); 393–94n (Trumbull to Hancock, 15 Jun 77).

34. Fitzpatrick, *Writings of Washington*, 8:130–31 (to Greene, 27 May 77); 136 (to Trumbull, 28 May 77).

35. Burnett, *Letters*, 2:393–94n (drafts of letters to Hancock, Washington, and Gerry that apparently were not sent, 15 Jun 77).

adopted a regulation so minutely detailed—the text fills fifteen pages of its printed *Journal*—that "if regulations could have furnished supplies, the army storehouses should have been bursting with a superabundance."[36] The regulation established separate departments of purchases and issues, each headed by a Commissary General. As in the case of other staff departments, Congress established subordinate offices of these two new departments in each of the military departments. The only exception was the Southern Department; because military need did not dictate otherwise, the two Commissary organizations were established only in the Southern District, that is, Virginia. The regulation provided a relatively simple organization, but the minutiae of detail—prescribing an elaborate record-keeping system and procedures for the branding of government animals, the recovery and tanning of hides, the monetary evaluation of the ration, and the establishment of gardens, to mention only a few areas—were such as to make effective administration of the measure an impossibility.[37]

Congress set about implementing its new regulation in the midst of the campaign of 1777. For the Department of the Commissary General of Purchases, the regulation authorized congressional appointment of four deputy commissaries general, who in turn were each to appoint as many assistants as necessary. The Commissary General of Purchases was to assign each deputy commissary general to a separate area within which he was to make his purchases, delivering the provisions to the deputy commissary general of issues of that area. Each deputy, in turn, was to assign his purchasers to districts within which they were to operate. Such assignment of districts had the commendable objective of preventing competition among commissaries who otherwise might have purchased in the same places.

Congress completed its arrangements in little more than a week. It resolved first that the Commissary General of Purchases was to maintain his office wherever Congress might meet and that either he or his clerk was to be in constant attendance.[38] It then settled the question of compensation for department personnel. In lieu of commissions to purchasing commissaries, the use of which had become thoroughly discredited, Congress substituted fixed pay and rations. This provision was the most disturbing feature of the new system from the viewpoint of the purchasing deputies, though the allowance of 8 dollars and 6 rations per day to the Commissary General of Purchases was a more generous remuneration than heretofore he had received. A deputy commissary general of purchases was to be paid 5 dollars and 4 rations per day, and each of his assistants was to receive 4 dollars a day. This pay was quickly judged to be inadequate for assistant commissaries employed

36. Burnett, *The Continental Congress*, p. 273.
37. *JCC*, 8:433–48 (10 Jun 77).
38. Ibid., 8:452 (11 Jun 77).

in buying and collecting livestock. On 2 July Congress therefore amended the pay scale by authorizing the deputy commissaries of purchases to make reasonable allowances to such assistant commissaries for all extraordinary traveling expenses up to 1⅓ dollars per day.[39]

On 18 June 1777 Congress elected the officers needed to staff the purchasing department. It continued Joseph Trumbull in office with the new title of Commissary General of Purchases and appointed four deputies to assist him—William Aylett, William Buchanan, Jacob Cuyler, and Jeremiah Wadsworth.[40] They were to serve respectively in the Southern District and in the Middle, Northern, and Eastern Departments. Aylett thereby was continued in the purchasing position he had been filling in Virginia since 1776. He, Cuyler, and Buchanan accepted their appointments, but Wadsworth declined to serve.[41]

Regarding the Department of the Commissary General of Issues, the regulation initially called for congressional appointment of only three deputies. As in the purchasing department, these deputy commissaries general were to appoint necessary assistants, and the Commissary General of Issues was to assign to each deputy a separate area. Since 1775 issuing commissaries had worked on a salary basis. The regulation of 1777 therefore introduced no change, but the low pay scale established for the issuing commissaries drew considerable criticism. Consequently, in July Congress amended the regulation, increasing pay in the department.[42]

On 18 June 1777 Congress designated Charles Stewart as Commissary General of Issues and appointed as his deputies William Green Mumford, Matthew Irwin, who had been serving as a deputy with the main army in the field, and Elisha Avery, who had been Trumbull's deputy in the Northern Department.[43] Of the three, however, only Mumford accepted appointment, as deputy in the Southern District. By the end of September 1777 he had the only functioning organization, having appointed assistant commissaries of issues at Yorktown, Portsmouth, Fredericksburg, and Alexandria, Virginia.[44]

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39. Ibid., 8:523–24 (2 Jul 77).

40. Cuyler's appointment was not secured without a recurrence of the earlier animosity between New England and New York delegates. See Burnett, *Letters*, 2:382 (James Duane to Robert Livingston, 19 Jun 77); 383 (same to Schuyler, 19 Jun 77).

41. *JCC*, 8:477, 617 (18 Jun and 6 Aug 77).

42. Ibid., 8:469–70, 523–24 (16 Jun and 2 Jul 77). The original and amended pay scales per month were as follows:

	Pay in Dollars	*As Amended*	*Rations*
Commissary General of Issues	150	same	6
Deputies	75	100	4
Assistant commissaries	40	60	2
Clerks	35	50	2

43. Ibid., 8:427, 491 (18 and 23 Jun 77).

44. RG 11, CC Papers, item 155, 1:425 (return); 469 (return, 13–20 Sep 77).

Congress filled the vacancy in the Northern Department by electing James Blicker to the post on 6 August. Congress, much troubled by its inability to find men willing to accept appointment under the new regulation, authorized the commanding officer of the Northern Department to fill the post if Blicker declined the appointment. At the same time, made aware by Commissary General Stewart of the need for a fourth deputy commissary general of issues in the Eastern Department, it appointed Samuel Gray to that post.[45]

In the summer of 1777, as the British and main Continental armies engaged in maneuvers in New Jersey, the essential issuing organization in the Middle Department was still incomplete. Stewart was harassed by the resignation of four successive deputy commissaries of issues for that department between 18 June and 15 September 1777.[46] By that time, with the British threatening Philadelphia, Commissary General Stewart was so fully occupied with removing stores from that city and the posts along the Delaware that he could give no attention to the organization of his department or to objections made by his deputies against the new regulation.[47]

When Congress had made its first appointments to the two departments under the new regulation, it had requested Trumbull and his incumbent deputies to continue supplying the Continental Army as they had been doing until the new appointees were prepared to assume their duties. Trumbull himself apparently was not officially notified of his appointment until 5 July. As soon as the resolutions had been passed, however, Eliphalet Dyer had written to him. Aware that Trumbull had said he would not serve if he was not paid a commission, Dyer urged him to accept the new appointment on patriotic grounds.[48] But if Trumbull was willing to reconsider, his subordinates were not. A dismaying succession of resignations and new appointments followed in both departments in the weeks after the adoption of the regulation. Washington informed Congress that he feared his army would be greatly distressed by a lack of issuing commissaries. Trumbull attempted to keep his department functioning, but he had so few assistants

45. (1) Ibid., item 78, 1:103 (Avery to Pres of Cong, 26 Jul 77). (2) *JCC*, 8:617, 621 (6 and 7 Aug 77). James Gray became deputy in the Northern Department on 19 October 1778; when he resigned, he was succeeded by James Gamble on 16 November 1780. See 12:1023; 18:1059–60.

46. When Matthew Irwin refused to serve, Congress appointed Robert Hoops, who soon found the strict limitations of the regulation so hampering that he resigned on 6 August. Congress then appointed Archibald Stewart, who declined the appointment three days later. On 14 August Robert White accepted the appointment, only to resign a month later. Eventually, Thomas Jones became deputy for the Middle Department. Ibid., 8:517, 617, 629–30, 744 (1 Jul, 6 Aug, 11 Aug, and 15 Sep 77).

47. Correspondence of Charles Stewart, Commissary General of Issues, 1777–1782, fols. 224, 228 (to Gray, 7 Oct 77), Manuscript Division, Library of Congress. Hereafter cited as Stewart Correspondence.

48. Burnett, *Letters*, 2:392, 407–08 (Dyer to Trumbull, __ Jun and 8 Jul 77).

that he had, on occasion, to stand in person at the scales to check the weight of provisions.[49]

On 9 July Trumbull, seconded by Stewart, proposed that a committee be sent from Congress to observe firsthand the necessity for amending the regulation. The "difficulties, arising from the Strictness of Congress' new Regulations," made it impossible for the deputies to act. In forwarding the proposal, Washington warned that his army would have to disband if Congress did not immediately come to the aid of Trumbull. He added that if it became necessary to move his troops with dispatch, there would be more to dread from the confusion in the Commissary Department than from the enemy. Congress thereupon appointed a committee, but Eliphalet Dyer advised Trumbull that many members were so "fond of their New plan" that it would be difficult to "make them attend to the Objections against it." Trumbull soon learned that the committee was not inclined to grant him the control of his deputies that he deemed essential or to pay him on a commission basis. Even before its report was presented to Congress, Trumbull, on 19 July, submitted his resignation.[50] Two weeks later he notified Congress that he would not consider himself obliged to perform the duties of his office beyond 20 August 1777.

Appointment of William Buchanan

On 5 August 1777 Congress chose William Buchanan, who had been designated deputy for the Middle Department under the new regulation, as Trumbull's successor.[51] Buchanan was not experienced in commissary supply. Moreover, he had the misfortune to assume the duties of his office in a time of crisis with only a small and incomplete staff of officers, some of whom were inexperienced and others incompetent. In the midst of the changes that were being introduced, he was called upon to subsist an army that for weeks had been engaged in one of the most active campaigns of the war. Uncertain whether Maj. Gen. Sir William Howe's forces would be sent to Albany to assist Maj. Gen. Sir John Burgoyne or dispatched against Philadelphia, Washington marched and countermarched his troops between the Delaware and Hudson Rivers. Not until 22 August was he certain that Philadelphia was the British objective. He then shifted his army southward through New Jersey to protect that city from the British, who a few days later were landing men and supplies at Head of Elk.

Buchanan's deputy in the Middle Department was Ephraim Blaine, a

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49. (1) Ibid., 2:394 (James Lovell to Trumbull, 30 Jun 77). (2) Fitzpatrick, *Writings of Washington*, 8:330 (to Pres of Cong, 2 Jul 77).

50. (1) Washington Papers, 50:117 (Trumbull to Washington, 9 Jul 77); 51:96 (same to same, 19 Jul 77). (2) Fitzpatrick, *Writings of Washington*, 8:373–74 (to Pres of Cong, 9 Jul 77). (3) *JCC*, 8:546 (11 Jul 77). (4) Burnett, *Letters*, 2:414 (Dyer to Trumbull, 15 Jul 77).

51. *JCC*, 8:598, 607 (2 and 5 Aug 77).

merchant of Carlisle, Pennsylvania, who had been designated to fill the vacancy that occurred when Buchanan was promoted to head the purchasing department.[52] Under the new arrangement Buchanan was required to attend Congress; consequently, Blaine directed Commissary support of Washington's army as it moved to meet the British threat to Philadelphia. Blaine hoped to promote efficiency by close personal supervision of his subordinates. To keep his organization functioning smoothly while he made the rounds of the Middle Department, Blaine promptly called to his aid two experienced Philadelphia merchants, John Chaloner and James White. To the latter, who was required to reside near Congress, he assigned responsibility for obtaining funds and making them available on application by the assistant deputies in the department. To Chaloner he assigned the duty of permanent residence at Washington's headquarters, where he could be constantly available and responsive to the needs of the Commander in Chief whenever Blaine himself was absent.[53] However, it soon developed that Chaloner was not equal to the sudden demands created by changing conditions in the 1777 campaign.

Blaine worked diligently to provision the main army, but he found his efforts to furnish an adequate meat supply much hampered by the delay in completing the purchasing organization in the Eastern Department. Commissary General Buchanan was not aggressive in getting his department organized and apparently was unaware of the extent to which the deterioration of Commissary affairs in the Eastern Department had affected supply. Two months had elapsed after the passage of the regulation of 1777 before Congress, on 9 August, appointed Peter Colt as deputy commissary general of purchases in the Eastern Department in place of Jeremiah Wadsworth, who had refused to serve.[54] Colt received his commission on 24 August, but at first he could not decide on the propriety of accepting appointment. Weeks went by while he registered his objections to operating under the new regulation. He wrote Buchanan on the difficulties to be encountered, particularly the impossibility of getting cattle purchasers under the terms offered. After receiving urgent demands for beef from Blaine, Colt met with Henry Champion, who had been the principal supplier of cattle under Trumbull. Champion and his assistants refused to continue serving if the regu-

52. (1) Ibid., 8:617 (6 Aug 77). (2) Blaine first participated in commissary affairs on the western frontier. The Continental Congress appointed him a commissary in October 1776 to supply the battalion commanded by Col. Eneas Mackay. Some five months later Congress appointed him a commissary for provisioning the troops in Cumberland County, Pa., and whatever troops marched through the county. He was also to provide rations for the artificers and troops to be employed at the magazine and ordnance laboratory to be erected at Carlisle. From the fall of 1776 until the end of the war, Blaine was engaged in one capacity or another in provisioning troops. Ibid., 6:885 (17 Oct 76); 7:213 (1 Apr 77).

53. Papers of Ephraim Blaine, 1:197 (Blaine to Dunham, 20 Aug 77), Manuscript Division, Library of Congress. Hereafter cited as Blaine Papers.

54. *JCC*, 8:627 (9 Aug 77).

lation remained unaltered. When he received no reply to several letters he sent to Buchanan during September, Colt wrote to the President of the Continental Congress, placing the problem before him.[55]

In October Congress finally changed some of the more restrictive features of the regulation affecting the purchasers of cattle. In lieu of the requirement to brand and number all cattle on the horns, Congress yielded to the livestock purchasers' objections and amended the regulation to permit them to adopt such other modes for marking as they judged expedient, provided they notified Congress of the method adopted. Congress also allowed more time—up to one month—for the purchasers of livestock to make returns. Answering critics of the regulation, Congress asserted that it had never intended to charge the cost of cattle that died on the road or that strayed from keepers at camp to the purchasers of livestock if proper care had been taken to prevent such losses.[56]

While cattle purchases in the Eastern Department were suspended from August to November pending amendment of the regulation, the forwarding of supplies on hand was completely frustrated. Samuel Gray, the deputy commissary general of issues in that department, failed to understand that he was to accept the transfer of subsistence stores from Trumbull even though Stewart had so instructed him at the time he sent Gray his commission. When it was insinuated by some members of Congress that the delay in transfer was attributable to Trumbull, Jeremiah Wadsworth, who had served as the latter's deputy, indignantly refuted the charge. If he had not himself forwarded supplies, Wadsworth wrote, "they would yet have been in the Magazines where they were deposited," waiting for application by Gray.[57]

Still uncertain whether Colt had accepted his appointment or, for that matter, whether Samuel Gray was operating in his capacity as deputy commissary general of issues for the Eastern Department, Congress on 4 October 1777 vested authority in Maj. Gen. Israel Putnam, commanding officer at Peekskill, to appoint suitable persons if either of these deputies declined their posts. Approximately a month later, with the situation still not clarified, Congress granted the same authority to the governor of Connecticut. The latter was to make such appointments only if General Putnam had not acted and if Colt and Gray had still not accepted the congressional appointments. "It will be a Jumble when all is done," Eliphalet Dyer wrote Trumbull early in November. Colt, however, finally accepted his appointment.[58]

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55. RG 11, CC Papers, item 78, 5:411–16 (4 Oct 77).

56. *JCC*, 9:768–69 (4 Oct 77).

57. (1) Stewart Correspondence (to Gray, 8 Jul 77, but should be 8 Aug 77). (2) Burnett, *Letters*, 2:543n (Wadsworth to William Williams, 26 Nov 77).

58. (1) *JCC*, 9:767–68, 858 (4 Oct and 3 Nov 77). (2) Burnett, *Letters*, 2:544 (Dyer to Trumbull, 4 Nov 77).

Admittedly, the Commissary Department under the regulation of 1777 was not achieving the success that had been expected. In the early fall advocates of the new system had felt that sufficient time had not elapsed to permit a demonstration of its merits. By November, however, adversaries of the new organization were pronouncing it a failure.[59] Washington had repeatedly complained of the shortcomings of the Commissary Department during the campaign of 1777, but it was not until December that he bluntly and boldly condemned the inefficiency of both the Commissary and Quartermaster's Departments.

> I have been tender heretofore of giving any opinions, or lodging complaints, as the change in the [Commissary Department] took place contrary to my judgement, and the consequences thereof were predicted; yet, finding that the inactivity of the Army . . . is charged to my Acct., . . . I can declare that, no Man, in my opinion, ever had his measures more impeded than I have, by every department of the Army. Since the Month of July, we have had no assistance from the Quarter Master Genl. and to want of assistance from this department, the Commissary Genl. charges great part of his deficiency.[60]

His accusation against Quartermaster General Mifflin was pointed, and he certainly used strong language against what had once been a pet measure of Congress. When Washington wrote, the main army had arrived at Valley Forge to begin preparations for the winter encampment. The turmoil in the Commissary Department contributed greatly to the privations suffered by the troops in the winter of 1777–78.

Continuation of the Issuing Department

Congress was ready to admit that experience had proved that the commissariat system under the regulation of 1777 could not supply the Continental Army with provisions. As Elbridge Gerry pointed out early in February 1778, "its Advocates have finally given it up, after distressing the Army, Congress, and the Continent with it for six or eight months."[61] However willing Congress was to initiate changes in the purchasing department—and that department was to undergo a number of reorganizations before the commissariat system was abandoned in favor of supply by contract—it saw no need to alter the Department of the Commissary General of Issues, which continued to operate under Stewart until 1781 largely unchanged.

Washington had approved of the separation of purchasing and issuing functions as a means of introducing greater control in Commissary matters. In the first year of the war lax discipline had permitted abuses to be

59. Ibid., 2:563–64 (Richard Henry Lee to Washington, 20 Nov 77).
60. Fitzpatrick, *Writings of Washington*, 10:194 (to Pres of Cong, 23 Dec 77).
61. Burnett, *Letters*, 3:76 (to Samuel Adams, 7 Feb 78).

practiced in the issue of provisions. At Cambridge individuals designated to draw rations from the issuing stores for the soldiers of a given unit often drew rations for a greater number of men than were enrolled in the unit. They then sold the surplus food for their private gain. Many such cases were uncovered; detection resulted in dismissal.[62] In addition, it was not uncommon for troops who had drawn rations at one post to be ordered to another. Despite the fact that the period for which they had been victualed had not expired when they arrived at the new post, they nevertheless again drew rations as though entitled to them.

In the spring of 1777 Washington had directed Commissary General Trumbull to have an assistant commissary with each brigade so that provisions could be issued easily and regularly. In the turmoil of the period this order was apparently not carried out, for when Deputy Commissary General Blaine visited Washington's army in the summer of 1777 to determine the daily ration requirements, he found a commissary and three clerks attached instead to each division. When the issuing department was established, Washington's order was executed; an assistant commissary of issues was appointed to each brigade of the main Continental army by the Commissary General of Issues or his deputy in the Middle Department.[63]

Stewart's department also included assistant commissaries of issue assigned to supervise provision magazines. All provisions that had been accumulated and deposited in magazines by Trumbull and his deputies were turned over to the Commissary General of Issues and his deputies. Stewart reported that provisions in the Middle Department had been received at twenty-three different posts. By the end of January 1778 Thomas Jones, who had become deputy commissary general of issues in the Middle Department, reported 13 magazines in New Jersey, 10 in Pennsylvania, and 3 in Maryland, each under the care of an assistant commissary of issues, who appointed his own clerks and scalemen. At some magazines coopers as well as bakers were employed.[64]

Controlling the issue of rations became no easier when handled by the Commissary General of Issues than it had been under Trumbull. In the spring of 1779 Washington found that the daily issue of provisions exceeded considerably the total number of troops in camp. He wanted a return showing on what days, in what manner, and by whose order provisions were drawn. As Commissary General Stewart pointed out, the regulation of 1777

62. (1) See, for example, Fitzpatrick, *Writings of Washington*, 3:375. (2) William Coit, "Orderly Book of Capt. William Coit's Company," Connecticut Historical Society *Collections* 7 (1899): 33, 79.

63. (1) Fitzpatrick, *Writings of Washington*, 8:142–43 (GO, 30 May 77). (2) Blaine Papers, Letter Book, 1780–83 (to Buchanan, 16 Aug 77). (3) RG 11, CC Papers, item 155, 1:457 (return, Jones to committee, 30 Jan 78).

64. Ibid. Scalemen were paid 30 dollars a month; clerks, 35 dollars a month; coopers, a dollar a day; and bakers, 6 pounds to 7 pounds and 10 shillings a month.

indicated whose orders the issuing commissaries could accept as vouchers, yet necessity in many instances compelled them to issue on the return of persons not specifically mentioned, such as wagonmasters, foragemasters, barrackmasters, superintendents of artificers, boatmen, and various other personnel from the Hospital Department and the departments of the Quartermaster General, Commissary General of Military Stores, Commissary General of Musters, and Geographer.[65] This problem apparently was never satisfactorily solved during the Revolution.

Under the provisions of the regulation of 1777, issuing commissaries by their appointment were attached to particular military departments. Changes in circumstances and in the position of the main army, however, made this arrangement inconvenient. In consequence, in March 1779 Congress ordered that in the future all issuing commissaries were to attend and perform their duties at such places and with such detachments of the Continental Army as the Commander in Chief or the Commissary General of Issues directed.[66]

In that year Congress also took cognizance of the distressed condition of the issuing commissaries. As prices rose, the pay that had been provided in 1777 for personnel in the issuing department became so inadequate that many resigned and others felt they would be compelled to do so if no action was taken for their relief. On the basis of a report by the Board of War, the Continental Congress increased the pay of personnel in the issuing department. At the same time, it granted a forage allowance to the deputies and the brigade commissaries and travel allowances to the other assistant commissaries. Commissaries of issues who had served in the department for one year before the date of this resolution were entitled to draw annually from the Clothier General one suit of clothes for themselves and one for each of their clerks, to be paid for at the same rate charged to officers in the line.[67]

Some of the issuing posts grew to considerable size, particularly those that handled large amounts of provisions. Thus the post at Philadelphia included among its personnel a deputy commissary general of issues and his five clerks, an assistant commissary of issues and his three clerks, and a magazine keeper, who employed a clerk and 2 assistants, 10 laborers, and 7 coopers. When retrenchment became the watchword in 1780, the first business undertaken by the congressional Committee at Headquarters,

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65. (1) Fitzpatrick, *Writings of Washington*, 14: 422–23 (to Stewart, 21 Apr 79). (2) Washington Papers, 105:13 (Stewart to Washington, 27 Apr 79).

66. *JCC*, 13:321–22 (16 Mar 79).

67. Ibid., 14:571–73 (11 May 79). The pay of deputies was increased to 200 dollars a month; assistant commissaries of issue at magazines, posts, and brigades of the Continental Army were allowed 90 dollars a month; and the salary of the clerks of the Commissary General of Issues and of his deputies was raised to 80 dollars a month. Clerks employed by assistant commissaries were allowed 50 dollars a month, but no clerk was to be employed by a commissary if the daily ration issue did not equal 400 rations.

appointed in April, was the reduction of personnel at the Philadelphia post. Before the committee left Philadelphia, it ordered the Commissary General of Issues or his deputy to abolish the position of magazine keeper by 1 May and to discharge eighteen others, including his clerk, assistants, laborers, and coopers.[68]

When Superintendent of Finance Robert Morris began contracting for supplies in 1781, all personnel employed by the issuing department at Philadelphia were dismissed except the deputy commissary general of issues and employees who issued supplies at posts not provided for by contracts.[69] Commissary General Stewart served through the Yorktown campaign. His post and department were then allowed to expire without formal action by Congress.

Regulation of 1778

When the Continental Congress finally concluded that the purchasing system under the regulation of 1777 could not supply the Continental Army with provisions, it appointed a committee in January 1778 to revise the system. Congress was ready to remove Buchanan and rescind the 1777 regulation governing the purchasing department. Buchanan acted first, however, resigning on 20 March 1778.[70] Many preferred the reappointment of Joseph Trumbull, but when that was not possible, the committee endorsed Jeremiah Wadsworth for the office. Congress invited him to attend its sessions so that he might be consulted on proposed amendments to the regulation. That invitation apparently went astray, for a month after it had been issued, Eliphalet Dyer was urging him to make his appearance promptly. During Wadsworth's absence Congress had drafted a regulatory plan, but Dyer assured him that such alterations as he thought necessary would readily be accepted.[71] By 30 March Wadsworth was at York, Pennsylvania, where Congress was meeting, and the proposed regulatory plan was submitted to him for consideration.

As adopted on 14 April 1778, the plan incorporated most of the suggestions which Congress had rejected when Trumbull had made them in the summer of 1777. Congress vested full authority in the Commissary General of Purchases to appoint and remove any officer in his department and to assign to the assistant purchasing commissaries specific districts to which

68. (1) RG 11, CC Papers, item 39, 3:365–66 (return, Gustavus Risberg to committee, 18 Apr 80). (2) Burnett, *Letters*, 5:120–21 (Committee at Hq to Commissary General of Issues, 19 Apr 80).

69. Papers of Robert Morris, Diary, 1:61 (14 Sep 81).

70. (1) *JCC*, 10:51 (14 Jan 78). (2) RG 11, CC Papers, item 78, 2:411 (Buchanan to Pres of Cong, 20 Mar 78).

71. (1) *JCC*, 10:141 (9 Feb 78). (2) Burnett, *Letters*, 3:78–79 (Dyer to Trumbull, 9 Feb 78); 121 (same to Wadsworth, 10 Mar 78).

they were restricted in making their purchases. To make the posts attractive to competent men, Congress allowed a commission of 2 percent to assistant purchasing commissaries on all money they disbursed. It granted a ½ percent commission to the Commissary General of Purchases on all sums paid by him to his deputies for public service. Congress allowed the same percentage of commission on the money the deputies paid to their respective assistant purchasing commissaries. Though the Commissary General was no longer obliged to reside at the place where Congress was meeting, he was to maintain an office there and make periodic reports to that body.[72]

Wadsworth was elected to the office on 9 April 1778.[73] With some satisfaction, James Lovell, delegate from Massachusetts, informed Samuel Adams: "We have got Col. Wadsworth at the Head of the commissariate *unfettered* strictly so. Had the same steps as now been taken with Trumbull a year ago amazing Sums would have been saved. . . . Let us look forward with hope."[74] Wadsworth, who was 35 at the time of his appointment, had considerable prewar experience in mercantile affairs and since 1775 had been active in commissary matters, first in Connecticut and then as a deputy to Commissary General Trumbull. He had handled his assignments so satisfactorily that his reputation was well known to Congress. As a consequence, it was said that he could have set his own terms at the time of his appointment as Commissary General of Purchases.

Under the 1778 regulation Wadsworth had a greater degree of control over his department than had been granted to Buchanan. Except for some adjustments in district boundaries, however, there were practically no changes in organization or personnel. William Aylett remained deputy commissary general of purchases in the Southern District, as Ephraim Blaine did in the Middle Department. Jacob Cuyler continued to direct commissary purchases in the Northern Department, and Henry Champion, who supervised cattle purchases in New England and now reported directly to Wadsworth, and Peter Colt were retained in the Eastern Department. Purchasing operations under Wadsworth provided ample rations, and certainly the winter of 1778–79 brought none of the extremes of hardship that had been suffered by the troops at Valley Forge. Nonetheless, difficulties were multiplying in the late fall of 1778, and criticism, which had subsided when Wadsworth was appointed, began to grow.

When Wadsworth had conferred with a committee of Congress at the time of his appointment, he had been led to believe that measures would be taken that would permit him to restore the credit of the purchasing department and that would allow him to furnish ample supplies "on tollerable terms." A few months later, however, he reported that his purchasers were unable to

72. *JCC*, 10:344–48 (14 Apr 78).
73. Ibid., 10:327–28.
74. Burnett, *Letters*, 3:175 (19 Apr 78).

buy on credit at reasonable rates. Yet purchasing on credit was a necessity since the department was experiencing so much difficulty in obtaining funds from the Treasury. Five months after his appointment, fearing that under these circumstances he would not be able to support the troops and would only bring ruin on himself, he asked Congress to permit him to relinquish his office at the end of 1778. Congress was unwilling to release him and requested that he continue at his post, assuring him again it would take every proper measure to facilitate the execution of his duties.[75]

Congress had been disinclined to interfere further in affairs of the Commissary Department after April 1778. Before the year ended, however, it decided that more vigorous measures were needed for regulating the Department of the Commissary General of Purchases as well as the Quartermaster's Department. To give more constant supervisory attention to them, it appointed a committee of three, whose functions were turned over to the Board of War a year later.[76]

There was no dearth of reforming zeal in 1779. As expenditures increased and reports of abuses in the two departments persisted, three other committees were appointed during the year to promote reform in one phase or another of the activities of the supply departments. The spiraling costs of the war and the rapid depreciation of the country's currency were at the core of all the troubles experienced by the departments. Both developments, however, were largely attributed to the practices of quartermasters and commissaries. On the floor of Congress Elbridge Gerry charged that purchasing officers had been guilty of barefaced frauds—that they had deliberately induced sellers to demand high prices in order to profit through larger commissions.[77] Expenditures of the supply departments mounted alarmingly during 1779. Larger and more frequent advances were made to Wadsworth, but they were insufficient to enable him to pay off old debts. In fact, new indebtedness accumulated, and the credit of purchasing agents declined to the vanishing point.

Wadsworth, disturbed by the "unmerited abuse and slander indiscriminately heaped on" his department by every "petty scribbler," offered his resignation again early in June 1779.[78] He had found it impossible to fill vacancies, and a report of the Treasury Board and resolutions of Congress had "abated if not destroyed the influence of the purchasing Commissaries." He reported that Maryland had even taken the procurement of subsistence

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75. (1) RG 11, CC Papers, item 78, 23:551–53, 573 (Wadsworth to Pres Henry Laurens, 1 Sep and 20 Oct 78). (2) *JCC*, 12:1024–1025 (20 Oct 78).

76. (1) Ibid., 12:1114–15 (10 Nov 78); 15:1312 (25 Nov 79). (2) For examples of matters referred to the committee by Congress, see ibid., 13:103, 150; 14:607, 990; 15:1130. (3) Illustrative of the committee's initial activities is a series of letters to the states on 11 November 1778. See Burnett, *Letters*, 3:489–92.

77. Ibid., 4:215 (Laurens, Notes of Proceedings, 17 May 79).

78. RG 11, CC Papers, item 78, 24:410 (to Pres of Cong, 5 Jun 79).



JOSEPH TRUMBULL



JEREMIAH WADSWORTH

into its own hands. The state had employed some of Wadsworth's purchasers at a 5 percent commission, and the purchase of flour in the state was entirely out of his control. Congress refused to accept his resignation and unanimously resolved that it had full confidence in his integrity, though it added that it had reason to believe that abuses had been committed by subordinates and that it intended to take measures to distinguish between those who had been faithful and "those who had been otherwise."[79] Congress warned that at the opening of a campaign it would be inexpedient and dangerous for Wadsworth and his principal officers to resign and admonished them not to embarrass the service or expose themselves to their country's resentment by doing so. Samuel Huntington, a delegate from Connecticut, expressed somewhat similar sentiments and added that some new regulations were needed for the two supply departments.[80]

Wadsworth agreed to continue in office but reminded Congress that without its support his exertions, no matter how great, would be insufficient to furnish the supplies needed during the campaign. That Wadsworth had yielded only with great reluctance to the wishes of Congress was shown early in August when he requested that it appoint his successor. In October, with the end of the 1779 campaign approaching, he renewed this request, indicating that he would remain on duty until the end of the year and no longer. In this

79. For a similar vote of confidence in Greene and action taken by Congress for controlling subordinates in his department, see above, Chapter 2.

80. (1) *JCC*, 14:695 (7 Jun 79). (2) Burnett, *Letters*, 4:294–95 (Huntington to Wadsworth, 3 Jul 79).

interim, he added, it would be impossible for him to execute the required duties without such grants of money as would enable his purchasers to pay for what they bought; their credit would no longer feed the troops.[81]

Congress now accepted Wadsworth's resignation. Preoccupied with the country's finances, it took no immediate action to appoint a successor. Washington, who had nothing but praise for the way in which Wadsworth had fed the troops, soon called for prompt action to fill the office if Wadsworth would not continue serving. "The business of other departments may admit of some procrastinations and delays," he wrote Congress, but this situation could not be tolerated in the Commissary Department.[82]

On 2 December Congress appointed Ephraim Blaine as Commissary General of Purchases. It called upon Wadsworth and his deputies to continue supplying the Continental Army until Blaine accepted the post and was ready to assume its duties. When Blaine had not entered upon those duties by 31 December, Wadsworth informed Congress that he could not comply with its resolution of 4 December and that he was adhering to his earlier resolve to quit his office at the close of the year.[83] It was 12 January 1780 before Blaine accepted his appointment. He informed Washington that he would set out for headquarters as soon as he received instructions and money from Congress.[84]

Regulation of 1780

Reorganization of the Department of the Commissary General of Purchases had been explored for some months. In the summer of 1779 a committee had proposed organizational changes, but consideration of the problem had been deferred and passed along from one committee to another. By November nothing had been accomplished.[85] The one aspect of the department's operations that elicited the most concern and called forth the most urgent demands for reform by Congress was its payment of commissions. The size of the commissions stirred envy, and although some recognized that the commissions, because of inflation, might be no more than those paid in 1775, others thought them considerable "compared with what some other persons who have been engaged in the public Service have got or rather lost." Throughout December Congress reviewed this problem, and, not unexpectedly, it decided to reestablish a fixed salary for the office of the Commissary

81. RG 11, CC Papers, item 78, 24:49 (to Pres Jay, 12 Jun 79); 97–100 (to Pres Huntington, 10 Oct 79).

82. Fitzpatrick, *Writings of Washington*, 8:122–25 (to Pres Huntington, 24 Nov 79).

83. (1) *JCC*, 15:1342–43, 1349 (4 Dec 79). (2) RG 11, CC Papers, item 78, 24:149–50 (to Pres of Cong, 31 Dec 79); 161–62 (Wadsworth to Washington, 3 Jan 80).

84. (1) Ibid., item 165, 1:315–17 (Blaine to Pres of Cong, 12 Jan 80). (2) Washington Papers, 125:101 (Blaine to Washington, 16 Jan 80).

85. (1) *JCC*, 15:872–80 (23 Jul 79). (2) Burnett, *Letters*, 4:522 (Schuyler to Washington, 18 Nov 79).

General of Purchases. On 1 January 1780 it set the salary at 40,000 dollars a year and allowed six rations a day and forage for four horses.[86]

Adoption of the system of specific supplies made necessary some new arrangement of the purchasing department. Since the states were to direct procurement under that system, the need for purchasing commissaries was eliminated. However, Congress authorized the Commissary General of Purchases on 1 January to appoint an assistant commissary in any state that failed to furnish the necessary supplies. Despite previous criticism of commissions, Congress allowed such commissaries 2 percent on the money they expended, but to control them, it ordered that the prices paid were to be no more than twenty times those paid for similar articles in 1774. To ascertain the latter, Congress directed each state to furnish the Treasury Board with a list of the commodities commonly sold within the state and the prices that were current in 1774.[87]

At the request of Blaine, Congress provided for an assistant commissary to reside at headquarters, where he would always be available to receive instructions from the Commander in Chief and could act upon them in the absence of the Commissary General of Purchases. It set the latter's salary at 10,000 dollars and allowed him two rations a day and forage for one horse. Blaine thought he ought to have an agent in each state to superintend the state purchasers and "push them to execute their duty," for otherwise, he claimed, supplies would not be obtained with any regularity. He also raised the question of whether he was to regulate the pay of coopers, bakers, superintendents of cattle, drovers, and butchers.[88] Congress took no immediate action on these questions.

Early in February 1780 Blaine set out on a tour of the eastern states to supervise the initiation of the system of specific supplies, to impress upon the states the necessity of filling the quotas set by Congress, and to direct the new state-appointed purchasers to maintain a flow of supplies to the troops. He promptly met with disappointment. He found Governor Trumbull and the Connecticut Assembly disinclined to appoint or even recommend the appointment of a deputy to superintend purchases in that state. He encountered similar reluctance in other states, and consequently he appointed a number of deputies himself, allowing them the 2 percent commission authorized by Congress on their expenditures. He appointed Henry Champion in Connecticut, designated Charles Miller in Massachusetts and Asa Waterman in Rhode Island, and continued Jacob Cuyler as deputy in New York. New Jersey had selected Azariah Dunham as its deputy, and Maryland, Pennsyl-

86. (1) Ibid., 4:476 (Jesse Root to Wadsworth, 6 Oct 79); 294–95 (Huntington to Wadsworth, 3 Jul 79); 535–36 (William Ellery to gov of R.I., 14 Dec 79). (2) *JCC*, 15:1343, 1349, 1421, 1423 (2, 4, 29, and 30 Dec 79); 16:5 (1 Jan 80).

87. Ibid., 16:5–7 (1 Jan 80).

88. (1) Ibid., 16:20–21 (7 Jan 80). (2) RG 11, CC Papers, item 165, fol. 311 (Blaine to Pres of Cong, 5 Jan 80).

vania, and Delaware were in the process of making their arrangements. On the other hand, Robert Forsyth, who had succeeded Aylett as deputy commissary general in the Southern District, reported that his assistants had resigned because the inducements offered by Congress were insufficient. Forsyth agreed to continue in service only until a new appointee could take over.[89]

This beginning was not auspicious. Blaine, however, was optimistic that he would be able to keep up a temporary supply until the new system began to work if Congress furnished him with money. Quartermaster General Greene was doubtful. "Blaine," he wrote Wadsworth, "is as unequal to the business as he is fond of it."[90] Money could not be obtained from the Treasury Board, credit vanished, and Washington's army was reduced to a hand-to-mouth existence.

In view of the changes introduced in procurement by the adoption of the system of specific supplies, Congress once more gave attention to the reorganization of the Commissary Department as 1780 drew to a close. During the months since his appointment, Blaine had been hampered in administering his department by the lack of instructions from Congress. He had appointed agents to superintend Commissary business in the states, and he was employing coopers to make barrels, drovers to deliver cattle, and butchers to slaughter the cattle and salt the meat. Yet "no regular System is adopted for my government," he wrote Congress, "or any rule laid down to direct me how or in what manner to settle with those persons who may occasionally be employ'd in the department."[91] He repeated his plea for guidance again and again.

In April 1780 Congress had appointed and sent to Washington's headquarters a committee of three, instructed primarily to reform abuses in the supply departments. During the summer of 1780 this committee drafted a new regulatory plan for the Department of the Commissary General of Purchases, but it was not until 30 November that the Board of War submitted a report to Congress on the department.[92] Only one change was made in its organization. With an army operating in the southern states, it was necessary to assign to it a deputy commissary of purchases. The act authorized the Commissary General of Purchases to appoint this deputy, who was responsible for performing the same duties for the Southern Army as the Commissary General of Purchases did for the main Continental army. Both of these officers

89. (1) Ibid., item 165, fols. 315–17 (Blaine to Pres of Cong, 12 Jan 80). (2) Blaine Papers, Letter Book, 1780–83 (to Cuyler, 1 Feb 80; to Azariah Dunham, 6 Feb 80; to Gov Trumbull, 14 Feb 80; to Pres of Cong, 29 Mar 80).

90. (1) Washington Papers, 129:2 (Blaine to Washington, 25 Feb 80). (2) Freeman, *George Washington*, 5:152n.

91. Blaine Papers, Letter Book, 1780–83 (to Pres of Cong, 15 Sep, 17 Oct, and 20 Nov 80).

92. (1) Burnett, *Letters*, 5:195 (Committee at Hq to Blaine, 5 Jun 80); 222 (Schuyler to Pres of Cong, 17 Jun 80). (2) *JCC*, 18:1109–11 (30 Nov 80).

appointed one assistant commissary, one superintendent of livestock, two clerks, and as many butchers, coopers, drovers, and laborers as were necessary for conducting the business of the purchasing department.

The Commissary General purchased provisions under the direction of Congress, the Commander in Chief, or the Board of War. Congress authorized him to call upon the state agents for such supplies as the state legislatures made provision for; he was to stay informed of the agents' prospects for furnishing supplies. Under orders of the Commander in Chief, he directed the storing of supplies at deposit places, maintaining monthly returns of provisions received, quantities delivered to the issuing commissaries, and provisions remaining on hand. He submitted these returns as well as a monthly record of the personnel he employed to the Commander in Chief and to the Board of War. The Commissary General had authority to call on the Quartermaster General and his deputies for transportation to forward supplies to the troops. Congress continued Ephraim Blaine as Commissary General of Purchases. Early in December he appointed Robert Forsyth as deputy commissary of purchases for the Southern Army.[93]

In the reorganization act of November 1780 Congress finally satisfied Blaine's repeated requests in the past for guidance by fixing the salaries of personnel in his department. The salaries for clerks and assistants, however, were set so low that Blaine was soon complaining that he had been left without a single person to assist him.[94] Congress established no wage rates for personnel hired as occasion demanded, such as butchers, coopers, drovers, and laborers; instead, it authorized the Commissary General of Purchases to fix their pay, subject to the control of the Board of War.

No doubt to his dismay, Blaine found his own salary sharply reduced. The former duties of the Commissary General in the procurement, storage, and forwarding of subsistence had been much altered and curtailed with the adoption of the system of specific supplies.[95] Taking cognizance of that fact,

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93. (1) General Greene welcomed the appointment of Forsyth and on 31 March 1781 urged that he immediately join the Southern Army to take charge of his "deranged" department. It was June before he joined Greene. He served as deputy commissary of purchases with the Southern Army until Robert Morris authorized contract arrangements for provisioning that army. Judging that there would be no need for a deputy or assistants after 1 January 1783, Forsyth submitted his resignation to Greene on 12 December 1782. Greene Papers, vol. 25 (to Forsyth, 31 Mar 81); vol. 72 (Forsyth to Greene, 12 Dec 82).

94. RG 11, CC Papers, item 165, fols. 341–44 (Blaine to Pres of Cong, 25 Feb 81). Salaries were set as follows:

	Pay Per Month (In Dollars)	*Rations (Per Day)*	*Forage (No. of Horses)*
Deputy commissary	125	2	2
Assistant commissary	75	2	1
Supt. of livestock	50	1	1
Clerks	40	1	0

95. The responsibilities of the Department of the Commissary General of Purchases had been so much reduced and the burden of them placed to such an extent upon the Quartermaster's Department that Quartermaster General Pickering, in the interests of economy, soon advanced

Congress reduced Blaine's salary from 40,000 dollars, granted him in January 1780, to 177 dollars a month or 2,124 dollars a year. It allowed him three rations a day for himself and servants, and forage for two horses. All salaries were payable in bills emitted under the resolution of 18 March 1780.

The supply of food continued to be as precarious, and the response of the states to requisitions as dilatory, as in the past. Blaine struggled to support Washington's army, but by March 1781, when he had gone to Philadelphia to settle his accounts, he intimated that he was not likely to continue long in service if Congress failed to make such changes in his department as would give him the power and means to make purchases when states failed to furnish necessary supplies.[96]

A month later Blaine was still attempting to get a settlement of his accounts. Shortly thereafter, Washington saw his opportunity for a Franco-American movement against the British. Superintendent of Finance Morris now became involved in the supply of rations to the army. When Congress granted him the power to contract for all necessary supplies for the use of the troops, the commissariat system came to an end, although there was no legislation officially dissolving the Department of the Commissary General of Purchases.[97] Since the Superintendent of Finance gradually absorbed the few remaining responsibilities of the Commissary General, Blaine was left with no duties to execute. He therefore submitted his resignation to Congress on 30 July 1781.[98] Congress took no action on the resignation, however, and when the Yorktown campaign opened, Blaine continued to serve as Commissary General, carrying out the orders of Washington and Morris, obtaining specific supplies from Delaware, Maryland, and Virginia, and supervising the establishment of magazines. Following the surrender of Cornwallis, he provisioned the troops on their return northward and disposed of surplus cattle on hand at Yorktown. He remained in service until late November.[99]

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a plan for abolishing the department altogether and merging its duties, as well as those of the Department of the Commissary General of Issues, in the Quartermaster's Department. The Board of War favored the proposal, but Washington raised objections. He thought the Quartermaster General might be taking on too much work. Pickering's predecessors had found it difficult to execute the civil and military duties of that office, and somewhat grimly Washington added that an active campaign would give Pickering many more military duties to perform than at any time since his appointment. (1) Ibid., item 147, 6:453–60 (Pickering to Pres of Cong, 21 Mar 81). (2) Washington Papers, 168:94 (Richard Peters to Washington, 22 Mar 81). (3) Fitzpatrick, *Writings of Washington*, 21:392–94 (to Bd of War, 30 Mar 81).

96. Blaine Papers, Letter Book, 1780–83 (to Washington, 21 Mar 81).

97. *JCC*, 20:734 (10 Jul 81). A motion to dissolve the department was made on 26 July 1781, but it was simply referred to the Board of War. See 21:791.

98. (1) Blaine Papers, Letter Book, 1780–83 (to Thomas McKean, 30 Jul 81). (2) His resignation letter was referred to a committee for settling accounts. See *JCC*, 21:812 (30 Jul 81).

99. Among the last actions Blaine took as Commissary General was to apply to Robert Morris for his salary. Although he no longer headed a department, Blaine remained active for some time in provisioning the troops, for Morris executed a contract with him for supplying the post at Fort Pitt. (1) Blaine Papers, Letter Book, 1780–83 (to Morris, 27 Nov 81). (2) Morris Diary, 1:60 (12 Sep 81).

CHAPTER 7

Subsisting the Army Under the Commissariat

When New England militia gathered at Cambridge in 1775, each colony had a separate established ration which its commissaries provided its troops.[1] Provisioning the Continental Army, however, clearly required that a uniform ration be issued to all troops. Adoption of a uniform ration was an immediate necessity for planning purposes, and it would immeasurably simplify Commissary General Joseph Trumbull's task of keeping an adequate supply of provisions flowing to camp.

Uncertainty concerning the size of the army to be supported further complicated Trumbull's procurement planning. The Continental Congress had instructed Washington "to victual at the continental expense all such volunteers as have joined or shall join the united army." When shortly after his arrival at Cambridge Washington requested a return of the troops under his command, he found that those present and fit for duty numbered 17,371.[2] Though enthusiasm was running high, this number decreased to 15,105 by the end of 1775 despite the arrival of more New England militiamen and six companies of riflemen from Pennsylvania, Virginia, and Maryland, raised by direction of Congress. Unfortunately, the term of enlistment for the New England troops terminated on or before the last day of December. Washington was in danger of having no army, a situation that he called to the attention of the Continental Congress on 21 September. In response, that body dispatched a committee to confer with him and with representatives of the New England colonies on "the most effectual method of continuing, supporting, and regulating a continental army."[3]

The need for adopting a uniform ration to be issued to all Continental troops was one of the supply problems presented to the committee when it arrived at Cambridge in mid-October. At the same time, Trumbull prepared an estimate of the cost and quantities of subsistence needed to support an army of 22,000 men for the seven-month period from 10 October 1775

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1. For Connecticut and Rhode Island rations, see Force, *Am. Arch.*, 4th ser., 2:562, 1152.
2. (1) Lesser, *The Sinews of Independence*, pp. 2–3. (2) *JCC*, 2:100 (20 Jun 75).
3. Fitzpatrick, *Writings of Washington*, 3:505–13. (2) *JCC*, 3:265–66 (29 and 30 Sep 75).

to 10 May 1776.[4] Based on the committee's report, Congress on 4 November 1775 called for an army of 20,372 men, including officers.[5] But even after Congress fixed the number of troops to be subsisted, planning by the Commissary Department had to be flexible. Trumbull had to furnish provisions for the sick in hospitals. On occasion Congress directed him to victual Continental warships, though this was a duty that did not properly pertain to his department.[6] Commissary General Trumbull and his successors also had to take into account the necessity of subsisting militia who might be called into the field at a time of crisis to augment the strength of the Continental Army. Moreover, the department eventually had to subsist those elements, civilian as well as military, supporting the Continental Army in the field.

Flexibility in planning was required also by the fact that the Continental Army, like all armies of that time, had its camp followers. Among them were not only ladies of easy virtue but also wives and children, for some soldiers chose to bring their families with them rather than let them remain in British-occupied areas. The women provided much-needed services, for they washed, sewed, and cooked for the troops. Washington complained, however, that they were "a clog upon my movement" and forbade their riding in Army wagons. Nevertheless, the presence of wives ensured that their husbands would not desert to return home to care for their families. In one way or another the camp followers had to be subsisted, though Commissary records reveal no specific provision for them. With the end of the war approaching and the main army dwindling in size, the number of camp followers decreased. Washington issued a General Order in December 1782 allowing 16 rations for every 15 men in a regiment or corps so as to supply the women with them. In other words, for every 15 men one ration would be issued for the women.[7] Rations obtained by women during the war years undoubtedly had been more generous.

Adoption of a Uniform Ration

When Congress established the size of the Continental Army in the fall of 1775, it also agreed upon a uniform ration to be issued to all the troops.[8] It fixed the components of that ration as follows:

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4. Force, *Am. Arch.*, 4th ser., 3:1045.

5. *JCC*, 3:321.

6. (1) Ibid., 4:393–94 (25 May 76). (2) Force, *Am. Arch.*, 5th ser., 1:618, 643 (Pres of Cong to Trumbull, 27 Jul, and reply, 29 Jul 76).

7. (1) Fitzpatrick, *Writings of Washington*, 9:17 (GO, 4 Aug 77); 139 (GO, 25 Aug 77); 25:480 (GO, 28 Dec 82). (2) Higginbotham, *The War of American Independence*, p. 397.

8. (1) *JCC*, 3:322 (4 Nov 75). (2) This ration compared favorably with that allowed the British soldier in the Revolutionary War. In a typical British contract of 1778–79, the ration provided 1 lb. of flour per day; 1 lb. of beef per day or slightly more than 9 ounces of pork; (Continued)

Resolved, That a ration consist of the following kind and quantity of provisions, viz: 1 lb. of beef, or ¾ lb. pork, or 1 lb. salt fish, per day. 1 lb. of bread or flour per day. 3 pints of pease or beans per week, or vegetables equivalent, at one dollar per bushel for pease or beans. 1 pint of milk per man per day, or at the rate of 1/72 of a dollar. 1 half pint of Rice, or one pint of indian meal per man per week. 1 quart of spruce beer or cyder per man per day, or nine gallons of Molasses per company of 100 men per week. 3 lbs. candles to 100 Men per week for guards. 24 lbs. of soft or 8 lbs. of hard soap, for 100 men per week.

These prescribed allowances remained unchanged by Congress throughout the war. However, in 1775, and in fact until he relinquished his office, Trumbull provided a more generous allowance than that established by Congress.[9] He issued 24 ounces of salted or fresh beef, or 18 ounces of salted pork, per man per day. He also furnished 6 ounces of butter per man per week and allowed 6, rather than 3, pounds of candles per 100 men per week. The inclusion by Congress of milk in the ration appears to have been an ideal; Trumbull did not provide it nor is there any evidence to indicate that any other Continental commissary ever provided it during the war.[10] In other details the rations were identical. Beer was not to be had in the Cambridge area, and Trumbull generally furnished molasses as part of the ration. On the other hand, when the troops moved to New York in 1776, molasses was not available, and Trumbull then issued beer to the troops. At that time he estimated that the ration would cost no more than 8⅓ pence in New York currency.[11]

No sooner was the Commissary Department reorganized in the summer of 1777 than the new deputy commissary general of issues in the Middle Department questioned the discrepancies between the allowances claimed by the soldiers and those prescribed by Congress.[12] When the question was referred to Washington for an explanation, he called together a board of general officers, which recommended issuing a ration estimated to cost 3 shillings and 4 pence, exclusive of soap and candles. The proposed ration allowance was as follows:

1¼ lb. of beef or 1 lb. pork, or 1¼ lb. of salt fish. 1¼ lb. of flour, or soft bread, or 1 lb. of hard bread. ½ gill of rum or whisky per day in lieu of beer. ½ pt. of rice, or 1 pt. of Indian meal per week. 3 lbs. of candles to 100 men per week. 24 lbs. of soft soap or 8 lbs. of hard soap per 100 men per week.[13]

(Continued)

3 pints of peas a week; ½ lb. of oatmeal a week; and either 6 ounces of butter or 8 ounces of cheese per week. Curtis, "The Provisioning of the British Army in the Revolution," *The Magazine of History*, 18:234.

9. Washington Papers, 25:77 (Trumbull to Washington, 19 Apr 76).

10. Milk apparently was provided by some commissaries of the colonies before Congress assumed responsibility for the Continental Army. Maj. Gen. Artemas Ward, for example, mentioned the provision of milk in June 1775. Force, *Am. Arch.*, 4th ser., 2:1141 (Ward to John Pigeon, 30 Jun 75).

11. Washington Papers, 25:77 (Trumbull to Washington, 19 Apr 76).

12. Ibid., 55:21 (Robert White to John Hancock, 28 Aug 77).

13. The value of a ration was fixed by calculating the purchase price of the several articles which composed it. Ibid., 64:57.

Washington submitted this proposal to Congress, urging the need to increase the former value of the ration in view of the exorbitant prices being paid for every kind of provision by late 1777.[14] The value of a ration was important. It was the amount the Commissary Department would have to pay officers and soldiers whose rations were not delivered or, in the case of officers, for example, not drawn because they had been ordered on detachment. With the rising cost of provisions, the existing value did not permit the purchase of a ration. In fact, Washington reported to Congress, some officers, unable to subsist themselves, had resigned their commissions.

Congress prescribed no change. Early in 1778, however, Ephraim Blaine, then deputy commissary general of purchases in the Middle Department, met with the general officers of the main army. Washington thereupon announced a revised ration in General Orders on 16 April 1778, which was to be issued according to the state of the stores in camp.[15] With military operations largely centered in the Middle Department, the resources in that area eventually became depleted. Allowances tended to be adjusted on the basis of availability of items, and in the summer of 1778 Congress specifically vested authority to adjust the allowances in the Commander in Chief. He could give a larger proportion of a plentiful subsistence item in lieu of, and in full satisfaction for, an item that was scarce or not to be had at all.[16]

The Revolutionary soldier was largely subsisted on a bread and meat diet, and the Commissary Department was, for the most part, judged successful in its operations if it provided a sufficient quantity of flour and beef. Vegetables were usually lacking, and vinegar, later included in the ration for antiscorbutic purposes, was often omitted by commissaries. Beer and cider, included in the original ration, and whiskey, authorized as part of the ration in April 1778, were never plentiful. Even when issued, one gill of whiskey or spirits was a meager allowance to a soldier attempting to ward off the bitter cold at Morristown, for example. Sutlers stocked some provisions, and Washington authorized markets at camp where farmers could sell their products. Soldiers, however, had little money to buy supplementary foods, but in the Revolution, as in later wars, they were good at "liberating" provisions. A sergeant recorded that when his patrol came upon a sheep and two large turkeys, "not Being able to give the Coun-

14. Fitzpatrick, *Writings of Washington*, 9:205 (to Bd of War, 10 Sep 77); 476 (to Pres of Cong, 1 Nov 77); 10:38 (to same, 11 Nov 77).

15. Ibid., 11:265. The ration called for the following: 1½ lbs. flour or bread, 1 lb. beef or fish, ¾ lb. pork, and 1 gill whiskey or spirits; or 1½ lbs. flour or bread, ½ lb. pork or bacon, ½ pt. peas or beans, and 1 gill whiskey or spirits.

16. (1) *JCC*, 11:838 (26 Aug 78). (2) For example, when a larger quantity of rice than of flour was in store in August 1778, Washington issued a General Order altering the ration to allow ½ gill of rice per day, three times a week, in lieu of ½ lb. of flour. Fitzpatrick, *Writings of Washington*, 12:361 (27 Aug 78).

tersign," they were "tryd by fire & executed by the whole Division of the free Booters."[17]

The British soldier fared little better than his American counterpart. It is doubtful that he always received the specified ration, since the victualing ships bringing provisions from Cork, Ireland, arrived irregularly and the quantity of provisions on hand in magazines fluctuated greatly. Moreover, there were frequent complaints of moldy bread, weevily biscuits, sour flour, and maggoty beef. Like the American forces, the British troops in America were often on the verge of starvation. In 1778 and 1779 Maj. Gen. Henry Clinton, commander of the British forces, sounded like General Washington in the warnings he included in his letters to the British government on the dangers of inadequate provisions and the "fatal consequences" that would result.[18]

The Ration and Health

An unrelieved diet of half-cooked meat and hard bread contributed to sickness among the Continental troops. In the summer of 1777 Washington cited the almost complete lack of vegetables, vinegar, and proper beverages as the cause of "the many putrid diseases incident to the Army and the lamentable Mortality" that diminished his army's strength.[19] He acknowledged that sufficient quantities of some vegetables could not be obtained during the winter months, but the fact that the troops received no vegetables at all, he charged, resulted from the inefficiency of personnel in the Commissary Department. If proper persons were employed, he suggested in a letter to a committee from Congress, sauerkraut and vinegar could easily be obtained and used to prevent scurvy. Acting promptly on this suggestion, Congress on 25 July directed the Board of War to contract for a supply of beer, cider, vegetables, vinegar, and sauerkraut. Ten days later, however, Washington was still lamenting that no one had yet procured such supplies.[20] This delay was a concomitant of the reorganization of the Commissary Department that was under way in the summer of 1777. To alleviate the distress of the soldiers, Washington in the meantime had ordered the regimental officer of the day to have gathered the common sorrel and watercress that grew plentifully about the camp. These

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17. "Sergeant John Smith's Diary of 1776," ed. Louise Rau, *Mississippi Valley Historical Review* 20 (1933–34): 252.

18. Curtis, "The Provisioning of the British Army in the Revolution," *The Magazine of History*, 18:234, 237–39.

19. (1) Fitzpatrick, *Writings of Washington*, 8:439 (to Philip Livingston et al., 19 Jul 77). (2) Elbridge Gerry warned Trumbull that few men could subsist only on a bread, meat, and water diet. Burnett, *Letters*, 2:312 (26 Mar 77).

20. (1) *JCC*, 3:295, 390 (25 Jul and 12 Sep 77). (2) Fitzpatrick, *Writings of Washington*, 9:19–20 (to Bd of War, 5 Aug 77). (3) Washington Papers, 53:51 (Bd of War to Washington, 6 Aug 77).

greens were to be distributed among the men, for they made an agreeable salad and had a "most salutary effect" on health.[21]

Disease was in no small measure promoted also by the difficulties the soldiers encountered in maintaining personal cleanliness and by their general disregard of camp sanitation. Washington constantly expressed concern for the health and welfare of his troops. He issued numerous General Orders on sanitation, military health, and the policing of camps, huts, and quarters. His soldiers, however, persisted in being woefully oblivious of the need to maintain sanitary surroundings. In riding through the camps in New York in September 1776, for example, Washington observed large pieces of good beef not only thrown away but left above ground to putrify. He lectured the troops on the wastefulness as well as on the health problems involved in such practices. That his orders brought no permanent improvement in conditions is clear. In making a periodic inspection of the camp at Valley Forge in March 1778, Washington found carcasses of dead horses and offal in the streets.[22]

Washington was critical of the small amount of soap allowed in the ration. Moreover, the price at which any additional supply could be obtained was such that the soldier could not afford to purchase it. On the basis of the established ration of 24 pounds of soft soap or 8 pounds of hard soap for every 100 men per week, each man would obtain 1.28 ounces of hard soap or 3.94 ounces of soft soap per week. Even this meager amount was not always supplied by the commissary. Regimental commanding officers apparently often spent their own money to procure soap for the use of their regiments. A board of general officers concluded that a weekly allowance of 5 ounces of soap per man was the necessary minimum. When soap was issued, however, it was not necessarily used to promote cleanliness, for there is evidence to show that soldiers sold it—a practice that was common enough to cause another board of officers to recommend severe punishment for any soldier caught in the act.[23]

Preparation of Food

The Continental Army had neither field kitchens nor service troops enlisted to prepare food. Preparation of the ration was left strictly to the individual soldier. The only utensil issued to the troops appears to have been a camp kettle. It had a capacity of 9 quarts and weighed from 2 to 3 pounds. Customarily a kettle, along with a lid, was issued to every 6 men. They carried the kettle unless they were able to put it on a wagon without being detected by a wagonmaster.

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21. Fitzpatrick, *Writings of Washington*, 8:210 (GO, 9 Jun 77).
22. Ibid., 6:125 (GO, 28 Sep 76); 11:74–75 (GO, 13 Mar 78).
23. (1) Ibid., 8:441 (to committee at camp, 19 Jul 77). (2) Washington Papers, 53:71 (7 Aug 77).

The cooking was usually done by one soldier in each company. The soldier chosen as cook, however, seldom appreciated the honor. It's "a hard game," one private lamented when he was chosen to cook for twelve men.[24] Food preparation was primitive regardless of whether the men were in quarters or in the field. During a campaign around Whitemarsh, Pennsylvania, in December 1777, for example, the men had no utensils whatsoever in which to cook their provisions. The beef was lean; there was no salt; and the only way to cook the meat, Private Elijah Fisher recorded, was "to throw it on the Coles and brile it." He added that "the Warter we had to Drink and to mix our flower with was out of a brook that run along by the Camp, and so many a dippin and washin [in] it which made it very Dirty and muddy."[25]

The diarists of the American Revolution were not given to recording such routine details as the preparation of their food. Only occasional glimpses remain of meat broiling over fires or, more rarely, stewing in camp kettles with vegetables when these rare provisions were issued by commissaries or bought from farmers. Records provide somewhat more information on the use made of the flour ration issued to the troops.

During the first two years of the war, the troops received their prescribed daily ration allowance of flour. To obtain bread in camp, the commanding officer of a regiment would permit a soldier who was a baker by trade to go to a neighboring house to bake for the regiment. He was aided by one or two other soldiers detailed as assistants. The flour of the regiment was pooled, and the bakers returned to the soldier one pound of bread for each pound of flour received. Since a pound of flour made much more than a pound of bread, the bakers were thereby able to make a profit for themselves of 30 percent in flour. Inasmuch as there was no supervision, unscrupulous bakers could increase profits even more by increasing the proportion of water. The bakers looked upon the surplus flour as their perquisite. They disposed of it by selling it to the country people in the vicinity of camp; if the camp moved, they loaded the flour into public wagons and carried it away to a better market. Brig. Gen. Henry Knox wrote Washington of a case in which the one or two soldiers who baked for part of an Artillery regiment of some 250 to 300 men had made such a profit in flour that in one emergency they were able to lend the commissary of the Artillery Park enough flour to issue 1,000 rations for 8 days.[26] In other regiments, he added, soldiers were permitted to carry their flour allowance into the country to trade it for bread. This practice, Knox charged, provided a pretext for straggling and afforded opportunities to plunder the local inhabitants.

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24. Charles K. Bolton, *The Private Soldier Under Washington* (1902; Kennikat Press reprint, 1964), p. 78.

25. William Matthews and Dixon Wecter, *Our Soldiers Speak, 1775–1918* (Boston, 1943), pp. 56–57 (extract from diary of Private Elijah Fisher).

26. Washington Papers, 168:129 (24 Mar 81).

On active operations, the commissary was supposed to issue to the soldier hard bread that he could carry in his knapsack. But frequently hard bread was not available, and the soldier then drew a pound of flour that he learned to make into a sodden cake. This cake, cooked on hot stones, he derisively called "firecake."

When the troops marched to New York in April 1776, Trumbull commandeered all available ovens in Hartford, Norwich, and other Connecticut towns to turn flour into hard bread for their use. This bread could be "nearly hard enough for musket flints," as Private Joseph Plum Martin discovered when his regiment was ordered to Long Island. As the men moved off to the ferry, they were allowed to help themselves from several open casks of sea bread. With characteristic foresight, Martin took advantage of a momentary halt made by the troops just as he was abreast of the casks.

> I improved the opportunity thus offered me, as every good soldier should upon all important occasions, to get as many of the biscuit as I possibly could. . . . I filled my bosom, and took as many as I could hold in my hand, a dozen or more in all, and when we arrived at the ferry-stairs I stowed them away in my knapsack.

During the New York campaign itself, when hard bread became unavailable and retreat left no time for baking, Washington pointed out that in the French and Indian War no soldiers, except those in garrison, had been furnished with baked bread, and none had been provided with ovens on marches. The Continental troops, he maintained, would have to imitate their predecessors and make the best use they could of the flour they drew from the commissary. But by July 1777 he was recommending that each brigade use temporary ovens that "by men who understand it, can be erected in a few hours." In these the troops could bake a bread superior to the commonly used firecake. About the same time, anticipating transportation difficulties, he ordered the construction of portable ovens made of sheet iron. These ovens were produced at the Ringwood, New Jersey, iron furnace and were so small that two could be carried in a wagon. Although ordered in the summer of 1777, it was the end of the year before the ovens were ready for distribution, one to each brigade.[27] By that time supply had broken down completely, and the troops were facing the bitter winter of Valley Forge.

In the meantime, Congress had taken steps to try to provide well-baked, wholesome bread. In the spring of 1777 it had appointed Christopher Ludwick, a skillful, patriotic German baker of Philadelphia, as superintendent of bakers and director of baking in the Continental Army, allowing him 75 dollars a month and two rations a day for his services. Only such

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27. (1) Fitzpatrick, *Writings of Washington*, 6:7 (GO, 2 Sep 76); 8:351 (GO, 5 Jul 77); 10:63 (to Robert Erskine, 14 Nov 77); 271 (GO, 6 Jan 78). (2) Washington Papers, 61:114 (Erskine to Washington, 24 Nov 77). (3) Scheer, *Private Yankee Doodle*, p. 23.

persons as he licensed could exercise the trade of baker for the troops. Ludwick began by taking personal charge of the public ovens established at Morristown, but initially he had some difficulty in obtaining journeymen bakers, for they also served as militiamen. Only by applying to the Executive Council of Pennsylvania was he able to obtain the services of the men he wanted. He erected public ovens in suitable places in Pennsylvania and along the route of march in New Jersey, baked bread in the quantities required, and, when necessary, hired and even impressed wagons to transport bread to the troops.[28]

The breakdown of supply at Valley Forge, however, convinced Congress that the main army needed a permanent staff of bakers. The organization it proposed was to supplement, but not to interfere with, the baking operations of Ludwick. Late in February 1778 Congress directed that a company of bakers be raised to bake bread for Washington's army. This company, enlisted for one year and subject to the rules and articles of war, was to consist of a director, 3 subdirectors, 12 foremen, and 60 bakers. In addition to a monthly salary and daily rations, each foreman and baker was granted the same clothing allowance as noncommissioned officers in the Continental Army.[29]

Congress ordered the Board of War to raise the company of bakers and to appoint the director and subdirectors. The intent was to save for the government the profit made by converting flour to bread. The Board of War delegated this responsibility to Maj. Gen. William Heath, commanding in the Eastern Department. He raised a company in Boston and appointed John Torrey its captain. Torrey and his company arrived at Valley Forge in June 1778, expecting to bake soft bread for the troops. Except for the staff, however, no one wanted the bread since the men could make a profit by drawing their flour ration and exhanging it themselves. Shortly after Torrey's arrival the 1778 campaign began as Washington's troops pursued the British across New Jersey. Bewildered by these events, Torrey maintained that he could not bake the hard bread expected for an active campaign, for a camp was an improper place for doing so. In September he proposed that he be allowed to return to Boston and bake hard bread there. In late January 1779 he discharged his bakers even though their terms of service did not expire until April. Congress' effort to provide a permanent staff of bakers with the main army in the field thus ended in failure.[30]

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28. (1) *JCC*, 7:324–25 (3 May 77); 8:575 (23 Jul 77). (2) Fitzpatrick, *Writings of Washington*, 8:475 (to Ludwick, 25 Jul 77).

29. *JCC*, 10:206 (27 Feb 78).

30. (1) Washington Papers, 85:67 (Charles Pettit to Washington, 23 Sep 78). Though this company of bakers was independent of the Quartermaster's Department, Washington had ordered Assistant Quartermaster General Pettit to direct its operations. (2) APS, Greene Letters, 9:98 (Torrey to Pettit, 24 Jan 79).

Ludwick and his staff continued baking hard bread at Morristown for Washington's army. In 1780 he was furnishing 1,500 loaves of bread daily. He proposed that another oven be built so that production could be increased. To prevent waste of flour, he recommended that only hard bread be issued in the daily ration. Washington supported Ludwick's recommendations and ordered him to West Point to erect ovens capable of producing a daily supply of 6,000 to 8,000 pounds of bread. Ludwick was also to erect ovens in New York at Stoney Point and Verplanck's Point.[31] The breakdown of supply in 1781 under the system of specific supplies induced Ludwick to submit his resignation, but Congress refused to accept it. Ludwick continued as baker to the Continental Army until the war ended. His operations during the last years were centered at West Point.

Flour Supply Under Trumbull

New England did not produce sufficient wheat to provide the flour needed by the Continental Army in 1775. In fact, long before the war that area had regularly purchased grain from merchants in New York City, Philadelphia, and Baltimore. Not surprisingly then, even before Congress appointed a Commissary General, it requested New York to ship 5,000 barrels of flour for the use of the troops at Cambridge. Such shipments continued under Trumbull's direction. His agent in New York forwarded 7,000 barrels of flour to Cambridge, for which Congress provided the funds for payment in October. For the benefit of the congressional committee at camp, Trumbull estimated on 11 October that it would take 25,000 barrels of flour to support an army of 22,000 men for a seven-month period.[32]

When the main Continental army moved to New York in the spring of 1776, it went into a grain-producing area, but the demands upon the Commissary Department for flour for both Washington's army and the Northern Army in Canada were so great that Trumbull used the services of Matthew Irwin, a merchant of Philadelphia, as his deputy to purchase 20,000 barrels of flour there. Trumbull felt justified in taking this step, he informed Congress, since it was cheapter to buy and deliver this flour than to purchase it in New York.[33] Congress approved and paid the bills.

The demands for flour became even greater when Washington's army evacuated New York City, for it left behind a large quantity of flour for lack of wagons to transport it to safety. In this emergency Trumbull ap-

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31. (1) For a list of Ludwick's personnel at Morristown, see RG 11, CC Papers, item 39, 3:291 (22 Jun 81). (2) APS, Greene Letters, 1:203 (Ludwick to Washington, 7 Jan 80). (3) Fitzpatrick, *Writings of Washington*, 19:103–04 (to Udny Hay, 30 Jun 80); 20:169 (to Greene, 12 Oct 80).

32. (1) *JCC*, 2:84 (9 Jun 75); 3:299–300 (19 Oct 75). (2) Force, *Am. Arch.*, 4th ser., 3:1045 (estimate, 11 Oct 75).

33. (1) Ibid., 4th ser., 6:438–39 (Trumbull to Pres of Cong, 17 Jun 76). (2) *JCC*, 5:459–60.

pealed to the New York Convention for assistance, which was readily granted. The New York Committee of Safety not only empowered its agent to purchase wheat and have it ground into flour but it also authorized him to impress wagons and drivers, if necessary, to provide transportation. In addition, it exempted from militia duty for two months all coopers in Dutchess, Westchester, Orange, Ulster, Albany, Tryon, and Charlotte Counties who were employed in making the necessary barrels for flour, beef, and pork.[34]

Such was the scarcity of flour by 1 November that Washington warned Trumbull there was no more than four or five days' supply on hand, if it was issued with great care and economy. There was flour at Fort Lee, New Jersey, as Maj. Gen. Nathanael Greene reported, but insufficient transportation to get it to the main army. When the British soon captured that fort, 1,000 barrels of flour were lost.[35]

To improve the supply situation in the future, Congress, late in November 1776, empowered Trumbull to import rice from the southern states. About a month later, in response to a plan proposed by the Commissary General, Congress also empowered him to import flour from Maryland and Virginia. It further directed the Virginia delegates to write the governor and council of that state to contract for the delivery of 10,000 barrels of flour on the James, York, Rappahannock, and Potomac Rivers. Trumbull was to send vessels to take on board the flour, paying for it by drafts on the President of Congress.[36] Thus by the end of 1776 the channels of supply for obtaining flour from New York, Pennsylvania, Maryland, and Virginia had been established.

Importance of Salt

Salt was almost as essential in the Revolutionary War as gunpowder and almost as scarce. In the absence of refrigeration and canning processes, the colonists used salt as a preservative for pickling meat and fish. Salt fish had early developed into an important article of trade, but without salt the New England fisheries could not have operated. The American colonists had become accustomed to importing salt from Turks Island, a British possession in the Bahamas. Bermudians at an early date had erected salt works there and at the Dry Tortugas. They had sold the salt to passing American vessels or they had used it in trading with the American colonies.[37]

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34. Force, *Am. Arch.*, 5th ser., 2:699 (Trumbull to N.Y. Convention, 16 Sep 76); 469 (to same, 23 Sep 76); 3:588 (29 Oct 76).

35. (1) Washington Papers, 35:64. (2) Force, *Am. Arch.*, 5th ser., 3:523 (Greene to Washington, 5 Nov 76). (3) Fitzpatrick, *Writings of Washington*, 6:295 (to Pres of Cong, 19 Nov 76).

36. (1) *JCC*, 6:989 (28 Nov 76); 1040–41 (26 Dec 76). (2) See also Force, *Am. Arch.*, 5th ser., 3:1202–03 (Trumbull to Pres of Cong, 13 Dec 76). (3) Washington Papers, 37:70 (Trumbull to Washington, same date).

37. (1) Wilfred B. Kerr, *Bermuda and the American Revolution, 1760–1783* (Princeton, 1936), p. 5. (2) See also A. E. Verrill, "Relations Between Bermuda and the American Colonies

Turks Island was officially closed by the British to American shipping early in the war, and salt in consequence became a critical item of supply. On the other hand, the Bermudians were dependent on the American colonies for grain and flour, and their petitions for access to the American market found a favorable reception by the Continental Congress. In the fall of 1775 it specifically exempted both Bermuda and the Bahamas from the embargo it had imposed on trade. The Bermudians were permitted to ship salt into the colonies, obtaining provisions in exchange, and their vessels were exempted from capture by American privateers. Throughout the war they conducted a lively trade, exchanging salt for flour and grain.[38]

Congress took additional steps to alleviate the salt shortage. Before the close of 1775 it passed resolutions permitting Virginia, North Carolina, and Maryland to export foodstuffs, normally barred from trade by the Articles of Association, if shipmasters would give bond to import salt on their return voyages. The following year it empowered the Secret Committee to import salt on the ships it employed. In the summer of 1777 it reemphasized this policy by directing that all masters of vessels importing cargoes purchased on the account of the United States were to be instructed to ballast their vessels with salt if at all possible. The Secret Committee was to direct the agents for the United States in Europe and the West Indies to send salt on all ships bound for America. Congress recommended, moreover, that the states import salt on their own initiative. Congress also sought to stimulate the domestic production of salt. Shortly after the outbreak of the war it appointed a committee to inquire into the cheapest and easiest methods of making salt in the colonies. It urged the establishment of salt works along the coast and recommended that the colonial assemblies give encouragement to the making of salt in their respective colonies.[39]

When Commissary General Trumbull was preparing to establish magazines of provisions for the Continental Army in the fall of 1776, Congress directed him to procure such quantities of salt as he judged necessary. This order was not explicit enough to meet Trumbull's needs. It was his intention to prepare magazines of salt provisions in New England from which the troops could be supplied. Much of the country's salt, however, was then in the hands of Continental Agents, as he had pointed out to a congressional committee at camp. Trumbull wanted and obtained a further order from Congress directing the Continental Agents to deliver to him all the salt in their possession belonging to the United States. But even this amount of salt, he feared, would be insufficient, and he proposed

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During the Revolutionary War," *Transactions of the Connecticut Academy of Arts and Sciences* 13 (1907): 554.

38. Kerr, *Bermuda and the American Revolution*, pp. 53–54.

39. (1) *JCC*, 2:235 (31 Jul 75); 3:464–65 (29 Dec 75); 4:290 (17 Apr 76); 6:935 (8 Nov 76); 8:461–62 (13 Jun 77); 562 (17 Jul 77). (2) East, *Business Enterprise in the American Revolutionary Era*, pp. 60, 75.

that he be allowed to send agents abroad for it. The deficiency by the fall of 1776 was such that he directed that salt be used sparingly in putting up provisions for the troops. It was his intent to repack and pickle these provisions more thoroughly after he obtained more salt. On 9 October Congress empowered the Commissary General to employ suitable persons to import salt.[40]

The demand for salt in 1776 was so great that the commodity was soon hoarded by unscrupulous profiteers, who would sell only at exorbitant prices. So many complaints were made against them that Congress encouraged the states to fix the price. Action taken by the Pennsylvania Council of Safety to regulate the price of salt, however, proved ineffectual. Salt continued to be scarcer and dearer at Philadelphia than in those states where no price regulation had been attempted. As a result, Congress late in the year recommended that Pennsylvania remove all restraints on the sale of salt.[41]

In 1778 the Commissary Department was still attempting to import the salt it needed. It was not always successful, however, in its efforts. Deputy Commissary General Peter Colt of the Eastern Department, for example, employed Miller and Tracy of Boston to send out vessels to purchase salt. Of the thirteen vessels chartered, more than half were captured on their outward passage by British patrols. Consequently, the Commissary Department owed about 20,000 pounds for the loss of the vessels and for the charter of those that returned. Colt appealed to Congress for funds to discharge these debts and quiet the complaints of the owners of the lost vessels, who were impatient for their money.[42] While the importation of salt was hampered by enemy patrols, coastal salt works in New Jersey and in Virginia became targets for British raiders. Under the system of specific supplies, Congress assigned quotas of salt to be supplied by the states. Neither commissaries nor contractors found it easy to procure an adequate supply, and throughout the war both the civilian and the soldier suffered from its scarcity.

Meat Supply Under Trumbull

Meat, whether fresh or cured, was a basic article of the ration issued to the Revolutionary soldier. Procedures and channels of supply developed during Commissary General Trumbull's tenure of office continued to be used throughout the war. As the time of butchering approached in the fall of 1775, Trumbull was confronted with the necessity of accumulating

40. (1) *JCC*, 5:825 (25 Sep 76); 849 (5 Oct 76); 6:857, 859 (9 Oct 76). (2) Force, *Am. Arch.*, 5th ser., 2:920, 963 (Trumbull to Pres of Cong, 7 and 9 Oct 76).

41. *JCC*, 6:1014–15 (9 Dec 76).

42. RG 11, CC Papers, item 78, 5:225–28 (Colt to Pres of Cong, 25 Sep 78).

magazines of provisions to support the troops in the next campaign. Preparing magazines of salted meats for the Continental Army posed no problem since New England produced many hogs and was the center of a thriving cattle-raising industry. To save the cost of transporting cured meat—transportation costs were always a factor to be considered in the Revolution—Trumbull proposed to drive the livestock that his agents procured to within twenty miles of camp to be slaughtered there. His plan, submitted to the congressional committee then at Washington's headquarters, was subsequently approved by the Continental Congress.[43] Trumbull's preparations went forward. In addition, he had a slaughterhouse built at Medford, Massachusetts, where one of his four issuing stores was located, and he also entered into a contract to ensure that pork was properly cured.[44]

In the spring of 1776 the demand for salted meats was greatly increased by the need to supply not only the main Continental army in New York but also the Northern Army in Canada. In April, for example, the Continental Congress directed Trumbull to provide and forward to Maj. Gen. Philip Schuyler 2,000 barrels of pork. It also ordered Thomas Lowrey, commissary in New Jersey, to purchase another 2,000 barrels of salted pork for the Northern Army. To meet the requirements of Washington's army in New York, Trumbull ordered a commissary to buy pork in the Philadelphia area in June, and two months later he requested the loan of 1,000 barrels of pork from the New York Convention, to be replaced when his shipments from Massachusetts arrived. To assist him in meeting the increased demands, Congress prohibited the exportation of salted beef and pork.[45] Although still depending primarily on the New England area, Trumbull now widened his procurement efforts in the Middle Department. He employed Carpenter Wharton in October 1776 to purchase all the salt "westward of New Jersey" and to use it to cure as much pork as he could, drawing on Congress for the necessary funds. Trumbull expected to obtain some 8,000 to 9,000 barrels of cured pork from this source.[46]

In the meantime, the main Continental army was falling back across New Jersey. With the British threatening Philadelphia, the Continental Congress adjourned, leaving a committee there to transact official business. Writing to Robert Morris, a member of that committee, Washington on 30 December 1776 complained of his army's lack of provisions, which was "the greatest

43. (1) Force, *Am. Arch.*, 4th ser., 3:1157–58 (committee's minutes, 20 Oct 75). (2) *JCC*, 3:323 (4 Nov 75).

44. Johnson, *Administration of the American Commissariat During the Revolutionary War*, p. 44.

45. (1) Force, *Am. Arch.*, 4th ser., 6:438–39 (Trumbull to Pres of Cong, 17 Jun 76); 5th ser., 1:1511 (Trumbull to N.Y. Convention, 14 Aug 76). (2) *JCC*, 4:297, 303–04 (19 and 25 Apr 76); 5:441 (14 Jun 76).

46. (1) Force, *Am. Arch.*, 5th ser., 2:1011 (Trumbull to Pres of Cong, 12 Oct 76). (2) *JCC*, 6:879–80 (16 Oct 76).

impediment to our Motion." He added that "Jersey has been swept so clean that there is no dependence upon any thing there." He appealed to the committee to give the Commissary General any assistance it could. The committee was well aware that New Jersey had suffered depredations from both the British and the main Continental armies. "It is not what they consume that does the mischief," it reported, "but the destruction of provisions, first by one side and then by the other." Since New Jersey would be unable to provide as large a quantity of pork as it had in the past, another channel of supply would be needed. To meet the large requirements for the following summer, the committee proposed drawing supplies from the southern states, which had been exempt from the ravages of war.[47]

On 9 January 1777 Congress recommended that Georgia, South Carolina, North Carolina, Virginia, and Maryland immediately appoint suitable persons to purchase and collect such quantities of beef and pork as they could cure. It requested the Secret Committee to "fall upon some expedient immediately" for supplying North Carolina with salt for this purpose. Congress also recommended that the states limit the prices to be paid and that they grant a reasonable commission to the purchasers to stimulate them "to be active and industrious." The states were to store the cured meat in suitable magazines convenient to transportation.[48] Thereafter, except for occasional interruptions by enemy action, the southern states provided considerable quantities of salted provisions, which reached the main army via Head of Elk.

The issue of fresh meat to the troops first posed problems for the Commissary Department after Washington's army moved from Boston to New York in the spring of 1776. To provide a supply of fresh meat, the department kept droves of cattle in the rear of the troops, to be killed or moved with the army as circumstances required. The retreat in New York having resulted in the loss of provisions, the New York Convention came to the aid of the Commissary Department by providing cattle as well as flour. The Commander in Chief advised William Duer to send as many cattle as he could collect; the drovers were to take all precautions to prevent the cattle falling into British hands. At the same time, Washington directed Trumbull to do what he could to replenish the lost provisions.[49]

Since New England was a cattle-raising center, Trumbull drew most of his supplies of fresh beef from there, employing the services of Henry Champion of Connecticut as his "beef man."[50] Champion continued to serve the Commissary Department as its chief purchasing agent for cattle in New England until the system of specific supplies eliminated such agents.

47. (1) Fitzpatrick, *Writings of Washington*, 6:457 (30 Dec 76). (2) Force, *Am. Arch.*, 5th ser., 3:1483–84 (committee to Pres of Cong, 30 Dec 76).

48. *JCC*, 7:26–27.

49. (1) Force, *Am. Arch.*, 5th ser., 1:1095–96, 1138–39 (Tench Tilghman to Duer, 17 and 20 Oct 76). (2) Fitzpatrick, *Writings of Washington*, 6:217–19 (to Trumbull, 20 Oct 76).

50. Force, *Am. Arch.*, 5th ser., 1:1082 (Trumbull to Col. John Chester, 20 Aug 76).

After 1776 his efforts were supplemented by those of cattle-purchasing commissaries in Pennsylvania and New Jersey. Some of these commissaries were also responsible for receiving cattle delivered from New England. For example, Deputy Commissary General Blaine in 1777 instructed one of his purchasing commissaries in the Middle Department to select and lease good pastures in safe places for cattle delivered from New England and to keep the cattle under the care of drovers until they were requisitioned for the troops.[51] This practice was followed until the Commissary Department was abolished.

Magazines

Provisioning the Continental Army required a system of magazines, but that need was only partly perceived at the beginning of the war. The channels for purchasing subsistence that Trumbull had utilized as commissary to the Connecticut troops proved entirely satisfactory in 1775 when he assumed the broader responsibilities of Commissary General to the Continental Army. Flour, shipped by water routes from New York to Connecticut, was forwarded from Norwich to Washington's army. Vegetables, flour, pork, and butter, procured by Thomas Mumford at Groton, Connecticut, were sent to Clarke and Nightengale, merchants of Providence, Rhode Island, who forwarded them to Cambridge. Other purchasing deputies continued to forward provisions from the fertile Connecticut River valley. When these provisions reached the Cambridge area, Trumbull deposited them in permanently located stores, from which rations were issued to the troops besieging Boston.

An entirely different situation confronted the Commissary Department when Washington moved his army to New York in April 1776. For the first time Trumbull had to provision troops on the march, depositing supplies in advance at strategic points from Boston to New York. When the troops encamped in New York, he had no difficulty in drawing in ample stores of flour, beef, and pork from Connecticut, Pennsylvania, and the rich and readily accessible hinterland of New York City. However, no sooner had he prepared well-stocked magazines than Washington's army was forced to evacuate the city, losing much of these supplies. Obviously, it was ill-advised to have large stocks of rations with the army. Thereafter, the Commissary Department kept only the necessary minimum amount of supplies in the rear of the army, the cattle and the wagons with provisions moving with the troops. This procedure was followed throughout the war.[52]

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51. Blaine Papers, Letter Book, 1777–78 (20 Aug 77).

52. During the campaign of 1777, which involved the main army in almost constant movement, Deputy Commissary General Blaine kept wagons loaded with biscuits and rum "for a moving Magazine." Ibid. (to Buchanan, 24 Sep 77).

At Washington's direction, Trumbull in the fall of 1776 moved accumulated stores of provisions out of the reach of the enemy to permanent magazines in the interior parts of the country. Although Washington did not indicate exact locations for magazines, he suggested finding places in Connecticut that were not susceptible to attacks by water. He also emphasized the importance of the Peekskill post and the need for a magazine there. Other magazines, he thought, might be established at or near the passes through the Highlands of the Hudson.[53]

While Trumbull and his deputies prepared these magazines and those of salted meats in New England, Washington and his staff were making plans for other magazines on a line of communications to Philadelphia. At the end of October General Greene prepared an estimate of both provisions and forage that ought to be laid in at designated posts between that city and Fort Lee. His estimate also included the distances between posts and the water transportation that could be utilized. Some of the posts were to be used simply as deposit points to provide a week's rations for 20,000 men on their way to Philadelphia—those, for example, at Springfield, Boundbrook, and Princeton, New Jersey. Others, such as that at Trenton, were to maintain rations for 20,000 men for 3 months. Trenton was to become one of the major permanent provision magazines of the war. Washington approved the proposed plan, and Greene directed the commissaries to lay in the provisions as fast as possible while the Quartermaster's Department attended to the forage requirements.[54]

In the absence of the Commissary General, Washington in December directed Trumbull's deputy, Carpenter Wharton, to lay in provisions at York, Lancaster, and Milltown, Pennsylvania, for 20,000 men. Wharton was also to have provisions deposited on the roads leading from Lancaster to Winchester, Virginia, and from the head of Chesapeake Bay to Alexandria, Virginia, in order to support troops on their march from the southern states.[55] Thus by the end of 1776 arrangements had been made for major magazines of provisions at secure places in the interior of the country and at posts where the supplies could be protected, both from the British and from the disaffected.

Supply During the Winter of 1776–1777

So successful had the Commissary General been in provisioning the troops during the Boston campaign that Washington in the summer of 1776

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53. Fitzpatrick, *Writings of Washington*, 6:217–19, 220–21, 268–69 (to Trumbull, 20 and 21 Oct, 10 Nov 76).

54. Force, *Am. Arch.*, 5th ser., 2:1281 (Greene to Washington, 29 Oct 76); 5th ser., 3:523 (same to same, 5 Nov 76).

55. (1) Fitzpatrick, *Writings of Washington*, 6:416–417 (to Wharton, 21 Dec 76). (2) *JCC*, 6:1031 (21 Dec 76).

wrote, "Few Armies, if any, have been better and more plentifully supplied than the Troops under Mr. Trumbull's care."[56] Trumbull deserved all the credit given him, but at this stage of the war enthusiasm was still high. Washington's army was encamped in the midst of a sympathetic people, and provisions were plentiful and readily obtainable. The real test of provisioning the troops was yet to come. Washington's evaluation of the performance of the Commissary Department when the troops were camped at Morristown in the winter of 1776–77 was vastly different.

In mid-December it appeared that the campaign of 1776, following the disheartening retreat through New Jersey, had ended with both armies about to settle into winter quarters. As early as 8 December, however, Washington had begun to think that an unorthodox winter counterattack against the British would be advantageous to the American cause. With such a project afoot, it is understandable why Washington was unhappy that his Commissary General was in New England to supervise preparations for the next campaign. As so often happened, Washington needed his staff officer in two places at the same time.

Shortly after Trumbull's departure, Washington had learned of developments that threatened the bread supply of his army. Either because the millers were unwilling to part with their flour or because the farmers were reluctant to dispose of their wheat, a shortage of flour appeared likely. On 20 December Washington instructed Wharton, Trumbull's deputy with the main army, to inquire into the matter, seizing either the mills or the wheat, depending on where the fault lay. Wharton was to pay the full value of the flour or wheat taken. On the following day Washington directed the deputy to prepare magazines in Pennsylvania. In consequence, when Washington attacked Trenton on 26 December, Wharton was not with the army but in Philadelphia soliciting funds from Congress for the preparation of the magazines.[57]

Washington complained that when he wanted to capitalize on his successes at Trenton and Princeton, he found the movement of his army impeded by a lack of provisions. However, the fact that the army was also ill-clad, shoeless, excessively fatigued, and about to be diminished in strength by the expiration of enlistments would have compelled it to become inactive in any case. Shortly after the troops went into winter quarters at Morristown, Washington wrote the Pennsylvania Council of Safety to request that it assist the commissaries in purchasing flour. A scarcity of flour in Pennsylvania, he asserted, "must be fictitious and not owing to any real want."[58]

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56. Fitzpatrick, *Writings of Washington*, 5:192 (to Pres of Cong, 28 Jun 76).

57. (1) Ibid., 6:409 (to Wharton, 20 Dec 76); 421 (to Morris, 22 Dec 76). (2) Force, *Am. Arch.*, 5th ser., 3:1511 (Wharton to Pres of Cong, 30 Dec 76).

58. Fitzpatrick, *Writings of Washington*, 6:505 (12 Jan 77).

Though the troops at Morristown appeared to have sufficient quantities of meat and flour, complaints mounted. "The Cry of want of provisions comes to me from every Quarter," Washington wrote to Deputy Commissary Matthew Irwin in February. He demanded to know "why were you so desirous of excluding others from this business when you are unable to accomplish it yourself?" He called repeatedly for Trumbull, still absent from headquarters, to return "to regulate the business of your dept." In March Elbridge Gerry wrote Trumbull that he was glad to hear of his success in procuring supplies, but he added that measures ought to be taken to provide vegetables daily to the troops and to procure large quantities of vinegar. Few men, he concluded, "can subsist upon Bread, Meat, and Water."[59] For the benefit of a congressional committee, Washington later summed up the situation.

> With respect to Food, considering we are in such an extensive and abundant Country, No Army was ever worse supplied than ours with many essential Articles of it. Our Soldiers, the greatest part of the last campaign, and the whole of this [1777,] have scarcely tasted any kind of Vegetables, had but little Salt, and Vinegar, which would have been tolerable Substitute for Vegetables, they have been in a great measures strangers to. Neither have they been provided with proper drink. Beer or Cyder seldom comes within the verge of the Camp, and Rum in much too small quantities.[60]

Trumbull returned to Philadelphia in April 1777. He conferred with a committee of Congress, reporting the amount of provisions at Head of Elk, Lancaster, and Carlisle as well as the supplies of salted meat in Connecticut and Massachusetts available for both the main Continental army and the Northern Army. He explained that his department supplied fresh meat three days out of seven and would shortly increase deliveries. Since there was no shortage of flour, the army was in no danger of suffering from any lack of provisions. The reason for the existing appearance of shortages, he argued, grew out of actions taken by Congress. Alarmed by the threat of an enemy advance on Philadelphia, Congress had ordered the removal of stores at Lebanon to Carlisle and of supplies at Philadelphia to Lancaster. In carrying out this removal, he explained, a sufficient quantity of stores had not been retained to supply the main army.[61]

Though this report calmed fears of shortages, other events raised new alarms. On 23 March 1777 a British foray against Peekskill had resulted in its complete destruction. Large quantities of provisions, together with boats and wagons, were burned, while arms and ammunition were carried off. Approximately a month later the British undertook a similar attack against

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59. (1) Ibid., 7:189 (to Matthew Irwin, 22 Feb 77); 325–26 (to Trumbull, 28 May 77). (2) Burnett, *Letters*, 2:312 (Gerry to Trumbull, 26 Mar 77).

60. Fitzpatrick, *Writings of Washington*, 8:441 (to Gerry, Philip Livingston, and George Clymer, 19 Jul 77).

61. *JCC*, 7:292–94 (23 Apr 77).

Danbury, Connecticut, in the course of which numerous storehouses containing pork, beef, wheat, clothing, and tents were burned.

Congress took action to ensure that other stores were not lost in such forays. It directed that salted pork and beef stored at Derby, Salisbury, Canaan, and Sharon in Connecticut were to be moved to Ulster County, New York, and placed in magazines twenty miles from the Hudson. Flour magazines also were to be established there along with 1,000 head of cattle purchased in the eastern states. The intent was to provide Washington's army with provisions if it had to march northward on the western side of the Hudson should the British penetrate into the country by that river. If the army crossed the river, it could be supplied from Connecticut and Massachusetts.[62]

Background for Valley Forge

Although the complete breakdown of transportation and the failure by Congress to appoint promptly an active Quartermaster General were fundamental factors in promoting the distressing conditions at Valley Forge, Congress' insistence on reorganizing the Commissary Department in the midst of the 1777 campaign and the shortcomings of the department were contributing causes. The shortage of food at Valley Forge has to be understood in terms of subsistence supply developments in the six months preceding the encampment of the troops there.

When Congress enacted its regulatory measure for the Commissary Department at the beginning of the 1777 campaign, it had no intention of replacing the department's directing personnel. It intended to end the payment of commissions to purchasing commissaries and to prescribe the use of procedures that would eliminate abuses. The net effect, however, was to bring about the resignation of Trumbull and his deputy commissaries at the very time maneuvers were beginning in New Jersey. Subsistence supply of the troops therefore had to be conducted under the administration of a new and inexperienced Commissary General of Purchases who had limited powers and no control over the appointment of his deputies or of their assistants. Not surprisingly, subsistence supply deteriorated progressively during 1777.

Before Trumbull left his post on 16 August, he prepared an estimate for his successor not only of the provisions on hand at various magazines in the Middle Department but also of those at deposit points in the Eastern, Northern, and Southern Departments. That estimate showed considerable stocks of flour at such places as Carlisle, York, Downington (formerly Milltown), Lancaster, and Philadelphia in Pennsylvania, and at Trenton and Newton in

62. (1) Ibid., 7:315–17 (30 Apr 77). (2) See Fitzpatrick, *Writings of Washington*, 8:4–5 (to Brig Gens Alexander McDougall and George Clinton, 2 May 77); 15–16 (to Samuel Gray, 3 May 77).

New Jersey. Various quantities of salted provisions, hard bread, fish, rum, soap, and candles also had been deposited at various places in the Middle Department. Charles Stewart, who as Commissary General of Issues had received these supplies, later estimated that the amount of meat and fish received was equal to 8½ days' supply, and that of flour, "if merchantable," to 120½ days' supply for the Continental Army. He reported, however, that some of the flour was damaged and had been condemned as unfit for issue or for baking into hard bread. Furthermore, the biscuits were stale, the Indian meal musty, and the fish bad.[63]

Upon Ephraim Blaine, deputy commissary general of purchases in the Middle Department, fell the responsibility for directing subsistence support for Washington's army. While Blaine supplemented the stores received by procuring fresh meat supplies, he also had to supervise the removal of subsistence stores from the path of the British. Some stores were removed from Head of Elk, but when the British arrived on 28 August, they found that the inhabitants had fled, leaving "some of their Store houses full, consisting of molasses, Indian Corn, Tobacco, Pitch, Tar and some Cordage and Flour."[64] Uncertainty regarding the destination of the British undoubtedly had delayed an early and more thorough removal of all public and private stores. The Commissary Department as well as Congress made frantic efforts to preserve supplies in adjacent areas. On 22 August Congress had recommended that the authorities in Pennsylvania, Maryland, Delaware, and Virginia remove all provisions, as well as military stores, boats, wagons, and horses, from the path of the enemy and destroy what could not be removed. About a week later Blaine directed his agent at Wilmington, Delaware, to exert his utmost abilities to remove stores "from the neighborhood of Elk."[65]

Subordinates could not always be depended upon, however, to carry out instructions. Ordered to remove all cattle pastured on the islands in the Delaware River and on the adjacent mainland, one agent instead sold approximately 100 head of cattle to British commissaries and contracted to provide more for Maj. Gen. William Howe's army, at a time when American supplies were becoming increasingly short. The Board of War claimed that many inhabitants of Chester County, Pennsylvania, had supplied provisions to the enemy and that without such assistance the British would have found it more difficult to capture Philadelphia.[66] As the British pressed forward, large subsistence stocks that had been accumulated under Trumbull's direction had

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63. (1) Washington Papers, 53:83 (Trumbull to Buchanan, 8 Aug 77). (2) For accounts of stores received in August and September 1777, see RG 11, CC Papers, item 155, 1:415, 419.

64. (1) Capt John Montressor, "The Montressor Journals," New-York Historical Society *Collections*, 1881, p. 443 (entry for 28 Aug 77). (2) Bernhard A. Uhlendorf and Edna Vosper, eds., *Letters from Major Baurmeister to Colonel von Jungkenn* (Philadelphia, 1937), pp. 3, 4.

65. (1) *JCC*, 8:667. (2) Blaine Papers, Letter Book, 1777–78 (to Zeb Hollingsworth, 30 Aug 77).

66. (1) Ibid. (to Ludwig Karcher, 9 Sep 77; John Chaloner to Blaine, 2 Oct 77). (2) *Pennsylvania Archives*, 1st ser., 5:686 (Bd of War to Pres Wharton, 18 Oct 77).

to be moved from Philadelphia. On 16 September Congress requested Pennsylvania to take action and called on all chiefs of supply departments to cooperate in the removal of stores. On the following day it authorized Washington to impress within a seventy-mile radius of camp whatever provisions were necessary for subsisting his army.[67]

At the same time, Blaine was energetically directing other preparations. He ordered coopers to make barrels for packing beef and pork; engaged bakers to bake hard bread at Lancaster, Reading, and Lebanon; and solicited tallow chandlers to enter into contracts for supplying soap and candles. The constant movement of Washington's army made supply very difficult, however, and despite his efforts the army on occasion lacked provisions. Washington complained that as a consequence his plans were impeded, though he was undecided whether the supply failures were attributable to "a fault" in the constitution of the Commissary Department or to "an unpardonable neglect in the Executive part."[68]

Having completed his initial preparations, Blaine thought the troops were well supplied with flour, beef, and rum but conceded that daily complaints were made to Washington. He admitted that some of the issuing commissaries neglected to apply for proper supplies and were wasteful in the issues they made. Nonetheless, he felt no hesitancy in leaving camp for ten days late in September, particularly since he had assigned John Chaloner the duty of permanent residence at headquarters where he could be responsive to Washington's needs. Blaine intended to go home to Carlisle, arrange for the regulation of Commissary affairs at Fort Pitt, which he considered to be within the Middle Department, and obtain some cattle for the army.[69]

When Commissary General William Buchanan reported to the Board of War on 2 October, he was optimistic about the meat supply. The Commissary Department, he stated, had 3,000 head of cattle in Bucks County, Pennsylvania, to supply Washington's army. In addition, it could, if necessary, draw a large number of cattle from Connecticut to that county. However, Chaloner, serving with the main army, had a different view of the supply situation. To defend Philadelphia, Washington's army had been reinforced with militia. These reinforcements were swelling ration requirements, and "upwards of 800 head of Cattle per week" were being consumed, he wrote Blaine on 3 October. He complained that his stock on hand would soon be exhausted. Other supplies were also falling short of demand. The troops required forty hogsheads of whiskey a week, and there was "much murmuring" about insufficient supply. The Commissary Department needed 400 barrels of flour a week from Lancaster, Reading, and York, but the farmers were not de-

67. *JCC*, 8:748, 752–53 (16 and 17 Sep 77).

68. Fitzpatrick, *Writings of Washington*, 9:238 (to Pres of Cong, 19 Sep 77); 336 (to Maj Gen Israel Putnam, 8 Oct 77).

69. Blaine Papers, Letter Book, 1777–78 (to Buchanan, 24 Sep 77).

livering that amount because they feared their wagons would be detained indefinitely at camp once deliveries were made. In mid-October Chaloner reported that he was down to the last drove of the cattle that had been gathered at Wilmington. So gloomy were the prospects of supplying the army that in panic he begged Blaine to "delay not one moment" in coming to camp to remedy the "impending Evil."[70]

Blaine returned promptly and spurred his purchasers into renewed activity. Using the authority granted by Congress, he ordered them to seize cattle, salt, and rum if they could not be purchased on reasonable terms. Despite his exertions, he feared his efforts would prove to be ineffectual in supplying the army. An estimate that he made toward the end of October disclosed that the beef available in his department would last no more than two months. He was discouraged by daily disappointments and hourly complaints and dismayed by the exhaustion of food supplies in the Middle Department. Convinced, too, that the procurement and forwarding of meat supplies were being neglected in the Eastern Department, and alarmed by the effect that failure would have on his standing as a merchant, Blaine hinted at resignation.[71]

Suspension of Meat Procurement

Blaine had ample reason for concern about meat supply, both fresh and salted, in the Middle Department. Heavy consumption of cattle by the main army during the past two years in Pennsylvania and New Jersey had made beef scarcer in any case, but now the British threatened the area where cattle raising was largely centered. Moreover, the enemy was in possession of the Delaware River and had cut the line of communications with Virginia, from which state a considerable supply of barreled pork and bacon had been shipped in the past. The Commissary General of Purchases had anticipated that an ample beef supply would be forwarded from the Eastern Department. From August to November of 1777, however, all purchases of cattle in Connecticut had come to a halt because of the failure to complete the organization of the Commissary Department. Not until October did the Continental Congress amend some of the more restrictive features of the new regulation, thereby meeting objections raised by Peter Colt, who had been appointed deputy commissary general of purchases in the Eastern Department in August but who had not immediately agreed to take the position. It was with considerable relief that Blaine learned finally of Colt's acceptance of his appointment. Blaine quickly recommended that Colt purchase all the good cattle that he

70. (1) Ibid. (Chaloner to Blaine, 3 and 14 Oct 77; Chaloner to Buchanan, 11 Oct 77). (2) According to Washington, the strength of his army was 8,000 Continentals plus 3,000 militia at Pennypacker's Mill. Fitzpatrick, *Writings of Washington*, 9:278 (to Pres of Cong, 28 Sep 77).

71. (1) Blaine Papers, Letter Book, 1777–78 (to Thomas Huggins, 15 Oct 77; to Joseph Hugg, 18 Oct 77; to John White, 23 Oct 77; to Buchanan, 28 Oct 77). (2) *JCC*, 8:752 (17 Sep 77).

could. He wanted 400 head weekly, and on 18 November he called on Colt to get the first droves on their way within a few days.[72]

Even if Colt had been on hand and prepared to procure this supply immediately, it scarely could have arrived in time to satisfy the army's urgent need. By 16 December 1777 the advance troops of Washington's army had reached Valley Forge, and the main force arrived three days later. Shortly thereafter Washington wanted to send out some troops to oppose a British foraging party, but the men were unable to move for lack of provisions. He then learned from the only purchasing commissary in camp that "he had not a single hoof of any kind to Slaughter" and not more than twenty-five barrels of flour. Washington sent out a foraging party, but the country was so drained that this action afforded "a very triffle," and impressment efforts had to be extended a greater distance from camp. As Christmas Day dawned, the troops were still in tents at Valley Forge, and the general cry of the soldiers was "No Meat! No Meat!"[73]

The Commissary Department was in no better position to provide salted meats than fresh beef. In November 1777 when Colt and his purchasing commissaries in the Eastern Department were finally ready to act, Maj. Gen. William Heath informed the Commander in Chief that no preparations were under way to salt provisions in that department. Greatly alarmed, Washington informed Congress of the situation and called for an explanation from Commissary General Buchanan. The latter had been attentive to his duties, but under the regulation of 1777 he had not been able to appoint assistant purchasing deputies in the Eastern Department for that power was a prerogative of the deputy commissary general of purchases in that department. On the other hand, Buchanan had not been aggressive in getting his department organized. He was also seemingly unaware of the extent to which the deterioration of Commissary affairs in the Eastern Department had affected supply. His estimate of the supply situation late in October had been most optimistic.[74]

Both he and Blaine, however, were aware that the season for salting pork was well advanced. Anticipating the need, Blaine had already seized salt imported at Egg Harbor as well as supplies that had been deposited elsewhere in the Middle Department, but his efforts had yielded only a small quantity in comparison with what the army needed. Most imported salt had been deposited in magazines in New England. In October Buchanan had evolved a plan to haul salt from those magazines to the Hudson River and to exchange it there for flour from the Middle Department. The proposed plan lagged

72. Blaine Papers, Letter Book, 1777–78 (Blaine to Colt, 18 Nov 77).

73. (1) Fitzpatrick, *Writings of Washington*, 10:193–94 (to Pres of Cong, 23 Dec 77); 205 (GO, 25 Dec 77). (2) Blaine Papers, Letter Book, 1777–78 (to pres and council of Pa., 24 Dec 77). (3) Waldo, "Diary," *Pennsylvania Magazine of History and Biography*, 21:309.

74. (1) Fitzpatrick, *Writings of Washington*, 10:16, 23 (to Buchanan, 6 Nov 77; to Pres of Cong, 8 Nov 77). See also his orders to Putnam and Heath, 9:487–88; 10:3 (1 and 4 Nov 77). (2) Washington Papers, 60:98 (Buchanan to Washington, 12 Nov 77). (3) RG 11, CC Papers, item 29, 1:97 (Buchanan to Gerry et al., 20 Oct 77).



VALLEY FORGE: A FORAGING PARTY

badly. Over a month later Commissary General of Issues Stewart informed Samuel Gray, his deputy in the Eastern Department, that about fifty wagons, each carrying six or seven barrels of flour, would set out for New Windsor, New York, where he expected Gray to have salt ready for exchange early in December. Other teams were to follow in sufficient number to transport 10,000 to 12,000 bushels of salt, but Stewart feared that there would be much delay because of the difficulties in obtaining wagons and teams. His fears were well grounded, for two months later John Chaloner at Valley Forge had still not received any salt.[75]

Competitive Measures for Flour Supply

As the campaign of 1777 came to an end, with the British in possession of Philadelphia and the main Continental army soon to be encamped at Valley Forge, the amount of flour on hand was exceedingly low. In October Buchanan had rashly claimed "wheat enough & to spare to furnish the Army with Bread for two years." One month later he reported that there were only two flour magazines in the Middle Department—one at York and the other at Lancaster—and that these stocks would soon be exhausted, for Washington's army was consuming flour at the rate of about 200 barrels a day. He had little hope of obtaining more, since Pennsylvania farmers refused to thresh their wheat. Chaloner had reported that he could obtain flour from nearby millers only by

75. (1) Ibid. (2) *JCC*, 8:829–31 (22 Oct 77). (3) Stewart Correspondence (to Gray, 23 Nov 77; Gray to Stewart, 5 Dec 77). (4) Blaine Papers, Letter Book, 1777–78 (Chaloner to Blaine, 26 Jan 78).

assigning a guard to keep them at work, and even then they produced no more than eight barrels a day.[76]

With flour supply so precarious, a congressional committee on 24 November recommended that the Commissary General of Purchases follow the advice given by Quartermaster General Thomas Mifflin to rent 12 or more mills within 6 miles of camp; to purchase and, if necessary, to impress wheat in the sheaf; and to obtain a detail of 150 men from the army to compel unwilling farmers to thresh the wheat. This procedure, the committee maintained, would yield an immediate supply and allow time to build up magazines containing three months' supply of flour at Pottsgrove, Reading, Lancaster, and elsewhere in the Middle Department. By that time, the committee expected, the newly reorganized Board of War would take over supervision of commissary affairs and direct preparations for the next campaign.[77]

In September Washington had charged that his army's movements were impeded by the lack of provisions. In November he enlarged on the theme.

> Experience has already evinced, in the Commissarial Line, a change which has embarrassed the movements of this Army exceedingly. I will not charge it to the measure, nor the Men, but the time it happened. This, however, with truth I can say, that we seldom have more than a day or two's Provisions before hand; and often as much behind, both of Meat and Bread. It can be no difficult matter, therefore, under these circumstances, for you, or any other Gentleman, to conceive how much the movements of an Army are clogged and retarded.[78]

Approving of the advice offered by its committee, Congress decided to supplement Buchanan's supply efforts with measures of its own. It began by appointing a committee of five to devise ways and means for providing a sufficient supply of provisions for the troops. On the recommendation of that committee, Congress resolved to send a committee to Lancaster to confer with the Pennsylvania General Assembly on the best means of providing immediate supplies and establishing sufficient magazines of flour and pork for the main army in the Middle Department. Congress directed the members of the committee to inform the assembly of the need for flour and pork barrels and for teams to transport salt from the Hudson River.

Growing more alarmed, Congress proceeded to appoint another committee of five to evaluate the situation in those counties in Pennsylvania, New Jersey, and Delaware that bordered on the enemy's position or were in the neighborhood of Washington's army. It ordered this committee to report on the most effectual measures for subsisting the army and distressing the enemy.[79] On the basis of this committee's report, Congress adopted a

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76. (1) *JCC*, 9:960–62 (24 Nov 77). (2) RG 11, CC Papers, item 29, 1:97 (Buchanan to Gerry et al., 20 Oct 77). (3) Blaine Papers, Letter Book, 1777–78 (Chaloner to Buchanan, 5 Nov 77).

77. *JCC*, 9:960–62 (24 Nov 77).

78. Fitzpatrick, *Writings of Washington*, 10:81–82 (to Richard Henry Lee, 18 Nov 77).

79. *JCC*, 9:976–77 (28 Nov 77); 1010–11 (8 Dec 77).

number of resolutions on 10 December 1777. It had observed with much concern, Congress informed Washington, that since the loss of Philadelphia his army had been drawing its principal supplies from distant quarters at great expense to the government. While his troops were scantily supplied and his magazines greatly reduced, large quantities of cattle, provisions, and forage still remained in the counties of Philadelphia, Bucks, and Chester. Congress expected that Washington would endeavor, as much as possible, to subsist his army from those areas, even if he had to seize the products from the farmers. It had granted him such authority in resolutions of 17 September and 14 November. Congress could only attribute his reluctance to use that power to a "delicacy in exerting military authority on the citizens of these states," which was highly laudatory but might prove destructive to his army and the liberties of America. It directed him not only to seize all stock and provisions but also to issue a proclamation requiring all persons within seventy miles of headquarters to thresh their grain within a reasonable period of time or have it seized and paid for as straw. To give effectiveness to the proclamation, Congress recommended that Pennsylvania enact implementing legislation.[80] These measures added little to the food supply for the main army, whose advance forces reached Valley Forge six days later.

Though reluctant to incite ill-will toward military power by an undue exercise of it, Washington resorted to impressment as recommended by Congress in view of the desperate situation that faced the army at Valley Forge. On 20 December he issued the proclamation to compel threshing. He had little faith, however, in the effectiveness of impressment and was convinced that the army's lack of provisions was a result of reorganizing the Commissary Department in the midst of a campaign. He stressed this one cause without taking into account the breakdown in transportation. The parties that Washington detached to impress provisions brought in 700 head of cattle, but the supply of flour was exhausted. There were deposits of flour at Lancaster, York, and Wright's Ferry, but there was a lack of wagons to haul the flour to camp. The best that Deputy Commissary General Blaine could do was to appeal to the state authorities to assist quartermasters in providing teams.[81]

The use of coercive measures to obtain supplies was thoroughly distasteful to Washington and was intensely disliked by the people. Washington repeatedly pointed out that impressment brought relief for the moment but had the most pernicious consequences. It spread disaffection and jealousy among the people, and even in veteran armies, under rigid discipline, it promoted "a disposition to licentiousness, plunder, and Robbery" that was hard to suppress. As one Pennsylvania citizen informed that state's Execu-

80. Ibid., 9:1013–15 (10 Dec 77). See also 8:751–53 (17 Sep 77); 9:905 (14 Nov 77).

81. (1) Fitzpatrick, *Writings of Washington*, 10:159–60 (to Pres of Cong, 15 Dec 77); 175 (proclamation, 20 Dec 77). (2) Blaine Papers, Letter Book, 1777–78 (to Pa. Executive Council, 24 Dec 77).

tive Council, impressment parties, "under the Shadow of the Bayonet & the appellation Tory," wantonly wasted and destroyed grain and cattle. They lacked the wisdom to exercise good judgment even in their own interests. He also reported the confiscation of provisions and forage essential to the maintenance of his laboring force and to the operation of his forge and furnace. Work was thus brought to a standstill in the manufacture of the very products badly needed by the army.[82] It is not surprising that farmers vowed not to plow or sow if impressment continued, or that they hid supplies from search parties. Blaine, who had left camp for Lancaster, York, and Carlisle on 26 December to obtain provisions, had little success in purchasing or seizing supplies.

With some satisfaction Blaine informed Chaloner on 4 January 1778 that the purchasing commissaries were to be relieved of a part of their burden. The Pennsylvania General Assembly was appointing two commissioners in each county to obtain all provisions necessary for the army at prices fixed by the assembly. Chaloner, who again had been left in camp as the sole representative of a department that was in complete disgrace, felt that he could stand "the torrent no longer." He sourly replied that if the army could not be supplied by purchasing agents appointed by Blaine and accountable to him, it could scarcely be supported by men over whom Blaine had no control.[83]

Chaloner was wrong in his assumption. The state commissioners were so successful in their efforts that President Thomas Wharton informed the Pennsylvania delegates in Congress that magazines could be filled "with great expedition" provided that Congress gave the commissioners the money to purchase all the necessary provisions. Familiar with the people and problems of the counties to which they were appointed, these state agents were able to obtain wheat more readily than Blaine's commissaries. Moreover, under the assembly's orders they were able to offer prices that were considerably higher than what the Continental agents had been able to offer. Wharton now found "an earnest zeal in the people to forward this business." With the higher prices and with a water level high enough to keep the mills at work, the farmers were again threshing grain and grinding it into flour. Wharton thought advantage ought to be taken of the changed conditions.[84]

These bright prospects were dimmed, however, by the confusion caused by a lack of coordination between the Continental Congress and the state legislature. Aware that Washington had been detailing detachments of soldiers to thresh grain in order to prevent a complete exhaustion of the army's supply of flour, Congress itself now took action to promote the procurement

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82. (1) Fitzpatrick, *Writings of Washington*, 10:253–54 (to Bd of War, 2–3 Jan 78). (2) *Pennsylvania Archives*, 1st ser., 6:170–71 (John Lesher of Oley to Wharton, 9 Jan 78).

83. Blaine Papers, Letter Book, 1777–78 (to Chaloner, 4 Jan 78).

84. *Pennsylvania Archives*, 1st ser., 6:231–32 (to Pa. delegates in Cong, 3 Feb 78).

of flour.[85] In January 1778 it authorized the Board of War to employ commissioners to purchase 30,000 barrels of flour or an equivalent amount of wheat to be ground into flour. They were to deposit the flour in Pennsylvania as follows: 12,000 barrels at Lancaster, 8,000 at Reading, 6,000 at Bethlehem, 2,000 at Downington, and 2,000 at Pottsgrove. The commissioners, like the regularly appointed commissaries of the Continental Army, were given full power to employ all necessary mills, millers, and coopers. Moreover, Congress empowered them to hire or impress all wagons needed to transport the flour to the depositories, paying the same rate for the wagons as the Quartermaster's Department paid. The Board of War was to limit these prices so that they in no way contravened those set by the state of Pennsylvania. Once the commissioners established magazines, the latter were to be put under the direction of the Commissary General of Issues. The commissioners also had authority to purchase any cattle or salted meat that they learned about on their tours through the country. Aware that two sets of purchasing agents were already in the field, that is, the regularly appointed Army commissaries and the state commissioners, and that a third group might promote confusion, Congress advised the Board of War to put the proposed plan into effect only if the state program was likely to prove inadequate to meet Washington's needs.[86]

Without considering the adequacy of the state program, the Board of War concluded that the plan ought to be put into effect at once. It appointed nine superintendents to purchase flour, wheat, and other articles.[87] It provided them with detailed instructions, which included authority to direct the Pennsylvania commissioners in their purchases. Contravening the regulatory legislation enacted by Congress in June 1777, the board provided the superintendents as well as the state commissioners with a 2½ percent commission on their disbursements. Congress made funds available to set up the magazines. It issued a warrant for 200,000 dollars in favor of the Board of War, and it ordered 300,000 dollars transmitted to President Wharton of the Executive Council of Pennsylvania.[88]

Three of the superintendents—Robert Lettis Hooper, Nathaniel Falconer, and Jonathan Mifflin—promptly went into action upon learning of their appointments. Meeting in Reading, they formulated instructions for millers,

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85. Fitzpatrick, *Writings of Washington*, 10:268 (to Pres of Cong, 5 Jan 78); 205 (GO, 25 Dec 77).

86. *JCC*, 10:54–57 (15 Jan 78).

87. The Board of War appointed Robert Lettis Hooper to a district embracing Northampton County in Pennsylvania and Sussex in New Jersey; assigned Jonathan Mifflin and Nathaniel Falconer to Berks, Bucks, and Philadelphia Counties in Pennsylvania; and employed Richard Bache, John Patton, Henry Hollingsworth, and James Read in Lancaster and Chester Counties in Pennsylvania, the northern parts of the western shore of Maryland, the eastern shore of Maryland, and Delaware. All these superintendents operated east of the Susquehanna River. It assigned the area west of the river to James Ewing and John Byers.

88. (1) RG 11, CC Papers, item 27, fols. 51–53 (Bd of War in supts, 31 Jan 78). (2) *JCC*, 10:113, 151–52 (3 and 12 Feb 78).

and by 11 February they had employed four mills. Their plans called for a rapid expansion of operations throughout their districts. Hooper was also a deputy quartermaster general, and outgoing Quartermaster General Mifflin, then at his home in Reading, gave the three commissioners directions to buy all the forage they could—rye, spelts, Indian corn, and oats—at prices set by him at levels considerably higher than those that had been established by the states. Deputy Commissary General Blaine had misgivings about the purchase of wheat and forage by the same agents. Nine-tenths of all the forage coming to camp, he charged, was chopped wheat, and a continuance of that practice would result in famine. He told a congressional committee at camp that the Commissary General of Purchases ought to have the entire direction of the purchase of wheat.[89]

Conflicts among three sets of purchasing agents operating in the same area were inevitable. At least some members of Congress thought the state commissioners were capable of establishing the proposed magazines and that the Board of War's instructions not only in some respects interfered with the powers of the state commissioners under the laws of Pennsylvania but also directed the purchase of a greater quantity of provisions than had been authorized by the resolution of Congress. Although such opinions were expressed, Congress formally sanctioned the additional provisions that the Board of War had ordered its superintendents to procure, although it directed that the latter be instructed to avoid clashing with the state commissioners.[90]

When word reached Congress, however, that superintendents Mifflin, Falconer, and Hooper were purchasing forage at higher prices than authorized by Pennsylvania, it at once suspended them from their posts. This action did not still all complaints, for conflict continued between the remaining superintendents and the state commissioners. This time the controversy involved the superintendents operating on the west side of the Susquehanna River who, despite orders to the contrary, were competing with the state commissioners in the procurement of the same commodities. The Board of War declared that it was only carrying out the orders of Congress; it disclaimed any intent to interfere in state matters, and confessed it would gladly be rid of the whole business. The board informed Congress that as a result of the conflict all procurement of flour by the superintendents on the west side of the Susquehanna had been suspended. About seven weeks later, on 17 April 1778, this whole procurement episode came to an end when Congress requested Pennsylvania to call a halt to any more purchases by its state commissioners.[91] It expected a reorganized Commissary Department to direct future procurement programs.

89. RG 11, CC Papers, item 27, fols. 62–63 (Hooper, Mifflin, Falconer to Bd of War, 11 Feb 78); 59–61 (instructions to millers); 67–68 (Hooper, Falconer, Mifflin to Bd of War, 14 Feb 78); 71–72 (Hooper to assistants, 12 Feb 78); item 33, fol. 161 (Blaine to Francis Dana, 20 Feb 78).

90. *JCC*, 10:152–53 (12 Feb 78); 166–70 (14 Feb 78).

91. (1) Ibid., 10:176–77 (17 Feb 78); 361 (17 Apr 78). (2) *Pennsylvania Archives*, 1st ser., 6:315 (Gen Gates to Laurens, 26 Feb 78).

Factors Hampering Meat Supply

If flour supply showed improvement by early spring, the prospects of any improvement in meat supply continued unpromising. On 4 January 1778 Chaloner had reported from Valley Forge that he had "not one live Beast in Camp" and added that the army "on this day will consume the whole of the salt provisions Fish &c and God only knows what will be for the troops tomorrow." The resources of the Middle Department were nearly exhausted and supplies from the Eastern Department were likely to fall below expectations. When Deputy Commissary General Colt had assumed direction of purchasing in that department in November, he had ordered his assistants "to push forward Beef Cattle" for the troops. However, the lateness of the season and the utter lack of money greatly hindered his efforts. The suspension of cattle purchases in the Eastern Department from August through October 1777 had created a real scarcity of meat by 1778. Informed that the department would purchase no more cattle, farmers had neglected to fatten their animals or had sold them. Colt forwarded all available cattle, but his supply efforts were further hampered by the fact that Jacob Cuyler, the deputy commissary general of purchases in the Northern Department, was procuring cattle and hogs in the same area upon which Colt depended despite the fact that Cuyler had a meat-producing county in his own department in which to make purchases.[92]

To the shortage of fresh meat was added that of salted provisions. Less pork had been barreled than in previous years. Responsible also for subsisting the prisoners of war and the troops in the Eastern Department, Colt urged Blaine to lessen his demand for meat from that department by obtaining supplies for the main army from the southern states. Chaloner had hit upon the same method of obtaining relief, and Buchanan laid before the Board of War proposals for procuring provisions from North Carolina, Virginia, and Maryland. These provisions were to be forwarded along an inland route from Albemarle Sound to the head of the Chesapeake Bay, using boats and wagons. He estimated that 55 wagons could carry about 500 barrels of pork a week. Congress endorsed the plan in January 1778 and called on the governors of those states to cooperate by furnishing the required transportation. On his part, Blaine proposed to reduce the amount of beef and pork in the ration to twelve ounces and to increase the flour and bread allowance to one and a half pounds as a means of lessening meat consumption. Completely discouraged by the situation, Blaine asked Buchanan to replace him.[93]

Colt's troubles in supplying cattle to the main army multiplied. Though he forwarded several droves of cattle, they were unable to pass the Hudson

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92. Blaine Papers, Letter Book, 1777–78 (unsigned, undated letter, but clearly Chaloner to Buchanan, ca. 4 Jan 78).

93. (1) *JCC*, 10:62–63 (19 Jan 78). (2) Blaine Papers, Letter Book, 1777–78 (to Washington, 20 Jan 78).

River and were consumed by the troops on the east side, "contrary to his orders & Expectations." Washington thereupon wrote to Maj. Gen. Israel Putnam early in February 1778 that "for the future, I beg you will consider it as explicitly contrary to my intentions that any Cattle ordered for the use of this Army should be stopt [short] of their destination." As Washington pointed out, Putnam had a ready substitute in salted provisions, an ample store of which was within his reach. Emphasizing that his army was on the brink of dissolution for lack of meat, Washington at the same time appealed to Governor Jonathan Trumbull to have the purchasing agents in Connecticut forward cattle to the army.[94]

In mid-February 1778 Blaine's reports to Washington showed that while he had flour available, he had barely sufficient meat to maintain the main army through that month. Accepting a suggestion made a month earlier by Blaine, Washington circulated an address to the inhabitants of New Jersey, Pennsylvania, Maryland, and Virginia that called on them to stall-feed as many of their cattle as they could spare so that they might be driven to the army by May. He promised a good price for the animals. Blaine hoped by this means to obtain some 5,000 to 6,000 head of cattle when the new campaign opened. Washington also sent out spirited appeals for assistance to the governors of the neighboring states.[95]

In mid-February Washington also wrote to Henry Champion, whom Governor Trumbull had appointed to superintend all purchase of livestock in that state, to come to the relief of the main army. Champion responded by calling Washington's attention to the impact that a price-fixing measure adopted by the Connecticut Assembly would have on cattle procurement. He feared that the law, which was to become effective on 20 March 1778, would cause an immediate scarcity of stall-fed beef.[96] He had requested Commissary General Buchanan to lay the matter before Congress so that the price-fixing act might be suspended. He suggested that it might be well if the Commander in Chief also wrote to the Continental Congress.

Congress found itself in an embarrassing situation, for its own recommendation in November 1777 had led to a meeting at New Haven of commissioners from the New England states, Pennsylvania, New York, and New Jersey to regulate the prices of commodities, labor, and manufactures. Congress felt that it could not now call for suspension of the Connecticut law and instead referred Champion's letter to the state's legislature with the

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94. (1) Ibid. (Chaloner to Blaine, 26 Jan 78). (2) Fitzpatrick, *Writings of Washington*, 10:423 (to Putnam, 6 Feb 78); 423–24 (to Trumbull, 6 Feb 78).

95. (1) Blaine Papers, Letter Book, 1777–78 (to Washington, 20 Jan 78; estimate, 14 Feb 78). (2) Fitzpatrick, *Writings of Washington*, 10:480–81 (address, 18 Feb 78); 469–70 (to Gov George Clinton, 16 Feb 78); 471–73 (to Gov Thomas Nelson, same date); 483–85 (to Gov Patrick Henry, 19 Feb 78).

96. (1) Ibid., 10:474 (to Champion, 17 Feb 78). (2) Washington Papers, 68:59 (Champion to Washington, 28 Feb 78).

recommendation that it take such actions as it judged best for the public interest. As Eliphalet Dyer explained to Governor Trumbull on 12 March, the delegates did not wish to give any directions that would interfere with the rights of any state legislature, but "they really wish, hope and expect that the Act, so far as it respects Salted Beef," would be suspended. Ruin would ensue unless "every Obstruction be removed to every possible supply of Beef till summer fed Cattle can be procured."[97]

While resolution of this problem hung fire, Congress appointed Jeremiah Wadsworth Commissary General of Purchases on 9 April 1778. He informed Congress at that time that he could not operate under the price-fixing act. Had he not been convinced that suspension of the act would take place immediately, he would not have accepted the appointment. It was 4 June, however, before Congress recommended the repeal or suspension of all state laws limiting, regulating, or restraining the price of any article, manufacture, or commodity.[98]

In mid-February 1778 the nearest magazines of the main army were located at Dover, New Jersey, and at Head of Elk, but such was the scarcity of wagons that provisions could not be brought to Valley Forge. No more than eight wagons were at camp, but ten times that number would not have been sufficient for transporting the rations required. To alleviate the shortage, Washington turned to impressment. He ordered Capt. Henry Lee and a small mounted force to undertake this mission and called upon Brig. Gen. William Smallwood to assist him.[99] A month later the lack of transportation continued to hamper the Commissary Department. Provisions obtained in Maryland and Virginia had been transported by water to Head of Elk, but they remained there for lack of teams. State legislation imposed restrictions, too, that would have hampered transportation even if enough wagons had been obtainable. By law, for example, Maryland limited the use of wagons within the state to the transportation of the baggage of marching troops. Washington requested amendment of this law.[100]

Gradually the supply situation improved. The favorable responses of the state governors to Washington's appeal assisted materially. The weather

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97. (1) *JCC*, 10:235, 244 (9 and 11 Mar 78). (2) Burnett, *Letters*, 3:125–26 (Dyer to Trumbull, 12 Mar 78).

98. (1) *JCC*, 11:569–70. (2) RG 11, CC Papers, item 78, 23:503–04 (Wadsworth memorial to Conn. Assembly, 26 May 78); 499 (Wadsworth to Pres of Cong, 27 May 78). (3) Washington Papers, 72:51 (Wadsworth to Washington, 4 Jun 78).

99. (1) During the last week in February, 15,903 rations per day were required by the army at camp. Allowing 140 rations per barrel and 8 barrels per wagon, over 113 wagons would be required. RG 11, CC Papers, item 155, 1:511 (Return of Provisions and Stores Issued to Army in Camp, 23 Feb–1 Mar 78, inclusive). (2) Blaine Papers, Letter Book, 1777–78 (to Henry Hollingsworth, 15 Feb 78). (3) Fitzpatrick, *Writings of Washington*, 10:467–68 (to Lee, 16 Feb 78); 467 (to Smallwood, same date).

100. (1) Ibid., 12:123–24 (to Gov Johnson, 21 Mar 78). (2) Blaine Papers, Letter Book, 1777–78 (Chaloner to Lutterloh, 20 Mar 78; Chaloner to Washington, 21 Mar 78).

became milder and wagoners were able to drive their teams to camp. Transportation generally was improved when Maj. Gen. Nathanael Greene became head of the Quartermaster's Department and infused new vigor into its operations. By the first week in April 1778 Chaloner could report that the army at Valley Forge was fairly well supplied with beef, bread, and flour.[101]

Preparations Under Wadsworth

Shortly after Jeremiah Wadsworth was appointed Commissary General of Purchases on 9 April, he went to Valley Forge to provision the troops there and prepare for the coming campaign. There he received orders from Washington to provide for an army of at least 40,000. Taking into account staff, artificers, wagoners, and attendants, Wadsworth estimated that he would need to provide 60,000 rations per day, and he immediately set about making preparations. Flour could be provided in quantity by the southern states, but meat would have to come principally from Wadsworth's home state of Connecticut. Wadsworth returned to that state to make arrangements for obtaining an ample supply of meat for the troops, but he found that the assembly had not yet suspended its price-fixing law and, in fact, had sent a committee to Massachusetts to persuade it to adopt similar legislation. Congress' belated action in recommending suspension of all price-fixing legislation in June removed a major obstacle to his procurement program. On 8 June Congress acted to assist procurement in another way. Exportation of provisions by speculators not only had tended to raise prices, but, through the capture of vessels engaged in such trade, had contributed to the support of the enemy. Congress laid an embargo, effective from 10 June to 15 November, prohibiting the exportation of wheat, flour, rye, Indian corn, rice, bread, beef, pork, bacon, livestock, and other provisions. It recommended that the states take measures to implement the embargo.[102]

In the meantime, Washington was preparing to put his army in motion. He was well aware that many people in the spring of 1778 had grown impatient to see the British driven from Philadelphia. The depleted state of the magazines, however, and the necessity of allowing time to complete the reorganization of both the Quartermaster's and the Commissary Departments were adequate reasons for counseling caution. Washington thought a "capital Blow against the Enemy" might be made when a considerable force could be subsisted on grass-fed cattle. Though such pasturage was not yet available when intelligence reached him that the British meant to evacuate Philadelphia, he then called on Deputy Commissary General Blaine in mid-May to lay in, as much as he was able, all available provisions along the

101. Ibid. (Chaloner to Buchanan, 5 Apr 78).
102. *JCC*, 11:578–79 (8 Jun 78).

thoroughly familiar route from Valley Forge—via Coryell's Ferry, Boundbrook, and Morristown—to the Hudson River.[103]

At Ringwood, New Jersey, Commissary General of Issues Stewart was also speeding preparations. Learning that cattle were in extremely short supply at Valley Forge, he urged Wadsworth to forward a supply promptly. New Jersey, he wrote to one of his agents, was "exhausted in the meat way," and it would be impossible "to pass the Army through it, without Bullocks come on very quickly from the Eastern States." Stewart was having salted provisions brought forward as quickly as possible to the Hudson River by the quartermasters.[104]

Between 16 and 18 June 1778 the British evacuated Philadelphia, and on receipt of the news Washington marched his army toward Coryell's Ferry, completing the crossing of the Delaware by 23 June. Although provisions had been deposited with comparative ease along the route, troops complained of shortages as they moved to engage the enemy. Following the battle of Monmouth on 28 June and the British withdrawal to New York, the main army marched northward through New Jersey to Haverstraw on the west side of the Hudson, where it would be easier, Washington was informed, to provision the troops and forage the horses. There news of the arrival of Admiral d'Estaing's fleet off Sandy Hook led Washington to direct Wadsworth both to send a gift of livestock to the admiral and to offer assistance in victualing the fleet. Congress, too, instructed Wadsworth to furnish the fleet from time to time with such provisions as the Marine Committee directed.[105]

Flour for a Joint Venture

D'Estaing planned with Washington to launch a combined attack upon the British at Newport, Rhode Island. In anticipation of this move, Washington on 17 July directed Maj. Gen. John Sullivan, in command of 1,000 Continentals at Providence, to increase his strength by adding 5,000 militiamen from the New England states. He also ordered him to collect boats, engage pilots, establish magazines of provisions, and in general, to prepare for joint action with the French fleet.[106] This first attempt at allied action demonstrated again the dangers of competitive supply operations. The sudden demand for large quantities of provisions for land and sea forces produced a temporary scarcity of some commodities. Wadsworth reported that meat could be readily provided but that flour was scarce. Even without the demand created by the presence of the French, a magazine of flour would have

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103. Fitzpatrick, *Writings of Washington*, 11:371 (to Gov Johnson, 11 May 78); 408 (to Blaine, 17 May 78).

104. Stewart Correspondence, 1777–82 (to agent, 25 May 78).

105. (1) Fitzpatrick, *Writings of Washington*, 12:182 (to Wadsworth, 15 Jul 78). See also 12:120n (Alexander Hamilton to Washington, 26 Jun 78); 167 (to Gen Gates, 11 Jul 78). (2) *JCC*, 11:687 (13 Jul 78).

106. Fitzpatrick, *Writings of Washington*, 12:184 (to Sullivan, 17 Jul 78).

been essential in New England. Wadsworth suggested that the flour shortage, resulting from the difficulty of hauling that commodity overland, could be easily remedied. He argued that the presence of the French fleet in American waters afforded an opportunity to ship flour from Virginia by sea, and he directed Blaine to lay the matter before the Continental Congress for prompt action. A month went by without any word from Congress. By that time Wadsworth was in Philadelphia preparing to set out for Virginia with Blaine. He renewed his plea, emphasizing the impossibility of supplying the troops in the Eastern Department by land carriage. On 24 August 1778 Congress authorized the Commissary General of Purchases to procure 20,000 barrels of flour in Pennsylvania, Delaware, Maryland, and Virginia and, in conference with the Marine Committee, to arrange for its transportation by water.[107]

When Wadsworth and Blaine left Philadelphia for a tour of the southern states, they had hopes of procuring large quantities of provisions to supplement those available in New York. Their tour, however, quickly convinced them that their hopes were chimerical. Steadily rising prices met them everywhere. The arrival of the French fleet had helped to unleash a wave of profiteering that was further stimulated when Congress issued its order for the purchase of flour and its shipment by water. Wadsworth reported that the price of flour increased 25 percent when this news circulated at Baltimore. Early in September flour was selling there at 4 pounds per hundredweight, but neither farmers nor millers would make contracts with commissaries since they expected the price to go still higher. Wadsworth's hopes of getting good flour in Virginia were further dimmed by the news that the state's crop had been damaged by "the fly."[108]

Throughout Virginia and Maryland speculators were busy buying wheat and flour, and since they had ready money, no commissary could compete with them. Money was needed, Wadsworth wrote his agent in Philadelphia, to build up the stocks in magazines at Head of Elk and elsewhere that were far lower than he had expected. Unless measures were taken to stop the practices of the food monopolizers, he warned Congress in September, Washington's army would have to disband for lack of rations.[109] Moreover, there was evidence that the embargo was being evaded, and he was convinced that vessels were being readied to sail with cargoes of provisions as soon as the embargo expired. He had also heard a rumor that permission had been granted to merchants to export flour from the southern states to New England. Provided this permission was not abused, such export could help the army, but Wadsworth was pessimistic. "Neither Oaths or Bonds can bind Men who are not govern'd by honour or Conscience and I believe the Enemy will obtain as much of the Flour shipp'd for New England as the people of these

107. (1) RG 11, CC Papers, item 78, 23:513 (Wadsworth to Blaine, 23 Jul 78); 537 (Wadsworth to Henry Laurens, 24 Aug 78). (2) *JCC*, 11:831 (24 Aug 78).

108. RG 11, CC Papers, item 78, 23:561 (Wadsworth to Laurens, 6 Sep 78).

109. Ibid., item 78, 23:557 (Wadsworth to Tracy, 4 Sep 78).

States," he informed Henry Laurens, "and that a greater quantity will go to the Islands; as a hard northerly will be an excuse to bear away from this Coast for the West Indies."[110]

Acting on the reports coming to it, Congress on 2 October recommended that the states direct the seizure for the public use of "any extraordinary quantity of grain or flour being purchased and in the possession of individuals" as a means of restraining the "wicked arts of the speculators, forestallers, and engrossers." The seized commodities were to be paid for at such prices as the states thought proper. Congress continued the embargo it had enacted earlier and again recommended that the states take measures to enforce it. It also provided safeguards for the shipment by sea of provisions from the southern states which it had exempted from the embargo on 2 September. It authorized the Commissary General of Purchases to dispatch, notwithstanding any earlier resolution of Congress, provision vessels to New England, with or without convoy, as his judgment dictated.[111]

In late September 1778 Washington had indicated that he wanted flour deposited in magazines at intervals on the inland line of communications between his headquarters at Fredericksburg (now Patterson), New York, and Boston. He added that he thought there would be a great risk in shipping it by sea while the British had a superior fleet on the coast.[112] Actually, by the time Congress had authorized the procurement of 20,000 barrels of flour on 24 August, the Newport expedition had failed, and the French fleet had sailed for Boston to refit. The plan to ship flour by sea was therefore abandoned as too dangerous. Instead, Wadsworth had to continue using the slow overland routes.

Interference in Commissariat Matters

In preparing for the projected allied offensive against Newport, Wadsworth had initiated measures for concentrating provisions in Rhode Island and had delegated responsibility for supervising procurement to Royal Flint, an assistant commissary of purchases. Flint, Peter Colt, and Henry Champion devised various ways of accumulating the reserves requested by d'Estaing as well as the supplies needed by General Sullivan's forces. The latter, however, subsequently charged that to provision his forces he had been obliged to borrow supplies from the Marine Board in Connecticut, from the Navy Board in Boston, and from General Heath. Fearful that sufficient provisions would not be made available, he began to use his own agents to purchase supplies. The inevitable competition raised

110. Ibid., item 78, 23:569 (Wadsworth to Laurens, 29 Sep 78).

111. *JCC*, 12:861 (2 Sep 78); 974–79 (2 Oct 78).

112. Fitzpatrick, *Writings of Washington*, 12:490 (to Pres of Cong, 23 Sep 78). See also 12:505 (to Gen Gates, 26 Sep 78).

prices and hampered supply for the Continental Army in general, according to the purchasing commissaries.

The close of the Rhode Island campaign did not bring an end to General Sullivan's supply activities. In fact, he broadened his efforts in October 1778 by ordering Lopez, Clark, and Nightengale, a merchant firm of Providence, to purchase flour. This firm sent out its agent, Peter Mumford, to procure flour in New York and ship it to Providence, thereby contravening a New York law forbidding the transportation of flour to any other state except by authority of the Commissary General of Purchases or by a special license from the governor. When the mischievous consequences of Mumford's efforts were called to the attention of Washington, he ordered an end to this procurement and directed General Sullivan never to engage in similar activities without first consulting him.[113]

Though General Sullivan acknowledged on 23 November that there was "a good man at the head of the Commissary Department," he insisted that many of the commissaries who had allowed the troops to starve the previous winter were still in service and had not mended their ways. Four days later he again denounced what he called the impudence and indolence of the commissaries whose false promises had led him to expect supplies from day to day until his stores were completely exhausted. Such was his wrath against the commissaries in the Eastern Department that he haled them before a military court of inquiry in March 1779. The court found the measures adopted by the general to be justified by necessity and "confirmed by Wisdom & prudence." The court further held that Colt and his purchasing commissaries had been "deficient in their duty," and that some had been too much governed by private interest. Since General Sullivan had appeared in person at the court and had demonstrated, in Wadsworth's view, "too great a 'mixture of Passion' with his proceedings" for him to be a proper judge, the Commissary General questioned the impartiality of these findings.[114]

If Sullivan's efforts had disturbed the orderly functioning of the Commissary Department, so too did the activities of the intendant of the French fleet. Unwilling to depend on the American Commissary Department for his supplies, he had entered into a private contract with James Price, whose agents operated not only in New England but also in New York. Since they offered prices at least 25 percent higher than those given by the American commissaries, the latter were handicapped in their efforts to obtain provisions. Deputy Commissary General Colt complained of these activities to General Heath, who extracted a promise from Price to stop procurement as

113. (1) Ibid., 13:277–78 (to Sullivan, 18 Nov 78). (2) John Sullivan, "Letters and Papers of Major General John Sullivan," ed. Otis G. Hammond, New Hampshire Historical Society *Collections* 14 (1931): 423 (Peter Colt to Sullivan, 6 Nov 78); 426–28 (Sullivan to Colt, 10 Nov 78).

114. (1) Ibid., 14:443–44, 446–47 (to Washington, 23 and 27 Nov 78). (2) Washington Papers, 99:40 (Court of Inquiry, 1 Mar 79); 100:87 (Wadsworth to Washington, 15 Mar 79).

soon as his existing contracts were fulfilled. In the meantime, John Holker, agent of the Marine of France, arrived in Boston and promised to put matters on a proper footing. Unfortunately, by that time prices had risen sharply, and it was not without some feeling of relief that the Americans saw the French fleet sail for Martinique in November.[115]

Transfer of Convention Troops

The transfer of the Convention troops from Boston to Charlottesville, Virginia, eased considerably the Commissary Department's task of accumulating magazines of provisions in the Northern and Eastern Departments. These British prisoners of war, taken when Burgoyne surrendered at Saratoga, consumed vast quantities of supplies, but as long as the main Continental army was operating in the Middle Department, that consumption apparently went unnoticed. It immediately attracted attention, however, when the army moved toward New York and particularly when planning began for the Newport expedition. The shortage of flour in New England, the large number of teams required to haul provisions, and the enormous amount of forage they consumed suggested the desirability of reducing the demand for provisions in that area. Since the British would neither provide food for the captured prisoners nor grant passports for Continental ships to carry provisions to them, Congress decided to remove the Convention troops to Virginia, where they could be supplied with less difficulty. The first detachment of prisoners departed for Virginia on 4 November 1778. The transfer of the Convention troops and the departure of the French fleet led Wadsworth to entertain hopes that he might be able to replenish the magazines that had become thoroughly depleted in the months since the initiation of the Newport expedition. Any idea that he would be able to supply troops for a Canadian expedition, however, had to be abandoned.[116]

Washington's army now went into winter quarters in a semicircle around New York City with cantonments at Middlebrook and Elizabethtown, New Jersey, at West Point and Fishkill, New York, and at Danbury, Connecticut. Washington's objective was to guard the vital points of the Hudson Highlands and protect his line of communications between New England and the southern states. Quartering most of the troops west of the Hudson eased the problem of subsisting the army by reducing the distance that supplies had to be hauled. The difficulty and expense of transportation in the winter season and the exhausted supply of forage in the country had induced both the Quartermaster General and the Commissary General of Purchases

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115. Johnson, *Administration of the American Commissariat During the Revolutionary War*, pp. 148–49.

116. Fitzpatrick, *Writings of Washington*, 13:123 (to Heath, 22 Oct 78); 207 (to Col Theodorick Bland, 5 Nov 78); 319 (to Gates, 24 Nov 78).

to recommend the area west of the Hudson.[117] The winter of 1778–79 brought none of the extremes of hardship that had been suffered by the troops at Valley Forge. Forage remained scarce, but food was available. The rate of depreciation, however, accelerated at such a pace that by April 1779 Washington wrote that "a waggon load of money will scarcely purchase a waggon load of provisions."[118]

Depreciation and Supply

The battle of Monmouth in June 1778 was the last important battle in the north during the Revolution. In the course of the next three years only minor operations occurred in that area, but the troops, even when inactive, still had to be provisioned, and criticism of the Commissary Department grew in volume. Delegates to Congress and the public both attributed the increased costs of the war and the plummeting depreciation of the country's currency to the practices of commissaries and quartermasters, who were widely suspected of raising prices to collect higher commissions. Congress was once again imbued with a reforming zeal as it tackled the complex problems of the supply departments.

While Congress sought solutions to its problems, the Commissary Department, greatly in debt and always in need of funds, attempted to operate on a credit basis but with increasingly poor results. By the end of September 1779 the quantity of flour and bread available for Washington's army was so small that Wadsworth evolved a plan for obtaining supplies from New York in exchange for salt, sugar, and other imported commodities needed by the people of that state, who had been deprived of the use of their major seaport for three years.[119] The harvest of 1779 was good, but as the year drew to a close, the flow of supplies was diminishing and magazines were becoming empty.

If Congress blamed the supply departments for the depreciation of the Continental currency, the Commissary Department attributed its woes to its lack of funds. According to Royal Flint, insufficient cash had brought the shortages and had left the purchasing commissaries in heavy debt. The impact upon procurement was repeatedly made clear to Congress. Chaloner and John White informed a committee of Congress that there was no reason to believe that the commissaries could procure on a timely basis the food necessary for the troops because of the insufficiency of cash. "For want of Cash the Supplies of Flour from Hudsons River is retarded. The necessary measures for procuring Meat to the Southward neglected, and

117. Ibid., 13:350–52 (to Pres of Cong, 27 Nov 78).
118. Ibid., 14:437 (to John Jay, 23 Apr 79).
119. (1) *JCC*, 15:1130–32 (30 Sep 79). (2) Burnett, *Letters*, 4:476 (Jesse Root to Wadsworth, 6 Oct 79).

nothing is yet done to procure the whole Supplies for the Garrisons to the Westward."[120]

Distress at Morristown

In the winter of 1779–80 Washington's army suffered both from a lack of food and from the extreme severity of the weather. The troops encamped at Morristown experienced conditions far worse than those endured by the soldiers at Valley Forge. In December the snow was reported to be two feet deep. By January, after a violent snowstorm, the snow was four to six feet deep. Roads were so obstructed that cattle could not move and wagons could not bring badly needed provisions. James Thacher, a surgeon with the army, recorded that the troops received only two pounds of meat per man for a 10-day period. Frequently they were entirely without meat for 6 or 8 days and often lacked bread for a week at a time.[121] In their distress the soldiers plundered the neighboring inhabitants. Washington deplored this behavior but insisted he would find it increasingly difficult to stop it unless the local magistrates came to the army's aid. He appealed to them to collect designated quantities of cattle and grain within a specified number of days. The results allowed Washington to inform Congress by the last week in January that the army had been "for some days past, comfortable and easy on the score of provisions."[122]

This happy state did not last. Melting snows turned roads into quagmires. Even though there was some grain at distant mills in New Jersey, it could not be transported to camp, where in mid-March 1780, no more than five days' supply of bread was on hand for the troops. By a scanty and economical issue, Washington informed Congress, the meat supply might be made to last until about the end of April. Unfortunately, the situation was more desperate than he knew. The issuing commissary had miscalculated his supplies, basing his estimate on the number of casks rather than on the amount of meat they actually contained. As a consequence, on 7 April he had only enough meat to afford a meager supply for four days.[123] The pattern of supply throughout these months was one of acute shortage temporarily relieved by the arrival of small quantities of provisions.

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120. (1) Washington Papers, 120:83 (Flint to Wadsworth, 7 Nov 79). (2) RG 11, CC Papers, item 78, 5:425 (Chaloner and White to committee, 24 Nov 79).

121. (1) Washington Papers, 124:68 (Flint to Washington, 3 Jan 80). (2) Thacher, *Military Journal of the American Revolutionary War*, pp. 181, 185.

122. Fitzpatrick, *Writings of Washington*, 17:362–65 (to N.J. magistrates, 8 Jan 80); 459–60 (to Pres of Cong, 27 Jan 80).

123. Ibid., 18:121–22 (to Pres of Cong, 17 Mar 80); 127–28 (to Bd of War, 7 Apr 80).

CHAPTER 8

From Commissaries to Contractors

The difficulties experienced in obtaining supplies for Washington's army in 1779–80 resulted from the deterioration of the country's finances. No farmer was willing to exchange his grain and livestock for a depreciated currency. Even before winter brought a crisis in supply, Congress, on 1 September 1779, had come to the decision to halt the issue of any more paper money. It decided to rely on state taxes and loans to prosecute the war. On 6 October Congress called on the states for their respective quotas of taxes to the amount of 15 million dollars a month, with payment to begin on 1 February 1780.[1] Unfortunately, the states were not prepared to tax themselves or to create funds that they would not control. The cry for money came from every supply department in December, but there was neither money nor credit to replenish empty magazines. "Congress are at their wit's end," wrote William Ellery.[2] But as the historian of the Continental Congress has pointed out, at such times some member inevitably would devise a plan that he believed would resolve all difficulties.[3] If individuals could satisfy their needs by resorting to a system of barter, as they were doing to a certain extent, why could not Congress eliminate the use of money in the supply process by devising a method whereby the states furnished supplies directly to the Continental Army? There was no deficiency in the resources of the country; all that was needed was the proper means to draw supplies into public use.[4]

Certain features of the system of specific supplies had been anticipated in committee reports as early as July 1779. The committee appointed to regulate and retrench the expenses of the supply departments, for example, had proposed obtaining provisions and other supplies from the states by levying assessments in kind, designating the quotas of supplies to be obtained from each state. When the Board of War in November took over the functions formerly exercised by the committee for supervising the Quartermaster's and Commissary Departments, that committee's last report urged

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1. *JCC*, 14:1013 (1 Sep 79); 1052 ff. (13 Sep 79); 15:1147 (6 Oct 79).
2. (1) Burnett, *Letters*, 4:545 (to gov of R.I., 21 Dec 79). (2) See also Fitzpatrick, *Writings of Washington*, 17:272–73 (to Pres of Cong, 15 Dec 79).
3. Burnett, *The Continental Congress*, p. 402.
4. Burnett, *Letters*, 5:6 (Pres of Cong to gov of Conn., 12 Jan 80).

that an estimate of needed supplies be prepared by the Commissary General of Purchases, on the basis of which Congress was to determine the quantity of provisions each state was to furnish. By specifically limiting procurement to purchasers licensed by the states, the committee proposed to eliminate the purchasing commissaries, whose commissions had aroused general suspicion. Congress took no immediate action on the report, but on 2 December it directed the Board of War to prepare an estimate of supplies needed for 1780.[5]

To meet immediate needs, Congress on 11 December 1779 requested certain nearby states—Virginia, Maryland, Delaware, Pennsylvania, New Jersey, and Connecticut—to furnish the Continental Army with designated quantities of flour and corn, some supplies to be delivered at once and others by the first of April. Three days later it made this system of requisitions applicable to all the states, with the promise that the specific supplies furnished by a state would be credited toward the quota of money that it was called upon to raise in taxes for the United States. Congress anticipated that if the necessary provisions could be obtained in this way, many purchasing agents of the Commissary Department could be dismissed.[6] The general statement of 14 December, however, had to be broken down into details before the system of specific supplies could be put into effective operation. This complicated task required extensive knowledge of the existing and probable future supplies in the states. It necessitated matching the requirements of the Continental Army with the supplies that the states could make available after meeting their own needs, while proportioning the burden equitably among the states. To expedite the program, Congress on 17 December appointed a committee of five to estimate the supplies that would have to be procured for the use of the Continental Army during the following year and to determine the quantities and kinds of supplies that each state would be required to furnish as its quota.[7] At the same time, it resolved that when the legislature of any state undertook to procure its quota of the required supplies, all purchase of such articles by commissaries and quartermasters in that state would be discontinued.

The innumerable adjustments involved in working out the details of the system offered opportunities for endless discussion among the delegates, and it was almost the end of February 1780 before they reached agreement. Congress then approved specific quotas of beef, pork, flour, rum, salt, forage, and marketable tobacco, apportioned among the states according to their resources. The states were to collect these quotas and deliver them to such places within their boundaries as the Commander in Chief designated.

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5. *JCC*, 14:872–80 (23 Jul 79); 15:1311–12 (25 Nov 79); 1342–43 (2 Dec 79).

6. (1) Ibid., 15:1371–72 (11 Dec 79); 1377–78 (14 Dec 79). (2) Burnett, *Letters*, 4:535 (Pres of Cong to gov of N.J., 14 Dec 79).

7. *JCC*, 15:1391 (17 Dec 79).

Each state would receive credit at prices fixed by Congress for all commodities accepted, after inspection, for the use of the United States. All accounts between the states and Congress relating to their quotas were to be kept and paid in Spanish milled dollars. Any supplies furnished by a state above its quota were to be paid for at the prices fixed by Congress with interest at 6 percent; any deficiencies were to be charged to a state at the same fixed prices and interest rate. To provide the troops with fresh beef, the states were to furnish part of their meat quota in cattle, as directed by the Commissary General of Purchases.

In the months since the system first had been adopted in December, some states had supplied the Continental Army with provisions at the request of Congress. The latter ordered that such supplies be credited against the total quota assigned to the state. Finally, Congress excused the states from paying into the treasury two-thirds of the monies that they had been called upon to raise monthly by taxes under the resolution of 6 October 1779.[8] Undoubtedly, it was with some relief that the members of Congress passed the vexatious problem of supply to the states, though not all were certain that the solution would prove satisfactory. "I must Confess," John Collins wrote Quartermaster General Greene, "it appears to me like takeing a leap in the dark—and Crouding the Ship through a Strait amongst Rock and Shores in a thick fog. We may Run the Ship a Shoar [or] she may poke through."[9]

The adoption of this new system of supply was one phase of the reform effort. Congress also had to find some way of stabilizing the currency and obtaining the means for supporting another campaign. Stopping the printing presses had not halted the depreciation of the currency, which by March 1780 had reached the rate of sixty Continental dollars for one in specie at Philadelphia.[10] On 18 March Congress adopted a measure that it hoped would bring order out of the financial chaos. The measure converted the 200 million dollars then in circulation into a real debt of 5 million dollars by providing that Continental bills would be accepted in payment of state quotas of taxes at a rate of forty for one and would be destroyed. To carry on the war, Congress proposed to issue new Continental currency, limited in quantity and secured against depreciation by specific funds provided by the states. The states thus would become the guarantors of a new federal currency. If any state, in consequence of the events of the war, became incapable of redeeming its proportion of the new bills, the latter were further secured by the fact that the United States guaranteed payment.[11] Congress hoped the act would get a quick and favorable response, but the states, in

8. Ibid., 16:196–201 (25 Feb 80).
9. Burnett, *Letters*, 5:52–53 (26 Feb 80).
10. Ibid., 5:83 (Conn. delegates to gov of Conn., 20 Mar 80).
11. *JCC*, 16:262–67 (18 Mar 80).

large measure, failed to fulfill their parts in the program, and the new bills depreciated as rapidly as the old.

Criticism of the System

After studying the resolution of 25 February, a number of supply officers concluded that the plan of depending upon the states for specific supplies would be a failure. Quartermaster General Nathanael Greene prepared a penetrating and thorough criticism of the inadequacies of the system.

> The measure seems to be calculated more for the convenience of each state than for the accommodation of the service. The aggregate quantity ordered, tho' far short of the demands of the army, is proportioned on the states in such a manner, that it would be difficult, if not impossible, to draw it into use: and this difficulty will increase as the scene of action may change, from one extreme of the Continent to another.[12]

Philip Schuyler shared Greene's views, and Washington confided to him that if some parts of the plan were literally adhered to, "ruin must follow."[13] On the basis of Greene's criticism, and guided by an estimate of the provisions and forage required for 30,000 men for a year, Washington cautioned Congress in March 1780 that the state quotas it had established were inadequate. Military operations, he also advised, might require his army to obtain large quantities of food and forage in a state after it had already furnished its quota, but Congress had made no provision for such emergencies. Nor had any provision been made for the sale of supplies stored in places now far from military activity and therefore likely to go to waste. The most serious defect of the system, he concluded, was the failure to provide for the transportation of the supplies to the troops.[14]

It was mid-July 1780 before Congress corrected that oversight by making the Quartermaster's Department responsible for the storage and transportation of all public property including the specific supplies furnished by the states.[15] Livestock, however, was a category apparently not included. To remedy this omission, Congress incorporated a provision in the act reorganizing the Commissary Department that states furnishing livestock—at such times and in such quantities as the Commissary General of Purchases or the deputy commissary directed—were to make deliveries to storekeepers in each state. These storekeepers, appointed by the deputy quartermasters, were to be subject to the orders of the Commissary General of Purchases, to whom they were to make monthly returns of receipts and deliveries of livestock. "Scandalous impositions" had been suffered in state supplies,

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12. Washington Papers, 132:32–34 (to Washington, n.d.).

13. (1) Fitzpatrick, *Writings of Washington*, 18:138 (22 Mar 80). (2) Burnett, *Letters*, 5:91 (Schuyler to Greene, 22 Mar 80).

14. Fitzpatrick, *Writings of Washington*, 18:152–57 (to Pres of Cong., 26 Mar 80).

15. *JCC*, 17:616 (15 Jul 80).

Quartermaster General Timothy Pickering warned his deputies in calling this provision to their attention, and he advised them that Congress had authorized the storekeepers to reject any livestock that was deficient in quality.[16] There was a serious flaw in this arrangement for handling livestock. Forage for the animals was not usually available at the places where storekeepers were located, nor did it follow that because they were able to handle merchandise and stores, the storekeepers would know how to estimate and forward cattle. Oliver Phelps, appointed by Massachusetts to superintend the purchase of beef in that state, protested that a regular supply of cattle could never be maintained under the provisions of this act.[17]

Indeed, the method of provisioning the Army kept meat supply fluctuating between shortages and overabundance. To meet military demands, each state had to provide a weekly or monthly proportion of supplies, but the Continental Army was dependent upon a daily supply of cattle. Any failure in delivery caused immediate distress. Appeals for relief were then sent out to the states. In some cases such appeals had the effect of bringing forward to camp so large an amount of supplies from the storekeepers that a temporary overabundance was produced, resulting in waste and loss. This problem particularly applied to cattle supply, for neither the commissary nor the quartermaster had the means of disposing of an oversupply immediately, or of supporting cattle in camp, where forage was practically nonexistent.[18] The new regulation did nothing to correct the basic weakness in the method of supplying the troops with cattle, and meat shortages continued.

Blaine, who had succeeded Jeremiah Wadsworth as Commissary General of Purchases, was exasperated by his inability to supply the Continental Army under the system of specific supplies. The existing quotas were inadequate, and by giving credit to the states for provisions furnished under the requisition of December 1779, the act in effect had relieved some of them from any further contributions in 1780. How, demanded Blaine in May, was an additional supply of flour to be obtained, since the flour supplied under the December requisition was nearly all consumed and none was coming into the magazines? Greene had spotted this defect much earlier, and Washington had pointed out that the law not only made no provision for purchase by the state agents of any supplies above the assigned quotas but also prohibited Continental supply officers from purchasing any.[19] Blaine informed the Board of War that although Pennsylvania's agents

16. (1) RG 93, Pickering Letters, 123:180–83 (circular to deputies, 16 Dec 80); 194–96 (to Donaldson Yeates, 23 Dec 80). (2) For losses sustained, see also RG 11, CC Papers, item 78, 4:129–32 (Blaine to Pres of Cong, 8 Mar 81).

17. Washington Papers, 172:113 (to Washington, 2 May 81).

18. Fitzpatrick, *Writings of Washington*, 21:184–85 (to Gov Trumbull, 4 Feb 81).

19. (1) Blaine Papers, Letter Book, 1780–83 (to Bd of War, 25 May 80). (2) Fitzpatrick, *Writings of Washington*, 18:152–57 (to Pres of Cong, 26 Mar 80).

had not yet begun their purchases, his deputies were unable to purchase for lack of money. He also warned that Delaware, its assigned quota already filled, had removed its embargo, and that private individuals were loading vessels with flour and were in an excellent position to engross all surplus flour in the region. He feared that corrective measures would be delayed until it was too late to avert suffering by the Continental Army because of lack of provisions.

Possible Allied Cooperation

Though Congress did not revise the act of 25 February at the time Blaine raised his objections, a committee that had been sent to camp, instructed primarily to reform abuses in the supply departments, attempted to further supply efforts.[20] The committee had scarcely settled down at camp when Lafayette arrived from France bringing news of a French naval and military force being sent to aid the American cause. This welcome news underscored the need for adopting immediate measures to promote effective cooperation. To draw forth the resources of the country in men and supplies, Washington, on 14 May 1780, earnestly advocated the appointment of a small committee that would have practically the full powers of Congress in these respects. Congress, however, was opposed to granting such powers and appointed no new committee. It did give additional, though somewhat vague powers, to the existing committee at camp.[21]

On 19 May Congress instructed the committee "to expedite the drawing forth the supplies" required by the resolution of 25 February 1780. If Washington, in some extraordinary emergency, needed more supplies than the assigned quotas, Congress authorized the committee to request the legislative or executive powers of any of the states from New Hampshire through Virginia to procure the additional supplies at the expense of the United States. If articles not provided for by the resolution of 25 February were needed, it authorized the committee to direct their procurement. In either case, action was to be taken only with the concurrence of the Commander in Chief. Restricted as these powers were, an unsuccessful effort was nevertheless made to limit their exercise to sixty days.[22]

At the same time, Congress took two other steps. It adopted a resolution calling on the states to collect and pay into the Continental Treasury within thirty days 10 million dollars, according to specified proportions, which would be applied "solely to the bringing the army into the field, and

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20. The committee consisted of Philip Schuyler, John Mathews, and Nathaniel Peabody.

21. (1) George Washington, *The Writings of Washington*, ed. Worthington C. Ford, 14 vols. (New York, 1889–92), 8:264 (to James Duane, 14 May 80). (2) Fitzpatrick, *Writings of Washington*, 18:365–68 (to Joseph Jones, same date). (3) Burnett, *Letters*, 5:170 (Duane to Schuyler, 26 May 80).

22. *JCC*, 17:438–39 (19 May 80).

forwarding their supplies." Since little or no response had been given to earlier requests for money, it was doubtful, however, whether this latest one would be honored. Congress also asked each state legislature to invest its executive authority with power to draw forth the resources of the state on the application of the committee. Congress had to rely on the states, for it had no resources of its own. The powers of the committee would be inadequate "to the purposes of [its] Appointment," the President of Congress warned, "unless they shall derive their force from the States" to whom the committee would have to make application. "You know the Value of the prize for which you contend," he added.[23] There was some doubt among Continental Army officers and even in the committee itself that its powers were adequate to the emergency, but it promptly took such action as it could. Two days after it learned of its new powers, the committee addressed a spirited appeal to the states, urging compliance with the February requisitions. It also called upon the states to adopt measures for having the supplies transported to Washington's army.[24]

The troops, meanwhile, were "pinched for Provisions." They were "reduced to the very verge of famine," wrote Surgeon James Thacher. For days they had been entirely without meat and, at best, on half or quarter allowance of rations. Their patience was exhausted; mutiny had broken out and threatened to spread.[25] Blaine, who had not had a shilling for two months, was then in Philadelphia, adopting every means to procure supplies. He succeeded in borrowing 200 barrels of beef and pork from merchants there, and he informed Washington that he hoped to obtain more in Lancaster County. After including in his estimate what Deputy Robert Forsyth could spare from Virginia, he promised the Commander in Chief 1,000 barrels.[26] More immediately, however, to Lafayette the army seemed to be in an appalling state when he returned to Morristown from Philadelphia at the end of May. It was "an army that is reduced to nothing, that wants provisions, that has not one of the necessary means to make war," he wrote President Joseph Reed of Pennsylvania, urging him to lend his aid. Washington, too, appealed to Pennsylvania. "All our departments, all our operations are at a stand, and unless a system very different from that which has for a long time prevailed, be immediately adopted throughout the states our affairs must soon become desperate beyond the possibility of recovery."[27]

Washington approved of the committee's initial appeal to the states,

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23. Burnett, *Letters*, 5:155–56 (to several states, 19 May 80).
24. Ibid., 5:164–69 (committee to several states, 25 May 80).
25. (1) Thacher, *Military Journal of the American Revolutionary War*, p. 198. (2) Fitzpatrick, *Writings of Washington*, 18:413 (to Maj Gen Robert Howe, 25 May 80); 427–28 (to Bd of War, 27 May 80).
26. Washington Papers, 136:93 (27 May 80).
27. (1) Reed, *Life and Correspondence of Joseph Reed*, 2:207 (31 May 80). (2) Fitzpatrick, *Writings of Washington*, 18:434 (to Reed, 28 May 80).

but if the preparations for allied cooperation were to be successful, general statements would have to give way to specific demands. He needed to know exactly the number of men, the amounts of provisions and forage, and the means of transportation that the states could furnish at specific times, and whether they could continue to deliver these monthly quotas regularly throughout the campaign. He therefore had an estimate prepared of the supplies needed for an army of 40,000 men for one month, and he apportioned the requisitions among the states. The committee dispatched a circular to the states on 2 June apportioning the new and larger quotas and explaining the necessity for them. Washington also sent out a circular to the states and Congress added its appeal.[28] As June passed and as the expected arrival of the French forces drew closer, appeal followed appeal, but no response came from the states that would permit Washington to formulate a plan of action

It was at this time that Elbridge Gerry offered a plan for obtaining an immediate supply of money, thereby relieving the supply crisis that had resulted from the exhausted state of the Treasury. At the suggestion of the Committee at Headquarters, with whom he had consulted on his way to Massachusetts early in June, Gerry wrote Robert Morris to enlist his support for his proposal. Since taxes were too slow and loans inadequate, the only way to get money was from "the vigorous exertions of the Citizens" of the United States. He proposed an association of merchants to induce the inhabitants of the country to exchange their old Continental bills of credit for new bills at the rate established by Congress in its resolution of 18 March. The Treasury would thereby be supplied with funds through the issue of new bills, and Washington in consequence would be furnished with the supplies necessary for cooperating with the French forces. The weight of Morris' influence, Gerry wrote, would ensure success for the proposal.[29]

This letter led to an effort by a number of Philadelphia merchants that brought at least temporary relief to the starved Continental forces. On 17 June 1780 they sent 500 barrels of flour to camp to relieve the immediate wants of Washington's army while they perfected their plan. They proposed to subscribe a fund of 300,000 pounds in hard money to be used to procure and transport to the army 3 million rations and 300 hogsheads of rum, which would be enough to feed an army of 40,000 for two months. To carry out their plan, the associators established a bank. Congress in turn pledged the faith of the United States for the support of the bank and for the security and indemnification of the subscribers. It agreed to deposit bills of exchange

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28. (1) Ibid., 18:455–59 (to Committee of Cooperation, 31 May 80); 468–70 (circular to states, 2 Jun 80). (2) Burnett, *Letters*, 5:183–89 (Committee at Hq to states, 2 Jun 80). (3) *JCC*, 17:515 (15 Jun 80).

29. Burnett, *Letters*, 5:205–06 (Gerry to Morris, 11 Jun 80); 207 (Committee at Hq to Gerry, 11 Jun 80).

on Europe to the amount of 150,000 pounds sterling; these were not to be used, however, unless other means of discharging the debt to the merchants proved inadequate.[30] As a result of the efforts of the Philadelphia merchants, provisions began to move to the army. At the same time, it was hoped that a continuous supply would soon result from procurement by the states under the system of specific supplies.

On 14 July 1780 Washington received news of the arrival of the French fleet at Newport four days earlier. Though the strength of Rochambeau's army was not yet known, all efforts were now directed to completing the preparations for the projected joint attack on New York. Reports began to come in from some of the states on the supplies they expected to send and the preparations they were making.[31] Prospects appeared more promising than they had for many weeks, but the improvement was more apparent than real. Commissary General Blaine continued to be uneasy about future supply.[32] He complained that the contractors purchasing supplies in the states to fill the assigned quotas were not subject to his orders. If they were delinquent in their deliveries—and he had reason to fear they would be—he had no way of bringing them to account. The main army's magazines were nearly exhausted of all kinds of provisions, and efforts to restock them, he warned, would undoubtedly be impeded by the purchasing activities of the French.

In June 1780, before the arrival of the French forces, Congress had agreed that they would be provisioned by their own commissaries under the direction of M. Louis de Corny. It had furnished the latter with letters of introduction to the executive powers of the several states to expedite his efforts to establish magazines for the troops soon to arrive. It had granted him permission to purchase wherever it was most convenient, though Congress had suggested that it would be desirable, in order to avoid competition, for the French commissaries to use the currency of the United States in making purchases. But since Congress had qualified this suggestion by the phrase "as far as may be," Blaine interpreted the procurement authorization to mean that if Continental currency did not serve de Corny's purpose, he could use another form of payment, "which of Course will be hard money." Blaine advised Washington that his assistants consequently would be unable to obtain "a single Article until the French purchases were completed."[33]

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30. (1) Ibid., 5:224 (Schuyler to Washington, 18 Jun 80); 235 (James Madison to Thomas Jefferson, 23 Jun 80); 280 (Pres of Cong to eastern states, 21 Jul 80). (2) *JCC*, 17:549–50 (22 Jun 80).

31. (1) Washington Papers, 141:48 (Trumbull to Washington, 10 Jul 80); 139 (Meshech Weare to Washington, 15 Jul 80). (2) Burnett, *Letters*, 5:271–73 (Committee at Hq to Pres of Cong, 18 Jul 80).

32. Washington Papers, 142:74 (to Washington, 19 Jul 80).

33. (1) Ibid. (2) *JCC*, 17:489 (5 Jun 80).

As days passed, Blaine found nothing to improve the supply picture. Early in August the main army's most important magazine, at Trenton, was empty. There was no more than eight days' supply of flour in the neighborhood of the army, and Blaine had received no bullocks from Connecticut in four weeks. He begged the committee at camp "to press the States to comply with your requisitions." Washington, unable to concert any plans when he had little hope of obtaining the supplies to prosecute a campaign, denounced the system of specific supplies as "the most uncertain, expensive, and injurious, that could be devised."[34]

Once again the troops were without meat. To keep them from starving, Washington moved his camp on 23 August to the vicinity of Fort Lee, "with a view of attempting some relief from a forage." Coupled with the extreme distress of his army from lack of provisions, news arrived that the expected second division of the French fleet was blockaded at Brest by British squadrons and would not arrive before October. The likelihood of any military action became so remote that economy dictated dismissal of the idle militia to reduce the drain on what little provisions could be accumulated for the army.[35]

Breakdown of the Specific Supplies System

Early in September 1780 Blaine was again in Philadelphia, laying Washington's requirements before Congress. It had no other solution then to assign new quotas for immediate needs and to continue relying on the system of specific supplies for drawing forth provisions for 1781 despite the inadequacy of the states' response to requisitions in 1780. When Congress assigned the new quotas for 1781 early in November, Blaine commented, "It looks well upon paper, and I pray God it may be half executed." But some six months later he could only advise the Board of War that the responses to these requisitions "do not furnish your Magazine with Eight weeks supplies for your Army."[36]

Despite the most urgent appeals to the states to forward their quotas, they failed in many cases to furnish supplies. In November 1780, for example, the Delaware Assembly adjourned till some time in January without providing the supplies required by the requisitions of 1780. On the other hand, when states did fill their quotas, the supplies at times failed to reach Washington's army because of faulty supervision and organization. Mary-

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34. (1) RG 11, CC Papers, item 155, 1:337 (Blaine to committee, 7 Aug 80). (2) Burnett, *Letters*, 5:317 (John Mathews to Pres of Cong, 8 Aug 80). (3) Fitzpatrick, *Writings of Washington*, 19:403 (to Pres of Cong, 20 Aug 80).

35. Ibid., 19:437, 462–63 (to Pres of Cong, 24 and 28 Aug 80).

36. (1) See *JCC*, 18:825–27, 828–29, 843–49, 905, 907, 970–71 (14, 15, 21, and 22 Sep 80; 5, 6, and 24 Oct 80). See also pp. 1011–18 (3 Nov 80). (2) Blaine Papers, Letter Book, 1780–83 (to Washington, 10 Nov 80; to Bd of War, 24 May 81).

land, for example, in response to a congressional request of 21 September for 500 head of cattle, procured as many as it could and sent them to Head of Elk, designated by Washington as the deposit point. The Continental officers stationed there, however, refused to receive or forward them to the army. They alleged that they had no money and protested that, in any case, the cattle were not their responsibility. As a result, some of the cattle had to be sold to buy feed for the remainder while the problem was referred for decision to the Board of War. On another occasion President Reed of Pennsylvania complained about the lack of people to receive flour sent to designated deposit points. "The System," he informed Washington, "necessarily implies a Receiver different from the purchaser, the latter delivering on account of the State and the other receiving in behalf of the Continent."[37]

An even worse problem was the lack of storage facilities. Flour was wasted because it was left exposed to the weather. A Treasury commissioner traveling from Philadelphia to New York was shocked at the negligence he found at several of the posts where magazines were established. At the very time that the main army was in great need of flour, he found large quantities of it wet, moldy, musty, rotten, and generally unfit for use because no care had been taken to store it properly. Barrels of flour were tumbled about indiscriminately, "heads out, hoops off, the casks open, and flour wasting."[38] After ten months of operating under the system of specific supplies, Washington on 26 December 1780 declared that only necessity could justify that method of obtaining supplies, for it was the most expensive and precarious of systems.[39]

The troops settled into winter quarters from West Point to Morristown, with the principal part of Washington's army located in the vicinity of West Point. It had been anticipated that a large flour magazine could be established on the Hudson River from grain supplied by New York, but enemy raids had destroyed the crops on the state's western frontier. Supplies from other states remained uncertain. The only recourse was impressment.[40]

A familiar pattern of scanty rations, inadequate clothing and shelter, and no pay was repeating itself. The patience of the troops became exhausted, and the dire consequences that Washington and Blaine had repeatedly warned Congress about began to materialize. Added to the soldiers' distress were grievances involving different interpretations of the period of their enlistment. The troops claimed their three-year enlistments had expired, and they demanded immediate discharge with payment of the back pay due

37. (1) Ibid. (to Pres of Cong, 12 Nov 80). (2) Burnett, *Letters*, 5:477 (Md. delegates to gov of Md., 5 Dec 80). (3) Washington Papers, 144:94 (Reed to Washington, 3 Aug 80).

38. Ibid., 155:71 (William Denning to Washington, 24 Oct 80).

39. Fitzpatrick, *Writings of Washington*, 21:14–15 (to James Duane, 26 Dec 80).

40. Ibid., 20:312–13 (to Pres of Cong, 7 Nov 80); 411–12 (to Udny Hay, 27 Nov 80); 413–14 (to Gov Clinton, same date); 21:1 (to Pres of Cong, 22 Dec 80).

them. In these circumstances the troops of the Pennsylvania line, encamped near Morristown, mutinied on 1 January 1781. Their example was followed later in the month by three New Jersey regiments at Pompton, New Jersey. "It is in vain to think an Army can be kept together much longer, under such a variety of sufferings as ours has experienced," wrote Washington in an appeal to the New England states.[41]

It was but the repetition of an old refrain when Blaine early in 1781 advised Congress that he feared that the states would not "come up to their expectations" and that many would fall exceedingly short of their quotas. The troops were on a scant allowance of bread, and there was no fresh meat. The men were being subsisted, Blaine reported, on the little corned and salted beef that he had managed to accumulate for the spring campaign. "If our situation is such in the most plentiful season of the year, and when our Magazines ought to be filled with salt provisions," he wrote, "judge what it must be next Campaign when three times the number of men are in the Field." The best Congress could do was send copies of his letter to the states and urge them to "use every possible Exertion" in filling their quotas.[42]

By April the Commissary General's magazines of salted meat were exhausted. Troops stationed at posts in the Highlands and on the northern frontier were in dire need. As early as 6 February 1781 there had been only 14 days' supply of beef at Fort Schuyler, New York, for 300 men. Troops at Albany and Schenectady had to be billeted on the inhabitants for lack of meat.[43] There were stores of salted meat at distant magazines, but the Quartermaster General was unable to provide transportation. Flour deposited at Ringwood, New Jersey, was unavailable to the troops for the same reason. When repeated requests to civil authorities for impress warrants failed to produce transportation, Washington turned to military impress to obtain the needed wagons. His appeals to the states for salt provisions, cattle, and flour went unheeded, and the situation grew worse during the spring.[44]

In these circumstances Washington early in May 1781 determined to make one more great effort to obtain relief. He dispatched Maj. Gen. William Heath to New England to use his influence to persuade the states to take action. He instructed Heath to make a personal appeal to the executives and the assemblies for cattle and for transportation to move all salted provisions in western Connecticut and Massachusetts to relieve the immediate needs of the main Continental army and those troops stationed at posts along the

41. Ibid., 21:61 (circular, 5 Jan 81).

42. (1) RG 11, CC Papers, item 165, 1:389 (Blaine to Pres of Cong, 19 Jan 81). (2) Burnett, *Letters*, 5:545 (Pres of Cong to states, 27 Jan 81).

43. Fitzpatrick, *Writings of Washington*, 21:259 (to Blaine, 20 Feb 81).

44. Ibid., 21:442–43 (to Gov Trumbull, 10 Apr 81); 450–51 (to Heath, 12 Apr 81); 486–87 (to Nathaniel Stevens, issuing commissary, 21 Apr 81); 22:293 (to Brig Gen James Clinton, 4 May 81).

northern frontier. Heath was also to try to induce these states to establish a regular, systematic, and effectual plan for feeding the main army throughout the coming campaign.[45] By 14 May Heath was at Hartford, where he persuaded Governor Jonathan Trumbull of Connecticut to direct Henry Champion to buy and forward 160 head of cattle for the immediate relief of the troops. A month later he reported to Washington that all the New England states were disposed "to afford every aid and support" to Washington. Specifically, Massachusetts had promised 7,000 rations of fresh beef per day for the month of July and the remainder of the campaign. To ensure this amount, the state had passed a resolution requiring the towns to collect 317,000 pounds of "live beef" each month. After deducting for hides, tallow, and waste in driving the cattle to camp, General Heath anticipated that this quantity would yield the required 7,000 pounds per day. The other New England states were equally cooperative. The supply of cattle was plentiful; the difficulty the states encountered was in finding the means to purchase them. The main army also required 120 hogsheads of rum per month from the New England states, but General Heath had not been assured of that quantity when he returned to camp. When the Yorktown campaign got under way later in the summer of 1781, the New England states continued to forward cattle until Washington directed otherwise.[46]

Meanwhile, Blaine, at the Board of War's order, was journeying through Maryland and Delaware. He found that the supplies procured for the troops were "very trifling." He gave Washington a full report of his findings and advised Deputy Commissary General Robert Forsyth in the Southern Department that he could not depend on Maryland for beef. Once again, on 24 May, he warned the Board of War that state agents never furnished supplies equal to daily demands, and that the states' failure to submit returns made it impossible for him to give the board an accurate account of supplies received.[47]

For two years the main army had been compelled to lie idle in the Highlands of the Hudson because of insufficient supplies and inadequate strength. Now the news arrived that Admiral de Grasse was on his way to the West Indies with a large fleet and would cooperate with Rochambeau's army at Newport and the Continental forces. After initial plans for moving against the British at New York became infeasible, planning began for the joint effort against Cornwallis in Virginia. Tremendous efforts would have to be made to support the proposed campaign. No supply department, however, was in readiness to do so.[48]

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45. Ibid., 22:58–59 (to Heath, 8 and 9 May 81).

46. For correspondence covering the details of Heath's mission, see "Heath Papers," Massachusetts Historical Society *Collections*, 7th ser., 5 (1905): 196–225.

47. (1) Washington Papers, 174:37 (Blaine to Washington, 14 May 81). (2) Blaine Papers, Letter Book, 1780–83 (to Forsyth, 14 May 81; to Bd of War, 24 May 81).

48. Fitzpatrick, *The Diaries of Washington*, 2:207–08.

Limited Application of the Contract System

Shortly after Washington initiated his own measures to bring beef to the main army, Congress took steps to relieve the bread shortage. A committee of Congress, armed with a letter from Washington describing the distress caused by the lack of bread, called on Robert Morris, who had been appointed Superintendent of Finance.[49] It also brought a proposed congressional resolution authorizing the Commander in Chief to seize flour wherever it could be found. Though Morris had not yet entered upon the duties of his office, he knew that he would be confronted with an empty treasury and exhausted public credit. He therefore was not prepared to take official action, but he was willing to pledge his private credit to procure supplies quickly. Late in May he called upon two men of resources—Thomas Lowrey in New Jersey and Philip Schuyler in New York—to purchase 1,000 barrels of flour each at the lowest possible price and to forward the flour to camp as they obtained it rather than to delay shipment until all of it had been procured. Morris pledged his own funds to reimburse Lowrey and Schuyler in hard money for the cost and charges involved in this transaction.

At the same time, lest the states relax their efforts to procure specific supplies in consequence of his activity, Morris urged the committee to keep this action secret. Within less than a month both men had procured the flour ordered, and Morris requested Lowrey to purchase another 1,000 barrels.[50] Subsequently, Pennsylvania, on 26 June, empowered Morris to procure its share of specific supplies and to pay Congress the balance of the taxes due from the state. For these purposes it assigned to him the entire emission of state paper printed under an act of 7 April 1781, and the Superintendent of Finance credited the state with the flour supplied by Lowrey and Schuyler.[51]

Morris soon found himself thoroughly involved in the task of supplying food for the campaign of 1781 despite the fact that when he had accepted the office of Superintendent of Finance, he had expressly stipulated that he assumed no responsibility for provisioning the troops. Throughout the Yorktown campaign he continued to insist that specific supplies would have to provide the food for the army.[52] But Washington looked to him for aid, and most of the members of Congress expected the Superintendent of Finance

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49. Robert Morris was unanimously elected as Superintendent of Finance on 20 February 1781; he accepted the office on 14 May but did not take the oath of office and officially assume his duties until 27 June. Congress passed a resolution on 6 July 1781 validating his transactions before he took the oath of office. *JCC*, 19:180; 20:499, 723–24.

50. (1) Morris Diary, 1:3 (28 May 81). (2) Morris Letter Book A, fols. 14–18 (to Lowrey, Schuyler, Washington, and committee, 29 May 81). (3) Fitzpatrick, *Writings of Washington*, 22:226 (to Cuyler, 16 Jun 81); 255 (Lowrey to Washington, 23 Jun 81).

51. (1) Washington Papers, 179:16 (Morris to Washington, 5 Jul 81). (2) Morris Diary, 1:8 (26 Jun 81).

52. Morris Letter Book B, fols. 40–42 (to Gen Heath, 16 Oct 81).



ROBERT MORRIS

to perform a miracle that would bring order into the chaotic finances of the country and solve once and for all the burdensome problem of supply. The Commander in Chief, however, did not allow his hopes to soar immoderately, for even Morris, "by Art magick," could do no more than extricate the country "by degrees, from the labyrinth into which our finance is plunged."[53]

Morris believed that it was the duty of the Superintendent of Finance not only to collect revenue by methods that affected all the people equally and produced returns easily, but also to expend that revenue in the most frugal, fair, and honest manner possible.[54] Application of these concepts inevitably led him into the field of supply. Like Washington, he found the system of specific supplies inordinately extravagant and wasteful. Frequently when the army had been desperately in want of supplies, barrels of salted meat and of flour deposited at various places in the states had gone to waste because transporting them to where they were needed was too costly. He concluded that it therefore would be in the best interests of the country to modify the system and return to a cash basis. At his request Congress authorized him to dispose of specific supplies furnished by the states in any manner that he, with the advice of the Commander in Chief, judged best.[55]

Morris proposed to sell the provisions deposited at distant locations and to use the money so obtained to contract for supplies nearer to the troops. He had confidence that private contracts would afford the best means of

53. Fitzpatrick, *Writings of Washington*, 22:177 (to John Mathews, 7 Jun 81); 159 (to Morris, 4 Jun 81).

54. Morris Letter Book A, fols. 82–87 (to Thomas Burke, William Churchill Houston, and Oliver Wolcott, n.d.).

55. *JCC*, 20:597–98 (4 Jun 81).

husbanding the country's resources. In all countries engaged in war, he later wrote Oliver Phelps, a beef contractor, "experience has sooner or later pointed out contracts with private men of substance and talents equal to the understanding as the cheapest, most certain, and consequently the best mode of obtaining those articles, which are necessary for the subsistence, covering, clothing, and moving of an army."[56] Washington was in full accord with this proposal to sell specific supplies at distant deposit points and contract for provisions available nearer to the army. He cautioned the Superintendent of Finance, however, not to expect to find large quantities of provisions that could be sold. The amount of specific supplies actually provided by the states and deposited in magazines was comparatively small. If the states, however, would pay Morris the balance due on their quotas of specific supplies, there would undoubtedly "be a vast saving by . . . expending the Money in the way of Contract."[57]

Contractual Authority

The idea of contracting for supplies had been under consideration by Congress for some months. A committee appointed to devise further ways and means for defraying the expenses of the campaign of 1781 had recommended contracting for rations on 14 May. In consequence, Congress directed the Board of War to estimate the rations necessary for both the main Continental army and the Southern Army. The rations were to be supplied at a stipulated price in gold and silver by contract for the six-month period from 1 July 1781 to 1 January 1782. The contractors, Congress instructed the board, were to have the option to receive the specific supplies furnished by the states, at such prices as were agreed upon, in part payment under the contracts.[58]

The Board of War consulted Blaine about the components of the ration and computed its estimate of rations required for the main army and the Southern Army on the supposition that the states would complete their quotas of troops in accord with the establishment of 3 October 1780.[59] Washington approved the method used in computing the estimate but drew attention to the omission of vinegar from the ration. On the theory that his troops would be employed for the next six months in the Highlands, he directed that all provisions, except those he designated for Fort Pitt and the posts in Pennsylvania and New England, be sent to the Hudson River area.

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56. Jared Sparks, ed., *Diplomatic Correspondence of the American Revolution*, 12 vols. (Boston, 1829–30), 12:127 (Morris to Phelps, 30 Mar 82).

57. (1) Washington Papers, 179:16 (Morris to Washington, 5 Jul 81). (2) Fitzpatrick, *Writings of Washington*, 22:365–67, 449 (to Morris, 13 Jul and 2 Aug 81).

58. *JCC*, 20:501, 526 (14 and 22 May 81).

59. (1) Blaine Papers, Letter Book, 1780–83 (to Bd of War, 24 May 81). (2) Washington Papers, 176:64 (Bd of War to Pres of Cong, 7 Jun 81).

Drawing on the experience of the Commissary General of Issues, Washington also suggested several additional clauses for inclusion in the contract to prevent impositions on the government. He suggested that the quality of the rum ought to be specified. Fresh meat ought to be accepted at the weight when killed, for the government was sustaining a great loss by taking live cattle at estimated weights from the states. To avoid all disputes as to weight, measure, or quality, the contractor ought to have an agent with the main army and at the several posts to take proper receipts from the commissary. Washington also raised the question of appointing an inspector of provisions to prevent disputes. He urged that the contract ought to stipulate clearly that the government was to have all hides and tallow from the animals that were delivered, for these materials were needed to make shoes and soap for the troops. Finally, Washington pointed out the desirability of entering into contracts for 1782 as early as possible in order to enable the contractors to take adequate measures for storing salted provisions in magazines for use during the coming winter and spring. He directed the board to apply to General Greene, commanding the Southern Army, for advice on supplying that army.[60]

The Board of War sent these suggestions to Congress. Several weeks earlier it had pointed out that Congress had not designated who had authority to make these contracts. The board had assumed, however, that they would be made by the executive officers of the several military departments under the direction of the Superintendent of Finance, since the regulations of his department called for him "to direct and control all persons employed in procuring supplies for the public service and in the expenditure of public money." At his request, the board prepared a contract form for supplying rations, and Congress, in July 1781, specifically vested in Morris the power to contract for all supplies needed by the Continental Army as well as for their transportation.[61]

Though Congress granted Morris the power to make contracts, he was dependent for the use of that power on the revenues provided by the states. Morris was convinced that supplying by contract was the most effective and economical method of provisioning the troops, but there was no money in the treasury, and credit was at so low an ebb that most people doubted whether anyone would sign a contract. In 1781 Pennsylvania was the only state to give Morris money out of which to provide its specific supplies, and consequently the only contracts he made for that year were confined to that state. Out of the funds provided, however, he not only defrayed the cost of those contracts but also furnished flour to the troops on the Hudson and in Virginia.[62]

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60. Fitzpatrick, *Writings of Washington,* 22:244–48 (21 Jun 81).

61. (1) Washington Papers, 176:64 (Bd of War to Cong, 7 Jun 81); 178:4 (same to same, 26 Jun 81). (2) *JCC,* 20:734 (10 Jul 81).

62. Morris Letter Book B, fol. 245 (to Greene, 19 Dec 81).

The Yorktown Campaign

At the direction of Congress, Robert Morris and Richard Peters of the Board of War departed for headquarters on 7 August 1781 to consult with Washington.[63] By that time the French and Americans had agreed that they could not attack the British positions in New York. Washington was considering the alternative plan of moving south to help Lafayette in Virginia, but he was harassed by the problem of how to obtain food, forage, and wagons for such a long journey without money to pay for them. In the midst of these perplexities, Morris arrived to confer about the size of the Continental Army for 1782 and the measures that might be taken to reduce expenses.[64] Ironically, Washington was then having difficulty assembling the troops that had been authorized for the 1781 campaign.

Morris had been in correspondence with the French about the bad effects on supply of competition between French and American purchasers. At camp he had the opportunity to confer with Rochambeau and proposed contracting for the supplies of the French forces on the same terms as for the Continental Army. Rochambeau, however, was well satisfied with the services of Wadsworth and Carter, the contractors supplying the French army, and he was reluctant to alter his arrangements. In the end Morris decided that it would be best to postpone making any changes until after the campaign.[65]

While Morris was at camp the long-awaited news was received on 14 August that Admiral de Grasse and his fleet of some 25 to 29 vessels, carrying 3,000 troops, had set sail from the West Indies on 13 August for the Chesapeake Bay, where the fleet would remain until 15 October. That date allowed Washington two months and a day to move his forces southward 450 miles and defeat Cornwallis. He lost no time in completing arrangements; five days after the message arrived, the troops were moving. Leaving about half of his army—some seventeen thin battalions of New England troops—in the Highlands under the command of General Heath, Washington took about 2,500 American troops and all the French forces to Virginia.

Morris promptly initiated measures to provide for the troops left in the Highlands. He directed Thomas Lowrey, who had come to camp, to purchase more flour, which would bring the whole amount credited to the account of Pennsylvania to 4,000 barrels. He next applied to Udny Hay, then state agent for New York, for the delivery of the specific supplies due from that state. Hay declared that he had enough wheat and flour available to fill 3,000 barrels but that he lacked the necessary casks. To remedy this deficiency, Morris ordered the Commissary General of Issues to collect all the

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63. (1) *JCC*, 21:791, 817 (26 and 31 Jul 81). (2) Sparks, *Diplomatic Correspondence of the American Revolution*, 11:426–30 (Morris and Peters to Washington, 13 Aug 81).

64. Morris Diary, 1:35–39 (21 Aug 81, minutes of conference).

65. (1) Morris Letter Book A, fols. 79–81 (to Minister of France, 2 Aug 81). (2) Morris Diary, 1:35–39, 47, 49–51 (21 and 29 Aug, and 1–5 Sep 81).

old flour barrels from the posts along the Hudson River and deliver them to Hay. Before he left camp, Morris also proposed that Rochambeau turn over to Heath's forces all flour not needed when the French encampment broke up. He guaranteed delivery of a like quantity when the French forces reached their destination.[66]

Morris undoubtedly thought that the troops under General Heath would be well supplied, but in less than two months he was called upon to relieve their distress. French competition had caused prices to soar. Lowrey had been buying flour at 15 shillings per hundredweight, but when buyers for the French army gave 21 shillings, he informed Morris, he was forced to halt his purchases in New Jersey.[67] Hay failed to deliver the flour that he had assured Morris was available, while the amount released by Rochambeau was less than what had been expected. General Heath soon was reporting that his troops lacked flour. To relieve their immediate distress, Morris directed William Duer to purchase 2,000 barrels of flour. About 500 barrels were to be delivered at once to Heath, but the remaining barrels were to be held as a supply for the garrison at West Point during the winter. General Heath, Morris insisted, would have to apply to New York for additional supplies; 5,800 barrels of flour were due in specific supplies from that state.[68]

After completing his initial arrangements for supplying General Heath's troops, Morris had left headquarters for Philadelphia, where he concentrated on preparations for the campaign against Cornwallis. Washington had requested him to establish a magazine of 300 barrels of flour, 300 barrels of salted meat, and 10 hogsheads of rum at Head of Elk for the use of the troops on their passage southward. On 24 August the Superintendent of Finance directed Commissary General Blaine to obtain the needed supplies by calling on Maryland and Delaware for their specific supplies. At the same time, Morris made an agreement with Levi Hollingsworth, a Philadelphia merchant, for the delivery of 300 barrels of flour at Elk, but if Blaine was successful in his efforts, Hollingsworth was not "to suffer this Purchase to be made." Within a week Blaine reported that the magazine had been established. To further provide for the troops en route, Morris appealed to the governors of Maryland, Virginia, New Jersey, and Delaware to deliver the specific supplies due from them. "I hope, entreat, expect the utmost possible Efforts," he wrote.[69]

In the meantime, Washington also was supervising supply. He had made arrangements to have salted provisions sent to the southern area. He di-

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66. (1) Ibid., 1:35–39 (21 Aug 81). (2) Morris Letter Book A, fol. 377 (to Heath, 17 Sep 81).

67. Morris Diary, 1:47 (29 Aug 81).

68. Morris Letter Book B, fols. 40–42 (to Heath, 16 Oct 81); 215–17 (to Hay, 6 Dec 81).

69. Morris Diary, 1:41–43 (23 and 24 Aug 81). (2) Morris Letter Book A, fol. 324 (to Blaine 24 Aug 81); 267–68 (to gov of Md., 21 Aug 81); 268–69 (to govs of N.J. and Del., 22 Aug 81); 273–74 (to gov of Va., 23 Aug 81).

rected the Commissary General of Issues to determine what quantities were then available on or near the Connecticut River. Once he received this information, he requested the aid of the governor of Connecticut in assisting the Quartermaster's Department to ship 1,000 barrels of salted provisions from that area to Newport. With the addition of the salted provisions and thirty hogsheads of rum stored at Providence, the whole was to be shipped from Rhode Island in convoy with the French squadron under Admiral Louis, Comte de Barras, who was about to sail from Newport to join de Grasse.[70] Fearful later that his order had been delayed and that the provisions had not arrived in time to sail with Barras, Washington appealed to the governor of Maryland to supply such provisions. He also requested the Superintendent of Finance to see whether he could obtain the same amounts of salted provisions and rum either in Philadelphia or in Maryland.[71]

Well aware that the southern states would not be able to supply the meat necessary for the troops converging on Virginia, Washington also made arrangements for a supply of fresh meat. He directed Heath to forward, from the monthly supply of cattle furnished him by the eastern states, 100 head per week for the use of the American detachment in Virginia. Blaine's department was responsible for forwarding the cattle, but he had no money for employing drovers. Morris therefore appealed to the governor of New York to advance the necessary funds, the money to be credited to that state's account. Lack of money also prevented Blaine from paying for the pasturage of the cattle as the herds moved south. In consequence, Morris requested the governor of New Jersey to assist the Commissary Department by granting it warrants to impress pasturage.[72] By such means was a supply of beef ensured for Washington's troops.

As the French forces moved southward, Morris had to honor his agreement with Rochambeau. He directed Blaine to deliver 1,200 barrels of flour to whatever places he and the French agent agreed upon. He urged Blaine to obtain the flour from the quotas of Maryland and Virginia, for the "state of our finances" would not permit any expenditures. The demands being made upon the harassed Superintendent of Finance were so numerous that he confided to his diary that "it seems as if every Person connected with Public Service entertain [*sic*] an Opinion that I am full of Money." If Blaine could not make delivery, Morris ordered, he was to enlist the services of Mathew Ridley, a Baltimore merchant with whom Morris already had an agreement for the delivery of 3,000 barrels of flour for the use of the French fleet.[73]

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70. Fitzpatrick, *Writings of Washington*, 22:487 (to Charles Stewart, 8 Aug 81); 23:1 (to Barras, 16 Aug 81); 1–2 (to Dep Gov Jabez Bowen, 16 Aug 81); 3 (to Gov Trumbull, 16 Aug 81).

71. Ibid., 23:51–52 (to Morris, 27 Aug 81); 57–58 (to Gov Thomas Sim Lee, 27 Aug 81).

72. (1) Ibid., 23:86–87 (to Heath, 4 Sep 81). (2) Morris Letter Book A, fol. 337 (to gov of N.Y., 6 Sep 81); 339 (to gov of N.J., 6 Sep 81).

73. (1) Ibid., fol. 389 (to Monsieur Daure, 19 Sep 81); 395 (to Blaine, 20 Sep 81); 281–83 (to Ridley, 27 Aug 81); 318–19 (to John Holker, 29 Aug 81). (2) Morris Letter Book B, fols. 32–33 (to Ridley and Pringle, 9 Oct 81). (3) Morris Diary, vol. 1 (10 Sep 81).

By 6 September the American troops reached Head of Elk. Blaine, unable to accompany the army when it left Philadelphia, sent his deputy, George Morton. Blaine directed him to call upon the Maryland and Virginia state agents for provisions whenever necessary. In the event the army left Elk before Blaine arrived, Morton was to apply to headquarters for the line of march in Virginia and see that sufficient supplies were deposited at the different magazines along the line of communications.[74]

Despite the efforts being made to collect and forward provisions as rapidly as possible, the troops arriving in the Williamsburg area were going without bread. Supply was on "too precarious a footing," Washington wrote the President of Congress. He urged the governor of Maryland to send such supplies as could be shipped quickly down Chesapeake Bay. He directed Col. James Hendricks, quartermaster at Alexandria, Virginia, to procure and load with flour all the craft that he could obtain and send them to the James River. The bay, he informed him, was now well protected by the French fleet. Hendricks was to send similar word to the quartermaster at Georgetown.[75]

Some of the difficulties in procuring provisions stemmed from the lack of a general plan to be followed by French and American agents. As long as Wadsworth and Carter had cash to pay for supplies for the French army, Hendricks wrote, "that infatuating metal" would give them an advantage that no promise or threat from a Continental purchasing agent would be able to overcome. Farmers would not thresh their grain nor carry it to the mills unless they could obtain something of value in exchange. He had no great expectations of being able to procure any large quantity of flour.[76] Some three weeks later, however, Hendricks was loading vessels with 600 gallons of spirits and 1,000 barrels of flour, largely collected from commissaries in Maryland who had received specific supplies furnished by that state. He reported that the extraordinarily dry season had stopped the operation of all the mills in the Alexandria area, but he advised the governor of Virginia that if the state commissioners exerted themselves, some flour could be obtained. "We have daily wagons coming to Town from the back Counties loaded with flour purchas'd by the French Agents," proving, he informed the governor, that it was available.[77]

His mission completed in Philadelphia, Blaine joined the army in Virginia. There he and Charles Stewart selected deposit points along the shore of Chesapeake Bay from which both Virginia and Maryland supplies could be transshipped to the troops. Blaine went to the Eastern Shore of Maryland

74. Blaine Papers, Letter Book, 1780–83 (to Morton, 6 Sep 81).

75. Fitzpatrick, *Writings of Washington*, 23:118 (to Pres of Cong, 15 Sep 81); 112 (to gov of Md., 15 Sep 81); 120–31 (to Hendricks, 15 Sep 81).

76. (1) Washington Papers, 184:88 (Hendricks to Washington, 20 Sep 81). (2) See also *Calendar of Virginia State Papers*, 11 vols. (Richmond, 1875–93), 2:476 (Hendricks to Col William Davies, 21 Sep 81).

77. Ibid., 2:543 (11 Oct 81).

to supervise personally the movement of cattle to landings where they could be slaughtered and the meat sufficiently salted to permit transport by water. In preparing a report to Morris after the surrender of Cornwallis, Blaine recorded that Virginia and Maryland had provided a plentiful supply of provisions during the siege of Yorktown.[78]

After the formalities of surrender were completed, plans had to be made for the removal of prisoners, the disposal of stores at Yorktown, and the disposition of the allied troops during the winter. Washington took steps to strengthen General Greene's forces in the Southern Department by dispatching to his aid Pennsylvania infantry under Maj. Gen. Arthur St. Clair and Maj. Gen. Anthony Wayne. While Rochambeau was to spend the winter in the vicinity of Yorktown, Washington and the main Continental army were to return north to guard the Hudson. As soon as the American troops and supplies reached Head of Elk, Admiral de Grasse and the French fleet were to sail for the West Indies.

Having made these plans, Washington instructed Blaine and Stewart to provision the troops en route to their destinations. In addition, they were to fulfill an agreement that Washington had made with the British to supply the flag vessels carrying paroled officers to New York with biscuits and salt provisions provided that the British furnished a like quantity at King's Ferry or West Point. Washington instructed Blaine and Stewart also to take care of the requirements of the hospitals. Any provisions that remained on hand after all these needs had been met were to be used to pay the debt owed the French army.[79] In the meantime, Washington had canceled an order for salted provisions that he had made, and he had directed General Heath to stop forwarding cattle from the eastern states to Virginia. If Heath received more cattle than his forces could consume, he was to have the surplus slaughtered and salted at convenient places on the Hudson River. Preparing for the winter, Washington also ordered him to transport to West Point all the salted provisions accumulated on the Connecticut River.[80]

Blaine and Stewart carried out their instructions but found disposal of the cattle on hand most troublesome. With the departure of the troops, some 2,300 to 2,500 head of cattle, collected for the use of the allied army, remained at Williamsburg. About half of them were unfit for use, and many daily were dying with distemper. Blaine applied to Wadsworth and Carter to take the proportion acquired for the French. He thought it only fair that they share the costs of the collections that had been made for both armies, but through some misunderstanding with the governor of Virginia, they

78. (1) Washington Papers, 184:133 (Blaine and Stewart to Washington, 26 Sep 81). (2) Fitzpatrick, *Writings of Washington*, 23:142–43 (to Blaine and Stewart, 26 Sep 81); 209–10 (to Gov Thomas Sim Lee, 12 Oct 81). (3) Blaine Papers, Letter Book, 1780–83 (to Morris, 27 Nov 81).

79. Fitzpatrick, *Writings of Washington*, 23:313–14 (to Blaine and Stewart, 31 Oct 81).

80. Ibid., 23:257 (to David Ross, 23 Oct 81); 278 (to Heath, 27 Oct 81).

refused to accept delivery. Blaine then adopted every possible means for disposing of the cattle fit for use. He forwarded 500 with General St. Clair's detachment; he sent 700 to Fredericksburg and Winchester for the use of the British prisoners; and he intended to have 300 slaughtered at Williamsburg for the use of the hospitals and guards there. He requested salt from Virginia to preserve the meat, and he called the attention of the governor and the Virginia Council to the need to prepare magazines of salted pork to meet future requisitions. He sent his deputy, Robert Forsyth, to the governor for instructions on the disposal of the unfit cattle. He also offered a plan to induce farmers who had fodder to buy the unfit stock by extending to them a nine-month credit period, with payment to be made in specie or marketable beef.[81] When Blaine completed these arrangements late in November 1781, his services as Commissary General of Purchases came to an end, as did those of Charles Stewart as Commissary General of Issues.

Contractual Arrangements

Contracts for provisioning the troops of the main Continental army after Yorktown were readily executed. On 6 December 1781 Morris made a contract with Comfort Sands to supply rations during the following year to the troops stationed at West Point and its dependencies.[82] Associated with Comfort Sands in this contract were his brothers Richardson and Joshua Sands. Under the contract system, officers no longer drew rations; instead, they drew money at the end of each month for the rations allowed them by Congress. For their convenience, however, the contractors agreed to supply them with all or part of their allowed rations, the Paymaster General or his deputy settling with the contractors for the cost of the rations and paying the officers any balance due them. All magazines previously established under the Commissary Department now came under the control of the Superintendent of Finance, who could sell the supplies in the magazines to the contractors or, if they did not want them, to anyone else.[83]

There were high hopes that many benefits would flow from the contract system. Morris was certain that it would provide a more effectual and punctual supply than had been obtained under the Commissariat. Moreover, the contract system would effect great savings by eliminating a multitude of purchasing and issuing commissaries. When it was remembered, Morris pointed out, that salaries were not the only expense of a department, "it is certainly estimating within bounds to suppose, that five thousand soldiers are now fed every day on what it formerly cost the public to support

81. (1) *Calendar of Virginia State Papers*, 2:587–88 (Blaine and Stewart to Col Davies, 8 Nov 81); 606 (Blaine to Gov Nelson, 16 Nov 81). (2) Blaine Papers, Letter Book, 1780–83 (to Morris, 27 Nov 81).

82. For a copy of the contract, see Washington Papers, 188:122.

83. Fitzpatrick, *Writings of Washington*, 23:422–23 (GO, 1 Jan 82); 427 (to Heath, 3 Jan 82).

the issuers of provisions in [only] a part of the United States." In addition, the contract system would save the cost of transporting provisions, for the contractors would make delivery. It was said that the contract for provisioning West Point and its dependencies had cut the expense of furnishing rations to those troops in half.[84] By eliminating functions formerly performed by the supply departments, the contract system without question effected overall savings. Morris conceded, however, that the success of the system would depend on the character of the contractors. They would have to be men of integrity and fidelity who would not betray or defraud the government. He therefore was pleased that Comfort Sands had offered the lowest bid, for "his Character as an honest man and a good Whig stood high."[85]

Despite such expectations, in less than three months Army officers were criticizing the avarice of Sands and Company. Washington was troubled by a constant flow of complaints. Most of the difficulties stemmed from the method agreed upon for issuing supplies. The contractors had deemed it unreasonable to have to maintain an issuing store at every place where troops were quartered during the winter of 1781–82. As a consequence, when Morris initiated the system, the contract obliged Sands and Company to establish only three issuing stores, to which the brigade teams would come to obtain provisions for the troops. Experience soon demonstrated that as long as the troops remained detached in winter quarters this arrangement was inconvenient. For example, five regiments of the Connecticut line, quartered east of the Hudson River, had to send their teams three miles to the river and then across it to draw their supplies at West Point. Other regiments experienced equal fatigue in obtaining their provisions. General Heath recommended that some alterations be made in these arrangements, but the contractors persisted in limiting the number of issuing stores. In the meantime, as Washington informed Morris, "while Mr. Sands was saving fifty or an hundred pounds in the establishment of his Issues," the public was paying for "at least 400 pair of shoes and 1,000 blankets extraordinary in transporting, two or three miles over rugged roads, the provisions from these places on men's shoulders."[86]

The contractors' desire to limit the number of issuing stores also adversely affected the sick. Dr. Samuel Adams, in charge of a hospital near New Windsor, reported early in January that the sick at that hospital were entirely destitute of provisions, for none had been drawn since the beginning of the year. A daily supply of 300 to 400 rations was required. He had assumed that the West Point contract necessarily included the hospital among its

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84. (1) Sparks, *Diplomatic Correspondence of the American Revolution*, 12:117 (Morris circular to governors, 15 Feb 82). (2) Burnett, *Letters*, 6:284 (Oliver Wolcott to Andrew Adams, 2 Jan 82).

85. Morris Letter Book B, fols, 433–35 (to Heath, 7 Feb 82).

86. (1) Washington Papers, 193:123 (Heath to Lincoln, 27 May 82). (2) Fitzpatrick, *Writings of Washington*, 24:287–91 (to Morris, 17–25 May 82).

dependencies and that the contractors would furnish rations, but the nearest issuing store was at Fishkill. To depend on obtaining provisions from there was out of the question, particularly during the winter months when the Hudson was frequently impassable for days at a time. Moreover, the sick required fresh rather than salt meat in their diet, a fact that prevented receipt of a large quantity of supplies at any one time. The doctor's plea for an issuing store at Newburgh or New Windsor was supported by the Quartermaster General. Four months later Washington reiterated the same request.[87]

The mounting criticism during the first three months of 1782 included other complaints, such as the charge that the contractors offered the troops tainted provisions. If a quartermaster refused to accept them, the procedure for instituting a survey was so time-consuming that the soldiers went hungry while efforts were made to replace the bad provisions. General Heath thought a quicker method for settling disputes was necessary.[88] At the same time, the officers were highly critical of the way in which the system affected them. They complained that they were overcharged for the provisions they obtained from the contractors. They protested that the contractors issued carcass beef to them without the kidney fat from which they made candles for their families. This matter was not trivial to them, for with inflated prices and delays in payment of wages, officers found any diminution of their subsistence allowance an additional hardship.[89]

As dissatisfactions increased, General Heath inquired whether contractors or their issuing clerks were not subject to martial law, and he raised the question of security. Was it not dangerous for a contractor's clerk in an issuing store to have accurate returns of the strength of the Army?[90] Contractors obtained such information because they required a return from each regiment specifying the number of men present and absent. Heath also reported that supply failures were occurring under the contract system. His troops had not been able to draw any meat on 24 May 1782 or during the previous two days because there were neither fresh nor salted provisions at the post. Even more alarming than this immediate shortage was the fact that despite a clause in the contract requiring Sands and Company to maintain a reserve stock of provisions in a magazine for emergencies, the contractors had neglected to establish such reserves.[91]

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87. (1) RG 93, Pickering Letters, 83:6–9 (Pickering and Dr Adams to Sands and Co, 4 Jan 82). (2) Fitzpatrick, *Writings of Washington*, 24:259–60 (to Sands, 16 May 82).

88. Washington Papers, 193:120 (Heath to Lincoln, 26 Mar 82).

89. (1) Ibid., 192:34 (Stirling to Heath, 22 Feb 82, enclosed in Heath to Washington, 27 Feb 82); 196:80 (list of grievances, 29 Apr 82). (2) Ver Steeg dismisses the officers' quarrel over the kidney fat as a "trivium." See Clarence L. Ver Steeg, *Robert Morris: Revolutionary Financier* (Philadelphia, 1954), p. 143.

90. (1) Washington Papers, 193:123 (Heath to Lincoln, 27 Mar 82); 197:42 (Heath to Washington, 7 May 82). (2) Fitzpatrick, *Writings of Washington*, 24:233 (to Heath, 8 May 82).

91. (1) Washington Papers, 194:59 (Heath to Washington, 6 Apr 82); 198:75 (same to same, 24 May 82). (2) Fitzpatrick, *Writings of Washington*, 24:285–86 (to Sands, 25 May 82).

Remembering the inadequacies of the system of specific supplies, Washington was willing to make every allowance in order to see the contract system put into effective operation. "I am fully persuaded of the Importance and Utility of the present mode of feeding the Army," he assured Morris, and promised to use every effort to inculcate the same attitude in his officers.[92] On the other hand, when Morris, disturbed by the difficulties he was encountering in the administration of contracts, insinuated that to change arrangements in response to one complaint made by the officers would only give rise to another, Washington was quick to defend the officers against the charge of captiousness. He suggested that the Superintendent of Finance had undoubtedly absorbed the viewpoint of Comfort Sands, who was "extremely plausible, extremely narrow minded, disingenuous and little abounding in a temper to conciliate the good will of the Army." Washington felt that the contractor was always ready to take advantage of those parts of the contract that enhanced his convenience or emolument.

> Mr. Sands, Sir, if I have not formed a very Erroneous opinion of him is determined to make all the money he can by the Contracts. Herein I do not blame him, provided he does it honestly and with a reciprocal fulfillment of the agreement. Of a want of the first I do not accuse him but his thirst of Gain leads him in my opinion into a mistaken principle of Action.[93]

Contract for a Moving Army

In addition to making a number of small contracts, which went into effect without much trouble, Morris let another large contract in preparation for the campaign of 1782. Its purpose was to provision the moving army, that is, to supply rations to the troops who were to engage in active operations during the period 1 May to 31 December 1782. Morris awarded this contract to a number of men, including Comfort Sands. Associated with him in this new contract were Tench Francis of Philadelphia, who on more than one occasion had performed services for Robert Morris; Thomas Lowrey of New Jersey, who had been so helpful the previous year; Walter Livingston of New York, who was a former commissary; and Oliver Phelps and Timothy Edwards of Massachusetts, who both had long been active in purchasing provisions in that state. Phelps and Edwards also made a subcontract to supply all the meat required by the army under the main contract.[94] Morris pointed out that these men were of reputable character and of such influence in their states that they ought to be able to fulfill their contracts satisfactorily.

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92. Ibid., 24:158–59, 287–91 (to Morris, 23 Apr and 17–25 May 82).

93. (1) Washington Papers, 199:38 (Morris to Washington, 4 Jun 82). (2) Fitzpatrick, *Writings of Washington*, 24:348–51 (to Morris, 16 Jun 82).

94. (1) Ibid., 24:125 (to Heath, 16 Apr 82). (2) Washington Papers, 194:46–66 (contract, 6 Apr 82); 194:81 (Lincoln to Washington, 8 Apr 82).

Moreover, the fact that the contractors were from different states eliminated a jealousy that had been growing because Pennsylvania appeared to be securing all the contracts and "thereby engrossing all the coin."[95] Profiting from past experience, Morris included in the contract a provision that permitted him to appoint an inspector to attend the army and settle all disputes arising under the contract. Washington was pleased with this development, but Morris had trouble in filling the position. It was not until September that Ezekiel Cornell accepted appointment as inspector of contracts.[96]

With Comfort Sands involved in both the West Point contract and the contract for the moving army, keeping supply and accounts under each contract separate posed problems, especially since the army was then in the vicinity of West Point. It was natural to blend supply under the two contracts, a development that was further stimulated by Washington's efforts to prevent any disputes between the two sets of contractors. He tried to designate the particular troops to be supplied under each contract on 1 May, but it was impossible for him to determine precisely what the strength of the garrison at West Point and its dependencies would be. That strength would vary with the operations of the campaign, he informed the contractors. He feared that because of the fluctuation in the number of rations to be issued, some dispute might arise between the contractors supplying the moving army and those providing for West Point. He therefore suggested that the contractors enter into some mutual agreement "so that the whole business might be executed upon one grand scale."[97]

During the summer of 1782 controversy with Comfort Sands dragged on through the formulation of bills of particulars and the appointment of arbitrators, in accordance with the provisions of the West Point contract. Fresh grievances continued to crop up. For example, the pound of flour which was supposed to be issued in lieu of bread when none was in store was delivered at 13 instead of 16 ounces in the pound. A full pound of flour was ordered to be issued. Apparently prospects of harmony between the Continental Army and the contractors were much improved when former Commissary General of Issues Charles Stewart arrived at West Point to supervise issues for the contractors. "Colo Stewart, I have no doubt, will give peace," wrote one of Washington's aides, "but I am certain, the present Issuer would raise a mutiny in heaven."[98] Dissatisfaction continued, however, over the failure of the contractors to provide vinegar or to issue rum.

The contractors, for their part, were uneasy about the settlement of their accounts. In mid-June Sands and Livingston began to complain that Morris

95. Ibid., 195:6 (Morris to Washington, 15 Apr 82); 194:81 (Lincoln to Washington, 8 Apr 82).

96. Fitzpatrick, *Writings of Washington*, 25:185 (to Morris, 22 Sep 82).

97. Ibid., 24:153–55 (to Comfort Sands and Co, 23 Apr 82).

98. Ibid., 24:388–89 (David Cobb to Secretary at War, 27 Jun 82).

was not paying them on time. Their subcontractors, who provided beef for the troops, were demanding payment, and the supply of cattle was already beginning to dwindle because accounts were not being settled. The notes that Morris sent in lieu of specie were not acceptable, and personal credit, they informed him, would go but a little way. Although they proposed extending their credit as far as possible, they insisted that they could not be held responsible for supply shortages resulting from lack of punctual payment.[99] Such statements had been expressed often by commissaries in the past. Morris brusquely ordered Sands and Livingston to fulfill their contracts, asserting that there was no reason to doubt that they would be paid. Throughout the summer of 1782, however, the contractors continued to attribute all shortages and irregularity in supply to their failure to receive regular payments on their contracts. "We have been so often and so repeatedly disappointed in getting our Money from the Public," Sands and Livingston informed General Heath on 28 July, "that we are obliged to buy from day to day wherever a little Credit is to be had."[100]

Much to Morris' embarrassment, the two companies of contractors had joined together as if under one contract and were presenting a monthly account to him for payment of 45,000 to 60,000 dollars. Morris was hard pressed to meet his obligations. Ever since May when Sir Guy Carleton, who had replaced Sir Henry Clinton at New York, had thrown out hints of a settlement, war-weary Americans had been discussing peace. Those hopes, Morris complained, had resulted in a total stoppage of mercantile business and had adversely affected his department in many different ways. The states were even more dilatory in collecting taxes than in the past. These circumstances combined to make it impossible for Morris to pay the contractors promptly.

Morris had believed that competition among private contractors would result in advantageous terms for the government. Instead, the principal contractors, in addition to joining together to make demands on him, had entered into private and subordinate agreements with each other, thereby seriously impairing the competition that Morris had counted on to act as a check on profits. The contract system was not working as he had hoped. Cooperation, not competition, now marked the relationship between the leading contractors.

On 11 September 1782 Sands and his associates threatened to cease supplying the army as of 1 October unless Morris promised indemnification for all damages they had sustained from failure of the government to meet its obligations. Morris seized this opportunity and refused to make such a

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99. Washington Papers, 200:34 (Sands and Livingston to Morris, 17 Jun 82); 30 (Sands to Washington, 17 Jun 82).

100. Ibid., 200:86 (Morris to Sands and Livingston, 22 Jun 82); 88 (Morris to Washington, 22 Jun 82); 202:78 (Sands and Livingston to Heath, 28 Jul 82).

promise, allowing it to appear that the contract was canceled by default of the contractors.[101] Greatly alarmed, Washington inquired of the Superintendent of Finance whether a change in the method of supply ought not to be resolved on immediately. If necessity compelled a return to the ruinous system of specific supplies, he wrote, it ought to be done in time to establish magazines before winter set in.[102]

The failure to obtain taxes from the states, Morris informed Washington in October, had forced him into a disadvantageous arrangement to supply the troops, though he assured the Commander in Chief that they would be supplied. Under the old contract it had cost 3⅓ dollars a month to feed a soldier. At that rate, 24,000 rations would have cost 80,000 dollars a month. That figure was more than what all the states had paid in taxes on 1 August. And now he had been obliged, he explained, "to submit to cancelling one contract and forming another, at one third advance on the former price. . . . I am in advance on credit to an amount, which you can scarcely form an idea of."[103]

Morris was referring to a contract made at his direction by Inspector Cornell with the firm of Wadsworth and Carter to supply the main army, the garrison at West Point, and its dependencies with rations from 16 October to 31 December 1782. Wadsworth and Carter had agreed to extend three months' credit, but in return they received an increase in the rate of payment per ration from 10 to 13 pence in Pennsylvania currency. Though Morris confessed that warning the states of the consequences that would follow from delays in collecting taxes was "like preaching to the dead," he continued to lecture them on the losses being sustained. These losses included not only the increased costs of furnishing the ration for the rest of 1782 but also the damages that the original contractors subsequently might collect from the government after years of litigation. Morris, however, questioned whether they had ever sustained any damages. "I have been informed that the Contractors were Gainers by the Dissolution of the Contract," he wrote Sands when the question of claims was raised in 1783.[104] Though disappointed in the failure of the contract system to promote competitive bidding among contractors and thereby restrict their profits, Morris nevertheless considered it the only feasible method of subsisting the Continental Army. He therefore negotiated a contract with the firm of Duer and Parker to supply the troops during 1783. It agreed to furnish rations within the states of New York and New Jersey.[105]

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101. (1) Ibid., 206:50–52 (contractors to Morris, 11 Sep 82). (2) Morris Letter Book D, fols. 334–39 (to Pres of Cong, 21 Oct 82).

102. Fitzpatrick, *Writings of Washington*, 25:188 (22 Sep 82).

103. Sparks, *Diplomatic Correspondence of the American Revolution*, 12:299 (15 Oct 82).

104. Morris Letter Book D, fols. 213–14, 217–18 (to Cornell, 20 and 23 Sep 82); 334–39 (to Pres of Cong, 21 Oct 82); 339–45 (circular to governors, 21 Oct 82); Letter Book E, fol. 153 (to Sands, 11 Mar 83).

105. Washington Papers, 212:119 (Morris to Washington, 19 Dec 82).

It is difficult to assess the operation of the contract system. Morris won praise from a congressional committee for the order and economy he had introduced in the transactions of his office.[106] There can be no question that the contract system provided a far more orderly procedure for subsisting the troops than the system of specific supplies. Nor can it be denied that during 1782 and 1783 the contract system promoted economy by eliminating issuing commissaries and reducing functions heretofore performed by government personnel. Economy, however, was not achieved in all areas. Morris had to pay a higher price per ration when contractors extended credit, as purchasing commissaries had been compelled to do at an earlier time. The total cost of provisioning the troops in 1782 also included 40,000 dollars later paid to Sands and Company as compensation for the abrogation of the firm's contract.

Comparisons between the Commissariat and the contract system are not feasible. The contract system functioned under what amounted to peacetime conditions. The contractors were never called on to support a campaign. The Continental Army dwindled in size, no militia demanding provisions were called out to increase its strength, and troop movements virtually ended. Yet the cost of the ration was high and remained so. That subsisting the Continental Army was profitable to the contractors is suggested by the prominent roles that most of them played in postwar financial affairs in their respective states.[107]

Washington had been critical of the Commissariat, of the system of specific supplies, and of Comfort Sands. Early in 1783, however, he wrote to General Heath that he enjoyed "the satisfaction of seeing the Troops better covered, better clothed, and better fed, than they have ever been in any former Winter Quarters."[108] To conclude in consequence that the Continental Army was at last satisfied with the provision of rations under the contract system would be an error. Some three months later Washington was sending Duer and Parker complaints of irregular issues and bad and unwholesome provisions.[109] Relations with the contractors were no more harmonious in 1783 than they had been the previous year. As the war ended, charges against the contractors concerning poor quality of food and abuses in issuing provisions were being investigated—as they had been in 1782 and would be in future years as long as the contract system endured.[110]

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106. *JCC*, 24:396–98 (17 Jun 83).
107. East, *Business Enterprise in the American Revolutionary Era*, passim.
108. Fitzpatrick, *Writings of Washington*, 26:97 (5 Feb 83).
109. Ibid., 26:459–60 (27 May 83).
110. Washington Papers, 221:58, 70, 82 (Heath to Washington, 1 Jun 83, and enclosures).

CHAPTER 9

Organization of the Clothing Department

Until 1779 Congress gave scant attention to developing any kind of organization for handling clothing supply. During much of the war Washington acted as his own Clothier General. He attributed the failure of Congress to give "seasonable" care to clothing supply to the "multiplicity of business" demanding its attention. According to Washington, the only solution for improving clothing supply and, in fact, supply in general was to establish permanent agencies with adequate authority to act. But as late as the fall of 1780, when efforts for such reform were lagging, John Sullivan, a delegate to the Continental Congress and former Continental officer who had first-hand knowledge of supply problems, wrote, "You might almost as soon Teach the Streams to rush back to their Source as persuade Congress out of their Ancient Tract."[1]

Role of the Quartermaster's Department

Because no officer had been designated in 1775 to handle clothing supply for the Continental Army, the Continental Congress frequently called upon Quartermaster General Thomas Mifflin to accept delivery of blankets and cloth imported by the Secret Committee or obtained from prize ships brought into American ports.[2] He set tailors found among the troops to work making clothing from this cloth, and he directed its sale to the troops. As early as September 1775 Mifflin had been actively promoting the procurement of clothing. In response to a letter that he wrote, the Continental Congress that month appointed a committee of five members to purchase woolen goods from merchants to the amount of 5,000 pounds sterling. It ordered that these woolens be turned over to the Quartermaster General to be made into clothing and sold to the soldiers at "prime cost and charges, including a commission of five per cent" paid to Mifflin for his trouble.[3]

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1. (1) Fitzpatrick, *Writings of Washington*, 20:371–74 (to Sullivan, 20 Nov 80). See also 21:14 (to James Duane, 26 Dec 80). (2) Burnett, *Letters*, 5:460–61 (Sullivan to Washington, 26 Nov 80).
2. *JCC*, 6:878, 897 (15 and 23 Oct 76).
3. Ibid., 3:260 (23 Sep 75).

Debate on this matter revealed some conflicting views among the delegates. Roger Sherman recalled that sutlers had sold clothing to the soldiers in the French and Indian War, but Silas Deane rejoined that as a consequence the soldiers had been imposed upon. Sherman thought that in any case many soldiers would be "supplied by families with their own manufacture." Robert Treat Paine argued that Congress had not agreed to clothe the soldiers, and the Quartermaster General "has no right to keep a slop-shop, any more than anybody else." To this Deane replied that there was "no preaching against a snow-storm"; the troops would have to be clothed or they would perish. John Adams was surprised by the outcome, but he hoped the vote would benefit the soldiers, "which was all I wished, the interest of Mr. Mifflin being nothing to me."[4]

Later in the fall of 1775 Congress made provision for clothing the troops in the Northern Department under Maj. Gen. Philip Schuyler. It appointed a committee of three to purchase within the colonies specified items of clothing.[5] These were to be sold at cost to those soldiers who would reenlist in the Northern Army and to new recruits. As in the case of Quartermaster General Mifflin, Congress allowed a 5 percent commission to the quartermaster responsible for selling the clothing to the soldiers. Congress also ordered the committee to purchase enough duffel or kersey to make up 300 watch coats; the material, needles, and thread were to be sent to General Schuyler for that purpose. He was to retain the watch coats for the use of sentries.[6]

Before the end of 1775 Washington appealed to General Schuyler to send to headquarters such clothing as he could spare from the supplies stored at Albany. Brig. Gen. Richard Montgomery, he hopefully anticipated, would still be able to clothe the troops under his command at Montreal. Congress had come to the same conclusion, and it ordered the clothing that had been purchased and sent to Albany for the Northern Army forwarded by land to Mifflin for use of the troops at Cambridge. Washington subsequently reported that Schuyler had sent clothing worth about "1,700 pounds (York currency)" to the soldiers of the main Continental army, and that "it had come very seasonably as they are in great want."[7]

Congressional Actions

Procurement of clothing, blankets, and shoes posed difficulties. Such supplies were not abundant in the colonies, and it soon became apparent

4. Ibid., 3:471–73 (23 Sep 75).

5. These items included 3,000 felt hats, 3,000 worsted caps, 3,000 pairs of buckskin breeches, 3,000 pairs of shoes, 3,000 pairs of yarn stockings, and 3,000 waistcoats.

6. *JCC*, 3:317–18 (2 Nov 75).

7. (1) Ibid., 3:407–08 (5 and 9 Dec 75). (2) Fitzpatrick, *Writings of Washington*, 4:195 (to Pres of Cong, 31 Dec 75); 291 (to same, 30 Jan 76).

that Congress would have to rely on importation to keep the troops adequately clothed and shod. Two congressional committees, the Secret Committee and the Committee of Secret Correspondence, became actively engaged in importing clothing. Congress on 3 January 1776 authorized the Secret Committee to import a quantity of textiles.[8] This action marked the beginning of that committee's clothing procurement activities, which continued when it was reorganized as the Commerce Committee. Its activities included importing clothing, reporting the arrival of cargoes, and indicating the distribution to be made of the imported articles.[9] The Committee of Secret Correspondence, concerned with foreign aid, directed its efforts during the war to obtaining clothing from France.

To a certain extent one other committee of Congress, the Marine Committee, was instrumental in adding clothing to Continental supply lines. It did so not by purchase but by seizure. A portion of the cargoes of British merchantmen captured by the American Navy became the property, under prize regulations, of the Continental Congress. Such cargoes included clothing and fabrics. The Marine Committee placed the moiety of these goods belonging to the Continental Congress in the hands of its Continental Agents for disposal according to the directions of Congress. With the appointment of a Clothier General in 1777, these Continental Agents turned over to the state deputy clothiers such supplies of clothing and textiles as they had on hand. The deputies then became responsible for transporting these supplies to the troops.

The transportation of cloth and clothing to the Continental Army provided an opportunity for making a handsome commission. For example, on 16 August 1779 William Gardner, deputy clothier at Portsmouth, New Hampshire, sent an invoice to the clothier at Washington's camp, who was to distribute the listed goods as the Commander in Chief ordered. A large part of this merchandise consisted of textiles that Gardner had received from John Langdon, Continental Agent at Portsmouth. They represented part of the Continental moiety of prizes taken by three Continental ships and brought into Portsmouth. When he examined the invoice, Washington found that Langdon had altered the valuation of this prize merchandise from its estimated sterling amount into Continental currency at an advance of 3,000 percent. On this valuation, and on the money paid out by him for buying casks and packing the goods to be forwarded to camp, Deputy Clothier Gardner had charged a 2½ percent

8. *JCC*, 4:24. The following goods were to be imported as soon as possible: 60,000 striped blankets, 20,000 yards of brown and blue broadcloth, 10,000 yards of different colored facings, 3,000 pieces of "duffield," 3,000 pieces each of raven's duck and of ticklenburg, 1,500 pieces of osnaburg, 1,000 pieces of vitry, and 4,000 pieces of Hamburg dowlas, as well as assorted needles. See 3:453 (23 Dec 75).

9. Ibid., 6:878, 896 (15 and 22 Oct 76); 7:336 (8 May 77).

commission. This profit struck Washington as "insufferable," and he complained to the Board of War. The latter thereupon explained to Gardner the basis on which a commission was paid. Such materials as he received from a Continental Agent and made into clothing he could consider in the same light as goods he had purchased, and he could accordingly charge a commission of 2½ percent on the purchase price. However, such articles as he merely transmitted, forwarding them in the same condition as he had received them, carried no commission unless he found it necessary to pack or repack them. In that case, Congress allowed him a 2½ percent commission on the money he spent for packing, labor, cooperage, and transportation.[10]

Congress also placed in the custody of the Continental Agents the clothing and fabrics that it imported. Early in 1777 it directed the Continental Agents in the Middle and Eastern Departments to furnish the Clothier General with an account of all clothing and fabrics for making clothing that they had in their custody. Congress also ordered them to send the clothing to the Clothier General for distribution according to the directions of the Commander in Chief. Subsequently, Congress learned that articles imported on its account into Massachusetts had been delivered in part to the Navy Board in the eastern district, in part to the Massachusetts Board of War, and in part to the Continental Agent there. The Navy Board had issued some clothing without any order from the Continental Congress, the Commerce Committee, or the Board of War—an action likely to be productive of "confusion, misapplication, and waste." In consequence, Congress directed that in the future all such imports, unless otherwise directed, were to be delivered to the Continental Agent who, in turn, could deliver the clothing only on an order of Congress, the Board of War, or the Commerce Committee. In the summer of 1780 Congress rescinded this order. Thereafter all clothing arriving from Europe belonging to the United States was delivered at the ports to agents appointed by the Board of War without passing through the hands of the Continental Agents.[11] Neither in 1777 nor in 1780 did the Clothier General have responsibility for accepting delivery of imports of clothing or fabrics at the seaports.

When Congress in January 1776 first directed the Secret Committee to import fabrics, it must have known that there would be no immediate supply from this source. Yet for the next six months, it took no further action to provide a supply of clothing for the troops. In mid-June, on the eve of the campaign in New York, Congress belatedly turned its attention

10. (1) Fitzpatrick, *Writings of Washington*, 16:260–61 (to Bd of War, 11 Sep 79). (2) Washington Papers, 115:52 (Gardner to Washington, 16 Aug 79, and enclosed invoice); 116:129 (extract of letter, Bd of War to Gardner, 13 Sep 79).

11. *JCC*, 7:41 (16 Jan 77); 11:548–49 (28 May 77); 17:596 (10 Jul 80).

to this supply problem. It then brought the states into the procurement process by recommending that the assemblies have made or procure for each soldier enlisted "for the present campaign" a suit of clothes, consisting of a deerskin waistcoat and breeches, a felt hat, two pairs of hose, and two pairs of shoes as well as a blanket. It recommended further that the assemblies have these articles baled, invoiced, and stored in suitable places, to be delivered on the order of Congress or the Commander in Chief. Congress furnished the funds for these purchases. When articles of clothing were issued to the soldier, Congress ordered their cost deducted from his pay.[12]

During July the states appointed committees to carry this resolution into effect.[13] Since adequate provision, however, had not been made for delivery, the Continental Congress later recommended that the states forward the clothing to headquarters. To cover these transportation costs, the states could draw on the President of Congress. With the intent of expediting matters, Congress appointed a standing clothing committee, consisting of one delegate from each state. Further complicating clothing procurement, it authorized this committee to employ agents in the states to purchase in the domestic market, on a commission basis, ready-made clothing and blankets as well as woolens that they were to have made into uniforms. The standing committee drew on Congress for the money necessary to carry out this assignment.[14] Despite these efforts, the troops remained sorely in need of clothing and blankets since an immediate supply did not flow from the states. This fact was not surprising considering the limited amount of clothing and fabrics available on the domestic market. A congressional committee dispatched to report upon the state of the main army in New York indicated that supply had been neglected "as well from the want of a proper Officer to superintend the Business as from the Scarcity of these Articles."[15]

Much disturbed by the failure to obtain clothing from the states, Congress clearly considered that this supply problem could be solved by having more active agents. On 1 December 1776 it expanded the role of the Secret Committee by directing it to appoint and send one or two trustworthy persons to the eastern states to collect the clothing that had been bought by the agents of the standing clothing committee. They were also to make further purchases in the domestic market. The Secret Committee sent two agents, Abraham Livingston and William Turnbull, advancing 20,000 dollars to them at the time they set out. Subsequently, they re-

12. Ibid., 5:466–67 (19 Jun 76).
13. Force, *Am. Arch.*, 5th ser., 1:309 (Resolves of Mass. Assembly, 2 Jul 76); 201—03 (N.Y. Convention to Pres of Cong, 11 Jul 76).
14. *JCC*, 5:820–22 (25 Sep 76). For membership of the committee, see 6:1064.
15. Ibid., 5:844 (3 Oct 76).

ceived another 120,000 dollars, granted by Congress for the purchase of clothing. Once Washington appointed a Clothier General early in January 1777, the Secret Committee delegated to that officer both the settlement of the accounts of Livingston and Turnbull and the compensation to be made to them for their services.[16] As it turned out, their procurement efforts were of short duration.

One other agency of the Continental Congress, namely the Board of War, was also concerned with clothing supply. The board prepared estimates of clothing required by the Continental Army which it submitted to Congress. This duty was clearly defined, but the Board of War was also responsible for handling other aspects of clothing supply as Congress directed. When efforts to reorganize the Clothing Department lagged in 1778, Congress authorized the Board of War to purchase on the domestic market shoes, stockings, and linen for the Continental Army, and to make up clothing from imported cloth and store and transport it to the troops. In this period the Board of War carried out many of the duties that a Clothier General should have been performing. When Congress reorganized the Clothing Department in 1779, it brought it under the supervision of the Board of War. The department remained there until the Board of War itself was replaced by the office of the Secretary at War.[17]

Given a supply problem at the beginning of the war, Congress was inclined to appoint a commissary to resolve the problem. Thus in the summer of 1776 Congress directed the North Carolina delegates to employ a commissary to purchase in Philadelphia or its environs clothing for troops being raised in their state for Continental service.[18] He was but the first of the commissaries appointed to handle clothing supply. When the appeal to the states to procure clothing in 1776 did not produce the results Congress had hoped for, it passed a resolution on 9 October calling for the appointment of a commissary of clothing for each of the armies. It would be the duty of each commissary to submit to the state assemblies a report of the amount of clothing required by their regiments; to receive and pay for the deliveries made by the states; and to deliver the clothing to the regimental paymasters, who would issue it, deducting the costs from the soldiers' wages unless Congress allowed the clothing as a bounty. About a week later Congress authorized Washington to appoint a commmissary of clothing for the main army, and Congress itself appointed George Measam as commissary of clothing for the Northern Army.[19]

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16. (1) Ibid., 6:997 (1 Dec 76); 7:126, 220–21 (15 Feb and 4 Apr 77). (2) Burnett, *Letters*, 2:170 (Secret Committee to Mass. Assembly, 4 Dec 76); 171 (Sam Adams to James Warren, 6 Dec 76); 221 (Francis Lewis to N.Y. Convention, 16 Jan 77).
17. *JCC*, 11:454–56, 811 (28 May and 18 Aug 78); 13:353–60 (23 Mar 79).
18. Ibid., 5:623 (31 Jul 76).
19. Ibid., 6:868, 869, 880–81 (9 and 16 Oct 76).

Appointment of Clothier General Mease

During the fall of 1776 when Congress was taking these tentative steps toward an organization for handling clothing supply, Washington was becoming increasingly alarmed about the situation. On 20 December he urged the appointment of a clothier general as a means of centralizing control of clothing supply for the whole Continental Army. One week later Congress authorized him to make this appointment, but it enacted no regulatory measure for the Clothing Department.[20] James Mease, a Philadelphia merchant associated in business with Samuel Caldwell, promptly solicited the appointment. During the past year, Mease had procured considerable quantities of clothing, tentage, and other supplies at the direction of Congress. On 25 January 1776 Congress had appointed him a commissary to supply the battalions ordered to be raised in Pennsylvania. He had also served as a paymaster, handling large sums of money.[21] His experience appeared to qualify him for the post. On 10 January 1777 Washington informed Mease that although he had not yet received his application, the Commander in Chief had decided to appoint him, at a salary of 150 dollars a month. No military rank was given to Mease, to any of his successors, or to any of the deputies.

Washington advised Mease that he would have to accompany the main army in order to fulfill his duties properly. These duties included purchasing both cloth and clothing on the domestic market, directing the manufacture of articles of clothing, supervising transportation to magazines and to the Continental Army, accepting deliveries, and issuing the clothing to the troops. Washington particularly directed his attention to a major difficulty that had plagued the supply of clothing in the past. Because no adequate supervision and control had been exercised over shipment, parcels of clothing had been misapplied, lost, or abandoned by drivers along the road. "Not being in the line of the Quarter Master's duty," Washington wrote, "the business is not only neglected but the Articles often injudiciously applied."[22]

In February 1777 Mease arrived at camp ready to assume his duties. Washington directed him to prepare his estimate of clothing for the next campaign promptly and lay it before Congress. The general's anxiety led him to return to this subject in April. He feared that

> if timely steps are not taken, we shall next Spring be all in confusion again, and bring our Army into the field half complete and of a thousand different Colours, as to uniform, which has not only an ill appearance, but it creates much irregularity;

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20. (1) Ibid., 6:1941 (27 Dec 76). (2) Fitzpatrick, *Writings of Washington*, 6:404 (to Pres of Cong, 20 Dec 76).

21. (1) Washington Papers, 58:123 (Mease to Washington, 6 Jan 77). (2) *JCC*, 4:91, 390; 5:453, 823. (3) Force, *Am. Arch.*, 5th ser., 1:33–34, 116.

22. Fitzpatrick, *Writings of Washington*, 6:492–93 (to Mease, 10 Jan 77).

for when a Soldier is convinced, that it will be known by his dress to what Corps he belongs, he is hindered from committing many faults for fear of detection.

Mease replied that he had long since submitted to the chairman of the Secret Committee the estimate for the next year's clothing; he had been assured that "the Utmost pains" had been taken and that there was "a Moral Certainty of being plentifully furnished."[23] After the Board of War was reorganized in October 1777, it served as the channel for submitting estimates to Congress.

There is nothing to indicate that Mease gave much thought to the kind of organization he would need to establish or to the controls he would have to institute. He at once appointed Charles Young as his assistant. Congress allowed Mease as many clerks and storekeepers as he needed to carry on the work of his department. It also authorized him to appoint an agent in each state to purchase on a commission basis such fabrics and clothing as were appropriate for use by the Continental Army and available on the domestic market. Some of the states, however, already had purchasing agents or commissaries at work, having responded to the recommendation made by Congress in September 1776. If they were capable men, it would be desirable, Washington advised Mease, to continue employing them.[24]

Before the end of 1777 Congress again directed the Clothier General to appoint a deputy in each state if he had not already done so. The deputies' duties now included receiving cloth being imported by Congress, having it made into uniforms, and forwarding the finished articles to the Continental Army. Mease had already appointed Samuel Otis as his agent in Massachusetts; he now appointed Otis as his deputy in that state and William Gardner in New Hampshire.[25] He retained the services of his partner, Samuel Caldwell, in Pennsylvania. Raymond Demere later became a deputy in Georgia, as John Sandford Dart did in South Carolina.[26]

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23. (1) Ibid., 7:420–22 (to Mease, 17 Apr 77). (2) Washington Papers, 47:11 (Mease to Washington, 12 May 77).

24. (1) Ibid., 39:107 (Mease to Washington, 21 Jan 77). (2) Fitzpatrick, *Writings of Washington*, 7:247–49 (to Mease, 4 Mar 77). (3) *JCC*, 6:1059–60 (31 Dec 76).

25. Otis, a Boston merchant, had participated in clothing procurement since the summer of 1776 when he was a member of a Massachusetts committee engaged in buying clothing for the Continental Army. He served not only as a deputy in the Clothing Department but as a purchasing agent for Maj. Gen. Nathanael Greene when he became Quartermaster General. The firm of Otis and Andrews became Otis and Henley following the death of Andrews. The partners were active purchasing agents throughout the war. (1) See Force, *Am. Arch.*, 5th ser., 1:309 (Mass. Assembly resolve, 2 Jul 76). (2) For services to the Quartermaster's Department, see APS, Greene Letters, 9:85 (Otis to Greene, 10 Jan 79). (3) RG 11, CC Papers, item 173, 4:101—03 (Greene to Otis, 11 Feb 79).

26. (1) For references to the deputies, see *JCC*, 6:1059–60 (31 Dec 76); 9:893, 1022–23 (12 Nov and 12 Dec 77); 11:850–51 (29 Aug 78); 12:925, 982 (18 Sep and 5 Oct 78). (2) RG 11, CC Papers, reel 99, item 78, 15:333–34 (Demere to Mease, 20 Mar 78).

These last two deputies, however, were not appointed by Mease, who apparently exercised no supervision over deputies remote from his area of operations at Philadelphia and Lancaster, Pennsylvania.

In addition to this civil arm of the Clothing Department, Mease also had personnel with the Continental Army in the field. When Congress adopted the procedure of deducting from a soldier's pay the cost of the clothing issued to him, the paymaster of a regiment became a kind of agent, or subclothier, under the direction of the Clothier General, receiving the clothing for a regiment and making the proper cost deductions from the muster rolls.[27] In the summer of 1777 Congress modified this procedure somewhat. It directed the Clothier General to determine how many assistant clothiers would be necessary for the Continental Army and detachments. It ordered him to appoint the assistant clothiers without delay and report their names to Congress. Each assistant clothier received a proportion of the clothing on hand, for which he gave a receipt. He issued to each noncommissioned officer and soldier the clothing that was due to him by the articles of enlistment and took receipts for it. Each assistant clothier also supplied such other clothing as was necessary. Congress directed Mease to furnish each assistant clothier with the names of the noncommissioned officers and soldiers of the division or corps to which he was assigned who had received their clothing bounty or any part of it, as well as an account of the men's indebtedness for articles of clothing. On the first day of each month the assistant clothier submitted the indebtedness accounts to the regimental paymaster, who made the proper deductions from the soldiers' pay and delivered the money to the assistant clothier. He, in turn, delivered the money to the Clothier General. Proper receipts were taken at each step in this procedure. Congress fixed the pay of an assistant clothier at 50 dollars a month with the rations of a captain.[28]

Multiplicity of Purchasing Agents

The Clothing Department under Mease achieved no centralized control of procurement in the domestic market. Responsibility for procurement abroad of clothing and textiles remained in the Continental Congress. While the states and the Continental Congress competed for supplies from European and West Indian markets, the Clothier General found himself in competition with agents of the states for such articles of clothing as could be procured in the states. With commissions being paid

27. (1) *JCC*, 5:479 (25 Jun 76). (2) Fitzpatrick, *Writings of Washington*, 10:239–40.

28. *JCC*, 8:690–92, 697 (28 and 29 Aug 77). On 4 March 1778 Congress specifically directed the appointment by the Clothier General of an assistant clothier to be stationed with the troops on the Hudson River to superintend the procuring and distributing of clothing there. See 10:221.

to purchasing agents, admonitions to them to refrain from competition went unheeded.

There were also agents purchasing clothing under orders of officers of the Continental Army. This procedure was not uncommon early in the war. When Mease first became Clothier General, for example, Brig. Gen. Samuel Holden Parsons had contracted to have clothing made for regiments he was raising in Connecticut. In this case Washington recommended that he turn over these contracts to the Clothing Department's state deputy so that they could thereafter be handled through the office of the Clothier General.[29] On the other hand, Brig. Gen. Anthony Wayne, at a much later date, purchased 650 uniforms for his Pennsylvania troops by using Paul Zantzinger as his agent rather than relying on the efforts of Mease. The Clothing Department handled payment for the uniforms, however, when Zantzinger produced vouchers for the cost and proper receipts for the delivery of the uniforms.[30] It is understandable that troops as remote from the Clothing Department as those at Fort Pitt would make no applications for supplies. Instead, at the request of the Board of War, Congress advanced funds to Capt. James O'Hara to purchase locally shoes, hats, and blankets. In addition, the specialized clothing needed by the dragoons led Congress to allow its purchase by officers belonging to such regiments.[31] And when necessity demanded, officers on detachment procured articles of clothing from inhabitants, giving them certificates or orders on the Clothier General entitling them to payment. Unfortunately, when they presented these certificates, the Clothier General could not pay because regulations did not authorize him to do so. Eventually, the Board of War induced Congress to correct this situation by authorizing payment.[32] Obtaining an accurate return of clothing stocks on hand at any given time must have been an impossibility under existing practices in procurement, transportation, and delivery.

Mease's Resignation

Less than a year after his appointment, Mease sought to be relieved of his duties. Complaints against the Clothier General had increased as the scarcity of clothing brought suffering to the troops. By the time they marched to Valley Forge in December 1777, the shortages of blankets and warm clothing had become acute. Mease had demonstrated no great administrative talent in shaping his department, but the distress caused by the lack of clothing cannot be attributed solely to his shortcomings. The breakdown in

29. Fitzpatrick, *Writings of Washington*, 7:156–57 (to Parsons, 18 Feb 77).
30. *JCC*, 9:1016–17 (10 Dec 77); 10:83–84 (22 Jan 78).
31. (1) Ibid., 9:872 (6 Nov 77); 11:494 (13 May 78). (2) See also Fitzpatrick, *Writings of Washington*, 13:391–92 (to Bd of War, 13 Dec 78).
32. *JCC*, 13:275–79 (5 Mar 79).

transportation prevented the movement of clothing as well as of rations. Moreover, handicapped by the failure of promised imports to arrive, Mease could procure only such limited supplies as were available in the states. Nor did the funds at his disposal permit the payment of the exorbitant prices demanded by those merchants who had supplies to sell.

Pleading ill health as Mifflin had done, Mease sent his resignation to Washington on 16 December 1777. He offered to continue in the department until a successor could be found. Washington made no comment about the resignation, but a week later he complained to Congress that he was receiving little assistance from the Clothier General. Mease was invited to appear before the congressional committee that had come to Valley Forge, but he remained at Lancaster, still pleading ill health. He wrote that he was sure "a candid scrutiny of affairs" would make it clear to the committee that all the complaints against his department had their foundation in a lack of funds rather than in any neglect to procure such clothing and fabrics as were to be had.[33] Mease could not be faulted when he referred to a lack of funds. It is questionable, however, whether he can be absolved from charges of neglect. He appears always to have been most interested in personal profits, as a later arrangement with Maj. Gen. Benedict Arnold at the time of the reoccupation of Philadelphia made clear.[34]

Supplies could be obtained, or so Samuel Otis of the firm of Otis and Andrews in Boston made evident, provided, of course, that the Clothier General made funds available. When Mease appointed Otis a purchasing agent for the Continental forces in November 1777, the latter dispatched, within ten days of the receipt of his appointment, twelve wagons with "sundry articles." Soon Otis was loading a "3d brigade with plain coatings" for the army at Valley Forge. He could not understand why application had not been made sooner to the eastern states, where ports were open and large amounts of clothing had been accumulated. If supplied with money and wagons, he assured Washington late in December 1777, he could furnish the troops with good clothing.[35] Unfortunately, sufficient money for procurement and wagons were the very items the Clothing Department lacked.

Otis clearly did not feel himself governed by the same monetary restraints that hampered Mease in his efforts to procure clothing. Otis had entered into contracts with various people in Massachusetts, Congress discovered, for a large quantity of clothing "at the most extravagant rate of 10 to 18 hundred per cent" higher than the prices set by Congress for clothing furnished the troops. Some of the holders of the goods even refused to

33. (1) Washington Papers, 63:28 (Mease to Washington, 16 Dec 77). (2) Fitzpatrick, *Writings of Washington*, 10:195 (to Pres of Cong, 23 Dec 77). (3) RG 11, CC Papers, item 31, fol. 43 (Mease to Francis Dana, 30 Jan 78).

34. See below, Chapter 14.

35. Washington Papers, 63:105 (to Washington, 24 Dec 77).

deliver until they were paid in cash. An alarmed Congress directed Otis to pay only for such clothing as he had already received. It recommended that the Massachusetts legislature seize the undelivered clothing, fixing the prices to be paid for it in line with earlier resolutions of the Continental Congress.[36]

Otis' optimistic views on clothing supply led Washington to question why a clothing shortage should exist. Exasperated with Mease, who lingered at Lancaster despite orders to report to camp, he demanded an investigation of the Clothing Department. Beyond appointing a committee of three on 19 April to confer with Mease, however, Congress took no action.[37] There the matter rested until the summer of 1778 when Washington again voiced his criticism of the department. Unless clothing supply was better regulated and put under the direction of "a different Head," he was convinced, the Continental Army would never be clothed. He found Mease unfit for the post he occupied. Washington charged him with failure to appear at camp where duty demanded his presence, with lack of industry, and with an "unaccommodating cast of temper." The latter caused conflicts with officers who had to transact business with him and resulted in a steady stream of complaints to Washington. His agents, too, whether "from inability or a want of industry, or proper instructions from their principal," were incompetent. In Washington's opinion, it was "want of proper exertions and provident management" to procure supplies that had brought distress to the troops rather than any real scarcity of clothing. To the lack of clothing he attributed not only the deterioration of the soldiers' spirit and pride but also desertion and death. Washington's exasperation is understandable. The scarcity of clothing at Valley Forge in the winter of 1777–78 and throughout the following spring, however, cannot be attributed wholly to the failure of Mease and his deputies to exert themselves. As already noted, a shortage of funds that plagued the Clothing Department as it did other supply agencies was a major factor in causing the clothing deficiencies. Contributing to the same shortage was the continued unwillingness of traders to sell clothing at prices deemed reasonable by Congress.[38]

Congress referred Washington's letter to a committee that brought in a report on 19 August 1778. It recommended that in the future the states provide the clothing for their respective quotas of troops in the Continental Army. It offered a number of resolutions for the consideration of Congress. One proposal was that Mease and his agents make no more purchases and that all supplies in their custody be turned over to a person appointed by Congress to receive them. It suggested that each state select an agent who would be stationed with the Continental Army and would issue clothing for

36. *JCC*, 9:1071–73 (31 Dec 77). See also 9:1043–44 (20 Dec 77).

37. (1) Fitzpatrick, *Writings of Washington*, 11:240 (to Pres of Cong, 10 Apr 78). Washington ordered Mease to come to camp on 17 April and again on 16 May, but it was June before Mease appeared. See 11:269–70, 398; 12:50. (2) *JCC*, 10:366.

38. Fitzpatrick, *Writings of Washington*, 12:278–79 (to Pres of Cong, 4 Aug 78).

its respective quota of troops. Any clothing imported on the account of the United States should be distributed proportionately among the states or their agents for the use of their troops. Any clothing furnished as a bounty under the resolutions of Congress should be paid for by the United States. Finally, the committee proposed that Congress direct Washington to appoint a court of inquiry to investigate the conduct of Mease and his agents in order to ascertain whether "the grievous Sufferings of the Army for Want of Cloathing have been owing to his or their Misconduct or Neglect of Duty." Mease was to be suspended from office pending the results of the inquiry.

Congress postponed consideration of this report until the first week of October 1778, when it referred it to still another committee. The latter's report was practically the same as the one submitted in August, although the committee proposed substituting the Board of War for the Commander in Chief as the agency for conducting the inquiry into the conduct of the Clothing Department.[39] There is no evidence that Congress ever took any action of this report. Mease, however, had written to the President of Congress, enclosing his earlier letter of resignation to Washington to prove that he had remained in office reluctantly and only until a successor could be appointed. He again submitted his resignation with a request that Congress choose "as soon as they conveniently can" some suitable successor. Until then he would continue to serve. Congress took no action; it ordered the letter "to lie on the table till the affairs of the clothier's department are taken into consideration."[40]

Washington's Proposals

When Congress sent a committee to camp at the end of 1778 to confer with Washington on his problems in general, he again urged a reorganization of the Clothing Department. He reviewed at length the problems of clothing supply and repeated a number of suggestions for reform that he had first advanced a year earlier to the congressional committee at Valley Forge.[41] He urged that "some plan should if possible be concerted to produce regular and constant Supplies." It was up to Congress to determine the method that would best produce this result, but Washington preferred to rely on government contracts with France because only the funds and credit of the United States were sufficient for the large quantity of supplies required. If the states alone were to provide for their quotas of troops, they would

39. *JCC*, 11:812–13 (19 Aug 78); 12:996–97 (9 Oct 78).

40. (1) Ibid., 12:937 (21 Sep 78). (2) RG 11, CC Papers, item 78, 15:381 (Mease to Henry Laurens, 19 Sep 78).

41. Fitzpatrick, *Writings of Washington*, 14:35–42 (to Committee of Conference, 23 Jan 79); see 10:383–87 (to committee of Congress, 29 Jan 78).

have to depend on private mercantile contracts. Supplies would not be ample, he predicted, because of the many impediments that "now lie in the way of trade."

To have sufficient supplies on hand, Washington argued, larger quantities ought to be procured than were needed. Cargoes, moreover, ought to be "assorted," for then the loss of one parcel "would not derange the whole Stock" of a particular supply. If by good fortune the whole quantity of one supply arrived safely and was more than what the Continental Army required, the surplus could be sold for a profit. Pursuing this point, he recommended the importation of cloth rather than clothing; the material could then be made up into clothing only as needed. In any case, he wrote, every regiment had tailors who could do the work and who would provide uniforms with a better fit.

Whether the United States or each state undertook to purchase the clothing for the troops, Washington thought a definite organization consisting of a Clothier General, state, or sub-clothiers, and regimental clothiers was essential for handling distribution. The Clothier General was needed to furnish estimates of needed supplies, to receive the supplies, to superintend their distribution to the state clothiers, and to keep an account of what they received at stated periods of 3, 6, or 12 months. He would stand between the government and the Continental Army to see that the first was not imposed upon and that the Army got what was duly allowed. He would also stand between the United States and each state, for it would be his responsibility to settle all accounts with the state clothiers according to actual deliveries and also to provide for the Cavalry, Artillery, and all corps not belonging to, and hence not supplied by, a particular state.

Washington thought that state clothiers should be appointed by their own states, especially if each state was to provide for its own troops. If the Continental Army was to be supplied by the United States, each state clothier would receive the proportion of clothing for the troops of his state from the Clothier General. He would issue to the regimental clothiers and keep exact accounts with each regiment. He would inspect the accounts of the regimental clothiers to see that the articles delivered were duly issued to the troops, that the cost of all clothing above the bounty allowance drawn by the noncommissioned officers and soldiers was charged to them in the monthly payrolls, and that the officers received what was allowed them and no more. If the states were to provide for their troops, the state clothier would call upon the governor or purchasing agent of the state for the needed supplies and would perform these same duties. Washington wanted stricter clothing regulation because soldiers were notoriously careless with clothing and bartered or even gambled it away. He therefore was insistent upon weekly inspection and either the infliction of punishment or a demand for restitution for any item of clothing for which the soldier could not account.

The regimental clothier, who was also the regimental paymaster, would get returns from the captains or other officers commanding companies that specified the mens' names and their particular clothing needs. When consolidated into a regimental return, signed by the commanding officer of the regiment and countersigned by the regimental clothier, this return would be submitted to the state clothier, who would then use it as a voucher, after he made delivery, in his settlement with the Clothier General. The regimental clothier would keep an account with every officer and soldier for every article delivered, taking receipts from them as vouchers for the delivery. He would credit them for the governmental allowance and charge for every item they received, making deductions in the monthly payrolls for whatever they owed. Washington thought that all issues of clothing ought to be made only through these designated channels. This procedure would in the future prevent any unequal distribution of clothing to the regiments or officers and would avoid the confusion and loss that irregular applications from commanding officers to agents in different places had occasioned in the past. If clothiers departed from the rule in one instance, Washington wrote, "it immediately opens a door for endless irregularities and impositions and it becomes impossible to prevent double and unequal drafts or to keep proper accounts either with officers or soldiers."

Washington thought that issues of clothing ought to be made at stated periods in order to promote health, increase uniformity, and foster pride in appearance and thereby raise soldiers in their own esteem. He proposed that issues be made on the first of June and the first of January. In June the issue would be a waistcoat with flannel sleeves, two pairs of linen overalls, a shirt, a black stock, a small round hat, and one pair of shoes; in January, a double-breasted waistcoat to be worn over the summer one, woolen overalls (preferred over a pair of breeches), yarn stockings, a shirt, a woolen cap, and a blanket when necessary. He added that if Congress designated and strictly required the use of a specific color for the cloth of each state and for the uniform of each regiment, good results would follow. This action would eliminate interference and competition in the purchase of cloth because the color of one state would not be suitable for another. The use of many colors would keep the demand and the price of any one from increasing. Different colors also would make it easier to distinguish good and bad soldiers and officers. Finally, by settling on one uniform and not permitting changes dictated by the fancy and caprice of a commanding officer, Congress would save officers from the unnecessary expense and trouble caused by such discretionary changes. He even suggested that Congress might settle the design of the uniform, giving each state clothier a pattern from which he would not be permitted to deviate.

Congress received these ideas, but it was in no hurry to act. After two months passed, Washington, in mid-March 1779, urged Congress to decide on a substitute measure if it did not like the plan he had outlined.

When an important matter is suspended for deliberation in Congress, I should be sorry that my sollicitude to have it determined, should contribute to a premature decision. But when I have such striking proofs of public loss and private discontent from the present management of the clothing department. When accts., inadmissible if any system existed, frequently remind of the absolute necessity of introducing one. When I hear as I often do, of large importations of cloathing which we never see, of quantities wasting and rotting in different parts of the Country, the knowledge of which reaches me by chance. When I have reason to believe that the money which has been expended for cloathing the Army, if judiciously laid out and the Cloaths regularly issued would have effectually answered the purpose. And when I have never till now seen it otherwise than half naked. When I feel the perplexity and additional load of business thrown upon me by the irregularity in this department, and by applications from all parts of the Army for relief; I cannot forbear discovering my anxiety to have some plan decided for conducting the business hereafter, in a more provident and consistent manner.[42]

The Board of War now exerted its influence. Since Congress had suspended purchases by Mease and his agents, it pointed out, the United States had no purchasing agents in the field to buy the goods daily being landed at various ports. Instead, such importations were falling into the hands of private buyers; if action was not taken at once, it warned, the Continental Army would either be in want or obligated to pay extravagant prices to merchants and speculators. The appointment of purchasing agents was necessary. If the Clothing Department was not reorganized, the Board of War thought, procurement might be more appropriately handled by the Commerce Committee rather than itself because the committee had a better knowledge of mercantile affairs. Congress acted favorably upon this recommendation, directing the Commerce Committee to procure such clothing as the Board of War from time to time indicated.[43] The board expected the Commerce Committee to make a speedy purchase of necessary articles in the hands of various traders, and it immediately presented an estimate of needed articles to that committee. Unfortunately, the Commerce Committee judged that it could procure supplies only by importation, and it returned the estimate to the Board of War. Once again the board appealed to Congress. It pointed out that its experience indicated that Congress ought to appoint one person to make purchases and another to superintend the making and issuing of the clothing. No one man, it contended, could conduct both branches of the business. The only action Congress took was to authorize the Board of War to appoint a person to purchase until Congress issued further orders. The board's efforts to be relieved of the responsibility for purchasing clothing for the Army had failed.[44]

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42. Fitzpatrick, *Writings of Washington*, 14:244–45 (to Pres of Cong, 15 Mar 79).

43. *JCC*, 13:273–74 (5 Mar 79).

44. (1) RG 11, CC Papers, reel 158, 2:139–41 (Bd of War to Pres of Cong, 23 Mar 79). (2) *JCC*, 13:429–30 (8 Apr 79); 15:1077 (17 Sep 79).

Regulatory Legislation

On 23 March 1779 Congress enacted its first ordinance for regulating the Clothing Department, adopting Washington's proposal to organize the department under a Clothier General, state clothiers, and regimental clothiers. Congress appointed the Clothier General, who was subject to the orders of the Board of War and the Commander in Chief. Each state appointed a state clothier, who was answerable to it for his conduct though in case of neglect or misbehavior the Commander in Chief could remove him. Handicapped by fiscal difficulties, Congress made no provision, however, for any centralized control of purchases. In lieu of Washington's proposal that purchase be made either by the United States or by the states, Congress adopted a plan involving both. Under the regulation the Board of War delivered to the Clothier General all clothing supplies imported and all purchased by Continental agents within the United States. Of these supplies, each state clothier received from the Clothier General that proportion of the imported clothing assigned to the troops of his state as well as all clothing purchased at the expense of the United States by state agents within his state. In accordance with Washington's recommendations, overalls were substituted for breeches, and the purchase of textiles was given preference over the purchase of ready-made clothing. Congress, however, did not prescribe the design and color of the uniform but left that task to Washington.[45]

These resolutions contained one serious oversight. Regarding the distribution of clothing by state clothiers, the regulation made no provision for taking care of those units of the Continental Army that did not belong to any state. Congress did not correct this omission until 16 November 1779. It then authorized the appointment of a subclothier to receive from the Clothier General and the several state clothiers, and then to distribute, the proportion of clothing assigned to the Artillery, Cavalry, artificers, and corps composed of troops from different states.[46] Unfortunately, the regulation overlooked the needs of officers commanding in corps unconnected with the lines of particular states. Washington later warned Congress that if it did not take effective measures to provide for these officers, they would be unable to remain in service. Aides-de-camp not belonging to the line and many staff officers were equally distressed by their lack of clothing.[47]

Congress had directed the Board of War to report on the salaries to be given to the officers of the reorganized Clothing Department. On 5 April Congress authorized less generous terms than the board had proposed four

45. Ibid., 13:353–57.
46. Ibid., 15:1275–76.
47. Fitzpatrick, *Writings of Washington*, 18:207–11 (to Pres of Cong, 3 Apr 80). See also 18:46–47 (to Joseph Reed, 23 Feb 80); 117–18 (to Col Josiah Starr, 16 Mar 80).

days earlier. It set the salary of the Clothier General at 5,000 dollars per year. It called upon the states to determine the pay of the state clothiers, allowing each two rations and forage for one horse per day during the time they were in actual service. Congress fixed an allowance of 30 dollars a month in addition to their pay in the line for regimental clothiers. It also allowed the Clothier General one clerk, who received the same allowance as clerks of the Continental Army auditors.[48]

Washington thought this regulation would remove many of the difficulties under which the Continental Army had labored. The failure of Congress and the states to put it immediately into effect, however, must have raised some doubts. On 29 May arrangements still had not been completed. The appointment of Pennsylvania's state clothier to reside at camp, Joseph Reed informed Washington, would be "unseasonable" at that time.[49] On 27 June Washington found it necessary to inquire whether Mease was still Clothier General.

> I am at a loss to know to whom I am to address myself, as head of the Clothier's department. Every deputy seems to act by a separate and independent authority. There seems to be no person to take a general superintendency, to apportion the stock on hand to the different parts of the Army, their numbers and wants; and to preserve a common rule in the mode of delivery. For want of this while the troops at one post are amply supplied, those at another are suffering the greatest distress.[50]

Congress, in fact, had elected Peter Wikoff to the post of Clothier General three days earlier, but on 9 July 1779 he declined the appointment because he considered the salary in depreciated currency wholly inadequate. George Measam, who had continued to serve in the Clothing Department since his appointment as commissary of clothing for the Northern Army in the fall of 1776, solicited appointment to the office as the senior officer in the department, but he failed to obtain it. Congress proceeded to elect Perzifor Frazer to the post, but he too refused it, explaining that "the salary annexed is by no means equal to the post."[51]

Appointment of James Wilkinson

Finally, on 24 July 1779 Congress elected James Wilkinson as Clothier General. He enthusiastically accepted, only too happy to be back with the

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48. *JCC*, 13:422 (5 Apr 79). For the Board of War's report, see 13:404–05.

49. (1) Fitzpatrick, *Writings of Washington*, 14:340 (to Maj Gen Alexander McDougall, 5 Apr 79). (2) Washington Papers, 109:12 (Reed to Washington, 29 May 79).

50. Fitzpatrick, *Writings of Washington*, 15:329 (to Pres of Cong, 27 Jun 79).

51. (1) *JCC*, 14:765 (24 Jun 79); 836 (15 Jul 79); 853–54 (19 Jul 79). (2) RG 11, CC Papers, item 78, 15:453–55 (Measam to Bd of War, 31 May 79); item 78, 24:53 (Wikoff to Pres of Cong, 9 Jul 79); reel 49, item 41, 3:93–94 (Frazer to Cong, 19 Jul 79).



JAMES WILKINSON

Continental Army and "its lengthening horizons of opportunity."[52] Wilkinson had resigned from the Army on 6 March 1778. He had seen service in the Northern Department, and, much to the disgust of other officers, he had been brevetted brigadier general in November 1777 for carrying General Gates' Saratoga victory dispatch to Congress. During his service in the Northern Department, he had acquired a reputation for stirring up controversy among the officers. Characteristically, en route to Philadelphia with Gates' dispatch, he had lost no opportunity to repeat a contemptuous remark that Brig. Gen. Thomas Conway had made in a letter to Gates, to the effect that "Heaven has been determined to save your country, or a weak general and bad counsellors would have ruined it."[53] Wilkinson's appointment could scarcely have been pleasing to Washington, and a cool reception awaited him when he joined Washington's staff. When Wilkinson communicated with the Commander in Chief in September 1778, the latter responded routinely with instructions concerning places of deposit for clothing and preparation of supplies for the winter. He pointed out the necessity of caring for the immediate needs of the soldiers. Then, with past experience in mind, Washington added:

The inconvenience and load of business which has been heretofore thrown on me,

52. (1) *JCC*, 14:844. (2) RG 11, CC Papers, item 78, 24:59 (Wilkinson to Pres of Cong, 25 Jul 79).

53. (1) George F. Sheer and Hugh F. Rankin, *Rebels and Redcoats* (New York, Mentor Book ed., 1957), pp. 338, 339–40. (2) James R. Jacobs, *Tarnished Warrior* (New York, 1938), pp. 46, 53–56. (3) Though Wilkinson continued to be referred to by his brevet rank of brigadier general, the position of Clothier General, as has been indicated, carried no military rank.

for want of system and arrangement in this department, and from the Cloathier's having been very seldom with the Army, induces me to hope, and I persuade myself that it will be the case, that you will use your best exertions to put matters in a proper train, and after you have done it, that you will employ as much of your time with the Army as will be consistent with the great Objects of your appointment.[54]

Washington's hope died within two months. On 18 November he informed Maj. Gen. William Heath, "I am again reduced to the necessity of acting the part of Clothier General."[55] Wilkinson was more often absent than present at headquarters, although it is only fair to note that he left his assistant clothier general, John Moylan, at camp to supervise the issue of clothing to the main Continental army. Wilkinson had appointed Moylan as his assistant on 1 October 1779; he was assisted by two clerks and a laborer. In organizing his department, Wilkinson also had appointed James Bull as a deputy clothier general on 20 September 1779. He was in charge of the clothing magazine at Springfield, Massachusetts, and was assisted by one clerk and six laborers. Another deputy clothier general, appointed on 1 December, took charge of the magazine at Newburgh, New York, while Deputy Clothier General Jacob Howell, appointed on 24 August, directed a third magazine at Philadelphia. The deputies at Newburgh and at Philadelphia each employed one clerk and a laborer.[56]

Although Wilkinson spent little time at headquarters, he acquired an understanding of the defects of the system under which he was supposed to operate. In October 1780 he presented an able analysis of these shortcomings to Congress and offered a plan for their reformation. Wilkinson pointed out that under the existing system the Board of War or the states through their agents procured all clothing: the board for the Continental Army as a whole, the states for their respective troops and officers. Both charged their purchases to the account of the United States. The inordinate number of purchasing agents operating on a commission basis in itself imposed a heavy burden on the country, but the competition between them was even more injurious in its inflationary effect. In any case, Wilkinson wrote, state procurement was unsatisfactory because some states, such as New York, had been deprived of seaports by British action and could not supply the needs of their troops by purchases abroad, while others were so remote from the area in which their troops served that the transportation of supplies to them was expensive and precarious. Such had been the experience of North Carolinians serving with the main Continental army, and similar inconveniences would be experienced, Wilkinson pre-

54. Fitzpatrick, *Writings of Washington*, 16:280–82 (13 Sep 79).
55. Ibid., 17:123 (18 Nov 79).
56. RG 11, CC Papers, item 78, 24:249–50 (Wilkinson to Pres of Cong, 21 Mar 81).

dicted, by eastern troops in the event the theater of war moved southward.[57]

Issue procedures also were inadequate, Wilkinson observed. Issues could not be made in strict conformity to the law of 23 March 1779. In the first place, partial issues were frequently made without the knowledge of the Clothier General or his assistant. In the next place, state clothiers never turned in exact returns of the goods received from their respective states; since such stocks were deducted from their proportion of the general stock supplied by the Clothier General, the less they reported the larger their share was from the general supply. Reform was particularly necessary in the issue of clothing to occasional drafts or levies. They scarcely knew their duty before their terms of service expired, and they departed taking the clothing they had received with them, to the detriment of the soldier who remained in service. If they shared in the distribution of bounty clothing, Wilkinson insisted, the Clothier General would be unable to "check the torrent of dissipation" to which the department had always been subjected. When he took charge of the department, he added, it had been in utter confusion, and though he had attempted to introduce order, the existing arrangements baffled his efforts.

In his plan for regulating the Clothing Department, Wilkinson proposed that the purchase of clothing by the states be abolished. The Clothier General was to receive all clothing imported by Congress and direct all domestic purchases, drawing money from the Continental Treasury on the basis of an estimate covering the annual disbursement of the department. Wilkinson also recommended that the annual clothing bounty, to which he offered ammendments, be distributed regimentally by the Clothier General; that the issues be made on 10 November for the winter clothing and on 1 May for the summer clothing; and that the issues be made only from the public stores of general issue annexed to the Continental Army or detachments in order to avoid the dissipation of stocks that occurred when issues were made at a variety of posts.[58]

Legislative Action

Congress referred this letter and plan to a committee of three. On 4 November 1780 the latter submitted a proposed regulation that incorporated most of Wilkinson's suggestions, but Congress recommitted it. Two months later the Board of War proposed additional regulations. Weeks passed without congressional action. Clothing preparations for the campaign of 1781 were not being pursued vigorously because Clothier Gen-

57. Ibid., 23:237–44 (to Pres of Cong, __ Oct 80).
58. Washington Papers, 154:12–13 (plan, __ Oct 80).

eral Wilkinson was determined to resign as soon as his accounts could be settled. The Clothing Department was not functioning adequately. The states depended upon the Continental Congress and the latter upon the states. The result was an insufficient supply of clothing.[59] Again in March 1781 the Board of War urged Congress to consider its proposed regulation for the Clothing Department.[60] Congress finally adopted a new regulation in June. It suspended all state purchases of clothing charged to the account of the United States, and abolished, effective 1 September, all state appointments and regulations. It required state clothiers to turn over all clothing in their hands to the Clothier General. Under the new provisions, the latter operated his department on the basis of an estimate of clothing and disbursements required for a year beginning on the first of November. He was to submit this estimate in June of each year so that Congress would have time to furnish the funds and adopt the necessary measures for procurement.

The Clothier General issued clothing by regiments, keeping regular accounts with each of the regimental clothiers. The latter settled their accounts with the Clothier General before the day of general issue. They received from him certificates of any arrearages of clothing due to the regiments and in turn submitted to him a certified return of the number of men for whom they would draw clothing on the day of general issue. All issues took place only at magazines or places of general issue with the Continental Army. Detachments obtained their clothing from magazines at camp before they left on assignment. The Clothier General or his assistants issued no clothing except by this method of return and certificates. Summer clothing was to be ready for issue on 15 April and winter clothing on 1 November. Actual delivery was made at the time directed by the commanding general. Furthermore, no clothing was furnished to any noncommissioned officer or soldier who was not enlisted for at least one year or for the duration of the war.

The Clothier General notified the Paymaster General of any extra issues of clothing made to the troops so that he could make deductions from their pay. The Clothier General also made returns every two months of the clothing on hand and of the personnel he employed. On his requisition, the Quartermaster General and his deputies furnished the means for transporting clothing and appointed a wagonmaster or conductor to accompany the clothing on the road. The latter was responsible for any damages or losses sustained; if they occurred, he could be tried by court-martial.[61]

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59. Fitzpatrick, *Writings of Washington*, 21:74–75 (to Maj Gen Benjamin Lincoln, 9 Feb 81).

60. (1) *JCC*, 18:932, 1018–21 (16 Oct and 4 Nov 80); 19:11–13 (2 Jan 81). (2) RG 11, CC Papers, reel 161, 1:325 (Bd of War to Cong, 3 Mar 81).

61. *JCC*, 20:662–67 (18 Jun 81).

This detailed regulation, based on the experience of the Clothing Department, corrected many of the defects that had become apparent during the course of the war. One provision of the new regulation, however, did not meet with Washington's approval. He thought it best for Congress to suspend the part that abolished state appointments and purchases unless it was fully satisfied that it could obtain a sufficient supply by means of its own resources without any aid from the individual states. In the past, he explained, a "peculiar Fatality" seemed to have attended all attempts to obtain clothing from abroad, and he feared that without state aid the troops might be literally naked by another campaign. Congress, however, did not suspend this provision.[62]

Appointment of John Moylan

Wilkinson had resigned on 27 March 1781, admitting with remarkable candor that he found his "Merchantile knowledge, *on thorough examination,* inadequate to the just Conduct of the Clothing Department under the proposed establishment."[63] His duties had become irksome, and when Congress reduced his salary and then did not pay it promptly, he had additional reasons for relinquishing his office. His assistant, John Moylan, solicited the position, and Congress appointed him Clothier General on 17 April 1781.[64] Functioning under a better administrative arrangement than his predecessor, Moylan proved to be a more efficient Clothier General.

Before the war ended certain changes were made in the supervision exercised over his department. When Robert Morris was appointed Superintendent of Finance, he became responsible for the purchase of clothing. About the same time, Congress appointed Maj. Gen. Benjamin Lincoln to the newly created office of Secretary at War, and in April 1782 it placed the Clothing Department under his supervision. Thereafter, until the war ended, the Clothier General submitted estimates to the Superintendent of Finance, who then arranged contracts for the needed supplies. Moylan also applied to Morris for funds to pay workmen for making clothing. He received instructions from the War Office and distributed clothing to the troops under Lincoln's direction.[65]

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62. (1) Fitzpatrick, *Writings of Washington,* 22:278–79 (to Pres of Cong, 28 Jun 81). (2) Burnett, *Letters,* 6:142 (Conn. delegates to gov of Conn., 12 Jul 81).
63. RG 11, CC Papers, item 78, 24:297–98 (to Pres of Cong).
64. *JCC,* 19:402.
65. Ibid., 22:177 (10 Apr 82).

CHAPTER 10

Clothing the Troops

Clothing the Revolutionary soldier, furnishing him a blanket, and providing a steady supply of shoes posed problems of procurement and distribution that were not easily solved. Not much cloth could be obtained in the colonies, for America was not a manufacturing country. Linen was woven in most colonial homes, but wool and woolen cloth were scarce. Such fabrics as were produced were coarse woolens and linens—huckaback, osnaburg, and tow cloth. Blankets were exceedingly scarce; felt hats, wool knitted stockings, and shoes, as well as breeches, jerkins, and other items of apparel made of leather, were more readily available.

Though the supply of clothing in the colonies was scant, prize cargoes and importation added to the stock, and the exercise of adequate controls might have averted much of the suffering experienced by the troops. But the need for a centralized control of clothing supply was unappreciated by many. Reluctant to pool resources, each state was inclined to concentrate on providing for its own troops. Soldiers from states better situated for obtaining supplies fared better than those from states denied access to foreign markets. Both Continental and state agents participated in procurement, often in competition with each other. This lack of system was compounded by the absence of proper timing. Clothing was often not ready in the fall for delivery, Washington wrote. Instead, it had to be purchased at that time or "drawn from the Lord knows whither." Clothing was "eked out at different periods as it can be had through the winter, till Spring, and in such a piecemeal way" that the soldier derived little comfort from it and suffered both in appearance and pride.[1]

Lack of Uniformity in Dress

Uniformity in dress was essential to an army, but none existed among the soldiers in 1775. The New England militia came garbed in various outfits. Many men had no uniforms, some wore uniforms that had seen service in the French and Indian War, and others wore militia uniforms. Since all the colonies had militia and independent companies, uniform styles were almost as numerous as company organizations, ranging from simple homespun outfits

1. Fitzpatrick, *Writings of Washington*, 20:371–74 (to John Sullivan, 20 Nov 80).

to elaborate costumes. The twelve companies of riflemen that Congress had directed to be raised in June arrived at Cambridge in hunting shirts and round hats, having been instructed to find their own clothing. Washington wore the blue and buff of the Virginia militia, but this combination, popularly associated with the dress of the Revolutionary soldier, was the exception rather than the rule. Not only in the Boston campaign but during much of the war, green and brown predominated as the colors of the clothing worn by the troops. Blue was not adopted as the military color of the Continental Army until 2 October 1779.[2]

Recognizing the difficulty and expense of providing clothes of any kind, Washington proposed adoption of a uniform consisting of a hunting shirt, that is, a long loose coat worn with long breeches or overalls made of the same cloth, gaiter-fashioned about the legs and held down by straps under the shoes.[3] Accepting his suggestion that the hunting shirt would make a cheap and convenient uniform, Congress recommended that he procure the necessary tow cloth from Connecticut and Rhode Island. Washington promptly called upon the governors of those states to buy all available tow cloth and to set tailors to work. He added that a pattern for the shirt would be furnished for uniformity.

Unfortunately, the scarcity of coarse linen in the New England colonies had caused such a demand for tow cloth for family use that little was to be found.[4] Washington was disappointed in his efforts to provide hunting shirts, and his troops continued in their varied garments. Since the New England men who had rushed to arms had brought no change of clothing with them, their garments were becoming exceedingly tattered by the fall of 1775. Washington urged Congress to act, pointing out that the clothing of the troops would do little to protect them from the winter cold; in fact, he reported, the troops were already "in a state of nakedness." Moreover, many of the men had been without blankets the whole campaign. As a result of Congress' failure to clothe the troops, one observer found, the Continental Army in general was "not badly accoutered, but most wretchedly clothed, and as dirty a set of mortals as ever disgraced the name of a soldier."[5]

Payment by Wage Stoppage

The need to replace the motley garb of the troops at Cambridge with an

2. (1) Washington Papers, 108:73 (Bd of War estimate, 25 May 79). (2) Fitzpatrick, *Writings of Washington*, 16:387–88 (GO, 2 Oct 79).

3. Force, *Am. Arch.*, 4th ser., 6:426 (GO, 6 May 76); 5th ser., 1:677 (GO, 24 Jul 76).

4. (1) Fitzpatrick, *Writings of Washington*, 3:387 (to Gov Nicholas Cooke, 4 Aug 75); 389 (to Gov Jonathan Trumbull, same date); 511 (to Pres of Cong, 21 Sept 75). (2) Force, *Am. Arch.*, 4th ser., 3:461 (Gov Cooke to Washington, 30 Aug 75).

5. (1) Fitzpatrick, *Writings of Washington*, 3:511 (to Pres of Cong, 21 Sep 75). (2) Henry S. Commager and Richard B. Morris, eds., *The Spirit of 'Seventy-six* (New York, 1967), p. 153.

acceptable uniform was among the many problems considered by Washington during the first council of war that he held with his general officers. They agreed that each general officer should "cloath a Person according to his own Fancy & Judgment" and that the best uniform should then be selected as a model for the Continental Army.[6] There still remained the problem of providing the uniform. In the British Army soldiers purchased their own clothing, the government furnishing many of the articles and deducting the price from their wages.[7] The American officers in council favored adoption of the same procedure in the Continental Army. A committee sent by Congress to confer with Washington made the same recommendation. When Congress authorized the enrollment of a new Continental force of a little more than 20,000 men in November 1775, it directed that clothing be provided by the United States and paid for by deducting 1⅔ dollars per month from each soldier's wages. It also ordered that as much of the uniform cloth as possible was to be dyed brown. Regiments were to be distinguished by the use of different facings on the coats. Washington promptly directed the commanding officers of the newly established regiments to meet with the Quartermaster General "to fix upon the Uniform of their respective Regiments" so that there would be no delay in making the clothing.[8]

At the same time, Congress resolved that any man enlisting in the new regiments being raised at Cambridge and bringing a good blanket with him would be allowed 2 dollars for it and permitted to keep it at the end of the campaign.[9] The Quartermaster General made every effort to procure blankets, but he was unable to supply the troops. Washington thereupon appealed to the Massachusetts legislature to help by a house-to-house collection of all spare blankets. It responded by calling for 4,000 blankets, apportioning this number among the towns, and providing funds to pay for and transport the blankets to camp. Rhode Island, too, forwarded blankets to Washington's troops.[10]

Having decided to provide clothing, Congress, within a year, was utilizing this decision as an inducement to enlistment. To encourage noncommissioned officers and soldiers "who shall engage in the service during the war," Congress offered them an annual clothing bounty despite the difficulties imposed by the scarcity of clothing. In 1776 this bounty, valued at 20

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6. Washington Papers, 19:16 (council of war, 8 Oct 75).

7. Deduction of a fixed sum for clothing in the British Army dated from the days of Elizabeth, if not earlier. Sir John W. Fortescue, *A History of the British Army*, 13 vols. (London, 1899–1930), 1:284.

8. (1) Force, *Am. Arch.*, 4th ser., 3:1155–57 (committee report). (2) *JCC*, 3:323–24 (4 Nov 75). (3) Fitzpatrick, *Writings of Washington*, 6:87, 96 (GO, 13 and 17 Nov 75).

9. Ibid., 6:17 (GO, 23 Dec 75). (2) *JCC*, 3:323–24 (4 Nov 75).

10. (1) Fitzpatrick, *Writings of Washington*, 4:214–15 (to Gov Cooke, 6 Jan 76); 4:178 (to Mass. legislature, 23 Dec 75). (2) Force, *Am. Arch.*, 4th ser., 4:1374–78 (Mass. House of Representatives resolves, 4 Jan 76).

dollars, consisted of two linen hunting shirts, two pairs of overalls, a leather or woolen waistcoat with sleeves, one pair of breeches, a hat or leather cap, two shirts, two pairs of hose, and two pairs of shoes. If the soldier provided these articles himself, Congress authorized the paymaster to pay him the 20 dollars upon presentation of a certificate from the captain of his company.[11]

Shortages soon created arrearages in the clothing due soldiers. In September 1777 Congress directed that those who had not received their clothing bounty were to be furnished either with the designated articles or with substitute items of clothing. As a result of rising prices, the value of the bounty was then almost 48 dollars, and it increased further during the war as the rate of inflation mounted. In the face of continuing arrearages, Congress, in the summer of 1779, established a procedure for settling clothing accounts. The Clothier General was to estimate the value of the articles of a soldier's clothing bounty at the prices they were worth at the end of 1778. He transmitted this estimate to the regimental paymaster, who paid the soldiers for all clothing deficiencies on that basis with funds furnished from the military chest. This procedure was used thereafter to settle clothing accounts by the end of each year, or at the discharge of a soldier if that occurred before the close of the year.[12]

Problems Confronting Mease

Among the problems confronting James Mease when he became Clothier General in January 1777 was the multiplicity of colors in the Continental Army's uniforms. This problem was not readily solved. Mease went to Philadelphia, where he directed the production of clothing and tried to clothe each regiment in a uniform of one color. The choice of color, however, was left to the commanding officer of the regiment, whose judgment naturally was guided by his desire to clothe his men in smart attire. Officers did not always take into account the military implications of their choice. Col. Stephen Moylan, for example, selected a scarlet uniform—a red coat with blue facings—for his regiment of dragoons, much to the distress of Washington, who feared that the consequences would be fatal in operational areas because the colors were the same as those worn by the Queen's Dragoons. It was too late to alter these uniforms, but Washington's objections were met by providing "frocks" that could be worn over the red coats. Washington directed that all other red clothing on hand, some of which had been selected by infantry units, was to be dyed despite the high cost and the poor results predicted by Mease. Washington considered brown and white, and brown and buff, which

11. *JCC*, 5:855 (8 Oct 76).
12. Ibid., 8:717–18 (6 Sep 77); 14:970–81 (16 Aug 79).

had been used in a considerable number of uniforms, as "good standing" colors. Mease hoped to achieve better results when cloth imported from France became available.[13]

From the beginning of the war the supply of clothing had been dependent upon sources within the states. Clothing had been obtained by making collections from house to house of all articles that could be spared, by purchasing supplies that had been imported privately, and by utilizing what was found in cargoes of captured vessels. This last source of supply was too unreliable to depend upon despite the boldness of privateers. The only other way to meet the clothing deficiency was through purchase abroad by the United States. The Continental Congress soon tried this method of supply, but it was dangerous because vessels ran the risk of capture by British cruisers. Even when cargoes were landed successfully, difficulties in transportation delayed use of the supplies. From 1776 the port of New York was in the hands of the British, and for a time they also held Philadelphia. Cargoes could be landed safely only in New England—at Boston, Portsmouth, and elsewhere. Supplies then had to be hauled laboriously by wagons hundreds of miles from these ports to the Continental forces operating in New York, Pennsylvania, and New Jersey.

This long overland transportation, moreover, provided opportunities for loss and misappropriation of clothing, which Mease was never able to control. State authorities had no hesitancy in appropriating Continental supplies for their own use. The Secret Committee, for example, gave orders in 1777 that blankets at Bedford, Massachusetts, were to be delivered to the Clothier General. But as the blankets were being transported through Rhode Island and Connecticut, the authorities in those states, in need of supplies for the troops they were raising that summer, seized not only the blankets but also twenty bales of cloth. This action was particularly unwarranted, Clothier General Mease reported, because 1,000 blankets and 1,000 suits had been deposited in March with agents in Rhode Island for the needs of that state. Washington agreed with Mease that unless Congress acted to prevent such seizures, "every State will think itself intitled to seize what is passing thro' it." In response to Mease's appeal, Congress directed that Continental agents in the states were to deliver clothing only on the express orders of the Clothier General.[14] Late in the war the practice of opening packages that were en route through the southern states to troops under Maj. Gen. Nathanael Greene and the appropriation of supplies for purposes other than those in-

13. (1) Fitzpatrick, *Writings of Washington*, 7:420 (to Mease, 17 Apr 77); 8:33, 55–56, 98 (to same, 9, 12, and 20 May 77). (2) Washington Papers, 47:11, 56 (Mease to Washington, 12 and 18 May 77).

14. (1) Ibid., 48:74 (Mease to Washington, 6 Jun 77). (2) Fitzpatrick, *Writings of Washington*, 8:237–38 (to Mease, 13 Jun 77). (3) *JCC*, 8:473 (17 Jun 77).

tended caused the Board of War to complain that it would never be able to determine the sufficiency of supplies sent to the Southern Army.[15]

Commanding officers also felt free to plunder clothing supplies. In July 1777 Mease's assistant informed him that packages coming from Fishkill to headquarters were being stopped on the road and opened by Brig. Gen. John Sullivan, who took from them whatever he thought he needed. Mease complained that he could not properly conduct his business if every commanding officer at every post was at liberty to stop goods being transported from one post to another and take whatever he wanted. Maj. Gen. Israel Putnam at Peekskill later was guilty of seizing 400 blankets and a cask of shoes intended for the main army, which was then preparing to go into winter quarters at Valley Forge. Washington sharply called him to account. He pointed out that appropriating part of a shipment intended for the main army, after the Clothier General had allotted a due proportion to the other military departments, was "highly injurious to the Service," and he ordered that no such detention was to occur in the future.[16]

Loss of clothing en route because of inadequate controls over shipment was even more prevalent than its appropriation by state authorities or commanding officers. It was customary for procuring agents to forward clothing in small parcels, shipping them on wagons without guards or conductors. The result, Washington contended, was "in every case, loss of time, in many cases, the loss of the cloathing itself."[17] Drivers abandoned parcels at different places on the road, and in consequence their contents frequently were converted to private use. This mismanagement of clothing transportation during the first year of Mease's administration of the Clothing Department led Washington to advocate the use of a system of guards and conductors in the future. Such a system had been adopted by Otis and Andrews, Boston merchants who purchased clothing for the Continental Army. They had forwarded clothing from Boston to Fishkill only under the care of conductors. The latter were required to obtain a certificate of delivery from the deputy quartermaster general or the deputy clothier general at Fishkill and return it to Otis and Andrews.[18] This method eventually became the accepted way of handling clothing shipments, though its importance often had to be reemphasized.

Even when shipments were made under the care of an officer, delivery was not guaranteed, for wagoners frequently refused to comply with orders. In the winter of 1777–78, when the need for clothing was desperate at

15. Greene Papers, vol. 31 (Bd of War to Greene, 11 May 81). For deficiencies in clothing sent from Philadelphia to the Southern Army, see vol. 43 (John Hamilton to Greene, 10 Sep 81).

16. (1) Washington Papers, 51:129 (Mease to Washington, 22 July 77). (2) Fitzpatrick, *Writings of Washington*, 10:41–42 (to Putnam, 11 Nov 77).

17. Ibid., 12:445–47 (to Heath, 14 Sep 78).

18. Washington Papers, 85:14 (Otis and Andrews to Washington, 19 Sep 78).

Valley Forge, twelve wagonloads were sent from Boston under the care of an officer, yet the latter arrived at camp without the clothing. He had left it at Fishkill because the wagoners had refused to go any farther. Washington impatiently dismissed this "trifling excuse"; he did not think the officer had made every possible effort to procure other wagons. He hoped the packages had not been broken into, and he sent off an express to Fishkill ordering the deputy clothier there to forward the clothing in wagons to be furnished by the quartermaster.[19] Hiring wagons and teams proved particularly troublesome during most of the war. In the fall of 1778 when a concerted effort was being made to forward clothing to deposit points, Quartermaster General Greene found it difficult to procure a full supply of teams because of competition from private commerce in the Boston area, where merchants were giving as high as "12s. a mile per ton for transportation."[20]

Had Mease been able to exercise efficient control in transporting his supplies, he still would have been hampered in promptly and adequately clothing the soldiers by his lack of knowledge of the number of troops to be supplied and the destination at which they were to claim their clothing. In the spring of 1777, for example, some regiments from Massachusetts were ordered to Ticonderoga. The purchasing agents of the Clothier General placed about 2,500 uniforms at Bennington on the route the troops were to take to Ticonderoga. That route, however, was changed without notice to the Clothier General. Consequently, the troops arrived at Peekskill to find no clothing awaiting them. "The men," reported Maj. Gen. William Heath, "are almost naked and many of them Lousey and not a second Shirt on their Backs." In the meantime, Maj. Gen. Horatio Gates, then commanding the Northern Department, ordered the clothing at Bennington to be removed to Albany. He refused to give it up even though the troops for whom it was intended were at Peekskill. "This," Washington wrote Mease, "accounts for one half of the troops of that State [Massachusetts] being left naked." Before the arrival of this letter, Mease had sent his assistant to Peekskill. The latter satisfied the needs of the troops there by diverting to that post other clothing that was on its way to Philadelphia.[21]

The quality of the clothing supplied was so inferior that deliveries could scarcely keep pace with demands for replacements. Moreover, sizes were generally too small. In July 1777 Washington suggested to Mease that uniforms would give better service if they were made larger. Small sizes "may look like economy," he added, "but it is a false kind, as the Clothes do not

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19. Fitzpatrick, *Writings of Washington*, 10:330–31 (to Mease, 21 Jan 78); 334 (to Gen Putnam, 22 Jan 78).

20. Greene, *The Life of Nathanael Greene*, 2:145–46 (to Washington, 19 Sep 78).

21. (1) Washington Papers, 47:109 (Heath to Washington, 27 May 77); 48:74 (Mease to Washington, 6 Jun 77); 49:36 (Mease to Washington, 14 Jun 77). (2) Fitzpatrick, *Writings of Washington*, 8:207–08, 237–38 (to Mease, 8 and 13 Jun 77).

wear out fairly, but tear to pieces."[22] As in many a later war, criticism of clothing sizes was a perennial complaint, and Mease's response was to become only too familiar. It was not the sizes that were at fault, he argued, but the fitting. He was having clothing made up in three different sizes, but "in general so little pain is taken by the officers to fit the Men that I have often seen a large coat hanging like a sack on a little fellow, whilst you see at the same time a lusty fellow squeezed into a small one." Blankets also were scanty in size, and Washington warned procurement agents against being cheated in their purchases.[23]

The sparing use of cloth was so widespread in the production of uniforms that Congress in December recommended that the states employ special superintendents to inspect the work and see that the tailoring conformed to specifications laid down by the Board of War. Mease and his agent Samuel Caldwell, who inspected most of the clothing being made, took offense at the preamble of a congressional resolution which stated that "great waste of clothing has arisen from the want of fidelity or skill in the persons employed to make up the same." Mease considered this charge so serious that he felt an inquiry ought to be made into its merits, and Caldwell asked for an investigation to vindicate his honor. He went to the trouble of procuring affidavits from officers concerning his integrity. He also sent a tailor to appear before the investigators with evidence in the form of coats.[24]

Clothing Crisis, 1777–1778

The clothing crisis grew steadily worse during the fall of 1777. The prolonged campaign had been hard on clothing. So depleted did the stock become that Washington declared it a wonder that the troops could be kept in the field. Even the men in hospitals had no clothes and could not leave for that reason. Mease complained that lack of transportation prevented his sending supplies to Germantown, Pennsylvania. Washington thereupon authorized him to purchase, hire, or impress, "as circumstances may require from time to time, such number of horses and wagons as he needed." Moreover, since some persons had clothing in their possession but refused to sell it at reasonable prices, he empowered Mease to seize such articles as were necessary, "paying a generous price for the same." He cautioned the Clothier General, however, to use this authority with discretion.[25]

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22. Ibid., 8:432–33 (to Mease, 18 Jul 77).

23. (1) Ibid., 13:105, 170–71 (to Bd of War, 18 and 27 Oct 78). (2) Washington Papers, 51:129 (Mease to Washington, 22 Jul 77).

24. (1) *JCC*, 9:1044 (20 Dec 77); 10:103 (31 Jan 78). (2) RG 11, CC Papers, item 78, 15:301–02 (Mease to Henry Laurens, 29 Jan 78); 385–87 (Caldwell to Mease, 27 Jan 78); 393–94 (Caldwell to Francis Lightfoot Lee and James Novel, 6 Feb 78).

25. (1) Washington Papers, 56:42 (Mease to Washington, 13 Sep 77). (2) Fitzpatrick, *Writings of Washington*, 9:374–75 (to Mease, 15 Oct 77).

At the same time, Washington sent Congress lists of clothing needed by his army. Congress requested that Virginia, Maryland, Pennsylvania, New Jersey, Connecticut, and Massachusetts send all the clothing that could be collected and that was not immediately needed by their regiments which had not yet joined the Continental Army. Congress reiterated its plea a month later.[26] In Pennsylvania, where the British occupation of Philadelphia had been a shattering blow to patriots and where criticism of Washington, in some quarters, was not muted, reaction to the pleas was slow and carping. "There is great reason to fear that the increasing number of purchasers, by overbidding each other, will rather tend to raise the prices of goods still higher, than to procure greater supplies," the president of the Pennsylvania Executive Council wrote to President Henry Laurens of the Continental Congress. When the council conferred with the Clothier General, Mease probably presented a too flattering view of his efforts to clothe the troops. Noting the discrepancy between the quantity of clothing the Clothier General said had been delivered and the existing lack of it, the council tartly commented that officers had not supervised the soldiers closely enough to prevent them from selling their clothing to buy whiskey. The enormous price demanded for whiskey by sutlers at camp was enough "to strip a soldier to the skin" in a few weeks. Sale of clothing by soldiers was a "pernicious practice" throughout the war; Washington was taking action against it as late as 1782.[27]

The large supply of clothing that the Secret Committee had ordered from abroad in the spring of 1777 failed to arrive in the fall. By November Congress was urging the commissioners in France and Spain to complete clothing orders. It pointed out that clothing had been "seasonably ordered," but its failure to arrive was attributable to a variety of causes, not the least of which was the effectiveness of the British cruisers in patrolling American shores.[28]

As the British entered Philadelphia late in September 1777, Washington supplemented Mease's efforts to obtain clothing by dispatching staff and line officers to impress clothing and blankets, primarily from the disaffected and the Quakers in the area of operations. They were to give receipts for the articles taken, which were to be paid for by the Clothier General.[29] The supply obtained was meager. By November the main army's need for clothing and blankets was so desperate and the prospects of relief so slender that Washing-

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26. *JCC*, 9:809, 906–07 (16 Oct and 15 Nov 77).

27. (1) RG 11, CC Papers, reel 83, item 69, fols. 429–32 (Wharton to Laurens, 3 Nov 77). (2) Fitzpatrick, *Writings of Washington*, 25:131 (After Orders, 5 Sep 82); see also 13:250 (to Col Daniel Morgan, 12 Nov 78); 14:185–86 (to Gov William Livingston, 3 Mar 79).

28. *JCC*, 9:883, 968–69 (10 and 26 Nov 77).

29. (1) See Fitzpatrick, *Writings of Washington*, 9:248–49 (to Lt Col Alexander Hamilton, 22 Sep 77); 269 (to Clement Biddle, 26 Sep 77); 318 (to Col John Siegfried, 6 Oct 77). (2) *JCC*, 8:755 (27 Sep 77).

ton sent out officers to purchase and, where necessary, to impress supplies in Pennsylvania, Maryland, New Jersey, and Delaware. He had little faith, however, that seizing supplies would prove adequate to the demand; rather, it would "embitter the minds of the People, and excite perhaps a hurtful jealousy against the Army."[30] As soon as a state indicated that it would make the necessary collections itself, Washington recalled his officers. He urged Clothier General Mease to "set every Engine to work" to procure clothing, and he suggested to Congress that it appeal to the states both to procure supplies and, if necessary, to make "an immediate assessment on their Inhabitants."[31]

Congress responded by urging the states "to exert their utmost endeavours to procure" all the clothing and blankets possible. It further recommended that they each appoint one or more persons to issue the articles to their officers and soldiers in such quantities as the general officers from each state directed. Reasonable prices were to be set by the Clothier General or his deputy in proportion to the wages of the officers and soldiers. Convinced that some citizens would try to profit at the expense of their countrymen by withholding supplies from the market to raise prices, Congress less than a month later recommended that the states enact laws authorizing the appointment of agents to seize for the Continental Army all suitable woolen cloth, blankets, linens, shoes, stockings, hats, and other necessary articles of clothing that were being held by speculators or hoarded by individual families. A certificate stating the quality and quantity of the seized supplies was to be issued. State commissioners were to fix the prices at which payment would be made for the seized merchandise, and they were to draw on the Clothier General for payment.

Congress recommended also that the states use whatever cloth was seized to make up as much clothing as they could within a reasonable time, sending the finished garments as well as any remaining cloth to the Clothier General. It proposed that the latter distribute the clothing to the troops of the state furnishing it. Since there had been much criticism of the quality of the clothing provided in the past, Congress urged that the states appoint inspectors to superintend and direct the work of those employed in making the clothing so that it would conform to instructions from the Board of War. The states were to authorize suitable persons to collect and supply, at stipulated prices, the cotton, wool, flax, leather, and other articles needed in producing the clothing. Congress further recommended that the states employ a sufficient number of tailors and other artisans to supply the clothing for their battalions, exempting these workers, under proper regulations, from military

30. Fitzpatrick, *Writings of Washington*, 10:14–16 (to Gov Thomas Johnson, 6 Nov 77); 20–21 (to pres of Del., 8 Nov 77); 36–37 (to Pres of Cong, 11 Nov 77).

31. Ibid., 10:45–46 (to Mease, 12 Nov 77); 79 (GO, 18 Nov 77).

duty.[32] The following May Mease remarked that the commissioners appointed in Pennsylvania—hired for 4 dollars a day at government expense—had not been usefully employed. They had interfered exceedingly with his efforts. At Lancaster they had seized clothing in the hands of people who were working for the Clothier General. Rather than causing "any difference between interfering authorities," Mease informed Congress, he had submitted to the seizure.[33]

In writing to the congressional committee at camp in January 1778, Washington hoped that the resolutions of Congress calling on the states for action would bring a change in the existing clothing deficiency. He felt the resolutions would put "the business into a greater variety of hands, than it has heretofore been in, and under the providence of a more diffusive attention, besides exciting a laudable rivalship, and operating upon the attachments of the different states," they would probably be productive of the needed supplies. Washington cautioned, however, that effectual measures would have to be taken to prevent any competition between the agents of the states and those of the Clothier General. And he warned that the recommendations of Congress would only partially meet the clothing needs of the troops.[34]

In response to the congressional appeal, the states sent supplies for their respective regiments. Governor Patrick Henry, for example, dispatched nine wagonloads of supplies to Virginia's troops and promised to send an additional 15,000 pounds worth of woolens. Connecticut troops were always well supplied, but the Pennsylvania authorities lagged in their efforts. In mid-January 1778 Washington informed the latter that no clothing had come to his troops from them despite the fact that the "quantity of raw materials and the number of Workmen among your people, who being principled against Arms remain at home and Manufacture, [should make] it more in your power to cover your Troops well, than any other State."[35] The clothing supplies sent by the states were intended, however, strictly for the troops of the state providing them and could not be diverted to the use of needy troops from other states without causing dissatisfaction. There was little understanding of the necessity to pool resources. When Pennsylvania later complained that clothing collected in that state for the use of its troops had been issued to the main Continental army in general, the Clothier General denied the charge and contended that the state instead had been guilty of taking for its own use cloth purchased for the United States.[36]

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32. *JCC*, 9:968–69, 1043–44 (26 Nov and 20 Dec 77).
33. RG 11, CC Papers, item 78, 15:343–46 (to Laurens, 20 May 78).
34. Fitzpatrick, *Writings of Washington*, 10:382–83 (to committee at camp, 29 Jan 78).
35. Ibid., 10:172–73 (to Gov Patrick Henry, 19 Sep 77); 317–19 (to Pres Thomas Wharton, 18 Jan 78); 344–45 (to Gov Jonathan Trumbull, 24 Jan 78).
36. Ibid., 10:250–51, 443–44 (to Bd of War, 2–3 Jan and 10 Feb 78).

Arrival of Imports

In the spring of 1778 the clothing supply situation improved as a result of the arrival at New England ports of many vessels carrying cargoes of clothing and cloth. Indications were that the Continental Army was likely to be better clothed than it had been at any previous period. From his headquarters at Valley Forge, Washington in May suggested to Congress that it act quickly to relieve the distress of the troops. Half his army was without shirts; the need for blankets was "quite painful," and hundreds of lives had been lost, according to the doctors, because of the scarcity of clothing during the winter months. He also questioned the wisdom of allowing supplies to remain for any length of time at places easily accessible to the British Navy. It would be advantageous to store surplus clothing at inland posts.

Acting with unusual promptness, Congress on 28 May directed that all the imported linen, shirts, stockings, shoes, and blankets be sent forward from Boston, Portsmouth, and other New England ports to the Clothier General. It ordered that all other clothing be stored at Springfield or Worcester, Massachusetts, under the care of a storekeeper. Congress directed the Board of War to carry out these orders.[37] At the same time, citing the large volume of importations, Congress resolved to suspend all further purchases of clothing on the account of the United States by the Clothier General and his agents in the states. It recommended that the states provide their respective quotas of troops with shoes, stockings, and shirts, and it directed the Board of War to purchase these articles for the Continental Army until the Clothing Department was reorganized.[38] Since the main army was moving eastward, the Board of War changed the instructions of Congress. It ordered the imported shirts, shoes, stockings, and blankets to be transported directly to the deputy clothier at camp instead of to the Clothier General. The board also placed its agent, Samuel Fletcher, in charge of collecting the parcels of clothing that had been arriving for some months at the various New England ports.[39] He forwarded them to Springfield and Hartford, where the storekeepers were instructed to air, sort, and repack them before sending the clothing to camp. On 24 September Washington sent George Measam, the deputy clothier stationed at Fishkill, to superintend this work.[40]

Congressional orders forbade the firm of Otis and Andrews to purchase

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37. (1) Ibid., 11:416–17 (to Pres of Cong, 18 May 78). (2) *JCC*, 11:548–49 (28 May 78); see also 11:811 (18 Aug 78).

38. (1) Ibid., 11:517, 545–46 (21 and 28 May 78). (2) Believing that sufficient clothing and materials were now on hand, Mease himself had suggested the possibility of suspending further purchases. RG 11, CC Papers, item 78, 15:343–46 (to Laurens, 20 May 78).

39. The Board of War initially appointed George Williams of Salem, Mass., to transport and store these supplies, but when he declined, the Massachusetts Council, at the board's request, appointed Fletcher. Ibid. reel 157, 2:300–29 (13 Sep 78).

40. Fitzpatrick, *Writings of Washington*, 12:494–95 (24 Sep 78).

uniforms, but Fletcher, at the direction of the Board of War, turned over to it large quantities of imported woolens to be made into uniforms and linens for shirts. Washington directed Otis and Andrews to make a distinction both in the texture of the fabrics used and in the finish of the garments between clothing for soldiers and for noncommissioned officers. The firm was also to make certain that the clothing produced was not too small in size, to expedite production, and to pack the finished uniforms of different colors in separate parcels, each marked with the number and the color of the contents. Clothing of a particular quality and style of uniform, Washington instructed Measam in October, was to be packed in parcels of different sizes, containing 200, 300, 400, or 500 uniforms, each marked and numbered accordingly. Only a few parcels, however, were packed with 500 uniforms.[41]

To speed shipment, Washington in September 1778 directed the Quartermaster General to give Fletcher all aid possible. Past experience made him fear that the clothing would not reach the troops, and he therefore insisted that guards and conductors be sent with the parcels of clothing. There was good reason for his apprehension. Months later he learned that General Putnam had discovered at Danbury a considerable parcel of cloth, blankets, and clothing for a regiment that had been left there for over a year and had been "almost damaged by Moth." He believed that "near as much has been heretofore lost as has been used," as he wrote Measam, reiterating the necessity of employing guards and conductors.[42]

Washington had impressed upon Congress the necessity for speedily clothing the troops, and the latter directed the Board of War to exert itself to the utmost in transporting clothing to camp. In consequence, the board wrote to the Marine Committee to request the assistance of Maj. Samuel Nicholas of the Marines, who had been particularly successful in moving a quantity of arms. The board instructed him to take any additional measures necessary for expediting the transportation of clothing, gave him letters to Fletcher, Otis and Andrews, and the deputy quartermaster general in Boston, and furnished him with money for emergencies.[43]

The Board of War intended putting the whole Continental Army in complete new uniforms by early October 1778 if possible, and it proposed delivering all the new clothing at one time.[44] Adopting an idea long advocated by

41. (1) Otis and Andrews reported they could have 1,500 shirts, and more if necessary, made per week, and 2,000 uniforms per month. RG 11, CC Papers, reel 157, 2:300–29). (2) Fitzpatrick, *Writings of Washington*, 13:53 (to Measam, 9 Oct 78); 12:451–52 (to Otis and Andrews, 14 Sep 78). (3) Washington Papers, 85:14 (Otis and Andrews to Washington, 19 Sep 78).

42. Fitzpatrick, *Writings of Washington*, 12:453–54 (to Fletcher, 14 Sep 78); 450–51 (to Greene, 14 Sep 78); 14:217 (to Measam, 10 Mar 79).

43. (1) RG 11, CC Papers, reel 157, 2:300–30. (2) See also *JCC*, 12:973–74 (2 Oct 78).

44. Fitzpatrick, *Writings of Washington*, 12:453–54 (to Fletcher, 14 Sep 78); 454–57 (to Bd of War, same date).

Washington, it decided to replace breeches with overalls, thus eliminating the need for stockings in the summer. In the winter stockings were to be provided as in the British Army, but if the supply continued deficient, socks made out of old clothes could be substituted. The new uniform coats were brown or blue, faced with red. In order to prevent disputes in distribution, the Board of War decided that the clothing for the troops of each state would be drawn by lot. On 28 October Washington directed George Measam, in charge of issuing the clothing stored at Springfield, to govern his issues according to the drawings.[45] Despite the increase in the supply of clothing, shortages still existed in certain items, particularly in hats and blankets. Shortages in the last item were increased by the fact that many purchased blankets were so small that it took four to make one of the size needed. When the distribution of clothing occurred, the insufficiency in the quantity of these two articles prompted a "disagreeable oeconomy." Measam issued only one-fourth of the hats required. Caps were proposed for issue in lieu of the hats that were in short supply.[46]

The Board of War ordered that when the distribution was made, the old clothing—coats, jackets, and breeches—was to be turned in to the Clothier General for the use of hospitals and female followers of the troops. Washington's anticipation of trouble on this score was well founded, for within a week of publishing a general order on the subject, he had to rescind it. He found it impracticable to carry out the Board of War's recommendation since the soldiers looked upon the order as an attempt to deprive them not only of what they had earned by their service but also of what would make them more comfortable during the winter. He found one of their arguments particularly unanswerable. They pointed out that upon a "fair settlement there would be found a considerable deficiency of the bounty Cloathing for a year or two past, and that therefore it would be more equitable to make up the deficiency than to draw in the remains." He therefore dropped the matter, explaining to the troops that the quantity of the new clothing was greater than had been expected and that the old clothes, used for fatigue duties, would extend the life of the new uniforms. The issue of new clothing afforded him the opportunity to reiterate the need for cleanliness and care in preserving clothing and to reiterate earlier orders on weekly clothing inspections by company officers.[47]

As the winter of 1778–79 began, conditions were vastly different from what they had been the preceding year at Valley Forge. Now the men were clothed in stout serviceable uniforms, although blankets continued to be in short supply. Shoes also could not be supplied in the quantity needed. Wash-

45. (1) Ibid., 13:172–73 (to Measam, 28 Oct 78). (2) Washington Papers, 90:30 (certificates of drawing, 28 Oct 78).

46. Fitzpatrick, *Writings of Washington*, 13:164 (to Maj Gen Horatio Gates, 27 Oct 78).

47. Ibid., 13:197–98, 214–15 (GO's, 2 and 8 Nov 78); 244–46 (to Bd of War, 11 Nov 78).

ington learned that the whole number, in fact, would not exceed 7,000 pairs. Moreover, the shoes imported from France were exceedingly flimsy in quality.[48]

Clothing for Officers

While soldiers were being supplied with clothing in the fall of 1778, officers were facing the problem that Congress had made no clothing provision for them when it had established the Continental Army. They consequently were finding it extremely difficult, Washington wrote, to procure clothing, and then only "at the expense of all [their] pay." Given the circumstances, the Commander in Chief thought the "intervention of publick aid" was necessary, for otherwise officers would be obliged to quit the service. In November 1777 Congress had recommended that the states procure and sell articles of clothing to the officers as well as to the soldiers at such reasonable prices as the Clothier General assessed in proportion to their wages. This recommendation had induced the officers to look for some relief, but the intent of Congress had not been carried out; on the contrary, Washington reported, the officers maintained that in the few instances in which they had been able to obtain clothing from Army stores, they had been obliged to pay exorbitant prices.[49]

Washington had sounded out Otis and Andrews concerning the kind of cloth they had on hand suitable for officers' uniforms and about what could be procured if the Board of War authorized purchase. He then proposed that the board submit to Congress an estimate of clothing needed for the officers and obtain approval for importing the necessary textiles. The board sent his letter to Congress, which referred it to a committee. By that time Washington had again returned to the subject of the officers' distress. He proposed an alternative. If clothing could not be conveniently procured, an adequate sum of money ought to be allowed each officer in lieu of it.[50] This letter also was referred to the committee on the Clothing Department.

On 24 December 1778 Congress appointed a committee to confer with the Commander in Chief on the general operations of the next campaign. Washington seized this opportunity to enlarge upon the needs of his officers and to refer to his earlier proposals. He added that it would be necessary for Congress to ascertain the quantity and the prices of the clothing to be allowed and to fix a payment for each item when it could not be furnished, taking into account the real present cost of the article. This method, he suggested, would be preferable to that of the November 1777 recommendations which left

48. Ibid., 13:105 (to Bd of War, 18 Oct 78).

49. (1) Ibid., 12:454–57 (to Bd of War, 14 Sep 78). (2) *JCC*, 9:968–69 (26 Nov 77).

50. Fitzpatrick, *Writings of Washington*, 13:64–66, 244–46 (to Bd of War, 11 Oct and 11 Nov 78).

allowances and charges to the discretion of the Clothier General.[51]

The committee on the Clothing Department prepared a report in January 1779 embodying Washington's ideas, but its recommendations dissatisfied him. The number of articles that the committee proposed to furnish officers was ample and suitable, but the money to be paid in lieu of the articles was entirely inadequate. It proposed that the rate to regulate the prices of the clothing supplied be set at two-thirds of a dollar for one shilling sterling. When one considered, he wrote the committee sent to confer with him, that the officers' pay was moderate and that they had to exercise considerable economy to make it cover their needs even when articles were cheap, this price rate appeared to be rather high "now that every item was greatly increased in price." Compensation should be either made real and sufficient or laid aside entirely. "As it now stands, it will rather have a bad than a good effect. The Committee will easily conceive the reasonings and feelings of the Officers when they find that the, at present, trifling Sum of 102 dollars is given as an equivalent for the advantage of having been supplied with a complete Stock of Cloathing at a moderate price in proportion to their pay."[52]

The report that Congress finally accepted about two months later retained the proposed annual clothing allowance for officers that Washington had approved. This allowance included a plain regimental coat, a cloth and linen waistcoat, two pairs of cloth breeches, six fine linen shirts, six cambric or muslin stocks, a fine caster hat, six pairs of thread or fine worsted hose, four pairs of shoes, one pair of boots, and one blanket. In addition, Congress' resolution offered a more advantageous rate than the committee on the Clothing Department had proposed; prices were to be set at the rate of 10 dollars for one pound sterling in cost.[53]

During 1779, as inflation spiraled upward and caused even greater distress to the officers, Washington again and again made pleas for their relief. When the Board of War in May proposed adoption of a blue uniform for the Continental Army and prepared an estimate of the clothing that would be required, Washington quickly pointed out the need for submitting an estimate for officers' clothing and for devising some intermediate relief until the proposed long-range plan could go into effect. In August he again took up the subject with the board and at the latter's suggestion addressed a circular to the states in which he appealed to them to aid their officers. The Board of War had made available to the officers a small quantity of linen, to be sold to them at the price it would have brought in 1777. Washington appreciated this effort

51. Ibid., 13:485–91 (to Committee of Conference, 8 Jan 79); 14:28–30 (to same, 20 Jan 79).

52. (1) Ibid., 14:41–42 (to Committee of Conference, 23 Jan 79). (2) See *JCC*, 10:10–12 (unadopted report of the committee on Clothing Department).

53. Ibid., 13:358–60 (23 Mar 79).

but added that "three hundred Shirts which is said will be the amount of it, will contribute so little to the relief of the Officers, that it will scarcely be known, unless by the difficulties and complaints that will attend the distribution."[54]

Congress finally took action in November 1779. Referring to its earlier recommendations for providing clothing to officers at prices proportioned to their pay, it laid down rules for delivery and payment. Officers of the line and staff were each entitled to receive annually the following articles of clothing: 1 hat, 1 watch coat, 1 body coat, 4 vests (1 for winter and 3 for summer), 4 pairs of breeches (2 for winter and 2 for summer), 4 shirts, 4 stocks, 6 pairs of stockings (3 worsted and 3 of thread), and 4 pairs of shoes. On receipt of these items the officers were to pay 50 percent more than the prices of the same items in April 1775. The regimental clothier was to handle distribution of this clothing except that for staff officers not taken from the line. If the latter were attached to the corps of, or residing in, any state at a distance from the Clothier General's store, they were to receive their clothing from the sub-clothier of their respective state. Staff officers who received commissions on their expenditure of public money were not entitled to clothing at government expense.[55]

Shoe Supply

No article of clothing was more important to the soldier than shoes. Two pairs were included in the clothing bounty offered in the fall of 1776.[56] While the troops lay at Boston the problem of supply did not become acute, but thereafter long marches over rough terrain wore out shoes faster than they could be supplied. On the retreat from New York in November 1776, Sgt. John Smith recorded that "our soldiers had *no* shoes to wair; was obliged to lace on their feet the hide of the cattle we had kill'd the day before."[57] The shortage of shoes first received attention in the Northern Army. Maj. Gen. Philip Schuyler, then commanding that army, suggested in September 1776 that Congress appoint agents to erect and operate a tanyard wherever materials for tanning could be most readily procured and where hides—from cattle slaughtered to feed both the Northern Army and the main army—could be most easily conveyed. This method, he thought, would be the cheapest way of supplying the Continental Army with leather for shoes.[58]

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54. (1) Washington Papers, 108:72–73 (Bd of War to Washington, 25 May 79); 115:67 (same to same, 17 Aug 79). (2) Fitzpatrick, *Writings of Washington*, 15:160–61 (to Bd of War, 27 May 79); 16:176–78 (to same, 26 Aug 79); 173–74 (circular to states, 26 Aug 79).
55. JCC, 15:1304–06 (25 Nov 79).
56. Ibid., 5:855 (8 Oct 76).
57. Matthews and Wecter, *Our Soldiers Speak*, pp. 27–28.
58. Force, *Am. Arch.*, 5th ser., 2:246 (to Pres of Cong, 8 Sep 76).

Congress referred his proposal to the Board of War for consideration, but his suggestion apparently produced no results.

A congressional committee was sent to the Northern Department in the fall of 1776 to confer about the problems of the Northern Army. The disposition of the hides of cattle killed during the 1776 campaign was an aspect of operations that interested the committee. Its members soon discovered that agents of the Commissary Department at Ticonderoga, Albany, and elsewhere in the Northern Department had been disposing of hides at prices far below their real value because they would have spoiled during the summer. The committee halted any further sales and directed Commissary General Joseph Trumbull to have all hides dried and transported to Albany, where they could be sold or shipped elsewhere as Congress directed. Information on these low prices also reached the New York delegates in Congress through William Duer. Late in November Congress took action to prevent waste. It directed the commissaries in each military department to employ proper persons to take charge of the hides, cure them to prevent spoilage, and store them for the use of the Continental Army, subject to the orders of Congress.[59] Congress, however, took no steps specifically to provide a better supply of shoes until the summer of 1777. By then shortages were so great, Washington informed Clothier General Mease, who was responsible for shoe procurement, that some corps were "almost entirely incapable of doing duty" for lack of shoes. Such shoes as Mease had supplied were too small and consequently of little use. Imported shoes were "thin french pumps" that tore to pieces whenever they got wet. He urged Mease to procure as many shoes as he could, adding that 50,000 pairs would not be too many.[60]

In June Congress resolved to establish a Hide Department under the direction of a commissary who would receive all rawhides belonging to the United States and exchange them either for tanned leather or for shoes at the customary rate of exchange. He would then deliver the shoes to the Clothier General, who would distribute them to the troops. If such exchanges could not be made on reasonable terms, Congress authorized the Commissary of Hides either to provide tanyards, materials, and workmen himself, or to contract with proper persons for converting the hides into tanned leather. Congress placed the Hide Department under the supervision of the Board of War. At the latter's direction, the Commissary of Hides also made deliveries of leather to the Commissary General of Military Stores for making accouterments. Congress elected Peter Phillips to the office, which carried a monthly salary of 80 dollars. When he declined the post, Congress appointed George Ewing.[61]

59. (1) RG 11, CC Papers, 21:109–10 (George Clymer et al., to Trumbull, 10 Nov 76). (2) Force, *Am. Arch.*, 5th ser., 3:1351–52. (3) *JCC*, 6:973–74 (22 Nov 76).

60. Fitzpatrick, *Writings of Washington*, 8:292, 432–33 (to Mease, 23 Jun and 18 Jul 77).

61. *JCC*, 8:487–89, 607 (20 Jun and 5 Aug 77).

Only the exchange of hides for shoes, Washington later informed the Board of War, saved soldiers from being "rendered totally unfit for Service."[62] No immediate improvement in shoe supply was apparent, and three months after Ewing's appointment, Washington demanded to know on what terms he was disposing of hides. If the hides of all cattle consumed by the Continental Army were returned in leather, "they would much more than shoe the soldiers." Commissary Ewing reported that he had received 144,376 pounds of hides since 2 September 1777. He was in the process of exchanging them for leather at the rate of five pounds for one pound of sole leather, and eight pounds per one pound of upper leather. Despite his efforts, the tanned leather was coming in slowly.[63] The poor quality of the shoes procured, including those imported from France, and the continuing shortages led Washington to direct commanding officers to select their most suitable men and set them to work making moccasins for their corps. On the basis of returns by the officers, he directed commissaries to issue them hides. At one point the Commander in Chief offered 10 dollars to any person who produced the "best substitute for shoes, made of raw hides."[64]

Ewing was beset by difficulties in managing the Hide Department. He needed wagons to haul hides but found it impossible to obtain them from the Quartermaster General. To enable him to operate more effectively, Congress authorized the Commissary of Hides or his deputy at any military department to hire or impress one or more wagons for the use of the Hide Department. These wagons were not to be subject to any further impressment by officers of the Continental Army for any other service. Moreover, commanding officers of military departments, posts, or detachments were to supply guards for the wagons at the request of the Commissary of Hides. Since hides were a valuable asset in the market and since the method of exchanging them for tanned leather or shoes was susceptible of much abuse by dishonest agents, Congress soon found it necessary to direct the Board of War to draft regulations for the guidance of the Hide Department. It also gave the board authority to appoint and dismiss personnel in the department.[65]

The winter of 1778–79 again found the troops suffering from a lack of shoes. Washington went to Philadelphia to confer with Congress, and Brig. Gen. William Alexander (Lord Stirling) was left in command of the main Continental army. To meet the army's need for shoes, he directed the Commissary of Hides, on 1 January 1779, to issue upon the order of the brigade commanders whatever number of hides they needed to exchange for shoes.

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62. Fitzpatrick, *Writings of Washington*, 11:35 (to Bd of War, 6 Mar 78).

63. (1) Ibid., 10:45–46 (to Mease, 12 Nov 77). (2) Washington Papers, 62:90 (Ewing to Washington, 2 Dec 77).

64. Fitzpatrick, *Writings of Washington*, 9:341 (GO, 8 Oct 77); 10:94 (GO, 22 Nov 77).

65. *JCC*, 9:794–96 (11 Oct 77); 10:371 (21 Apr 78).

The officers then entered into contracts with shoemakers in their immediate vicinity to make shoes for the troops at an established rate of exchange for hides. Upon his return, Washington rescinded this order on 6 February, since it ran counter to the efforts of the Board of War to reduce shoe supply to a system in which only a few appointed commissaries handled the contracts. Those contracts that had been made, however, were completed.[66]

The Board of War had been attempting to satisfy the demands of the Continental Army and to perfect a regulatory plan for the Hide Department at the same time. To meet immediate needs it had established a factory at Newark, New Jersey, where shoes were produced with labor provided by soldiers drawn from the Maryland line. The board proposed establishing other production centers in Pennsylvania and Connecticut, but Washington objected to utilizing soldiers for this purpose in view of the small size of his army. "The numerous demands upon the line for purposes that cannot be dispensed with," he informed the board in April, "make it altogether inexpedient to increase them by any other, that can possibly be avoided." He thought supply ought to be maintained by continuing the system of bartering hides for shoes. The board placed other factories in operation—one at Allentown, Pennsylvania, and another at Middletown, Connecticut—that employed civilian labor. Even then the board ran into labor problems because the workmen who were also militiamen were subject to being called into service. Washington therefore requested governors to exempt these workers from militia duty on the grounds that they were more useful in the shoe factory than in the field.[67]

In the meantime, the Board of War had drafted a regulatory plan for the Hide Department that Congress adopted in the summer of 1779. Under this plan the board could appoint a commissary of hides in any state or grouping of states whenever the business of the Hide Department required it. The commissaries were allowed as many assistants and clerks as the board thought necessary to accomplish their business of receiving hides, converting them into tanned leather, and manufacturing shoes by using factories under their supervision or by contracting for the work. Responsibility for supervising the commissaries was now vested in the Clothier General, who received quarterly returns from them and, in turn, sent a consolidated quarterly return to the Board of War. All shoes were forwarded to the Clothier General, who distributed them to the Continental Army. The Board of War appointed five commissaries of hides—William Henry of Lancaster, Pennsylvania, for Pennsylvania, Maryland, and Delaware; John Mehelm for

66. Fitzpatrick, *Writings of Washington*, 14:71 (GO, 6 Feb 79); 16:176–78 (to Bd of War, 26 Aug 79).

67. (1) Ibid., 14:391–92 (to Bd of War, 15 Apr 79); 15:284–85 (to Gov Jonathan Trumbull, 18 Jun 79). (2) Washington Papers, 108:43 (Pickering to Washington, 24 May 79).

New Jersey; Moses Hatfield for New York; Robert Lamb for Massachusetts; and George Starr for Connecticut.[68]

The Board of War must have felt that it finally had the problem of shoe supply well in hand. By the fall of 1779, however, Washington was once again reporting that a "considerable part of the Army is now unfit, even for fatigue duty in these stony Grounds, and should circumstances require a move, must inevitably be deprived of the services of a number of Men fit for duty in every other respect but that of want of shoes." He had written to Commissaries Hatfield, Mehelm, and Starr for supplies and had requested the members of the board to put the forwarding of shoes from those commissaries "more immediately under their Eye." The shortages struck Washington as worthy of investigation:

> I cannot help thinking that there must be some mismanagement in conducting the Business, by those at present engaged in the Hide department. While the Brigadiers, thro' the necessity of the Case, undertook to make contracts of Hides for shoes, the Brigades were not only well shod, but generally had a stock on hand. Why matters should have taken a contrary turn the moment they were put into the hands of persons who have nothing else to attend to, deserve some investigation.[69]

Replies from the commissaries revealed that only small quantities of shoes could be supplied by late November. Commissary Hatfield had delivered 1,400 pairs of shoes in October and expected to turn in 1,500 pairs in November, yet he had 10,000 hides on hand. The Board of War had instructed the commissaries to confine their activities to their own districts in order to avoid competition. This regulation was sound, but Washington suggested that it would be advisable to direct the commissary of the state in which the main Continental army was located, and where the principal slaughter of cattle thus occurred, to correspond constantly with the commissaries in the states nearest to him and supply them with hides when he had more than he could handle. He instructed Moses Hatfield to send 2,000 dried hides to Philadelphia where they could be exchanged for shoes.[70] Since criticism of the shoes was continuing, Washington also advised the Board of War that it might be well to caution all the commissaries to pay particular attention to the quality of the shoes:

> It has been found that great abuses both with respect to the Public and the Soldiery have been practised in many cases and especially in the latter instance, by putting in small scraps and parings of Leather and giving the Shoes the appearance of strength and substance, while the Soals were worth nothing and would not last more than a day or two's march.[71]

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68. (1) *JCC*, 14:370–71 (23 Jul 79). (2) Washington Papers, 116:57 (Richard Peters to Washington, 3 Sep 79).

69. Fitzpatrick, *Writings of Washington*, 16:389–90 (to Bd of War, 2 Oct 79).

70. Ibid., 16:459–60 (to Bd of War, 12 Oct 79); 17:24–25 (to same, 25 Oct 79); 27–28 (to Hatfield, 25 Oct 79).

71. Ibid., 17:222 (to Bd of War, 6 Dec 79).

The Board of War had its own grounds for complaint. There was little hope of installing an orderly system, it reported, if regulations were violated. Officers of the line made a habit of bartering government-owned hides for supplies for their men. They thereby obtained partial supplies, but in the process increased competition and prices. Moreover, such action prevented the head of the supply department from knowing what stocks were on hand. In December 1780 regulations forbade officers of the line from making any contract or giving any orders for the purchase of any article without express authority from Congress. The only exceptions permitted were in cases of necessity where food and forage had to be provided for detachments or parties in places where those supplies could not be drawn from a store or magazine.[72]

If the troops suffered because tanners did not cure hides long enough to produce sound leather and shoemakers cheapened the quality of their shoes, they also were victimized by the fraudulent practices of some of the commissaries in the Hide Department. Upon assuming supervision of that department when he was appointed Clothier General, James Wilkinson discovered that there were irregularities and much confusion in the accounts of Moses Hatfield, commissary of hides for New York. Wilkinson thought that Hatfield had "acted with good designs," but his incompetence and implicit confidence in his deputy had involved him in fraud. He had obtained only a small number of shoes for a large number of hides. Wilkinson had no authority to remove a dishonest subordinate, and a year later Hatfield's accounts remained unsettled; large arrears were still due, and his deputy was still disposing of government property for his own benefit. Quartermaster General Pickering characterized Hatfield as "an arrant villian" and inquired, "Is there no way of bringing this fellow to Justice?"[73] Agents in the Hide Department managed to defraud the government in other ways. One Obediah Taylor made shoes for the Virginia line, but when he put in his claim for hides on the basis of the receipts he held for the shoes he had delivered, he failed to deduct the work performed by soldiers in making the shoes. Mehelm, who had uncovered this fraud, was sure that Taylor had been defrauding the government for some time, since he had purchased real estate worth 16,000 pounds despite the fact that he had not been "worth a Single Shilling" three years earlier.[74]

The operations of the Hide Department were largely confined to supporting the main Continental army, and like all other staff departments it was

72. (1) *JCC*, 18:1117 (4 Dec 80). (2) See also Washington Papers, 122:78 (Pickering to Washington, 30 Nov 79).

73. (1) RG 93, Pickering Letters, 124:83 (to Bd of War, 23 Dec 80). (2) See also Washington Papers, 124:84–86 (Wilkinson to Bd of War, 4 Jan 80). (3) Fitzpatrick, *Writings of Washington*, 17:379 (to Maj Gen William Heath, 12 Jan 80).

74. (1) Ibid., 18:110–11 (to Mehelm, 13 Mar 80). (2) Washington Papers, 131:113 (Mehelm to Washington, 28 Mar 80).

hampered by lack of money. Shortly before he resigned, Wilkinson informed Washington that the total absence of money had thrown the Hide Department into such disorder and confusion that the Commander in Chief could not expect the substantial assistance hitherto furnished. Lack of money might put a stop to the manufacture of accouterments, Washington replied, but he failed to see how it could affect the supply of shoes inasmuch as any number could be procured by contract with tanners and shoemakers, who would take hides from the places where cattle were killed and return shoes to the deposit point or store without "requiring a farthing of money." Washington suspected that some commissaries of hides were appropriating both hides and leather in order to pay their salaries and those of their deputies. Such irregularities, he informed the Board of War, ought to be checked by the Clothier General, "whose Business it is, could I by any means prevail upon him to give attendance at the Head Quarters of the Army."[75] But Wilkinson was at Philadelphia, settling his accounts preparatory to resigning.

Actually, the number of hides available for conversion into leather and shoes was diminishing because of the changes introduced by the system of specific supplies. When the states furnished their quotas of salted beef under this system, they apparently failed to turn in the hides of the slaughtered cattle, thereby reducing the supply available to the Hide Department for shoes.[76] With the introduction of the contract system of provisioning the Continental Army, the Clothier General, who on 18 June 1781 had been made responsible for the management, direction, and superintendence of hides in addition to his other clothing duties, had to adopt the contract method for procuring shoes since hides were no longer available for continuing the barter system. Accordingly, during the last year of the war, the Clothier General, at Morris' direction, made contracts for shoes, but the change was not effected without complaints about the quality of the shoes furnished and the shortages that developed when the shift to the new system was first inaugurated.[77] Throughout the war no single item of clothing gave more trouble than shoes.

Continuance of Clothing Shortages

If the Hide Department failed to meet the shoe requirements of the main Continental army, the Clothing Department was not much more effective in supplying other items of apparel. The steady and regular flow of supplies

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75. Fitzpatrick, *Writings of Washington*, 21:362–63 (to Bd of War, 23 Mar 81).

76. Ibid., 22:166–67 (to Col Elisha Sheldon, 6 Jun 81); 247 (to Bd of War, 21 Jun 81).

77. Washington Papers, 193:79 (Moylan to Washington, 19 Mar 82); 195:39 (same to same, 17 Apr 82); 204:87 (Col Walter Stewart to Moylan, 22 Aug 82); 205:62 (Moylan to Secretary at War, __ Aug 82).

that Washington had hoped to see established with the reorganization of the Clothing Department did not materialize. By the time the main army was preparing to go into winter quarters late in November 1779, he was repeating familiar complaints. The "distribution of Cloathing, owing to its late arrival; the scantiness of the stock; the diversity of colour and in quality; its not having been properly assorted when packed; and absence of Cloathiers . . . has proved a matter of the most irksome delay and difficulty."[78] Washington's army went into winter quarters around Morristown, but four brigades were left at West Point and one at Danbury. These brigades were furnished clothing from the store at Newburgh, New York. Washington directed that the removal of supplies from Newburgh to Morristown could be left to James Wilkinson's assistant, John Moylan, while the Clothier General hurried to headquarters to issue the clothing to the troops. Two weeks later, however, Wilkinson had not arrived, and the soldiers were in a wretched and miserable condition. Washington again urged the Clothier General to speed the clothing to camp, but lack of transportation delayed delivery of the supplies. The Commander in Chief directed Quartermaster General Greene to lend all assistance possible. Brig. Gen. Anthony Wayne welcomed any promise of clothing for his poorly clad officers and soldiers, but he seemingly had no great expectations of filling their needs. He wrote derisively to Brig. Gen. William Irvine on 14 December:

> I must confess that the latter would make a better appearance had they a sufficiency of *hats*, but as Congress don't seem to think *that* an essential . . . part of uniform, they mean to leave us uniformly bare-headed—as well as bare-footed—and if they find that we can *bare* it tolerably well in the two extremes, perhaps they may try it in the *center*.[79]

Even when the Clothing Department delivered woolen clothing, the amount was less than required and had to be proportioned among the troops. The ill-clad soldiers suffered throughout the bitter winter at Morristown.

Harassed by existing shortages, Washington inquired of Wilkinson what preparations were under way for the summer campaign. If his troops were provided with an adequate supply of shirts, linen overalls, and shoes, they would be able to manage very well through the summer and early fall of 1780. The early preparation of an estimate for the Board of War was essential, he wrote to his Clothier General. The latter, however, knew little about clothing prospects for the ensuing year. He was not on a "confidential footing" with the Board of War, he wrote Washington in March 1780, complaining that "I neither hear, see or know anything of the clothing until it is delivered into my Magazines." As far as he knew, only 14,000 linen

78. Fitzpatrick, *Writings of Washington*, 17:178–80 (to Pres of Cong, 24 Nov 79).

79. (1) Scheer and Rankin, *Rebels and Redcoats*, p. 421. (2) Fitzpatrick, *Writings of Washington*, 17:221, 287 (to Wilkinson, 6 and 19 Dec 79); 287–88 (to Greene, 20 Dec 79).

overalls comprised the whole stock of summer clothing, and "many of them are of Vile Quality." When he had ventured to urge the adoption of what he deemed an advantageous plan, he had been accused of "the sordid vice of self-Emolument." Despite such treatment, he assured the Commander in Chief, he would be assiduous in carrying out the duties of his office.[80]

The Board of War itself was handicapped in its efforts to provide supplies by lack of funds. Since the Treasury could not furnish money, the board thought "it needless to involve either ourselves or the Officers under our directions in the persecution of being dunned for Debts it would have been impossible to pay." All its hopes were fixed on supplies from Europe.[81] But the clothing brought by the French fleet in 1780 proved to be far less than what had been expected.[82] Late in 1780, with the main Continental army facing another distressing winter encampment, 10,000 complete uniforms remained in France because the American agents there could not agree whose business it was to ship them. For much the same reason another quantity of clothing had been waiting in the West Indies for more than eighteen months.[83]

To clothe the soldiers for the campaigns of 1780, reliance had to be placed on the states. The disparity in the provision made by the states for their respective troops, however, caused discontent. An army ought to be raised, paid, subsisted, and regulated upon an equal and uniform basis, Washington insisted. The system of state supplies had proved "pernicious beyond description" in operation, he charged, for some states had furnished their troops amply not only with clothing but with many small comforts and conveniences; others had supplied their troops on a more limited scale; and still others had been able to do little or nothing at all. When officers and men compared their circumstances resentments grew.[84]

Clothing shortages were exasperating to Washington because he was certain that they resulted not from actual lack of supplies but from the fact that Congress did not have the time to give adequate attention to clothing supply. Nor could boards, composed of an always fluctuating membership drawn from Congress, give that "close application" and "uniform thinking and acting" that were required to direct supply. Only permanent, executive bodies could do that. Even when the troops were most in need of clothing, divided attention, Washington charged, permitted stocks to accumulate at

80. Washington Papers, 129:52 (Wilkinson to Washington, 1 Mar 80).

81. Ibid., 130:90 (Bd of War to Washington, 17 Mar 80).

82. (1) Fitzpatrick, *Writings of Washington*, 20:21–22 (to Pres of Cong, 9 Sep 80); 30 (to Gov Jefferson, 11 Sep 80). (2) Burnett, *Letters*, 5:447 (Sullivan to Meshech Weare, 15 Nov 80); 576 (Jesse Root to gov of Conn., 20 Feb 81); 577 (Va. delegates to Jefferson, 20 Feb 81).

83. (1) Ibid., 5:460–61 (Sullivan to Washington, 26 Nov 80). (2) Fitzpatrick, *Writings of Washington*, 20:462–63 (to Gen Lincoln, 11 Dec 80). (3) *JCC*, 18:973–78 (25 Oct 81).

84. Fitzpatrick, *Writings of Washington*, 18:209 (to Pres of Cong, 3 Apr 80).

different places where they fell "prey to moth, and cankerworms of a worse kind." The clothing system, if it could be called a system, afforded a "fruitful field" for fraud. And Washington had found that preparations were never made on a timely basis. While he recurred to organizational suggestions that he had made in past years, Washington once more had to eke out a clothing supply as the soldiers went into winter quarters at the end of 1780.[85] He appealed to the states, but he was convinced that all the available clothing between Boston and Philadelphia would not meet the needs of more than half the number of men who would be left in service after December 1780. He advised that a "most parsimonious distribution" would be necessary.[86]

Otis and Henley, who were still supplying clothing, lamented that "in vain do we exert if there can be no energy given to the Quarter Master's Department." Eight wagonloads of clothing had remained all summer at Springfield, Massachusetts, for lack of transportation, and lack of care had resulted in large losses. To Maj. Gen. Benjamin Lincoln's suggestion that enough clothing had arrived in "private Bottoms" to supply the main army, Washington replied that he was "only tantalizing the naked," for the miserable condition of the government's credit made it impossible to obtain one yard of cloth.[87] Even by collecting "all our Remnants, and those of a thousand colours and kinds," he informed Lincoln, he would scarcely be able to make his troops comfortable. Of necessity he was compelled to discharge the levies when the troops went into winter quarters. "Want of clothing rendered them unfit for duty, and want of Flour would have disbanded the whole army if I had not adopted this expedient," he wrote Greene, then commanding the Southern Army and equally desperate for lack of clothing.[88]

When the opportunity arose to attack Cornwallis late in the summer of 1781, Washington called on Virginia to furnish clothing for its troops, but that state was as lacking in transportation to move supplies as was the United States itself. Nor were its supplies, the Virginia Board of War informed Washington, by any means as plentiful as had been represented to him. The state was issuing clothing as fast as it could be collected.[89] To expedite the transportation of clothing that had arrived on transports from France, Robert Morris and the Board of War agreed to send Clothier General John Moylan to Boston in September 1781 to bring the supplies to Philadelphia.

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85. Ibid., 20:371–74 (to Sullivan, 20 Nov 80); 21:14 (to Duane, 26 Dec 80).

86. Ibid., 20:331–32 (circular to states, 10 Nov 80); 329–30 (to Gen Heath, 9 Nov 80).

87. (1) Washington Papers, 156:129 (Otis and Henley to Washington, 8 Nov 80); 158:24 (Jonathan Trumbull to Washington, 21 Nov 80); 41 (William Story to Washington, 22 Nov 80). (2) Fitzpatrick, *Writings of Washington*, 20:462–63 (to Lincoln, 11 Dec 80).

88. Ibid., 20:470 (to Greene, 13 Dec 80).

89. (1) Ibid., 23:121–22 (to Va. Bd of War, 16 Sep 81). (2) Washington Papers, 184:84 (William Davies to Washington, 19 Sep 81).

Washington arranged for the necessary escorts to be ready along the route that Moylan was to take from Springfield, Massachusetts, to Easton, Pennsylvania. The Clothier General experienced "no small uneasiness" when he arrived in Boston and found that the funds to pay for the transportation had not yet been collected. The Massachusetts General Court did not vote the money until 23 October. On 3 November Moylan wrote Washington that he had thirty-five wagonloads on the way to Fishkill.[90] By that time, however, the original orders to Moylan had to be changed. After conferring with the Board of War, Morris directed Moylan to halt the wagons near General Heath's army on the Hudson River and deposit and make distribution of the clothing to the troops there. Only officers' clothing was to be sent on to Philadelphia. Robert Morris had decided to purchase clothing for the Southern Army there.[91]

For the remainder of the war the Clothing Department looked to the Superintendent of Finance to provide the clothing needed by officers and soldiers in Washington's army as well as in the Southern Army. In 1781 the main army had waited for the arrival of a store ship from France—the *Marquis de la Fayette*—to supply its officers with necessary articles of clothing. But no news of the ship was received during the summer, and by the winter of 1781–82 Washington considered it lost.[92] Other ways for providing clothing to the officers then had to be devised. The Superintendent of Finance, lacking funds, sought to anticipate the taxes he would receive before the end of 1781. He found certain men in Philadelphia who were willing to supply, on 6-months' credit, the necessary quantity of officers' clothing and to deliver it at the officers' places of cantonment. To enable the officers to pay for these articles, Morris gave each subaltern a promissory note equal to 3 months' pay and a note equal to 2 months' pay to each captain and all other officers of superior rank, the notes to be payable in 6 months. The suppliers of the goods were to take these notes at their full value. Morris anticipated that the goods would be supplied at camp as cheaply as they could be bought for cash in Philadelphia. An officer did not have to take the promissory notes, or if he did, he did not have to purchase clothing. He could keep the notes till the time of payment, he could discount them, or he could use them to purchase other supplies for the campaign.[93]

The closing months of the conflict were characterized by an almost constant tug of war between the Clothing Department and the office of the

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90. Ibid., 184:112 (to Moylan, 24 Sep 81); 185:122 (Bd of War to Washington, 13 Oct 81); 182:91 (Moylan to Washington, 3 Nov 81).

91. (1) Fitzpatrick, *Writings of Washington*, 23:273 (to Bd of War, 27 Oct 81). (2) Morris Diary, 1:89, 90 (29 and 30 Oct 81). (3) Morris Letter Book B, fols. 82–83 (to Heath, 2 Nov 81; to Moylan, same date).

92. Fitzpatrick, *Writings of Washington*, 22:367 (to Supt of Finance, 13 Jul 81).

93. (1) Ibid., 23:481–82 (to Morris, 2 Feb 82); 24:25–26 (to Gen Heath, 28 Feb 82). (2) Morris Letter Book B, fols. 405–06 (Morris to Washington, 26 Jan 82).

Superintendent of Finance. Washington exerted pressure on both as well as on the Secretary at War to get the clothing he needed for his troops. Under the straitened financial circumstances, however, supply always remained inadequate in some articles. Moylan reported, for example, that hats were in particularly short supply, much to the distress of Washington, who wanted his men to make a military appearance. The best the Clothier General could do was to substitute leather caps. Shirts also were much needed, and by August 1782 Washington reported that the men generally had only one and would soon be without any unless an immediate supply was provided.[94] As usual, Moylan applied to Morris for funds, but he was not too hopeful that his appeal would be granted. When a supply of linen arrived from Holland, the Clothier General expected to furnish two shirts to each man if he could get the money to have them sewn. Washington suggested that if all other means failed, Moylan might appeal to the women of the country to contribute their services in sewing these articles. Washington knew that such an appeal would find a ready response, since at various times his army had been the recipient of shirts through the philanthropic efforts of groups of women.[95]

Robert Morris would have liked to remove all grounds for complaint, but the means at his command made this impossible. In order to obtain funds to pay debts contracted by the Clothing Department—and in the fall of 1782 these included 12,000 dollars for work done by tailors—Morris was actually selling those items of the imported clothing that were not suitable for military use.[96] By one means or another, however, he did manage to clothe the troops during the closing months of the war. Washington undoubtedly desired a more complete issue of authorized clothing, but despite some shortages, the Continental Army was more adequately clothed than it had been during much of the war.

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94. (1) Washington Papers, 193:79 (Moylan to Washington, 19 Mar 82); 195:39 (same to same, 17 Apr 82). (2) Fitzpatrick, *Writings of Washington*, 24:110–12 (to Sec at War, 10 Apr 82); 457–58 (to Moylan, 3 Aug 82).

95. (1) Washington Papers, 206:67 (Moylan to Washington, 13 Sep 82). (2) Fitzpatrick, *Writings of Washington*, 25:207–08 (to Moylan, 25 Sep 82); see also 21:4, 35, 77 (22, 23, and 29 Dec 80).

96. Washington Papers, 208:97 (Morris to Washington, 15 Oct 82).

CHAPTER 11

Evolution of the Ordnance Department

Growth of Field Organization

When Washington took command of the troops at Cambridge on 3 July 1775, he quickly became aware of the lack of certain essential staff officers common to the armies of that day. Among these was a Commissary of Artillery Stores, soon called Commissary of Military Stores in the Continental Army. At Washington's request, the Continental Congress on 19 July authorized him to appoint such an officer and subsequently fixed the latter's pay at 30 dollars per month. It provided no military rank for this commissary.[1] Washington appointed Ezekiel Cheever to the post. Cheever had acquired some experience by transporting cannon and producing and delivering carriages for cannon for the Massachusetts Committee of Safety on the eve of the Revolution.[2] The Commander in Chief directed him to make an immediate and exact return of all stores in his department and to deposit all powder, lead, and flints in the magazine designated for that purpose. It was the function of the commanding officer of the First Regiment of Artillery—Col. Richard Gridley—to supervise the collection of all ordnance stores and to place them under the care of the Commissary of Military Stores. Three months later Col. Henry Knox succeeded Colonel Gridley. Knox served as Commanding Officer, or Chief, of Artillery to the end of the Revolutionary War.[3]

The Commissary of Military Stores, as an officer with the troops in the field, was primarily responsible for receiving and issuing ordnance stores. Cheever's duties were restricted to the main Continental army, but there were other commissaries of military stores serving in the field. In the sum-

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1. (1) Fitzpatrick, *Writings of Washington*, 3:324 (10 Jul 75). (2) *JCC*, 2:191, 220 (19 and 29 Jul 75).

2. (1) Fitzpatrick, *Writings of Washington*, 3:427–28 (GO, 17 Aug 75). (2) Force, *Am. Arch.*, 4th ser., 1:1366–67 (5 Jan 75). (3) Cheever served as Commissary of Military Stores with the main Continental army until 1777, when he was appointed commissary of military stores at Springfield, Mass., in the Department of the Commissary General of Military Stores. He served in that post until his retirement in the summer of 1781. See RG 93, Letter Books of Samuel Hodgdon, 92:107 (Hodgdon to Luke Bliss, 14 Aug 81). Hereafter cited as RG 93, Hodgdon Letters.

3. *JCC*, 3:358–59 (17 Nov 75). Knox became brigadier general on 27 December 1776 and major general on 22 March 1782 (with rank from 15 November 1781).

mer of 1776 Congress commissioned Benjamin Flower, a lieutenant in the First Battalion of the Associators of Philadelphia, as commissary of military stores for the flying camp it had established in New Jersey. For a time Samuel Hodgdon served as commissary of military stores with the Northern Army under Maj. Gen. Horatio Gates, and he subsequently became Commissary of Military Stores with the main army. In 1782 Richard Frothingham was appointed to that position, serving until the end of the war.[4]

When the British evacuated Boston in March 1776 and Washington's army prepared to move to New York, Colonel Knox was responsible for hurrying the field cannon and ordnance stores to Norwich, Connecticut. Washington instructed him to assist Cheever in loading the ammunition and ordnance stores, taking care to forward first those stores—such as powder, musket balls, fixed ammunition, empty paper cannon cartridges, flints, fuzes, and the like—which would be first in demand at the general rendezvous. A conductor accompanied each brigade of thirty teams on the march to Norwich to make certain that no supplies were lost by abandonment on the road, as had occurred when supplies were carted around Cambridge. These conductors were only the first of many to be appointed. Conductors remained a part of the field organization of the Ordnance Department throughout the war.[5] Powder was transported in covered wagons taken from the British, and fixed ammunition went in tumbrels; both were under the immediate care of Commissary Cheever. By the last week in April the artillery and all the ordnance stores were embarked at New London, awaiting a fair wind to complete their movement by water to New York.[6] A deputy, Nathaniel Barber, remained at Boston to take care of ordnance stores left there.[7]

In the course of the campaign in New York it became increasingly clear that the Artillery arm of the Continental Army would have to be strengthened and that improvements would have to be made in the support given to it. Following the evacuation of New York City by the American forces in September 1776, the Continental Congress sent a committee to inquire into the deficiencies of the several departments of the Continental Army. For the guidance of this committee, Colonel Knox submitted "hints" for establishing a "respectable body of Artillery" and for providing an

4. (1) Force, *Am. Arch.*, 5th ser., 1:156 (10 Jul 76). (2) RG 11, CC Papers, reel 50, item 41, 4:157–60 (Hodgdon memorial, undated, read 26 Jan 81). (3) Washington Papers, reel 87, ser. 4, (Knox to Washington, 16 Sep 82).

5. For the origins and use of the term "Ordnance Department," see below, "Regulation of the Department."

6. Washington Papers, reel 35 (instructions to Knox, 3 Apr 76; Knox to Washington, 21 and 24 Apr 76).

7. The date of Barber's appointment is unknown, but he served at Boston, first as part of the field organization and later as a deputy commissary in the Department of the Commissary General of Military Stores until his resignation on 5 March 1781. (1) *JCC*, 19:232. (2) RG 93, Hodgdon Letters, 92:45 (to Barber, 12 Mar 81).



HENRY KNOX

academy for training officers of this corps. In addition, he made recommendations not only for increasing the field organization supporting the Artillery but also for establishing a civil branch of the Ordnance Department.[8] In accordance with his suggestions, the Continental Congress in October authorized the appointment of a deputy commissary of military stores for the troops near New York. At the same time, it empowered Washington to appoint, from time to time, as many conductors as he judged necessary.[9] By the fall of 1776 the field organization with Washington's army consisted of the Commissary of Military Stores, a deputy commissary, and a varying number of conductors and clerks. Essentially, this remained the field organization with the main army throughout the war.[10]

Origins of the Civil Branch

In 1775 the principal magazine for powder and other military stores was located at Cambridge under the care of Commissary Cheever. There

8. Knox Papers, LM–39, reel 3 (Knox to committee, 27 Sep 76).

9. *JCC*, 6:859–60 (9 Oct 76).

10. Information on the field organization for the Northern and Southern Armies is fragmentary. No complete organization is available for any specific time. Each army, however, made use of conductors and field commissaries. General Greene, for example, appointed Maj. John Mazaret as his field deputy. At about the same time, the Board of War ordered Thomas Jones from the main army to act as deputy field commissary to the Southern Army. Greene Papers, vol. 11 (Greene to Bd of War, 7 Dec 80); vol. 34 (Richard Peters to Thomas Jones, 13 Jun 81); vol. 35 (Greene to John Pryor, 15 Jun 81).

were magazines also at Roxbury, Prospect Hill, and Winter Hill.[11] In the following year the retreat of Washington's army in New York permitted the use of only temporary depositories. Experience demonstrated that it was best not to have the principal ordnance laboratory with the army. In the terminology of that day, a laboratory was any place—it might be a room or store rented for the purpose—where ordnance stores, such as musket cartridges, could be prepared.[12] In the field artillerymen were hampered by the need to repair torn harnesses and to mend broken carriages for cannon. This work had to be accomplished by drawing upon the skills of artificers among the troops.

Colonel Knox therefore recommended to the congressional committee sent to New York that one or more main laboratories be established at a distance from the seat of war where large quantities of ordnance stores could be prepared and where artificers could be employed in making carriages for cannon, ammunition wagons, tumbrels, and harnesses. He further suggested that a foundry be erected nearby for casting brass cannon, mortars, and howitzers. In addition to the artificers at the fixed laboratories, he considered that at least a hundred artificers ought to be attached to the Artillery regiments in the field to repair carriages, make platforms, and attend to "a thousand other matters belonging to the Artillery."[13] Acting upon the committee's report, the Continental Congress on 9 October 1776 directed the Board of War to prepare a plan for establishing a Continental laboratory and a military academy, and to provide a suitable number of Artillery regiments and a corps of artificers for them.[14] Weeks passed, however, without further action, and Washington, preoccupied with the campaign of 1776, did not press the issue until late in December after the main army had gone into winter quarters and when preparations for the next year's campaign were under way.

On 12 December 1776, with the British threatening Philadelphia, Congress, apprehensive of disaster, conferred on Washington full power to direct everything relating to the military and the operation of the war until otherwise ordered. Writing from camp to the President of Congress on 20 December, Washington urged that the casting of cannon ought not to be delayed by a moment. The time was at hand for making preparations for the next campaign. He advised President John Hancock that he was therefore sending Colonel Knox to get this work started and to provide traveling carriages and shot. Laboratories would also be established, one at Hart-

11. (1) RG 93, Misc Numbered Docs 21048 (return, 27 Jan 76). (2) Force, *Am. Arch.*, 4th ser., 5:114 (Cheever return, 4 Mar 76).

12. On 11 May 1776 Washington directed Knox to order all cannon and musket cartridges "to be filled in a room appointed for that purpose, in the upper battery, near the bowling Green." Fitzpatrick, *Writings of Washington*, 5:38.

13. Knox Papers, LM–39, reel 3 (Knox to committee, 27 Sep 76).

14. *JCC*, 6:859–60.

ford, Connecticut, and the other at York, Pennsylvania.[15] A week later Congress, which had prudently adjourned to Baltimore, directed its committee remaining at Philadelphia to contract with qualified persons to erect at Carlisle, Pennsylvania, a magazine of sufficient size to contain 10,000 stand of arms and 200 tons of gunpowder. The contract was to include the construction of a laboratory adjacent to the magazine. Congress also requested the Massachusetts Bay Council to contract for the erection of a magazine of similar size and a laboratory at Brookfield.[16]

As soon as Washington received these resolutions, he discussed them with Knox. The latter, as well as others with whom Washington consulted, continued to believe that York and Hartford were preferable locations for magazines and laboratories. Washington asked Congress to permit the plans to be carried out at those places. In the meantime, he promptly dispatched Knox to Hartford to contract for such buildings, materials, and artificers as would be needed to establish the magazine and laboratory there.[17] On-the-spot investigation led Knox to conclude that Springfield, Massachusetts, was better suited than any other place in New England for a laboratory and foundry. He advised Washington that copper, tin, and other materials could be obtained in the area, and that the necessary works and preparations could be accomplished three to four months sooner at that location than anywhere else. In view of the preparations still to be made for the coming campaign, time was an essential factor to be considered. Washington therefore directed Knox to proceed with the work at Springfield, and he undertook to obtain congressional approval. After some delay, occasioned by those members who favored Brookfield, the Continental Congress approved the location of a magazine and laboratory at Springfield.[18] The works erected there became the predecessor of the national armory established in Springfield in 1794. Seeing no advantage to be gained by insisting on placing the second laboratory at York, Washington accepted Congress' designation of Carlisle as its location and pushed work at that place.

Appointment of Commissary General Flower

At the same time that he sent Knox to New England in January 1777, Washington appointed Benjamin Flower as Commissary General of Mili-

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15. Fitzpatrick, *Writings of Washington*, 6:406.

16. (1) *JCC*, 6:1043–44 (27 Dec 76). (2) Force, *Am. Arch.*, 5th ser., 3:1457 (Pres of Cong to Mass. Bay Council, 28 Dec 76); 1457–58 (James Wilson to Robert Morris, 28 Dec 76).

17. Fitzpatrick, *Writings of Washington*, 7:22–23 (to Pres of Cong, 17 Jan 77); 18–19 (to Knox, 16 Jan 77).

18. (1) Ibid., 7:139 (to Knox, 11 Feb 77); 146–47 (to Pres of Cong, 14 Feb 77). (2) Washington Papers, reel 39, ser. 4 (Knox to Washington, 1 Feb 77). (3) Burnett, *Letters*, 2:324 (John Adams to Washington, 13 Apr 77). (4) *JCC*, 7:266 (14 Apr 77).

tary Stores with the rank of lieutenant colonel of Artillery Artificers.[19] Congress subsequently—on 11 February 1778—granted him the pay and rations of a colonel. When Flower later also sought the rank of colonel, Washington saw no necessity for granting it; he held that the existing rank was "fully competent to every purpose."[20] In 1777 he sent Flower immediately to Pennsylvania to establish a magazine and laboratory at York, although the work was soon transferred to Carlisle. He directed the Commissary General of Military Stores to provide buildings for preparing fixed ammunition and to construct an air furnace capable of holding 3,000 pounds of fluxed metal, as well as a mill to bore cannon after they were cast. Washington also ordered Flower to provide sufficient shops to accommodate 40 carpenters, 40 blacksmiths, 20 wheelwrights, 12 harness makers, and such turners and tinmen as the laboratory required, enlisting these artificers for one year.[21] In addition, at Washington's orders, Flower employed an Artillery company under Capt. Isaac Coren in the laboratory at Carlisle. Enlisted for the duration of the war, this company fixed all kinds of ammunition in accord with the orders Flower received. The latter also enlisted for the duration of the war a company of sixty artificers attached to the Artillery in the field.[22]

Under orders from the Board of War, the Pennsylvania Council of Safety had been engaged in preparing supplies for Washington's army in Philadelphia.[23] Washington advised Flower that those artificers already employed in that city in making carriages for cannon, casting cannon, and preparing ammunition were to continue their work, and the Commissary General was to do everything in his power to expedite their efforts. After the buildings, mill, and furnace were erected at Carlisle, some of the activities at Philadelphia were to be moved there. Washington instructed Flower to contract for and procure a list of articles that the Commander in Chief

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19. Flower assured Knox that he had held the rank of lieutenant colonel when Congress had appointed him commissary of military stores for the flying camp in July 1776. Knox later advised Washington that he had discovered that Flower's commission did not show this, but at the time he had accepted Flower's statement. Washington gave Flower the rank of lieutenant colonel because he would have command over the companies of artificers at Philadelphia and Carlisle. It was Flower's insistence that the word "general" be inserted in his title that resulted in his being designated Commissary General of Military Stores, although Washington made some objections to that title. Washington Papers, reel 58 (Knox to Washington, 13 May 79).

20. (1) His pay and ration allowance as a colonel were to date from 16 July 1776, presumably from the time Congress first appointed him a commissary of military stores, rather than from the date of his commission as Commissary General of Military Stores granted by Washington. (2) Fitzpatrick, *Writings of Washington*, 15:79–80 (to Bd of War, 14 May 79).

21. This may well have been the only period of enlistment then obtainable.

22. The artificers were to include a master carpenter, master wheelwright, and master blacksmith, as well as 2 tinmen, 2 turners, 2 coopers, 4 harness makers, 2 nailers, 2 farriers, 6 wheelwrights, 25 carpenters, and 15 smiths. The company was to be under the direction of the master carpenter.

23. On 30 November 1776, for example, Congress requested the Pennsylvania Council of Safety to make carriages for fieldpieces at the government's expense. *JCC*, 6:994.

had prepared, to obtain needed funds from the committee of Congress in Philadelphia, and to keep an accurate account of expenditures, which he was to submit when requested.[24]

Commissary General Flower arrived in Philadelphia on 21 January 1777, laid his instructions before the committee of Congress, and obtained 2,000 dollars which he distributed to the various recruiting officers. He appointed Jonathan Gostelowe and Joseph Watkins as commissaries of stores; they were to collect and arrange the military stores in Philadelphia with the approval of the Pennsylvania Council of Safety. The two commissaries organized the military stores and set several armorers to work repairing arms under the direction of Thomas Butler, whom Congress had brought from Baltimore and appointed public armorer. In mid-February Flower departed for Carlisle, where he selected a site for the magazine and laboratory and appointed the officers necessary to carry out the work. Subsequently, he gave orders for building a lime kiln, for making bricks, and for quarrying stone to further the construction at Carlisle. He also obtained an order from the Board of War for a number of Hessian prisoners to be employed as laborers.[25]

Flower's activities were by no means limited to fulfilling his initial instructions. In addition to getting operations under way at Carlisle and organizing the ordnance supply situation at Philadelphia, he filled orders for supplies from General Knox as the campaign of 1777 progressed. When the British approached Philadelphia, Congress directed Flower to remove all stores from that city. In the meantime, the Board of War ordered him to take command of a train of artillery that it had ordered to reinforce the main army on 11 September 1777. When Congress soon countermanded this order, it directed Flower instead to post a number of the pieces at places on the Schuylkill River. After accomplishing this task, the Commissary General went to camp, where Washington ordered him and Deputy Quartermaster General Henry Lutterloh to remove all stores from Trenton to Allentown, Pennsylvania, as quickly as possible. Orders from Knox took him to York in November to obtain lead for the laboratory at Carlisle. Not surprisingly, excessive fatigue and hardship brought him low with a fever, which confined him to camp for two months. In January 1778 Congress ordered him to request the New Jersey legislature to put a suitable person in charge of the Andover ironworks. Under instructions from Washington, Flower left camp on 22 February 1778, first to Allentown to supervise the removal of stores and factories to Lebanon, then to New Jersey to accomplish Congress' order, and finally to York to report to the Board of

24. Fitzpatrick, *Writings of Washington*, 7:20–22 (to Flower, 16 Jan 77).

25. (1) RG 11, CC Papers, reel 76, item 62, fols. 639–50 (Flower declaration, 19 Aug 78). (2) *JCC*, 7:55 (22 Jan 77).



BENJAMIN FLOWER

War.[26] Throughout this period Flower was under the immediate orders of General Knox and the Commander in Chief, but he also carried out orders from the President of the Continental Congress and from the Board of War.

Regulation of the Department

In his "hints" of 27 September 1776, Knox had recommended that the laboratories, the foundry, and all matters respecting the Artillery and artillery stores should be under the direction of a board of ordnance that would regulate and manage the affairs of an Artillery, or Ordnance, Department and receive all returns. He had in mind something akin to the British Board of Ordnance. Headed by the Master General of Ordnance or the Commander-in-Chief of the Artillery, that board regulated everything relating to the Artillery in the British Army.[27] Much to his surprise and embarrassment, the regulatory resolutions passed by Congress early in 1778 promoted confusion by mixing the activities of the Commissary of Military Stores, who operated with the troops in the field, with those of the civil branch headed by the Commissary General of Military Stores. Members of Congress obviously had misunderstood what Knox had recommended. They apparently had confused the British Board of Ordnance with the Board of War that they had established. They proceeded to place all control and direction of the Department of the Commissary General of Military Stores in the hands of the Board of War, including jurisdiction over much that related to the organization of the Commissary of Military Stores in the field.

The regulation provided for one Commissary General of Military Stores, who received and delivered all arms, ammunition, and accouterments and furnished and contracted for all articles needed in his department according to directions from the Board of War. All Continental armorers were under his direction and that of the Board of War. The armorers received all arms to be repaired from the Commissary General and delivered all repaired arms to his store. All Artillery Artificers, except those employed with the Continental Army in the field, were also under his immediate direction. He applied to the Board of War for all money to be drawn for military stores and accounted every six months to the Treasury Board for the money drawn. The regulation allowed the civil branch, as well as the field organization, as many assistants, commissaries, deputy commissaries, conductors, and clerks as the service required, all appointed by the Board of War. It fixed the pay of all personnel but attached no military rank to positions in the Department of the Commissary General of Military Stores except to those of officers serving in the newly created Regiment of Artillery Artificers.[28]

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26. RG 11, CC Papers, reel 76, item 62, fols. 639–50 (Flower declaration, 19 Aug 78).
27. Washington Papers, reel 50, ser. 4 (Knox to Washington, 15 Jun 78).
28. *JCC*, 10:141, 144–50 (11 Feb 78).

Under the regulation, all commissaries, deputy commissaries, conductors, and clerks who had the separate charge of any military stores transmitted an exact return on the first day of every month to the Board of War and a copy to the Commissary General of Military Stores. The latter consolidated these into one general return, which he submitted to the Board of War on the first day of the following month. The Commissary General was responsible for providing the instructions and the form in which all these returns were to be made. From time to time the Board of War transmitted transcripts of all returns received from the Commissary General, along with accounts of all ordnance and ordnance stores under its care and their places of deposit, to the Commander in Chief so that he could make requisitions of these supplies and advise and give directions regarding their disposition.

Knox, who as Chief of Artillery considered himself head of the Ordnance Department, found himself deprived of any direction of that department except to a limited degree in the field. The regulation provided that he, the chief engineer, the "commissary of artillery" (that is, the Commissary of Military Stores), and the oldest colonel of Artillery in camp were to constitute a subordinate board of ordnance under the direction of the Commander in Chief or the Board of War for transacting all business of the Ordnance Department in the field, including the care of all ordnance and stores at camp. In an emergency the Commissary General of Military Stores was obliged to obey this board's directions as to any supplies needed by Washington's army.

Knox considered his position equivalent to that of the Master General of Ordnance or the Commander-in-Chief of the Artillery in the British Army. He insisted that in all European armies a general officer had the command and direction of the Artillery and the preparation of all items in the Ordnance Department. To assist him in executing his broad responsibilities, this general officer had commissaries, clerks, conductors, and artificers under his direction.[29] Knox thus felt he was justly critical of a regulation that invested the Commissary General of Military Stores with the sole charge of all preparation of ordnance and military stores for the field.

In 1778 the term "Ordnance Department" was in general use in the correspondence between Knox, Washington, and the President of the Continental Congress, as well as in the regulation that the Continental Congress adopted. The term as used by Congress applied only to the organization directed by the Commissary of Military Stores in the field, which was under the direction of Knox as Chief of Artillery, and to all Ordnance activities pertaining to the field. The civil branch continued to be headed by the Commissary General of Military Stores under the direction of the Board of War. Congress later modified its regulation to provide a better relationship between the Department of the Commissary General of Military Stores and the

29. Washington Papers, reel 50, scr. 4 (to Washington, 15 Jun 78).

Ordnance Department in the field. Despite the distinctions thus drawn, however, correspondents during the Revolutionary War were still likely to include both the field and the civil branches in referring to the Ordnance Department.[30]

A copy of the regulation of 1778 reached the Commander in Chief at Valley Forge. Knox, who was getting the Artillery in readiness for the coming campaign, found he had no authority to prescribe the dimensions or other details regarding the construction of any carriages or cannon, or, as he wrote Washington, to direct the making of portfires, tubes, fuzes, and a thousand other matters upon which the success of actions might depend. In his letter he annexed a list of proposed amendments to the regulation of 11 February that he hoped Congress would adopt. But by mid-June, when he submitted these proposals to the Commander in Chief, the main army was on the march from Valley Forge, and Washington did not transmit Knox's letter and remarks to the President of the Continental Congress until August.[31] Some inconveniences, he informed the latter, had resulted from the existing establishment of the Ordnance Department, which he attributed to the total independence of the Commissary General of Military Stores from control by the Chief of Artillery. He left to Congress the determination of the necessary alterations.

Characteristically, Congress took no immediate action. In late December 1778, when Washington's army was in winter quarters and when preparations had to be made for the next campaign, Knox again called Washington's attention to this "preposterous arrangement." During the course of the last campaign, he informed him, he had repeatedly been at a loss to know in an emergency where to send for stores because of a lack of returns. Commissaries in the Department of the Commissary General of Military Stores did not feel obliged to send him returns even when he requested them.[32] Washington was in Philadelphia in January 1779 meeting with a committee appointed by Congress to confer with him about plans for the next campaign. He directed the committee's attention to the need for making changes in the organization of the Ordnance Department and presented a copy of Knox's December letter. The committee agreed that the department was on a "very improper footing," and at its request Washington ordered Knox to Philadelphia to confer with the committee.[33]

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30. (1) See ibid., reel 55, ser. 4 (Washington to Knox, 14 Jan 79). (2) Fitzpatrick, *Writings of Washington*, 10:506 (to Bd of War, 23 Feb 78).

31. (1) Washington Papers, reel 50, ser. 4 (15 Jun 78). (2) Fitzpatrick, *Writings of Washington*, 12:273–74 (3 Aug 78).

32. Washington Papers, reel 50, ser. 4 (30 Dec 78).

33. (1) Ibid., reel 55, ser. 4 (to Knox, 14 Jan 79). (2) Fitzpatrick, *Writings of Washington*, 13:485–91 (to Committee of Conference, 8 Jan 79).

Revised Regulation for Field Organization

Out of these conferences emerged a report in February 1779 which became the basis for new procedures in the Ordnance Department.[34] Under the new legislation the Chief of Artillery, with the concurrence of the Commander in Chief, arranged and directed all business of the Ordnance Department in the field. Ordnance, arms, and military stores in the fixed magazines could be withdrawn only by orders of the Board of War except in emergencies, when any delay in obtaining such orders could be disastrous. In such cases the Chief of Artillery could requisition needed supplies from those magazines nearest the troops. The commissaries and directors of the magazines and laboratories would have to fill his requisitions immediately, informing the Board of War of what they had done. So that the Chief of Artillery and the Commander in Chief would know where to send for supplies, the board was to send them monthly returns of all ordnance, arms, and military stores at the magazines and arsenals.

The regulation continued a Commissary of Military Stores in the field. Appointed by the Board of War, he took his orders from the Commander in Chief and the Chief of Artillery. He was allowed as many deputies, conductors, and clerks, all appointed by the Board of War, as were required. All of these field officers were independent of the Commissary General of Military Stores. The principal field Commissary of Military Stores made monthly returns to the Board of War, the Commander in Chief, and the Chief of Artillery of all ordnance, arms, and military stores received, issued, and on hand. Any deputies or conductors having the care of military stores with detached elements made similar returns to the Board of War and to the Commissary of Military Stores. The latter consolidated the whole into one general monthly return, sending a copy to the Board of War, the Commander in Chief, the Chief of Artillery, and the Commissary General of Military Stores.

The field Commissary of Military Stores drew all money necessary for his department from the military chests on warrants from the Commander in Chief, and auditors adjusted and settled accounts of expenditures every three months, transmitting the accounts to the Treasury Board. The deputy field commissaries and conductors applied for and received all ordnance, arms, and military stores issued from the fixed arsenals and magazines, accepting none that were unfit for service. Whenever ordnance items in the field were so damaged that they could not be repaired there, they were sent to the Commissary General of Military Stores or to any of his deputies, who received them and immediately had them repaired or replaced them with others fit for service.

From time to time the Chief of Artillery, with the concurrence of the Commander in Chief, sent to the Board of War, for transmission to Con-

34. *JCC*, 13:200–206 (18 Feb 79).

gress, estimates of all ordnance, arms, and military stores required by the Continental Army. In addition, whenever alterations and improvements were to be made in the construction or preparation of ordnance, arms, and military stores, the Chief of Artillery communicated the directions to the Board of War, which gave the necessary orders to the artificers and laboratory men. Knox also sent Artillery officers to visit the laboratories, foundries, and factories so that they might gain an insight into that side of their profession. Such Artillery officers as could be spared from their duties in the field were stationed at the principal laboratories and were instructed in the various processes in order to disseminate this knowledge throughout the corps.

The regulation provided also for an annual appointment by the Board of War of one surveyor of ordnance from among the Artillery colonels. This officer retained his rank in the Artillery, but during the year of his appointment he did not serve in the line. As surveyor, he examined the construction, qualities, and condition of all cannon, carriages, and arms; the quality of all materials used in making ordnance stores; and the preparation of those stores. He visited the different Continental arsenals, foundries, laboratories, and workshops, noting any problems, which he reported immediately, together with his suggestions for improvements, to the Board of War and to the Chief of Artillery. He also examined all ordnance and military stores in the field, reporting their condition to the Chief of Artillery and to the Board of War.[35]

Improvement of Field Arrangements

In the early years of the war the lack of discipline in the Continental Army had led to various abuses. To promote the better care and preservation of arms and ammunition, Washington had requested that General Knox, Quartermaster General Greene, and Adjutant General Alexander Scammell meet and evolve a plan. While in Philadelphia in January 1779 to meet with the committee of Congress that had conferred with Washington about the next campaign, Knox drew up several proposals, which the Board of War approved. Greene, the Adjutant General, and Inspector General Friedrich Wilhelm von Steuben also approved. Basically, Knox's plan required the appointment of a conductor for each brigade of infantry. Under the terms of

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35. (1) Washington had insisted that the surveyor be a military rather than a civil officer, for it was his intent to acquaint all the Artillery officers, by rotation, with all the duties of the Ordnance Department. Fitzpatrick, *Writings of Washington*, 14:68 (to Committee of Conference, 2 Feb 79). (2) For the pay Congress allowed the surveyor, the Chief of Artillery for the extra duties he performed, and the officers of the Ordnance Department in the field under the regulation of 1779, and for modifications made two years later, see *JCC*, 13:204–05 (18 Feb 79); 14:49–51 (12 Jan 81).

the new regulation, these conductors had to be appointed by the Board of War.[36]

Each conductor had charge of a traveling forge equipped with tools for making all repairs of arms that were practicable in the field. For this purpose, the officer commanding the brigade furnished five or six armorers who, under the direction of the conductor, repaired and kept in good order the arms of the brigade. No other type of repair work was to be done by these traveling forges. Such a prohibition was necessary, Knox maintained, for otherwise officers would have their horses shod or would have sundry other work performed. Each brigade conductor also had under his care an ammunition wagon and a wagon with an arms chest for each regiment. The ammunition wagon carried 20,000 extra musket cartridges—the soldiers had a complete complement of cartridges in their cartouche boxes—and materials to make another 20,000. When deficiencies arose, the conductor applied to the brigade commanding officer, who furnished a party of experienced men to make cartridges under the direction of the conductor.

All arms, accouterments, and ammunition belonging to the sick, absentees, deserters, and men not on regimental duty were delivered to the care of the conductor, who redelivered them when ordered to do so by the commanding officers of the men's respective regiments. Under this plan, when supplies were required, the brigadiers ordered regimental returns to be made of all arms, ammunition, and accouterments—categorized as good, bad, or needed by the particular regiments—with an explanation of the deficiencies that occasioned the demand. The regimental returns were then consolidated into a brigade return signed by the brigadier, delivered to the conductor of military stores, and presented to the Chief of Artillery. The latter ordered all or a proportion of the required articles to be issued, depending on the state of the stores. The commanding officer of a regiment gave a receipt to the conductor for the articles received. Deductions were made in the pay of the troops for all deficiencies that were unaccounted for. Knox's proposals were incorporated in a General Order that Washington issued in May.[37]

This system of brigade conductors continued to function until the fall of 1782 when, as an economy measure, they were eliminated on the recommendation of both General Knox and the Commissary General of Military Stores. The conductors delivered all the stores, wagons, forges, and tools in their possession to the brigade quartermasters, who then became responsible for the conductors' duties, as they had been before the system of conductors was instituted. The procedure for handling regimental returns re-

36. Washington Papers, reel 56, ser. 4 (Knox to Washington, 5 Mar 79); reel 57, ser. 4 (same to same, 25 Mar 79).

37. (1) Ibid., reel 56, ser. 4 (Knox to Washington, 5 May 79). (2) Fitzpatrick, *Writings of Washington*, 15:101–05 (19 May 79).

mained unchanged except that the returns flowed through the hands of the brigade quartermasters rather than those of the brigade conductors.[38]

Reduction of Field Organization

Efforts to reduce expenditures in 1782 caused Benjamin Lincoln, Secretary at War, to review the needs of the field organization of the Ordnance Department. Congress had empowered him to appoint, from time to time, as many officers from the line as were required.[39] In July he wrote to General Knox requesting his opinion on the requirements of the organization directed by the Commissary of Military Stores. Lincoln questioned the need for retaining a deputy field commissary of military stores at West Point. Since this officer's duties included issuing stores to support Albany and the northern posts, Knox insisted on his retention, and then outlined the whole field organization that would be required. Washington concurred in his views, and Congress incorporated them in resolutions passed on 3 September 1782.[40] These provided for one Commissary of Military Stores and two conductors or clerks for the main Continental army in the field; one deputy field commissary and two conductors or clerks for West Point; one deputy field commissary and two conductors or clerks for the Southern Army; and one conductor for the post at Fort Pitt. They were appointed by the Chief of Artillery and approved by the Commander in Chief, except for those officers serving with the Southern Army, who were appointed by the commanding officer of Artillery of that army and approved by the commanding officer of the Southern Department. Knox submitted his nominations, and the Secretary at War directed him to make the appointments.[41]

Extent of the Commissary General's Department

Under the regulatory legislation enacted in February 1778, all fixed arsenals, laboratories, and magazines became part of the Department of the Commissary General of Military Stores, under the control and direction of the Board of War. As a result, the magazine at Boston was thereafter subject to the orders of the Commissary General of Military Stores. It was presided over by Deputy Commissary Nathaniel Barber, assisted by several conductors, whose duties appear to have been chiefly those of receiving, storing,

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38. (1) Knox Papers, LM–39, reel 9 (Lincoln to Knox, 26 Jul 82; Knox to Lincoln, 7 Aug 82). (2) RG 93, Hodgdon Letters, 92:181–82 (to Committee on Arrangements, 8 Apr 82). (3) Fitzpatrick, *Writings of Washington*, 25:189 (GO, 23 Sep 82).

39. *JCC*, 22:415 (24 Jul 82).

40. (1) Knox Papers, LM–39, reel 9 (Lincoln to Knox, 26 Jul 82; Knox to Lincoln, 7 Aug 82). (2) *JCC*, 23:540–41 (3 Sep 82).

41. (1) Washington Papers, reel 87, ser. 4 (Knox to Washington, 16 Sep 82). (2) Knox Papers, LM–39, reel 9 (Lincoln to Knox, 27 Sep 82). (3) Rescinding all earlier resolutions governing pay, Congress also reduced the salaries of personnel in its resolutions of 3 September.

and forwarding military stores. The Boston depository functioned until 1781, when the Board of War abolished it and transferred its functions to Springfield.[42] In 1778 the Commissary General's Department also absorbed the Ordnance activities at Albany. Originally established by Maj. Gen. Philip Schuyler to support the Northern Army, the laboratory there had prepared ammunition for the campaign in Canada early in the war. After military activities in the Northern Department dwindled, the Ordnance post at Albany was headed by a storekeeper, assisted by a clerk. It was used primarily for storage, although the making and repair of arms continued there throughout the war. In November 1780, for example, seventy-six armorers were listed among its personnel.[43] Records indicate that there was a deputy commissary for the Western Department at Fort Pitt by mid-1779. The Commissary General of Military Stores knew little or nothing of his activities, however, and appears to have exercised no supervision over them.[44]

The regulation of February 1778 placed the laboratory established by Knox at Springfield under the control of the Commissary General of Military Stores, but for the next two years neither he nor the Board of War exercised any supervision over it. Various branches of work, such as fixing ammunition, mounting cannon, making harness and infantry accouterments, and repairing arms, were carried on successfully until late in 1779. By that time, a dispute over precedence between Ezekiel Cheever, appointed commissary of military stores at Springfield, and Lt. Col. David Mason, designated deputy commissary to superintend the laboratory, reached such proportions as to hamper all work. The effect of this dispute caused the flow of ordnance stores from that arsenal to fall to a "trifling" amount.[45] Public complaints against abuses by officers at the post increased, but the Board of War delayed taking any action until the summer of 1780. It then dismissed Mason, and Cheever retired in 1781. The Board of War designated new officers and instituted operations on a reduced scale at Springfield.[46] In the Middle Department the major arsenals and laboratories of the Department of the Commissary General of Military Stores were located in Pennsylvania at Philadelphia and Carlisle. Temporary, smaller magazines and workshops, headed by commissaries of military stores, were established from time to time at Lancaster, Lebanon, and Allentown.

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42. RG 93, Hodgdon Letters, 92:45 (to Barber, 12 Mar 81).

43. (1) *JCC*, 4:110–11 (5 Feb 76); 6:1041–42 (30 Dec 76). (2) RG 93, Misc Numbered Docs 21239 (list of dept officers, November 1780); 21021 (Albany return, 1 Mar 81); 21053 (return, September 1777). (3) Fitzpatrick, *Writings of Washington*, 7:162–63 (to Schuyler, 19 Feb 77).

44. For example, see *JCC*, 18:1001 (1 Nov 80).

45. RG 93, Hodgdon Letters, 110:90–93 (to Bd of War, 10 Jul 80); 112–14 (Pickering to Joseph Hiller, 7 Sep 80).

46. (1) *JCC*, 17:670–72 (report, 17 Jul 80); 21:814–16 (30 Jul 81). (2) RG 11, CC Papers, reel 161, 2:97–104 (Bd of War to Cong, 30 Jul 81). (3) RG 93, Hodgdon Letters, 92:107 (to Luke Bliss, 14 Aug 81).

The headquarters of the Commissary General's department was in Philadelphia, where Commissary General Flower in 1777 had appointed two commissaries of military stores. Expanding business soon necessitated the appointment of a number of clerks, and, because Flower's duties frequently took him to camp, Carlisle, and other posts, he appointed an assistant commissary general of military stores to disburse money and keep a set of account books.[47] The latter had the same pay and rations as a commissary of military stores. On the recommendation of some members of the Pennsylvania Council of Safety, Flower appointed Cornelius Sweers to this post. Approximately a year later, the Board of War, without consulting Flower, promoted Sweers to deputy commissary general of military stores. When Sweers was removed on charges of fraud in the summer of 1778, that post remained vacant for more than a year.[48] From the modest beginnings made by Flower in 1777, the establishment in Philadelphia expanded to include, by April 1780, a deputy commissary general, two commissaries of military stores, a paymaster, six conductors, and seven clerks. In addition to the personnel in his office, there were four hired superintendents who had charge of an armory, a brass foundry, a blacksmith shop, and an ordnance yard.[49] Records indicate that two laboratories were in operation in Philadelphia, employing both men and women to make cartridges. There was also a drum factory and a factory producing various types of leather accouterments.

Carlisle was the other important Pennsylvania center of operations in the Department of the Commissary General of Military Stores. Flower's first appointees at Carlisle included a commissary of military stores who also acted as paymaster; a captain who served as superintendent of the leather factory, assisted by a civilian foreman; a contractor who also procured all lumber and other materials needed at the public works; and a superintendent of public works who also served as keeper of all stores. With the completion of the laboratory, magazine, and workshops, the superintendent of public works was no longer needed. In addition to the commissary of military stores and a contractor, the personnel list of 1780 included a superintendent of the armory, as well as a master collier and a master mason with their artisans and laborers.[50]

The Department of the Commissary General of Military Stores was further expanded in the summer of 1780 by the decision of the Board of War, approved by Congress, to erect a magazine and laboratory in Virginia to

47. RG 11, CC Papers, reel 76, item 62, fols. 639–50 (Flower declaration, 19 Aug 78).

48. Sweers was arrested and prosecuted for fraud in the summer of 1778. His false statements implicated Flower and caused his arrest, but the charges proved groundless, and Flower was released. *JCC*, 11:627–28 (20 Jun 78); 831–34 (24 Aug 78).

49. RG 93, Misc Numbered Docs 21226 (Flower to Commissioners of Arrangements, 30 Mar 80).

50. Ibid.

support the Southern Army. For this purpose, the board engaged the services of Capt. Nathaniel Irish, who since 1777 had been serving in the Regiment of Artillery Artificers under Colonel Flower.[51] He was appointed to serve as a commissary of military stores. The department contracted for the services of an armorer and sent Captain Irish and his "hands" by way of Carlisle to pick up needed materials and an additional smith and carpenter if they could be spared from the works there. At Westham, five and a half miles from Richmond, Virginia, they found shelter in a barn until they could erect log cabins. The barn was thereupon utilized as a workshop and armory, and a small temporary laboratory, set up in a stable, began furnishing fixed ammunition, portfires, and tubes to two companies of Artillery.[52]

Artillery Artificers

The Department of the Commissary General of Military Stores eventually had under its control all of the companies of Artillery Artificers except those serving with the Continental Army in the field. Originally, under Washington's orders of January 1777, Colonel Flower had raised three companies of Artillery Artificers, including one sent to serve with the Artillery in the field, and a company of artillerymen employed in laboratory work. Except for the field company, they were employed under his direction at Philadelphia and Carlisle. These four companies would become the Regiment of Artillery Artificers in 1778.

At the same time, Knox had enlisted three companies of artificers—carpenters, blacksmiths, and wheelwrights—each under a captain. He also had established a company of armorers, consisting of a captain and nineteen privates, and a company of harness makers, with a captain and twelve privates. As late as 1780 none of the officers of these companies had been commissioned. All were employed at Springfield, and initially they were not under the direction or control of the Commissary General of Military Stores.[53]

In January 1778, when control of arsenals, magazines, and laboratories was still vested in the Commander in Chief and the Chief of Artillery, Washington instructed Knox to begin making his preparations for the coming campaign. He directed Knox to augment the laboratory companies now at

51. The case of Captain Irish illustrates the hardships imposed by Revolutionary service. He had expected to retain his commission in the Regiment of Artillery Artificers, with its emoluments, and to be paid an additional 1,500 dollars a month. Irish, however, was not about to gain a fortune. He had served as a captain in that regiment for three years at a pay so low that he had been obliged to sell a great part of his estate to support himself and his family, and now the proposed pay, including his captain's pay, would "not purchase thirty dollars in coin per month," according to the Board of War. RG 11, CC Papers, reel 159, 4:475–76 (Bd of War report, 29 Jul 80).

52. RG 93, Misc Numbered Docs 20631, 20632 (Irish to Hodgdon, 3 and 10 Nov 80).

53. Ibid., 21226 (Flower to Commissioners of Arrangements, 30 Mar 80).

Carlisle and Springfield to 100 men each, thus adding 40 men to each of these companies of artillerymen employed in the laboratories. He also directed Knox to enlist for the duration of the war all the Artillery Artificers necessary for carrying on the different branches of work at these two posts; these men were to receive a uniform rate of pay, rations, and clothing, and were to be formed into as many companies as necessary for their supervision.[54]

In the meantime, Flower had been organizing his department. He had submitted a list of the Artillery, Artillery Artificer, and other officers under his command and had requested that they be granted commissions. Although Congress took favorable action in September 1777, the officers were not actually commissioned until November.[55] In its resolutions of February 1778, Congress then ruled that in the future no rank was to be given to officers in the Department of the Commissary General of Military Stores except to those belonging to the Regiment of Artillery Artificers, and they were to have rank only in that corps. The pay they received as officers in the regiment was included in the pay that Congress established for the various positions in the department which they might fill. Thus a captain of the Artillery Artificers serving as a commissary of military stores would find his pay as a captain included in his pay as a commissary. Congress established the pay of the Artillery Artificers who engaged to serve for three years or the duration of the war at 20 dollars a month and granted them the same bounty, clothing, and other benefits allowed by Congress to the Continental Artillery. It granted the officers in the Regiment of Artillery Artificers the same pay as those of equal rank in the Continental Artillery.

The regulation of February 1778 placed all Artillery Artificers except those in the field under Commissary General Flower's direction and undercut Knox's authority. Taking cognizance of the orders Washington had given Knox in January, Congress directed Flower to augment the four companies ordered raised in 1777, which now constituted the Regiment of Artillery Artificers; add other companies to the regiment; and increase the pay of the officers and men in that regiment in accordance with Washington's orders.[56] The resolutions thus eliminated the need for Knox to recruit other artillerymen or Artillery Artificers, as Washington had directed, and gave him the first information he had of the formation of the Regiment of Artillery Artificers. Congress also provided that if at any time more artificers were needed than the Commissary General had enlisted or could enlist, his deputies, with the approval of the Board of War, could engage civilian artificers for the emergency on the most reasonable terms. Under this authority, for example, Capt. Theophilus Parke of the Regiment of Artillery Artificers hired shoemakers and saddlers to work in the leather accouterment factory at

54. Fitzpatrick, *Writings of Washington*, 10:277–79 (to Knox, 8 Jan 78).
55. *JCC*, 8:753 (18 Sep 77); 9:891 (11 Nov 77).
56. Ibid., 10:144–50 (11 Feb 78).

Philadelphia which he supervised. The Commissary General also hired men to work in the laboratory there, and during 1779 and 1780 he employed men and women to make carriages, although the women customarily worked at home.[57] The Department of the Commissary General of Military Stores thus employed artillerymen, Artillery Artificers, and hired hands at Springfield, Carlisle, and Philadelphia to make and repair the hundreds of articles needed by Washington's army—belts, slings, cartouche boxes, drums, ammunition wagons, axletrees, limbers for traveling forges, wheelbarrows, sponges and rammer heads, powder casks, muskets, tools, belt buckles, coat buttons, bridles, musket balls, and buckshot, to mention but a few.

While officers of the Artillery company supervised the laboratory work and officers of the Artillery Artificers superintended other workshops, such as the leather accouterment factory or the ordnance yard, the department also followed the established practice of hiring civilian superintendents. In January 1777, Congress, acting on a Board of War report, appointed Thomas Butler as public armorer at Philadelphia at a pay of 3 dollars a day. He was to superintend the repair of arms and prevent any abuses by gunsmiths. Within some fifteen months, however, Congress dismissed him, selecting in his stead William Henry.[58] In general, the superintendents of the armories, whether at Springfield, Carlisle, or Philadelphia, were all hired. Similarly, when a committee of Congress established a foundry in Philadelphia for casting brass cannon, it contracted in September 1777 with James Byers to supervise the project. He had previously engaged in such work for the main army in New York. Until his services were no longer needed in 1781, he continued as superintendent of the foundry.[59] The Commissary General of Military Stores later employed superintendents to supervise other workshops as well.[60]

The use of enlisted artificers led to criticism. Since greater productiveness on their part brought no increase in pay and emoluments, enlisted personnel, critics charged, were too often idle and inattentive to their duty. The Board of War conceded that contracting for the work was the ideal method, but since the supply of workmen was small and the currency unstable, the only way of ensuring the availability of ordnance supplies was to use enlisted artificers. At the same time, depreciation of the currency brought great hardships to the Artillery Artificers, who, for the most part, had their families with them at their posts. The Board of War warned Congress that Flower's

57. (1) Ibid., 10:149. (2) RG 93, Misc Numbered Docs 21324 (return, 27 Nov 78); 20452 and 20453 (Ordnance Account Books, 1779 and 1780); 21818 (return, 1780).

58. *JCC*, 7:55 (22 Jan 77); 10:380–81 (23 Apr 78).

59. (1) Fitzpatrick, *Writings of Washington*, 6:474 (to Robert Morris, George Clymer, and George Walton, 7 Jan 77). (2) RG 11, CC Papers, reel 157, 1:505–08 (Gates to Pres of Cong, 6 Feb 78); reel 48, item 41, 1:333–36 (Bd of War to Pres of Cong, 19 Dec 80). See also reel 41, 1:323–24 (Byers memorial, 30 Dec 80).

60. RG 93, Misc Numbered Docs 21239 (return, 28 Nov 80).

department was on the eve of dissolution in the spring of 1779. The officers would not continue in the service to "their certain ruin," nor would artificers reenlist or recruits engage on the terms granted them. Officers who superintended their own men as well as hired men complained that they and their families were reduced to want while the mere journeyman hired to assist the enlisted men had enough at least to support his family. The enlisted artificers drew unfavorable comparisons between their situation and that of the hired men, who had ten times their pay. Reluctantly, the board proposed to raise the pay of the enlisted artificers and officers. It suggested that privates be paid according to their talents and industry and that officers be granted an increase in pay graduated according to rank. This proposed pay, the Board of War declared, was no more than four times that established in February 1778, although the necessaries of life had increased tenfold in cost.[61]

Another year passed before Congress, acting on another Board of War report, sharply increased the pay of the officers and privates in the Regiment of Artillery Artificers. At the same time, it retained only one officer in each company, who with the sergeants directed his men.[62] This adjustment of pay to counteract the depreciation of the currency should have brought improvement. Unfortunately, not only were the men not paid but rations were not delivered. In consequence, "not a man in the Department is this day at work for the Publick," Flower's deputy reported to the Board of War in the fall of 1780. The board sympathized with the men. The lack of rations at Philadelphia was found at every post where the artificers were employed. No work was done and no discipline could be enforced, for "men cannot consistent with any Principle of Justice be forced to work when the Public cannot enable them to eat," the board wrote, laying the problem before Congress.[63]

Its solution was to consolidate all the Artillery Artificers in Pennsylvania at Carlisle, retaining only an issuing store and a laboratory for fixing ammunition at Philadelphia. Congress late in 1780 also directed Washington to detach a field officer of the Artillery to superintend the business at Carlisle under the Board of War's orders; ordered the Commissary General of Purchases to form a sufficient magazine of provisions at Carlisle to support the post; and requested the Treasury Board to take measures to furnish sufficient money to supply the Department of the Commissary General of Military Stores on the basis of an estimate approved by the Board of War.[64] The detachment of Artillery Artificers stationed at Philadelphia marched to Carlisle before the end of the year, but the board expressed doubt as to whether a sufficient stock of provisions, especially meat, had been accumu-

61. RG 11, CC Papers, reel 158, 3:365–71 (Bd of War to Pres of Cong, 1 May 79).
62. *JCC*, 17:724–25 (12 Aug 80).
63. RG 11, CC Papers, reel 159, 4:617–20 (19 Oct 80).
64. *JCC*, 18:1093 (25 Nov 80).

lated there. The Board of War early in January 1781 was still trying to get money to permit the department to prepare for that year's campaign.[65]

The lack of funds continued to make it difficult for the Board of War to maintain operations in the Department of the Commissary General of Military Stores. Frequently the board had no money to prepare supplies, to pay for the work done by hired employees, or to meet the salaries of the Artillery Artificers and the officers in the department. At the same time, Colonel Flower's continuing ill health had prevented him from making a personal inspection of the various activities carried on in his department. As a result, immediate remedial measures were needed. Early in February 1780 the Board of War urged appointment of a deputy commissary general of military stores as a solution. It selected Samuel Hodgdon, then serving as the Commissary of Military Stores with the main Continental army. Since Congress had set a now wholly inadequate remuneration for a deputy, the board proposed that the pay be increased to 1,250 dollars per month. It was convinced that Hodgdon's appointment would lessen expense in the department by restoring order and economy and would even permit the discharge of some employees. Congress approved the appointment and granted the proposed pay until further orders.[66]

Economy Measures

In the economy wave that affected all staff departments in 1780, Congress, on 26 July, directed the Board of War to remove unnecessary officers from every post in the Department of the Commissary General of Military Stores. It further directed the board to reorganize the department.[67] In response, the Board of War brought in a report which Congress approved on 12 August. As reorganized, the department retained a Commissary General of Military Stores, one deputy commissary general, and a commissary of military stores at Springfield, at Carlisle, and in Virginia, together with two or three other commissaries or deputy commissaries at subordinate posts. Because of the depreciation of the currency, the board proposed to increase the pay of the Commissary General of Military Stores as well as that of personnel serving in his department. The pay of the deputy commissary general under this revised pay schedule became less than that of the Commissary of Military Stores with the main Continental army. Deputy Hodgdon's protest led Congress to make his pay equal to that of the field Commissary of Military Stores, and at the same time it slightly increased the remuneration of the Com-

65. Ibid., 19:14–15 (2 Jan 81).

66. (1) Ibid., 16:142–43, 153 (9 and 11 Feb 80). (2) RG 11, CC Papers, item 148, 1:59–62 (Bd of War to Pres of Cong, 8 Feb 80).

67. *JCC*, 17:672.

missary General of Military Stores.[68] In accordance with its orders, the board dismissed a number of officers in the department. It felt that it had ample authority to remove those who served under its warrant. However, the board requested and obtained congressional action to dismiss those officers who held commissions signed by the President of Congress.[69]

In addition to eliminating unnecessary personnel, the Board of War acted also to liquidate unnecessary posts. It began moving in that direction in the summer of 1780 when it issued orders to close the post at Lancaster. It directed George Ingells, commissary of military stores, to send all the powder in casks under his charge to Samuel Sargent, commissary of military stores at Carlisle, and to forward all other remaining stores to Philadelphia.[70] No doubt anticipating events, Nathaniel Barber, commissary at Boston, submitted his resignation early in 1781. As a result, the post at Boston was discontinued, and the Board of War ordered all stores on hand and arriving in the future to be sent to Springfield.[71] It also attempted to discontinue the post at Fishkill. Protests by the Commander in Chief and General Knox caused the board to revoke its order, but the Fishkill post was eliminated the following year.[72]

Following the death of Colonel Flower on 1 May 1781, Congress appointed Samuel Hodgdon as Commissary General of Military Stores.[73] Within little more than a year, it repealed all previous resolutions regarding his department and empowered the Secretary at War to appoint a Commissary of Military Stores, subject to his orders and instructions, who was to receive a salary of 1,000 dollars per annum.[74] Secretary Lincoln retained Hodgdon as Commissary of Military Stores, but, as the latter expressed it, Congress had "totally overthrown the fabric of years, leaving scarcely a trace behind" of the former Department of the Commissary General of Military Stores. The deputy commissary of military stores at Carlisle, Samuel Sargent, was now dismissed, and the stores remaining there were placed in the charge of a captain of the Artillery, who received no additional pay for this service.[75] Before the end of 1782 Hodgdon also accepted appointment as an assistant quartermaster in Philadelphia under Pickering while continuing to perform the duties of Commissary of Military Stores to eke out an adequate salary. Since the greater part of the military stores of the United States was deposited

68. (1) Ibid., 17:723–25 (12 Aug 80); 19:49–51 (12 Jan 81); 19:100 (31 Jan 81). (2) RG 11, CC Papers, reel 50, item 41, 4:157–60 (Hodgdon memorial, undated).
69. *JCC*, 17:793 (30 Aug 80).
70. RG 93, Hodgdon Letters, 110:21 (6 May 80).
71. (1) Ibid., 92:45 (to Barber, 12 Mar 81). (2) *JCC*, 19:232 (5 Mar 81).
72. Ibid., 22:415 (24 Jul 82).
73. (1) RG 11, CC Papers, item 148, 1:365 (Bd of War to Pres of Cong, 1 May 81). (2) *JCC*, 20:746 (12 Jul 81).
74. Ibid., 22:415 (24 Jul 82).
75. RG 93, Hodgdon Letters, 92:243–44 (to Sargent, 16 Aug 82).

at Philadelphia when the war ended, Congress retained Hodgdon in service, first as a commissary and then for some years as Superintendent of Military Stores.[76]

76. (1) RG 93, Pickering Letters, 86:16 (to Hodgdon, 22 Dec 82). (2) *JCC*, 25:804–05 (4 Nov 83).

CHAPTER 12

Supply of Ordnance and Ordnance Stores

The Department of the Commissary General of Military Stores never had responsibility for all facets of ordnance supply. It was primarily concerned with repair operations and the production of many ordnance items. Such procurement authority as the Commissary General had was limited to the purchase of supplies needed in the department's operations. Even this procurement, however, did not include all such supplies. Powder, which the department used in preparing fixed ammunition and making cartridges, was procured and deposited in its magazines by other agencies of the Continental Congress. Accouterments which it produced were made from leather furnished by the Hide Department. On the other hand, the Commissary General, at the direction of the Board of War, contracted late in the war for shot and shells, particularly in 1780 and 1781. Procurement of the major items of ordnance supply—powder, arms, and cannon—and their distribution to the Continental Army never became functions of the Department of the Commissary General of Military Stores. Procurement authority was never centralized in any one agency during the war, and the failure early in the war to provide a centralized control of distribution promoted confusion.

Long before the Second Continental Congress assumed responsibility for the support of the Continental Army, colonial governments had looked to foreign markets for the procurement of essential military supplies. When the First Continental Congress met in September 1774, few colonists anticipated open warfare. Yet patriots, acting in provincial congresses and conventions, initiated preparatory measures. Militia drilled more conscientiously, and committees of safety collected guns and ammunition at safe deposit points. The Massachusetts Provincial Congress in October of that year went so far as to appropriate funds to purchase powder, shot and shells, flints, fieldpieces, mortars, muskets, and bayonets.[1]

The British government had good reason to suspect that the colonists were carrying on an illicit trade in gunpowder and other military stores with Holland through the island of St. Eustatius in the West Indies. Determined to prevent the accumulation of such stocks, it enacted a law prohibiting the importation of saltpeter, gunpowder, or arms into the colonies and made the

1. Force, *Am. Arch.*, 4th ser., 1:841–44 (24–26 Oct 74).

law applicable also to coastwise trade.[2] The effect was to trigger even greater preparatory activity on the part of the patriots. In Rhode Island patriots seized and carried to Providence the powder, cannon, and other military stores from the fort at Newport. At Portsmouth, New Hampshire, a group of 400 men proceeded to Fort William and Mary and forcibly took possession of it, carrying off 100 barrels of powder as well as muskets and cannon.[3] On 20 March of the following year, the States General, the governing body of the United Provinces of the Netherlands, issued a proclamation forbidding, under heavy penalty, the exportation of warlike stores, except by special license, from any Dutch harbor. To obtain a special license, the exporter had to take an oath that the goods being shipped were not destined for British colonies. The effectiveness of this proclamation, however, was questionable, and trade continued to flourish at St. Eustatius.[4]

The individual colonies in this period took such preparatory measures as each judged necessary. After the war began, the state authorities and the Continental Congress competed with each other in foreign markets to purchase the arms, cannon, powder, and other military stores needed for the country's defense. The states purchased to arm and equip their militia; the Continental Congress procured for the support of the Continental Army and Navy.

Foreign Procurement

Shortly after the Second Continental Congress met, it realized that to support the Continental Army it would have to import ordnance and ordnance stores. On 18 September 1775 it authorized the Secret Committee to import 500 tons of gunpowder. If that amount could not be obtained, the committee was to make up any deficiency with saltpeter and sulphur. Congress also empowered the Secret Committee to procure forty brass 6-pounder field-pieces, 20,000 musket locks, and 10,000 stand of good arms, drawing upon the Continental treasury for funds to pay for the contracts.[5] The necessity of obtaining munitions subsequently led Congress to waive its nonexportation agreements. It thereupon authorized the Secret Committee to export to the non-British West Indies, on behalf of the Continental Congress, as much produce—except cattle, sheep, hogs, and poultry—as was necessary to pay for the arms, ammunition, sulphur, and saltpeter imported.[6] Before the end

2. Ibid., 4th ser., 1:480 (Earl of Dartmouth to Lt Gov Cadwallader Colden, 10 Sep 74); 881 (Order in Council, 19 Oct 74).

3. Ibid., 4th ser., 1:1041–42 (Gov John Wentworth to Gov Gage, 14 and 16 Dec 74); 1080 (Thomas Cushing to Josiah Quincy, Jr.).

4. For the role that the Dutch West Indies played in supporting the American Revolution, see J. Franklin Jameson, "St. Eustatius in the American Revolution." *American Historical Review* 8 (1903): 683–708.

5. *JCC*, 2:253–54.

6. Ibid., 3:336 (8 Nov 75).

of the year the Secret Committee reported the necessity of procuring 20,000 stand of arms, 300 tons of lead, 1 million flints, 1,500 boxes of tin and assorted hardware, and 500 sheets of assorted copper for the support of the Continental Army. Congress directed the committee to import these supplies as soon as possible.[7] These orders were but the first of many to the Secret Committee.

In the meantime, on 13 December 1775 Robert Morris succeeded Thomas Willing, his business partner, as a member of the Secret Committee and became its chairman. Utilizing his wide mercantile contacts and operating through agents in Europe and in the West Indies—at Martinique, Cape Francois in Santo Domingo, and St. Eustatius—Morris obtained considerable supplies from Europe which moved through the islands destined for the use of the Continental Army and Navy. The French, while preserving the form of neutrality, were showing the same favors at Martinique to the rebelling American colonies as the Dutch were at St. Eustatius. In the spring of 1776, Congress empowered the Secret Committee to order and pay for the arming and manning of any vessels employed abroad in importing cargoes for the government. When such armed vessels arrived at American ports, the committee received all the arms, ammunition, and stores.[8] One vessel that the Secret Committee had fitted out, for example, arrived from Marseilles in the summer of 1776 bringing 1,000 muskets, about 10 tons of powder, 40 tons of lead, and other stores. Before the end of the year the *Andrew Doria*, a brigantine sent out by the committee, brought in 496 muskets, 326 pairs of pistols, 200 half barrels of powder, and 14,101 pounds of lead, among other supplies.[9]

Since the early trade operations with the West Indies were conducted clandestinely, they cannot be traced in detail. However, evidence of the trade can be found in actions taken by the Continental Congress. For example, early in 1776 a Frenchman, Pierre de Fargue, arrived with a cargo of ammunition. He requested, and Congress granted, permission to export produce to Martinique in return for the cargo he had brought. Additional cargoes of sulphur, saltpeter, flints, lead, powder, muskets, and other stores arrived at American ports in 1776.[10] This importation of supplies, so essential to the Continental forces, proved most advantageous to Robert Morris and many other merchants engaged in it.[11] That the trade was highly lucra-

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7. Ibid., 3:453 (23 Dec 75); 4:24–25 (3 Jan 76).

8. Ibid., 4:290 (17 Apr 76).

9. Force, *Am. Arch.*, 5th ser., 1:758–59 (Josiah Bartlett to John Langdon, 5 Aug 76); 3:1373–74 (Robert Morris to Washington, 23 Dec 76).

10. (1) Burnett, *Letters*, 1:341 (Richard Smith Diary, 7 Feb 76). (2) *JCC*, 4:117, 119–20 (7 and 8 Feb 76). See also 6:866, 878–79, 890, 896, 952–53 (11, 15, 21, and 22 Oct; 15 Nov 76).

11. (1) For a discussion of the activities of Robert Morris and his mercantile associates, see East, *Business Enterprise in the American Revolutionary Era*, pp. 126 ff. (2) For a biography of one of his agents, see Robert C. Alberts, *The Golden Voyage: The Life and Times of William Bingham, 1752–1804* (New York, 1969).

tive is indicated by a report in April 1776 that 120-percent profits could be made on gunpowder at St. Eustatius. So attractive, in fact, were the profits that large numbers of British merchants were enticed into providing supplies for their country's enemies.[12]

A second committee of Congress, the Committee of Secret Correspondence, was soon deeply involved in obtaining foreign aid for the colonies. On 3 March 1776 it sent Silas Deane to France "in the character of a merchant" to obtain a supply of clothing and arms for 25,000 men as well as ammunition and 100 brass fieldpieces.[13] Long before that date, however, the Comte de Vergennes, the French Minister of Foreign Affairs, had been observing with interest Great Britain's troubles with its American colonies. By the summer of 1775 he had begun to think that those difficulties might be used as a means to enhance French prestige and power. As he formulated a policy of secret assistance to the American colonies, Vergennes was encouraged by information sent from England by a French political agent, Pierre Caron de Beaumarchais, a dramatist and courtier.[14] The latter had met in London with Arthur Lee, then a secret agent of the Committee of Secret Correspondence. Lee had instructions to furnish the committee information relative to the disposition of foreign powers toward the American colonies, and he was persuasive in pleading for French aid to the colonies.[15]

Vergennes' policy of secret assistance was accepted by Louis XVI, who on 2 May 1776 directed that Beaumarchais be furnished with one million livres to be used in providing secret military supplies to the rebelling colonies under the fiction of lawful commerce. Spain contributed a similar amount to the plan. America's first agent in France, Silas Deane, reached Paris on 7 July 1776 with specific instructions to purchase military stores on liberal credit terms payable in American produce. By that time Beaumarchais had received the French and Spanish money, and the idea of establishing the fictitious Roderique Hortalez and Company to carry on the trade had been conceived. Beaumarchais had informed Arthur Lee of these developments, and the Committee of Secret Correspondence then received word through Thomas Story that the French Court would not enter into a war with England but would assist the Americans by sending, in the fall of 1776, arms and

12. (1) Jameson, "St. Eustatius in the American Revolution," *American Historical Review*, 8:688. (2) Fortescue, *A History of the British Army*, 3:260.

13. Francis Wharton, ed., *Revolutionary Diplomatic Correspondence of the United States*, 6 vols. (Washington, 1889), 2:78–80 (instructions to Deane).

14. (1) Beaumarchais had considerable influence in the formulation of this policy. See John J. Meng, "A Footnote to Secret Aid in the American Revolution," *American Historical Review* 43 (1938): 791–95. (2) See also Samuel F. Bemis, *The Diplomacy of the American Revolution* (1935; Indiana Univ Press ed., Bloomington, 1967), pp. 20–28.

15. For different evaluations of Lee's role, see (1) Louis De Lomenie, *Beaumarchais and His Times*, 4 vols. (London, 1856), 3:132 ff. (2) Burton J. Hendrick, *The Lees of Virginia* (New York, 1935), pp. 225 ff.

ammunition worth 200,000 pounds sterling from Holland to St. Eustatius, Martinique, or Cape Francois. These supplies would be delivered to properly authorized persons who applied to the governors or commandants of those places, inquiring for M. Hortalez.[16]

Before Story made his report, Deane and Beaumarchais had come to terms, and the latter began obtaining supplies. Most came directly to him from French arsenals. Despite delays in communications—under the most favorable conditions it took two months for instructions from Congress to reach Europe—and lack of remittances by the Committee of Secret Correspondence, Deane was able to report early in December 1776 that he was dispatching a vessel carrying 200 brass cannon, 30 mortars, 30,000 fusils, 200 tons of gunpowder, and various other ordnance stores, as well as 4,000 tents and enough clothing for 30,000 men.[17] Although there was further delay because the ship, the *Amphitrite*, returned to port after it had sailed, it arrived in Portsmouth, New Hampshire, in time to provide supplies for the 1777 campaign, which for the Northern Army culminated in the victory at Saratoga. The *Mercury* of Nantes also arrived, with a cargo of arms, powder, flints, and woolens.[18]

By the beginning of March 1777 Beaumarchais had ten Hortalez and Company vessels sailing to America loaded with military supplies. Deane had agreed to provide American ships for carrying the cargoes, but when they did not arrive in time, Beaumarchais himself had arranged to provide the ships.[19] Beaumarchais supplied on a credit basis military stores worth 5 million livres, considerably more than the 2 million granted by France and Spain. After the war he claimed he was due 3,600,000 livres, the extra 600,000 being the amount he had advanced to ships' officers and crews.[20] On the basis of his conversations with Beaumarchais, Lee maintained that the supplies furnished had been a gift from the French Court. Whatever the understanding between the two men—and it still remains unclear—Congress did sign a contract that called for payment, as Samuel F. Bemis has pointed out. Its repudiation resulted from Lee's efforts to convince Congress that Beaumarchais had no right to charge for the supplies that had been given to

16. Burnett, *Letters*, 2:110–11 (Committee of Secret Correspondence statement, 1 Oct 76). Since Robert Morris was a member of all committees engaged in importing supplies, the committee agreed it could keep this development secret from Congress to prevent the supplies from being intercepted by the country's enemies. Congress, it felt, had too many members to keep secrets.

17. Wharton, *Revolutionary Diplomatic Correspondence*, 2:212 (Deane to Jay, 3 Dec 76).

18. (1) *JCC* 7:211–12 (31 Mar 77). (2) Fitzpatrick, *Writings of Washington*, 8:7–8 (to Pres of Cong, 3 May 77).

19. Elizabeth S. Kite, *Beaumarchais and the War of Independence*, 2 vols. (Boston, 1918), 2:124, 153.

20. See Bemis, *Diplomacy of the American Revolution*, p. 37n.

him, and that the commercial contract had been intended only to hide French violations of neutrality.[21]

Spain's gift of one million livres was its total contribution to the joint secret operations with France, but Spain provided other assistance to the colonies. When George Gibson arrived at New Orleans in September 1776 seeking Spanish assistance, he raised the idea of America's capturing Pensacola and delivering it to Spain. The Spanish Court welcomed the suggestion. In the first two months of 1777 military supplies were shipped from Spain to New Orleans and surplus powder was transferred from Mexico.[22]

Following the victory of the Americans at Saratoga in the fall of 1777, France entered into an alliance with the United States. Military supplies could now be openly shipped and convoyed by the French Navy. Through Benjamin Franklin's efforts, considerable funds became available, and military stores continued to come to the United States. It has long been acknowledged that without this foreign aid the colonists could not have won their independence. Until French supplies began to arrive in 1777, however, the rebelling Americans had been forced to rely on their own efforts to support the war. Whether for such major articles of war as cannon, muskets, or gunpowder, or for the numerous other ordnance stores required in a campaign, the colonists in 1775 had to rely on the very limited capacity of domestic production. To sustain the Continental Army during the first two campaigns of the war, the colonists managed to supplement such production with supplies imported by congressional committees and state authorities, obtained and sold by private merchants, and seized and disposed of by privateers.

Scarcity of Powder

After the battles of Lexington and Concord, the supply of powder, that most essential military store, was at once seen as inadequate.[23] Massachusetts Bay's stock of available gunpowder late in April 1775 totaled only 82 half barrels. To build up magazines, its Committee of Safety called upon the various towns of the colony to send 68¼ barrels of powder. So acute did the shortage become that Maj. Gen. Artemas Ward, commanding the Massachusetts Bay forces, feared that Massachusetts would "barely for want of the means of defence, fall at last a prey to our enemies."[24]

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21. (1) Charles J. Stille, "Beaumarchais and the Lost Million," *Pennsylvania Magazine of History and Biography* 11 (1887): 1–36. (2) Kite, *Beaumarchais and the War of Independence*, 2:184 ff. (3) His heirs eventually, in 1835, received 800,000 francs. Bemis, *The Diplomacy of the American Revolution*, p. 39.

22. For a summary of French and Spanish loans and subsidies, see ibid., p. 93.

23. Stephenson states that 80,000 pounds of powder were on hand when the conflict began. Orlando W. Stephenson, "The Supply of Gunpowder in 1776," *American Historical Review* 30 (1925): 273.

24. Force, *Am. Arch.*, 4th ser., 2:906 (Ward et al. to Cong, 4 Jun 75).

Although the Continental Congress had not by formal vote accepted responsibility for the forces gathered at Cambridge, nonetheless by 3 June it had appointed a committee to purchase gunpowder for that army. The committee was to borrow the sum of 6,000 pounds for the purpose, Congress guaranteeing repayment of the sum with interest. In response to letters not only from Massachusetts but also from Ticonderoga and Crown Point, Congress a week later called on the other New England colonies and the interior towns of Massachusetts to furnish the troops before Boston with as much powder out of their stocks as they could spare.[25] In responding to this emergency, Governor Jonathan Trumbull wrote that after receiving Congress' letter, Connecticut, which had already sent 50 barrels of powder, had shipped 10 more, all that it could supply. New York had contributed 655 pounds of powder and the Pennsylvania Committee of Safety had sent 90 quarter casks. Subsequently, the delegates of South Carolina in Congress dispatched a vessel from Philadelphia and called upon the secret committee at Charleston to purchase all the powder that could be bought in that town and to return the vessel with the powder as soon as possible, together with as much powder as could be spared from the public stock. On 21 July 1775 that committee shipped 5,000 pounds of powder.[26]

These supplies helped, but they were used with reckless abandon. When Washington arrived at Cambridge, he wrote that he would have to "re-echo the former complaints." The little supply of powder on hand had to be reserved for small arms and managed with utmost frugality; he was so destitute of powder, he advised the President of the Continental Congress, that the artillery would be of little use without the delivery of a large supply. Had he appreciated the actual status of his army's powder supply, his appeal might have been frantic. Following his arrival, the Massachusetts Committee of Supplies had submitted a return showing 485 quarter casks of powder, which Washington assumed to be the amount on hand. Weeks later he learned the true state of affairs. Through a misunderstanding the return had included all the powder Massachusetts had ever received, most of which already had been used. Actually, only 38 barrels were on hand early in August; there was not enough powder to furnish a half pound per man. "The General was so Struck that he did not utter a word for half an hour." So wrote Brig. Gen. John Sullivan to the New Hampshire Committee of Safety, appealing for an immediate supply of at least 20 barrels of powder.[27]

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25. (1) *JCC*, 2:79, 85–86 (3 and 10 Jun 75). (2) Burnett, *Letters*, 1:120 (Pres of Cong to Gov Trumbull, 10 Jun 75).

26. (1) Force, *Am. Arch.*, 4th ser., 2:1035–36 (Trumbull to Cong, 20 Jun 75). (2) Burnett, *Letters*, 1:145, 149 (John Adams to James Warren, 27 Jun 75). (3) Edward McCrady, *The History of South Carolina in the Revolution* (New York, 1901), pp. 17–21.

27. (1) Fitzpatrick, *Writings of Washington*, 3:325 (to Pres of Cong, 10 Jul 75). (2) John Sullivan, *Letters and Papers of Major-General John Sullivan*, ed. Otis G. Hammond, 3 vols. (Concord, N.H., 1930–39), 1:72–73 (5 Aug 75).

Washington depended for his powder on appeals to the provincial congresses for what could be spared from their stocks on hand, on purchases of supplies from private traders, and on supplies captured by armed schooners. Despite the receipt of eleven tons of powder and the fact that no general action had as yet occurred, the main Continental army in January 1776 still did not have a sufficient supply of powder on hand. Washington attributed the army's shortage to the damage the powder had sustained from heavy rain when the troops were sheltered in bad tentage.

There were other demands than those of his troops upon Washington's small stock of gunpowder. Having discovered that his force was not "likely to do much in the Land way," Washington in October 1775 had equipped two armed vessels—the *Lynch* and the *Franklin*—and had ordered their captains to intercept British supply ships. To encourage the officers and men, he directed that they receive one-third of the value of any prizes taken. "Washington's fleet," as the armed vessels are usually known, gave good service until Congress established a naval force.[28] Equipping the armed vessels, however, meant that they had to be supplied with powder. Some powder also had to be given to the seaport towns for their defense. In addition, the powder shortage was increased by the fact that troops leaving after the expiration of their enlistment carried powder home despite efforts to prevent the practice.

The King's troops, Washington explained, never had less than 60 rounds per man in their possession. To supply a proposed 20,000-man army with the same amount of ammunition per soldier would require 400 barrels of powder. Given the small amount of powder on hand and faced with the dire prospect that an accident could leave the army destitute, Washington allowed each man no more than 12 or 15 rounds.[29] His difficulties were increased by the arrival of militia with little or no powder.

Washington called a council of war on 16 February 1776 to plan an attack on Boston. Cold weather had frozen over the harbor, thus affording "a less dangerous approach to the Town, than through the Lines or by Water." The general officers, however, thought the plan too hazardous, for there was an insufficiency both of men (the militia had not yet arrived) and of powder. These were but two of the factors preventing an attack on Boston. Washington lamented the loss of a golden opportunity. Prudence dictated that he conceal his problems from the enemy, but he feared his friends in consequence did not realize his distress and thus failed to send him supplies that they could spare. "I am so restrained in all my Military movements," he wrote Governor Trumbull, "that it is impossible to undertake anything effectual." After

28. Fitzpatrick, *Writings of Washington*, 4:6–7 (instructions, 4 Oct 75); 22–25 (to Pres of Cong, 12 Oct 75); 33–34 (to Capt Nicholson Broughton, 16 Oct 75); 149 (to Col Benedict Arnold, 5 Dec 75).

29. Ibid., 4:288–89 (to Pres of Cong, 30 Jan 76).

furnishing the militia with about 50 barrels of powder, increasing the rounds in the hands of the other troops to 24 per man, and providing a few rounds of cannon cartridges, he had, in mid-February, no more than 100 barrels of powder on hand. Governor Trumbull came to his aid with two tons of powder before the end of the month, and on 4 March 1776 Congress directed the Secret Committee to send "with all possible expedition" 10 tons of powder to Cambridge.[30] With these developments and with the arrival of heavy cannon (brought by Col. Henry Knox from Ticonderoga in January but temporarily left at Framingham, Massachusetts), Washington was able to seize Dorchester Heights early in March and pose a threat to the British in Boston. Until then, he had been "obliged to submit to all the Insults of the Enemy's Cannon for want of Powder, keeping what little we had for Pistol distance." When the British finally evacuated Boston, he took satisfaction in his army's achievement.

> We have maintain'd our Ground against the Enemy, under the above want of Powder, and we have disbanded one Army and recruited another, within Musket Shot of Two and Twenty Regiments, the Flower of the British Army, when our strength have been little if any, superior to theirs; and, at last, have beat them, in a shameful and precipitate manner out of a place the strongest by Nature on this Continent, and strengthened and fortified in the best manner and at an enormous Expence.[31]

Manufacture of Powder

The scarcity of powder caused both the colonial assemblies and the Continental Congress to attempt to obtain a supply through manufacture as well as through importation. They tried to stimulate the production of saltpeter, the chief ingredient of powder, and they encouraged both the repair of old powder mills that had fallen into ruin since the French and Indian War and the erection of new mills. The Committee of Philadelphia, for example, undertook to erect a "saltpetre Manufactory" in July 1775, and the Rhode Island Assembly in August offered a bounty of 3 shillings a pound on every pound of saltpeter made in the colony during the next year.[32] In June 1775 the Continental Congress called for the collection of all saltpeter and brimstone in the colonies and for their manufacture into gunpowder as soon as possible. It also requested New York to put its powder mills into operation, and it appointed a committee to devise ways and means for manufacturing salt-

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30. (1) Ibid., 4:338–39, 343 (to Trumbull, 19 and 22 Feb 76). (2) Washington Papers, reel 35, ser. 4 (Trumbull to Washington, 16 Feb 76). (3) *JCC*, 4:183.

31. Fitzpatrick, *Writings of Washington*, 4:446 (to John Augustine Washington, 31 Mar 76).

32. (1) Burnett, *Letters*, 1:346 (Richard Smith Diary, 12 Feb 76). 2. Force, *Am. Arch.*, 4th ser., 2:1533 (Committee of Philadelphia, 3 Jul 75); 3:232 (R.I. Assembly, __ Aug 75).

peter in the colonies. Robert Livingston, having obtained saltpeter at Philadelphia, set his powder mill to work in New York.[33]

Some seven weeks later the Continental Congress again recommended that the colonies undertake the production of saltpeter. This time it specifically called the attention of the tobacco colonies to the fact that the surface of the earth in tobacco warehouses and their yards was strongly impregnated with nitrate, and it requested them to erect saltpeter factories on the rivers near such warehouses. It also recommended that the colonial assemblies and conventions buy up, on the account of the United Colonies, all good and merchantable saltpeter produced until 1 October 1776 at half a dollar a pound. To further stimulate saltpeter production, the Continental Congress even printed and distributed a pamphlet on the methods of making saltpeter.[34] In February 1776 it recommended that the colonial governments set up public works to manufacture saltpeter and erect powder mills. It appointed a committee of one member from each colony to consider ways and means of encouraging the manufacture of saltpeter and gunpowder, and to keep Congress informed of progress being made in all the colonies in the manufacture of these products.[35]

Almost all the saltpeter and powder manufactured in the colonies was produced as a result of support given by the colonial governments. Nearly all of it was produced early in the war when Revolutionary enthusiasm was high, "hard money" was in circulation, and the price of labor and materials was not yet inflated. A total of some 115,000 pounds of gunpowder was manufactured from saltpeter produced in the colonies by the fall of 1777; the total from imported saltpeter was 698,245 pounds. Despite these efforts, most of the powder used during the first two and a half years of the war had to be imported. According to Orlando W. Stephenson, the imported supply amounted to 90 percent of the powder available for carrying on the war during that period. Most of it came from the West Indies, where large quantities were available. Between 6 and 14 May 1776, for example, 14 ships arrived at Martinique bringing 100,000 hundredweight of gunpowder. In mid-July, 12 more ships were expected, each carrying 10,000 or 12,000 hundredweight of powder.[36]

At the same time, complaints about the gunpowder manufactured in America led Congress to use inspectors. They examined every cask of powder manufactured or purchased for the United States to determine its quality. Congress allowed the inspector one-eighth of a dollar for every

33. (1) Ibid., 4th ser., 2:1106 (Livingston to Pres of N.Y. Prov Cong, 26 Jun 75). (2) *JCC*, 2:85–86 (10 Jun 75).

34. Ibid., 2:218–19 (28 Jul 75).

35. Ibid., 4:170–71 (23 Feb 76).

36. (1) Stephenson, "The Supply of Gunpowder in 1776," *American Historical Review*, 30:276–77. (2) Force, *Am. Arch.*, 5th ser., 1:265–66 (Capt Robert Parker to N.H. Committee of Safety, 13 Jul 76).

hundredweight of powder he examined. No powder was to be received at a magazine or delivered from a powder mill unless approved by an inspector as to quickness in firing, strength, dryness, and other qualities. He marked each approved cask with the letters *U.S.A.* and with other marks to distinguish the kind of powder. Every maker of powder also identified his cask with the first letters of his name. Congress also recommended that the state legislatures appoint inspectors of powder. It then elected Robert Towers inspector of gunpowder at Philadelphia. In addition, it empowered the Continental Agents to inspect, or appoint persons to inspect, gunpowder manufactured, purchased, or imported in the states where they resided, except in those states where Congress had appointed an inspector.[37]

Production of powder tended to dwindle in the later years of the war despite the Board of War's efforts to stimulate it. The board made a contract with Nicholas and Mark Fouquet, who came to America with Philippe Du Coudray in 1777. For two years they instructed manufacturers in the art of powder making, wrote treatises on saltpeter and powder (which the Board of War published), and constructed models of powder mills.[38] The materials for powder production became less available as British patrols tightened operations along the coast and in the West Indies. Thus when Washington sought to obtain powder in Massachusetts in the summer of 1780, that state, while willing to help, could furnish him only 10 tons of powder. There were three powder mills capable of producing an average of 2 tons a week, but they had enough materials on hand to manufacture a total of no more than about 30 tons. At the same time, production in Connecticut was halted for lack of sulphur, though the state apparently had a considerable quantity of saltpeter on hand. To obtain the needed powder, Washington proposed to supply sulphur from Springfield, Massachusetts, where the other ingredients for making powder were lacking. He suggested that Connecticut manufacture the powder for his forces in exchange for a suitable compensation.[39] Even more than in the early years of the war, the Continental Army was dependent upon the importation of powder to meet its needs.

Continuing Scarcity of Powder

Despite the scarcity of powder, soldiers were often as wasteful of it as they had been in 1775. Washington repeatedly issued orders to curb this waste. The troops had the habit of frequently discharging their guns to clean and keep them in order. This practice caused so great a waste of ammunition (powder, ball, and wadding) that in the summer of 1777 Washington ordered

37. *JCC*, 5:425, 713–14, 729 (7 Jun, 28 and 31 Aug 76).
38. Ibid., 15:1164–65 (12 Oct 79).
39. (1) Washington Papers, reel 68, ser. 4 (Mass. Council to Washington, 2 Jul 80). (2) Fitzpatrick, *Writings of Washington*, 19:111–12 (to Gov Trumbull, 3 Jul 80).

that no musket was to be loaded "until we are close to the enemy, and there is a moral certainty of engaging them."[40] In the spring of the following year he directed that when any noncommissioned officer or private was detected discharging his gun or otherwise wasting his ammunition, he was to receive thirty-nine lashes on his bare back by order of the first commissioned officer before whom he was brought. More than two years later Washington was again cautioning against the waste of ammunition, though he attributed the revival of the practice of firing guns in the camp and its vicinity to the arrival of new levies.[41]

Washington was justifiably concerned about any waste of powder. His magazines were nearly empty in the summer of 1779. "We have scarcely a sufficiency for the ordinary demands of the service," he informed the Board of War, "and should be utterly unable to undertake any enterprise which might require more than common expenditure however necessary it might be, or however other circumstances might invite it."[42] He had in mind the possibility of a cooperative effort with Admiral d'Estaing against the British. At the same time he was concerned about the defense of West Point. The Board of War was expecting a supply of powder, and, in fact, a Pennsylvania privateer sent out by the Marine Committee brought some from the West Indies, but its cargo was far less than the 1,000 barrels the board had anticipated. This powder, Washington felt, would "answer our present purposes," but, still hopeful of a joint effort with d'Estaing, he also requested a loan of powder from Massachusetts and Connecticut. When the joint effort failed to materialize, Washington directed the Massachusetts Council to hold in Boston the 100 barrels of powder that it had proposed sending him. The Board of War took action to stop the forwarding of loans of powder from Virginia and Maryland.[43]

Prospects were no better the following year. Again hopeful of a cooperative effort with the French, Washington was hard-pressed for powder. The quantity on hand together with what he expected from the French fleet would amount to no more than one-third of the quantity that would be required for a decisive operation. Once more he appealed to the states for assistance. The failure of the frigate *Alliance* to arrive from France with arms and powder increased the distress of Washington's army and ensured the continuance of the stalemate in the north.[44]

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40. Ibid., 8:423 (GO, 17 Jul 77).
41. Ibid., 11:249 (GO, 11 Apr 78); 12:448 (GO, 14 Sep 78); 19:438–39 (25 Aug 80).
42. Ibid., 16:184 (27 Aug 79).
43. Ibid., 16:4–5 (to Pres of Cong, 29 Jul 79); 284, 304 (to Bd of War, 14 and 18 Sep 79); 426–27 (to Jeremiah Powell, 7 Oct 79); 17:66 (to same, 3 Nov 79); 136 (to Bd of War, 19 Nov 79).
44. (1) Ibid., 19:116–17 (to Pres Meshech Weare, 4 Jul 80); 210 (to Mass. Council, 19 Jul 80); 227–28 (to Gov Trumbull, 22 Jul 80). (2) Washington Papers, reel 16, ser. 4 (Knox to Washington, 23 May 80).

A report of the Board of War in November 1780 showed only too clearly the scarcity of powder. General Knox had prepared an estimate of ordnance needs for the cooperative campaign that Washington had hoped to launch against New York in the summer of 1780. His estimate of powder needed for siege operations was 7,779 barrels more than what was estimated to be on hand in the Ordnance Department in the fall of that year. The Board of War had applied to France for 5,000 barrels of cannon powder, but even if all of it arrived, there would still be a deficiency, the board noted, of 2,779 barrels for an operation against New York in 1781.[45] As the campaign of 1781 approached, Washington was again reduced to appealing for the loan of powder from the states. He assured the governors that he would soon be able to repay the loans when supplies procured in Europe arrived.[46] As in the past, the states were willing to assist as much as they were able.

Domestic Production of Arms

However much the Continental Congress came to depend on foreign procurement of arms to equip its troops, initially it had to rely on what was available and could be produced in the colonies. On 4 November 1775 it recommended that the assemblies or conventions of the colonies set their gunsmiths to work manufacturing good firelocks with bayonets. The price was to be fixed by the assembly, convention, or committee of safety in each colony.[47] Long before that date, however, these bodies had anticipated the need. A committee of the Provincial Congress of Massachusetts in December 1774 had recommended the manufacture of firearms in that colony. By way of encouragement, it enacted legislation giving preference in its purchases to arms manufactured in the colony.[48] Virginia had enacted legislation establishing a gun factory near Fredericksburg in July 1775. Pennsylvania, too, had made provision for the manufacture of gunlocks in Philadelphia, and early in 1776 it appointed Peter De Haven to superintend the works.[49] In Maryland, where a dozen gunsmith shops were located in Baltimore, Frederick, Hagerstown, and elsewhere, a committee had recommended that, in lieu of establishing a gun factory, contracts be made with the various gunsmiths. Each of the 12 shops, the committee reported, could produce 20 muskets a month, including steel rammers and bayonets, for a total of 240 a month.[50] Committees of safety generally were active in engag-

46. Fitzpatrick, *Writings of Washington*, 22:113 (to Gov Hancock, 25 Feb 81); 115–16 (to Gov Trumbull, 25 May 81).

47. *JCC*, 3:322–23.

48. *The Journals of Each Provincial Congress of Massachusetts in 1774 and 1775*, pp. 62, 63 (8 Dec 74); 103 (15 Feb 75).

49. (1) William Waller Henning, comp., *The Statutes at Large; Being a Collection of all the Laws of Virginia*, 14 vols. (1821; reprint ed., Jamestown Foundation, 1969), 9:71–72 (17 Jul 75). (2) *Minutes of the Provincial Council of Pennsylvania*, 10:506 (6 Mar 76).

50. Force, *Am. Arch.*, 4th ser., 3:130–31 (committee report, 2 Aug 75).

ing gunsmiths as well as blacksmiths to produce muskets. Later Congress itself operated a Continental firearms factory at Lancaster and a gunlock factory at Trenton.[51] Prewar expectations of the number of small arms that could be produced in the colonies, however, were much too optimistic. The efforts of gunsmiths and gun factories were helpful, but capacity was limited. Local production soon had to be supplemented by importation. By the fall of 1778 lack of funds led Pennsylvania to propose discontinuing the production of arms at its factory.[52]

Variety of Arms

Although some rifles were used in the Revolutionary War, the weapon most soldiers used was the musket. Congress preferred it to the rifle because it was more easily kept in order, could be fired more rapidly, and could accommodate a bayonet. Relatively few men were skilled in the use of the rifle. Muskets, moreover, were more easily and readily manufactured by colonial gunsmiths, few of whom were capable of producing rifles.[53] Early in the war most of the guns in use were Brown Bess muskets, the principal small arm of the British Army. Many had been acquired by colonial assemblies and issued to their militia. Others were owned by individual inhabitants, and some had seen use in earlier colonial wars. Not a few were acquired when British supply ships were captured when the war began by vessels armed by Washington's orders. When the states and the Continental Congress initiated procurement abroad, foreign muskets, purchased from the Dutch, Spanish, and French in Europe and in the West Indies, were placed in the hands of the troops. Arms obtained through Beaumarchais came from the French royal arsenals and armories. While these imports included varying kinds of muskets produced over the years, the bulk were the model 1763 musket, usually known as the Charleville Musket.[54]

Obviously, there was no uniformity of weapons in the hands of the troops, but the need was urgent, and anything that would shoot was purchased, much to the dismay, no doubt, of the users. Reporting to the Maryland Council of Safety the arrival of some weapons in mid-February 1776, Robert Alexander, a member of the Secret Committee, expressed regret about their quality. "If we rely on foreign arms and they are no better than

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51. (1) For a list of musket makers who worked for committees of safety, see Charles W. Sawyer, *Firearms in American History*, 3 vols. (Boston, 1910–20), 1:122–26. (2) Little is known of these Continental factories, but for a reference to them see *JCC*, 4:384 (23 May 76).

52. RG 11, CC Papers, reel 83, item 69, fols. 555–58 (George Bryan to Pres of Cong, 10 Oct 78).

53. Force, *Am. Arch.*, 5th ser., 2:1247 (Bd of War to Md. Council of Safety, 26 Oct 76).

54. Sawyer, *Firearms in American History*, 1:114. The model 1763 was the model the United States adopted when armories at Springfield and Harper's Ferry began to produce arms in 1795–96.

the sample we have, our dependence will be like a broken reed, as I think, if used, they will kill more of our troops than the enemy." Prices were exceedingly high, and "patriotism," he wrote, "sinks before private interest."[55]

The variety of muskets necessarily posed a problem in the supply of ammunition. Washington was well aware of this difficulty. Though pleased with the effort Virginia was making to manufacture arms, he cautioned that "great care should be taken to make the bores of the same size, that the same Balls may answer, otherwise great disadvantage may arise from a mixture of Cartridges."[56] On another occasion, replying to a request for ammunition from Col. James Clinton, he wrote that balls for small arms would be sent "if the Sizes could be ascertained, so as to fit the Musquets exactly." Since this could not be done, Washington ordered that a sufficient quantity of lead be sent to Colonel Clinton so that he could have it cast into balls suitable for his soldiers' muskets. The colonel had to furnish his own bullet molds since Washington had none to send.[57] When soldiers made their own cartridges, the problem of fitting them to their muskets did not arise. The situation was different when cartridges were made at laboratories. Late in August 1777, for example, Washington informed Commissary General Benjamin Flower that many of the cartridges he had sent to the main army were too small for its muskets. All of the army's muskets had French and English bores, he wrote, and the cartridges had to be made to fit those sizes. "If you have any 16ths & 18ths viz: cartridges which require so many to the pound now ready you are to transmit them without a moment's delay."[58] To mitigate the effects of variety in muskets, Washington later directed the officers commanding brigades to report the different calibers and the number of each kind of arm in their brigades. They were then to meet together to see whether by an exchange the arms of each brigade or division could not be all of the same bore.[59]

Scarcity of Arms

It was the policy of the Continental Congress in 1775 to "hire" arms, which meant encouraging each new soldier to bring his own gun, a practice that had been common in militia service. Having established this policy, Congress then left the task of equipping the troops to the Commander in Chief. More often than not, however, the men arrived at camp without arms. When Washington undertook to form a Continental Army from the forces before

55. Force, *Am. Arch.*, 4th ser., 4:1161–62 (16 Feb 76).

56. Fitzpatrick, *Writings of Washington*, 4:26 (to John Augustine Washington, 13 Oct 75).

57. Ibid., 5:232–33 (7 Jul 76). Clinton commanded a brigade, part of Maj. Gen. Israel Putnam's division, which was posted in and about New York City before the battle for Long Island.

58. Washington Papers, reel 43, ser. 4 (28 Aug 77).

59. Fitzpatrick, *Writings of Washington*, 9:363 (GO, 13 Oct 77).

Boston in 1775, he initiated the first of several measures designed to arm his troops. He began by seeking to retain for the use of the new Continental force the muskets that the men hurrying to the defense of their country had brought to Cambridge. He ordered that no soldier upon the expiration of his term of enlistment was to take with him any serviceable gun. If the musket was his private property, it would be appraised, and he would be given full value for it.[60] All arms so taken and appraised were to be delivered into the care of the Commissary of Military Stores. To make doubly sure that the weapons would be retained for Army use, Washington threatened to stop the last two month's pay due a soldier if he carried away his gun.

Even counting the arms taken in the capture of the British brig *Nancy* by one of Washington's armed vessels, the stock of muskets for the newly organized army was meager.[61] Those brought in by the soldiers themselves proved to be "so very indifferent" that Washington had no confidence in them. On 12 January 1776 he appealed to Brig. Gen. Richard Montgomery "to supply [arms] from the King's Stores in Quebec" if he could do so.[62] Before that appeal arrived, however, Montgomery lay dead at Quebec. As the new force was brought into being at Cambridge, the lack of arms became acute. To Washington's great surprise, the arms bought from discharged soldiers totaled no more than 1,620. Of these, only 120 remained on hand in January 1776; the rest had been issued to recruits as they came to camp, for the majority possessed no arms on arrival. Washington attributed the shortage of arms to the fact that inspectors had not retained many of the weapons of 1775 because of their poor quality, and to the disobedience of regimental troops who, despite orders to the contrary and threats to stop their pay, had nevertheless carried away their arms by stealth.[63]

In this crisis Washington warned that the country could not depend on importing arms but had to use its own means. Since Massachusetts had been collecting arms at Watertown as well as manufacturing them, he appealed to its legislature in January to indicate the number he could be certain of obtaining. He sent similar appeals to the neighboring colonies and to the Continental Congress.[64] When he received no encouragement from the New England colonies, he sent one or two officers from each regiment into the country to purchase such arms as were needed for their respective regiments. They were to lay out the money furnished to them for muskets—particularly for

60. Ibid., 4:103 (GO, 20 Nov 75). See also 4:152–53 (to Gen Sullivan, 8 Dec 75).

61. The *Nancy* was captured by the armed schooner *Lee* and taken to Cape Ann, Mass. It had on board 2,000 muskets, 100,000 flints, more than 30 tons of musket shot, 30,000 round shot, 11 mortar beds, and a brass mortar weighing nearly 3,000 pounds. Ibid., 4:128 (to Schuyler, 28 Nov 75).

62. Ibid., 4:231 (12 Jan 76). See also 4:238–39 (to Pres of Cong, 14 Jan 76); 242–43 (to Joseph Reed, 14 Jan 76).

63. Ibid., 4:235–36 (to Mass. legislature, 13 Jan 76).

64. Ibid., 4:235–36, 236–37 (to Mass. and N.H. legislatures, 13 Jan 76); 237–39 (to Pres of Cong, 14 Jan 76); 242–43 (to Joseph Reed, 14 Jan 76); 250 (to Gov Nicholas Cooke, 16 Jan 76).

"King's Musquets, or Guns as near that quality as can be had"—that had good bayonets, but they were not to refuse a good musket if it lacked a bayonet. Since the General Court of Massachusetts Bay had appointed a committee in each county to purchase arms for the Continental Army, Washington warned his officers to avoid raising prices by competitive bidding against the county purchasers.[65] He obtained a few muskets by this means.

Early in February 1776 Washington advised the President of the Continental Congress that there were nearly 2,000 men in camp without muskets. Congress responded with renewed efforts to stimulate the manufacture of firearms. It appointed a committee of five to contract for the manufacture of muskets and bayonets as well as to consider ways and means of encouraging their manufacture in all parts of the colonies. To augment the number of muskets that could be placed in the hands of troops, Congress also directed that all "disaffected persons" were to be disarmed. The weapons taken were to be appraised, but payment was to be made only for those that were serviceable or could be made so.[66] Having already authorized procurement abroad, Congress could do little more than direct Washington to send an account of the troops who lacked arms to the assemblies and conventions of the colonies to which these men belonged, requesting them to send a sufficient number of arms for the men. If the arms could not be procured, Washington was to dismiss unarmed men from the service. In the meantime, Washington, lacking sufficient arms and powder, was restrained from undertaking any military operations against the British in Boston.[67]

The scarcity of arms persisted throughout 1776. To emphasize the condition of his army after its arrival in New York, Washington reported to the President of Congress in May that one regiment in the Highlands of the Hudson on 29 April 1776 had only 97 muskets and 7 bayonets. He noted that every regiment from New England lacked from 20 to 50 muskets. Neither then nor at any time during the war did his army have sufficient bayonets.[68] Washington proposed still another measure for arming the troops. He had heard that there were from 2,000 to 3,000 stand of arms in the hands of the Committee of Safety at Philadelphia for "provincial use." He suggested that in this crisis Congress might borrow these and replace them with government-owned arms later. This policy of borrowing arms from the states was resorted to on many other occasions during the war. In this instance—it is not clear if such a store of arms actually existed in Philadelphia—Congress took

65. Ibid., 4:264 (GO, 21 Jan 76); 345 (GO, 24 Feb 76). The money used had been allocated for advance pay to the recruits and would have to be replaced.

66. *JCC*, 4:205, 220–21 (14 and 20 Mar 76).

67. (1) Ibid., 4:223 (21 Mar 76). (2) Fitzpatrick, *Writings of Washington*, 4:314, 336 (to Pres of Cong, 9 and 18 Feb 76).

68. (1) Ibid., 5:18–19 (5 May 76). (2) Sawyer, *Firearms in American History*, 1:76.

no action. However, it did order the Secret Committee to send to camp the muskets that were at Newport, Rhode Island. It also approved Washington's additional suggestion that he employ an agent to purchase arms from those inhabitants in the interior parts of the colonies who were inclined to sell.[69]

Factors Contributing to Arms Shortage

Among the factors contributing to the shortage of arms in the spring of 1776 was the carelessness of the soldiers in maintaining their arms in good working order. An examination of the weapons of the army in New York revealed them to be in shocking condition. Washington issued an order to the regimental commanders to have the arms put in good order as soon as possible and to see that each musket was equipped with a bayonet. Those soldiers who had lost the bayonets they had been issued were to pay for new ones, and if any soldier had allowed his gun to be damaged by negligence, the cost of its repair was to be deducted from his pay.[70] This order by no means eliminated negligence in caring for weapons. It persisted throughout the war. In the summer of 1777 Washington was again surprised to see the poor condition of many muskets. They were not only unfit for firing but also "very rusty," a condition, he announced in orders, that each soldier could prevent. He attributed this negligence to "an inexcusable inattention of the officers." He observed that "the great Sinking fund of our Arms is the carelessness of our Officers," and until they attended more strictly to their duty, a "set of Arms per annum would be as necessary as a suit of clothes." There was no excuse for this behavior, he wrote the Board of War in July 1777, except the unsettled state of his army since the new formation. Regiments were drawn together by detachments and were scarcely under any kind of regulation. The subalterns were young and ignorant of their duty, and noncommissioned officers were as "raw and inexperienced as the Common Soldiers." Washington could only hope that time would bring reform and make his force a regular army not just in name. In 1778 he once more called on commanding officers of companies to punish severely any noncommissioned officer or soldier who carelessly or willfully wasted arms, accouterments, or ammunition. As late as 1780 he found such waste continuing "in a great degree" in some corps.[71]

To promote better care of weapons, Washington substituted a policy of purchasing arms for that of hiring them. During the first two campaigns of the

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69. (1) Fitzpatrick, *Writings of Washington*, 5:18–19 (5 May 76). (2) *JCC*, 4:354, 357 (13 and 14 May 76).

70. Fitzpatrick, *Writings of Washington*, 5:60–61 (GO, 19 May 76).

71. Ibid., 8:387–89 (12 Jul 77); 405–06 (14 Jul 77); 12:289 (GO, 7 Aug 78); 18:6 (GO, 12 Feb 80).

war, it was the custom to encourage both the enlisted soldier and the militiaman to bring their own guns. But Washington soon came to link that policy with the lack of care the soldiers gave their muskets, for under it "a man feels at liberty to use his own firelock as he pleases." Owners of guns took little care of them, retained them when their service expired, and even disposed of them whenever they pleased. As early as January 1776 Washington had indicated that he was ready to purchase any arms offered by a colony or an individual.[72]

The system of hiring, however, continued until February 1777 when Washington initiated preparations for the next campaign. He informed Governor Trumbull of Connecticut that he now wanted guns purchased from owners on the account of the United States. Purchase, he wrote, would result in better care of the weapons and would eliminate many of the bad consequences of hiring arms. At the same time, he sent a circular to the New England states asking them to collect all arms that could be purchased from private individuals, since the arrival of imported arms was so uncertain. He requested them to pay particular attention to the quality of the arms bought. If the musket was not satisfactory both in lock and barrel, it was to "be thrown upon the Hands of the Commissary" who had purchased it.[73] Getting the states to support this policy of purchase caused some difficulty, particularly in the case of Massachusetts, which received 5,000 weapons from supplies brought from France in the spring of 1777. Washington learned that Massachusetts was making the soldiers pay for these government-owned arms. This practice was exactly what he had been attempting to stop. The soldier was to pay only for losing or damaging his weapon. The Commander in Chief wanted no soldier to have "the least pretence to a property in his Arms." He therefore ordered Brig. Gen. Alexander McDougall to return to the soldiers any money that had been stopped from their pay for these arms.[74]

Another great cause of the waste of arms in Washington's army was the insufficient number of armorers with the troops. Armorers had been included among the artificers of the Quartermaster's Department since 1775, and they had repaired arms in the field. Since their number was limited, however, great reliance had to be placed on using the skills of armorers among the soldiers. Experience gained in the field led Washington and his Chief of Artillery, Brig. Gen. Henry Knox, to initiate measures designed to bring improvements. The latter's proposals resulted in the establishment of the civil branch of the Ordnance Department and the appointment of Col. Benjamin Flower as Commissary General of Military Stores in January 1777. Meanwhile, at the close of the 1776 campaign, Washington had in-

72. Ibid., 4:247–48 (to Mass. legislature, 16 Jan 76).
73. Ibid., 7:112–13 (to Trumbull, 6 Feb 77); 113 (circular, 6 Feb 77).
74. Ibid., 8:26–27 (7 May 77).

structed the Commissary of Military Stores, Ezekiel Cheever, to segregate the unserviceable arms that could not be repaired by the armorers with the main army, pack them in numbered chests with inventories, and send them to the Board of War at Philadelphia to be repaired by gunsmiths there.[75] Following the establishment of the Department of the Commissary General of Military Stores, such unserviceable arms were sent to Colonel Flower or his deputies. The Commissary General employed as many workmen as necessary to repair arms and to pack them in chests, which were deposited in places of security until required.[76] The appointment of Thomas Butler to supervise the repair of arms in Philadelphia and the enlistment of additional armorers in the Regiment of Artillery Artificers led the Board of War to anticipate that repair of arms would be expedited at Philadelphia and Springfield.[77]

Although these developments were helpful, the main Continental army still suffered from an insufficient number of armorers when it was in the field. "If the smallest matter is amiss in the Lock," Washington wrote the Board of War in the midst of his efforts to defend Philadelphia against General Howe in 1777, "the Gun is useless, and if an Armourer is not at hand to repair it, it must be returned into the Store and a new one drawn, or it is thrown aside into a Baggage Waggon and perhaps lost or broken by Carriage." To provide added assistance, the Board of War placed Butler and his men under Washington's direction. At the latter's request, Butler met with him to explore the possibility of supplying armorers to follow the army. There was no material improvement, however, until the Board of War, on the eve of the campaign of 1779, appointed a conductor for each brigade who had charge of a traveling forge equipped to make all practicable repairs of arms in the field.[78]

In the meantime, repair of arms under Butler at Philadelphia had not been as productive as the Board of War had hoped. At the end of August 1777 it reported that there were 2,000 to 3,000 arms in Philadelphia which could be repaired in a short time if workmen could be obtained. To accomplish these repairs, Congress, at the board's request, directed Washington to detach as soon as possible a sufficient number of workmen from the militia that had been called out to augment his strength. The many militiamen from Pennsylvania, Delaware, and Maryland who were then in the field without arms could be supplied in no other way. Washington at once issued an order to the brigadiers to detach and send those workmen who could be spared from military duties to repair the arms of their brigades.[79]

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75. Ibid., 6:269–70 (10 Nov 76).
76. Ibid., 10:87 (GO, 19 Feb 77); 231 (to Flower, 30 Dec 77).
77. See above, Chapter 11, "Artillery Artificers."
78. (1) Fitzpatrick, *Writings of Washington*, 9:19–20 (to Bd of War, 5 Aug 77). (2) Washington Papers, reel 43, ser. 4 (Bd of War to Washington, 5 Aug 77).
79. (1) *JCC*, 8:698 (30 Aug 77). (2) Fitzpatrick, *Writings of Washington*, 9:167 (GO, 2 Sep 77).

The repair effort appeared to be deteriorating. In March 1778 Washington noted the great number of arms reported as needing repairs at the various laboratories of the Commissary General's department. "I am fearful," he wrote the Board of War, "that there is neglect in the Armourer's department, owing to the inactivity of the person at the Head of that branch [Butler] who I am told is almost superannuated."[80] After investigating, the board acknowledged that despite everything it had done, only "a trifling Number of Arms have been repaired," and now, on the eve of the 1778 campaign, it had insufficient serviceable weapons to arm either the Continental troops or the militia who might turn out for the defense of their country. The Board of War attributed the shortcomings to the armorer's lack of energy and to the refusal of the Artillery Artificers to reenlist. The board dismissed Butler and appointed William Henry as superintendent of arms and accouterments.[81] Henry operated a gunsmith shop at Lancaster that employed fourteen men. The Board of War was confident that he would serve the public well, for in the course of the winter of 1777–78 Henry and his workmen had repaired three times the number of arms repaired by the Artillery Artificers in Pennsylvania and had made an equal number of accouterments.[82]

As in other areas, the increasing depreciation of the currency after 1779 hampered repair work. Late in 1780 Washington learned that the Board of War was considering breaking up the armory at Albany. That armory had been productive and well directed by its superintendent, William Shepherd. Washington argued that its location in support of West Point and the troops in the Highlands and its access to water transportation made its retention desirable. The armory was retained, but the volume of its repair work declined because the board lacked the financial means to support its operations.[83] After the surrender of the British at Yorktown, repair work by the Department of the Commissary General of Military Stores came to a halt. Such repairs of arms as were then made for the main Continental army were done by armorers in the brigades. But even these repairs were difficult to accomplish because borax and other necessary supplies for operating the traveling forges could not be obtained on credit. By November 1782 the number of arms rendered useless for lack of small repairs was so great that Washington appealed to the Secretary at War to devise some way of putting them in good order. Organizing a company of artificers from German prisoners, contracting for the repair of arms, or adopting some other expedient was

80. Ibid., 11:33–34 (6 Mar 78).

81. Henry was one of the most celebrated gunmakers of his time and had been armorer to Braddock's expedition in 1755.

82. (1) RG 11, CC Papers, reel 157, 2:13–14 (Bd of War to Pres of Cong, 21 Apr 78). (2) Congress approved the board's action on 23 April. *JCC*, 10:380–81.

83. (1) Washington Papers, reel 73, ser. 4 (Hamilton to Washington, 19 Dec 80). (2) Fitzpatrick, *Writings of Washington*, 21:20–21 (to Philip Van Rensselaer, 27 Dec 80); 452 (to Brig Gen James Clinton, 12 Apr 81).

essential.[84] Secretary Lincoln took no action, but the signing of the preliminary peace treaty on 30 November made the repair of the army's deteriorating weapons unnecessary.

A third factor contributing to the constant scarcity of arms was the need to equip the militiamen called into service for short periods, and their propensity to take home the arms, accouterments, and ammunition that had been issued to them. As Washington's army opposed the British in New York, it became necessary to reinforce the army by calling out thousands of militiamen in the summer of 1776. Washington later observed that their officers generally "allowed their men to carry home everything put into their hands and in consequence forever lost to the public." In September of that year Congress had resolved that all Continental troops and militia going home from service were to restore all Continental arms, ammunition, and other property in their hands. Their pay was to be withheld unless they could produce certificates to that effect from the Commissary of Military Stores, the Quartermaster General, or their deputies in the department where the soldiers had served. It further called on the states to take action for restoring property that had been appropriated before the adoption of this resolution.[85]

As the campaign of 1776 neared its end, Washington ordered Commissary Cheever to recover all arms and other military stores that had been issued. He also made some of the Pennsylvania militia regiments leave their arms and accouterments upon being discharged. He gave the officers vouchers for what they turned in so that they could thereby cancel the receipts they had given for arms at Philadelphia. As he informed the Pennsylvania Council of Safety, he was certain that the discharged men would have taken the nearest road home instead of returning by way of Philadelphia, either dropping their arms en route or carrying them away with them. The weapons thereby would have been lost to the Continental Army. The need to call in and arm the militia "scatters our Armoury all over the World." Some effectual measures had to be instituted for recovering arms and accouterments, Washington concluded, or there would be the greatest difficulty in arming the regular regiments as they were raised.[86]

To institute greater control, Congress in February 1777 enacted a measure providing that all arms and accouterments belonging to the United States and those manufactured or acquired in the future were to be stamped and marked "U: States." Whenever such marked arms were found in the hands of men not in the Continental service, the states were to collect them.

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84. (1) Ibid., 25:377 (to Sec at War, 27 Nov 82). See also 25:128 (to Knox, 5 Sep 82). (2) Washington Papers, reel 87, ser. 4 (Knox to Washington, 7 Sep 82).

85. *JCC*, 5:758 (14 Sep 76).

86. (1) Fitzpatrick, *Writings of Washington*, 6:269—70 (to Cheever, 10 Nov 76); 7:49 (to Pres of Cong, 22 Jan 77); 68 (to Robert Morris, 27 Jan 77); 73 (to Maj Gen Horatio Gates, 28 Jan 77); 78—79 (to Pa. Council of Safety, 29 Jan 77). (2) See also Force, *Am. Arch.*, 5th ser., 3:860 (Gen Heath to Cheever, 26 Nov 76).

Congress further recommended to the states that they enact measures to punish those who unlawfully took, secreted, or refused or neglected to deliver any Continental arms or accouterments in their possession. In implementing this measure to prevent waste and embezzlement, Washington ordered Colonel Flower in March to stamp all public arms and accouterments with the words "United States." This order applied to arms manufactured for the Continental Army as well as to those imported for its use. Washington directed Flower also to send several stamps to the Commissary of Military Stores at Morristown so that the arms held by the troops at camp might also be marked.[87]

Washington was greatly distressed early in 1777 by the demands upon him from all quarters for arms which he could not supply. "The scandalous Loss, waste, and private Appropriation of Public Arms during the last Campaign is beyond all conception," he wrote. He urged the states to call upon their colonels to account for the arms delivered to them in 1776. The scarcity of arms was threatening to build into a serious crisis early in 1777, but it was relieved before the end of March by the timely arrival of supplies—arms, powder, flints, and other military stores—from France.[88] The efforts to recover arms had proved ineffectual in the winter of 1776–77. Despite the measures taken, this problem persisted throughout the war. As late as the spring of 1780, Washington was still warning his officers to give strict attention to prevent soldiers from carrying away their arms when their times of service expired. He had used every means in his power to prevent this practice, but he was "persuaded they do it in a variety of instances nevertheless." The loss of arms, he wrote Jeremiah Wadsworth, "is among the innumerable and unavoidable consequences of limited inlistments."[89]

Supply of Cannon

The colonists had few cannon at the beginning of the Revolutionary War and less experience with Artillery than with any other arm of the service. The artillery they had acquired represented an odd collection of European cannon, howitzers, and mortars. In the fall of 1775 Col. Richard Gridley, commanding officer of the First Regiment of Artillery, reported that he had a total of 41 cannon.[90] In addition, there were three 10-inch mortars, nine 8-

87. (1) *JCC*, 7:84–85, 151 (3 and 24 Feb 77). (2) Fitzpatrick, *Writings of Washington*, 7:340–41 (to Flower, 31 Mar 77).

88. (1) Ibid., 7:208–09 (to Mass. Council, 28 Feb 77); 215–16 (to N.Y. legislature, 1 Mar 77); 334 (to Gov Trumbull, 29 Mar 77); 328 (to Pres of Cong, 29 Mar 77). (2) Burnett, *Letters*, 2:310 (John Adams to James Warren, 24 Mar 77). (3) *JCC*, 7:211–12 (21 Mar 77).

89. Fitzpatrick, *Writings of Washington*, 18:309 (to Maj Gen Robert Howe, 28 Apr 80); 507 (to Wadsworth, 22 Jun 80).

90. These included five 24-pounders, six 18-pounders, two 12-pounders, three 9-pounders, one 8-pounder, two 6-pounders, four 5½-pounders, seven 4-pounders, nine 3-pounders, and two 2½-pounders.

inch mortars, two 7-inch brass mortars, and three 8-inch howitzers. Gridley further noted that he had on hand a total of 8,730 shot, most of it for the small cannon and fieldpieces. For a proposed army of 20,000 men, he estimated that he would need a total of 100 cannon, six 10-inch mortars, two 8-inch mortars, two 7-inch mortars, and three 8-inch howitzers. He estimated that 10,000 shot would be needed for the smaller cannon and 5,000 for battering cannon.[91]

At the start of the war the Continental Army obtained fieldpieces by the capture of enemy artillery or through domestic production. Although Washington's desire to attack Boston was rejected in February 1776 by his council of officers because of insufficient powder, he was also in no position to initiate such an operation until he had heavy artillery. Such large-caliber guns had been in American hands since the capture of Ticonderoga on 10 May and Crown Point on 12 May 1775 by New England troops under Ethan Allen and Benedict Arnold.[92] Unfortunately, the transportation of these guns to Cambridge had posed difficult problems, and despite Arnold's report that he would send the 24-pounders and the 12- and 6-pound howitzers as directed by Colonel Gridley, no action had been taken. As a result of decisions made at a conference at Cambridge, Washington dispatched Col. Henry Knox on 16 November 1775 to obtain such military stores as could be spared from New York and from Crown Point and Ticonderoga for the use of the main Continental army.[93] In preparation for this mission, Knox, who was to be appointed Chief of Artillery the following day, examined the state of the Artillery and determined what was needed. His inquiry revealed, as he reported to Washington, that New York could not furnish any heavy cannon, but patriots there assured him that when the provincial congress met, it undoubtedly would send twelve iron 4-pounders with a quantity of shells and shot to Cambridge. They also promised the loan of two brass 6-pounders. The latter had been cast in a foundry in New York City at a cost less than that of those imported. If Washington thought it proper, he wrote, he could give orders for casting any desired number of brass 6-pounders.[94] Knox apparently assumed there would be no shortage of material.

He arrived at Fort George, New York, on 4 December, where Maj. Gen. Philip Schuyler gave him a list of stores at Ticonderoga. It took Knox ten days to remove the artillery he selected from Ticonderoga to Fort George.

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91. In addition to 40 cannon of 6-, 4-, and 3-pound caliber, this army would need 36 cannon of 24- and 18-pound caliber, and 20 cannon of 12- and 9-pound caliber. Force, *Am. Arch.*, 4th ser., 3:1166–67 (inventory, 20 Oct 75).

92. For a report of the cannon taken, see ibid., 4th ser., 2:646 (Arnold to Mass. Committee of Safety, 19 May 75). Arnold listed 111 pieces of artillery taken at Crown Point and 86 at Ticonderoga. While some were described as useless, more than 100 pieces of artillery, including many heavy cannon and some mortars, were serviceable.

93. (1) Fitzpatrick, *Writings of Washington*, 4:91 (to Knox, 16 Nov 75); 93–94 (to N.Y. legislature, same date); 92 (to Gen Schuyler, same date). (2) *JCC*, 3:400 (2 Dec 75).

94. Washington Papers, reel 34, ser. 4 (Knox to Washington, 24 Nov 75).



KNOX'S TRANSPORTATION OF ARTILLERY FROM TICONDEROGA

The pieces included 8 brass and 6 iron mortars. Three of the latter were massive 13-inch mortars weighing a ton each. He also selected 2 howitzers; 13 brass cannon, which included one 24-pounder and one 18-pounder; and 26 iron cannon, 10 of which were 18-pounders and the rest 6-, 9-, and 12-pounders. To these he added one large box of flints and 23 boxes of lead, each weighing 100 pounds.[95] To move this artillery by flat-bottomed scows to the head of Lake George, by sleds to Albany, by ferry across the Hudson, and then by teams to Claverack and through the Berkshires to Framingham was a tremendous transportation task. Knox procured 42 strong sleds and 80 yoke of oxen, guided by New York drivers, to drag the artillery to Springfield. Massachusetts teamsters and fresh animals then brought the train to Framingham late in January. While the smaller cannon were hauled immediately to camp, the larger pieces of artillery remained at Framingham until Washington was ready to place them at his forts for the bombardment of Boston.[96]

When the British army evacuated Boston, it left behind a considerable quantity of military stores and ordnance which it had attempted to render

95. Ibid., reel 34, ser. 4 (Knox to Washington, 5 Dec 75); reel 35, ser. 4 (Knox to same, 17 Dec 75).

96. (1) Ibid. (2) Knox Papers, LM–39, reel 2 (Knox to Capt Palmer, 12 Dec 75). (3) French, *The First Year of the American Revolution*, pp. 655–56.

unusable. Some of these supplies were retrieved from the harbor and made serviceable for Washington's army, including two 13-inch mortars and beds, thirteen 6- and 4-pound cannon, and various carriages for cannon, shot, and shells. The surrender of Burgoyne in 1777 provided a windfall of 49 equipped pieces.[97] The fortunes of war did not always favor the Continental Army. When the troops retreated from New York City, the British took possession of a considerable amount of ammunition, stores, and baggage as well as cannon. So extensive were the losses that a congressional committee, sent to New York to inquire into the condition of the main army, reported that, among other needs, the army required eighteen brass 6-pound and eighteen brass 3-pound fieldpieces.[98] The fall of Fort Washington to the British on 16 November 1776 and of Fort Lee on the opposite side of the Hudson four days later brought further disastrous losses to Washington's army. These included 146 iron and brass cannon, 12,000 shot and shells, 2,800 muskets, and 400,000 musket cartridges.[99]

Domestic Production of Cannon, Shot, and Shells

While Knox was transporting cannon from Ticonderoga to Cambridge, the Continental Congress initiated measures to procure cannon through local production. In 1775 a line of furnaces and forges extended from New Hampshire to South Carolina. Some cannon had been cast in earlier colonial wars, and at the outbreak of the Revolution some ordnance was cast for Maj. Gen. Artemas Ward at the Stoughtonham, Massachusetts, furnace.[100] The Salisbury ironworks in Connecticut and Livingston's furnace and other ironworks in New York supported the Continental Army. When the war became centered in the Middle Department, transportation costs dictated that most production of iron and brass cannon and of shot and shells should be located in Maryland, in New Jersey, and particularly in Pennsylvania, with its many ironmasters.[101]

On 15 January 1776 the Continental Congress appointed a committee of five to estimate the number of cannon needed for the defense of the colonies, to devise ways and means for procuring them, and to determine the largest size of cannon that could be cast in the colonies. Having learned of arrange-

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97. (1) Force, *Am. Arch.*, 4th ser., 6:680–81 (John Frazer to Pres of Cong, 1 Jun 76). (2) Fitzpatrick, *Writings of Washington*, 4:404–05 (to Pres of Cong, 19 Mar 76); 407 (to Schuyler, same date); 9:451–55 (to Landon Carter, 27 Oct 77).

98. (1) These included fifteen 32-pounders, seven 12-pounders, nine 9-pounders, one 6-pounder, six 4-pounders, and two 3-pounders, all mounted on garrison carriages; one 3-pounder on a traveling carriage and 26 dismounted. Force, *Am. Arch.*, 5th ser., 2:493; 3:1058–59. (2) Fitzpatrick, *Writings of Washington*, 5:843 (3 Oct 76).

99. Christopher Ward, *The War of the Revolution*, 2 vols. (New York, 1952), 1:274.

100. Fitzpatrick, *Writings of Washington*, 7:441–42n.

101. See Arthur C. Bining, *Pennsylvania Iron Manufacture in the Eighteenth Century* (Harrisburg, 1938).

ments made by Maryland to have cannon cast for its use by Daniel and Samuel Hughes of Frederick, the Cannon Committee inquired whether the latter would enter into a contract to supply the demands of Congress. Under congressional orders, the Cannon Committee was either to purchase or contract for the manufacture of two hundred and fifty 12-pounders, sixty 9-pounders, and sixty-two 4-pounders. It also had authority to contract for the casting of 40 howitzers.[102] After discussing the production of 1,000 tons of cannon with the Hughes brothers, the committee entered into a contract which advanced 8,000 dollars to the company, and Congress approved the committee's action. Other contractors sought to produce cannon for the government. Among these were Curtis and Peter Grubb of the Cornwall furnace in Pennsylvania; Jacob Faesch, owner of a blast furnace at Mount Hope, New Jersey; and Col. Mark Bird of Reading, proprietor of the Hopewell furnace in Pennsylvania, who signed a contract and received a 2,000 dollar advance.[103] Production, however, did not go smoothly. The Board of War employed Daniel Joy as its agent to prove the cannon being manufactured for the government. On 11 May 1776 he went to prove 44 cannon at the Cornwall furnace and 150 at the Hopewell furnace. He reported that not one of the latter "stood proof," and that none of the brass cannon were sound "until my advice was taken."[104] The Cannon Committee handled the domestic procurement of cannon for the Continental Congress until July 1777, when Congress directed the Board of War to take over from the committee all the contracts it had made and all accounts of advances given to the producers of cannon. Thereafter, Congress vested in the Board of War all the power it had formerly given to the Cannon Committee.[105]

In the meantime, James Byers had cast some cannon for the main Continental army in New York in 1776, and Washington had attempted to obtain heavy cannon from the Salisbury furnace in Connecticut. Governor Trumbull, however, could not comply with his request without leaving the port and harbor of New London defenseless. In July he promised to deliver 12-pounders from the furnace as soon as they were finished. He anticipated that 18-pounders would soon be cast, the largest caliber that could be hoped for from that furnace.[106] In view of the losses sustained in New York, the need to obtain additional fieldpieces became acute. As the campaign of 1776 drew to a close, Washington insisted that there could be no delay in casting cannon. The Cannon Committee agreed. On 16 July 1776 it had written Gen-

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102. (1) Force, *Am. Arch.*, 4th ser., 4:914 (Md. delegates to Md. Council of Safety, 2 Feb 76). (2) *JCC*, 4:153 (13 Feb 76); 280 (13 Apr 76).

103. (1) Ibid., 5:593, 599 (19 Jul 76). Within about two months Congress granted an additional advance of 13,233⅓ dollars to Daniel and Samuel Hughes. See 5:835 (30 Sep 76); 5:695 (22 Aug 76). (2) See Fitzpatrick, *Writings of Washington*, 5:329 (to Pres of Cong, 23 Jul 76).

104. RG 93, Misc Numbered Docs 20464.

105. *JCC*, 8:572–73 (23 Jul 77).

106. Washington Papers, reel 37, ser. 4 (Trumbull to Washington, 17 Jul 76).

eral Knox that Congress would employ Byers if his terms were reasonable. By the end of the year the committee daily expected his arrival in Philadelphia, where there was an air furnace. By that time, Washington was writing about the employment of Byers to Robert Morris and to other members of the committee who had remained at Philadelphia after Congress had fled the city. He urged the necessity of casting 6-, 3-, and a few 12-pounders and of providing shot and carriages for them.[107] Byers eventually became superintendent of the brass foundry in Philadelphia, but the British threat to the city, the temporary withdrawal of Congress, and the confusion of that period resulted in delays in preparing cannon for the next campaign.

The efforts to produce domestically the cannon needed by Washington's army proved disappointing, as the Secret Committee had anticipated. Writing to the commissioners in Paris, it advised them not to bother conferring with the Cannon Committee, since the latter would be unable to procure the proper metal required for production. It requested that they instead contract for the needed supplies.[108] Domestic production has hampered not only by a shortage of materials but also by the loss of artisans and laborers called to serve in the militia. Proprietors of ironworks and furnaces petitioned their respective state legislatures to exempt their work forces from militia duty. In the summer of 1777 the Continental Congress itself requested the Executive Council of Pennsylvania to discharge from the militia eleven workmen employed by Mark Bird in producing cannon for the Continental Army. Earlier that year Congress had recommended that the states exempt from militia duty all persons employed in manufacturing military stores of any kind and in casting shot. It repeated this recommendation the following year. The need for workmen was great enough to cause the Pennsylvania Committee of Safety to authorize ironmasters employed in casting cannon or shot for the Continental Army to use prisoners of war as laborers.[109] At the request of Daniel and Samuel Hughes, Congress ordered the discharge of a soldier in the main Continental army so that this artisan could enter into their service. Washington did not welcome this action, for if all such applications for artificers were complied with, his army would sustain a considerable loss of manpower. The need to obtain the production of much-needed military stores, however, compelled him nonetheless to yield to applications for artificers with specific skills. He even detailed forty soldiers to

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107. (1) Fitzpatrick, *Writings of Washington*, 6:406 (to Pres of Cong, 20 Dec 76); 474 (to Morris, 7 Jan 77). (2) Burnett, *Letters*, 2:12 (Robert Treat Paine to Knox, 16 Jul 76); 190 (Francis Lewis to Robert Morris, 26 Dec 76).

108. Ibid., 2:218–19 (Morris to commissioners, 14 Jan 77).

109. (1) Force, *Am. Arch.*, 5th ser., 3:409–10 (Stephen Rice and James Woods to Mass. Council and House of Representatives, 25 Oct 76); 5th ser., 1:1112–13 (petition of proprietors of the Sterling ironworks, __ Aug 76); 1289–90 (Pa. Committee of Safety proceedings, 5 Jul 76). (2) See also an entry in the account of Eye and Gwynn, proprietors of the Mary Ann furnace near Baltimore, Md., for the use of thirty-four prisoners of war. RG 93, Misc Numbered Docs 20438 (4 Nov 82). (3) *JCC*, 7:248 (9 Apr 77); 10:412 (1 May 78); 8:495–96 (24 Jul 77).

Gabriel Ogden's ironworks at Pompton, New Jersey, where cannon balls and grapeshot were being cast.[110]

To shortages of material and labor was added the impact of a depreciating currency by 1778. The profits from contracts were proving illusory, and at least in one case a contract was revised to provide a larger payment per ton for cannon being produced for the Continental Army.[111] As the casting of cannon slackened, ironmasters turned increasingly to the production of shot and shells. Lack of funds in the Treasury caused delays in payments by the Board of War to the ironmasters for their work. In the summer of 1780 some of them found it impossible to make the necessary preparations for putting their furnaces in blast. Paid late for their work and in a depreciating currency, they could neither procure materials nor hire workmen.[112] The government still owed many of them large amounts of money on past contracts, and their reluctance to enter into additional contracts during the closing years of the war is understandable. Like many other suppliers in the Revolution, the ironmasters were making a forced contribution to the support of the war.

Delivery and Distribution

At the beginning of the war the Secret Committee customarily reported to Congress the arrival of supplies imported by the government. Congress then directed their delivery to the Navy, the main Continental army, or the Northern Army, as the nature of the stores and the various needs dictated.[113] In September 1776 Congress transferred responsibility for the custody of military stores from the Secret Committee to the Board of War. Thereafter, the board informed Washington of the military stores it was holding so that he could direct their delivery in whole or in part to the Continental Army. On at least one occasion Congress found it necessary to emphasize its exclusive authority over the delivery of stores imported by the government. The Continental Agent who received the military stores imported in the *Hancock and Adams* delivered part of the arms to Massachusetts and arms, powder, lead, and flints to Rhode Island at the request of those two states. Although the urgent need for these arms and stores excused his action in this instance, Congress made it clear that Continental Agents could deliver stores in their custody only on its orders or those of its duly authorized representatives.[114]

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110. (1) Ibid., 6:1008–09 (6 Dec 76). (2) Fitzpatrick, *Writings of Washington*, 12:65–66 (to Daniel Roberdeau, 15 Jun 78); 8:5–6 (to Brig Gen Nathaniel Heard, 2 May 77).

111. *JCC*, 10:306–08 (4 Apr 78); 12:967 (29 Sep 78).

112. RG 11, CC Papers, reel 149, 4:456–59 (Bd of War to Cong, 22 Jul 80).

113. See *JCC*, 6:866 (15 Oct 76); 890 (21 Oct 76); 952–53 (15 Nov 76).

114. Ibid., 7:59–60 (23 Jan 77).

Washington's authority from Congress to direct and dispose of ordnance and ordnance stores within the Continental Army initially was satisfactory. By 1777, however, he found his authority not "competent to the purpose." The power to direct and dispose of military stores, he charged, was being exercised through so many channels that confusion frequently was resulting. At the end of March 1777, for example, Congress voted to deliver to the Massachusetts Bay Council 5,000 of the weapons that had arrived at Portsmouth, New Hampshire, from France for use in arming troops being raised in that state. At the same time, it directed the Secret Committee to deliver the remainder of the cargo of arms, powder, and flints at the direction of the Board of War.[115] Washington, who had viewed the arrival of these arms and other military stores as a "most fortunate and happy event" for his troops, apparently had no knowledge of these actions, for when representatives of the Massachusetts Council applied for the arms early in April, he was greatly distressed. He found it hard to believe that Massachusetts could need such a large number of arms if it had taken proper measures for collecting government-owned weapons and purchasing all that could be obtained from private individuals. Nothing, he wrote Maj. Gen. William Heath, "now will content that Government but the New Arms lately arrived there," which were needed for troops in Washington's army who otherwise could not be provided with weapons. He had reason to believe, he added, that no state was in a better position than Massachusetts to furnish its own arms. "Indeed, I am informed that Arms, and other Military Stores are hoarding up in that government." To prevent any delay, however, he directed General Heath to issue orders for such number of arms for the Massachusetts troops as appeared absolutely necessary. At the same time, he urged the state to collect, repair, and deposit in arsenals all government-owned arms and to pursue every means of procuring arms through other channels.[116]

Except for the arms immediately needed in the eastern states, Washington intended to have all the weapons arriving at Portsmouth late in April moved to Springfield, which he felt was a safer and more convenient supply point for the Continental Army. He therefore ordered John Langdon, the Continental Agent at that port who had received the stores, to send 3,000 arms to Springfield. Langdon, however, felt that he could not comply with Washington's order because Congress had directed him to hold, for disposal by the Board of War, all of the 12,000 stand of arms that were not appropriated. Calling this division of authority to the attention of the President of Congress, Washington urged that corrective action be taken.[117]

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115. (1) Fitzpatrick, *Writings of Washington*, 7:328 (to Pres of Cong, 29 Mar 77). (2) *JCC*, 7:211–12 (31 Mar 77).

116. Fitzpatrick, *Writings of Washington*, 7:383 (to Heath, 10 Apr 77); 390 (to William Sever and Thomas Cushing, same date).

117. Ibid., 8:7–8 (to Pres of Cong, 3 May 77). See also 8:2–3 (to Heath, 2 May 77); 15 (to Langdon, 3 May 77).

At the same time, the *Amphitrite* brought a train of field artillery to Portsmouth. It consisted of 52 fieldpieces, which were moved to Springfield. Of these, 31 were of a Swedish light construction, and Washington ordered them forwarded to camp via Litchfield. The other 21 were so heavy and unmanageable that they were unsuitable for field service. The Commander in Chief and his staff judged it expedient to have them melted down and recast at Springfield to make them more portable.[118] This action had an added advantage in that an increased number of fieldpieces would thereby be obtained, since each of the heavy 4-pounders would make nearly three sufficiently substantial 6-pounders. No sooner had these cannon arrived than Governor Trumbull requested some of them. Washington refused; the number was so small, he informed the governor, that only two fieldpieces could be given to each brigade of the main army, for some also had to be held in reserve. Meanwhile, General Schuyler had applied for twelve fieldpieces. He was in garrison at that time in the Northern Department. Since Washington judged Schuyler had sufficient garrison artillery, he rejected the latter's application but advised him that he would be supplied from the next cargo that arrived. Not content with applying to Washington, Schuyler also sent an order to the commanding officer of Artillery at Springfield, directing that twelve fieldpieces be sent to him immediately. Ill consequences, Washington wrote the Board of War, would flow from such an irregular mode of drawing supplies; the power to draw military supplies had to be fixed in one place.[119] Within a few weeks Washington reiterated to the Board of War the necessity for placing all military stores under the direction, and subject to the distribution orders, of the board or some one person. Otherwise, he argued, some states would continue to stop supplies allotted to others, while officers commanding in separate military departments would draw supplies on their own authority, each taking care of his own needs without regard to the general command. The result would continue to be confusion.[120]

No immediate improvement occurred. A few months later the disposition to be made of certain artillery brought conflicting orders from Washington and the Board of War. Early in 1778 Knox left camp to supervise the ordnance preparations for the coming campaign. Among the orders he received from Washington was one to forward artillery at Albany to some place closer to the main army. However, both generals thought it advisable to wait until spring so that water transportation could be used. In the meantime, the Board of War had ordered twenty-five of these fieldpieces and two howitzers sent to Farmington, Connecticut, as Knox informed Washington. The latter thereupon inquired whether the board had any particular reason for this dis-

118. Ibid., 8:318–19 (to Bd of War, 30 Jun 77). See also 8:323–24 (to Du Coudray, same date).

119. Ibid., 8:290 (to Trumbull, 23 Jun 77); 254 (to Schuyler, 16 Jun 77); 318–21 (to Bd of War, 30 Jun 77).

120. Ibid., 8:387–89 (12 Jul 77).

posal. If not, he wanted the artillery at Farmington immediately forwarded to Pennsylvania, for when spring came the roads across the mountains from Connecticut to the Hudson River would be impassable. Knox awaited instructions, and another month went by before Washington heard from the Board of War. In the end, Knox was ordered to send what the army did not need to Carlisle. Washington agreed with the board that Carlisle should become the grand arsenal of all artillery and ordnance stores on the west side of the Hudson, as Springfield was on the east.[121]

Despite Washington's pleas in 1777 for centralizing distribution authority, it was not until early 1779 that Congress vested authority in the Board of War to distribute all military stores, arms, and ordnance deposited in fixed magazines. On the basis of estimates prepared and submitted to it, the board authorized distribution in all cases except emergencies that required quicker action than would occur in following the established procedure.[122] It took time, however, to make this new procedure effective. Three months after it went into effect, Brig. Gen. James Clinton and the storekeeper at Albany sent a requisition for military stores directly to Commissary Cheever at Springfield. The latter referred it to the Board of War, where it should have been sent in the first place. The board was surprised at the size of the order, which it could not fill because of the depleted state of the magazines. It directed Cheever to send a fourth of what was requested and to await further orders from Washington, to whom the board sent copies of the requisition and its order.[123] Washington called the new regulation to the attention of General Gates in June. Later, when that officer wanted him to confirm an order for fifty barrels of powder, Washington assured him that such action was unnecessary, for "you have in this respect the same power in conjunction with your commanding officer of Artillery, which I have," that is, to prepare and submit an estimate to the Board of War.[124]

Issue and Accountability

Problems of accountability and issue had become acute in 1777. Despite the large quantities of arms delivered to the troops after the arrival of supplies from France, there were constant demands for arms and accouterments. These demands were greater than the amount of supplies in the magazines, the Board of War informed Washington; 12,000 arms had been delivered from the magazine at Philadelphia in four months, and "yet the troops, tho not equal in Numbers already have large Demands." Washington could

121. Ibid., 10:486–87 (to Bd of War, 21 Feb 78); 11:112–13 (to same, 20 Mar 78).

122. See above, Chapter 11, "Revised Regulation for Field Organization."

123. The requisition called for, among other supplies, 30 tons of lead and 15 tons of powder. Cheever had on hand about 10 tons of lead and 70 barrels of powder. Washington Papers, reel 58, ser. 4 (Bd of War to Washington, 25 May 79).

124. Fitzpatrick, *Writings of Washington*, 15:271–72, 477 (to Gates, 13 Jun and 25 Jul 79).

not understand what had become of all the arms imported in the previous six months. They either had been issued to the militia and never returned, he argued, or they had been appropriated by the states for their private magazines while their troops had been furnished with old and indifferent arms.[125]

In response to the Board of War's request for his view on what could be done, Washington proposed as a first step that the Commissary General of Military Stores be directed to make a detailed report of the arms and accouterments delivered to the Continental Army during the past four or five months, specifying the names of the officers to whom delivery had been made and their corps. Such a report would enable a comparison to be made between an officer's requisitions and the number of arms already delivered to him, and would thus allow the propriety of his calls to be judged. Washington pointed out that in the past it had been customary for the commissary to deliver arms and military stores to officers who presented a return of deficiencies signed by the Adjutant General. With demand greater than supply, Washington ordered all commanding officers of corps to submit a return of their deficiencies, and if the entire amount of arms required could not be supplied, the stores on hand would have to be apportioned among the corps.[126] Apportionment solved the immediate problem, but no basic changes in issue were made even though the need for them became increasingly apparent. On the eve of the campaign of 1779 the supply of arms fell so short of demand that Maj. Gen. John Sullivan's requisitions for an additional 1,000 arms for an expedition against the Indians could not be filled.[127] Washington stressed that the greatest economy would have to be exercised in distributing arms; otherwise, some troops might be fully supplied while others were very poorly supplied.

It was in the midst of this shortage that new controls were instituted in the field by the appointment of a conductor of military stores in each brigade, the introduction of brigade returns of arms deficiencies, and the imposition of deductions from pay for arms lost or damaged. Arms, ammunition, and accouterments were thereafter issued, or proportioned, if necessary, only on the order of the Chief of Artillery.[128] These new procedures imposed in May failed to operate effectively because of the "surprising inattention" given to them. Washington was astonished that week after week he received returns of men unfit for duty "for Want of Arms" when arms were available and the method of applying for them had been explained. Eight months later he still observed a deficiency of arms being reported in all returns and he called for explanations from his brigade commanders. Only by closely

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125. (1) Ibid., 8:367n. (to Pres of Cong, 7 Jul 77). (2) Washington Papers, reel 43, ser. 4 (Bd of War to Washington, 3 Aug 77).

126. Fitzpatrick, *Writings of Washington*, 9:19–20 (to Bd of War, 5 Aug 77).

127. Ibid., 15:171 (to Sullivan, 28 May 79). See also 15:160 (to Bd of War, 27 May 79).

128. See above, Chapter 11, "Improvement of Field Arrangements."

examining inspectors' reports of "defects and abuses" and by calling the attention of the brigade commanders to these reports and to the measures for remedying them was Washington able to bring about any improvement.[129]

Supply Deterioration

Under the impact of inflation domestic production of ordnance and ordnance stores fell off sharply after the first three years of the war. Ordnance magazines were distressingly low in powder; arms were so scarce that requisitions could not be filled and issues had to be made on a proportionate basis; and cannon were needed everywhere. In the spring of 1779 Washington was particularly concerned about the posts on the Hudson. "The imperfect state of defence in which they have hitherto been," he informed the Board of War, "has been an inconceivable clogg and incumbrance to our general operations."[130] An estimate of the heavy cannon that were needed had been sent to Congress, but the prospects for obtaining them were not promising. Appeals to the states for loans of ordnance and ordnance stores were made by Washington and the Continental Congress, and more and more reliance had to be placed on importing the necessary supplies from France.

Despite the distressing supply situation, great efforts were made to gather available military stores in anticipation of a cooperative effort with Admiral d'Estaing in 1779 against New York City. This project failed to materialize, as did another proposed combined siege of the city the following year. The ordnance supply situation did not improve. In the summer of 1780 Washington was greatly concerned about the failure of arms and powder to arrive from France. He lacked sufficient powder and more than half the arms he needed to equip the recruits. "Unless therefore our Allies can lend us largely we certainly can attempt nothing," he wrote to Lafayette, when he was still hoping to stage a joint campaign with General Rochambeau against New York. "With every effort we can make we shall fall short at least four or five thousand arms, and two hundred tons of powder," he added, and he begged Lafayette to ascertain whether a loan of these supplies could be obtained from the French.[131] A closer inspection of the available supplies led Washington to conclude that he could arm the recruits and collect enough powder for the enterprise "if in the course of the operation we can depend on the fifty ton expected from France and can obtain fifty ton more from the

129. Fitzpatrick, *Writings of Washington*, 16:125–26 (GO, 17 Aug 79). See also 17:429–30 (to brigade commanders, 22 Jan 80); 18:62–63 (to Brig Gen John Stark, __ Feb 80); 4 (to Gen Clinton, 12 Feb 80); 6 (GO, 12 Feb 80).

130. Ibid., 14:389–90 (15 Apr 79).

131. Ibid., 19:236–38 (22 Jul 80).

[French] fleet." Washington continued to count on the arrival of arms and powder from France, but when the *Alliance* sailed, it left the needed supplies on the docks at L'Orient. Washington thought that "no material inconvenience" would result if these supplies were then shipped safely on the *Ariel*.[132] In fact, as far as the proposed cooperative action was concerned, the arrival of these supplies proved to be irrelevant since the British were strong enough to keep the French fleet and the troops under Rochambeau blockaded at Newport.

Knox had pointed out that there was such a shortage of powder that there would not be a sufficient amount on hand for siege operations even if all the powder expected from France arrived safely on the *Alliance*. At Washington's request, the Chief of Artillery had prepared an estimate of the ordnance supplies that would be needed for the proposed joint effort. Basing his estimate on the one prepared for cooperation with Admiral d'Estaing in 1779, he doubled the quantities of shot, shells, and powder in order to provide for a sixty-day campaign and added another third to each figure to take care of the longer days of operations.[133] The Board of War, however, had fewer supplies in 1780 than in the previous year, and even if there had been no other objections, the time was too short for gathering the supplies Knox had listed. It was utterly impossible, the board argued, for it to procure more than half the estimate that Knox had sent. For Washington's information, it enclosed a return of military stores on hand, which showed large deficiencies.[134]

Not only did ordnance stores have to be supplied but they also had to be transported to the area of operations. Responding to a request for his opinion on the practicality of furnishing the teams necessary to transport the ordnance stores needed for the proposed siege operations in 1780, Quartermaster General Nathanael Greene was not sanguine. Knox had estimated that the weight of the cannon and ordnance stores would be 3,388 tons, and Greene calculated that it would require 500 teams of 4 horses each to move such a quantity between Trenton and Dobbs Ferry if 12 days were allowed for each team to make a round trip. Since the Quartermaster's Department had no control over the method of drawing out teams and providing forage, Greene felt that it would be necessary to rely on impressment to obtain the teams. But even this method would be unsuccessful unless money was made

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132. (1) Ibid., 19:443 (to Rochambeau, 26 Aug 80). (2) Capt. Pierre Landais of the U.S. Navy, who became insane before the *Alliance* reached America, had instigated a mutiny, seized command of the ship, and sailed without the supplies.

133. Washington Papers, reel 66, ser. 4 (Knox to Washington, 23 May 80); reel 67, ser. 4 (Washington to Knox, 26 Jun 80; Knox to committee of Cong, 27 Jun 80). For the 1779 estimate, see reel 62, ser. 4 (Knox to Washington, 5 Nov 79).

134. Of the 15,000 10-inch shells that were needed, there was a shortage of 4,275; of the 36,000 12-pound shot, 21,179 were lacking. Ibid., reel 68, ser. 4 (Bd of War to Washington, 11 Jul 80, and return).

available for quieting the demands of creditors and restoring fiscal confidence.[135]

The Board of War laid its estimate of shot, shells, and gunpowder before Congress in July, asking for immediate action since the time for procurement was so short. It noted that it had received no notice of the intended operations until early that month. Congress authorized procurement of 615 tons of shot for battering cannon and 947 tons of shells of the different sizes required. It provided the board with 4 million dollars.[136] Washington hoped that the quantities voted by Congress could be procured in time, but he feared that only Faesch's furnace, to which Knox was directed to apply, was in blast. It would take several months before others could be put in operation. But even if the shot and shells could not be made in time for the proposed operation in 1780, he recommended that the Board of War nevertheless procure them as soon as possible for the next year's campaign. "A false hope that each Campaign would be the last, has been the principal cause of our being constantly unprovided with military apparatus of every kind in due time, and from the present appearances we have no reason to think that the present Campaign will end the war." He recommended also that the Board of War procure more than the estimate, accumulating as many supplies as its means and credit would allow.[137]

Early in February 1781 Washington informed Knox of his conference with Rochambeau and of their plans for laying siege to New York City that year. He requested Knox to prepare estimates of the ordnance supplies needed by an army of 20,000. Knox willingly did so, but he doubted that his efforts would produce any results. He could make estimates and submit them "to the Board of War, as I have done in times past," he wrote Washington, but "probably they will meet the same fate of being unattended to or disputed, until the moment of making proper provision shall be past." The Ordnance Department, he added, was in a "wretched and palsied state," and the existing ordnance and military stores were totally inadequate to "the demands of an arduous operation." Knox in vain had "strained every nerve" to get an ample supply of shot and shells, but as soon as the prospect of a military operation had vanished, the greater part of the contracts made to support the proposed campaign of 1780 had been "arrested by an order of the board of war just as the furnaces began to work, to the great detriment and utter ruin of some of the owners." Knox must have known that the board, with little money to pay for these contracts, had acted to seize what it saw as an opportunity to reduce expenses. The supply of powder was so low that after a reasonable quantity was provided for the important Highland posts, literally none would remain on hand. Besides the lack of cannon suitable for

135. Ibid., 142:97 (Greene to committee of Cong, 20 Jul 80).
136. *JCC*, 17:658–61, 667–68 (24 and 25 Jul 80).
137. Fitzpatrick, *Writings of Washington*, 19:317–18 (3 Aug 80).

a siege as well as shot, shells, and powder, the laboratories upon which Washington's army depended for the preparation of fixed ammunition were in such deplorable condition for lack of money, materials, and workmen as to be incapable of giving any assistance. Work at Springfield was either entirely at a standstill or on the point of it. Moreover, it would be difficult to procure much by applying to the states. They had only small stocks of their own, and in any case each state firmly adhered to the principle that it was "bound in the first place to provide for its own defense."[138]

Despite this dismal view, Washington proceeded with preparations. On 17 February Knox furnished a return of the cannon, mortars, and howitzers, including their ammunition, belonging to the United States which could be collected from the states to form part of the train for siege.[139] Washington sent a copy to the President of Congress. He appealed to Massachusetts and Rhode Island to lend his army heavy cannon as well as powder. He also requested that twenty government-owned 18-pounders that were in the possession of the Eastern Continental Navy Board be sent to him and that powder be loaned to the army.[140] Both Massachusetts and Rhode Island complied with the requisitions for the loan of cannon, and Massachusetts also agreed to lend 100 barrels of powder. Since his greatest deficiency was in powder, Knox hoped that the Board of War would forward all that could be procured in Pennsylvania and Maryland. He arranged for the powder to come forward, the first shipment by 20 July and succeeding ones three to four days apart thereafter. The board was to hold shot, shells, and forty tons of the largest sized grapeshot in readiness for transportation by 25 July.[141] With great exertion and with state assistance the heavy artillery and stores loaned by Rhode Island and Massachusetts were transported to the Hudson. The supplies from Pennsylvania, halted at Philadelphia until offensive operations became a certainty, were dispatched southward when military plans shifted to operations in Virginia.[142]

The ordnance attached to the American army for these operations included 15 brass fieldpieces (two 12-pounders, four 3-pounders, six 6-pounders, and three 5½-inch howitzers), as well as implements, carriages, 200 rounds for each piece, and needed small stores. For siege purposes there were three iron 24-pounders and twenty iron 18-pounders, plus two 8-inch

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138. Washington Papers, reel 75, ser. 4 (Knox to Washington, 13 Feb 81).

139. (1) RG 93, Misc Numbered Docs 21156 (return). (2) Fitzpatrick, *Writings of Washington*, 21:238–39 (to Cong, 17 Feb 81). (3) His letter was read and referred to the Board of War on 26 Feb 81. *JCC*, 19:194.

140. (1) Fitzpatrick, *Writings of Washington*, 22:153–54 (to Gov John Hancock, 2 Jun 81); 219, 338 (to Navy Bd, 15 Jun and 8 Jul 81). (2) Washington Papers, reel 78, ser. 4 (to Hancock and Trumbull, 25 May 81; to Gov William Greene, 2 Jun 81).

141. Knox Papers, LM–39, reel 6 (Knox to Bd of War, 27 Jun 81).

142. (1) Washington Papers, reel 80, ser. 4 (Washington to Pres of Cong, 2 Aug 81). (2) For a return of ordnance and of part of the military stores on hand at Philadelphia on 4 Aug 81, see Knox Papers, LM–39, reel 7 (Hodgdon return).

mortars, three 8-inch howitzers, ten 10-inch mortars, and six 5½-inch howitzers, all of brass. These pieces were complete with carriages, beds, implements, powder, and shot and shells for 500 rounds each.[143] Included in the stores coming with the troops from the Hudson were 5,000 paper cartridges for 10-inch mortars, 850 paper cartridges and 100 flannel cartridges for 8-inch howitzers, 181 fireballs, 500 muskets with bayonets, 216,798 musket cartridges, 4,000 flints, 10 garrison carriages for 18-pounders, a laboratory tent, implements, and tool sets. This list by no means included all ordnance stores. Upon his arrival at Philadelphia en route to Virginia, Knox submitted supplementary requests for shells, shot, and other supplies to the Board of War on 17 and 31 August.[144]

En route Knox also called upon the governor of Maryland to supply 30,000 feet of white oak plank for siege operations, and he requested that eight tons of powder belonging to the United States at Frederick Town be shipped to Virginia. At Fredericksburg he conferred with James Hunter at his ironworks on the iron that would be needed in the operations, and late in September he instructed that this iron, as well as grapeshot and cannon balls, be sent to the James River.[145] Once Knox saw the scale of the British works at Yorktown, he concluded that the amount of shot and shells that had been provided would be inadequate. He therefore requested the Board of War on 23 September to forward additional supplies to Head of Elk immediately. Since he had stripped Philadelphia of powder as the American troops moved southward, he did not include powder in his request but hoped to get additional supplies from the French fleet.[146]

Through the exertions of Knox and Washington, the assistance afforded by the states, and the cooperation and aid of the French, the allied army compelled the surrender of Cornwallis and captured a total of 214 pieces of ordnance from the enemy at Yorktown and Gloucester Town. Of these pieces, 140 were iron cannon of different calibers, and 74 were brass cannon and mortars. In addition, it seized a large quantity of military stores.[147] Washington was then in a position to give assistance to General Greene and his Southern Army. He sent some of the cannon to that army for use in case the southern states were invaded. At the same time, he ordered a magazine of arms and ammunition established in Virginia under the direction of Edward Carrington, Greene's deputy quartermaster, for the support of the Southern

143. Ibid., reel 7 (Knox to Washington, 24 Aug 81).

144. Ibid., reel 7 (list of stores, 30 Aug 81; Knox to Bd of War, 31 Aug 81).

145. Ibid., reel 7 (Knox to Gov Thomas Sim Lee, 11 Sep 81; Knox to Hunter, 27 Sep 81).

146. (1) His requisition included 6,000 shot for 18-pounders, 3,000 shot for 24-pounders, 3,000 10-inch shells, and 2,000 8-inch shells. Ibid., reel 7 (Knox to Bd of War, 23 Sep 81). (2) See also Washington Papers, reel 81, ser. 4 (to Bd of War, same date). (3) For an account of the shot and shells expended by the allied army at Yorktown, 9–17 October inclusive, see Knox Papers, LM–39, reel 7.

147. Ibid., reel 7 (summary, 19 Oct 81).

Army.[148] As the main Continental army took up its position in the Highlands, it was well provided with ordnance and military stores. Neither army, however, had to mount an active campaign after Yorktown. When peace came to the American states in 1783, problems of procurement gave way to those involving the preservation and storage of ordnance and military stores left on hand with the dissolution of the Continental Army.

148. Ibid., reel 7 (Knox to Carrington, 4 Nov 81); reel 8 (Carrington to Knox, 10 Jan 82).

CHAPTER 13

The Hospital Department

The colonists at the outbreak of the Revolutionary War lacked experience in organizing or administering a medical department. Some colonial physicians appointed during the war to important posts in the Hospital Department, as the medical department was designated, had garnered practical experience as surgeons or surgeon's mates in the French and Indian War and had profited by observing the functioning of the Hospital Department of the British army in America during those years.[1] Only a few colonial physicians had attended European medical schools, or had acquired firsthand knowledge of military hospitals and the structure of medical departments in European armies. Among them were Benjamin Church, John Morgan, William Shippen, Benjamin Rush, James Craik, William Brown, Thomas Bond, and Peter Fayssoux—all of whom served at one time or another in the Hospital Department during the Revolutionary War.

Care of the sick and wounded in the American Revolution was hampered by many factors. There was a scarcity of well-trained physicians; a lack of hospital facilities; an ignorance and downright carelessness regarding sanitation in camps, barracks, and military hospitals; and a shortage of medicines and surgical instruments. Few colonial doctors had earned degrees at medical schools.[2] The first American medical school had opened in Philadelphia only ten years before the outbreak of the Revolutionary War. Since few Americans could afford to pursue their medical studies at Edinburgh or London, most colonial physicians received their medical education in the apprenticeship system. Indentured for three to seven years to an established doctor, the student acquired his medical knowledge by reading a few books and observing his master. Undoubtedly, much of this training was crude and inadequate. In view of the meager knowledge that many medical practi-

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1. Among those who served in the French and Indian War were John Morgan, who became Director General of the Hospital Department for the first two years of the war; John Cochran, who headed the department during the last two years of the war; and James Craik, who served throughout the war and was director of the hospital at Yorktown.

2. In eighteenth century Virginia, only about one doctor in nine had a medical degree, and according to Boorstin, that general proportion seems to have applied throughout the colonies. Daniel J. Boorstin, *The Americans: The Colonial Experience* (Vantage Books ed., New York, 1958), p. 233; for a general appraisal of colonial medicine, see pp. 209–39.

tioners possessed, it is not surprising that they were not held in high esteem and that one writer expressed the view that "the quacks abound as the locusts of Egypt."[3]

Hospital Facilities

Hospitals in colonial America were even more rare than physicians holding medical degrees. Dr. Thomas Bond founded the Pennsylvania Hospital in Philadelphia in 1751. Twenty years later a second permanent hospital opened in New York. In the absence of hospitals, a patient commonly was housed in the home of his physician. In the course of the Revolution, churches, colleges, and other public buildings were utilized as general hospitals, while private homes and barns also were frequently appropriated for hospitals. Huts and tents provided temporary hospitals in the field. Designated military hospitals, all were commonly overcrowded, inadequately ventilated, and shockingly unsanitary. Brig. Gen. Anthony Wayne in 1776 called the hospital at Ticonderoga a "house of carnage," in which the dead and dying lay mingled together.[4] Dr. James Tilton, who became a physician and surgeon in the Hospital Department, was appalled by the loss of life in military hospitals. He was convinced that more men were "lost by death and otherwise wasted, at general hospitals, than by all other contingencies that have hitherto affected the army, not excepting the weapons of the enemy."[5] Dr. Benjamin Rush, a prominent physician of Philadelphia who served in the Hospital Department, was equally condemnatory. "Hospitals," he wrote, were "the sinks of human life in an army." In a pamphlet published by order of the Board of War in 1777 and addressed to the officers of the Continental Army, he observed that a "greater proportion of men have perished with sickness in our armies than have fallen by the sword," and for proof he pointed to the first two campaigns of the war.[6]

That overcrowding of hospitals resulted in high mortality rates was a recognized fact. When Dr. John Jones, professor of surgery at King's College, New York, published a book in 1775 on the treatment of wounds and fractures, he appended a discussion on camp and military hospitals for the use of young military surgeons. He wrote that overcrowding in London and Paris hospitals had been the main cause of the great mortality in them, and he

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3. Joseph M. Toner, *Contributions to the Annals of Medical Progress and Medical Education in the United States Before and During the War of Independence* (Washington, 1874), p. 49.

4. Force, *Am. Arch.*, 5th ser., 3:1359 (Wayne to Pa. Committee of Safety, 4 Dec 76).

5. James Tilton, *Economical Observations on Military Hospitals: And the Prevention and Care of Diseases Incident to an Army* (Wilmington, Del., 1813), p. 15.

6. (1) Benjamin Rush, *Medical Inquiries and Observations*, 5 vols., 2d ed. (Philadelphia, 1784), 1:262. (2) Rush, *Directions for Preserving the Health of Soldiers* (Philadelphia, 1777), p. 3. (3) For a recent biography of Rush, see David F. Hawke, *Benjamin Rush: Revolutionary Gadfly* (New York, 1971).

drew pertinent lessons. He emphasized the need for cleanliness, the avoidance of overcrowding, and the importance of keeping the sick separated from the wounded in military hospitals.[7] His recommendations, however, went unheeded, for the most part, by physicians in the Revolution.

Rarely was a building erected specifically to serve as a hospital during the war. An exception was the large building constructed some ten or twelve miles west of Valley Forge at Yellow Springs that served as the principal hospital unit for the camp. Later called Washington Hall, it was 106 feet long by 36 feet wide. In this three-story building, the third floor contained many small rooms; the second floor consisted of two large wards; and the first floor housed the dining room, kitchen, and utilitarian rooms. Nine-foot porches surrounded the first two stories on three sides of the building.[8]

A more significant exception was the specially designed experimental hospital that Dr. James Tilton constructed and used successfully at Basking Ridge near Morristown in the winter of 1779–80. Modeled "upon the plan of an Indian hut," his one-story log structure provided a three-ward hospital consisting of a large central section and two smaller wings set at right angles to the central room. The wards were separate entities, for there were no windows or doors in the walls between them. The three wards, equipped with bunks, accommodated twelve patients in the central section and eight in each wing. In cold weather a "fire was built in the midst of the ward, without any chimney, and the smoke circulating about, passed off through an opening about 4 inches wide in the ridge of the roof." The patients lay with their heads to the wall and their feet turned to the fire. The smoke, Tilton wrote, combatted "infection, without giving the least offense to the patient, for it always rose above their heads, before it spread abroad in the ward." Thus, he maintained, he had provided a small, uncrowded, completely ventilated hospital in which patients suffering from fevers could be separated from the wounded.[9]

More commonly, the troops constructed huts for temporary use as hospitals in the field. In April 1777 Congress provided for a flying hospital to be attached to each army. By Washington's order the following January, the commanding generals of each division selected suitable ground near their respective brigades where hospitals, one for the sick of each brigade, were to be erected as soon as troops could be spared from work on their own huts.[10]

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7. John Jones, *Plain Concise Practical Remarks on the Treatment of Wounds and Fractures* (New York, 1775), pp. 82–90.

8. James E. Gibson, *Bodo Otto and the Medical Background of the American Revolution* (Baltimore, 1937), p. 151. It was discontinued as a hospital late in 1781 by the Board of War.

9. Tilton, *Economical Observations on Military Hospitals*, pp. 49–50.

10. Fitzpatrick, *Writings of Washington*, 10:284 (GO, 9 Jan 78). Four days later another General Order established specifications for the hospital huts. They were to be 15 feet wide, 25 feet long, and at least 9 feet high, covered with boards or shingles. There was to be a window on each side and a chimney at one end. Two such hospitals were to be erected for each brigade,

(Continued)



JAMES CRAIK



JAMES TILTON

These small huts were used throughout the period of encampment at Valley Forge as places to treat simple ailments and as clearing houses for the seriously ill. The latter were sent to outlying hospitals as directed by officials at Yellow Springs or by Dr. James Craik, the assistant deputy director of the Hospital Department who was stationed at Valley Forge.

In the absence of hospitals, the sick were generally lodged in whatever buildings were available, though there was often opposition from local inhabitants who feared the spread of contagious fevers. An illustrative incident occurred in the spring of 1779 when Dr. Barnabas Binney was in legal possession of two churches and the courthouse at Somerset Court House, New Jersey, for use as hospitals. He considered their use, however, dangerous to the health of the men in his care. Accordingly, he followed the usual practice in such cases and applied to the civil magistrate for neighboring barns to accommodate the convalescents. The magistrate threatened "to imprison the first who shall prostitute a Barn to the use of sick Soldiers." Dr. Binney appealed to Quartermaster General Nathanael Greene for aid; otherwise, he would have to return some of the sick to camp or "let them lye in the open fields." Washington's solution to this not unusual problem was to direct the removal of the sick from Somerset to the huts vacated by artillerymen at Pluckemin, New Jersey, when the troops marched from camp.[11]

(Continued)

in the rear and as near the center as possible—ideally, not more than 300 nor less than 100 yards from it. 10:300 (GO, 13 Jan 78).

11. (1) APS, Greene Letters, 5:39 (Binney to Greene, 18 May 79). (2) Fitzpatrick, *Writings of Washington*, 15:220–21 (to Director of Military Hospitals, 3 Jun 79). (3) Doctors with the Southern Army met with the same difficulties. Magistrates would not permit quartermasters



REPRODUCTION OF A HOSPITAL HUT AT VALLEY FORGE

Scarcity of Drugs and Instruments

Medical knowledge in the eighteenth century even among European physicians was not impressive. Although American doctors relied on the so-called heroic remedies of emetics, purges, and bleeding in the treatment of patients, they were inclined by necessity to use simpler remedies that utilized native herbs. Their treatments were possibly no more effective in curing their patients than those administered by their European counterparts, but "they probably interfered less with the patients' recovery."[12] As revealed in orders and correspondence, the "capital" drugs used by physicians during the war included chiefly jalap, ipecac, Peruvian bark (cinchona), calomel, and opium. Because such imported drugs were scarce and expensive, physicians made great use of native plants valuable for their medicinal qualities. These could be readily found in the woods. The first pharmacopoeia ever printed in British America was published in Philadelphia in 1778. This 32-page

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to impress houses suitable for use as hospitals, and if they acted without the magistrates' assistance, the latter threatened the officers with law suits. Greene Papers, vol. 14 (Dr. James Browne to Greene, 4 Jan 81).

12. Boorstin, *The Americans*, p. 214.

pamphlet, written in Latin and intended for the use of military hospitals, listed the simplest, cheapest, and most available drugs. It was compiled by Dr. William Brown, then serving at the hospital at Lititz, Pennsylvania.[13]

If there were few drugs used in the colonies, there was also a scarcity of surgical instruments. Among those needed by regimental surgeons were amputating and trepanning instruments, lancets, forceps for extracting bullets, incision knives or scalpels, catheters, and needles. They also required lint, rags, or linen sheets for bandages, tourniquets, and ligatures. In 1776 Director General John Morgan called upon the regimental surgeons with the main Continental army in New York to submit reports on the supplies and surgical instruments in their possession so that he could present a consolidated report to the Medical Committee of Congress. Fifteen regimental surgeons responded. All of them indicated that their surgical instruments were private property. Among them, however, they had only 6 sets of amputating instruments, 2 sets of trepanning instruments, 15 cases of pocket instruments, 4 scalpels, 3 pairs of forceps, some pins and needles, a few bandages and tourniquets, a little old linen, and two ounces of sponges—an "amazing deficiency," Morgan wrote to the Medical Committee. When he inquired of the regimental surgeons how they could think of marching so unprepared, they replied that their superior officers had said they would be supplied; if Morgan did not assist them, they did not know how they could obtain supplies.[14] Similar deficiencies were to be found among the regimental surgeons of the Northern Army and the Southern Army.

Wounds, Fevers, and Smallpox

Amputation was the one major operation performed by Continental Army surgeons. For the patient it was an excruciating experience since anesthetics had not yet been discovered. However, Dr. Tilton wrote that the longer military surgeons continued in service, the "less fashionable" amputation and cutting in general became for they learned that "limbs might be saved which the best authorities directed to be cut off."[15] One general factor that affected the type of surgery performed in the Revolution was that fieldpieces were generally of small caliber, had a short range, and used only solid

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13. (1) Joseph W. England, ed., *The First Century of the Philadelphia College of Pharmacy* (Philadelphia, 1922), p. 84; for a reproduction of the pamphlet, see pp. 86–94. A second edition of the pamphlet was published in 1781. (2) John W. Jordan, "The Military Hospitals at Bethlehem and Lititz During the Revolution," *Pennsylvania Magazine of History and Biography* 20 (1896): 137–57.

14. John Morgan, *Vindication of His Public Character in Status of Director-General of the Military Hospitals and Physician in Chief to the American Army* (Boston, 1777), pp. 58–60 (to Sam Adams, 25 Jun 75 [*sic*]; should be 1776). Hereafter cited as Morgan, *Vindication*.

15. (1) Tilton, *Economical Observations on Military Hospitals*, p. 62. (2) For the general state of military surgery in 1775, see Jones, *Plain Concise Practical Remarks on the Treatment of Wounds and Fractures*.

shot and grape. Most wounds consequently were caused by musket balls rather than artillery missiles.[16]

Since the Hospital Department developed no regular system for collecting soldiers wounded in battle, the seriously wounded often lay unattended for days. When finally delivered to a hospital after a jolting ride in an uncovered wagon, pure chance dictated whether a soldier would recover from his wounds or fall victim to the contagious fevers that swept through the hospitals with disastrous consequences to patient, doctor, and attendant alike. The most feared disease was "putrid fever"—also called hospital, camp, or jail fever—which included typhoid as well as typhus.[17] The two other principal diseases affecting the Revolutionary soldier were dysentery and smallpox. The latter was the one infectious disease that the physicians of the Revolution understood and could combat with some success. Until inoculation was ordered for all soldiers who had not had the disease, however, it caused great havoc in the Continental Army and influenced the result of some campaigns.

Smallpox was a major factor, for example, in the failure of the Quebec campaign. As soon as he arrived at the camp before Quebec in May 1776, Maj. Gen. John Thomas examined the state of the troops. Of 1,900 men, 900 were down with smallpox, and he would die of the disease himself.[18] "Our misfortunes in Canada are enough to melt the heart of a stone," John Adams wrote on 26 June. "The small-pox is ten times more terrible than Britons, Canadians, and Indians together. This was the cause of our precipitate retreat from Quebeck." In violation of orders, many soldiers had inoculated themselves, hoping to prevent an attack of the disease, but inadvertently at the same time they had spread the disease. Smallpox also accounted for the great mortality of the troops as they fell back to Crown Point and then to Ticonderoga in May and June 1776. Adams summed up the situation early in July 1776. "Our Army at Crown-Point is an object of wretchedness enough to fill a humane mind with horrour; disgraced, defeated, discontented, dispirited, diseased, naked, undisciplined, eaten up with vermin; no clothes, beds, blankets; no medicines; no victuals, but salt pork and flour."[19]

The ravages of smallpox in the Northern Army and also in Washington's army in 1775–76 materially reduced the number of available troops, and fear of the disease discouraged recruiting. Official action to inoculate the whole Continental Army was delayed because differences of opinion had long ex-

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16. Louis C. Duncan, *Medical Men in the American Revolution* (Medical Field Service School, Carlisle Barracks, Pa., 1931), p. 12.

17. Tilton, *Economical Observations on Military Hospitals*, pp. 56–61.

18. Force, *Am. Arch.*, 4th ser., 6:453–54 (Thomas to Washington, 8 May 76).

19. (1) Ibid., 4th ser., 6:1083 (26 Jun 76); 5th ser., 1:103 (7 Jul 76). (2) One writer has claimed that smallpox was the main factor that kept Canada from falling to America. Hugh Thursfield, "Smallpox in the American War of Independence," *Annals of Medical History*, 3d ser., 2 (1940): 315.

isted on the subject. In some colonies inoculation was practiced; in others it was prohibited by law. On 6 January 1777, immediately after Washington had established his headquarters at Morristown, he directed Dr. William Shippen to attack the problem of smallpox by inoculating all the troops. The Commander in Chief then revised these instructions, making them applicable only to recruits who had never had smallpox. Some weeks later Congress also sought a solution. On 12 February it directed the Medical Committee to consult with Washington on "the propriety of causing such of the troops of his army, as have not had the small-pox to be inoculated and recommended that measure to him," and on 23 April it authorized Dr. Tilton to go to Dumfries, Virginia, to take charge of the inoculation of all recruits coming from the south.[20] He set up inoculation stations and infirmaries at Dumfries, Alexandria, and Fairfax, Virginia. In 1777 compulsory inoculation of recruits became routine. While it did not entirely free the Continental Army from smallpox, the disease never again caused the losses that were suffered in 1775–76.

Prewar Preparations

In making preparations for possible conflict with the mother country, the provincial congresses and committees of safety were aware that medical supplies would be needed to care for the sick and wounded. On 24 February 1775, for example, the Massachusetts Committee of Safety directed a committee of six, including Dr. Joseph Warren and Dr. Benjamin Church, to inquire where and on what terms medical chests might be obtained for its regiments, which each had a surgeon and a surgeon's mate. About ten days later the committee voted to place 500 pounds in the hands of the two doctors to enable them to purchase such medical supplies for the medicine chests as could not be procured on credit.[21] Available medical supplies were limited, and in June there were still not enough medicine chests to provide one to each regiment. Consequently, the Massachusetts Provincial Congress directed its Committee of Supplies to furnish one to the surgeon of the regiment at Cambridge and another to the surgeon of the regiment at Roxbury. It instructed all other army surgeons to apply to these two surgeons for medical supplies until more ample provision could be made. The scarcity of medicines was such that the Committee of Safety in May had directed John Thomas, who was then a general of the Massachusetts forces and who had been a doctor at Marshfield in private life, to dole out the medicines for the sick at Roxbury until the surgeons were supplied.[22]

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20. (1) Fitzpatrick, *Writings of Washington*, 6:473–74 (6 Jun 77). (2) *JCC*, 7:110, 292. (3) Burnett, *Letters*, 2:249 (Medical Committee to Washington, 13 Feb 77).
21. Force, *Am. Arch.*, 4th ser., 1:1369 (24 Feb 75); 1370 (7 Mar 75).
22. Ibid., 4th ser., 2:756 (13 May 75); 1404 (12 Jun 75).

The events at Lexington and Concord led the Massachusetts Provincial Congress to establish the first general hospital in the war. On 29 April 1775 it directed and empowered Dr. Isaac Foster to move all sick and wounded, then under the care of regimental surgeons, to a hospital if they could be moved. It selected three houses in Cambridge for what was in effect a general hospital. The Provincial Congress also authorized Dr. Foster to supply beds and bedding, clothing, food, furniture, and the like. He was to draw these supplies from Andrew Craigie, whom the Massachusetts Committee of Safety had appointed commissary of medical stores. The committee had directed Craigie to impress beds, bedding, and other necessaries, giving the owners receipts for the articles taken.[23] By July many complaints were being made about the lack of medicines, the controversy between the hospital and the regimental surgeons, and the consequent disorder in the department. A director was needed, authorized to supervise and control the general hospital, the regimental hospitals, and all the doctors. The Massachusetts Provincial Congress was moving toward the appointment of such an officer when Washington arrived at Cambridge to assume command of the troops on 3 July 1775. It then referred the problem to him, submitting for his consideration the resolutions it had formulated for improving the department.[24]

First Organization of the Hospital Department

After Washington inspected the camp and the fortifications at Cambridge, he examined the hospitals. On 20 July 1775 he informed the President of the Continental Congress that there was neither a principal director nor any subordination among the surgeons. He considered it essential to introduce some system. On 19 July Congress had already appointed a committee of three, not one of whom was a doctor, to report on establishing a hospital department.[25] Eight days later, following a debate on the committee's report, Congress established the Hospital Department to support an army of 20,000 men. To head the department it provided a Director General and Chief Physician, who was paid 4 dollars a day. He furnished and paid for all medicines, bedding, and other necessaries; superintended the general hospital; and reported to and received his orders from the Commander in Chief. The personnel of his department initially included 4 surgeons and an apothecary, each paid 1⅓ dollars a day, as well as 20 surgeon's mates and a clerk, each paid two-thirds of a dollar per day. The surgeons, mates, and apothecary visited and attended the sick. In addition, the department employed 4 storekeepers, each paid 4 dollars a month; one nurse for every 10 sick soldiers, paid one-fifteenth of a dollar a day or 2 dollars a month; and occasional laborers as

23. Ibid., 4th ser., 2:748 (29 Apr 75); 756 (14 May 75).
24. *Journals of Each Provincial Congress of Massachusetts*, pp. 455–56.
25. (1) Fitzpatrick, *Writings of Washington*, 3:350 (20 Jul 75). (2) *JCC*, 2:191.

required. The storekeepers received and delivered bedding and other supplies on the Director General's orders; the clerk kept the accounts of the Director General and the storekeepers; and a matron, though not included in the personnel or pay specified, supervised the nurses. Congress elected Dr. Benjamin Church as Director General and Chief Physician of the Hospital Department, leaving it to him to appoint the four surgeons, the apothecary, the clerk, the storekeepers, and the nurses. It authorized the surgeons to appoint the mates, whose number fluctuated according to need.[26]

As in the case of other supply services, the Continental Congress provided an unsatisfactory skeletal organization for the Hospital Department, anticipating that the Director General would modify it on the basis of experience. This first regulatory measure simply designated the personnel of the department and prescribed their duties and pay. It attached no military rank to the positions to be filled—and, in fact, never did so during the war. In establishing the Hospital Department, Congress made no mention of regimental surgeons and their mates, though both continued to be carried on Continental Army rolls. Four months elapsed before Congress, on 8 December 1775, authorized a surgeon for each regiment in Continental service, with a pay of 25 dollars a month. Not until March of the following year did it provide for a surgeon's mate for each regiment, who was to be paid 18 dollars a month.[27] At the same time, Congress resolved that suitable surgical instruments were to be purchased with each medicine chest. This resolution was admirable, but months later regimental surgeons were by no means well equipped. The director of the hospital for the army in the Northern Department reported that a majority of regimental surgeons had gone to Canada with neither medicines nor instruments.[28] One is left to wonder how useful they could have been in preserving the health of the troops.

Dr. Church did little to improve the operations of the Hospital Department, and the controversy between staff and regimental surgeons persisted. Within little more than two months after his appointment, he was arrested for carrying on a correspondence with the enemy and convicted by a general court-martial. Washington laid the findings before Congress and directed Dr. Isaac Foster to superintend the Hospital Department until further orders.[29] On 17 October 1775 Congress elected Dr. John Morgan of Philadelphia to succeed Dr. Church as Director General and Chief Physician of the Hospital Department in Massachusetts Bay.[30]

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26. Ibid., 2:209–11 (27 Jul 75).

27. Ibid., 3:416 (8 Dec 75); 4:242–43 (30 Mar 76). The regimental surgeon's pay was increased to 33⅓ dollars a month on 5 June 1776; see 5:419.

28. Force, *Am. Arch.*, 4th ser., 6:417–18 (Dr. Samuel Stringer to Washington, 10 May 76).

29. (1) For the arrest and conviction of Dr. Church, see ibid., 4th ser., 3:958–60, 1159–60, 1466, 1477, 1479–87, 1489–98, 1512, 1517–18, 1636. (2) Fitzpatrick, *Writings of Washington*, 4:2 (GO, 3 Oct 75); 9–13 (to Pres of Cong, 5 Oct 75).

30. (1) *JCC*, 3:294–95, 297 (14 and 17 Oct 75). (2) See Whitfield J. Bell, Jr., *John Morgan, Continental Doctor* (Philadelphia, 1965).

Congressional Supervision

On 14 September the Continental Congress had appointed a committee to devise ways and means of supplying the troops with medicines.[31] It thereby created what became known as the Medical Committee. Until the spring of 1781 this committee actively engaged in the domestic purchase of medical supplies, the delivery of these supplies to the armies, the reorganization of the Hospital Department, and the supervision of all matters pertaining to that department and its personnel. On 28 May 1781 Congress discontinued the Medical Committee and directed that all its returns and papers were to be turned over to the Board of War.[32] The latter was vested with all the powers formerly exercised by the Medical Committee. This authority was short-lived; before the end of that year the Board of War also was discontinued. For the remainder of the conflict Congress vested all the board's powers, including supervision of the Hospital Department, in the Secretary at War.

In the summer of 1775, shortly after Maj. Gen. Philip Schuyler took command in the Northern Department, he wrote the President of the Continental Congress that he had appointed Dr. Samuel Stringer of Albany to take charge of a hospital and care for the large number of sick in his command. He had promised Stringer that the Continental Congress would allow him the same pay as was given the Director General of the Hospital Department with Washington's army.[33] On 14 September Congress confirmed Stringer's appointment as director of the hospital, chief physician, and surgeon for the army in the Northern Department, at a pay of 4 dollars a day. It authorized him to appoint, depending on the need, as many as four surgeon's mates, at two-thirds of a dollar a day. Congress directed that in this instance the deputy commissary general was to pay Dr. Stringer for such medicines as he had purchased for the Northern Army, and in future the deputy was to purchase and forward such other medicines as General Schuyler directed.[34]

These resolutions did not clarify the relationship between Dr. Stringer and the Director General of the main Continental army. The failure of Congress to define the relative authority of each man, together with the fact that Dr. Stringer's commission antedated that of Dr. Morgan, furnished an excuse for constant controversy. Dr. Stringer's efforts were directed toward acquiring sufficient authority to operate independently of Dr. Morgan. The latter, supported by Washington, was of the opinion that all the various parts of the Hospital Department should be subordinated to the control of the Director General.

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31. *JCC*, 2:249–50; for later changes in the committee's membership, see 6:1064; 9:1079.
32. Ibid., 20:570.
33. Force, *Am. Arch.*, 4th ser., 3:443 (Schuyler to Stringer, 27 Aug 75).
34. *JCC*, 2:249–50 (14 Sep 75).

On 18 May 1776 Congress appointed Dr. William Rickman as director and chief physician of the Hospital Department in Virginia. The personnel of his department included two surgeons and one apothecary, appointed by the director, and six mates, appointed by the surgeons. In addition, Congress authorized employment of one clerk, one storekeeper, a nurse for every ten sick soldiers, and laborers when necessary. Congress again made no specific mention of the relationship between Dr. Rickman and Dr. Morgan. However, since its resolution indicated that the department in Virginia was to be "on the same establishment" as that under Morgan in the Eastern Department and that its officers were to be paid the same, it apparently had no intention of giving the Director General overall control.[35] Certainly, Dr. Rickman did not consider his department subordinate to, or under the direction of, Dr. Morgan, and he acted accordingly.

Regimental Versus General Hospitals

A problem of more immediate urgency to Director General Morgan than departmental control was one that had developed under his predecessor, stemming from action taken by the Massachusetts Committee of Safety. Early in May 1775 the latter had approved a report "that great uneasiness may arise in the Army by the appointment of Surgeons who may not be agreeable to the Officers and Soldiers in their respective regiments." In consequence, the Provincial Congress voted to allow the colonel of each regiment to nominate his regimental surgeon.[36] In establishing a Hospital Department for the Continental Army, Congress initially not only failed to mention regimental surgeons and mates but made no provision for regimental hospitals. Many members of Congress must have agreed with Elbridge Gerry that regimental hospitals were unnecessary institutions as well as a dead weight when an army moved.[37] Yet many regimental surgeons had established such hospitals for their own men. Such a hospital was merely a house, barn, or shed in which the sick of a regiment were collected. They brought with them their own blankets, which were spread on straw, and drew their regular rations. Since the ration often was not suitable for a sick soldier, the regimental surgeons regularly applied to the general hospital for appropriate subsistence. They soon contended that under Dr. Church's administration they could not get suitable supplies. Dr. Church viewed regimental hospitals as highly expensive, wasteful, and generally unnecessary; when a soldier was too sick to be cared for in camp, the Director General thought, he ought to be sent to the general hospital. The regimental surgeons, of course, disagreed, and they tended to evade the authority of the Director General by

35. Ibid., 4:364–65.
36. *Journals of Each Provincial Congress of Massachusetts*, pp. 538, 203 (7 and 8 May 75).
37. *Pennsylvania Packet*, 17 Jun 79 (Gerry to Morgan, n.d.).

appealing to the authority of the regimental officers who had nominated them.

The complaints on each side grew in volume, and the controversy reached such a level that on 7 September 1775 Washington ordered each brigadier general and the commanding officers of the regiments in his brigade to sit as a brigade court of inquiry into the complaints. He directed them to summon the Director General and the regimental surgeons of the brigade and to report their findings to him. Washington agreed with the Director General that when a soldier was so sick that he could not be left in camp, he should be sent to the general hospital. There was no need for regimental hospitals when a well-equipped general hospital was near.[38]

The brigade courts of inquiry agreed with Washington, but shortly thereafter Dr. Church was arrested and removed as Director General. Dr. John Morgan, his successor, was an able administrator, and he immediately set about introducing a more systematic management of the department. Having heard that the regimental surgeons had made enormous requests for expensive subsistence items for special diets, he limited their demands to such articles as Indian meal, oatmeal, rice, barley, and molasses. When their sick required other supplies, they were to be sent to the general hospital, where such supplies would be issued under his direction. He then instituted an examination of the surgeon's mates in the general hospital to determine their abilities. At Washington's order, he planned to extend the examination to all regimental surgeons and mates. The opposition of the regimental surgeons to such an examination, the intercession of their colonels, and the movement of the main army to New York in April more or less halted this effort.[39]

Dr. Morgan's difficulties with the regimental surgeons increased. He conferred with them in New York early in the summer of 1776 and drew up instructions covering their duties, particularly in case of action. Washington approved of these instructions and directed each regimental surgeon to conform to them.[40] At the same time, Morgan proposed a number of regulations that not only included the duties of the regimental surgeons but also governed the establishment and operation of occasional regimental hospitals and the supply of special subsistence stores to them. The regimental surgeons agreed to these regulations, which were submitted to the Continental Congress for its approval. At Morgan's suggestion, the regimental surgeons drafted a memorial to Congress asking that it also take their particular problems under consideration.[41]

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38. Fitzpatrick, *Writings of Washington*, 3:480–81 (GO, 7 Sep 75).

39. Morgan, *Vindication*, pp. 2–3 (memorial, Morgan to Washington, 1 Feb 77).

40. (1) Fitzpatrick, *Writings of Washington*, 5:213 (GO, 3 Jul 76). (2) *Pennsylvania Packet*, 19 Jun 79 (Morgan to Sam Adams, 25 Jun 76).

41. Force, *Am. Arch.*, 5th ser., 1:108–09 (regulations, _ Jul 76); 694–96 (memorial, _ Jul 76).

Congress never ratified Morgan's proposed regulations, and whatever hopes for modifications the regimental surgeons had entertained were soon shattered. On 17 July 1776 it passed resolutions that greatly disturbed the regimental surgeons and alarmed the Director General. To prevent losses, Congress provided for inspection of the regimental chests of medicines and surgical instruments by the directors of hospitals and by the Director General. Furthermore, from time to time the regimental surgeons were required to present an account of these medicines and instruments to the hospital directors or, if there was no director in a particular military department, to the Director General for transmittal to Congress. In addition, Congress ordered that when a regiment was reduced in size, the medicines and instruments not needed by the regimental surgeon were to be returned to the hospital director and an account was to be submitted to the Director General, who in turn was to send it to Congress. Of greatest concern to the regimental surgeons was the resolution that prohibited them from drawing upon the general hospital of their military department for such subsistence stores as were necessary in diets for the sick. When sick persons required these stores, Congress ordered, they were to enter the general hospital. Congress added that their regular rations were to be stopped as long as they remained in that hospital; it thereby eliminated the drawing of rations twice, a practice that had grown into an abuse that both the Commander in Chief and Congress felt had to be corrected.[42]

The regimental surgeons sent a memorial to Washington protesting that these resolutions vested in the surgeon of the general hospital the sole right of judging whether a patient was fit to be moved from a regimental to a general hospital. The regimental surgeon, they argued, was in an equal if not better position to make such a determination in regard to his patient. They asked the Commander in Chief to redress their grievances.[43] In the meantime, Morgan had already advised Washington of their reaction. As the resolutions stood, the regimental surgeons complained, they could not supply the sick under their care with the necessary items of special diets, and they would have no other recourse except to send all their sick to the general hospital. Such action, Dr. Morgan explained, would overtax the facilities of the main army's general hospital. "Instead of about 300 which is the present number of sick in the General Hospital, it would immediately amount to 2,000 or upwards, and the number would increase every day." He suggested that Washington either approve the regulations formulated earlier in the conference between the Director General and the regimental surgeons, or let the regimental surgeons keep those of their sick who had "putrid or infectious distempers" in the regimental hospitals while their names were borne on the list of patients admitted to the general hospital. Their regular rations would therefore stop, and in their place the general

42. *JCC*, 5:568, 569 (17 Jul 76).
43. Force, *Am. Arch.*, 5th ser., 1:695–96 (31 Jul 76).

hospital would furnish, as its means allowed, such subsistence stores as wine, molasses, and meal. This procedure would eliminate the abuse of drawing rations twice.[44]

By the fall of 1776 this impasse showed no sign of being resolved, for Maj. Gen. Nathanael Greene wrote that "the sick of the Army, who were under care of Regimental Surgeons are in a most wretched condition." They were too numerous to be accommodated in the general hospital, but at the same time the Director General claimed that he had no authority to supply their needs: "The general hospital being too small to accommodate much more than half, the remainder lies without any means of relief than the value of the rations allowed to every soldier. Many hundreds are now in this condition and die daily for want of proper assistance; which means the Army is robbed of many valuable men at a time when reinforcements are so exceedingly necessary." Some measure, Greene urged, should be taken to confer authority on the Director General to furnish the regimental surgeons with such supplies as the sick needed. As to the Director General's insistence that his supply of medicines was barely sufficient for the general hospital, Greene could "see no reason either from policy or humanity, that the stores for the General Hospital should be preserved for contingencies which may never happen and the present regimental sick left to perish for want of proper necessities." It was wholly immaterial, in Greene's opinion, "whether a man dies in the General or Regimental Hospital."[45]

Washington at this time had little sympathy for the regimental surgeons. Many of them, in his view, were "great rascals countenancing the men in sham complaints to exempt them from duty and often receiving bribes to certify indispositions with a view to secure discharges or furloughs." In numerous instances they had drawn medicines and stores in the "most profuse and extravagant manner for private purposes." As long as they were independent of the Hospital Department, the bickering between them and the Director General would continue. He thought that Congress ought to authorize regular examinations of the regimental surgeons, who, if not appointed by the Director General and surgeons of the Hospital Department, ought nonetheless to be subordinate to, and governed by the instructions of, the Director General.[46] In response, Congress recommended that the states appoint skilled practitioners to examine those offering to serve as surgeons or surgeon's mates. Only on production of an examiner's certificate would the applicant receive a commission or warrant. It ruled that all surgeons and mates, whether in regiments or in general hospitals, were to be subject to the direction and control of the directors of hospitals (including the Director General with the main army) in the several military departments.[47]

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44. Ibid., 5th ser., 1:416–17 (Morgan to Washington, 18 Jul 76).
45. Ibid., 5th ser., 2:973–74 (Greene to Pres of Cong, 10 Oct 76).
46. Fitzpatrick, *Writings of Washington*, 6:113 (to Pres of Cong, 24 Sep 76).
47. *JCC*, 5:836–37 (30 Sep 76).

In January 1777 Washington sent John Cochran, a volunteer doctor who had much impressed him, to consult with Dr. William Shippen on improving arrangements in the Hospital Department. He instructed them to include plans for a "flying hospital" for his army in the field. Both doctors considered a flying hospital a necessity and proposed that it consist of a director, who on occasion would act as a surgeon and physician; two surgeons; four surgeon's mates; a steward; and male or female nurses.[48] In the spring of 1777 Congress then passed a new regulatory measure for the Hospital Department that provided for one physician and surgeon general for each separate army to head a flying hospital. Though this officer was subject to the orders and control of the Director General and the deputy director general of the district (as the military department was called in the Hospital organization) in which he acted, Dr. James Tilton later complained that the flying hospitals remained a kind of separate department to the end of the war.[49]

Each physician and surgeon general of a separate army superintended the regimental surgeons and mates and heard all complaints against them. He reported offenders to the Director General or, in his absence, to the deputy director, or in the absence of both from the army concerned, to the commanding officer, so that they might be brought to trial by court-martial. The physician and surgeon general was to receive from the Director General or deputy a suitable number of large strong tents, beds, bedding, medicines, and hospital stores for the sick and wounded who could not be moved to the general hospital. When any of the sick under his control were to be conveyed to the general hospital, the Director General or deputy were to supply him with wagons and drivers. He appointed such number of surgeons, nurses, and orderlies as the Director General or deputy judged necessary, plus a steward to receive and dispense such articles of diet as the Director General or deputy ordered to be given to him by the commissary of the army or the Hospital Department. The surgeons made daily returns to the physician and surgeon general of each army of all the sick and wounded who had been moved to the general hospital, all who remained in hospital tents, all who had become fit for duty, all who were convalescent, and all who had died. In turn, the physician and surgeon general submitted weekly returns to the Director General or deputy. In time of action or other emergency when there were insufficient regimental surgeons to care for the sick and the wounded who could not be removed to a general hospital, the Director General or the deputy of the district, at the request of the physician and surgeon general of the army, were to send as many physicians and surgeons from the general hospital as could be spared. Congress filled the newly created posts by

48. (1) Fitzpatrick, *Writings of Washington*, 7:44–45 (20 Jan 77). (2) Washington Papers, reel 39 (Shippen and Cochran to Washington, 31 Jan 77). (3) For Cochran, see James Thacher, *American Medical Biography*, 2 vols. (1828; Da Capo Press reprint, 1967), 1:227.

49. Tilton, *Economical Observations on Military Hospitals*, p. vi.

electing Dr. John Cochran, Dr. William Burnett, and Dr. John Bartlett for the armies, respectively, in the Middle, Eastern, and Northern Departments.[50]

The new arrangements, however, did not resolve the friction between the Hospital Department and the regimental surgeons. A year later when the main army lay at Valley Forge, Washington advised a congressional committee that "they seem always to be at variance." The regimental surgeons still complained that lack of medicines and other necessaries prevented them from giving assistance both in slight cases and in the first stages of more dangerous complaints when immediate attention could save lives. On the other hand, the Hospital Department continued to maintain that its stores were not sufficient to meet the excessive drafts made by regimental surgeons. Washington thought it was surely possible to fix some general rule for regulating the supplies allowed to regimental surgeons. Since care of the sick was the first consideration, the regimental surgeons ought not to be left destitute of a reasonable quantity of medicines. He pointed out that the consequences were serious. The regimental surgeons either had to send men who were only slightly ill to distant hospitals, thus depriving the Continental Army of the services of many who could have been restored to health in a day or two if the means had been at hand, or they had to keep them until their diseases got beyond the power of cure. Moreover, sending so many men away to a distance from an army, Washington explained, also led to desertions and to waste of arms and clothing.[51] In 1779 Washington returned to the failure to allow regimental surgeons adequate supplies to care for the sick. He advised a congressional committee that it would be helpful "if a little more latitude were granted to the Regimental Surgeons" under the supervision of the head of the flying hospital.[52]

The field organization remained unchanged until the last year of the war except for one modification in procedure that was introduced in September 1780. In its regulations Congress authorized the Director General to instruct the purveyor and the apothecary to supply the regimental surgeons with such medicines and "refreshments" as were needed for the sick and wounded before their removal to a general hospital. These supplies were dispensed under the direction of the chief physician and surgeon of the army. After 1780 the latter drew and received from the purveyor the tents, beds, bedding, and hospital stores he needed, and from the apothecary or his assistant, suitable medicines for men who could not be removed safely to the general hospital or who might quickly be restored to fitness for duty. At the same time, Congress retained Dr. John Cochran as chief physician and surgeon of the army until he succeeded Dr. William Shippen as head of the Hospital

50. *JCC*, 7:235–36, 244–54 (7, 8, and 11 Apr 77).
51. Fitzpatrick, *Writings of Washington*, 10:394–96 (to committee, 29 Jan 78).
52. Washington Papers, reel 55, ser. 4 (to committee, 8 Jan 79).

Department fifteen months later.[53] On 3 March 1781 it then elected Dr. James Craik to fill the post of chief physician and surgeon of the army. Less than a year later it extended the Director's authority to all military hospitals, including those in camp, and thereby eliminated the position of chief physician and surgeon of the army.[54]

Departmental Difficulties

With the removal of the main Continental army to New York in April 1776, problems of departmental authority and responsibility increased as the relationship between Dr. Stringer in the Northern Department and Director General Morgan remained unclarified. When Dr. Stringer received orders to support operations in Canada with the hospital under his direction, he laid before General Schuyler the state of his establishment. It consisted of himself, four surgeon's mates, and a clerk. Having failed in an earlier attempt to receive authorization to enlarge his staff, Stringer now submitted to Washington an estimate of the additions he would need to execute the orders of Congress. This increase included 4 senior surgeons, 12 mates, 1 matron, 1 or 2 clerks, and 1 or 2 stewards, as well as apothecaries, laborers, cooks, and other servants. He also enclosed a list of required medicines that he wanted the Director General to furnish. Washington advised Stringer that he would send his request for personnel to Congress and that he would direct Dr. Morgan to send such medicines as he could spare. Congress approved Stringer's petition on 22 May 1776 and shortly thereafter assigned Dr. Jonathan Potts of Reading, Pennsylvania, as physician and surgeon in Canada or at Lake George, depending on Schuyler's direction.[55]

The state of the Northern Army was deplorable; some 3,000 men were sick. When Dr. Potts set out with Maj. Gen. Horatio Gates on 24 June, he brought with him a large chest of medicines that the Director General had supplied. Uncertain of the authority that Congress had granted to Dr. Potts and Dr. Stringer and of his own responsibility for supplying them with medicines, Dr. Morgan went to Philadelphia and conferred for three days with the Medical Committee. He returned to New York convinced that the entire Hospital Department was under his direction and that neither Potts nor Stringer had power to appoint surgeons to act under them. Morgan requested that the number of surgeons and other personnel in the Hospital Department be augmented, and when Congress authorized an increase on 17 July 1776, he sent sufficient medicines for six more regimental medicine chests to the

53. (1) For the 1780 regulations, see below, "Elimination of the District Organization." (2) *JCC*, 18:908 (6 Oct 80). Cochran accepted his appointment by letter on 3 February; see 19:160 (19 Feb 81).

54. Ibid., 19:230 (3 Mar 81); 22:4–7 (3 Jan 82).

55. (1) Force, *Am. Arch.*, 4th ser., 6:417–18 (Stringer to Washington, 10 May 76); 469–70 (reply, 15 May 76). (2) *JCC*, 5:424 (6 Jun 76).

Northern Department. Morgan also appointed a surgeon to assist in the care of the sick and an apothecary to dispense those medicines, although he wrote that later certain congressional delegates intimated that "those gentlemen who were appointed to the northward, by any other authority than of the Congress, might look for their pay where they could get it."[56] Meanwhile, on 24 July Dr. Stringer at Fort George advised General Gates that he was faced with both a great increase in the number of sick and a lack of assistants and medicines. The only medicines that had arrived, he claimed, were the small amounts brought by Dr. Potts. He proposed to leave Potts in charge while he went to lay the situation before Congress in person.[57]

Congress was in session when Stringer arrived at Philadelphia to obtain the needed supplies and to strengthen his authority. It referred his petition to the Medical Committee. On the basis of the committee's report, Congress resolved that Dr. Morgan was Director General and Physician of the hospital with the main Continental army while Dr. Stringer was director and physician of the hospital in the Northern Department. It added that every director of a hospital possessed the exclusive right of appointing surgeons and hospital officers of all kinds in his own department unless otherwise directed by Congress. While this resolution did not define the relationship between the two men in detail, it did settle the question of authority over appointments. Dr. Stringer at once refused to recognize the assignments made by Dr. Morgan and promptly dismissed Dr. James McHenry, whom the Director General had appointed as assistant to Dr. Potts with directions to proceed to Philadelphia to purchase supplies for the hospitals in the Northern Department.[58]

General Gates was under the impression that he had granted Dr. Stringer permission on 29 July to go to New York to procure medicines. He was incensed when he learned on 24 August that Stringer "is gone a preferment hunting to the Congress at Philadelphia" while the troops were still suffering greatly for lack of medicines. He wanted the matter brought to Washington's attention and medicines sent to Dr. Potts at Lake George. Dr. Morgan received a copy of this letter; he could do little, though he did send a large assortment of medicines. He wrote to Gates that on 17 July Congress had empowered the directors of hospitals, with the approval of the commander of their respective departments, to purchase medicines and surgical instruments, and the Northern Army therefore was not dependent on him for its supplies.[59]

56. Force, *Am. Arch.*, 5th ser., 1:919–21 (Morgan to Pres of Cong, 12 Aug 76). (2) *JCC*, 5:568–71 (17 Jul 76). (3) See also RG 11, CC Papers, reel 51, item 41, 6:3 (same to same, 18 Jun 76).

57. Force, *Am. Arch.*, 5th ser., 1:651–53 (Stringer to Gates, 24 Jul 76).

58. (1) *JCC*, 5:661, 673 (16 and 20 Aug 76). Though Congress designated Morgan's hospital as the "American hospital," it obviously meant that new title to mean the hospital serving the main Continental army. (2) Dr. Jonathan Potts Papers, 1:90 (James McHenry to Potts, 21 Aug 76), Pa. Hist. Society. Hereafter cited as Potts Papers. McHenry was left to wonder who was to pay the expenses he had incurred in providing medicines that Potts had requested him to procure.

59. Force, *Am. Arch.*, 5th ser., 1:1114 (Gates to Egbert Benson, 22 Aug 76); 2:106–07 (Morgan to Gates, 1 Sep 76).

Procurement of Hospital Stores

In establishing the Hospital Department in 1775, Congress made it the duty of the Director General to furnish and pay for all medicines, bedding, and other necessaries. He was responsible for providing not only the drugs and surgical instruments but also the various utensils, the bedticks (coarse linen sacks into which straw was stuffed to form a mattress), and the blankets needed in a hospital, as well as the items required in special diets that the regular ration did not provide. These special subsistence items—sometimes referred to as "necessaries" and more often as "hospital stores"—included such supplies as tea, coffee, sugar, chocolate, milk, raisins, barley, oatmeal, and particularly wine, which was generally considered "a capital remedy in any stage of typhus."[60] During the first two years of the war, the Commissary Department purchased these supplies for the Hospital Department. In 1775 Commissary General Joseph Trumbull included "30 pipes Teneriffe wine," 100 casks of raisins, and 100 barrels of oatmeal as hospital stores in an estimate he prepared for subsisting an army of 22,000 men for a 7-month period. In addition to providing hospital stores to the general hospital in the Cambridge area and to such hospitals when they were set up in New York, Trumbull and his deputies supplied various hospital stores to the general hospital in the Northern Department.[61]

If any procurement records were maintained by the Hospital Department during the Revolutionary War, they no longer exist. In consequence, one can gain only a general idea from various other sources of how procurement was handled. According to Commissary General Trumbull, for example, Col. Samuel H. Parsons initiated a practice in the summer of 1775 that resulted in his sick being well provided with appropriate subsistence stores. Under Parsons' orders, when a soldier became sick, his regular ration was stopped and its monetary value was used to provide the special diet the soldier needed during his illness. Director General Morgan thought so well of this practice that he called it to Washington's attention in February 1776.[62]

In July the Commander in Chief ordered that whenever a soldier became sick, he was not to be carried on the provision return. Instead, the value of his ration was to be paid to the Director General, who was to use the money to provide a suitable diet for the soldier if he was lodged in a general hospital. For the sick soldier in a regimental hospital, the surgeon of the regiment was to draw appropriate supplies from the general hospital, in conformity with the rules of diet established there.[63] The regimental surgeons, however, con-

60. Tilton, *Economical Observations on Military Hospitals*, p. 59.

61. (1) Force, *Am. Arch.*, 4th ser., 3:1045 (estimate, _ Oct 75). (2) Potts Papers, 1:57–58 (James Bates to Potts, 25 Jun 76); 71 (Walter Livingston to Potts, 9 Jul 76).

62. John Morgan, *Vindication*, p. 38.

63. Fitzpatrick, *Writings of Washington*, 5:345 (GO, 28 Jul 76).

tinued to protest that they could not obtain the necessary stores for their sick.

When the Continental Congress enacted a regulatory measure for the Hospital Department in April 1777, it vested all procurement responsibility, including the provision of hospital stores, in the Director General. In his absence, the deputy director generals supervising hospitals in the Northern Department (Northern District) and those in the hospital district east of the Hudson were each responsible for providing such stores. At the same time, Congress provided for a commissary of hospitals in each district who procured, stored, and delivered provisions, forage, and other articles in accord with the orders of the Director General. Congress directed that in making his purchases, the commissary of hospitals was to consult frequently with the Commissary General and the Quartermaster General so that the prices he gave for supplies and transportation would be consistent with those given by the agents of those two departments.

The Director General retained these broad procurement powers for less than a year. Early in 1778 Congress divested him of all procurement authority.[64] Thereafter the deputy director general in a district was responsible for supervising and directing procurement of hospital stores and all other medical supplies. Congress called Dr. Jonathan Potts from the Northern Department to take charge of procurement for the general hospitals in the Middle District. Subsequently, it applied the term "purveyor" to this office.

When Dr. Potts assumed his duties in the Middle District in the winter of 1777–78, reserves of hospital stores were as depleted as rations for the troops. Since his hospital commissaries found themselves in competition with the purchasing commissaries of the Commissary General, Potts sought to develop a working arrangement with Ephraim Blaine, then deputy commissary general of purchases in the Middle Department. Blaine was quick to point out that the hospital commissaries were failing to provide the needed provisions. Though it was not his duty to furnish provisions for hospitals, he added, he had nevertheless helped to supply them. However, if Potts wanted his continued assistance, he would have to dismiss his purchasing agents, whose activities, Blaine charged, had only served to raise prices by 10 percent. Blaine wrote that he would undertake to work out with the Commissary General a method of providing the Hospital Department with a regular supply.[65]

In time the hospital commissaries adopted the procedure of applying to the issuing commissaries of the Commissary Department at their stores or magazines for rations or parts of rations. Some difficulties arose because hospitals could not always be located near an issuing commissary's store. In the summer of 1779 Washington directed Commissary General Jeremiah

64. *JCC*, 10:128–31 (6 Feb 78).
65. Potts Papers, 4:461 (Blaine to Potts, 2 May 78).

Wadsworth to make certain that he supplied such hospitals.[66] By the beginning of 1780 hospital commissaries could obtain rations only by presenting a return to the issuing commissary countersigned by the principal physician or surgeon of the hospital for which the supplies were needed. The purveyor furnished funds to the hospital commissaries to procure locally such subsistence items as milk and vegetables.[67] By 1780, however, the funds at the disposal of the Treasury Board were so limited that the procurement operations of the Hospital Department were as hampered as those of any other supply department. When subsistence supply was thrust upon the states under the system of specific supplies, the sick and wounded fared as badly as the regular troops. The congressional committee at headquarters in May 1780 advised the President of Congress that the hospitals were destitute of all necessaries for the sick. In March Dr. John Cochran, then chief physician with the main army in the field, had complained of the lack of stores, but he had been pessimistic about obtaining any relief. He wrote Purveyor Potts that he would lay the situation before Washington, but he doubted there would be any effect. "He may refer the matter to Congress, they to the Medical Committee who will probably pow-wow over it a While & no more be heard of it."[68]

In the closing months of the war the purveyor obtained rations for the sick from the contractors who had entered into agreements with the Superintendent of Finance to provide the required special subsistence items. Obtaining these supplies from the contractors' issuing stores was often complicated by the latter's great distance from the hospitals to be supplied. The contractors also apparently failed to understand that they had to provide an army in the field not only with regular rations but also with a portion of hospital stores, and that they had to establish a magazine of hospital stores in the vicinity of the army to accommodate the sick. Such shortcomings added to the complaints against the contractor system as the war drew to a close.[69]

Procurement of Medicines and Surgical Instruments

Congress did not vest procurement of medical supplies solely in the Director General in 1775. The bulk of such supplies had to come from abroad, and the Secret Committee handled foreign procurement. Among the first military supplies that the Continental Congress authorized the committee to procure abroad in January 1776 were medicines, surgical instruments, lint,

66. Fitzpatrick, *Writings of Washington*, 15:345–46 (30 Jun 79).

67. (1) *JCC*, 16:100 (27 Jan 80). (2) Potts Papers, 4:509 (Thomas Bond to Potts, 18 Mar 80).

68. (1) Ibid., 4:508 (Cochran to Potts, 18 Mar 80). (2) Burnett, *Letters*, 5:134 (committee to Pres of Cong, 10 May 80).

69. (1) RG 93, Pickering Letters, 83:6–7 (Dr. Samuel Adams to Comfort Sands and Co, 26 Jan 82). (2) Fitzpatrick, *Writings of Washington*, 24:26 (to same, 16 May 82); 25:164 (to contractors, 16 Sep 82). (3) RG 93, Misc Numbered Docs 31485 (contract, 29 Nov 82).

and bandages, to the amount of 2,200 pounds sterling. Two months later it empowered the Secret Committee to purchase, on the most reasonable terms obtainable, some medicines that had been privately imported. Early in May it directed that committee to send 200 pounds of Peruvian bark to the commanding officer in Virginia for use in the Southern Department. Such a delivery order proved to be an exception to the general rule that restricted the activities of the Secret Committee in reference to medical supplies to their foreign procurement and to the payment of freight charges for medicines imported on the government's account.[70]

In addition to the medical supplies imported for the government, medicines were imported by private merchants, who offered them for sale in the larger port towns. Initially, the Medical Committee, under orders of Congress, procured such medicines. That committee began its domestic procurement on 23 September 1775 when it purchased "a parcel of drugs in the hands of Mr. Rapelje." Before the end of 1775 Congress directed that an order be drawn for 1,936 dollars in favor of Eliphalet Dyer, a member of the Medical Committee, for medicines that he had purchased for the Continental forces. At the direction of Congress, the Medical Committee sent medicines to the Northern and Southern Departments and also supplied the Director General with medicines.[71]

On 20 August 1776 Congress elected William Smith as Continental druggist at a salary of 30 dollars a month. He received and delivered all medicines and surgical instruments; in short, he functioned as a medical storekeeper, with Congress providing the funds to pay for medicines delivered to him by merchants.[72] Early in 1777 Congress empowered the Medical Committee to employ a suitable person in each state to purchase medicines for the Continental Army at reasonable rates.[73] The paucity of records, however, provides no information on these agents or on their effectiveness in procuring medicines.

During the first two years of the war the Director General of the Hospital Department shared with the Medical Committee responsibility for the domestic procurement of medicines. Attached to the headquarters staff and constantly with the main army in the field, the Director General had only limited opportunity to make purchases. That opportunity became even more restricted when Washington's army engaged in a campaign of movement in New York and New Jersey in 1776. On the other hand, the Hospital Department encountered no problem in procuring native medicinal plants.

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70. (1) *JCC*, 3:453 (23 Dec 75); 4:24–25 (3 Jan 76); 180 (1 Mar 76); 324 (3 May 76). (2) Congress, for example, advanced 755 42/90 dollars to the Commerce Committee to enable it to pay Andrew and James Caldwell for the freight charges due them on medicines they had imported from Martinique in their sloop on the government's account. Ibid., 11:546 (28 May 78).

71. Ibid., 3:261, 419 (23 Sep and 9 Dec 75); 5:622, 633 (31 Jul and 6 Aug 76).

72. Ibid., 5:673; see also p. 748 (9 Sep 76).

73. Ibid., 7:91–92 (4 Feb 77).

Under orders of the Director General, military hospital stewards advertised for them. Thus Thomas Carnes, steward of the general hospital in New York in 1776, advertised for dry herbs to be brought to him. He offered good prices particularly for balm, hyssop, wormwood, and mallow for use in "baths and fomentations."[74]

Director General Morgan's purchases of medicines were made from local drug shops, which were owned largely by physicians. In colonial times they generally dispensed their own medicines, prepared by their apprentices. When the British evacuated Boston, Dr. Morgan enjoyed a windfall. At Washington's orders, he took possession of the drugs left behind in two shops when their Loyalist owners fled the city.[75] These drugs were sufficient to enable him to prepare forty regimental medicine chests and to meet the initial needs of the Hospital Department when the main Continental army moved to New York. In addition, he was able to provide a proper medicine chest for each of the surgeons of the four regiments left in garrison at Boston under the command of Maj. Gen. Artemas Ward and for the surgeon of the regiment on command at Beverly. Dr. Morgan also directed the collection at Boston of old linen sheets and rags for bandages and tourniquets, and after his arrival in New York, he had his hospital steward advertise and promise good prices for these materials.[76]

To meet the large demands being made upon him by both the main army and the Northern Army, Dr. Morgan applied for, and obtained, half the medicines that had been purchased by Dr. Malachi Treat for the use of the inhabitants of New York.[77] By the fall of 1776 Dr. Morgan had purchased all the medicines that could be obtained at shops at Boston, Salem, Newport, Norwich, and New York, and as the demands upon him increased, he turned to the Continental druggist to obtain a further supply of "capital" drugs. Instead of the ten pounds of tartar emetic that he had requested, he received four ounces, and his requisitions for other drugs were filled in similar proportions. This supply, he wrote, was "like a drop lost in the Ocean."[78] Congress had further diluted his procurement authority in July when it had ruled that the directors of hospitals also had authority to procure medical supplies, thereby paving the way for a competitive pursuit of the few drugs available in the states.[79]

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74. Force, *Am. Arch.*, 5th ser., 1:647–48 (29 Jul 76).

75. (1) Ibid., 4th ser., 1:1257 (Mass. Council, 30 Mar 76). (2) Washington Papers, reel 35 (Morgan to Washington, 22 Apr 76).

76. (1) Morgan, *Vindication*, p. 4 (memorial to Washington, 1 Feb 77). (2) Force, *Am. Arch.*, 5th ser., 1:647–48 (advertisement, 29 Jul 76).

77. Ibid., 4th ser., 6:1365, 1384 (N.Y. Prov Cong, 15 May and 8 Jun 76); 5th ser., 2:1272 (Morgan to John Jay, 28 Oct 76).

78. (1) *Pennsylvania Packet*, 19 Jun 79 (Morgan to Sam Adams, _ Jul 76). (2) RG 11, CC Papers, reel 51, item 41, 6:51–64 (memorial, Morgan to Cong, 18 Sep 78). (3) Morgan, *Vindication*, pp. 13–14.

79. *JCC*, 5:570–71 (18 Jul 76).



JOHN MORGAN



WILLIAM SHIPPEN

When the Continental Congress appointed Dr. William Shippen Director General in the spring of 1777, it vested in him all procurement authority. He followed the same procedures as Morgan had to procure medicines for the main army in the Middle Department. Dr. Jonathan Potts, Shippen's deputy in the Northern Department, directed procurement there. Potts dispatched Dr. Andrew Craigie, who was assigned to his department, to the New England area to procure whatever medicines and surgical instruments he could from private shipments arriving there or from the state store at Boston.[80] Subsequently, when Congress appointed Dr. Potts as purveyor in the Middle Department, Craigie continued to function as his purchasing agent. With considerable satisfaction he wrote Potts of his success in procuring the whole invoice of valuable medicines consigned to Lux and Bowley at Baltimore. Unfortunately, as in the procurement of all supplies, there was a considerable gap between procurement and actual possession. In this instance, the shipment was landed first in Virginia, and all but two of the packages of medicine were seized near Williamsburg for the use of that state.[81]

Purveyor Potts introduced more regularity and system into the procurement and delivery of medical supplies. He sent Craigie to Carlisle to build what became the Hospital Department's principal store supporting the main army. There Craigie prepared all medicines and completed the assembling of all hospital and regimental medical chests. He suggested the establishment of an issuing store near the army where such chests could be replenished

80. Potts Papers, 3:305, 331 (Craigie to Potts, 29 Aug and 1 Sep 77).
81. Ibid., 4:429, 437 (same to same, 27 Mar and 4 Apr 78).

occasionally, and such a store was set up at the Yellow Springs hospital in the fall of 1778. Dr. John Brown Cutting, who administered the issuing store, labored under handicaps. He was unable to obtain a return of the number of regiments in the area to use as a guide in his operations, but he estimated there were at least eighty, including Artillery.[82] As available supplies and funds dwindled, the procedures for procuring, receiving, preparing, and delivering medical supplies to Washington's army that Potts and Craigie introduced met with varying success. These procedures were continued by the purveyor's successor, Dr. Thomas Bond, elected by Congress on 7 October 1780.[83]

Procurement of Other Hospital Supplies

Hospitals needed shirts, sheets, pillows, blankets, beds, and various utensils such as kettles, ladles, buckets, bedpans, and weights and scales. Many of these articles that the Continental troops had at Cambridge had been furnished by the Massachusetts Committee of Safety, which had gained them largely by impressment. When Congress appointed a Director General in 1775 to head the Hospital Department, he became responsible for providing such items. Beds used in a hospital, whether a house or a tent, were bunks or cradles built by carpenters under direction of the Quartermaster's Department or by the troops themselves; the bedding consisted of a tick of coarse linen filled with straw and one or two blankets.[84] Even these minimal necessities were not always available. General Wayne wrote from Ticonderoga in 1776 that there were "neither beds nor bedding for our sick to lay on or under other than their own clothing."[85] It was late in the war before the Hospital Department included pillowcases and sheets in its estimates of needed supplies.[86] Hospital clothing apparently was whatever the soldier happened to be wearing on arrival.

When the British evacuated Boston, Dr. Morgan had his hospital steward collect almost 2,000 blankets and rugs and about the same number of bedsacks and pillows that the British had left in their hospitals and barracks and on the docks. These were washed, aired, made fit for use, and sent in wagons with other supplies to New York in accordance with Washington's instructions.[87] There is nothing to indicate that Dr. Morgan pro-

82. Ibid., 4:458 (Craigie to Potts, 1 May 78); 441 (Cutting to Potts, 16 Oct 78).
83. *JCC*, 18:909.
84. Tilton, *Economical Observations on Military Hospitals*, p. 54.
85. Force, *Am. Arch.*, 5th ser., 3:1359 (to Pa. Committee of Safety, 4 Dec 76).
86. See Washington Papers, reel 86, ser. 4 (Cochran to Washington, 6 Aug 82).
87. (1) Fitzpatrick, *Writings of Washington*, 4:464–65 (to Morgan, 3 Apr 76). (2) RG 11, CC Papers, reel 51, item 41, 6:3 (Morgan to Cong, 18 Jun 76). (3) Morgan, *Vindication*, pp. 3–4 (memorial to Washington, 1 Feb 77).

cured any additional bedding or clothing while he administered the Hospital Department.

As far as can be determined from available records, the Clothier General furnished clothing and blankets to men in the hospitals. In the fall of 1777 Congress directed the Clothier General to deliver to the Director General or his deputies in the several military departments a "proportionable share" of the blankets, shirts, shoes, and stockings that he procured.[88] The Clothier General could not understand, however, why every soldier sent to a hospital was "under the necessity of being clothed before he can join the Army notwithstanding they may have been clothed before." At least a partial answer was provided by Dr. Benjamin Rush at the Princeton hospital, who discovered that the sick were exchanging their clothing for liquor.[89]

Clothing had such a way of disappearing that Washington instructed the physician general of the hospital in the Northern Department in 1779 to deliver it to the men in the hospital only as it was needed, "which will be chiefly, when they are about to leave you."[90] The demand for blankets was so great in the winter of 1777–78 that Congress tried to obtain them by soliciting private donations and by appealing to the states for assistance. In the spring of 1777 Dr. Shippen had felt that sheets might be obtained by assessment, a procedure that had been used earlier to obtain blankets.[91] When the office of the purveyor was established, Congress instructed Dr. Potts to assign an assistant solely to the business of providing bedding, furniture, utensils, and hospital clothing. Since the supply of blankets and clothing was dependent upon importations from Europe, it is unlikely that the purveyor or his assistant was ever entirely engaged in their procurement. They undoubtedly continued to fill their needs, insofar as they could, by sharing in distributions made by the Clothier General and by resorting to assessment.

The Rising Tide of Complaints

In 1775 the cost of operating the Hospital Department for a year was estimated to be 10,000 pounds. Dr. Morgan thought this estimate was too low, but he tried to keep his expenses within the limits set.[92] No particular supply problems arose while the Hospital Department remained at Cambridge, where Dr. Morgan attempted to bring it under systematic management. That situation changed rapidly, however, when Washington's army

88. *JCC*, 9:941 (19 Nov 77); see also 10:23–24 (6 Jan 78).

89. (1) Washington Papers, 59:132 (Mease to Washington, 4 Nov 77). (2) RG 11, CC Papers, reel 101, item 78, 19:181 (Rush to William Duer, 13 Dec 77).

90. Fitzpatrick, *Writings of Washington*, 14:25 (to Dr. Malachi Treat, 19 Jan 79).

91. (1) *JCC*, 9:1011–12 (9 Dec 77); 10:23–24 (6 Jan 78). (2) RG 11, CC Papers, item 78, 20:103 (Shippen to Cong, 10 May 77).

92. Morgan, *Vindication*, p. 5.

moved to New York. Before proceeding there, Morgan carried out Washington's orders to forward the department's medicines and stores, to attend to the needs of the troops remaining in the Boston area, to care for and discharge the 300 sick who were in the several hospitals in April, and to break up the hospitals. In New York he established his hospitals at King's College, City Hospital, the barracks, and in houses appropriated by the New York Convention.[93]

While the troops remained in New York City and camped near Harlem, they were very sickly. Washington could not pinpoint the causes though he later attributed this condition "to the rawness of the troops, unused to Camp life, want of necessaries and the extreme fatigue they were obliged to undergo during the Heat of the Summer."[94] When the army moved to White Plains and then to New Jersey, its lack of sufficient transport added to the hardships experienced by the sick. Complaints against the Hospital Department under Morgan's direction increased. The conflict between the regimental surgeons and the Director General further fueled the clamor.

On 24 September a congressional committee arrived at camp. It found that the sick had been much neglected and that many had died from a lack of suitable diet and care. When the troops had moved, all the sick in the regimental hospitals had been suddenly delivered to the Director General, who did not have sufficient surgeons and nurses to care for them. In addition, the committee noted, the adjutants had frequently neglected to make returns to the Director General and the Commissary General of the number of sick in their regiments. The sick consequently could not receive the value of their rations in those subsistence items provided by the Director General for use in special diets.[95]

Stirred into opposition to Dr. Morgan by the complaints that had reached it, Congress in October took the unusual step of dividing authority between Dr. Morgan and Dr. Shippen, whom it had appointed chief physician for the flying camp in New Jersey on 15 July 1776. Under this indefensible plan, Congress directed Morgan to provide and superintend a hospital on the east side of the Hudson. At the same time, it directed Shippen to provide and superintend a hospital for the troops in New Jersey. Congress authorized each doctor to appoint a sufficient number of surgeons, mates, apothecaries, and other assistants in his hospital and to supply such quantities of medicines, bedding, and other necessaries as each judged expedient.[96]

In the midst of the current military operations, it was impossible for Dr. Morgan to establish a hospital as directed. In addition, almost all hospital

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93. (1) Ibid., pp. 2–4 (Morgan to Washington, 1 Feb 77). (2) Force, *Am. Arch.*, 4th ser., 5:1024–25 (same to same, 22 Apr 76).

94. (1) Fitzpatrick, *Writings of Washington*, 13:480–82 (to Morgan, 6 Jan 79). (2) See also *Pennsylvania Magazine of History and Biography*, 43:77–80 (Greene to Morgan, 10 Jan 79).

95. Force, *Am. Arch.*, 5th ser., 2:1385 (committee to Cong, 3 Oct 76).

96. *JCC*, 6:857–58 (9 Oct 76); for Shippen's earlier appointment, see 5:562.

stores and medicines were deposited west of the Hudson, and nearly half of the Hospital Department's surgeons and mates were also there. Moreover, the sick and wounded from Long Island and the general hospital at New York had been conveyed to New Jersey where, at Washington's orders, Morgan had established hospitals for them. Washington did not suppose that Congress' order was intended to prevent either doctor from establishing hospitals wherever they were most needed. This interpretation precipitated a clash between the two doctors. On 9 November Dr. Shippen complained to the Continental Congress that he was unable to carry out its orders because Dr. Morgan "differs in opinion with me concerning the meaning of Congress and because Gen. Washington desires they [the hospitals in New Jersey] remain under his care." He felt that the Commander in Chief was not recognizing his authority under the October order of Congress. He added that on a practical level Dr. Morgan would be unable to care for the sick in New Jersey since he was busy establishing hospitals far to the other side of the Hudson.[97] At Washington's orders, for example, Morgan was setting up a hospital at Peekskill. Congress referred Shippen's letter to the Medical Committee, and on the basis of its report, Congress repeated its previous resolution that Dr. Morgan was to care for the sick and wounded on the east side of the Hudson and Dr. Shippen on the west side.[98]

As Washington's army retreated through New Jersey, the sick and wounded were hurriedly sent ahead of the army to temporary hospitals set up at Hackensack, Perth Amboy, Newark, Elizabethtown, Morristown, Brunswick, and Trenton. In December, after Washington had crossed the Delaware, Dr. Shippen moved them to more permanent hospitals in Pennsylvania at Easton, Bethlehem, and Allentown. Dr. Morgan had direction of the hospitals at Philadelphia. Complaints against the latter multiplied in the course of these operations. In December Shippen proposed a reorganization of the Hospital Department.[99]

Dismissal of Morgan and Stringer

On 9 January 1777 Samuel Adams wrote that "great and heavy complaints have been made of abuse in the Director-General's department in both our armies; some, I suppose, without grounds, others with too much reason." As he anticipated, the Continental Congress on that day bowed to the clamor and dismissed Dr. Morgan and Dr. Stringer, without assigning

97. (1) Force, *Am. Arch.*, 5th ser., 3:618 (Shippen to Cong, 9 Nov 76). (2) See Fitzpatrick, *Writings of Washington*, 6:239 (to Shippen, 3 Nov 76).
98. *JCC*, 6:989 (28 Nov 76).
99. Force, *Am. Arch.*, 5th ser., 3:1258–59 (to Richard Henry Lee, 17 Dec 76).

any reason for its action.[100] Early in February Morgan requested a court of inquiry and submitted a vindication of his conduct to Washington, who sent it to Congress with a plan for the better regulation of the Hospital Department that the former Director General had formulated. Failing to obtain satisfaction, the latter submitted another letter and a voluminous memorial to Congress on 31 July.[101] Congress referred these to the Medical Committee, which reported the following month that there had been no particular charge against Dr. Morgan but that there were general complaints from all ranks of the Continental Army. It was necessary for the public good and the safety of the United States that he should be replaced. Although the doctor's memorial appeared to be "a hasty and intemperate production," the Medical Committee nevertheless felt that he was entitled to an inquiry into his conduct, and it recommended the appointment of a committee for that purpose. Congress concurred in the report but did not appoint a committee until 18 September 1778 after Dr. Morgan had sent another letter. This committee did not submit its report until 13 March 1779. Congress ordered its report to lie on the table for consideration the following Thursday, and it did not review the report until 12 June 1779. The report vindicated Morgan's conduct as Director General in every respect, and Congress thereupon exonerated him from all charges. The disgrace of his dismissal, however, had left him embittered.[102]

Reorganization of the Hospital Department

On 20 January 1777 Washington ordered Dr. John Cochran to Philadelphia to consult with Dr. Shippen about reorganizing the Hospital Department. The two men were to submit a list of the number of officers and of the quantity of stores necessary for efficient operation of the department. They were also to include in their plan fixed hospitals in various areas as well as a flying hospital for the army in the field.[103] About the same time, Washington received Shippen's reorganization plan, but he deferred sending it to Congress until Dr. Cochran had consulted with Shippen. The latter, who hoped to be made director of the Middle Department under his proposed reorganization plan, also set forth a pay scale, but Washington judged it to be too high, since the pay of a director would exceed considerably that of a major general. Shippen and Cochran agreed that there should be one superintending power

100. (1) Burnett, *Letters*, 2:211 (to John Adams). (2) *JCC*, 7:24–25. (3) Fitzpatrick, *Writings of Washington*, 7:28 (to Morgan and to Stringer, 18 Jan 77).

101. (1) Ibid., 7:149–51 (to Cong, 14 Feb 77). (2) RG 11, CC Papers, item 53, fol. 113; item 41, 6:19.

102. (1) *JCC*, 12:925 (18 Sep 78); 13:313 (13 Mar 79); 14:724 (12 Jun 79). (2) RG 11, CC Papers, reel 51, item 41, 6:51–54 (Morgan to Cong, 17 Sep 78); see also reel 77, item 63, fol. 125 (same to same, 5 Jun 79).

103. Fitzpatrick, *Writings of Washington*, 7:44–45.

in the department. On 14 February 1777 Washington sent Congress the plan drawn up by the two doctors. He enclosed Dr. Morgan's proposed plan, commenting, "I think all his hints are included in Shippen's plan."[104] By mid-March, having heard nothing on the subject, Washington warned Congress of the importance of getting the organization of the Hospital Department settled before the opening of the approaching campaign. He added that a revision of the pay of regimental surgeons and mates was also necessary; these appointments were essential, but the pay was so low that men of ability would not accept them.[105]

In the meantime, on 27 February the Medical Committee had brought in a report on the Hospital Department. Congress ordered it to lie on the table. Three weeks later it recommitted the report, together with the Shippen–Cochran plan. The great spirit of reform that swept through Congress in 1777 finally resulted in the passage of a new plan of organization, adapted from that used in the British Army, on 7 April.[106] In contrast to the simplicity of the regulation establishing the Hospital Department, the plan was complex and detailed, particularly in its provisions for staffing the department. As in the case of the other supply services, the Hospital Department's organization was shaped to operate in the various military departments, although the latter were called districts in the organizational framework. At the head of the department was the Director General. He established and regulated a sufficient number of hospitals to receive the sick and wounded of the Continental Army; provided medicines, surgical instruments, dressings, bedding, items of diet, and everything else requisite for the sick and wounded; paid the salaries of all departmental personnel; and generally controlled the department. In addition, he particularly superintended all hospitals between the Hudson and Potomac Rivers, that is, in the Middle District. Certainly, these extensive and diversified duties were a great deal of responsibility for one man.

In each district—middle, eastern, northern, and southern—Congress made provision for a deputy director general, and for an assistant deputy director, who superintended hospitals committed to his care and assisted in providing medical supplies under the orders of the Director General or the deputy director of his district. The plan provided for an apothecary general in each district, with as many mates as necessary, who received, prepared, and delivered medicines and other articles to the hospitals on the orders of the Director General or the deputy directors. Each district also had a commissary of hospitals, who employed assistants and storekeepers. There was to be a steward for every 100 sick or wounded, who received

104. (1) Ibid., 7:149–51 (to Cong, 14 Feb 77). (2) Washington Papers, reel 39 (Shippen and Cochran to Washington, 31 Jan 77).

105. Fitzpatrick, *Writings of Washington*, 7:287–88 (to Pres of Cong, 14 Mar 77).

106. *JCC*, 7:161–62 (27 Feb 77); 193, 197–200, 206 (22, 24, and 27 Mar 77); 219, 225, 227, 231–37 (2, 4, 5, and 7 Apr 77).

provisions from the commissary, distributed them according to the orders of the Director General, physician general, or surgeon general, and was accountable for them to the commissary. The plan also provided a matron for every 100 sick or wounded to see that provisions were properly prepared, that wards, beds, and utensils were kept in order, and that economy was observed. Under the matron's direction, a nurse attended to every 10 sick or wounded. Each hospital was allowed a hostler or stabler to receive horses from the commissary and to take care of the wagon horses and other horses belonging to the hospital. Each district had a clerk with a sufficient number of assistants to keep the accounts of the hospitals and to receive and deliver funds according to the orders of the Director General or the deputy director. Congress authorized the Director General and his deputies to appoint and discharge the assistant deputy directors and the other officers and attendants of the hospitals.

Under the reorganization plan, Congress appointed one physician general and one surgeon general in each district to superintend, respectively, the practice of physic and of surgery in all the hospitals of the district. In the absence of the Director General or the deputy, they could order the physicians, surgeons, and other officers of the hospitals to perform such duties as they thought proper. They also made weekly reports to the Director General or, in his absence, to the deputy director general or his assistant on the condition and number of the sick and wounded in the hospitals. The plan also provided for senior physicians and senior surgeons to attend, prescribe for, and operate upon the sick and wounded placed under their care. Second surgeons and mates assisted the senior surgeons. The Director General or the deputies determined the number of senior physicians, senior surgeons, and second surgeons, but the physician general and surgeon general in the district made the appointments. The plan set up a system of returns culminating in a monthly consolidated return for all hospitals that the Director General prepared and sent to the Medical Committee. All of the personnel thus far mentioned staffed the Hospital Department; they were separate and distinct from those appointed at the same time to staff the flying hospitals in the field.[107]

Three days after Congress reorganized the Hospital Department, it elected its officers. Congress unanimously elected Dr. William Shippen Director General of all military hospitals. It appointed Dr. Walter Jones physician general of the Middle District and designated Dr. Benjamin Rush its surgeon general. Dr. Jones declined to serve, and on 1 July Congress appointed Dr. Rush to that vacancy, electing Dr. William Brown the following day to the surgeon general's post vacated by Rush. For the Eastern District Congress elected Dr. Issac Foster deputy director general; Dr. Ammi Ruhamah Cutter, physician general; and Dr. Philip Turner, surgeon

107. For the field organization under the 1777 regulation, see above, pp. 388-89.



BENJAMIN RUSH

general. For the Northern District Congress retained the services of Dr. Jonathan Potts, designating him deputy director general, and it appointed Dr. Malachi Treat and Dr. Francis Forgue, respectively, as physician general and surgeon general.[108] When Dr. William Rickman, director of the hospital in Virginia, protested the inclusion of that state in the new plan of organization, the Medical Committee concluded that his hospital was distinct from, and independent of, the general establishment of hospitals in the other states and that the resolution of 7 April 1777 did not apply to it. Congress agreed with this interpretation, and Dr. Rickman retained his independence from the control of the Director General.[109]

Rush-Morgan-Shippen Feud

Eight months after Shippen's appointment, Dr. Benjamin Rush criticized the entire hospital system.[110] Initially, he made no serious charge against any official; instead, he compared American and British methods and recommended certain changes. He thought it desirable to have an inspector general and chief physician whose only duties would be to visit the hospitals, examine the quantity and quality of medicines, stores, and instruments, and forward reports of the number of sick and wounded to the Commander in Chief. In addition, the department, he felt, ought to have a purveyor gen-

108. *JCC*, 7:253–54 (11 Apr 77); 8:518 (1 Jul 77).

109. Ibid., 8:626 (9 Aug 77).

110. RG 11, CC Papers, reel 101, item 78, 19:173, 181 (Rush to William Duer, 8 and 13 Dec 77).

eral to provide the hospitals with all necessities; the physician general and the surgeon general in each district would inform the purveyor general of what they needed and then forward the stores provided to the hospitals. These suggestions were constructive, but Rush later went on to attack Dr. Shippen. He resigned his post as physician general in the Middle District in January 1778. To fill the vacancy, Congress elected Dr. William Brown physician general in the Middle District and appointed Dr. Charles McKnight to the post of surgeon general vacated by Dr. Brown.[111]

Complaints multiplied and conditions in the hospitals were as bad as ever. In the winter of 1777–78 hospital stores were as deficient as regular rations at Valley Forge, and the sick were naked. Distressed by the "unhappy Condition of our Poor Fellows in the Hospitals," Washington, in replying to criticism by Gov. William Livingston of New Jersey, wished his "powers to relieve them [the sick] were equal to my inclination."[112] In an effort to eliminate some of the disorders and irregularities at the hospitals, Washington ordered a field officer to visit each hospital. This officer prepared a list of the names and regiments of all the sick and transmitted it to the Adjutant General. He took charge of any arms, accouterments, or ammunition that he found at the hospital contrary to orders and made exact lists of clothing belonging to the patients. Furthermore, he sent to camp, under the care of a commissioned officer, all soldiers who had recovered and were judged fit for duty by the hospital officers, as well as all stragglers from Washington's army in the vicinity of the hospital.[113]

In the meantime, Congress read Rush's proposals on the organization of the Hospital Department and referred them to a committee of five. It authorized that committee to take every measure necessary for the relief of the sick and to report on what alterations in the Hospital Department's organization were necessary. Congress referred other letters to this committee, including one from Dr. William Brown to the Medical Committee in which he submitted his views on modifications needed by the Hospital Department. Like Rush, he believed the duties of a purveyor general should be separated from those of a director general.[114] On the basis of the committee's report, Congress on 6 February 1778 relieved the Director General of his purchasing responsibility. It was at this time that it appointed Dr. Potts deputy director general for the hospitals in the Middle District. Thereafter, the deputies in all the districts procured all the supplies needed by their respective districts through assistants they appointed. Though not so designated at that time, the deputies were nonetheless now viewed as purveyors. The

111. *JCC*, 10:131, 186 (6 and 21 Feb 78).
112. Fitzpatrick, *Writings of Washington*, 10:233–34 (31 Dec 77).
113. Ibid., 10:405–07 (to officers visiting hospitals, _ Jan 78).
114. (1) *JCC*, 10:9 (1 Jan 78); 93 (27 Jan 78). (2) RG 11, CC Papers, item 78, roll 91 (Dr. Brown to Medical Committee, 20 Jan 78).

main supply depot for the Hospital Department in the Middle District was established at Reading, Pennsylvania, where Potts maintained his headquarters.[115]

Congress ordered the Director General to visit the hospitals in each district frequently and to see that regulations were enforced. He was to examine the number and qualifications of hospital officers, report any abuses to Congress, and discharge any supernumerary officers. To further the efforts Washington was making to correct irregularities, Congress also authorized the Director General or, in his absence from a district, the physician general or the surgeon general to appoint a ward master for each hospital to receive the arms, accouterments, and clothing of each soldier admitted, keeping a record of, and giving receipts for, these articles. On the recovery and discharge of the soldier, these items were returned to him. If he died, the arms and accouterments were delivered to the commissary or deputy commissary of military stores, who gave a receipt for them. The ward master received, and was accountable for, hospital clothing, and he performed such other services as the physician general or the surgeon general directed.

Many dedicated and patriotic doctors provided service to the soldiers in the Revolutionary War. Unfortunately, the top echelon of the Hospital Department until 1781 was rent by bickering, jealousy, and vengefulness, at the expense of the department and of the sick and wounded. Dr. Rush, for example, was an irascible man who quarreled with friend and foe alike. As physician general in the Middle District, he was stationed at the hospital in Princeton in 1777, but his duties required him to visit all the hospitals in the district and to superintend all the hospital physicians. Dr. Shippen later contended that Rush's opposition to him was motivated by jealousy and a conviction that the Director General had prevented his obtaining preferment in the Continental Army.[116]

In any case, before the end of the year Rush complained of disorders and overcrowding in the hospital at Princeton. Dr. Shippen flatly contradicted him. He wrote to Congress that he had heard of Rush's complaints, but the hospital was not crowded; there were no fatal diseases, and few men had died.[117] This view does not agree with the recollections of Dr. James Tilton, a surgeon at the Princeton hospital at that time, who was not inimical to Dr. Shippen. He wrote in 1781 that he had found the sick and wounded so indiscriminately mixed in the hospital that infection had spread and great mortality had resulted. He himself had caught "jail fever." On his way home to recuperate, he had stopped at the hospital at Bethlehem, where the mortality rate was even greater than at Princeton.[118] Dr. Rush followed up his initial

115. Burnett, *Letters*, 3:77 (James Lovell to John Langdon, 8 Feb 78).

116. Gibson, *Bodo Otto*, p. 192.

117. RG 11, CC Papers, reel 101, item 78, 19:181 (Rush to Duer, 13 Dec 77); reel 98, item 78, 20:171–73 (Shippen to Cong, 18 Jan 78).

118. Tilton, *Economical Observations on Military Hospitals*, p. 29.

criticism by sending a letter to Washington in which he charged Shippen with malpractice and neglect. The Commander in Chief felt obliged to lay these "heinous" charges before Congress. The latter referred the letters to a committee of three, directing it to inquire into the charges and the conduct of Dr. Shippen as Director General. To support his charges, Dr. Rush began collecting affidavits from personnel in the Hospital Department.[119]

No further action was taken, and there the matter rested until 15 June 1779 when Dr. Morgan joined Rush in his charges against Shippen and called for a court-martial.[120] Only three days earlier Congress had finally expressed its satisfaction with Morgan's own conduct as Director General. Morgan was likely motivated by a desire for revenge, for he felt, perhaps with some justification, that Shippen had schemed with friends in Congress to have him removed as Director General so that Shippen could succeed to the post. Impatient when Congress did not immediately respond, Morgan wrote again and again, reiterating charges and pressing for the court-martial. In the meantime, Dr. Shippen himself appealed to Washington for a court-martial in July 1779 to clear his name. The court-martial was not ordered until December, and it was later postponed until mid-May 1780. Because the arrest of Shippen caused difficulties in the Hospital Department, Congress authorized the Medical Committee to take proper measures for carrying on the department's business and directed all medical personnel to obey its orders.[121]

When the court-martial met, it cleared Shippen of all charges.[122] Washington transmitted the proceedings to Congress on 15 July for its approbation or disapprobation. In view of the length of time that had passed during the controversy and trial, it is not surprising that the Hospital Department fell into considerable disorder. Washington thought the affair ought to be concluded as soon as possible. When a month had passed without congressional action, Dr. Shippen appealed to Congress "to be relieved of the distressing state of suspense." He called attention to the "deranged" state of the Hospital Department and to the suffering the soldiers were enduring because no person was directing the department's activities.[123] Congress considered the court-martial proceedings on 18 August 1780. Although the court-martial had acquitted Shippen of the charges of speculation and sale of

119. (1) RG 11, CC Papers, reel 101, item 78, 19:211–13 (Rush to Washington, 25 Feb 78); 215–22 (affidavits). (2) Fitzpatrick, *Writings of Washington*, 11:125 (to Pres of Cong, 21 Mar 78). (3) *JCC*, 10:303 (3 Apr 78).

120. RG 11, CC Papers, reel 77, item 63, fol. 129 (Morgan to Cong, 15 Jun 79).

121. (1) Ibid., reel 77, item 63, fols. 137–38 (25 Oct 79); 143–50 (22 Nov 79); reel 98, item 78, 20:435–36 (Shippen to Cong, 28 Jul 79). (2) *JCC*, 17:561–62 (26 Jun 80).

122. These charges included fraudulent sale of hospital stores for his own profit and use of public wagons to transport them; speculation in and adulteration of hospital wines at Bethlehem; neglect of duty; and scandalous practices unbecoming an officer.

123. (1) Fitzpatrick, *Writings of Washington*, 19:182 (to Pres of Cong, 15 Jul 80). (2) RG 11, CC Papers, reel 98, item 78, 20:541–42 (Shippen to same, 15 Aug 80).

hospital stores for lack of evidence, it nevertheless had clearly believed that he had engaged in those activities and had thus acted in a highly improper and reprehensible manner. Efforts to include this criticism as an amendment to the motion before Congress on the court-martial proceedings failed. Congress instead passed a motion which simply read, "The court martial having acquitted the said Doctor W. Shippen, *Ordered*, that he be discharged from arrest."[124]

The case against Dr. Shippen was closed, but the publicity did not end, and the Hospital Department continued to be damaged by it. To bring about a public moral condemnation of Shippen, Dr. Morgan resorted to the press. The *Pennsylvania Packet* carried his appeal to the citizens of the United States and his opposition to Shippen's reelection as Director General, which occurred on 6 October 1780. Inevitably, Morgan's appeal was followed by Dr. Shippen's "vindication," in which he frankly admitted speculation in hospital stores but contended that neither law nor regulations prohibited his purchase and sale for profit of articles of common trade. Moreover, he claimed, his transactions had been so small—4½ pipes of wine and 3 tierces of sugar—that they in no way could have affected market prices. This distressing exchange continued to be published in the *Pennsylvania Packet* until the end of 1780.[125]

Elimination of the District Organization

The elaborate organization of the Hospital Department established in 1777 caused considerable dissatisfaction by 1779. Congress took steps to meet some of the objections early in January of that year. When changes in the position of the troops or other circumstances necessitated it, Congress authorized the Director General to send deputy directors, physicians, and surgeons to any post despite the fact that by regulation they were attached to a particular military department (hospital district). If a dispute over seniority followed, the Director General was to settle it, though the aggrieved party had a right to appeal to the Medical Committee for redress. Even before Congress took this action, Washington had expressed his dissatisfaction with the district organization of the Hospital Department to a congressional committee. He favored eliminating it and giving the Director General authority to send surgeons and stores wherever they were required, proportioned among the various particular needs of the time.[126] Congress, however, made no other changes in the Hospital Department's organization that year, though criticism continued. Early in 1780 Dr. Philip Turner, surgeon general in the Eastern District, charged that the department was

124. *JCC*, 17:744–46 (18 Aug 80).
125. *Pennsylvania Packet*, 2 Sep–23 Dec 80.
126. (1) *JCC*, 13:110–11 (23 Jan 79). (2) Washington Papers, reel 55, ser. 4 (8 Jan 79).

"too large, too Expensive, and ought to be curtailed, our Numbers are more than are Needed."[127]

Inflation and the lack of money that plagued all supply services in the summer of 1780 brought acute distress to the Hospital Department. "There is no supply of milk, meal, or any other vegetable—of wine, sugar, tea or coffee there is not a sufficiency for the ordinary expenditure of another week," a senior surgeon wrote Maj. Gen. Benedict Arnold. The purveyors had neither cash nor credit, and unless something was done, he warned, the sick and wounded officers and soldiers would suffer and might die for lack of a suitable diet.[128] Aware of the situation, Washington sent Dr. John Cochran, physician and surgeon general of the army in the Middle District, to Philadelphia to solicit the aid of Congress. As a result, the Medical Committee prepared an estimate of needs, and Congress ordered a warrant for 200,000 dollars issued in favor of Purveyor Potts, who was to expend the money as directed by the Medical Committee.[129]

When Dr. Cochran returned from Philadelphia, he applied to John Mathews, a member of the congressional committee at headquarters, for assistance in obtaining more surgeons. The four surgeons and one mate with the flying hospital in the Middle District were barely sufficient to care for the troops. The increasing number of the sick required the establishment of more hospitals. No doubt Mathews, in writing to the Medical Committee, was passing along the observations of Dr. Cochran when he noted that there were five doctors in Philadelphia "who have no visible employment there" and urged that they be ordered to the main army. In addition, six doctors ought to be ordered to the Middle District from the Northern District. Mathews noted also that Dr. Cutting, the apothecary general, resided in Philadelphia; his distance from the main Continental army was thus too great for supplies to be readily procured from his store. Mathews suggested that a magazine should be established in New Jersey, and he noted that the delay in determining the court-martial proceedings against Shippen had disrupted the operations of the Hospital Department. No one directed matters, he wrote, and everybody did as he pleased.[130]

By this time Congress itself was moving in the direction of reform. On 7 August 1780 it ordered the Medical Committee to report specifically on the state of the military hospitals in Pennsylvania. The committee proposed a general system of regulations for the Hospital Department on 13 September that brought together various rulings and changes made by Congress since

127. (1) Ibid., reel 56, ser. 4 (to Washington, 3 Feb 80). (2) Fitzpatrick, *Writings of Washington*, 18:49–50 (to Turner, 24 Feb 80).

128. Washington Papers, reel 69, ser. 4 (William Eustis to Arnold, 7 Aug 80).

129. (1) Fitzpatrick, *Writings of Washington*, 19:181–82 (to Pres of Cong, 15 Jul 80). (2) *JCC*, 17:648 (21 Jul 80). (3) Burnett, *Letters*, 5:287–88 (Medical Committee to Potts, 22 Jul 80).

130. Ibid., 5:320–21 (to Medical Committee, 10 Aug 80).

the adoption of the 1777 regulation. After consideration, Congress adopted these regulations on 30 September.[131] In the interest of economy, it reduced the number of officers in the department and eliminated the district organization. It provided for one Director to supervise all hospitals north of North Carolina. Having finally realized that American physicians, unlike their European counterparts, were also surgeons, Congress now provided three chief hospital physician and surgeons for the same area above North Carolina. It also allowed one chief physician and surgeon for each separate army. The department's organization further included 15 hospital physicians who were also surgeons, 20 surgeon's mates for the hospitals, one purveyor with an assistant, one apothecary with an assistant, plus a steward and matron, as well as orderlies and nurses, for each hospital.

Dr. Shippen had been ordered to make a return of the personnel in the Hospital Department. Relying on his reply, the Medical Committee on 2 October submitted to Congress a return of the general officers and senior and junior surgeons, together with the dates of their commissions. Four days later Congress proceeded to elect officers for the reorganized department.[132] It reelected Dr. Shippen as Director, fixing his salary at 150 dollars a month and allowing him two rations per day for himself, one ration for his servant, and forage for two horses. It designated James Craik, Malachi Treat, and Charles McKnight as his three chief hospital physician and surgeons.

In the midst of the suspicions generated by the Morgan-Rush-Shippen controversy, Dr. Potts, like almost every supply officer who handled money in the Revolution, had learned of disquieting rumors attributing various abuses to him and insinuating that he had made a fortune out of his position as purveyor in the Middle District. These rumors were unfounded, his associates were quick to point out. Impaired health and his inability to support his family on his pay led Dr. Potts to submit his resignation in the spring of 1780. In October Congress filled the post by electing his former assistant, Dr. Thomas Bond. At the same time, it designated Dr. Andrew Craigie as apothecary, and elected an assistant purveyor and an assistant apothecary. It completed the staffing of the department by appointing the fifteen hospital physicians and surgeons.[133]

Prerogatives of Officers

Although personnel of the Hospital Department were subject to court-martial, since 1775 they had been treated more like civilians, without any of the rights and privileges of officers. Yet doctors, Shippen wrote the Medical

131. *JCC*, 18:876–88 (30 Sep 80).

132. Ibid., 18:889 (2 Oct 80); 908–10 (6 and 7 Oct 80).

133. (1) Gibson, *Bodo Otto*, pp. 256, 258–59 (letter of resignation, and letter, Craik to Potts, 1 Mar 80). (2) See also Potts Papers, 4:517 (Thomas Bond to Potts, 16 Aug 80). (3) *JCC*, 18:909–10 (9 Oct 80).

Committee on their behalf in the summer of 1778, ran "as great, if not a greater risque of losing their lives than any officers in the Army," exposed as they were to the infectious fevers that swept through hospitals. Personnel of the Hospital Department were allowed to draw rations as part of their compensation after the department was reorganized in April 1777. They were not included, however, in the congressional provision of 26 November 1777 which entitled line officers to draw clothing annually from the stores of the Clothier General.[134] The omission was not corrected for two years. On 20 November 1779 Congress then provided that all Hospital Department personnel who had been in the service for at least one year were entitled to draw clothing annually from the stores of the Clothier General in the same manner as officers of the line under the 1777 resolution. Oddly enough, only five days later Congress laid down rules for the delivery and payment of the officers' clothing which implemented more effectively its earlier resolution, but Hospital personnel were again omitted, an oversight that was not corrected until 30 September 1780.[135]

Early in January 1780 the Medical Committee had presented a report which proposed extending to medical officers the benefits of land grants and half pay at retirement that had been granted to line officers in 1776 and 1778. The proposal was lost, but it was revived in September. Medical officers had never been given military rank, but on 22 September Congress established equivalent ranks which entitled them to land. The Director was allowed the same quantity of land as a brigadier general; the chief physicians and purveyor, the same as a colonel; physicians, surgeons, and apothecary, the same as a lieutenant colonel; regimental surgeons and assistants to the purveyor and the apothecary, the same as a major; the hospital and regimental mates, the same as a captain. At the same time, Congress resolved that medical officers would be given half pay in the same manner and under the same restrictions as line officers.[136]

Eight days later Congress passed a new regulation for the Hospital Department which retained the land grant benefits for medical officers but omitted the retirement pay. It was January of the following year before Congress corrected this omission. It then authorized the Director to receive, during life, an allowance equal to the half pay of a lieutenant colonel, provided he continued in service to the end of the war or was reduced before that time as supernumerary. Under similar restrictions, chief physician and surgeons, hospital physicians and surgeons, regimental surgeons, and the purveyor and apothecary were each to receive the half pay of a captain.[137]

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134. (1) RG 11, CC Papers, reel 98, item 78, 20:303–04 (1 Aug 78). (2) *JCC*, 9:968–69 (26 Nov 77).

135. Ibid., 15:1294–96 (20 Nov 79); 1214, 1216 (27 and 28 Oct 78); 1304–06 (25 Nov 79); 18:887 (30 Sep 80).

136. Ibid., 5:763 (16 Sep 76); 11:502 (15 May 78); 18:847–48 (22 Sep,80).

137. Ibid., 18:887–88 (30 Sep 80); 19:68–70 (17 Jan 81).

These arrangements were in accord with what Washington had recommended. He had observed that in the British Army the pay of a regimental surgeon and of a lieutenant were the same or nearly so. In contrast, at the beginning of the war the pay of a lieutenant in the Continental Army was 13⅓ dollars per month while that of a surgeon was 25 dollars. The difference arose from the fact that surgeons in the Continental Army drew no perquisites and few men of ability would have served for a lieutenant's pay. In the British Army the pay of the hospital surgeon was equal to that of a captain; in the Continental Army it was double that amount. Washington thought that paying these surgeons half their present pay at retirement was unreasonable. He considered that the half pay allowance of medical officers should be proportioned to that of line officers; this practice would be consistent with that of other armies and with the principles of justice and policy.[138]

Appointment of Dr. John Cochran

Within three months after being reelected Director, Dr. Shippen submitted his resignation, believing that he could be more useful in training young men to be surgeons than in continuing at his post. On hearing of his resignation, Washington wrote that although there might have been particular instances of disorder or neglect, on the whole, insofar as the maintenance of order and the treatment and accommodation of the sick were concerned, "no hospitals could have been better administered."[139] When Dr. John Cochran succeeded Shippen, one immediate change was that the charges and countercharges that had whirled about the Hospital Department and its chief for the past three years came to a stop. In 1781, however, conditions in the department were wretched. Like all other supply officers, the purveyor had neither cash nor credit for obtaining supplies. The department suffered also from a growing scarcity of doctors, for as salaries went unpaid, posts fell vacant and remained so as doctors resigned their commissions. Dr. Cochran wrote, "Neither myself, nor any of the Gentlemen who have served with me, has received a shilling from the Public in twenty-three months, which has, as you may reasonably suppose, reduced me to some difficulties."[140]

In the midst of the preparations for the campaign of 1781, Congress directed the Board of War, which had now assumed the duties of the Medical Committee, to prepare a plan for filling vacancies in "the hospital and medi-

138. Fitzpatrick, *Writings of Washington*, 20:293–94 (5 Nov 80).

139. (1) RG 11, CC Papers, reel 102, item 78, 21:1–2 (Shippen to Cong, 3 Jan 81). (2) Washington Papers, reel 73, ser. 4 (Shippen to Washington, 4 Jan 81). (3) *JCC*, 19:15 (3 Jan 81). (4) Fitzpatrick, *Writings of Washington*, 21:218 (to Shippen, 13 Feb 81).

140. Walter Biddle, "Doctor John Cochran," *Pennsylvania Magazine of History and Biography* 3 (1879): 246 (6 Apr 81).



JOHN COCHRAN

cal lines of the army." The board sent three plans to Washington for his comments, and on 20 September Congress adopted a plan which provided for filling future vacancies on the basis of seniority.[141]

Economy having become the order of the day, Congress was interested in reducing the staff of the Hospital Department. With this objective in view, it adopted a new regulation on 3 January 1782 which abolished the offices of chief physician and surgeon and chief hospital physician and surgeon. It retained in service under the title of physician the chief physician and surgeon of the army who had the greatest seniority. It reduced the number of surgeons in all military hospitals to no more than fifteen, and it made the Director responsible for superintending and directing all military hospitals, including those in camp. When necessary, the Director called a medical board of three senior medical officers to appoint all surgeon's mates, examine all candidates for promotion in the department, recommend the best qualified to the Secretary at War, and give advice on departmental matters as requested. No regulation, plan, or order of this board was valid until approved by the Commander in Chief or the commanding general of a separate army and issued in General Orders. Congress authorized the Secretary at War to implement these resolutions.[142]

Examination and placement of candidates, however, were no longer problems of major importance in 1782. Instead, in the summer of that year

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141. (1) *JCC*, 20:668 (18 Jun 81); 21:979, 980 (20 Sep 81). (2) Burnett, *Letters*, 6:123, 146–47 (Bd of War, 19 Jun and 14 Jul 81). (3) Fitzpatrick, *Writings of Washington*, 22:441 (to Heath, 1 Aug 81).

142. *JCC*, 22:4–7 (3 Jan 82).

Congress and the Secretary at War were primarily concerned with developing a system of accountability for all medicines, instruments, and property of the Hospital Department.[143] Long overdue, this development came much too late to have any significant impact in the Revolutionary War. Before the end of the year, as salaries were reduced and doctors left the service, the Hospital Department contracted in size. Following the acceptance of preliminary peace arrangements, demobilization demanded the attention of Congress. On 17 April 1783 it passed a resolution applicable to the Hospital Department as well as to all other supply departments. It directed that immediate measures be taken for the sale of all articles in the military departments that would not be needed for the Continental Army before its reduction or for the formation of magazines for a peacetime establishment. On 16 May Congress substituted five years' pay for the half pay for life it had granted doctors in 1781. When the doctors accepted this offer, Congress, by the summer of 1783, had made provision for the disposition of both personnel and supplies, and it could terminate the Hospital Department as a staff agency.[144]

143. Ibid., 22:408–12 (23 Jul 82).
144. Ibid., 23:254, 346.

CHAPTER 14

A Concluding Commentary

In the eighteenth century a military campaign began in the spring, not infrequently in the late spring. It lasted until winter brought a halt to operations and the troops withdrew to winter quarters, where they remained until another spring and the condition of the roads permitted renewal of operations. Military history in that century has been aptly characterized as "the study of summer campaigns begun late, prosecuted without vigor, and ending to the relief of all concerned when winter threatened."[1] Washington and Brig. Gen. Richard Montgomery ignored the calendar in their late December attacks on Trenton and Quebec, but these were exceptions to the traditional avoidance of military operations in winter months. This rule, however, had no application in the Southern Department, where fighting did not depend on seasonal weather. There, for example, a British expeditionary force captured Savannah, Georgia, on 29 December 1778, and a force of Continental regulars and militiamen overwhelmingly defeated British troops at Cowpens, South Carolina, on 17 January 1781.

It was in the winter months that the supply chiefs and their subordinates with the main Continental army prepared for the next year's campaign by building up magazines, by contracting for the production of wagons and other essential supplies, and by repairing old equipment. Unfortunately, these supply efforts seldom resulted in the Continental troops' being adequately supplied, equipped, and prepared to take the field against the enemy in the spring. Frustrations constantly hampered supply efforts; essential materials were often in short supply. On occasion, for example, tentmakers could neither make new tents nor repair old ones because canvas and twine were not available. Consequently, tentage available at the start of a campaign fell short of demand. As prices rose with inflation, lack of funds also restricted supply efforts. Wagon contracts negotiated early in the winter by quartermasters remained uncompleted in the spring if manufacturers saw no prospect of payment. Farmers similarly were reluctant to exchange their wheat and cattle for a depreciating currency and even more so for certificates. Depreciation also led to complaints from the teamsters, artisans, and laborers whose services were needed to support the troops. In preparing

1. French, *The First Year of the American Revolution*, p. 93.

estimates and making plans in the winter, the supply chiefs, the Commander in Chief, and the Board of War all relied on purchases abroad to provide the clothing, arms, and ammunition needed by the troops. In spring, however, the eagerly awaited ship carrying such supplies might be delayed, be lost at sea, or be captured by a British warship. The vessel might even arrive without the supplies, having left them on a French dock.

Commanders, well aware of the unforeseen delays that could occur in supplying their troops, resignedly accepted the inevitable supply deficiencies. Troops took the field supplied to the extent possible, often not to engage in a definitive battle with the enemy but to maneuver and delay until cold weather ended operations. Commanders always entertained the hope that the next spring would find the troops more adequately supplied. No better example of skillful maneuvering by ill-equipped troops can be found than in Maj. Gen. Nathanael Greene's campaign in the Carolinas that culminated in the battle of Guilford Court House in March 1781 and led directly to the surrender of Cornwallis at Yorktown.[2] Washington fully understood that regardless of the logistical shortcomings of the supply departments, only by holding his army together and evading irretrievable defeat could he prevent the collapse of the Revolution.

Supply Limitations

Given this nature of eighteenth century warfare, it is not surprising to find that nothing in the records ascribes the loss of any battle in the American Revolution to a failure of supply. On the contrary, the troops who trudged over icy and snowy roads on Christmas Eve to win victory at Trenton were compelled to "victual themselves where they could," were clad in threadbare summer clothing, and in many cases were shoeless.[3] If battles were not lost by supply failures, military plans were certainly frustrated by supply deficiencies.

The restrictions imposed on military operations by supply deficiencies were immediately revealed in 1775. Although prewar preparations had been undertaken, at best they were limited in scope, and they were wholly inadequate to meet wartime demands. When Washington in mid-February 1776 thought the season and the frozen harbor afforded a golden opportunity for launching an attack on Boston, his general officers rejected the plan because they lacked sufficient men, powder, and cannon to take the offensive against the British. Washington could undertake the fortification of Dorchester Heights only after the states and the Continental Congress had sent powder

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2. See Theodore Thayer, *Nathanael Greene: Strategist of the American Revolution* (New York, 1960), pp. 307 ff.

3. Fitzpatrick, *Writings of Washington*, 6:457 (to Robert Morris, 30 Dec 76); 7:60–61 (to Robert Ogden, 24 Jan 77).

and Col. Henry Knox had brought cannon from Ticonderoga. Meanwhile, the American thrust into Canada was not only blunted but reversed by shortages of food and clothing and, even more significantly, by the appalling lack of medical care for the troops. The disastrous retreat of the Northern Army laid open the Lake Champlain–Hudson River route to the British.

In the fall of 1777 Washington found his plans impeded by a lack of provisions for his troops. He had no hesitancy later in attributing this shortage to Congress' reorganization of the Commissary Department in the midst of the campaign. By December the supply of rations had deteriorated to such an extent that he was unable to send out even small detachments to block the efforts of British foraging parties in the Philadelphia area. If the enemy had crossed the Schuylkill River, he warned the President of Congress on 22 December, his divisions would have been unable to move to meet them for the same reason.[4] The supply crisis at Valley Forge was, in fact, so serious that if General Howe had violated military tradition by advancing in December on the Continental troops quartered there, he might have readily overwhelmed them and possibly ended the war.

There was no major engagement in the north after the battle of Monmouth in June 1778, and the war there moved into a stalemate. Supply problems multiplied as the financial situation of the country worsened. Conditions at Morristown in the winter of 1779–80 were far worse than the soldiers had experienced at Valley Forge. Washington nevertheless made plans for a possible attack on New York in 1780 to close that year's campaign "with some degree of eclat." These plans, however, had to be abandoned because "the means were inadequate to the end," as Washington advised Gouverneur Morris, who had written him about undertaking such a movement.[5] The Quartermaster General could not put the main army in motion for lack of funds to complete purchases of wagons or to pay for repair work. Nor could he furnish the necessary horses; all transporation on the supply lines had to be accomplished by impressment. The Ordnance Department also was restricted in its efforts to make necessary preparations by lack of funds. Thus, it was not only the failure of powder and arms to arrive from France but also the dismal supply situation that called a halt to Washington's plans in 1780.

The troops were on the verge of famine, for the system of specific supplies had failed to produce adequate stores of provisions where they were needed. Reviewing the distress of his army in December 1780 and the difficulty of moving it to its places of cantonment that winter, Washington added that "it would be well for the Troops, if like Chameleons, they could live upon Air, or like the Bear, suck his paws for sustenance during the rigour of the approaching season."[6] Actually, there was no real lack of available provisions in

4. Ibid., 9:238 (to Pres of Cong, 19 Sep 77); 10:183–84, 193–94 (to same, 22 and 23 Dec 77).
5. Ibid., 14:457–59 (10 Dec 80).
6. Ibid.

1780. What was lacking, as Greene protested, was the means to draw out the resources—that is, cash in hand to pay for the wheat, flour, cattle, and other subsistence items which farmers otherwise were reluctant to release. The French found no difficulty in exchanging cash for flour, nor did the agents sent out by Robert Morris on the eve of the Yorktown campaign. At a later date Washington attributed the prolongation of the war to Congress' lack of powers. "More than half of the perplexities I have experienced in the course of my command, and almost the whole of the difficulties and distress of the Army, have their origin here."[7] Neither Congress nor the states, however, were in a position to create a strong central government with adequate powers, particularly the essential power to finance the war through taxation.

Importance of French Aid

In the spring of 1781 lack of funds continued to hamper all supply operations. The deputy quartermaster for New York advised that there was "an entire loss of confidence in public faith." Individuals in consequence were seizing public property and either selling it or converting it to their own use. At Albany the assistant quartermaster feared he would be left without anyone to assist him. The coopers had already quit. He had prevailed upon the oarmakers to work another week, but if he got no cash by that time to pay them, he would have to "hide myself from them." At Peekskill another assistant quartermaster found his situation equally disagreeable as artificers, teamsters, and boatmen called on him for payment of back wages. Most of these people, he informed the Quartermaster General, had one year's pay due them. Many of them had been in service "upwards of four years and for want of the common necessaries of life cannot do their duty." The deputy quartermaster in Virginia also reported an insistent demand for the payment of old debts. "I never saw a country so loaded with certificates as the State of Virginia," he wrote the Quartermaster General. "There is not an article scarcely that can be mentioned but what has been taken, and nothing but a bare certificate left in payment even to breakfasts and dinners for officers and likewise for many Soldiers."[8]

In view of this deteriorating logistical support, French assistance was crucial. French aid extended through Roderique Hortalez and Company opportunely provided the arms and military stores needed for achieving victory at Saratoga in 1777. That aid was "predicated and carried out on the basis of sustaining and aiding a fighting American Army."[9] The success of American arms on the battlefield made possible an alliance with France and

7. Ibid., 26:277 (to Alexander Hamilton, 31 Mar 83). See also 26:495 (circular to states, 8 Jun 83).

8. RG 11, CC Papers, item 192, fols. 57–63 (Pickering to Pres of Cong, 30 Mar 81).

9. Peckham, *The War for Independence*, p. 202.

its open support of the war. When in 1781 the rumor of an approaching French fleet was confirmed, past disappointments concerning joint action were forgotten. Washington galvanized his army and the country into making one last, supreme effort to defeat the British. More than ever he acted as his own chief supply officer, ably supported by Robert Morris and aided by those states that responded to his appeals for assistance. Understandably, much of what was required to support the allied forces at Yorktown was obtained through impressment, but French help was indispensable. One can only conclude that without that aid the Americans could not have defeated Cornwallis or won the war.

Responsibility for Supply Shortages

Supply officers are usually given little recognition in the annals of war, as Maj. Gen. Nathanael Greene was quick to point out in 1779.[10] When notice was taken during the Revolution, it was frequently unfavorable. It occurred when commanding generals, including Washington on occasion, blamed supply officers for impeding their battle plans. A more unsavory notoriety grew out of the inevitable investigations conducted to expose abuses and frauds. Supply deficiencies in the American Revolution, however, have to be charged not only to the shortcomings of quartermasters and commissaries but also to the Continental Congress, state governments, line officers, and the populace itself, as a brief summary will make clear.

The first ration shortages occurred among the troops in Canada. For the first time in the war commissaries had to provision a moving army, forwarding supplies over great distances. Transportation on the supply lines was disrupted by line officers who appropriated wagons and boats needed for hauling provisions to support the troops. On later occasions line officers commanding in military departments stopped wagons en route and seized for their own troops in garrison parcels of clothing or forage that were destined for the troops of the main Continental army in the field. In consequence, the latter were inadequately supplied, since the supply officer with the main army was deprived of the quantities he had counted on receiving. Line officers also at times flouted regulatory measures of supply officers intended to protect and preserve supplies at deposit points. On occasion, too, commanding generals ignored the efforts of the supply departments and designated their own purchasing agents, thus promoting competion between the latter and the departmental supply personnel who had been authorized to support their activities.

State authorities, whose agents competed with Continental agents in the

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10. Taking the post of Quartermaster General only with reluctance, Greene protested that no one had ever heard of a quartermaster in history. Washington Papers, 104:82 (to Washington, 24 Apr 79).

procurement of military supplies, also were guilty in certain instances of diverting Continental supplies to equip and clothe their militia. Competition extended not only to foreign markets but also to port areas within the respective states where private merchants disposed of clothing, powder, and other supplies on the domestic market. Moreover, state governments failed to appreciate the need to pool resources for the support of the Continental Army. They insisted, for example, that the Clothier General restrict distribution of any clothing and blankets sent by a particular state to the troops of that state and retain any surplus articles for their use only. Such parochial views promoted dissatisfaction among those troops drawn from states without access to ports and thus unable to clothe their soldiers. State governments always responded, though sometimes tardily, to Washington's pleas for transportation and supplies, but they regarded their first obligation as defense of their states. Their restrictive laws, particularly those governing the use of wagons, pasture lands, and forage, were enacted to protect the interests of their citizens and did much to hamper the efforts of Continental commissaries and quartermasters to supply the transportation needs of the Continental Army. The Continental Congress itself failed to see any immediate need for centralized control of procurement in the administrative supply agencies it created in 1775. It frequently diminished the authority it had granted to the head of a supply agency by appointing independent purchasing agents, a practice that promoted confusion by creating overlapping authorities and stimulating competitive procurement.

Although the times were not propitious for a strong central government, the Continental Congress was often most dilatory in exercising the authority it did possess. The sufferings of the soldiers at Valley Forge were in large part the result of congressional delay in appointing a new Quartermaster General. The Continental Congress left that post vacant for about five months at a time when energetic action by that department was required for the transportation of supplies. It permitted the Clothing Department to be without a chief for an even longer time. On the other hand, its insistence on reorganizing the Commissary Department in the midst of the campaign of 1777 had led to a deterioration of the supply of subsistence without its even being aware of the fact. The successive appointments that Congress made to fill the posts under that reorganization were time-consuming and had a disastrous impact on subsistence supply at Valley Forge. By 1780 Washington lamented the relinquishment of congressional powers to the states under the system of specific supplies. All business, he declared, was "now *attempted*, for it is not done, by a timid kind of recommendation from Congress to the States." Instead of pursuing one uniform system, each state was determining for itself whether it would comply, in what manner it would do so, and when.[11]

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11. Fitzpatrick, *Writings of Washington*, 19:131–33 (to Fielding Lewis, 5 May–6 Jul 80).

Still another factor had an impact on supply preparations during the latter years of the war. Toward the close of each year the states and Congress hoped that peace would soon be at hand. This expectation, Washington wrote, "never fails to produce an apathy which lulls them into ease and security, and involves the most distressing consequences at the opening of every Campaign."[12] Contracts were canceled and supply operations were delayed by these false hopes of peace. As a result, adequate supply preparations were not made in due time for the approach of each campaign.

Supply Abuses

Supply abuses have undoubtedly occurred in every war, and the American Revolution was no exception. An account of abuses practiced from the lowest to the highest echelons of authority in the supply agencies does not provide an edifying story. The purchase of supplies was quite naturally placed in the hands of merchants. While one may find their practice of conducting private and public business at one and the same time unacceptable in terms of today's standards, it is necessary to place their actions in the framework of eighteenth century mercantile capitalism. Similarly, the outraged cries against speculators that rang through the land and the price and wage controls against monopolistic practices that both Congress and state governments enacted have to be viewed against a long colonial history of such denunciation and regulation.

At the same time, one has to recognize that some genuine abuses did exist. As early as 1775, when quartermasters were experiencing difficulty in procuring wood and forage for the troops at Cambridge, Washington denounced monopolizers who withheld needed supplies from the market to raise prices and thereby gain profits at public expense. To monopolizers he added "speculators, various tribes of money makers, and stock jobbers of all denominations," declaring that their avarice and thirst for gain would ruin the country.[13] Washington would make this criticism again and again throughout the war. In such denunciations he and other men were "voicing sentiment deeply rooted by the eve of the conflict" in colonial experience and were not making accusations unique to the American Revolution.[14] Speculation was so commonly pursued that even some delegates to the Continental Congress engaged in it. By the spring of 1779, however, there had been so much criticism that most of the speculators who had been in Congress were said to have withdrawn. A delegate prayed that if there were

12. Ibid. See also 19:317–18 (to Bd of War, 3 Aug 80).

13. Ibid., 14:300 (to George Mason, 27 Mar 79). See also 3:455–56 (to Mass. legislature, 29 Aug 75); 13:21 (to Gouverneur Morris, 4 Oct 78); 383 (to Joseph Reed, 12 Dec 78); 467 (to Benjamin Harrison, 18 Dec 78).

14. Morris, "Labor and Mercantilism in the Revolutionary Era," *Era of the American Revolution*, p. 89.

"more of these reptiles among us God send us a thorough deliverance." One such speculator was the Maryland delegate Samuel Chase. On the approach of the French fleet in 1779, he cornered the supply of flour in the expectation of making a profit at the expense of the French forces.[15]

Conduct of the Populace

It was characteristic of the populace in the American Revolution to be extremely suspicious of any supply officer engaged in procurement for the Continental Army. Regardless of whether the procurement officer was paid a salary or collected a commission on his purchases, the citizen was convinced that he was growing wealthy at the expense of the public. This attitude likely reflected the fact that many of the purchasing agents were merchants who continued to conduct their private businesses. Sharp practices by merchants in the past had not been unheard of, and few colonial citizens could believe that merchants were not using public business to promote private interests. As pointed out by Robert A. East, "the colonial mind was predominantly agrarian" in many respects. When Arthur Lee bitterly attacked Silas Deane, the insinuations and accusations against Deane, Morris, and their commercial and land-speculating associates that emerged in speeches and publications divided Congress itself into bitter camps and confirmed most colonists in their agrarian prejudices and hostility to merchants.[16] The sufferings of the inhabitants living in the path of the armies, both British and American, as they marched and countermarched through the land destroying crops and impressing whatever they needed, undoubtedly generated further hostility and a determination to outwit supply officers. The perception of waste in the Continental Army also promoted a conviction that more was taken than what was needed, while the prosperity of some supply officers only deepened the suspicions of the citizens.

The sharp practices of some of the citizens themselves perhaps also accounted for their ready acceptance of charges of corruption on the part of all supply officers. Cobblers used green leather in producing shoes for the troops; tailors skimped on cloth in making uniforms; farmers used false bottoms in measuring and selling forage to the Continental Army; and millers turned out flour that was deficient in quality and short in weight per barrel. So prevalent was the abuse in the supply of flour that it was proposed that each barrel be marked with the brand of the miller who had produced it. Not a few citizens also traded with the enemy when it was safe to do so.[17]

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15. Burnett, *Letters*, 4:235–36 (Daniel of St. Thomas Jenifer to _____, 26 May 79).

16. (1) East, *Business Enterprise in the American Revolutionary Era*, p. 26. (2) For land speculation, see Thomas P. Abernethy, *Western Lands and the American Revolution* (New York, 1959), pp. 183 ff.

17. Force, *Am. Arch.*, 4th ser., 3:844 (Albany Committee to N.Y. Convention, 28 Nov 76).

Pilferage was common on the supply lines and at magazines. Government-owned clothes, tents, shovels, picks, axes, and horseshoes, as well as vinegar, salt, and other provisions, were found in the hands of private citizens. Wagoners on the supply lines helped themselves from the cargoes they carried. Citizens appropriated any government supplies left unguarded. At times supplies expressly placed in their care because of a breakdown of teams or wagons or because of the bad condition of the roads were never again reported by them. From government-owned muskets placed in the hands of militia when they were called into service to government-owned horses and cattle delivered to farmers to be pastured, all were readily converted to private use; few people had any regard for public property rights. So widespread was pilferage that the Continental Congress recommended that the legislatures enact laws imposing heavy fines or other penalties on those who did not deliver government-owned supplies on the demand of the proper officer or who failed to report such supplies to the executive power of the state in which they resided.[18]

Poor products, outright theft, and diversion of government-owned articles diminished the supplies available to the Revolutionary soldier. Citizens, however, felt justified in retaining government-owned supplies because the supply departments often failed to pay for the work done for them. A warrant to impress was the only resource the purchasing agent had for obtaining badly needed supplies during the last years of the war. Citizens soon accepted certificates only under duress. The deteriorating financial situation largely explains why manufacturers refused to complete contracts for various products ordered by quartermasters and why farmers were reluctant to sell their produce to purchasing commissaries.

The Secret Committee and Abuses

It is only too evident from any survey of supply operations that there was justification for the suspicions that people harbored about supply officers and their activities. At the same time, quartermasters and commissaries usually did not possess the large amounts of capital and the extensive business connections necessary for large-scale, highly profitable trade ventures. Although there were abuses in the administrative supply agencies established by the Continental Congress, far greater opportunities for commercial speculation were taken advantage of by certain delegates in Congress.

These opportunities grew out of the work of the Secret Committee, which was authorized to import supplies for the Continental Army and to pay for them by shipping abroad tobacco and other American produce. Imbued

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18. (1) *JCC*, 14:869 (23 Jul 79). (2) See also APS, Greene Letters, 5:55, 68 (James Abeel to Greene, 22 and 23 May 79).

with the business spirit of the time, the Secret Committee saw to it that its members were awarded contracts to supply Army needs. None was more successful in combining war finances, Army contracts, and mercantile enterprise than Robert Morris, who exercised a dominant control over foreign procurement as chairman of the Secret Committee and member of the Committee of Secret Correspondence.

Morris profited through the utilization of his public service connections.[19] His associates ranged from Oliver Pollock, agent at New Orleans, through William Bingham, agent at Martinique, to Silas Deane, agent at Paris, and included numerous merchants who were given commission business by the Secret Committee. Large amounts of money were involved in this business. Between 1775 and 1777 the committee spent over 2 million dollars, and it disbursed 483,000 dollars, or nearly a fourth, directly to the firm of Willing and Morris, at a time when inflation had not yet brought depreciation of the currency.[20]

A commission agent procuring supplies for the government at times would be owed money by the government as he extended his credit to procure supplies for it, but at other times he would have government funds on hand to use in purchasing new supplies or to pay for those already procured. The agent, however, could use such funds for private ventures, replacing them later when the investments were successful. Morris took advantage of his position to divert 80,000 dollars to his own use in 1776. This money had been granted by the Secret Committee for buying and forwarding goods to France in payment for supplies purchased there. The goods were not exported, but Morris did not return the money. Long after the war ended he was still indebted to the government for large sums for which he had not accounted. As E. James Ferguson observes, 80,000 dollars in 1776 was enough capital to provide the basis for making a mercantile fortune.[21]

Robert Morris and his associates also participated in privateering ventures and engaged in private trade. In support of the latter, he employed public vessels, for which he paid no freight charges, to transport private cargoes. While some of these goods were purchased by Continental procurement agents, others were intended for, and brought high prices on, the civilian market. Thus Morris advised Silas Deane that he would miss making a fortune if he neglected to ship Morris European manufactured goods.

> The prices of all imported articles have been enormously high. I could have sold any quantity of European manufactures for 500 to 700 percent and bought tobacco for

19. (1) William G. Sumner, *The Financier and the Finances of the American Revolution*, 2 vols. (New York, 1891), 1:206. (2) For an analysis of Morris as a businessman, see Ver Steeg, *Robert Morris: Revolutionary Financier*. (3) See also East, *Business Enterprise in the American Revolutionary Era*, pp. 12 ff.

20. Ferguson, *The Power of the Purse*, p. 77.

21. (1) Ibid., p. 78. (2) See also East, *Business Enterprise in the American Revolutionary Era*, p. 130.

25s. to 30s. per ct. It is not too late, but goods are becoming rather more plenty and tobacco is rising, but there is plenty of room to make as much money as you please.[22]

The growing demand for consumer goods and the increasing means to satisfy a taste for luxuries among those profiting from the war stimulated a desire for a financial killing among all merchants. It would appear, however, that Morris stretched the business code of his day to its limit.

Supply Chiefs and Trade

Since the concept of conflict of interests was largely unknown in eighteenth century America, when traders and merchants accepted appointments in the supply departments during the American Revolution, they saw no need to divest themselves of their business interests. As supply officers they still concerned themselves with their family business interests and with those of their immediate circle of partners and close contacts in trade.

Thomas Mifflin, the first Quartermaster General of the Continental Army, was a prominent Philadelphia merchant. Though he devoted his attention wholly to his office when not engaged in other duties assigned him by the Continental Congress, he took care of family interests by giving government business to his cousin Jonathan Mifflin and to his partner, William Barret; both were important Philadelphia merchants. Since Mifflin was handling clothing supply, he was in a position to advise them on the kinds of fabrics in demand, though he was careful to inform them that he wanted no part of their profits. He did as much also for Matthew Irwin, another relative and Philadelphia merchant.[23] Although he urged these men to exercise discretion, speculation about the link between their commercial activities and their relationship to the Quartermaster General soon arose. Fearing possible irregularities, Washington hinted to Mifflin of his apprehensions, but the Quartermaster General protested that his only profits came from the 5 percent commission allowed him by Congress on the goods he purchased. Aside from directing business to his relatives, Mifflin, according to his biographer, engaged in no improper or dishonest dealings in trade while he held the office of Quartermaster General.[24]

Like his predecessor, Nathanael Greene also took care of family interests when he became Quartermaster General. He offered his brother Jacob the post of purchasing agent for the Quartermaster's Department in Rhode Island. At that time Jacob Greene and Company, consisting of Jacob and

22. Commager and Morris, *The Spirit of 'Seventy-Six*, p. 806.

23. Kenneth R. Rossman, *Thomas Mifflin and the Politics of the American Revolution* (Chapel Hill, 1952), pp. 47–49.

24. (1) Ibid., p. 51. (2) Fitzpatrick, *Writings of Washington*, 4:432 (to Joseph Reed, 25 Mar 76).

Nathanael Greene and their cousin Griffin Green, operated the family-owned Coventry Ironworks and engaged in trade, financed privateers, and sold supplies to the Continental Army. The company appears never to have had any extensive business with the Army despite the Quartermaster General's aid and advice, and, so far as Greene's biographer could determine, it received the prevailing market price for goods sold to the Quartermaster's Department.[25]

That supply officers shared the spirit of gain sweeping the country is clear. No venture looked more alluring to investors than privateering, especially since the activities of privateers were considered beneficial to the country. Henry Knox, Chief of Artillery, abominated the idea of making any profit at public expense, yet he, too, speculated in privateering. At a time when inflation was increasing sharply, he urged his brother to invest in a privateer. "I am exceedingly anxious to effect something in these fluctuating times, which may make us lazy for life."[26] Greene found the commissions he earned as Quartermaster General equal to his "utmost wishes," and for two years he supplied Jacob Greene and Company with large sums to be invested in privateering and shipping. According to a "List of Vessels that belong to Jacob Greene & Co.," the latter owned varying shares in 20 vessels, ranging in size from 14 to 150 tons. Unlike some others in public life, Greene never used public funds for private purposes. But like Knox and many other investors, the Quartermaster General had little return on his wartime investments through Jacob Greene and Company, for it suffered heavy losses in privateering.

In 1779, while still Quartermaster General, Greene entered into a business partnership with Jeremiah Wadsworth, then Commissary General of Purchases, and Barnabas Deane, brother of Silas Deane. Greene was not as scrupulous as Washington in avoiding any acts that might provide a base for charges of wrongdoing, but he was discreet enough to clothe with secrecy his business operations with Barnabas Deane and Company. The partners even used a code in their correspondence.[27] Much later this secrecy gave rise to speculations that the company had been created expressly to sell supplies to the Quartermaster's Department. Examination of all pertinent records has led Greene's biographer to conclude that this was not the case; most of the capital was invested in shipping and privateering, and only occasionally were there any records of sales to the Continental Army. The latter were small, incidental orders.

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25. (1) See Thayer, *Nathanael Greene: Strategist of the American Revolution*, pp. 230–38. (2) See also Freeman, *George Washington*, 5:505–07.

26. Francis S. Drake, *Life and Correspondence of Major General Henry Knox* (Boston, 1873), p. 61.

27. For an example of a coded letter, see "Letters of General Nathanael Greene to Colonel Jeremiah Wadsworth," *Pennsylvania Magazine of History and Biography*, 22:211–16.

Offers to participate in privateering ventures also were made to supply officers by New England promoters. In 1779 Quartermaster General Greene, Commissary General Wadsworth, and Clement Biddle, then commissary general of forage, were each offered an interest in a privateer being built by Joseph Webb. Greene did not accept the offer, for he was not inclined to invest in privateering, yet because privateers were "calculated to annoy the enemy and consequently to favor our cause," that fall he bought a thirty-second share in a privateer offered him by Samuel Otis of Boston.[28] He also invested with Assistant Quartermaster General Charles Pettit in a number of other privateers, but by the summer of 1780 they had losses rather than returns on their investments.

There has been considerable speculation that Greene may have been a partner in the subsistence contracts that the firm of Wadsworth and Carter held for supplying French and American forces between 1780 and 1783. By this time both Greene and Wadsworth had resigned their respective supply posts. While not conclusive, the frequent correspondence between the two men has stimulated the speculation.

In pursuit of a profitable investment, Quartermaster General Greene and Assistant Quartermasters General Pettit and John Cox bought shares in the Batsto Ironworks in southern New Jersey. They anticipated selling cannon, shot, shells, and bar iron to the Board of War, and cannon and shot to shipbuilders and privateers. In August 1780 the ironworks had a contract with the Board of War for about 100 tons of shot and shell, which it completed. As in the case of many other ironmasters, however, the account went unpaid for a long time. Poor sales, high operating costs, and the disastrous effects of a flood and fire at the ironworks so discouraged the investors that they tried to dispose of their shares before the war ended. There is nothing to indicate that the investors in the Batsto furnace sold their products to the Board of War at anything other than a fair price, competitive with that asked by other ironmasters. Thus Greene was largely unsuccessful in both manufacturing and privateering. Perhaps this outcome was to be expected, since he devoted little time to his private financial affairs and left their management, as well as the actual selection of his investments, to other men.

If the Quartermaster General, the Commissary General of Purchases, and the commissary general of forage engaged in no illegal activities and avoided public censure in their investments, other supply chiefs were not so successful. Dr. William Shippen, Director General of the Hospital Department, claimed there was no regulation or law prohibiting speculation in hospital stores, but a court-martial viewed such conduct as reprehensible even though it had to acquit him of all charges for lack of evidence. He was discharged from arrest and resumed his post. James Mease more clearly

28. Greene Papers, vol. 5 (Greene to Samuel Otis, 17 Sep 79).

strayed beyond legal bounds. In 1778, when he had submitted his resignation as Clothier General but was still reluctantly continuing to fill the office until Congress appointed a successor, Mease entered into an agreement with Maj. Gen. Benedict Arnold, commanding the American troops reoccupying Philadelphia after the British had evacuated the city. Under Washington's orders, Arnold closed all shops and suspended all private trade in the city until Continental procurement agents had an opportunity to buy any imported goods found there that could be useful to the troops. By arrangement with Arnold, the Clothier General and his deputy bought goods in excess of need, the surplus being sold for the benefit of Arnold, Mease, and his deputy. This activity was not uncovered until long after Mease had ceased to be Clothier General. It was January 1781 before the president of the Pennsylvania Council called the attention of Congress to the "high abuse of office" by Mease and his deputy in taking unnecessary quantities of merchandise from the people for their private gain. Congress recommended that the president direct the state's attorney to prosecute the two men.[29]

Charges Against Subordinate Supply Agents

General Arnold's activities in 1778 also involved Deputy Quartermaster John Mitchell at Philadelphia in a threatened prosecution by Pennsylvania. Arnold was in partnership with two New York traders who had arrived to buy goods before the British evacuation of Philadelphia. To avoid a forced sale to Continental agents, Arnold gave them a pass to move a cargo out of the city. Later he sent a brigade of twelve wagons, which had been called up under Pennsylvania law for the transportation of public goods, to bring this merchandise back to the city. Arnold did not pretend these goods were public property, and he arranged to pay for the use of the wagons. Mitchell, who at Arnold's request had furnished the wagons, said that the action in no way had hindered the transportation of public goods, but when the Pennsylvania Council brought charges against Arnold, it nevertheless held Mitchell "highly blameable" by reason of alterations made by his clerk in the office record book of teams used. The congressional committee to whom this matter was referred, however, brought in a report that Mitchell had not acted criminally or fraudulently in directing his clerk to make the alterations.[30]

The charge of using public wagons for hauling private property was much more frequently lodged against a quartermaster than a line officer. Robert Lettis Hooper provides a case in point. A deputy under Mifflin, Hooper was continued in office by Quartermaster General Greene. The Pennsylvania

29. (1) Carl C. Van Doren, *Secret History of the American Revolution* (New York, 1941), pp. 169–70. (2) *JCC*, 19:40 (9 Jan 81).

30. (1) *JCC*, 13:345 (20 Mar 79). (2) APS, Greene Letters, 10:2, 3 (Pettit to Greene, 22 and 25 Feb 79); 2:35 (same to same, 26 Feb 79). (3) Van Doren, *Secret History of the American Revolution*, pp. 172–75.

Council charged that when Washington's army had been encamped at Valley Forge without rations and the means of transportation, Hooper had sent a number of public wagons loaded with private property to Boston. They had also returned with private merchandise. Mifflin, who thought the charges were politically motivated, called on Hooper to justify his conduct before the Board of War. He described Hooper as a "most excellent officer" to whom the country was indebted for the removal of stores from Philadelphia on the approach of the British. Moreover, he had been responsible for furnishing forage and teams during the last three months of the 1777 campaign. Without giving the Pennsylvania Council a hearing, the Board of War in 1779 acquitted Hooper of the charges. Thereupon, Hooper fell upon and beat the state's attorney general who had drawn up the charges against him.[31]

In 1780 a congressional committee investigated the conduct of a quartermaster who had superintended the transportation of provisions and stores from Philadelphia to Trenton in the summer of 1779. It reported that prices far higher than necessary had been paid for the shipment by water. These high freight charges, it asserted, were paid because several persons in the Quartermaster's Department owned or were part owners of the vessels employed. So often had charges of misconduct been made against quartermasters in the transportation of supplies that another committee had already brought in a report in 1779 proposing that no quartermaster or commissary was to own or have an interest in any boat, wagon, cart, or horse hired to transport public supplies under penalty of dismissal and forfeiture of all pay for the whole time of his employment. The 1780 committee proposed that the guilty individual in addition be ineligible thereafter for appointment to any office in the United States.[32]

Giving higher prices and in consequence collecting larger commissions was a temptation hard to resist. One who succumbed was Commissary Carpenter Wharton, who in the summer of 1777 was charged with purchasing large quantities of flour, pork, and rum at prices which were far greater than the market price. He was removed from office and ordered to close his accounts, and the auditors were furnished with all information against him so that any frauds might be detected.[33] His case only fed the charge frequently made against quartermasters and commissaries after 1778 that they were responsible for the depreciation of the currency. It was far easier to blame them for depreciation than for Congress to solve the complex problem of restoring the credit of the country's currency. It was a charge, too, that was more readily understood by the citizen than the relationship between effective taxation and a stable currency.

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31. (1) *JCC*, 13:453–55 (15 Apr 79). (2) Lee, *Memoir of the Life of Richard Henry Lee*, 2:173–74.

32. *JCC*, 14:813 (9 Jul 79); 17:604–05 (11 Jul 80).

33. Ibid., 8:498–501 (26 Jul 77).

By 1779, when the expenditures of the Commissary Department and the Quartermaster's Department were running at 200 million dollars a year, even greater weight was given to the charge that their supply officers were responsible for the mounting war costs and the depreciation of the currency. Assistant Quartermaster General Pettit, while acknowledging that Congress had granted large sums of money to his department, maintained that depreciation made them far less than what the department required for operation. Although some delegates accepted the fact that the supply departments were also victims of depreciation, others continued to voice charges against them on the floor of Congress.[34] Most citizens would have agreed in 1779 with Dr. William Shippen, delegate from Pennsylvania, who wrote:

> Only think of a two penny Jack who never in his life was capable of any business he had been engaged in, of making a Shilling more than maintained his family and that but in a very so so manner shall now be making 40 or 50,000 pr. annum and that by lowering the value of our Money and raising the prices of every Article he purchases a truth acknowledged by all and yet the mischief suffered to go on and increase . . . .[35]

Undoubtedly, there were purchasing agents who increased their commissions by raising the prices offered for forage, provisions, and other supplies. In the midst of the storm of criticism and reforming zeal that swept through Congress in 1779, Greene was perhaps justified in believing that commissions had "been improv'd into one great source of jealousy and discontent." He considered their abuse to be a comparatively small evil. A majority of staff officers served upon a salary basis, yet little was heard of the hardships that they suffered in the midst of inflation. In 1779 the pay of quartermasters, he pointed out, had remained unchanged for two years.[36] But even if some citizens recognized this fact, they had little sympathy, for they too had suffered from the evils of inflation, and the issue of corrupt purchasing agents had become an emotional one.

Supply personnel were held guilty of other abuses. Storekeepers and personnel at magazines were often charged with theft. Charges of embezzlement of public stores for private gain were made even more frequently against regimental quartermasters and commissaries serving with the Continental Army in the field. Subject to a closer surveillance than the departmental personnel, who often operated in areas remote from the control of either the Quartermaster General or the Commissary General, regimental quartermasters and commissaries were promptly court-martialed for their offenses.[37]

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34. (1) RG 11, CC Papers, item 155, 1:257 (Pettit to Pres of Cong, 17 Nov 79). (2) Burnett, *Letters*, 4:215 (Henry Laurens, Notes of Proceedings, 17 May 79); 235–36 (Daniel of St. Thomas Jenifer to _____, 26 May 79).

35. Ibid., 4:282 (to Richard Henry Lee, 22 Jun 79).

36. RG 11, CC Papers, item 173, 2:157–73 (Greene to Jay, 28 Jul 79).

37. For examples, see Fitzpatrick, *Writings of Washington*, 12:242 (27 Jul 78); 13:183 (31 Oct 78); 14:425 (22 Apr 79).

Inquiries and Court-Martials

The reform spirit that swept through Congress in 1777 was aroused by the growing criticism of the activities of Carpenter Wharton and other purchasing commissaries in the Middle Department. It was fed further by the dismay that many felt in the wake of the disheartening retreat of Washington's army during the 1776 campaign and by the British threat to Philadelphia at the end of the year. This reform spirit expended itself in the enactment of measures reorganizing the supply departments, particularly the Commissary Department. Congress anticipated beneficial results and provided considerable funds for the support of the 1777 campaign.

These congressional efforts, however, did not bring improvement, and delegates were appalled by the reports received from Valley Forge. Charges of neglect of duty and peculation began to be heard against Mifflin and the officers of his department. These charges culminated in a congressional order on 11 June 1778 directing Washington to make an inquiry.[38] The latter took no action while the campaign of that year was in progress. In August, after some supply officers had resigned, Mifflin proposed that Congress appoint a committee to undertake the inquiry, but Congress rejected this proposal. By the time Washington received orders to proceed with the inquiry, Mifflin himself had resigned from the Continental Army, and thus, as Washington pointed out, no court-martial proceedings in his case could take place.[39] No formal inquiry into Mifflin's conduct of the Quartermaster's Department was ever made. In the meantime, accusations circulated, rumors multiplied, and Mifflin resorted to the newspapers in his defense, as Dr. John Morgan and Dr. William Shippen of the Hospital Department would do at a later date.[40] Inquiries repeatedly petered out without any action being taken.

In its report rejecting Mifflin's proposal, a congressional committee had included evidence of the misconduct of Deputy Quartermaster General Hooper and had called for a court-martial. No further action, however, appears to have been taken. In the midst of these developments in 1778, charges and countercharges were exchanged between Arthur Lee and Silas Deane on abuses in foreign procurement, charges which also involved Robert Morris and the Secret Committee. When these accusations were aired in newspapers, they only deepened suspicions and sharpened divisive animosities in Congress without bringing about any reforms in supply operations. The atmosphere was such that Congress angrily ordered the Board of War to arrest the Commissary General of Military Stores, Col. Benjamin

38. (1) *JCC*, 11:591–92. (2) See also Burnett, *Letters*, 3:287 (Laurens to Rawlins Lowndes, 12 Jun 78).

39. (1) *JCC*, 12:1245–46 (22 Dec 78); 13:106–07 (23 Jan 79). (2) RG 11, CC Papers, item 161, 1:40–41, 52–53, 60 (Mifflin to Pres of Cong, 10 and 17 Aug 78, 25 Feb 79).

40. See *The Pennsylvania Packet*, 20 Aug and 15 Sep 78.

Flower, on the basis of charges made by his deputy, Cornelius Sweers, who was himself being prosecuted for forgeries and frauds. When two members of the board, Timothy Pickering and Richard Peters, did not wish to arrest the seriously ill colonel, Congress held them guilty of disobedience to orders and directed them "to attend the bar of the house." Flower was released in about two weeks after an inquiry proved that the charges by Sweers were groundless.[41]

Evaluation of Supply Agencies

In view of the abuses, how adequate were the organizations established for supplying the Continental Army, and how effective were supply officers in performing their duties? Only on two occasions did Washington find the work of any supply officer in the Revolution worthy of favorable comment to the President of Congress. He had high praise for Commissary General Joseph Trumbull in June 1776. "Few Armies, if any," he wrote, "have been better and more plentifully supplied than the Troops under Mr. Trumbull's care." In the summer of 1778 he was again pleased, this time with the efficiency shown by Commissary General Wadsworth and Quartermaster General Greene. He found the former "indefatigable in his exertions to provide for the Army, and since his appointment," Washington informed the President of Congress, "our supplies of provision have been good and ample." In the same letter he wrote that Greene had so overcome the deficiencies that had marked the complete breakdown of transportation in the winter of 1777–78 that Washington had been able "with great facility to make a sudden move with the whole Army and baggage from Valley Forge in pursuit of the Enemy and to perform a march" to the Highlands.[42] Occasionally he wrote a letter of appreciation to a supply officer who was resigning from his post. Generally speaking, however, Washington had a low degree of toleration for any shortcomings of supply officers regardless of cause.

A brief review may set in proper perspective the adequacy of the supply organizations established in the Revolutionary War. With one exception, Congress directed no attention to organizational details in the supply departments during the first two campaigns of the war. The exception was its establishment of a Hospital Department, for which it drafted a regulation without seeking the advice of any physician. Probably as a result, the organization was skeletal, and the department was underfunded. Moreover, Congress overlooked the need for regimental surgeons and surgeon's mates, as well as the urgent need to resolve the contest already joined between regi-

41. *JCC*, 11:741–43, 761–63, 830–31 (3, 7, and 24 Aug 78).
42. Fitzpatrick, *Writings of Washington*, 5:192 (28 Jun 76); 12:277 (3 Aug 78).

mental and general hospitals. When it provided for a Quartermaster General and a Commissary General of Stores and Provisions, it left to those two officers the development of their respective supply organizations. As developed by Mifflin and Trumbull, these were well adapted to the needs of a stationary army. Each might be described as being primarily a field organization supported by a purchasing arm. There were few problems, and both agencies operated effectively in support of the troops at Cambridge. In 1775 Washington appointed a Commissary of Military Stores, who was primarily a field officer, but Congress made no provision for an Ordnance Department and overlooked entirely the need for a Clothing Department.

When the troops left Boston for New York, the situation changed. Not only did a moving army pose new supply problems but the seeming predilection of Congress for appointing independent deputy commissaries and directors of hospitals only promoted confusion in both the Commissariat and the Hospital Department. The consequences were unnecessary competition for supplies as well as a struggle for control within these supply departments. It soon also became apparent that clothing the troops could not be satisfactorily accomplished by making the Quartermaster General responsible for the production and distribution of clothing. That officer, heavily burdened with a variety of duties, was beset by transportation problems as Washington's army retreated before the enemy. The widening area of operations necessitated the appointment of assistants in the supply departments. Mifflin and the main Continental army were well served by the appointment of the able Hugh Hughes in New York; Trumbull was not so fortunate in his appointment of Carpenter Wharton in Pennsylvania. By the close of the 1776 campaign complaints in both the Northern Army and the main Continental army about shortages of subsistence and clothing, lack of transportation, and neglect of the sick and wounded had reached alarming proportions. The three existing supply agencies had not developed organizations that could adequately supply a moving army.

The wave of reform that swept through Congress in the spring of 1777 resulted in the passage for the first time of a number of regulatory measures. Applicable to the Hospital, Quartermaster's, and Commissary Departments, they all included some desirable features for improving supply operations. Providing a Wagon and a Forage Department within the Quartermaster's Department promoted efficiency in transportation, which was much needed, as the campaign of 1776 had clearly demonstrated. Similarly, the new regulation for the Hospital Department provided improved departmental staffing for the general hospitals; arranged for the first time for a flying hospital in the field, undoubtedly in the hope of resolving the persistent controversy between regimental and departmental hospitals; and eliminated former errors by bringing all hospitals, except those in the Southern District, under the superintendency of the Director General of the Hospital Department. The Commissariat was the particular target of

congressional reform in 1777. Dividing it into two departments—one for the purchase and the other for the issue of rations—was organizationally sound and an improvement approved by Trumbull and Washington. The latter had concluded that the department was too large for any one man to supervise, and that Trumbull in several instances had "been infamously deceived by his Deputies."[43]

Unfortunately, the anticipated improvements from the new regulations failed to materialize in 1777. Introducing the changes in the midst of the campaign posed many difficulties. In addition, some of the regulatory provisions at once provoked criticism and demands for amendments. For example, uniting responsibility in one man for directing the military hospitals, caring for the sick and wounded, and procuring all hospital supplies was considered ill-advised by many physicians, who argued that no precedent could be found in any European army. Providing an inordinately detailed regulation for the Department of the Commissary General of Purchases and the Department of the Commissary General of Issues served only to paralyze subsistence supply for the last six months of 1777 and to bring hardship at Valley Forge. On the other hand, while there was no criticism of the changes made in the Quartermaster's Department, the failure of Congress to appoint a successor to Mifflin immediately after receiving his resignation contributed immeasurably to the distress of the troops in the winter of 1777–78.

Incorporated in the regulations of 1777, and retained until 1780, was the idea of including in each military department a completely staffed subordinate unit of each of the three affected supply departments. This organizational concept resulted in an unnecessary increase in supply personnel. In the case of the Hospital Department, it eventually kept idle some of the physicians serving in these units in the military departments at a time when they could have been more usefully assigned to the active theater of operations to relieve its shortage of physicians. On balance, the reform efforts of Congress to improve supply in 1777 were counterproductive, while the supply chiefs themselves made no notable contributions to the development of more effective supply organizations.

In 1778 Congress relinquished its reform efforts as far as the Quartermaster's Department and the Department of the Commissary General of Purchases were concerned. The newly appointed supply chiefs, Greene and Wadsworth, were left free to administer their agencies as they desired. They made relatively few changes in either personnel or organization, although Greene did centralize transportation control by implementing separate Wagon, Forage, and Boat Departments in his agency. That the two supply chiefs effectively operated the agencies, however, is evident in the praise that both won from Washington. Congress stilled at least some of the

43. Ibid., 8:25–26 (to Brig Gen Alexander McDougall, 7 May 77).

criticism of the Hospital Department by creating the post of purveyor and relieving the Director General of all procurement responsibility. On the other hand, in enacting the first regulation for the Ordnance Department, Congress exhibited a woeful lack of understanding of the proposals made by General Knox. So thoroughly did it confuse field and department matters that the Chief of Artillery was left without information on where to turn for supplies, and Ordnance operations were considerably hampered during the campaign of 1778. Another year went by before Congress provided clarification by amending the regulation, and only at that late date did it enact the first regulation for the Clothing Department.

The 1778 campaign was the last in which any supply agency operated effectively. This loss of effectiveness occurred not because the intrinsic organizations of the supply services were faulty, but because the deteriorating financial situation of the country left them without funds. A "vicious circle" was created. Lacking funds, the Quartermaster General and the Commissary General of Purchases had to use a greater number of agents to collect supplies, by force if necessary. Employment of these additional personnel only served to increase operating costs in agencies that were already overstaffed. Moreover, to draw supplies from every part of the country, many agents were located in areas remote from supply headquarters. Neither the supply chiefs nor Congress ever solved the problem of controlling such subordinates. Supply chiefs had to depend on selecting men who were capable of acting without minute instructions or supervision. Unfortunately, such independence allowed considerable leeway for abuses by those imbued with the acquisitive spirit of the times. A system of accountability was never developed in the Revolutionary War.

The supply organizations never evolved any units whose personnel were devoted to handling storage problems. There were magazines, primarily stocked with rations or forage needed for a given campaign, but there were no depots in which other supplies were accumulated. The latter were acquired only as needed, despite Washington's pleas for a long-range accumulation of ordnance supplies and of cloth that would be available for conversion into uniforms as required. Supplies were passed from agent to agent until placed in the hands of the troops by the issuing supply officer. In the process it was not unusual for wagoners to leave supplies in a barn under the care of a private individual. Much-needed clothing, for example, was found abandoned in barns many months after being deposited there, forgotten and made useless by mildew and moths. Nor was it uncommon for supplies to lie exposed to the elements wherever they were deposited. Waste is a concomitant of war, but the waste resulting from the lack of any storage system added considerably to expenditures in the American Revolution.

Patriotism and Profits

Although some purchasing agents prospered by collecting large commissions, the majority of the personnel employed in the supply departments were paid salaries, which were inadequate and frequently months in arrears. This situation was conducive to abuses because men found fraudulent or illegal ways to supplement their incomes. Not a few salaried supply officers were able to continue in service only by drawing on their family resources. Pleading for adequate pay for his staff, Quartermaster General Timothy Pickering pointed out that a line officer could bear such hardship with more patience because he had "honour and promotion in view" and expected "a continued recompense" as long as he lived. The supply officer gained nothing but abuse and reproach, and his reward lasted no longer than his service.[44] Only medical personnel received the same rewards as line officers.

Although congressional delegates were critical of supply officers, they certainly did not view all of those officers as malefactors who were best dismissed from public service. Despite accusations against Mifflin and the fact that Trumbull refused to serve unless paid a commission, Congress thought well enough of both men to appoint them to the Board of War. Some delegates might grumble that Greene was making a fortune too rapidly, but at Washington's insistence they appointed him commanding general of the Southern Army. And despite their suspicions of the trade practices of Robert Morris, they were happy to designate him Superintendent of Finance, fully expecting him to perform financial miracles.

The work of a supply officer was arduous. It entailed much traveling and continuous activity not only during campaigns but also when the troops were in winter encampments. Nevertheless, a number of men held a succession of supply positions during the war, sometimes operating as state agents, at other times as supply officers for the Continental supply agencies. In one capacity or another Jeremiah Wadsworth, for example, procured subsistence for the Connecticut troops, the Continental Army, and the French forces in America. The lure of profits was not the only motive of these supply personnel. Motivated by patriotism, Hugh Hughes rejected commissions offered by Greene and served as a salaried deputy under Mifflin and again under Pickering. Ephraim Blaine served throughout the war whether paid a commission or a salary.

Supply personnel—from laborer and artisan to deputy and chief of a supply agency—performed an essential role in the war. Washington's army could not have been maintained in the field or in winter quarters without the work performed by supply officers. A detailed analysis of the logistical support of the main Continental army reveals a mixture of acquisitiveness

44. RG 93, Pickering Letters, 82:191–94 (to Bd of War, 20 Sep 81).

and patriotism, but that mixture was more common among the people of that day than has been readily admitted. Supply officers shared with line officers the achievement of winning victory in the American Revolution.

Bibliography

The National Archives and the Library of Congress are the main depositories of records and manuscript material useful in developing the history of logistical support for Washington's army. At the National Archives the Papers of the Continental Congress, Record Group (RG) 11, are of primary importance. Of particular interest are the Reports and Letters of the Board of War (item 147, 6 volumes; item 148, 2 volumes); Reports of Committees (items 21–22, 27, 29, 31, and 34, a total of 12 volumes); Letters of Thomas Mifflin (item 161); Letters of Ephraim Blaine (item 165); and Letters of Maj. Gen. Nathanael Greene (items 155 and 173, 7 volumes).

The Archives has gathered additional Revolutionary War Records in RG 93. For the most part this collection is fragmentary insofar as supply operations are concerned. It does, however, include Miscellaneous Numbered Documents, which provide an insight into Ordnance supply, and the highly useful Letter Books of Samuel Hodgdon (volumes 92 and 110) and Letter Books of Col. Timothy Pickering (volumes 82–88, 125–28). The National Archives also has a microfilm copy of the Henry Knox Papers, which are owned by the New England Historic Genealogical Society and deposited at the Massachusetts Historical Society. The Knox material, RG LM–39, provides further information in reference to Ordnance supply during the Revolutionary War.

The George Washington Papers in the Manuscript Division of the Library of Congress furnish another basic source of information on supply support of the main Continental army. This collection is voluminous, but a detailed index of the papers—essentially a name index—simplifies the selection of relevant material. Also available at the Library of Congress are the Robert Morris Papers, which afford information on supply during the later years of the war when Morris, as Superintendent of Finance, directed contract arrangements for supply. Much detailed information on supply support can also be found in the letter books and papers of such Quartermaster and Commissary personnel as James Abeel, Ephraim Blaine, John Davis, and Charles Stewart.

Other manuscript collections yield pertinent material. Particularly useful are the Chaloner and White Papers deposited at the Pennsylvania Historical Society, which provide insights into Commissary operations, and the Papers of Dr. Jonathan Potts, which contain considerable information on the operations of the Hospital Department. Quartermaster activities are most fully revealed in the correspondence of Nathanael Greene. The letters

to and from Greene in possession of the American Philosophical Society at Philadelphia cover the years of his service as Quartermaster General. The Greene Papers at the William Clements Library, Ann Arbor, yield additional information, though relating primarily to the Southern Army.

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Index

Abeel, Col. James, 43, 82, 146, 148, 151
Abuses
  from payment of commissions, 14–15
  plundered clothing, 286–87
  in Quartermaster's Department, 40–42, 47
  by Secret Committee, 424–25, 432
  by wagoners, 72–73, 82–83, 287, 424
Accouterments, 99, 355, 365
  infantry, 325
  leather, 299, 326, 329, 334
Adams, Charles Francis, 98–99
Adams, John, 30, 379
Adams, Dr. Samuel, 252
Adams, Samuel, 180, 401
Adjutant General, 322, 406
Agents. *See* Purchasing Agents.
Albany, N.Y., 31, 240
  barracks built at, 144
  boats at, 133–34
  clothing supplies at, 260, 288, 299
  commissaries at, 164
  deputy quartermaster generals at, 45
  ordnance supplies at, 324–25, 354, 364–65
Albany County, N.Y., 198
Albemarle Sound, N.C., 218
Alexander, Robert, 347
Alexander, Brig. Gen. William (Lord Stirling), 111, 300
Alexandria, Va., 171, 204, 380
Allen, Ethan, 357
Allentown, Pa., 65, 107, 301, 316, 325, 401
Alliance, 345, 368
Ammunition, 12, 69, 311, 315, 325–26
  importation of, 335–38
  supply of, 348, 369
Ammunition wagons, 69–70, 311, 313, 323
Amphitrite, 338, 364
Amputation, 378
Anchors, 130
Andover (N.J.) ironworks, 316
Andrew Doria, 336
Apothecaries, 381, 384, 389, 411, 412
Apothecary general in each district, 403, 410
Ariel, 368
Armorers, 33, 316, 318, 323, 325, 327, 329, 352–54
Arms
  domestic production, 346–47
  hiring, 348, 351–52
  marking of, 355
  recovery of, 355–56
  repair of, 25, 318, 323, 325, 352–55
  shortages of, 348–56, 365–67
  stands of, 329, 350, 363
  variety of, 348
Army, Continental, 5, 13, 34, 79*n*. *See also* Army, main Continental; Northern Army; Southern Army.
  and artificers, 153, 155–57
  and disease, 193, 378–80
  enlisted troops in, 5–6, 26–29
  and flour supply, 197
  and food preparation, 193–97
  formation and organization of, 5–6, 15, 33
  and meat supply, 201, 233
  Negroes in, 27
  and organization of provisions, 159–60
  and price and wage control, 97
  and provisioning on the march, 203, 254–58
  and ration allowances, 193–97
  and staff officers, 8–10, 24, 29–30, 44
  and strength of, 26–28
Army, main Continental (Washington's army). *See also* Washington, General George.
  barracks of, 144
  and disease, 145–46
  and flour supply, 197–98, 212
  lack of provisions in winter of 1776–77, 204–07, 209–10
  lines of communications, 64–65, 107, 224, 226
  and meat supply, 201–02, 211, 218–19
  and organization for forage, 101
  and strength of, 27, 210*n*
Arnold, Maj. Gen. Benedict, 269, 357, 429
Arsenals, 12, 322, 324–25, 327
Articles of Confederation, 10, 13
Artificers
  for the Artillery, 25, 46*n*, 70, 79*n*, 313, 315, 318, 327–31
  district, 154, 156, 158
  quartermaster, 33, 45, 62, 131, 135, 146, 148, 152–58
Artillery, 12, 25, 46*n*, 104
  field organization supporting, 310–12
  wagons and wagoners required for, 68, 75, 78*n*

Artillery, Chief of, 9, 310, 319–24, 327, 366, 368. *See also* Knox, Maj. Gen. Henry.
Artillery Artificers, Regiment of, 70, 78*n*, 155–56, 318, 327–28
Artillery Park, 79*n*, 101, 157, 194
Associators of Philadelphia, 311
Avery, Elisha, 164, 171
Aylett, William, 165–66, 171, 180, 185

Bache, Richard, 216*n*
Bacon, 210, 221
Baggage, movement of, 67, 73, 94
Bahamas, 198–99
Bakers, 177, 184, 194, 196–97, 209
Baldwin, Col. Jeduthan, 153, 156
Baltimore, Md., 24, 136, 197, 346
Bandages and tourniquets, 378, 395, 396
Barber, Nathaniel, 311, 324, 332
Barges, 128, 131, 134
Barrackmaster General, 144–45
Barrackmasters, 33, 144
Barracks, 12, 140–46
Barras, Admiral Louis Comte de, 248
Barrels, 25, 185, 198, 209, 246
Barret, William, 426
Barron, Commodore James, 139
Barter system, 296, 302–04
Bartlett, Dr. John, 389
Basking Ridge, N.J., 150, 375
Bateaux, 128–29, 131–35, 152
Batsto ironworks, 428
Bayonets, 334, 346–47, 350–51, 371
Beans, 190
Beaumarchais, Pierre Caron de, 337–38, 347
Bedford, Mass., 286
Bedford County, Pa., 44
Beds and bedding, 142, 381, 388–89, 392, 397–99
Beef, 154, 167, 174, 221
  purchase of, 202–03, 235
  in ration, 190–91
  specific quotas by states, 230, 240
  supply of, 16, 209–10, 220
Beer, 190–91, 206
Bemis, Samuel F., 338
Bennington, Vt., 45, 288
Bergen, N.J., 119
Berkeley County, Va., 44
Berks County, Pa., 80, 102, 122
Bermuda, 198–99
Bethlehem, Pa., 216, 401, 407
Biddle, Clement, 67, 428
  commissary general of forage, 101–03
  and forage problems, 108–19, 127
  and procurement of wagons, 104–05
  and proposed reforms of Forage Department, 105–09
Biddle, Owen, 108, 115
Bills of credit and exchange, 236
Bingham, William, 425
Binney, Dr. Barnabas, 376
Bird, Col. Mark, 38, 360
Biscuits, 203*n*, 208, 250
Bissell, Hezekiah, 160*n*
Blacksmiths, 33, 45, 154, 156, 315, 327, 347
Blaine, Ephraim, 173–74, 177, 180, 221, 223, 437
  Commissary General of Purchases, 159, 183–87, 208–10, 235, 237
  and hospital provisions, 393
  and meat supply, 210–11, 218–19
  and pasturing of cattle, 203
  and ration allowances, 191
  and supply procurement, 214–17, 247–51
  and system of specific supplies, 233, 237–41
Bland, Humphrey, 8, 9*n*
Blaney, Aaron, 161
Blankets, 289, 297
  for hospitals, 384, 392, 397–98
  procurement of, 260, 263, 268, 293–94
  shortages, 263, 268, 282, 284, 294–95
  and supply by impressment, 290–91
Blicker, James, 172
Boards
  for barracks, 140, 143
  for huts, 150–51
  for ships, 133–34
Boat Department, 132–40, 435
Boats, 29, 43, 132–33, 138–39. *See also* Vessels; Watercraft.
  carriages for, 137–39
  impressment of, 130
  repair and building of, 25, 128–29, 132–35
Bond, Dr. Thomas, 373–74, 397, 411
Boots, 99, 297
Borax, 354
Bordentown, N.J., 64
Boston, Mass., 15–16, 64, 122, 160–61, 196, 224, 226, 293
  carting costs in, 86, 288
  evacuation by British, 34, 66
  and hospital supplies, 396
  and ordnance at, 324, 332, 345
  and quartermaster supply organization, 16, 34, 38
  and siege of (1775), 5–6, 25, 159
Bostwick, Andrew, 108*n*
Boundbrook, N.J., 204, 222
Bounties
  for artificers, 153, 328
  of clothing, 271, 279, 284–85, 298
  for wagoners, 77–78
Bowen, Ephraim, 44, 108
Braddock, Maj. Gen. Edward, 8
Bradford, John, 149

Branding of government animals, 170
Bread
  baking of, 194–97
  embargo on export of, 221
  in ration, 189–90
  shortages of, 228, 240, 242, 249
  supplies of, 208–09, 221
Breeches, 275, 282–83, 285, 295, 297
Brest, France, 238
Bricks, 143, 316
Bridges, 29, 130–31
Brimstone, 342
British Army
  clothing of, 284
  Commissariat of, 160*n*
  Hospital Department of, 373, 413
  and prisoners of war, 218, 226, 250
  and rations, 189*n*, 192
  and staff organization, 8
British Board of Ordnance, 318
British merchant ships, 25, 341, 347, 349
British Navy, 25, 64, 224
Brodhead, Col. Daniel, 115
Brookfield, Mass., 314
Brown, Dr. William, 373, 378, 404, 406
Brown Bess muskets, 347
Brunswick, Duke of, 37*n*
Brunswick, N.J., 401
Buchanan, William, 159, 168, 171
  Commissary General of Purchases, 173–74, 179, 209
  and provisions, 211–13, 218–19
Bucks County, Pa., 105, 209, 214
Bull, James, 278
Bullet molds, 348
Bunks, 150
Burgoyne, Maj. Gen. Sir John, 173
Burlington, N.J., 64
Burnett, Dr. William, 389
Bush, Capt. Moses, 133–34
Butchers, 185–86
Butler, Col. Anthony, 38
Butler, Thomas, 316, 329, 353–54
Butter, 190, 203
Byers, James, 329, 360
Byers, John, 216*n*

Caldwell, Andrew, 395*n*
Caldwell, James, 395*n*
Caldwell, Samuel, 265–66, 289
Candlemakers, 25
Candles
  for barracks, 144–45
  for guards, 190
  production of, 25, 253
  supply of, 208, 209
Cambridge, Mass.
  hospitals at, 380–81
  ordnance supply at, 312, 342
  provisions to, 159, 161, 197, 203
  troops at (1775), 21, 29, 33, 64, 66, 140, 188, 203, 434
Camp equipment, 29
Camp followers, 189, 295
Camp Preakness, N.J., 118
Camp sites, 29, 140
Campaigns, preparations for, 23–25, 416
  and 1777, 147–48, 203*n*
  and 1778, 70, 220–22
  and 1781, 91–96, 134–38, 246–51
  and 1782, 96, 254–58
Campbell, Donald, 30
Canaan, Conn., 207
Canada, 30–31, 129, 164, 201, 418, 420
Canoes, 128
Cannon, 311, 313, 320, 325, 342
  domestic production of, 25, 315, 329, 359–62
  procurement of, 334–35, 338, 357, 364, 370–71
  supply of, 356–59, 369
Cannon balls, 362, 371
Cannon carriages, 313, 315, 320, 329, 359, 361, 370
Cannon Committee, 12, 360–61
Canvas, 147
Cape Francois, Santo Domingo, 336, 338
Caps, 285, 309
Carbines, 99
Carleton, Sir Guy, 256
Carlisle, Pa., 38, 44*n*, 70, 80
  Artillery Artificers at, 327–30
  ordnance supply at, 174*n*, 314–16, 325–26, 331–32, 365
  supplies at, 65, 206–07, 397
Carnes, Thomas, 396
Carolinas, 16, 417
Carpenters, 33, 44, 315, 327, 398
  for barracks, 143–44
  house, 153, 156
  ship, 133, 138, 153, 154, 156
Carrington, Lt. Col. Edward, 33, 62, 95, 371
Cartridges, 25, 326
  for cannon, 311, 371
  for muskets, 313, 323, 348, 359, 371
Cartouche boxes, 323
Cattle, 187, 208, 250
  forwarding of, 248, 250–51
  non-export of, 201, 335
  purchase of, 111, 162, 174–75, 203, 207, 210, 216, 239–41, 416
  purchases suspended (1777), 175, 210–11, 218
  and quotas by states, 231
  and supply of, 202, 208–11, 214, 218–22, 250–51, 256
Cavalry
  and forage, 97–99, 102, 112, 115, 127

Cavalry (cont.)
and wagoners required, 79*n*
Certificates in lieu of payment, 17, 21, 22–23, 85, 87, 121, 125, 268, 416, 419, 424
Chaloner, John, 82, 227
and Ephraim Blaine, 173–74, 209, 212, 215
and purchase of meat, 218, 221
Champion, Henry, 160*n*, 174, 184, 224
and cattle purchases, 180, 202, 219, 241
Charcoal, 130
Charleston, S.C., 32, 68
Charleville muskets, 347
Charlotte County, N.Y., 198
Charlottesville, Va., 226
Chase, Samuel, 423
Chase, Thomas, 34, 38, 85–87, 110, 141
Chatham, Conn., 134
Chatham, N.J., 102
Cheever, Ezekiel, 310–12, 325, 353, 365
Chesapeake Bay, 65, 105, 113, 136, 138, 139, 204, 218
Chester County, Pa., 208, 214
Christiana Bridge, Del., 95, 136–38
Church, Dr. Benjamin, 373, 380, 382, 384
Cider, 190–91, 206
Claiborne, Maj. Richard, 22, 32, 60, 125
Clarke and Nightengale, 203
Claverack, N.Y., 122
Clerks
of Clothier General, 266, 276, 278
of Commissary Department, 170, 177–78, 301
of Commissary of Military Stores, 312, 319, 321, 324–26
of Forage Department, 120
of Hospital Department, 381–82, 384, 390, 404
at issuing stores, 161, 253
of Quartermaster's Department, 33, 37–38, 44–45, 56, 62, 66, 89, 156
Clinton, George, 154
Clinton, Maj. Gen. Sir Henry, 192, 256
Clinton, Brig. Gen. James, 348, 365
Clothier General, 10, 261, 275. *See also* Mease, James; Moylan, John; Wilkinson, James.
and clothing bounties, 285
and issue of clothing, 178, 279–80, 399, 421
and prices of clothing, 290–91, 295
and salary of, 265, 276
and shoe issue and procurement, 301, 304
Clothiers
assistant, 267
regimental, 156, 275, 276, 280, 298
state, 261, 266, 275–76, 279–80
Clothing
allowances of, 27–28, 49
as bounties, 77–78, 153, 271, 279, 284–85, 295, 298
and contract system of supply, 269, 281
cost deducted from soldiers' pay, 263, 267, 280, 284
for hospitals, 295, 381, 397–99
imports of, 25, 260–62, 267, 274–75, 282, 286, 293–96, 306, 309, 337–38
issue of, 263, 267, 278–80, 295, 305, 328
lack of funds for, 268–70, 306, 308
misappropriation and loss of, 286–87, 292, 436
for officers, 275, 296–98, 308, 412
prices for, 269–70, 285, 290–91, 296–98
procurement of, 25, 282, 286
procurement by states, 263, 266, 282, 286, 291–92, 306–07
quality of, 288–89, 291
and seizure of prize ships, 259, 261, 282
shortages of, 99, 239, 263, 268–71, 285, 289–92, 295, 304–09
supply of, 13–14, 262–64, 290–91
transportation of, 90–91, 136, 261, 265, 280, 286–88, 293–94, 305, 307–08
Clothing Committee, 12
Clothing Department, 24, 296–97, 304–05. *See also* Clothier General.
congressional regulation of, 275–76, 279–81, 436
and Superintendent of Finance, 308–09
under Board of War, 264
and Washington's reorganization proposals, 271–76
and Wilkinson's reform proposals, 278–81
Coats, 295, 297
Cobblers, 423. *See also* Shoemakers.
Cochran, Dr. John, 8, 388–89, 402
chief physician of army in the field, 394, 410
Director General of the Hospital Department, 373*n*, 413–14
Cogswell, Maj. Thomas, 90, 138
Colliers, 326
Collins, John, 231
Colt, Peter, 174, 180, 210–11
and provisions procurement, 200, 218, 224–25
Commerce Committee, 11, 261–62, 274
Commissaries, 19, 180, 264
in the Commissariat, 170–73, 177–80, 183–84, 185–86, 215–16, 224–25, 227
and commissions, 14–15, 20, 34, 42, 47–50, 56, 120, 160, 162, 169, 180, 182, 183–84

Commissaries (cont.)
and criticism of, 167–68, 181, 225
in Forage Department, 107, 120
of hides, 301
of hospitals, 393–94, 403
of military stores, 312, 318, 321, 323–26
prewar, 8, 159–60
Commissary of Artillery Stores, 310
Commissary Department, 13, 15, 19–20, 27, 47–48, 208, 227
congressional reorganization of (1777), 10, 24, 86, 168–78, 207, 418, 421, 432, 434
criticism of, 10, 163, 165–67, 180, 227, 430
and hospital stores, 392, 393
organization of, 161–62, 434–35
planning by, 189
and provision magazines, 65, 161, 167, 177, 187, 203
and rations, 191, 197, 203, 209
and Washington, 161, 192, 205, 209
Commissary General, 153, 198, 200, 392–93
Commissary general of forage, 40, 45–46, 56, 62, 100–101, 105–06, 120. *See also* Biddle, Clement; Lutterloh, Henry.
Commissary General of Issues, 171, 176–78, 216, 246, 248. *See also* Stewart, Charles.
Commissary General of Issues, Department of, 54, 171–72, 176–79, 435
Commissary General of Military Stores, 10, 46*n*, 178, 299, 315, 318–21, 323, 325, 329, 332, 334. *See also* Flower, Col. Benjamin; Hodgdon, Samuel.
Commissary General of Military Stores, Department of
and Artillery Artificers, 327–31, 354
congressional regulation of, 318–20, 324–27, 331–32
Commissary General of Musters, 178
Commissary General of Purchases. *See also* Blaine, Ephraim; Buchanan, William; Trumbull, Joseph; Wadsworth, Jeremiah.
authority of, 170, 179, 185, 207, 225
and supplies, 86, 210, 213, 217, 223–24, 226–27, 330
and system of specific supplies, 229–31, 232
Commissary General of Purchases, Department of, 170, 181, 183, 185, 187, 435
Commissary General of Stores and Provisions, 9, 15, 160–61, 163. *See also* Trumbull, Joseph.
Commissary of Hides, 86, 299
Commissary of Military Stores, 9, 66, 324, 433. *See also* Cheever, Ezekiel; Frothingham, Richard; Hodgdon, Samuel.
activities of, 318–20, 349
congressional regulation of, 321
and field organization of, 310–12
Commission system, 14–15, 19, 34, 425, 430
and forage purchases, 42, 100, 103, 106, 108, 120
and clothing purchases, 260–62, 266, 278
in Commissary Department, 160, 162, 169, 180, 182, 183–84
in Quartermaster's Department, 42, 47–50, 56, 427
and state commissioners, 216
Competitive supply operations, 18, 420–21
and bidding, 167, 257, 350
for clothing, 267–68, 278, 282, 303
with French agents, 126, 246, 419
for medical supplies, 393, 396
among private contractors, 256
for provisions, 217, 222–25
Concord, Mass., 5, 159
Conductors, 44, 56, 62, 68, 74, 102
brigade (for repair of arms), 322–24, 353
for clothing shipments, 280, 287, 294
for ordnance stores, 66, 82, 311–12, 318, 321, 324, 326, 366
Conference, Committee of, 47, 77
Congress, Continental, 9–10, 24, 27–28, 35, 39, 58, 429, 437
and Artillery Artificers, 328–31
and Artillery field organization, 310–13
and building boats, 129, 133
and Clothing Department, 264–67, 274–76, 279–80, 435
and clothing procurement, 259–64, 267–71, 274, 283, 286, 289–98, 306
and Commissary Department reorganization, 24, 86–87, 168–78, 207, 210, 418, 421, 434
and Commissary General of Military Stores Department regulations, 318–20, 324–27, 331–33
and Commissary General of Purchases Department regulations, 47, 49–51, 54, 179–87
and commissions on clothing issue, 260, 262, 263
and contracting for supplies, 163, 165–66, 179, 187, 198, 244–45
and creation of the Continental Army and military departments, 5, 15–16
and criticism of Washington, 24, 39
and depreciation of the currency, 17–20, 231, 430
and embargo on exports, 199, 221, 223
and enlistment of wagoners, 76–78
and establishment of a war department, 12–13
and financing the war, 17–20, 23, 236

Congress, Continental (cont.)
and flour procurement, 197–98, 242
and forage supply, 27–28, 56, 81–82, 100–101, 103, 110–11, 121–22
and Hide Department regulation, 54, 299–303
and the Hospital Department, 380, 381–82, 383–88, 390–97, 398–402, 405–09, 411–15, 433–34
and Hospital Department regulation and supervision, 54–55, 382–84, 387–90, 403–05, 410–11, 434
and issue of paper money, 17–20
and organization and pay of Quartermaster artificers, 154–57
and Ordnance Department regulation, 54–55, 318–24
and ordnance supply, 314, 316, 334–44, 346–48, 350, 353, 355–56, 359–65, 367–69
and price-fixing by states, 219, 221
and provision of wagons and horses, 67–68, 83, 87–90
and provisions for French forces, 237
and Quartermaster's Department reorganizations, 36–42, 46, 47–51, 53–63, 119
and Quartermaster General and deputies, 29–33, 39–42, 46–47, 435
and ration allowances, 34
and removal of Convention troops to Virginia, 226
and responsibility for imported clothing and textiles, 260–62, 267
and rulings on impressment of supplies, 21–22
and salt supply, 199–200
and sheltering of troops, 141–42, 149
and shoe supply, 299–302
special committees of, 11–13
and speculators in, 422, 424
and bakers, 195–96
and state taxation, 17, 20, 229–30, 234–35
and subsisting troops, 163–67, 188–89, 201–02, 206–09, 213–18, 222–24
and supply departments, 9–13, 16, 17, 24, 227, 431–36
and supply shortages, 421, 424
and system of specific supplies, 20, 56, 89–90, 115–17, 120, 229–32, 234–38, 243
and tentage, 147, 149
and ration, 189–92
and use of privateers, 25
Connecticut, 44, 60, 64, 93, 162
artificers recruited in, 155
and clothing supplies, 283, 286, 290, 292
and forage supplies, 100, 109, 126
and powder supply, 340, 344, 345
and provisions in, 203–04, 206, 210, 219
and system of specific supplies, 230, 248
Connecticut Assembly, 155, 159–60, 184, 219
Connecticut River, 132
Connecticut River valley, 160, 203
Continental Agents, 26, 199, 362, 420
and clothing supplies, 261–62, 282
and inspection of gunpowder, 344
Continental druggist, 395–96
Contract system of procurement, 15–16, 22, 24, 61, 422. *See also* Procurement.
for clothing, 269, 281
criticism of, 252–54
for firewood, 142
for forage, 97, 125, 127
for ordnance construction, 314–15
for ordnance supply, 334–35, 338–39, 344, 350, 360–62, 369
for provisioning a moving army, 254–58
for shoes, 304
and subcontracts, 254, 256
for water transport, 128–29, 153
Contractors, 244–45, 251–54, 326, 394
Convention troops, 218, 226–27
Conway, Brig. Gen. Thomas, 41*n*, 277
Cooking, 194
Cooks, 27, 161, 193–94
Coopers, 25, 154, 161, 177–78, 184–86, 198, 209, 216, 315*n*
Cordage, 148
Coren, Capt. Isaac, 315
Cork, Ireland, 160*n*, 192
Corn, 139, 221
for forage, 98, 103, 107, 109
Indian, for forage, 100, 105, 117, 217
shortage of, 126
and system of specific supplies, 230
Cornell, Ezekiel, 255, 257
Cornwall (Pa.) furnace, 360
Cornwallis, Lord Charles, 13, 65, 124, 136, 139, 241, 246
Corny, M. Louis de, 237
Coryell, John, 131
Coryell's Ferry, 130, 132, 222
Cotton, 147, 291
Courts-martial, 30, 408–09, 410, 428, 431
Coventry (Pa.) Ironworks, 427
Cowpens, S.C., 416
Cox, John, 42, 48, 51, 57, 133, 151, 428
Craigie, Dr. Andrew, 381, 397–98, 411
Craik, Dr. James, 8, 373, 376, 390, 411
Credit, procurement on, 52–53, 85, 96
and Commissary Department, 227
for duck, 148
for forage, 115, 126
for ordnance supply, 338

Credit, procurement on (cont.)
for provisions, 180–81, 183, 185, 230, 245, 256
Crisse, Count Turpin de, 9*n*
Crown Point, N.Y., 15, 30*n*, 357, 379
Cumberland County, Pa., 174*n*
Currency. *See also* Inflation.
depreciation of, 18–19, 22, 52, 56, 154, 181, 227, 231–32, 416, 430
and issue of paper money, 17, 20, 49
Cutter, Dr. Ammi Ruhamah, 404
Cutting, Dr. John Brown, 398, 410
Cuyler, Jacob, 171, 180, 184, 218

Danbury, Conn., 45*n*, 112, 154, 294
British raid on, 148, 206–07
troops at, 226, 305
Dart, John Sandford, 266
Davis, John, 38, 44, 87
Davis, William, 108*n*
De Haven, Peter, 346
Deane, Barnabas, 427
Deane, Silas, 260, 337–38, 423, 425, 432
Dearborn, Lt. Col. Henry, 57*n*, 93, 94, 138
Delaware, 16, 38, 59, 291
forage in, 109, 117
provisions in, 208, 222
and system of specific supplies, 230, 234, 241, 247
Delaware Assembly, 238
Delaware River, 39, 65, 167, 222
boats on, 132, 136–37
and cattle, 208, 210
and forage, 107
Demere, Raymond, 266
Derby, Conn., 207
Disease, 145, 193, 378–80
Dobbs Ferry, N.Y., 123, 135
Doctors. *See* Physicians; Surgeons.
Dorchester, Mass., 66
Dorchester Heights, Mass., 342, 417
Dover, N.J., 220
Downington, Pa., 207, 216
Dragoons, 126
Drayton, Col. Stephen, 32
Drovers, 184, 185, 186, 202–03, 248
Drugs, 377, 396
Dry Tortugas, 198
Du Coudray, Philippe, 344
Duane, James, 48
Duck (fabric), 146, 147, 148, 149
Duer, William, 100, 130, 143, 202, 247, 299
Duer and Parker, 257, 258
Duffel (cloth), 260
Dumfries, Va., 380
Dunham, Azariah, 115–16, 184
Durham, Conn., 112
Durham, Robert, 132*n*
Durham boats, 132
Dutchess County, N.Y., 68, 198
Dyer, Eliphalet, 165, 172, 175, 179, 220, 395
Dysentery, 379

East, Robert A., 423
Eastern Department, 16, 34, 38, 45–46, 389
commissaries in, 171–72, 174, 211, 225
supply points in, 207, 210, 225
and supply shortages, 218–19
Eastern District, 404
Easton, Pa., 38, 88, 122, 308, 401
Edwards, Timothy, 254
Egg Harbor, N.Y., 211
Elizabethtown, N.J., 111, 129, 226, 401
Elk River, 136
Ellery, William, 229
Embargoes, 199, 221, 223, 234
Emerson, Moses, 160, 161
Emerson, Rev. William, 140
Enlistments, 5–6, 26, 29, 188, 239, 284, 315
Essai sur l' Art de la Guerre, 9*n*
Estaing, Admiral Jean, Comte d', 133, 148, 222, 224, 345
Ewing, George, 299
Ewing, James, 216*n*
Exports, 199, 221, 335–36
Express riders, 44, 64
Eyre, Benjamin, 129, 132, 133

Factories, 322, 326, 346
Faesch, Jacob, 360, 369
Fairfax, Va., 380
Fairfield, Conn., 44
Falconer, Nathaniel, 216–17
Fargue, Pierre de, 336
Farmington, Conn., 365
Farriers, 315*n*
Fascines, 66
Fayssoux, Peter, 373
Ferguson, E. James, 23, 425
Ferries, 130–31, 132, 133
Fevers, 379, 407
Fieldpieces
loss of, 359, 360
procurement of, 334–35, 337, 356
wounds from, 378–79
Financing the war, 5, 16–20, 21–23, 236
Finnie, William, 31–32, 38, 103, 108, 113, 117
"Firecake," 195
Firelocks, 346
Firewood, 140, 142, 144
Fish, salt, 190, 198, 208
Fisher, Pvt. Elijah, 194
Fishkill, N.Y., 38, 69, 144, 332
artisans at, 153–55, 158
boat production at, 133–34

Fishkill, N.Y. (cont.)
provisions at, 252–53, 287–88
winter camp at, 112, 146, 226
Flat-bottomed boats, 132, 133, 134, 135, 136
Flax, 147, 291
Fletcher, Samuel, 293
Flint, Royal, 224, 227
Flints, 310, 311, 334, 336, 338, 356, 358, 371
Flour, 199, 221
for French fleet, 247, 248
in magazines, 110, 161, 167, 207–08, 215–16, 223, 224, 247
price of, 154
procurement of, 182, 197–98, 211–17, 221, 222–24, 236, 242, 246–47, 248
in rations, 189–91, 194–97
shortages of, 222, 225, 238, 240
supplies of, 16, 107, 202, 205–07, 209–10, 220–21, 423
and system of specific supplies, 230, 233, 247
transport of, 88–89, 90–91, 139, 203, 211–12, 223–24, 240
waste of, 239, 243
Flower, Col. Benjamin, 311, 432–33
and Artillery Artificers, 155, 327–29, 330–31, 332
Commissary General of Military Stores, 80, 314–18, 326–27, 348, 352, 353, 354
Flying camp, 67, 163, 166, 311
Food, 5, 8–9, 23–24, 193–97. *See also by name;* Provisions.
Forage
bags for, 148
commissaries for purchase of, 41, 100, 103, 106, 108
congressional regulation of, 27–28, 56, 100–102, 110–11, 120–21
for French troops, 124–26
magazines for, 65, 81, 98–102, 105–07, 116, 120–21, 123–24
prices of, 81–82, 103, 113, 126
price regulation by states, 107, 109, 114
procurement of under Biddle, 101, 105, 108–19, 127
procurement of under Mifflin, 34, 99–103, 127, 216–17
procurement of under Pickering, 121–26
and quotas by states, 230
shortages of, 80–81, 97–98, 102–04, 111–12, 125–26, 226–27, 232–33
supply of, 16, 25, 66–67, 72, 108–09, 213, 421, 423
and supply by impressment, 21–22, 52, 115–17, 118–21, 124–25, 127
Forage Department, 56, 119
Biddle's proposed reforms of, 105–08
establishment of, 27, 37, 99, 127, 434–35
lack of funds in, 114, 127
organization of, 45, 100–102
Foragemasters
appointment of, 45, 56, 106–08
duties of, 82, 100–101, 105
pay of, 114, 117, 120
Foreign Affairs, Committee for, 11
Foreign aid, 11, 13, 18, 25, 147, 337–39, 419–20, 425
Forges, 70, 323, 353–54, 359
Forgue, Dr. Francis, 405
Forsyth, Robert, 185–86, 235, 241, 251
Fort Crown Point, N.Y., 129
Fort George, N.Y., 153, 357
Fort Lee, N.J., 198, 204, 238, 359
Fort Pitt, Pa., 44, 115, 132, 187*n*, 268, 324
Fort Schuyler, N.Y., 45, 240
Fort Washington, N.Y., 36, 148, 359
Fort William and Mary, N.H., 335
Foster, Dr. Isaac, 381, 382, 404
Foundries, 12, 314, 322, 329
Fouquet, Mark, 344
Fouquet, Nicholas, 344
Fowling pieces, 8
Fractures, 374
Framingham, Mass., 342, 358
France
importation of clothing from, 261
importation of ordnance supplies from, 18, 336–39, 356, 363, 367
Francis, Tench, 254
Franklin, 341
Franklin, Benjamin, 339
Frazer, John Gizgage, 33–34
Frazer, Perzifor, 276
Frederick, Md., 346
Fredericksburg, N.Y., 224
Fredericksburg, Va., 171, 251, 346
French forces, 65, 95, 237, 248
forage for, 123–25
transportation for, 136–37
French and Indian War, 8, 15, 373
French Navy, 94, 133, 226, 248, 250, 339
at Newport, 222, 224, 237, 238
on the Chesapeake, 124, 249
French Quartermaster General, 125
"Frocks," 285
Frothingham, Richard, 311
Fuel, 142
Funds, lack of, 48, 416, 418–19, 436
for boats, 133
for clothing, 269–70, 306, 308
for district artificers, 158
for forage, 105, 109, 114–15, 116
for hospital supplies, 394, 410
for military stores, 331
for ordnance supply, 362
for provisions, 185, 218, 234, 245, 248

Funds, lack of (cont.)
for shoes, 303–04
for transportation, 117
for wagons and horses, 87–88, 90–91, 105, 269
Furman, Moore, 45, 51, 151
and forage supply, 102, 108*n*, 111, 114, 116, 119
and procurement of wagons, 86, 89
Furnaces, 315, 359–62, 369
Fusils, 338

Gardner, William, 261, 266
Gates, Maj. Gen. Horatio, 31*n*, 31–33, 41*n*, 164, 288, 311, 365, 390–91
Geographer, 178
Gerry, Elbridge, 166, 168–69, 176, 181, 206, 236, 384
Gibson, George, 339
Gloucester Town, Va., 371
Georgetown, Md. (now D.C.), 249
Georgia, 16, 27, 32, 202
Germantown, Pa., 40, 289
Goddard, John, 66, 81
Gostelowe, Jonathan, 316
Grain
for forage, 100, 107, 110, 112, 116, 126
purchase of, 197, 224
shortages of, 121, 123
traded with Bermuda, 199
Granaries, 33
Grapeshot, 362, 370–71, 379
Grasse, Adm. Francois, Comte de, 95, 123–24, 136–37, 138, 241, 246, 250
Gray, Samuel, 172, 175, 212
Green, Griffin, 427
Greene, Jacob, 426–27
Greene and Company, Jacob, 426–27
Greene, Maj. Gen. Nathanael, 9, 18–19, 184, 198, 426–27, 433
appointed Quartermaster General, 30, 42, 75, 221, 435
and artisans, 153–56
and Boat Department, 130–31, 133
and clothing, 305, 307
and congressional criticism of Quartermaster's Department, 47–53
and criticism of system of specific supplies, 232–34
and forage supply, 100, 106–07, 109–11, 113–14, 118–19, 127, 204
and hospital stores, 387
and impressment of wagons, 104
and land transportation, 65, 70, 368
and organization of Quartermaster's Department, 42–47
private business interests, 426–28, 431, 437
and recruitment of wagons and wagoners, 76–80, 85–86, 87–88, 90, 288
and reform of Quartermaster's Department, 53–55, 57–58
and shelter construction, 141, 144–45, 151
and Southern Army command, 22, 32–33, 186*n*, 245, 250, 286, 312*n*, 371, 417
on supply functions, 419, 420
and tentage, 148
Groton, Conn., 203
Gridley, Col. Richard, 310, 356–57
Grubb, Curtis, 360
Grubb, Peter, 360
Guards, 287, 294, 300
Guilford Court House, N.C., 417
Gunboats, 135
Gunlocks, 346–47
Gunsmiths, 346–47, 353
Gunpowder
importation of, 334–35, 336–37, 338, 343, 356
manufacture of, 342–44
shortage of, 339–42, 344–46, 350, 366, 367–68, 369–70
supply of, 14, 25, 310–11, 368, 370–71

Hackensack, N.J., 69, 401
Hagerstown, Md., 346
Hancock, John, 12, 122, 165, 313
Hancock and Adams, 362
Harbor master, 133
Harlem, N.Y., 400
Harlem River, 130
Harness makers, 154, 156, 315, 327
Harnesses, 24, 70, 313, 325
Hartford, Conn., 44, 195, 241, 293
Hatch, Jabez, 59, 122
Hatfield, Moses, 302–03
Hats, 268, 282, 285, 291, 295, 297, 309
Haverstraw, N.J., 222
Hay, 98, 100, 107, 109, 112, 116, 118, 121, 126
Hay, Udny, 30–31, 45, 47, 50
and artisans, 154–55
and boats, 132–34
and forage, 123–24
and specific supplies, 246–47
and wagoners, 80, 86
Hazen, Brig. Gen. Moses, 31*n*, 138
Head of Elk, Md., 44*n*, 65, 84
British troops and supplies at, 173
and campaign of 1781, 93–96, 136–38, 247–49, 250, 371
and forage at, 113
and provisions at, 103–05, 107, 109, 117, 202, 206, 208, 220, 223, 239
and water transportation at, 124
Health and rations, 192–93

Heath, Maj. Gen. William, 124, 288, 363
and issuing of supplies, 252–53
and issuing of supplies, 252–53
and provisions, 196, 211, 224–25, 240–41, 247–48, 250
and wagons and teams, 67, 93–94
Hemp, 147
Hendricks, Col. James, 249
Henry, Patrick, 32, 292
Henry, William (hides purchaser), 301
Henry, William, 329, 354
Herbs, 377, 396
Hessian prisoners, 316
Hide Department, 54, 299–304, 334
Hides, 241, 245, 298–304
Highlands of the Hudson, 65, 119, 122, 124
and supplies, 204, 240–41
troops at, 226, 244, 350, 372
Hilton, Jacob, 153
Hiltzheimer, Jacob, 44, 123
Hodgdon, Samuel, 311, 331, 332–33
Hogs, 162, 201, 218, 335. *See also* Pork.
Holker, John, 226
Holland, 334–35, 338
Hollingsworth, Henry, 45, 102, 108*n*, 216*n*
Hollingsworth, Levi, 247
Hooper, Robert Lettis, 38, 44*n*, 88, 108*n*
private interests, 429–30, 432
as state superintendent, 216–17
Hoops, Robert, 172*n*
Hopewell furnace, 360
Horse accouterments, 99
Horses, 24–25, 41, 89, 404
for campaign of 1781, 91–94
and Continental yards, 38, 44, 123
and forage for, 97–99, 104, 111–15, 121–23, 126, 222, 226
losses of, 35
need for, 68–70, 368
shortages of, 104, 418
and supply by impressment, 21–22, 67–68, 91, 93
treatment of, 72–73, 76, 83, 88
wintering of, 123
Hortalez and Company, Roderique, 337–38, 419
Hose, 285, 297
Hospital Department, 8–9, 12, 373, 379
complaints against, 10, 399–401, 405
and congressional organization of, 381–82, 433
and congressional reorganization of, 402–05, 411, 434
and congressional supervision of, 54–55, 177–78, 383–84, 387–88
and district organization, 388, 393, 402–04, 409–11, 435
and forage, 125
internal feuds in, 405–09
and Northern Department, 389–91
and perquisites of officers, 412–13
and procurement of hospital stores, 392–94
and procurement of medicines and supplies, 394–99
reduction in size, 414–15
in Virginia, 384, 405
Hospital Department, Director General of, 381, 388–89, 391, 393, 395, 400, 402, 403–05, 406, 407, 408, 413–14, 434, 436. *See also* Church, Dr. Benjamin; Cochran, Dr. John; Morgan, Dr. John; Shippen, Dr. William.
Hospitals
clothing for, 295, 381, 398–99
facilities, 374–76, 398
flying, 375, 388, 389, 404, 410, 434
general, 374, 381, 401
regimental, 400
regimental versus general, 384–90
and subsisting the sick, 189, 250, 252, 381, 384–86, 389, 392–94, 400
Hostlers, 38, 44, 90, 404
Houses, appropriation of, 140, 146, 374, 400
Howe, Maj. Gen. Robert, 32
Howe, Maj. Gen. Sir William, 173, 208, 418
Howell, Jacob, 278
Howell, Thomas, 160*n*
Howitzers, 356–57, 370–71
Hubbard, Nehemiah, 44, 60, 108*n*
and boats, 132, 134
and recruitment of wagoners, 79, 87
Hudson River
and lines of communications, 65, 67, 107, 418
as a supply artery, 128–31, 132–34, 136, 137
Huger, Col. Francis, 32
Hughes, Daniel, 360, 360*n*, 361
Hughes, Hugh, 34, 38, 43–45, 60, 434, 437
and barracks construction, 143
and district artificers, 158
and forage, 98, 100
and hiring of boats, 129, 133, 134
and procurement of wagons and teams, 67, 69, 93
and recruitment of wagoners, 76, 91
Hughes, Samuel, 360, 360*n*, 361
Hunter, James, 99, 371
Hunter's ironworks, 99
Huntington, Samuel, 182
Huts
construction of, 29, 140, 150–52, 374, 375
as hospitals, 375–76
Hygiene, personal, 193

Imports, 18, 25, 99
of clothing and cloth, 261, 262, 266, 274, 275, 282, 286, 293–95, 306, 309

Imports (cont.)
of medical supplies, 394–95
of ordnance supply, 18, 25, 334, 335–39, 362–63, 367
of salt, 198–200
of textiles, 147, 261
Impressment
of blankets, 290–91
of boats, 21, 130, 139
of building supplies, 143
of clothing, 290–92
of forage, 21–22, 52, 115, 117, 118–19, 120–21, 124–25, 127
of hospital supplies, 397–98
of pasturage, 248
of provisions, 21–22, 211, 214
of supplies, 20–23, 52, 110, 214, 239, 420, 424
of wagons and horses, 21–22, 67–68, 83, 86, 88, 91, 98, 104, 196, 220, 240, 300
Indian meal, 190, 208
Inflation, 17–20, 47, 416. *See also* Currency; Prices.
Ingells, George, 332
Inoculation, 379–80
Inspector of contracts, 255, 257
Inspector General, 322
Inspector of provisions, 245
Inspector of stores, 42–43
Inspectors
of clothing, 291
of ordnance, 343–44, 349
Irish, Capt. Nathaniel, 327
Iron, 69, 371
Ironmasters, 359, 361–62
Irvine, Brig. Gen. William, 305
Irwin, Capt. Matthew, 167, 171, 172*n*, 197, 206, 426

Jackets, 295
James River, 96, 139, 198, 249, 371
Jay, John, 87
Jones, Allen, 53
Jones, Dr. John, 374
Jones, Thomas, 172*n*, 177, 312*n*
Jones, Dr. Walter, 404
Joy, Daniel, 360
Junk (for boat building), 129

Kalb, Maj. Gen. Johann, 46
Keese, William, 22, 124
Kersey, 260
Kettles, 92, 146, 193–94
Keys, Amasa, 160*n*
King's Bridge, N.Y., 143
King's College, N.Y., 374, 400
King's Ferry, N.Y., 136, 249
Knees (for ships), 129
Knox, Maj. Gen. Henry
and Artillery Artificers, 157, 327–28
Chief of Artillery, 9, 310–11, 313–14, 316, 318–20, 322–24, 364–65
and forage supply, 100
and flour rations, 194
and ordnance supply, 342, 346, 352, 357–58, 368–72, 418, 436
Secretary at War, 26
and speculation by, 427
and wagons and horses, 70, 88, 93

Laboratories, ordnance, 313–14, 315–16, 322, 324–27, 370
Laborers
in Clothing Department, 278
in Commissariat, 161, 178, 186
in Forage Department, 120
in Hospital Department, 381, 384
for ordnance works, 316, 326
Lafayette, Marquis de, 94, 234–35, 246, 367
Lake Champlain, 129, 164, 418
Lake George, 391
Lamb, Col. John, 137–38
Lamb, Robert, 302
Lancaster, Pa., 24, 38, 44*n*, 107, 112, 292
and gunsmith shops, 347, 354
and ordnance stores, 325, 332
and supplies at, 65, 82, 204, 206, 207, 209, 212–16
and wagons from, 84–85
Lancaster County, Pa., 88, 102, 104, 122, 235
Land grants, 412
Landais, Capt. Pierre, 368*n*
Langdon, John, 13, 261, 363
Laurens, Henry, 224, 290
Lead, 310, 316, 336, 348, 358
Leather
for accouterments, 299, 326, 328, 334
for clothing, 282, 291
Lebanon, Pa., 44*n*, 80, 206, 209, 316, 325
Lee, 349*n*
Lee, Arthur, 337–38, 423, 432
Lee, Maj. Gen. Charles, 32, 68, 152
Lee, Capt. Henry, 220
Lee, Thomas Sim, 137
Lesser, Charles H., 26
Lewis, Francis, 13, 31
Lewis, Morgan, 31, 38, 45, 108, 132, 134
Lime, 143
Lime kilns, 316
Lincoln, Maj. Gen. Benjamin, 281, 307
and embarkation at Trenton, 94, 137
and Ordnance Department, 324, 332, 355
as Secretary at War, 13, 324
Lines of communications, 64–65, 107, 224, 226
Linen, 264, 282–83, 291, 293–94, 297, 309
Lint (for bandages), 378, 394
Liquor, 167

Litchfield, Conn., 44
Lititz, Pa., 378
Livestock, 201, 221, 222, 232
Livingston, Abraham, 163, 263
Livingston, Philip, 13
Livingston, Robert, 343
Livingston, Walter, 35*n*, 164, 254–56
Livingston, William, 42, 110, 406
Livingston's furnace, N.Y., 359
Long, Col. Nicholas, 32, 60
Long Island, 11, 17, 35, 67, 130
Long Island Sound, 128, 133
Lopez, Clark and Nightengale, 225
Lottery, 17
Louis XVI, 337
Lovell, James, 180
Lowndes, Rawlins, 32
Lowrey, Col. Thomas, 167, 201, 242, 246, 254
Ludwick, Christopher, 195–97
Lumber and lumber yards, 33, 44
Lutterloh, Col. Henry Emanuel, 37, 39–40, 70, 316
  commissary of forage, 120–21, 123–25
  and wagons and wagoners, 72, 73, 76, 84, 104
Lux and Bowley, 397
Lynch, 341

McDougall, Maj. Gen. Alexander, 112, 136, 352
McHenry, Dr. James, 391
Mackay, Col. Eneas, 174*n*
McKnight, Dr. Charles, 406, 411
Magazine keepers, 161, 179
Magazines
  for clothing, 278, 280
  for flour, 110, 161, 167, 207, 215–17, 223–24, 247
  for forage, 65, 81, 98, 100–102, 105–07, 117, 120–23
  for ordnance supplies, 15, 310, 312–14, 315–16, 321, 324–26, 327, 367
  for provisions, 65, 110, 161, 167, 177, 187, 199, 201, 202, 203–04, 207, 211, 217, 237, 251
Manhattan Island, 152
Marbury, Capt. Joseph, 33
Marechaussee, 79*n*
Marine Board, Connecticut, 224
Marine Committee, 26, 147, 222–23, 261, 294, 345
Marquis de la Fayette, 308
Marsteller, Col. Philip, 108*n*
Martin, Private Joseph Plum, 144*n*, 145, 150, 195
Martinique, 336, 338, 343, 395*n*
Maryland, 5, 16, 44–45, 59, 65, 177
  clothing from, 290–91
  forage in, 102, 106, 109, 113, 117
  and legislation limiting wagons, 220
  and ordnance supply, 345–46, 359, 370
  provisions in, 181–82, 187, 198, 202, 208, 218–21, 223, 238–39
  and system of specific supplies, 230, 241, 247–50
Mason, Lt. Col. David, 325
Masons, 326
Massachusetts, 25, 59, 64, 109, 155
  blankets and clothing from, 284, 290
  and ordnance supply, 344–45, 352, 370
  provisions at, 206, 240–41
Massachusetts Bay colony, 5
Massachusetts Board of War, 262
Massachusetts Committee of Safety, 159, 310, 380, 384, 397
Massachusetts Committee of Supplies, 159, 340, 380
Massachusetts Council, 109, 314, 363
Massachusetts General Court, 66, 141, 308, 350
Massachusetts Provincial Congress, 5, 159, 334, 346, 380–81
Mathews, John, 19, 55, 234*n*, 410
Matrons, 382, 404, 411
Mazaret, Maj. John, 312*n*
Measam, George, 264, 293, 294, 295
Mease, James
  Clothier General, 265–71, 285–89, 290–92, 299
  and private business interests, 428–29
  and purchase of sailcloth, 147
Measurers, 45, 101–02, 105, 108
Meat. *See also* Cattle; Hogs.
  fresh, 191, 202, 206, 208, 218–19, 245, 248
  salted, 167, 190, 200–202, 206, 240, 243, 247, 250–51
  shortages of, 210–11, 218–21, 228, 233, 240, 253
  suspension of procurement in 1777, 175, 210–12
Medford, Mass., 161–62, 201
Medical chests, 380, 382, 386, 396, 397
Medical Committee, 378, 380, 390–91
  and regulation of the Hospital Department, 12, 402–05, 408, 409–11
  and supply procurement, 383, 395
Medical schools, 373
Medical supplies, 25, 377–78, 380, 383, 394, 397
Medical treatment, 377–80
Medicines
  procurement of, 394–97

Medicines (cont.)
shortage of, 373, 380, 391
supply of, 383, 385, 388–90
Mehelm, John, 301–03
Melcher, Isaac, 145–46
Memoirs of Marshal Saxe, The, 9
Mercer, Brig. Gen. Hugh, 67
Merchants, private, 13–15, 34, 163, 197, 236, 336, 339, 395, 421, 422–23
Mercury, 338
Mexico, 339
Middle Department, 16, 46, 132, 165, 191, 226, 325
commissaries in, 166–68, 171, 190, 201, 203
forage magazines in, 106, 112
impressment in, 21, 83
medicines and hospitals in, 389, 397
provisions in, 207, 210–11, 212–13, 218
Middle District, 393, 403–04, 406–07, 411
Middlebrook, N.J., 80, 112, 226
Middletown, Conn., 132–33, 301
Middletown, Pa., 132
Mifflin, Jonathan, 216–17, 426
Mifflin, Maj. Gen. Thomas, 12–13, 33–34, 217, 426, 434
appointments and resignations of as Quartermaster General, 15, 24, 30, 34–36, 39–40
charges against, 432, 437
and clothing procurement, 259
and family interests, 426
and flour shortage, 213
and forage procurement, 34, 99–103, 127, 217
and organization of Quartermaster's Department, 33–42, 53, 55, 66, 70–71
and Quartermaster artificers, 152–54
and sheltering the Army, 140–41, 143, 148
and transportation, 66, 68–69, 71, 75, 128
Washington's criticism of, 176
Miles, Samuel, 60, 91, 93, 123, 135, 137, 138*n*, 140
Military departments. *See* Eastern Department; Middle Department; Northern Department; Southern Department.
Military Guide for Young Officers, The, 9
Military literature, 8
Military stores, 6, 318, 320–21, 324, 357
capture of, 371
importation of, 337, 339, 356, 362
shortages of, 368–69
Militia
equipping and supplying of, 6, 16–17, 28, 355
organization of, 5–6, 8
at Philadelphia, 36, 209
strength of, 26, 222
subsisting of, 188–89, 238
and wagoners, 75, 86–87
Milk, 190
Miller, Charles, 161–62, 184
Miller and Tracy, 200
Millers, 212, 216, 423
Mills
to bore cannon, 315
for grain, 213, 215–16, 228, 249
Milltown, Pa., 204
Mitchell, John, 44, 79, 131*n*, 429
Moccasins, 300
Mohawk River, 134
Molasses, 190
Monmouth, N.J., 65, 113, 227
Montgomery, Brig. Gen. Richard, 260, 349, 416
Moorhall magazine, Valley Forge, 101
Morgan, Jacob, 108*n*
Morgan, Dr. John, 373, 378, 382–86, 390–92, 396–98, 399–402, 408–09, 432
Morris, Gouverneur, 18, 418
Morris, Robert, 11, 13–15, 158, 201, 419
appointed Superintendent of Finance, 17, 242
and Clothing Department, 281, 308–09
and contract system for supply procurement, 15, 61, 166, 179, 186*n*, 187, 242–43, 245–48, 251–52, 254–58, 299, 304
and forage supply, 125–26
and ordnance supply, 336, 338*n*, 361
speculation by, 423, 425, 432, 437
and transportation needs, 96
and water transportation, 129, 135–37, 139–40
Morristown, N.J., 356, 401
bread ovens at, 196–97
mutiny at, 240
supplies at, 169, 191, 221–22, 418
troops at, 23, 43, 69, 88, 90, 144, 147, 151, 205–06, 228, 305
Mortality rates, 374, 379, 407
Mortars, 334, 338, 356, 358, 370–71
Morton, George, 249
Mount Hope, N.J., 360
Moylan, John, 278, 281, 305, 307–09
Moylan, Col. Stephen, 67, 99, 111, 285
and barracks construction, 143
Quartermaster General, 30, 34–35
Mumford, Peter, 225
Mumford, Thomas, 160*n*, 203
Mumford, William Green, 171
Musket balls, 311, 348, 379
Musket locks, 335
Muskets, 8, 25, 359
procurement of, 334–36, 347, 349, 371

Muskets (cont.)
production of, 346
shortages of, 349–51
Muster-masters, 78
Mutinies, 90, 235, 240

Nails, 129, 135
Nancy, 349
Navy Board (Boston), 224
Navy Board (Eastern District), 262
Needles, 260
Negro soldiers, 27
Neilson, John, 59, 92–93, 121, 131, 135, 138
Nelson, Thomas, 22, 94, 139
New Brunswick, N.J., 64
New England, 197, 211
hog and cattle industry in, 201, 203, 241
horses and oxen in, 92, 96
and salted meat and fish supplies, 198–99, 204
shortage of flour in, 226
New Hampshire, 59, 160
New Hampshire Committee of Safety, 340
New Jersey, 8*n*, 10, 16, 45, 51–52, 64, 155, 257
and campaign of 1777, 169, 172
clothing from, 290–91
flying camp in, 67, 163, 166, 311
forage in, 102, 106–07, 109, 111, 113, 114–15, 118–19, 122, 125
hospitals in, 400–401
and ordnance supply, 359
retreat through in 1776, 68, 201
subsistence in, 167, 177, 202, 219
and system of specific supplies, 230, 247
New Jersey General Assembly, 116
New London, Conn., 87, 311
New Orleans, 339
New Windsor, N.Y., 88, 90, 93, 212, 252
New York, 10, 16, 22, 34–35, 66, 82, 98, 128, 133, 163, 201–02, 203, 224, 225, 226, 257
artisans at, 154, 158
and barracks construction, 143–44
flour from, 198
forage in, 99–100, 109–10, 114, 125–26
and hospitals and supplies, 374, 396
and ordnance supplies, 340, 342, 357–58
Quartermaster appointments in, 34, 38, 45, 47, 50, 60, 62
and system of specific supplies, 247
New York City, 21, 34, 64, 148, 162, 197, 203
New York Committee of Safety, 144, 198
New York Convention, 68, 142–43, 163, 198, 201–02
New York Department, 16
New York Provincial Congress, 152
Newark, N.J., 129, 301, 401
Newburgh, N.Y., 278, 305
Newburyport, Mass., 162
Newport, R. I.
and French fleet, 222, 224
and French troops, 123, 368
hospital supplies at, 396
military stores at, 335, 351
Newton, N.J., 207–08
Newtown, Pa., 167
Nicholas, Maj. Samuel, 294
North Carolina, 32, 46, 60, 199, 202, 264
North River, 107
Northampton County, Pa., 102, 104, 122
Northern Army, 10, 24, 46, 68, 312*n*, 418, 434
and clothing, 260, 298
medical problems in, 378, 379, 390–91
subsistence of, 166, 201, 206
Northern Department, 16, 31, 38, 45, 71, 108, 153, 299
and boat transportation, 129, 132
commissaries in, 164–65, 171–72
and the Hospital Department, 383, 389, 390–91, 395–97
provisions in, 207, 218
Northern District, 405
Norwich, Conn., 34, 44, 66, 195, 203, 396
Nurses, 381–82, 384, 388, 404, 411

Oakum, 129, 135
Oars and oarmakers, 129, 419
Oats, 98, 100, 107, 109, 217
Ogden, Gabriel, 362
Ogden, Robert, 8*n*, 135
O'Hara, Capt. James, 268
Orange County, N.Y., 198
Orderlies, 27, 388, 411
Ordnance Department, 10, 25, 346, 369, 418
civil branch of, 312–14, 318, 352
congressional regulation of, 54, 318–24, 436
field organization of, 310–12, 322–24
Ordnance and ordnance stores, 66, 312–14, 316, 319–22. *See also* Arms; Cannon; Powder mills.
delivery and distribution of, 363–65
domestic procurement of, 334–35, 340
domestic production of, 313–16, 321–22, 325–26, 329–30, 339, 367
foreign procurement of, 18, 25, 334–39, 363, 367
issue and accountability of, 365–67
shortages of, 367–72
Osnaburg, 147
Otis, Samuel, 266, 269, 428
Otis and Andrews, 14, 266*n*, 287, 293–94, 296
Otis and Henley, 148, 307
Otway, Capt. Thomas, 9

Ovens, 195–97
Overalls, 275, 283, 285, 295
Ox teams and carts, 25, 66, 68, 71, 92–94, 96, 97, 358

Pack animals, 29
Packhorsemasters, 45, 75
Packhorsemen, 45, 75
Pails, 146
Paine, Robert Treat, 260
Painter, Maj. Elisha, 153
Parke, John, 33–34
Parke, Capt. Theophilus, 328
Parsons, Brig. Gen. Samuel Holden, 268, 392
Pasturage, 113, 116–19, 121, 203, 248, 421
Patten, Robert, 44*n*
Patton, John, 216*n*
Patton, Capt. Thomas, 158
Pay scales, 437
  and Artillery Artificers, 328–30
  for carpenters, 143
  for clothiers, 265, 267, 275–76
  for Commissary General, 160, 170, 183, 186
  for Commissary personnel, 170–71, 177–78, 183–84, 186–87, 310, 315–16, 318, 326, 331
  for construction of barracks, 141
  for Forage Department, 100, 103, 108
  for foragemasters, 120
  for Hospital Department, 381, 384, 395, 411–13, 415
  for Quartermaster artificers, 152–58
  for Quartermaster personnel, 29–30, 37, 42, 47–50, 55–57, 59*n*, 61–62
  for ship builders, 132–33, 153
  for storekeepers, 161–62
  for wagon service, 68, 75–80, 82–83, 86–88
Paymaster General, 280
Paymasters, 37, 78, 156, 267, 285, 326
Payment of accounts, 129–31, 139, 236, 255–57
Peabody, Nathaniel, 55, 234*n*
Peekskill, N.Y., 65, 69, 119, 204, 206, 288, 401, 419
Peekskill River, 144
Pennsylvania, 5, 10, 38, 43–44, 60, 62, 65, 130, 157
  clothing from, 289–92
  forage in, 102, 104, 106, 108, 113, 116–17, 122
  and ordnance supply, 359, 370
  provisions in, 177, 198, 203, 208, 219, 223, 235, 254–55
  and purchases by state commissioners, 215–17
  and system of specific supplies, 230, 242, 245
  wagons and horses in, 80, 83–84, 91–93
Pennsylvania Committee of Safety, 340, 361
Pennsylvania Council of Safety, 130, 200, 205, 315–16, 326
Pennsylvania Executive Council, 81, 83–85, 104, 429
Pennsylvania General Assembly, 103, 213, 215
Pennsylvania Hospital, 374
Pennsylvania Packet, 409
Pennsylvania wagon law, 83–85, 429
Pensacola, West Florida, 339
Perth Amboy, N.J., 401
Peters, Richard, 246, 433
Pettiaugers, 135
Pettit, Charles, 51, 55, 113, 132
  assistant quartermaster general, 19, 42, 48, 51–52, 55, 58, 59
  and lack of funds, 18–20, 85, 92, 431
  and private business interests, 428
Pharmacopoeia, 377
Phelps, Elisha, 164
Phelps, Oliver, 233, 243, 254
Phillips, Peter, 160, 161, 299
Philadelphia, Committee of, 342
Philadelphia, Pa., 64, 178–79, 278, 307–08, 401
  Artillery Artificers at, 327–30
  boats at, 132–33, 137
  and British forces, 24, 39, 65, 173, 201, 221
  Continental stables at, 38, 44, 123
  ordnance at, 315–16, 325–26, 329, 332–33, 346, 353
  provisions at, 197, 206–09
  Quartermaster organization at, 36–39, 44, 55
  stores removed from, 137–38, 172
Philadelphia County, Pa., 214
Physician general, district, 404, 406, 407
Physician and surgeon general, 388
Physician and surgeon chief, 389, 411, 414
Physicians
  in Hospital Department, 409, 411–12
  shortage of, 373, 414, 435
  treatment by, 374–75, 377–80
Pickering, Timothy, 41*n*, 186*n*, 303, 433, 437
  appointed Quartermaster General, 9, 30, 57, 58–59
  and artisans, 157–58
  and forage procurement, 119–27
  and livestock handling, 232–33
  and reform of Quartermaster's Department, 53, 55, 59–63
  and supply by impressment, 22–23, 93
  and troop shelters, 149, 152
  and utensils for barracks, 146
  and Wagon Department, 89–90
  and wagon and horse procurement, 90–96

Pickering, Timothy (cont.)
and water transport, 133, 135–40
Pigeon, John, 159
Pilferage, 424
Pioneers, Corps of, 131
Piraguas, 128–29
Pirogues, 128
Pistols, 99, 336
Planks, 129, 134, 371
Pluckemin, N.J., 376
Plundering, 228
Pollock, Oliver, 425
Pomeroy, Ralph, 59, 92–93
Pomfret, Conn., 69
Pompton, N.J., 240, 362
Population, 26
Pork, 154, 167, 203, 221, 235
quotas of by states, 230
in rations, 189–90
shortages of, 218
supply of, 16, 25, 201–02, 210
Porters, 44
Portfires, 320, 327
Portsmouth, N. H.
clothing at, 261, 293
military stores at, 335, 338, 363–64
Portsmouth, Va., 171
Potomac River, 129, 198
Potts, Dr. Jonathan, 390–91, 393–94, 397, 405–06, 411
Pottsgrove, Pa., 213, 216
Poultry, 335
Powdermills, 342–44
Pratt, Maj. Richard, 57*n*
Price, James, 225
Price controls, 97, 109, 114
Price regulation by states, 97, 107, 109, 114, 200, 215–16, 217, 219, 221
Prices
of arms, 348
of clothing, 269–70, 285, 290–91, 296–98
of commodities and of wages for artisans, 98
of flour, 154
of forage, 82, 103, 113, 115, 126
of hospital supplies, 393–94
of provisions, 181–84, 223–26, 231, 247
of rations, 165–67, 190–91, 244, 257–58
of tent material, 147–49
of transportation, 86–87, 288, 430
Princeton, N.J., 102, 204, 407
Privateers, 25, 199, 286, 339, 345, 425, 427–28
Procurement
by merchants, 13–15, 34, 163, 197, 236, 336, 339, 395, 421–23
and planning for subsistence, 188–89
of provisions by states, 181, 184–87, 198–99, 215–18
of supplies under contract system, 15, 159, 163, 165–67, 179, 187, 198, 243–46
Profiteers, 200, 223
Profits, 166, 337, 437
Promissory notes, 308
Property accountability, 143, 415
Prospect Hill, Mass., 33, 66, 161–62, 313
Providence, R. I., 44, 69, 112, 162
provisions at, 203, 224, 248
military stores at, 335
Provisions. *See also* Rations; Supplies.
and British prisoners of war, 226
domestic supply of, 25
lack of, 201, 205, 209–11, 214, 252, 410
magazines for, 65, 110, 161, 167, 177, 187, 203–04, 207, 217, 237
for a moving army, 203, 254–58
organization for supplying, 160–67
procurement of, 213–17
reserve stock of, 253
shortages of, 205, 207, 210, 221, 226–28, 239, 253, 255
and supply by impressment, 21–23, 211
transportation of, 218–21, 223–24
Pulaski, Brig. Gen. Casimir, 111
Purchasing agents, 13, 19, 25
for clothing, 266–68, 278
and commissions, 20, 34, 42, 47–49, 56, 162, 182, 425–26, 431, 437
competition between, 216–17, 222–25, 278, 420
and competition with French agents, 126, 246
and credit, 180–81
for Forage Department, 102, 104–05, 107–09, 120
Purveyor of Hospital Department, 394, 412, 436. *See also* Potts, Dr. Jonathan.
Purveyors, 389, 394, 399, 406, 410–12
Putnam, Maj. Gen. Israel, 75, 130*n*, 294
and provisions, 175, 219
supply abuses by, 287

Quartermaster's Department, 13, 15–16, 30*n*, 47–48
abuses in, 40–42, 47
appointment of officers in, 29–33, 34, 37–38, 42–45, 59–61
and boats, 29, 44, 80
and clothing supply, 259–60, 280, 284
congressional regulation of, 36–39, 52–57, 61–62
and creation of Forage Department, 27, 37
and creation of Wagon Department, 27, 37, 70

Quartermaster's Department (cont.)
effect of inflation on, 19–20
and forage responsibility, 97–98
and hiring of wagons and drivers, 66, 80–86
and impressment of wagons and horses, 21–22, 67–69, 83, 86
and military rank of staff, 30–31, 45–47
and monthly returns, 37
organization of in 1775, 33–34, 152
organization of under Greene, 42–47, 52–53
organization under Mifflin, 33–42, 53, 66, 70–71
organization under Pickering, 59–63, 119
and preparations for campaigns, 24–25, 91–96
and salaries and commissions, 37, 42, 46, 47–50, 55–57, 59*n*, 62
and shelter construction, 140–52
and storage and transport of public property, 232
and tentage, 147–50
and transportation, 65–67, 128–29, 240, 368
Quartermaster General, 11, 15, 24, 29, 62, 178, 393, 418, 436. *See also* Greene, Maj. Gen. Nathanael; Mifflin, Maj. Gen. Thomas; Moylan, Col. Stephen; Pickering, Timothy.
appointment authorized by Congress, 9, 29–30, 160, 433
and boats, 128–29, 135
duties and responsibilities of, 29, 57–58, 62
and forage, 98, 100, 121, 204, 226
and impressment authority, 21, 68
hiatus between Mifflin and Greene, 24, 39–42, 421, 435
pay scale of, 30
and sheltering the troops, 140–52
and transportation, 29, 132, 136
and wagoners, 77–78, 86
Quartermasters
brigade, 43, 62
deputy, 31–33, 55, 59–61
Quartermasters general
assistant, 33, 42, 44–46, 51, 55, 59, 70
assistant deputy, 38, 45
deputy, 37–38, 51, 89
appointment of, 30–33, 43–45
rank of, 37, 46–47
pay scale of, 30, 37, 49, 56–59, 61–62
Quebec, 30, 379, 416
Quotas, state, 230–33, 236, 238, 240, 244, 304

Rahway, N.J., 129
Ramapo, N.J., 112
Rappahannock River, 198
Raritan, N.J., 152
Rations, 28. *See also* Provisions; Supplies.
for artificers, 158, 328, 330
for carpenters, 143, 153
for clothiers, 267, 276
for commissary personnel, 170, 314–15, 326
under contract system, 244, 251–52, 254–55, 257–58
cost of, 165–67, 190–91, 244, 257–58
and health, 192–93
for Hospital Department personnel, 412
for hospitals, 384, 387, 392, 394, 400
issue of, 176–77, 189–90, 218
monetary evaluation of, 170
need for uniformity, 188–92
needed for 1778 campaign, 220
for Quartermaster personnel, 34, 49, 57, 62*n*
shortage of, 24, 220, 418, 420
for sloop masters and hands, 129, 139–40
for storekeepers, 162
Read, James, 216*n*
Reading, Pa., 65, 132, 407
forage and horses at, 104, 107, 122
Quartermaster personnel at, 38, 39, 41
provisions at, 209, 213, 216
Reed, Joseph, 42, 88, 235, 239, 276
Reeder, Jacob, 158
Regiment of Artillery, First, 310, 356
Regiment of Quartermaster Artificers, 155, 157–58
Repair work, 15, 70
of arms, 25, 318, 323, 325, 353–54
of roads, 29, 81, 131
Reporting systems, 37
Returns, regimental, 323
Rhode Island, 44, 59, 64, 224, 370
clothing and blankets in, 283, 286
and commissions for purchasing commissaries, 15, 160
forage in, 108, 109
Rhode Island Assembly, 342
Rhode Island Committee of Safety, 160
Rice, 190, 191*n*, 198, 221
Richardson, Thomas, 108*n*
Rickman, Dr. William, 384, 405
Ridley, Mathew, 137, 139, 248
Ridley and Pringle, 139
Rifles, 347
Ringwood, N.J., 90, 195, 222, 240
Roads, 29, 45, 64, 80–81, 104, 131, 228
Rochambeau, Lt. Gen. Jean, Comte de
and supplies for French forces, 246–48

Rochambeau (cont.)
at Yorktown, 27, 130, 250
Ross, George, 38, 44*n*
Row galleys, 129–30
Rowboats, 132
Roxbury, Mass., 313, 380
provision stores at, 161
troops at, 33, 66, 141
Rum, 230, 245
as a ration, 153, 167, 190, 236, 241
supply of, 16, 206, 208, 209, 248, 255
Rush, Dr. Benjamin, 373–74, 399, 404–05, 407
Russia sheeting, 147
Rye, 98–100, 107, 217, 221

Saddlemakers, 154, 156, 158, 328
Saddles, 99
Safety, Committee of, 163, 339, 350
Sailcloth, 147
Sailmakers, 154
Sails, 149
St. Claire, Maj. Gen. Arthur, 250
Salem, Mass., 396
Salisbury, Conn., 207
Salisbury (Conn.) ironworks, 359, 360
Salt
lack of, 206
as a medium of payment, 126, 227
procurement of, 16, 198–201, 210–12
quotas by states, 230
Saltpeter
importation of, 334–36, 343
production of, 342–44
Sands, Comfort, 158, 251–58
Sands, Joshua, 251–53
Sands, Richardson, 251–53
Sandy Hook, N.Y., 222
Sanitation, 145, 193, 373, 374
Sappers, 79*n*
Saratoga, battle of, 16, 419
Saratoga, N.Y., 45
Sargent, Samuel, 332
Sauerkraut, 192
Savannah, Ga., 416
Sawmills, 134
Scalemen, 177
Scammell, Alexander, 322
Scantlings, 129
Schenectady, N.Y., 45, 134, 240
Schuykill River, 104, 107, 130, 132, 316
Schuyler, Maj. Gen. Philip, 41, 232, 234*n*, 242
and clothing supplies, 260, 298
and conditions in barracks, 145
commander of the Northern Department, 16, 30–31, 129
and hospital care, 383, 390
and reform of Quartermaster's Department 53–55
and subsisting the troops, 164, 166, 201
and water transportation, 129, 135, 153
Scows, 128, 131–34, 136
Scurvy, 192
Scythes, 113
Secret Committee
and clothing importation, 259, 261, 286, 290
and foreign procurement, 11, 12, 13, 147, 199, 394
and medical procurement, 394–95
and ordnance supply, 335–36, 342, 351, 361–63
and supply abuses, 424–26, 432
Secret Correspondence, Committee of
and clothing importation, 261–62
and foreign aid, 11, 337–38
Secretary at War, 13, 61–62, 146, 332, 383, 414–15. *See also* Knox, Maj. Gen. Henry; Lincoln, Maj. Gen. Benjamin.
Sharon, Conn., 44, 207
Sheep, 335
Shells, 334, 359, 362, 368–71
Shepherd, William, 354
Sheriff, Cornelius, 43, 108*n*
Sherman, Roger, 53–54, 167, 260
Shingles, 143, 150
Shippen, Dr. William, 373, 380, 389, 401
chief physician for flying camp, 400
court-martial of, 408–09
Director General of the Hospital Department, 397, 399, 404, 411–12, 413
and Hospital Department reforms, 388, 402–03
and speculation by, 408*n*, 428
Ships. *See* Boats; Vessels.
Shipwrights, 132
Shirts, 283, 285, 293, 297, 309
Shoemakers, 156, 158, 303–04, 328, 423
Shoes
as a bounty, 285, 298
importation of, 293, 299
procurement of, 260, 264, 268, 291
shortage of, 295, 298, 300–302
supply of, 282, 298–304
Shop joiners, 156
Shortages, 420–22
of arms, 348–56, 365–67
of boards, 134, 144
of bread, 228, 240, 242, 249
of clothing, 99–100, 239, 263, 268–70, 285, 289–92, 294, 304–09
of corn, 126
of flour, 222, 226, 238–39, 242
of forage, 81, 97–98, 103–05, 111–12, 125–27, 226, 232–33

Shortages (cont.)
of grain, 121, 123
of gunpowder, 339–42, 344–46, 350, 367, 369
of horses, 104, 418
of meat, 210–12, 218–21, 228, 233, 240–41, 253
of medicines, 373, 380, 391
of ordnance and ordnance stores, 367–72
of provisions, 205, 207, 210, 221, 226–28, 239, 253, 255
of rations, 24, 207, 211, 212–13, 220–21, 418, 420
of surgical instruments, 373, 377–78
of tents, 146–48
of wagons, 66–67, 88, 90, 93, 95, 103, 197, 214, 220, 418
Shot, 334, 357, 359, 362, 368–70, 379
Sickness, 150, 252, 374. *See also* Disease.
Simes, Thomas, 9
Skiffs, 128, 134
Slaughterhouses, 201
Slaves, 27*n*
Smallpox, 379–80
Smallwood, Brig. Gen. William, 220
Smith, Sgt. John, 298
Smith, William, 137
Smith, William, 45, 108
Smith, William. *See* Continental druggist.
Smith and Lawrence, 125
Soap, 145, 190, 193, 208, 209, 245
Somerset Court House, N.J., 376
Sorrel, 192
South Carolina, 27, 32, 202, 340
Southern Army, 46, 62, 90, 157, 312*n*, 327
Greene assumes command of, 22, 33
physicians with, 376*n*, 378
and supply, 22, 245, 287, 371–72
Southern Department, 16, 31, 32, 45, 46, 250, 416
and commissary supply, 165, 170, 207, 324
and medical supplies, 395
Southern District, 16, 38, 170–71
Spain, 18, 337–39
Speculators, 221, 223, 291, 422–23, 424, 428
Spelts, 100, 217
Springfield, Mass., 45, 108, 122, 149
Artillery Artificers at, 70, 157, 327–29
clothing magazines at, 90, 278, 293, 307–08
military stores at, 325, 329, 331
ordnance at, 314, 344, 347*n*, 353, 358, 364–65, 370
Springfield, N.J., 204
Spyghten Duyvil, 130
Squier, Samuel, 160*n*
Stables, 33, 38, 44, 45
Stage wagons, 64
Starr, George, 302
State agents, 241, 282, 420–21
State commissioners, 215–17, 291
Staten Island, N.Y., 129
States
and forage supply, 56, 110
and price-fixing acts, 200, 215, 217, 219
and procurement of clothing, 263, 266, 278, 282, 291–92, 306–07
and procurement of ordnance supply, 334–35, 339, 367, 370
and procurement of provisions, 181–82, 184–86, 198–99, 215–17
and regulation of Quartermaster and Commissary personnel, 49–51
and system of specific supplies, 16, 20, 61, 229–31, 232–41, 242–43, 246–47
and taxation, 17, 20, 23, 229–31, 256
and transportation legislation, 220, 225
Steele, Archibald, 44, 108*n*, 115
Stephenson, Orlando W., 343
Steuben, Friedrich Wilhelm von, 322
St. Eustatius, West Indies, 334–38
Stewards, 388, 390, 396, 403, 411
Stewart, Archibald, 172*n*
Stewart, Charles
Commissary General of Issues, 139, 171–72, 175–76, 208, 212, 251, 255
and preparations for campaigns, 221, 250
Stirling, Lord. *See* Alexander, Brig. Gen. William.
Stillwater, N.Y., 45, 82
Stockings, 264, 282, 291, 293, 295
Stone quarrying, 316
Stony Point, N.Y., 80, 197
Storage, 232, 239, 436. *See also* Magazines.
Storekeepers, 266, 293
in Commissary Department, 161–62, 232–33
in Hospital Department, 381, 384, 403
in Quartermaster's Department, 38, 44, 45, 62, 142
for ordnance, 325
Stores. *See also* Military stores; Ordnance and ordnance stores.
of provisions, 159, 161
removal of from enemy path, 67, 172, 203–04, 206–08, 316, 430
Story, Thomas, 337–38
Stoughtonham (Mass.) furnace, 359
Straw
for bedding, 140, 142, 145
for forage, 100
Straw cutters, 102, 106
Stringer, Dr. Samuel, 383, 390–91, 401
Strong, Jedediah, 160*n*

Subsistence. *See* Provisions; Rations.
Sugar, 227
Sullivan, Maj. Gen. John, 30–31, 82, 259, 366
  clothing plundered by, 287
  and provisions, 222, 225
  and transport of troops, 128
Sullivan's Island, S.C., 32
Sulphur, 335–36, 344
Superintendent of arms and accouterments, 354
Superintendent of Finance, 17, 61, 65, 96, 251, 394. *See also* Morris, Robert.
Superintendent of Military Stores, 333
Superintendents, 45
  of cattle, 184
  of livestock, 186
  of ordnance, 326, 329
  to purchase provisions, 216–17
Supplies. *See also* Provisions; Rations; *supplies by name;* System of specific supplies.
  capture of British, 25, 341, 347, 349, 358–59
  and citizens, 423–24
  for French forces, 246–48
  issuing under contract system, 252, 258
  losses to the enemy, 65, 68, 198, 203, 206, 239, 259
  procurement under contract system, 15, 159, 163, 165–67, 179, 187, 198, 244–45
  during winter of 1776–77, 204–07
  transport by wagons, 80–86, 90–91, 203, 212, 218
  transport by water, 67, 80, 104, 128–31, 135–40, 198, 203, 218, 220, 222–24
Supply chiefs, 9–11, 24. *See also individual titles.*
  and colonial merchants, 13
  and funding problems, 18–20
  and charges against subordinate agents, 429–31
  and congressional inquiries, 432
  and private interests, 426–29, 436–37
Supply departments, 9, 20. *See also departments by name.*
  congressional regulation of, 10, 12, 47, 227
  evaluation of, 433–36
  expenditures of, 19–20, 23, 53
  organization of, 15–16
Supply operations. *See also* Competitive supply operations; Imports.
  abuses and frauds, 10, 47, 287–88, 420, 422–26, 428–31, 436
  by expropriation and impressment, 20–23, 52, 110, 214, 239, 420, 423–24
  under militia system, 8
Supply planning, 28, 188–89, 416
Surgeon generals, district, 404–05, 407
Surgeon's mates, 8, 373, 388, 411
  in Hospital Department, 381, 414
  in Northern Army, 383, 390
  with regiments, 156, 381–82, 384, 388, 410
Surgeons, 8, 373, 381, 409, 411
  controversy between hospital and regimental, 381, 382
  with regiments, 156, 378, 380–82, 384–89, 392, 410
Surgical instruments, 373, 378, 382, 386, 394
Surveyor of ordnance, 322
Susquehanna River, 44, 107, 217
Sutlers, 191, 260, 290
Sweers, Cornelius, 326, 433
Swords, 99
System of specific supplies, 56, 61, 89, 115–17, 120, 304, 394
  breakdown of the system, 238–41, 418, 421
  criticism of, 232–34, 243
  features of, 229–32
  operation of, 234–38
  and the purchasing departments, 184–85, 186–87, 197, 200, 202

Tailors, 156, 259, 283, 289, 291, 309, 423
Tallow, 241, 245
Tanning, 170, 298, 303, 304
Tappan, N.Y., 119
Tarling, Col. Peter, 32*n*
Tar, 135, 138, 146
Taxation, 17, 20, 23, 51, 229–31, 234–35, 256–57
Taylor, Obediah, 303
Teamsters, 44, 75–77, 358
Teaneck, N.J., 119
Temple, Robert, 21
Tentmakers, 24, 154
Tents, 34, 41, 146, 371, 416
  allotment of, 147–48
  as hospitals, 374, 388, 389
  importation of, 338
  material for, 147–49
  Quartermaster responsibility for, 29, 140
  repair of, 24
Textiles, 147, 261, 275
Thacher, Dr. James, 150, 228, 235
Thomas, Maj. Gen. John, 379–80
Thompson, James, 74, 75, 76, 77, 80
Thornbury, Joseph, 71, 72, 73
Ticklenburg, 147
Ticonderoga, N.Y., 31, 47, 164, 288, 299
  boats to secure, 129
  military stores at, 357
  smallpox at, 379
Tilton, Dr. James, 374–75, 378, 380, 388, 407
Tin, 314, 336
Tinmen, 315

Tobacco, 230, 425–26
Tools
  for cutting firewood, 142
  entrenching, 66, 69, 136, 142
  for erecting huts, 142, 150, 151
  supply of, 22, 34, 41, 371
Torrey, John, 196
Tow cloth, 147, 283
Towers, Robert, 344
Transportation, 5, 29, 240, 420
  of clothing 90, 136, 261, 265, 268, 280, 286–89, 292–94, 300, 305, 307–08
  of forage, 103, 139
  impressment of, 21, 418
  organic to the ary, 66–68
  of ordnance stores, 82, 311
  organization for, 66
  preparations for campaigns, 33–35, 91–96
  and road systems, 64, 80
  of specific supplies, 232, 243
  by wagons, 80–86, 90–91, 203, 212, 218
  by water, 67, 80, 104, 105, 128–31, 136–40, 198, 203–04, 218, 220, 222–24
Treasury Board, 11, 58, 116, 318
  and financing the war, 17–18
  and funds for supply departments, 18–19, 21–22, 48, 59, 185, 330, 394
  and lack of funds, 87–88, 236
  and purchasing commissaries, 181, 184
Treasury, committee on the, 49
Treat, Dr. Malachi, 396, 405, 411
Treatise of Military Discipline, A, 8
Trenton, N.J.
  attacks on, 205, 416, 417
  barracks at, 144, 146
  campaign of 1781, 92–93, 134–39
  forage at, 102, 107–09, 111, 116–17
  hospital at, 401
  ordnance stores at, 316, 347
  provisions at, 65, 204, 207, 238
Trenton Ferry, 131
Trois Rivieres, 30
Trumbull, Jonathan, 60, 98, 122, 155
  and appointment of purchasing commissaries, 164, 184
  and cattle procurement, 219, 241
  and ordnance supply, 340–42, 360, 364
Trumbull, Joseph, 12, 15, 34*n*, 299
  Commissary General of Purchases, 170, 173, 207
  Commissary General of Stores and Provisions, 15, 159–69, 177, 433–35, 437
  and hospital stores, 392
  and procurement planning, 188–89, 205
  and provisions, 190, 195, 197–204, 206
Tryon County, N.Y., 198
Tumbrels, 92, 311, 313
Turks Island, Bahamas, 198–99
Turnbull, William, 263
Turner, Dr. Philip, 404, 409
Turners, 315
Typhoid, 379
Typhus, 379, 392

Ulster County, N.Y., 198, 207
Uniforms, 263, 275, 282–83, 293–95, 306, 423
Utensils
  for barracks, 145, 146
  for camps, 33
  for hospitals, 397, 399

Valley Forge, Pa.,
  shortage of rations at, 24, 207, 211, 212, 214, 218, 220, 418
  sickness and privations at, 39–41, 150, 176, 376, 421, 435
  and supplies (1777-78), 21, 80–83, 103–04, 220
Van Cortlandt, Col. Philip, 136
Vegetables, 190, 191, 192–93, 194, 203, 206
Vergennes, Comte de, 337
Verplanck's Point, N.Y., 80, 197
Vessels, 137–38. *See also* Boats; Watercraft.
  arming and manning of American, 25, 336, 341, 347, 349
  capture of American, 200, 221
  capture of British, 25, 341, 347, 349
  impressment of, 21, 139
  privateers, 25
  schooners, 44, 128, 132, 135, 139
  sloops, 128–29, 130, 135, 139
Vinegar, 191–92, 206, 244, 255
Virginia, 5, 16, 65
  campaign of 1781, 93–94
  clothing from, 290, 292, 307
  and forage supply, 108–09, 113, 117
  and ordnance supplies, 331, 345–46, 348
  and provisions, 187, 198–99, 202, 208, 210, 218–20, 223, 235
  and quartermasters in, 32, 44, 46, 60, 419
  resistance to impressment, 22
  and system of specific supplies, 230, 247–49
Virginia Board of War, 307

Wade, Francis, 38, 108*n*, 167
Wadsworth, Jeremiah, 171, 174–75, 185, 220
  Commissary General of Purchases, 14, 19, 24, 107, 110, 159, 179–83, 226–27, 433, 435, 437
  and forage procurement, 100
  and hospital supplies, 393–94

Wadsworth, Jeremiah (cont.)
and preparations for 1778 campaign, 221–24
private business interests, 427
Wadsworth and Carter, 139, 246, 249, 250, 257, 428
Wage controls, 98
Wagon covers, 148, 149
Wagon Department
abuses in, 72–74
establishment and abolishment of, 37, 56, 71–72, 434, 435
organization of, 89–90
personnel in, 27, 45, 75
Wagon and horse owners, 83, 85, 90, 93
Wagoners
abuses practiced, 72–73, 82–83, 287–88, 424
Quartermaster's Department policy of hiring, 81–86
recruitment of, 75–80
Wagonmaster General, 71, 72–74. *See also* Goddard, John; Thompson, James; Thornbury, Joseph.
Wagonmasters, 33, 38*n*, 44–46
appointed by Quartermaster General, 56, 62, 71, 75
duties of, 73–74, 89, 102, 280
Washington's orders to, 72–73, 82
Wagons, 25, 29, 35, 41
for ammunition, 68–70, 311, 313, 323
congressional action on, 67–68, 83, 86–90
lack of funds for, 87–88, 90–91, 269
misappropriation of, 420, 423–24, 429
and Pennsylvania law on, 83–85
procurement of, 66–69, 80–86, 91–96, 288
production of, 69–70
shortages of, 66–67, 88, 90, 93, 95, 104, 197, 214, 220, 418
supply by impressment, 21–22, 67–69, 83, 86, 88, 91, 98, 104, 196, 220, 240, 300
and transportation of supplies, 80–86, 90–91, 203, 212, 218
Waistcoats, 285, 297
Waiters, 27
Waldo, Albigence, 150
Waltham, Mass., 82
Wapping Creek, N.Y., 136
War, Board of, 12, 23, 146, 156–57, 185–86, 417, 428, 430, 432
and artificers, 156–57
and barrackmaster general, 144–45
and clothing, 262, 264, 266, 274, 275, 279–80, 289, 291, 293–95, 297, 300–303, 305–06
and Commissary affairs, 168, 178, 185–86, 213
and Department of Commissary General of Military Stores, 318, 324–26, 330–31, 332
and flour procurement, 216–17
and hospitals, 383, 414
and Ordnance Department, 12, 312*n*, 321–22
and ordnance supply, 313, 316, 344–45, 353–54, 360, 362, 364–65, 368–70
and Quartermaster's Department, 37, 40, 47–50, 59–60
and provisions, 192, 196, 208
and supply estimates for campaigns, 229–30, 244–45
and tentage procurement, 148–49
and wagon and forage procurement, 68, 103
War Office, 13, 26
War and Ordnance, Board of, 12–13. *See also* War, Board of.
Ward, Maj. Gen. Artemus, 159, 190*n*, 339, 359, 396
Warren, Dr. Joseph, 380
Warships, subsisting of, 189
Washington, General George, 6, 10, 11, 64–65, 152, 173, 433. *See also* "Washington's Fleet."
acts as own supply officer, 39, 40, 61, 248, 420
and baggage problems, 73
and bread supply, 195, 196*n*, 197
and camp followers, 189
and Clothing Department reorganization proposals, 271–76
and clothing supply, 260–62, 265, 268–74, 278, 281, 282–89, 292–98, 304–07, 309, 399
and Commissary Department, 192, 205, 209, 435
and commissary problems, 162–64, 166–69, 172–73, 175–76, 210–11, 213, 218–20, 224, 227–28
congressional criticism of, 24, 40
and contract system, 244–45, 254, 257–58
and design of uniforms, 275, 283
and enlistments, 6, 188
and forage supply, 97–100, 109, 111, 114, 116–17, 121, 123–25
and Quartermaster General Greene, 42, 47, 58
and health and welfare of the troops, 193
and impressment authorization, 21–22, 104, 110, 115, 118, 124, 209, 214, 220, 240, 289–90
and laws of the states, 114
meets with Rochambeau, 27, 123

Washington, General George (cont.)
and Quartermaster General Mifflin, 30, 33–36, 38–40, 70–71
and military hospitals, 375–76, 381–90, 392–94, 399–401, 402–03, 406–10
and military literature, 8
and military rank for Quartermaster's Department personnel, 45–46
and Quartermaster General Moylan, 34
and ordnance supply, 310–14, 315–16, 320, 322–24, 327, 340–42, 344–57, 360, 364–72
and organization of Continental Army, 15, 29, 98
and payment of commissions, 106
and property accountability, 143
and qualifications of a Quartermaster General, 29
and rations, 183, 190–91, 197, 204, 220
and reform of supply departments, 53–54
and Quartermaster artificers, 156–57
and shoe supply, 300–304
and speculators, 422
and Superintendent of Finance, 242
and supply officers, 426–31
and supply shortages, 417–22
and supply transport, 72, 84, 88, 90–96
and system of specific supplies, 232–34, 239, 243
and troop housing, 140–52
and troop transport, 64–69
and Wagon Department, 70–71, 72–74, 90
and wagoners, 75–77, 78–79, 82
and water transport, 128–30, 133–39
and Yorktown campaign, 246–50
Washington County, Md., 44
Washington Hall, Pa., 375
Washington's army. *See* Army, main Continental.
"Washington's Fleet," 341, 349
Waste, 19, 423, 436
of arms, 351–52, 356, 389
of provisions, 233, 239, 243, 265, 289, 299, 389
Watch coats, 260, 298
Water for cooking, 194
Watercraft, 130–137. *See also* Boats; Vessels.
procurement of public watercraft, 128–29, 132–35, 136–38
for transportation of troops and supplies, 66, 104, 128–31, 136–39, 198, 218, 420
Waterman, Asa, 184
Watertown, Mass., 349
Watkins, Joseph, 316
Watkins' Ferry, 130, 132
Wayne, Maj. Gen. Anthony, 22, 250, 305
and hospital conditions, 374, 398
and purchase of uniforms, 268
Weapons. *See by type.*
Webb, Joseph, 428
West Indies, supplies from, 25, 306, 334–35, 336–37, 343–44, 345, 347
West Point, N.Y.
artisans at, 154, 158
barracks construction, 144, 144*n*, 145–46
boats at, 133–35
defense of (1779), 345
ordnance stores at, 324
provisions at, 197, 250, 252
winter camps at, 90, 112, 226, 250, 251, 255, 305
Westchester County, N.Y., 68, 123–24, 198
Westham, Va., 327
Westmoreland County, Pa., 44
Whaleboats, 134
Wharton, Carpenter
misconduct by, 430, 432
and provision supply, 163, 166–67, 168, 201, 204–05, 434
Wharton, Thomas, 83–85, 104, 215–16
Wheat
for bread, 197, 205
for forage, 103, 107, 110, 126
Wheelwrights, 44, 69, 154, 156, 315, 327
Whiskey, 190–91, 209, 290
White, James, 174
White, John, 227
White, Robert, 172*n*
White Plains, N.Y., 36
Whitemarsh, Pa., 194
Wikoff, Peter, 276
Wilkinson, James, 276–79, 303–04, 305
Williams, George, 293*n*
Williams, T. Harry, 26*n*
Williamsburg, Va., 32, 38, 250
campaign of 1781, 136, 138, 249
and shortage of wagons and forage, 95, 124
Willing, Thomas, 13, 336
Willing and Morris, 14, 425
Wilmington, Del., 38, 208, 210
Winchester, Va., 112, 204, 251
Windham, Conn., 44
Winter Hill, Mass., 33, 66, 313
Wolcott, Oliver, 160*n*
Women workers, 25, 326, 329
Wood, 33, 45, 140, 142, 144, 145, 151
Woolen goods, 259, 263, 282, 291–92, 294, 338
Worcester, Mass., 159, 293
Workshops, 322, 325–27
Wounds, 374, 379
Wright's Ferry, 107, 130, 132, 214

Yeates, Donaldson, 59, 95, 137–38
Yellow Springs, Pa., 375–76, 397
York, Pa., 39, 65, 204, 207, 209, 212, 215
York River, 198
Yorktown, Va., 171
Yorktown campaign, 27, 61, 95, 129, 134–40, 187, 371–72, 420
Young, Charles, 266
Young, James, 82, 84

Zantzinger, Paul, 268

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