MANUAL FOR
ARMY COOKS

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The following "Manual for Army Cooks," prepared under the direction of the Commissary-General, U. S. Army, by a board of officers consisting of Capt. Henry T. Ferguson, commissary, Capt. Francis J. Koester, commissary, and Capt. Lucius R. Holbrook, commissary, is approved and herewith published for the information and guidance of the Regular Army and the Organized Militia of the United States.

By order of the Secretary of War:

LEONARD WOOD,
Major-General, Chief of Staff.

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PART I.

CHAPTER I.—DEFINITIONS.

1. **Allspice.**—A common spice (the berry of a West Indian tree) used in mince meat, brown cakes, puddings, soups, game, entrées, and gelatin jellies. Ground or whole it is used in pickling pigs' feet, tripe, sweet pickles, etc. It is supposed to combine the flavors of cinnamon, nutmegs, and cloves, hence the name.

2. **Anise-seed.**—A small seed used for flavoring. Resembles *caraway seed* or *celery seed.*

3. **Arrowroot.**—The starch of the root of a West Indian plant. It is very similar to *sago* and *tapioca.* It is frequently made into a gruel for the sick, but is little used in the company. So called from the reputed use of it by the natives to heal wounds from poisoned arrows.

4. **Baking powder.**—A mixture of bicarbonate of soda (generally) with an acid reagent (as cream of tartar, phosphoric acid, or some form of alum), together with a small quantity of starch or other material to keep the active agents better separated. The acid and the carbonate combine when mixed with water, liberating carbonic acid gas, which, in rising, forms in pockets or cells in the dough, making it light and spongy. Cold water or cold milk should be used in the mixture, which should be disturbed as little as possible after the baking powder has been added. The dough should be baked as soon as possible after being prepared, or it should be set in a cool place until the oven is ready. The objection to the use of baking powder is that as a result of chemical action certain solids are left in the bread, cake, etc., which are more or less injurious, but they produce

no harmful results if used in limited quantities. The exclusive use of baking-powder bread is impracticable as it turns against the stomach. Compare with *yeast*.

5. **Barbecue.**—To roast or broil whole. Or, an entertainment for which the carcass of an animal—as a hog—is roasted or broiled whole.

6. **Baste.**—Sometimes to sprinkle, as with pepper or salt. Generally to dash or pour a liquid over with a spoon, as in the case of gravy or stock in baking or roasting.

7. **Bay leaves.**—Leaves of the cherry laurel. Much used in soups and stews and in pickling.

8. **Beef extract.**—This is really a concentrated beef stock, extracted by boiling beef under pressure. It contains very little nutritive matter—much less than is found in an equal weight of beef. It is of especial value on account of the ease and rapidity with which it may become absorbed into the circulation. It holds an important place in the diet of the sick and convalescent.

9. **Beef juice.**—The liquid remaining in fresh beef after being properly prepared for consumption, the blood having been removed. The juice may be removed by pressure or by cutting into small pieces and placing in cold water. The juice having been drawn out, the water is evaporated. Much of the so-called beef juice placed on the market is said to be prepared from the blood of the slaughtered animal.

10. **Beef tea.**—This is really unfiltered beef stock. Instead of constantly skimming the surface of the liquid, the coagulated albumen is allowed to remain. It should be made of the best meat. One-half pound of good beef tea may be made from 1 pound of meat and 1 quart of water. It has little real nutritive value, but, like beef extract, is a light stimulant.

11. **Bisque.**—A shell-fish soup.

12. **Blanch.**—To scald vegetables, nuts, etc., to remove outside skins or hulls.

13. **Boiling.**—The conversion of a liquid into steam by the application of heat sufficient to cause "ebullition" or disturbance of the surface. As applied to cooking it is heating or cooking in a boiling liquid.

Water *boils* at 212° F. at the sea level. It *simmers* when the bubbles break beneath the surface, say at 185° F. It is *scalding hot* at 150° F., or a temperature such that the hand can not be borne in it. *Salt water* boils at 224° F. Other solids, as, for example, sugar,

also increase the boiling point of water. A solution having reached the boiling point, the temperature can not be increased by any additional heat except under pressure, as would result from boiling in a closed vessel.

Lard smokes at 385° F. and boils at about 600° F. Hence it is evident that grease, even if not at the smoking or boiling point, may be much hotter than boiling water—a fact that should always be borne in mind in handling it and in cooking.

14. **Bouillon.**—A clear meat broth or soup rich in extractives.

15. **Brains.**—The brains of most slaughtered animals are used as food, and are considered a luxury. Calves' brains are considered the best, although there is but little difference, and all brains are generally sold under this name.

16. **Braising.**—Method of combining the roasting and stewing of meat in a closed vessel with heat from top and bottom, as in a Dutch oven. It is one of the best methods of cooking tough, lean meat. If the kettle is placed in a slow oven, it requires little further attention.

17. **Broiling.**—Properly speaking, it is cooking over red-hot coals by direct exposure to the heat of an open fire, though the term is applied to cooking on an iron plate interposed between the fire and the article cooked. In broiling the fire should be clear and free from smoke. Charcoal is the best fuel to use. It is better to broil before a fire than over it, in order to save the dripping grease and avoid the smoky flavor, though the smoke from fat itself is not as objectionable as that from coal or wood.

18. **Calorie.**—Quantity of heat required to raise 1 kilogram of water 1° C. .This is the equivalent of 1.54 foot-tons. Food values are expressed in calories, and the soldier's daily ration exceeds 5,000, while about 3,500 per day are required to keep a man in good physical condition.

19. **Capers.**—Unopened buds of a trailing shrub grown in southern Europe. Pickled and much used in sauces. Caper sauce is frequently served with mutton.

20. **Caramel.**—A sirup made from scorched sugar, used largely in coloring sauces, as well as for flavoring.

21. **Caraway seed.**—Seed of a garden herb. Grows like the seed of a carrot or parsnip. Used in various cakes and sweet crackers, in rye bread, and in liquors.

22. **Celery salt.**—Much used in salads and seasonings. Prepared by mixing ground celery seed and salt in the proportion of two to one.

23. **Chili.**—Red sweet pepper. Various preparations on the market sold as chili contain, in addition to the red pepper, garlic, and such herbs as comina, oregano, etc.

24. **Chocolate.**—It is ground from the cocoa bean before any of the fat has been extracted. It contains about 35 per cent of vegetable fat and 45 per cent of cane sugar. Very nourishing.

25. **Chowder.**—A dish of stewed or salt fish or clams with vegetables and crackers added.

26. **Cinnamon.**—Bark of a tree cultivated in Ceylon and other places.

27. **Cloves.**—Flower buds of the clove tree carefully picked and dried. Should always be purchased whole, as they quickly deteriorate when ground.

28. **Cocoa.**—Similar to chocolate, but not as rich. It is ground from the cocoa bean after much of the fat has been pressed out.

29. **Cochineal.**—Coloring matter from the dried bodies of small insects found in the southwestern part of the United States, in Mexico, and in Central America. It is harmless.

30. **Comina.**—An herb found in the southwestern part of the United States and in Mexico. Much used in seasoning soups and stews.

31. **Condiment.**—Something to give relish to food and gratify the taste. General term for seasoning.

32. **Cracklings.**—The crisp residue of hog fat after the lard has been tried out. It may be used in hash, or corn bread, but is valuable only in proportion to the amount of fat that is left in it.

33. **Crackling bread.**—Corn bread to which cracklings have been added.

34. **Croquettes.**—A mass of finely minced and seasoned meat, fish, rice, or potatoes, etc., made into a ball or other regular shape, rolled in cracker crumbs, and fried in deep lard until crisp.

35. **Croutons.**—Cubes of toasted bread. Generally served with soup.

36. **Crullers.**—Small cakes made from a sweet dough mixture and fried in deep lard. They may be made with either baking powder or yeast.

37. **Curry powder.**—A yellow powder formed by a mixture of numerous hot peppers and ginger. Used as a high seasoning for stews, etc.

38. **Cutlets.**—Term usually applied to the rib cuts of pork, mutton, lamb, veal, venison, etc., but not of beef.

39. **Deviled.**—Highly seasoned.

40. **Deviled meat.**—Cooked meat, finely ground and highly seasoned.

41. **Doughnuts.**—A term applied to a circular-shaped article of about the same composition as bread. It differs from the cruller in lacking shortening and sugar. Fried in deep lard the same as crullers. Made with either yeast or baking powder.

42. **Dumplings.**—Pieces of dough, sometimes with fruit or vegetables inclosed, boiled or baked. If served with meats or stews, the pieces of dough should be dropped into the boiling hot beef stock or stew about eight minutes before being served.

43. **Dredge.**—To sprinkle, as with pepper and salt, or rub in, as with flour, etc.

44. **Eggs.**—For domestic purposes eggs should be kept in a cool, dark place—the nearer to the freezing point the better. However, changes are constantly taking place within the egg, producing a certain amount of heat, and partly for this reason eggs will stand a temperature somewhat lower than freezing.

The porous nature of the shell facilitates decomposition, and eggs dipped in varnish or other solution (e. g., silicate of soda) that will permanently fill the pores will keep much longer than others. Even "cold-storage eggs" should not be considered fresh if kept longer than six weeks. They are, however, often kept for a period of six months, but during this time they acquire a distinctly unpleasant odor and flavor. Eggs kept for a long time in cold storage or decayed in any way are extremely injurious.

45. **Egg plant.**—An egg-shaped plant with a dark, purple exterior weighing from 1 to 3 pounds. Raised in the South.

46. **Entrée.**—Small meats made up in various guises with sauces and garnishings and served between courses or at the beginning of a dinner.

47. **Farina.**—Coarsely ground wheat, generally used for a breakfast food.

48. **Fillet.**—A strip of lean meat without bone.

49. **Fillet of beef.**—The tenderloin muscle which lies beneath the backbone in the hind quarter. It is easily detached and is used in steaks and less frequently in roasts.

50. **Fillet of pork or mutton.**—A strip from the shoulder to the hip on either side of the backbone.

51. **Fillet of rabbit.**—Fleshy parts of the back and legs.

52. **Force meat.**—The various mixtures used to stuff fowl, fish, tomatoes, etc. Some force meats are composed of minced veal and bacon with herbs and seasonings or pounded chicken breast with bread crumbs, butter, yolks of eggs, etc.

53. **Frappé.**—A term given to water ices that have been only partly frozen. It is an iced drink, and the name should not be given to a thick custard cream.

54. **Fricassee.**—A dish made of meat, as of fowls cut into pieces, fried until partially done, and stewed in gravy.

55. **Fried cakes.**—Domestic term for doughnuts or crullers. A general term also applied to batter cakes, potato cakes, etc.

56. **Fritter.**—A small quantity of batter usually inclosing or containing some other substance and fried in deep lard, e. g., corn fritters, apple fritters, etc.

57. **Frying.**—To cook by immersing in hot oil, as melted lard or butter or olive oil; also, in popular sense, to cook with such substance in an open pan above the fire.

58. **Garlic.**—A bulb like an onion, with a strong characteristic smell and pungent taste. A clove or naturally divided part of garlic means one of the natural divisions of the bulb. A favorite condiment of the people of southern Europe and of the Orient. It is much used in company cooking to "bring out" the flavor of other seasonings.

59. **Garnish.**—To decorate a dish with something to make it more attractive, such as bordering a salad with capers, parsley, beets, or lemons.

60. **Gelatin.**—Glutinous material obtained from animal tissues after long boiling. It readily dissolves in hot water and forms a jelly upon cooling. While in the liquid state it may be given any desired flavor. It makes an excellent cheap summer dessert. Easily digested and much used in the sick room. Not of great nutritive value.

61. **Giblets.**—Liver, gizzard, heart, neck, feet, wings, etc., of poultry, as used in pies, stews, and sauces.

62. **Ginger.**—The root of a reed-like plant. The common brown root is the natural state. Jamaica ginger is made from the same root, from which the outer surface has been removed.

63. **Glucose.**—A cheap sugar that will not easily crystallize or a cheap sirup that will not crystallize—very much like "Silver Drip," but much thicker. Glucose is often made by treating corn meal with sulphuric acid. It is very wholesome.

64. **Gluten.**—The gluey portion of flour or dough that determines its tenacity. In strong flour there may be found from 12 to 16 per cent of gluten. It is the muscle building ingredient.

65. **Graham flour.**—Unbolted flour or white flour mixed with bran. Named from a Doctor Graham, of Boston, who strongly advocated the use of unbolted flour.

66. **Grilled.**—Broiled.

67. **Grits.**—Grains, as of wheat or oats coarsely ground.

68. **Gruel.**—Liquid food made by boiling meal or flour in water or milk.

69. **Ham.**—Properly speaking it is the thigh of an animal, but the ham of the hog is prepared from either the thigh or shoulder.

70. **Ham butts.**—Part of the hog corresponding very closely to the chuck of beef It is the portion of the shoulder directly above that used in preparing shoulder hams.

71. **Hominy.**—Indian corn from which the outer husk has been removed. Cracked hominy is usually the form in which it is issued or sold by the commissary. It is termed coarse or fine, according to the size of the individual particles.

72. **Hops.**—Hops are used in the preparation of yeast, not as a food for the yeast plant, but to prevent sourness.

73. **Ice.**—A sherbet made with the juice of fruit with water and sugar, to which wines or liquors may or may not be added.

74. **Icing.**—Same as frosting. Generally speaking, made of the whites of eggs with sugar and suitable flavoring, as lemon, vanilla, etc.

75. **Jam.**—A preserve of fruit boiled with sugar and water.

76. **Jelly.**—The juice of fruits or meats boiled to an elastic consistence. In making fruit jellies, sugar is added in quantity, but the natural flavors are generally, though not always, sufficient.

77. **Kidneys.**—Kidneys from all slaughtered animals are used in stews, etc. There is no great demand for them in American markets, but great quantities are shipped abroad. Pigs' kidneys are considered the best.

78. **Lamb chops.**—The short ribs of lamb with the attached flesh.

79. **Lard.**—The fat of swine. It is frequently adulterated by the

addition of a large proportion of cotton-seed oil. Pure cotton oil, to which stearin is added, makes a fairly good substitute. addition, lard and cotton-seed oil compounds are frequently fu adulterated by the addition of water, the presence of which is by the crackling and sputtering when placed in the spider or a small lump is dropped in the fire. Watered lard is unnatur white. Good firm lard is the best for pastries, although re oil and "lard compounds" will do for most purposes.

80. **Lard, to.**—To lard means to introduce thin pieces of p ham, or bacon into meats deficient in fat to improve their flavor

81. **Leaf lard.**—This consists of the leaves of fat lining the back the hog. It may be torn out without cutting. It is the best qua of lard and may be used in many instances without renderin desired. The next best quality of lard is that which is found c nected with the intestines, called "intestinal lard," and the t quality from the back of the hog.

82. **Leek.**—A species of onion, but the leaves are flat instead round. Much used in soups.

83. **Lentils.**—A variety of bean used in making soups.

84. **Lights.**—The lungs of slaughtered animals. Used to some extent in cheap sausages.

85. **Liver.**—Calves' livers are the best of all slaughtered animals and are considered a delicacy when served with bacon in hotels and restaurants. Beef liver is the next best; then pigs' liver. The liv of mutton is very dry and tasteless.

86. **Mace.**—The inner coating of the nutmeg. It is a good flavo ing for meats and cream soups, puddings, and sweets.

87. **Macaroni.**—First prepared in Italy. A strong flour is ma into a stiff dough, pressed into long tubes, and dried in the sun or a slow heat. *Spaghetti* is of the same material, but is pressed in the form of long cords. *Vermicelli* is the same as fine cord spaghet *Noodles* are of about the same material, but are generally prepar in the company kitchen. (*See* Recipes.)

88. **Malt.**—Barley or other grain that has been allowed to sprou then dried at a low temperature, and coarsely ground. Useful making yeast, as it furnishes food for the yeast plant in the best for possible.

89. **Marrow.**—The material filling the "hollow" of bones. T beef marrow found in the shin bones of cattle is an excellent f

In packing houses it is extracted and sold on the market for shortening.

90. **Mayonnaise.**—A sauce for salads prepared from the yolks of eggs, with mustard, olive oil, lemon, salt, etc., added.

91. **Meringue.**—A kind of icing made from the whites of eggs with sugar sprinkled over the top when ready for baking. The sugar being next to the heat, quickly turns a delicate brown and adds a rich appearance to the pie or pastry in which used.

92. **Mint.**—An aromatic herb used in cooking.

93. **Mint sauce.**—Chopped green mint, vinegar, and sugar mixed. Served with mutton, either hot or cold.

94. **Mustard.**—Flour made of mixed black and white mustard seed, deprived of its oil and toned down with more or less meal.

95. **Noodles.**—Practically the same material as macaroni and spaghetti. (*See* Macaroni.)

96. **Nasturtium.**—Well-known garden plant. The green seeds are pickled as a substitute for capers.

97. **Nutmeg.**—Kernel of the fruit of the nutmeg tree, much used in desserts, etc. A native of the Moluccas.

98. **Oleomargarin.**—Term adopted by the Department of Agriculture to designate all kinds of *artificial butter*.

99. **Oregano.**—An herb much used in seasoning soups and stews. Frequently used with comina in hot pepper preparations.

100. **Okra.**—A vegetable plant whose green pods are often used in soups, stews, etc. Frequently served with pease as a vegetable. Of the consistency of paste when heated.

101. **Oyster plant (salsify).**—A white root with the taste of an oyster. Best in the spring of the year after the frost is out of the ground. It is generally in the ground over winter.

102. **Parboil.**—To cook partly by boiling.

103. **Pancreas.**—A gland near the stomach of slaughtered animals used as a *sweetbread*.

104. **Parsley.**—A green herb much used for garnishing and in flavoring soups, stews, croquettes, etc.

105. **Parsnips.**—A creamy white root resembling the carrot in shape. Much used in stews and frequently served as a vegetable. Like the oyster plant, it is considered best when left in the ground over winter.

106. **Patties.**—There are two distinct kinds of patties. First, a puff paste shell baked and afterwards filled. Second, small pies

made by lining patty pans with short paste, filling with oysters, chicken, etc., covered with a top crust and baked.

107. **Pepper.**—The *white pepper* is made from the ripened seeds and the *black pepper* from seeds picked just before they are ripe. White pepper is much the better for cooking purposes, as it does not show in dark specks. Black pepper is preferred for flavoring, especially in dishes that are to be strained afterward. Pepper is much subject to adulteration, and the whole pepper should be purchased and ground as required.

108. **Pepper, Cayenne.**—Red pepper pods and seed, ground. Often adulterated with yellow corn, mustard hulls, etc.

109. **Piccalilli.**—The same ingredients as chowchow. Green tomatoes, onions, cucumbers, celery, etc., finely chopped, with vinegar, and highly seasoned.

110. **Poach.**—To cook in a small amount of water or milk. Term generally applied to eggs.

111. **Rendering.**—Process of separating the lard or beef fat, etc., from the tissue in which it is found.

112. **Roasting.**—Cooking before an open fire. Term also applied to baking in a hot oven chamber with free circulation. Certain flavors are developed in roasting before an open fire that are closely approximated in a well-ventilated oven, but not approached in a closed oven.

113. **Sage.**—A plant with grayish green leaves and much used in dressings, stuffings, and forcemeat preparations.

114. **Sago.**—It is made from the pith of a palm tree that grows in the West Indies. It is nearly pure starch and has many imitations on the market, but the form of the grain of the latter disappears in cooking. It is cooked in the same way as tapioca and is also much used in soups.

115. **Salsify.**—(*See* Oyster plant.)

116. **Sausage.**—There are from 50 to 60 different kinds of sausages put up in the packing houses, the components, quality, and seasonings differing according to the requirements of the foreign and domestic trade. In the course of preparation they are generally subjected to hickory or other hard-wood smoke, and then cooked in vats of water at a temperature of about 160° F., from ten minutes for *Frankfurts* to three hours for *bung* sausages.

Summer sausages are first smoked and then placed in a drying temperature for about three months. The material put into sau-

sages compares favorably with that put on the market in other forms. *Bull meat* is used to a considerable extent, as it takes up more moisture than other meats.

The best *pork sausage* contains no beef.

Liver sausage is one of the cheapest and contains lungs (lights) as well as liver, and other ingredients, not put into the better grades.

A good quality may contain from one-third to one-half of beef, and for army sausage this is an ordinary proportion.

117. **Sauté.**—To fry in a shallow pan, with but little fat, first on one side and then on the other.

118. **Scallop.**—A mollusk similar to the oyster. The shell is corrugated and radiates from a center. *Scallop dishes* are made in the form of a scallop shell.

119. **Sherbet.**—An ice made from the juice of fruit, generally diluted, sweetened, flavored, and frozen.

120. **Shortening.**—Generally lard, butter, suet, marrow, etc., mixed in pastries to make them more friable and more easy to crumble. The term is properly applied to any grease, oil, or fat added to flour, corn meal, etc., to enrich it.

121. **Simmer.**—(*See* Boiling.)

122. **Slaw.**—Sliced cabbage with vinegar, salt, and pepper, served cooked (hot or cold) or raw. When served cold and uncooked, it is commonly called *cabbage salad.*

123. **Spaghetti.**—(*See* Macaroni.)

124. **Spareribs.**—Ribs of pork with but little flesh attached.

125. **Stew.**—To boil slowly and gently; cook with a simmering heat.

126. **Stock.**—The liquid or jelly obtained by boiling meat, bones, etc., for several hours in water. It is the basis of most soups made in army kitchens.

127. **Succotash.**—Green corn and beans boiled together.

128. **Suet.**—The large folds of fat found attached to the inner walls of the hind quarter of beef. Corresponds to the leaf lard of the hog.

129. **Sweetbreads.**—The thymus gland from the neck of slaughtered animals and the pancreas from near the stomach. They have very little natural flavor, but are very tender and are considered a delicacy. Those from the calf are best; those from the beef, sheep, and hog next in the order named.

130. **Thyme.**—An herb used in seasonings.

131. **Thymus gland.**—A gland taken from the neck of slaughtered animals and used as a sweetbread.

132. **Tallow.**—Properly speaking, it is the fat of beef, sheep, and other animals from which a portion of the oil has been extracted, making it harder than the natural fat.

133. **Tapioca.**—A starch extracted from a South American plant. Used in puddings. Very similar to *sago* and *arrowroot*.

134. **Tripe.**—A term applied to the stomach of the beef after being cleaned and boiled. It has but little flavor, but is considered by many as a valuable food. It is very easily digested.

135. **Vinegar.**—The sour liquid formed by the spontaneous acetic fermentation or artificial oxidation of beer, wine, cider, etc.

136. **Yeast.**—Yeast grows from small spores that reproduce themselves every four or five hours. The spore is found everywhere, floating about in the air, and wherever the proper conditions of food, moisture, and warmth are found it grows spontaneously. While in the dry state it is unaffected by ordinary temperatures, though freezing or a temperature above 160° F. will kill it in the liquid state. While it "works" or grows it evolves a carbonic gas which gives to the dough a cellular structure. While proving, the dough should be kept in an even temperature of about 80° F., and this should be about the average temperature of the dough and ingredients when mixed together.

CHAPTER II.—GARRISON COOKING.

(A) SUGGESTIONS TO COMPANY COMMANDERS AS TO DUTIES TO BE REQUIRED OF THE PERSONNEL.

KITCHEN ECONOMY.

137. In an organization varying from 40 to 65 men the following enlisted men are required for duty in the company mess:

1 mess sergeant.
1 first cook.
1 second cook.
1 dining-room orderly.
2 cooks' police.

For a larger organization, up to 115 men, there should be one additional cooks' police. In an organization of from 115 to 150 men an additional cook should be provided.

DUTIES OF THE MESS SERGEANT.

138. The mess sergeant is in immediate charge of the mess and directly responsible for its management. He should be a well-instructed cook, if possible a graduate from one of the training schools, and especially selected for his ability to fill the position.

Under the direction of the company commander, he draws or purchases all rations and other supplies, including the meat, bread, and ice required for the company mess.

He will prepare all bills of fare and submit them to the company commander for approval.

He will submit to the company commander a daily statement showing the exact financial condition of the mess. This statement shall include receipts from all sources from the first of the month, including the cash credit at the commissary, value of stock on hand,

and any allowance from the company fund, together with a detailed report of the expenditures. A balance will be struck, and it will be clearly shown whether the stock on hand, together with the unexpended cash. is sufficient for running the mess for the number of days remaining in the ration period.

WALL POCKET FOR ACCOUNT BOOKS.



A convenient pocket arrangement for keeping account books, sales slips, pencils, etc. The purchase and laundering of same are considered appropriate charges against the mess fund.

He is responsible for the care and preservation of rations and will see that fresh vegetables are picked over when first received. Those decayed should be returned to the commissary; others not in first-class condition should be washed and dried before storing.

He will see that the cooks' white clothing is regularly laundered, mended, and replaced when worn out.

He will frequently check the dishes and utensils for which he is responsible, and submit, at the end of each month, a list of all broken or missing articles, together with the names of the soldiers against whom charges for the same should be entered.

He will see that all utensils, including those in the field equipment, are thoroughly cleaned and put in their proper places when not in use, and that the kitchen and dining room are prepared for inspection at the time appointed by the company commander.

He will see that the men detailed as kitchen police report not later than ten minutes before mess call for breakfast, and that they absent themselves only by authority and in case of actual necessity.

He will be present in a clean white coat and trousers, thirty minutes before mess call, and personally supervise the final preparation of the food and the service of the meals.

He is responsible for the orderly conduct of those present at meals and will see that all enter the dining room in proper uniform, in a quiet and orderly manner, and with hands and faces washed and hair combed.

He will see that the tables are filled one at a time and in succession, beginning with the table farthest from the entrance. He will prevent loud talking and other unnecessary noises and see that the men wait quietly at their places until the food is passed to them. He will caution the men about wasting food by taking more on their plates than they will eat. Food left on the plates is not used again; but what remains on the platters, serving dishes, etc., is returned to the kitchen to be served in some other palatable form at a subsequent meal.

He will see that the garbage and slop cans are frequently emptied and are not allowed to stand in the kitchen or in the vicinity of outside doors. Tin cans and other noncombustible materials must not be mixed in garbage cans with slops. The latter are frequently burned at the crematory, and cans, etc., if present, clog up the grates. If the slops are carried away for hogs, cans and glass are a great nuisance.

SUGGESTIONS TO MESS SERGEANTS.

139. The bills of fare must give constant variety. Try to have something for each meal that has not been served for some time.

Strive to make each dish prepared just a little better than before, and see that all food is most carefully seasoned.

Remember that seasonings penetrate foods best in the liquid or semiliquid state and much more quickly when hot than when cold, and that consequently any amount of seasoning of food after it is placed on the table can not compensate for insufficient or careless seasoning while in the course of preparation.

Impress upon your cooks that the prevention of waste and the proper use of left-over food is the secret of success in company kitchens.

Keep your kitchen and storeroom scrupulously neat. Teach your men to clean up immediately after finishing a particular piece of work. Floors and tables should not be allowed to remain littered up after the necessity therefor has ceased. A piece of food left on the floor is sure to be stepped on and will make dozens of spots instead of one. Cleanliness should be the first lesson taught.

DUTIES OF THE FIRST COOK.

140. In the absence of the mess sergeant the first cook assumes his duties and responsibilities.

Acting under the direction of the mess sergeant, he is responsible for the proper preparation of the food. He remains in the kitchen at all times during the course of its preparation, except when off duty.

He will alternate with the second cook in getting up to prepare breakfast, and on the days that he prepares breakfast may be excused by the company commander from afternoon kitchen duty.

During the service of meals he assists the mess sergeant in supervising the service of the meal in the dining room.

DUTIES OF THE SECOND COOK.

141. The second cook is under the orders of the mess sergeant and first cook, and in the absence of the latter assumes his duties.

During the service of the meal he remains in the kitchen and serves the food as called for by the cooks' police and dining-room orderly, who act as waiters.

He will alternate with the first cook in getting up to prepare breakfast, and on the days that he prepares breakfast may be excused by the company commander from afternoon kitchen duty.

Each morning after breakfast he sweeps out the oven, cleans the range and boilers, washes off the kitchen table, and, assisted by the kitchen police, scrubs or mops the kitchen floor.

DUTIES OF THE DINING-ROOM ORDERLY.

142. The dining-room orderly should be detailed monthly. He is under the orders of the mess sergeant, and is held responsible for the cleanliness of the dining room and pantry and for the dishes and utensils used therein.

Upon assuming charge, the mess sergeant will verify with him all the dishes and other equipment for which he will be held responsible. A strict account will be kept by him in a book provided for the purpose of all the breakage that occurs, and he will report the names of the men responsible for the breakage to the mess sergeant. Upon being relieved, all breakage unaccounted for will be charged against him.

He will get up at first call, make his bed, sweep out from under and around it, make his toilet, and repair to the dining room not later than ten minutes before mess call.

He will then cut the bread into thin slices and pile it neatly upon the plates, one of which will be provided for each table. During the service of the meal he will remain in the bread room, cut the bread, and serve it to the waiters as they call for it. Toward the end of the meal he will be careful not to issue more than he thinks will be consumed.

After each meal he will personally gather up such food as may be left on the platters on which it was served, and return it to the kitchen to be disposed of by the mess sergeant.

Slices of bread not consumed will be piled as closely as possible to prevent the exposure of the crumb to the air and consequent drying out. They will be placed in the bread box and served first at the next meal. Crumbs of bread accumulating in the pantry and

bread box will not be thrown away, but will be saved and disposed of by the mess sergeant.

He will eat his breakfast with the cooks' police after those regularly served have left the dining room. He will eat his dinner and supper at such times as may be designated by the mess sergeant.

He will take charge of all work in the dining room, and, assisted by the cooks' police, will clear the tables after each meal.

He will brush off the tables and after each meal scrub them with hot water and soap, rinse them with clean water, and dry them. After breakfast each morning he will place the stools on the tables with legs up, sweep and mop or scrub the dining-room floor, using but little water, and carefully dry it. After dinner and supper the dining room will be swept. The seats of the stools will be washed clean on Friday mornings.

As soon as the floor is dry he will set the tables and align the stools in their proper places, being careful to make the tables present as clean and neat an appearance as possible.

After each meal he will wipe off the saltcellars, pepper boxes, vinegar cruets, mustard pots, and sugar bowls with a clean damp towel, and will see that they are clean and properly filled.

He will dust off the woodwork and radiators each morning and, if necessary, will use soap and water to remove any dirt that may have accumulated.

He will wash the windows on Friday of each week.

He will see that the pantry is kept neat and clean, and that all surplus dishes are clean and neatly arranged upon the shelves.

If both soup plates and dinner plates are provided, he will ascertain from the bill of fare which will be needed for the next meal before setting the table.

He is responsible for the cleanliness of the dishes and silverware, and will see that plenty of boiling hot water, heated on the top of the range, is provided for rinsing them before wiping. Water from the reservoir is not hot enough for rinsing dishes. If the cooks' police do not render the proper assistance in washing the dishes, they will be reported to the mess sergeant.

If sirup is to be served for breakfast, he will see that the pitchers are filled on the preceding evening.

If butter is to be served, he will get it ready for the table, and in warm weather will not take it from the ice box until the meal is about to be served.

Each morning after breakfast he will report to the mess sergeant the amount of bread remaining on hand in order that the latter may know how much to order for that day.

He is responsible for the cleanliness of the bread box and will scrub and scald it out on Friday afternoon. After drying it he will place it in the sunlight for an hour or more if possible.

DUTIES OF THE COOKS' POLICE.

143. The cooks' police are under the orders of the mess sergeant and cook in charge. They will get up at first call, make their beds, sweep out from under and around them, make their toilet, and report to the mess sergeant not later than ten minutes before mess call.

They will serve all meals under the direction of the mess sergeant and will wait upon the tables at mealtime.

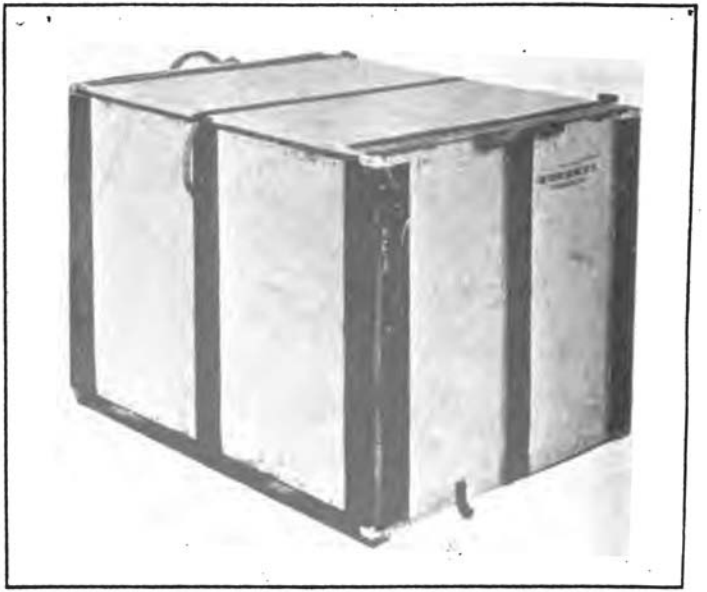
They will not sit down to their meals until those served have left the dining room. They will eat their dinner and supper at the time designated by the mess sergeant, generally before serving the meal.

One of the cooks' police, to be designated by the mess sergeant, will wash the kitchen utensils that have been used in the preparation of the meal. The others will assist the dining-room orderly in clearing the tables. The cooks' police and dining-room orderly will then wash the dishes, the work being under the charge of the dining-room orderly.

The "flat ware"—knives, forks, and spoons—will be placed in a dish pan with plenty of hot water and left until all the dishes have been washed. They will then be washed clean, scalded with boiling hot water (to which a little soap is added), and carefully wiped with a dry, clean towel.

If the sink is large, the dishes will be washed in a dish pan, using plenty of soap, well dissolved and beaten into suds. In order to dispose of the cleaner and least greasy articles first, the dishes will be washed in the following order: Cups, saucers, plates, other dishes, and then the knives, forks, and spoons. Dishes must be scalded after washing, either by placing them on edge on the drain board and pouring hot water over them, or, if the drain board is too small for this, by dipping the dishes in a pan of hot water provided for the purpose. Remember that good results can be obtained only by using plenty of soap in the dishwater, clean, hot rinsing water, and a number of clean, dry towels.

COLLAPSIBLE BREAD BOX.



It is not supplied to troops and must be purchased from company funds if desired. It is effective in keeping rats and mice away from bread and in preventing it from drying [illegible] especially useful in camp, where facilities for preserving supplies ar[illegible]ing.

After washing the breakfast dishes all soiled dish towels will be placed in a boiler of hot water and soap and boiled for thirty minutes. They will then be washed (preferably on a washboard), rinsed, and dried. After dinner and supper the towels used in wiping the dishes will be washed out in hot water and soap, rinsed in clean water, and dried.

After putting the dishes away the cooks' police will clean the sink and sweep and mop the floor.

Having finished the dishes (which should not take more than an hour) the cooks' police will report to the mess sergeant for such work as may be assigned them—peeling potatoes, carrying coal, and washing windows, or doing any other work that may be necessary about the kitchen.

When the services of the cooks' police can be spared for this purpose, the mess sergeant may direct them to assist the dining-room orderly in mopping out the dining room and washing the tables.

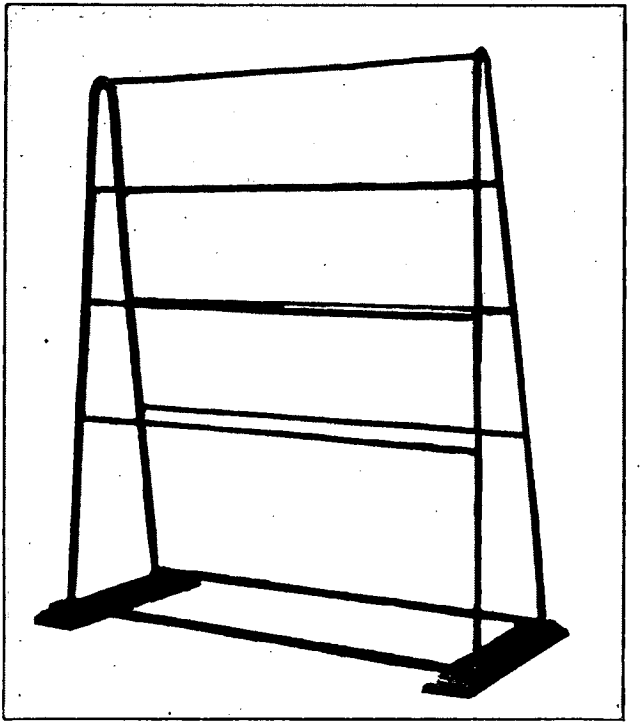
They should not be sent out to drill before 8.30 or 9 o'clock (depending upon the hour for breakfast) if the cleaning up is to be done properly. One man should be left in from drill when practicable. They should return as early as possible from drill, and under no circumstances later than one-half hour before dinner or supper.

The cooks' police will remain in the kitchen at all times except when their absence is authorized by the mess sergeant. If permitted to leave the kitchen, they will not remain absent longer than is absolutely necessary.

PERSONAL CLEANLINESS.

144. Personal cleanliness of cooks is of the greatest importance. A bath should be taken daily, especially in the tropics. The following method has been followed constantly with entire satisfaction: After breakfast, work is first begun on that part of the meal which demands immediate attention, or which litters up the kitchen in course of preparation; and as soon as the dinner is ready to put on, say, 8 or 8.30 a. m., the first cook makes a practice of taking a bath and changing his clothes. All clothing, including underwear—especially in the tropics—should be changed about this time. As soon as the first cook has returned—say, 8.30 or 9 a. m.—the second cook goes for his bath and returns half an hour later.

TOWEL RACK.



For drying clean dish towels. It is not regularly supplied, and if provided must be constructed at the expense of the company fund.

COOKS' CLOTHING.

145. Each cook should be provided with the following clothing:
4 white coats.
6 pairs white trousers.
4 white skull caps.
12 white aprons.

When serving in the tropics, or when the climate is such that the coat is not worn, cooks should be required to appear at all times in a white undershirt. They should not be allowed to enter the dining room at meal time without wearing a white coat.

(B) CARE OF EQUIPMENT.

146. **Bake pans.**—Bake pans should never be scraped or scoured, as this removes the bronze or bluing. They should be washed with soap and water, wiped dry, and hung on the back of the range with S hooks. (*See* Plate page 30.)

147. **Boilers.**—Each time boilers are used, except for boiling water, they should be scoured out with sapolio or wood ashes, thoroughly rinsed with clean water, dried, and sunned.

148. **Boiler for coffee.**—Many cooks remove a portion only of the coffee grounds after each cooking, always leaving a portion in the pot. Good coffee can never be made in this manner. Coffee, when issued "roasted and ground," is so coarse that all the strength is not extracted at the first cooking, and in this case it is best to allow the grains to accumulate in the boiler for three meals (unless tea is used for one meal of the day, in which case the coffee should not be carried over) and then remove the entire lot. The boiler should then be scoured with wood ashes or sapolio, rinsed, and thoroughly dried. Although there is some waste of coffee by this method, it is a great deal better than any other and the coffee is always good.

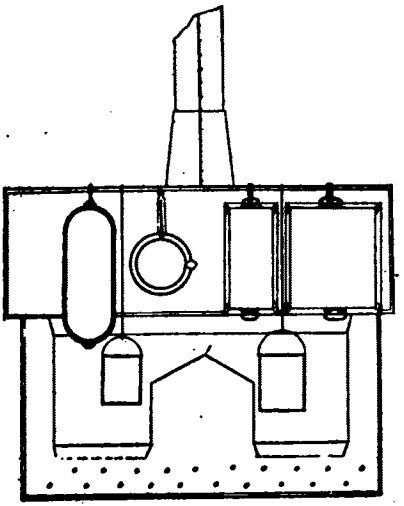
149. **Camp kettles.**—Camp kettles should be cleaned as explained for bake pans, and kept in a dry place.

150. **Chopping bowl.**—Immediately after drawing the chopping bowl from the quartermaster and before using it rub the outside with fat; fill with boiling hog fat and allow to stand for about two hours (or grease well inside and out and set in a warm place for three hours, greasing each hour). This will prevent the bowl from cracking. If

treated in this manner every three months, it will, barring accident, last for years.

151. **Dining-room floors.**—The dining-room floors should be swept after each meal, mopped out each morning, and scrubbed once or twice each week.

ARMY RANGE, SHOWING ARRANGEMENT OF BAKE PANS.



Back of army range No. 4, showing where certain cooking utensils should be hung to keep them dry and free from rust. Pans and skillets, etc., of the same dimensions can be nested and hung on the same "S" hook. The range should be set out from the wall at least 2 feet, to allow for cleaning.

152. **Dining-room tables.**—The dining-room tables should be scrubbed after each meal with soap or sapolio and hot water; coffee stains, grease, etc., can be removed with less labor and expenditure of scouring material in this manner and the tables be kept in better condition than when scrubbed but once a day.

153. **New table finish.**—Rub the table top smooth with emery cloth; apply one coat of oil filler; when dry, apply a coat of spar varnish; when dry, rub smooth with emery powder, using the hand for this purpose; apply a second coat of spar varnish; when dry, rub smooth with emery powder as before and apply a third coat of spar varnish. Let dry and the table is ready for use. A dining room table prepared in this manner will stand the application of hot plates and ordinary use for a year, at the end of which time an extra coat of spar varnish should be applied.

154. **Dishes, tableware, etc.**—(*See* Duties of dining-room orderly and of Cook's police.)

155. **Griddle.**—Treat as explained for bake pans.

156. **Jars for yeast.**—As soon as a jar becomes empty scour with sand and hot water. Rinse well and about half fill with boiling hot water. Cover tightly and allow it to stand for about an hour. Empty and it is ready for use. Soap, lye, or sapolio should not be used for cleaning the jar, as a part is liable to remain and injure the yeast.

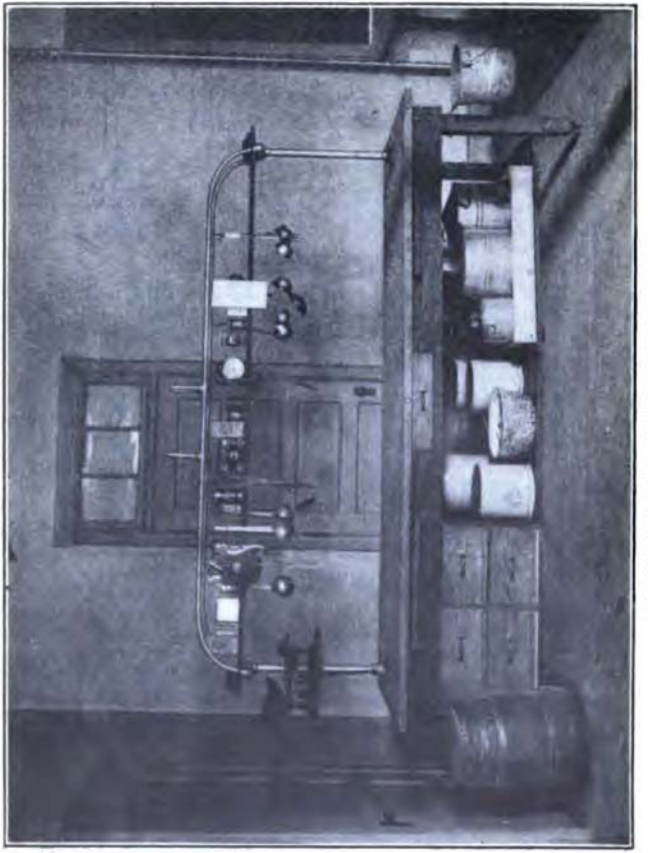
157. **Keg for corned beef.**—Each time the brine is removed the keg should be scrubbed out with soap and water. Rinse well and about half fill with boiling water. Cover tightly and allow to stand for about two hours, when it will be ready for the new brine.

158. **Kitchen floors.**—The flushing of floors is prohibited, but they should be thoroughly scrubbed each morning. Whenever a grease spot appears on the floor, it should be scrubbed out, using the scrubbing brush and plenty of soap or lye. After dinner and supper, the floors will be mopped. Always sweep the floor thoroughly before mopping or scrubbing; use one-half pound of soap and 2 or 3 ounces of lye dissolved in from 6 to 10 gallons of boiling-hot water. In larger kitchens from 10 to 15 gallons of the soap-and-water mixture may be required. Dip the brush in the bucket of soap-and-water mixture, scrub quickly, and dry with a mop, which should be constantly rinsed in clean water. Unless a patent wringer is available, the lye will have to be omitted from the mixture, as it will injure the hands if the mops are wrung out in the ordinary manner.

159. **Kitchen tables.**—Kitchen tables should be scrubbed with soap and water after preparing each meal. Boiling-hot linseed oil should be well rubbed into them about once in each two or three months.

160. **Range.**—Each morning before cleaning the kitchen sweep out the ovens and rub off the range with a greasy cloth. The application of the greasy cloth keeps the range in far better condition than the stove polish applied once a week, which is the general rule. Once a week the range should be thoroughly cleaned out. To do this, remove the top and sweep off the oven, protecting the casing plates. Remove the soot by a scraper through the flue doors. The mantel should be wiped often with a damp cloth, or, when necessary, washed with soap and water; this will prevent dishes set on it to warm from picking up dirt and grease and marking clean tables.

161. **Scales and weights.**—The scales and weights should be wiped off with a greasy cloth to prevent rusting.



A NEW TYPE OF ARMY KITCHEN TABLE.

162. **Small tinware, etc.**—Tin, zinc, and galvanized ware should be cleaned with soap, sapolio, or ashes and kept in their places when not in use. Small tinware that is in constant use should be scoured at least once a day, dried, and kept in a dry place.

163. **Stools.**—The stools should be wiped with a clean, damp cloth after each meal, and should be washed with soap and water each week. Many men wear filthy clothing to the table in order not to ruin good uniforms on greasy stools and edges of tables.

(C) Serving the Meal.

164. The food, after being cooked, must be arranged on clean platters, vegetable dishes, etc.; drippings of sirup, gravy, soup, etc., on the outside of the vessels containing them can not be tolerated.

The table must be set with care and kept scrupulously neat. Order in the dining room and conduct at the table are influenced by the care with which arrangements are made for the reception of the men.

In preparing food for the table (for example, sliced meat, etc.), all parts that in all probability will not be consumed should be retained in the kitchen, and be served in some other form, or otherwise used in the kitchen.

165. No matter how well a meal may be prepared, it must be properly served to give satisfaction and to prevent unnecessary waste. To serve it properly requires a system by which everything is brought on the table as required—hot or cold, as intended. All the tables must be served promptly and in an orderly manner. To do this requires those connected with the management of the mess to perform certain assigned duties pertaining to the service of the meal.

Ten minutes before mess call, the coffee (or other beverage), bread, and soup must be placed on the mess tables (the soup in 1-gallon tureens to tables of 10 men); the vegetables, ready to serve, are placed on the mantel of the range; the salad and dessert are carried into the dining room and set on the bread table.

The dinner is now ready to serve, and the mess sergeant and first cook go into the dining room to superintend the service of the meal. The second cook remains in the kitchen and serves the food to the waiters as they come for it.

166. When mess call sounds, the members of the company file into the dining room in an orderly manner and take their seats, beginning with the table nearest the door leading into the kicthen.

WARMING DEVICE.



For keeping articles of food hot and in shape to serve for hours; or for slow cooking after the food has been brought to the boiling point. Lima beans, stews, soups, coffee, sauces, etc., should be lifted from the range when they have come to a boil and set in the large pan, which should contain about 1 inch of boiling water. Tough steaks and cooked meats may be kept in boilers set in the pan for hours to great advantage, as the action is practically the same as that of a fireless cooker.

The warming device is not supplied to troops, and must be purchased from the funds, if desired. The same principle may be applied by using a dish pan and a jar, or small boiler.

As soon as the men at the first table filled have finished their soup, they are served meat, vegetables, and salad; likewise the other tables in succession as they are ready. The mess sergeant and first cook not only superintend the service, but personally assist and see that all are served properly, and without delay or confusion. They see that the vegetable dishes and meat plates are kept filled, transfer them to other tables, or have them returned to the kitchen to be kept warm.

It will often happen that while those at the first tables served are ready for their dessert, those at the other tables are on the second or third course, while those who were late coming in are still eating their soup. Constant supervision is, therefore, necessary to see that service is rendered satisfactorily and without delay.

As the men finish at each table, it is cleared off, the food remaining being transferred to other tables or returned to the kitchen, and the dishes placed in the sink for washing. Not until all of the tables have been cleared off (with the possible exception of that of the guard) should the mess sergeant, cooks, cooks' police, and dining-room orderly sit down to their dinner. By the system employed, the food left for them is just as warm and in just as good condition as that served to other members of the company half an hour previous. The second cook, who has been constantly in the kitchen, will have looked out for this, and will see that the kitchen help is properly provided for.

When all have finished their dinner, the food still remaining on the serving trays is returned to the kitchen and the bill of fare is made out for supper, care being taken to use all the food left over from breakfast and dinner. At the same time the bills of fare are prepared for breakfast and dinner for the following day. The waste collected from the tables and dishes should no more than quarter fill an ordinary bucket. It has been accomplished in this way: The men have been allowed to have all they wanted to eat, but they were required to eat up everything taken on their plates, or be punished for wasting food. Great care has been exercised in preparing the food, and as all is palatable there is no excuse for waste. After a few punishments for unnecessary waste there will probably be no further trouble. The men will see the benefit derived from careful management, and will appreciate the good results they themselves have helped to attain.

CHAPTER III.—GENERAL PRINCIPLES OF HANDLING THE RATION.

167. **Meats.**—The credit value of the beef component is ample to cover the cost of all meats used in company kitchens, and by a careful selection of such low-priced meats as liver, beef hearts, and sausages, together with such higher-priced meats as pork, fish, chicken, etc., an average price will result which will enable one to secure a satisfactory variety, while living within the limits of the straight ration. Such purchases are seen to be economical when it is noted that these meats are generally without bone, which in beef constitutes some 20 or 25 per cent of the total weight.

Remember that in handling meat in the kitchen all bones must be retained until all the juices have been extracted for stock, of which there is a sufficient quantity to provide a good stock soup nearly every day in the week.

168. **Methods of cooking.**—The object to be attained will often decide the manner of cooking. For example, in roasting meat we desire to retain the juices within. Hence, the meat is placed in a very hot oven to seal the pores and prevent the escape of the juices, the oven being reduced to a lower temperature when the meat has been thoroughly browned.

If we desire to make beef stock, we first place the bones and fresh meat in cold water for some time and the juices of the bones and meat are readily extracted in this manner. The process is hastened by the addition of a little salt.

If a stew or potpie is made, we wish to have a part of the meat juices retained in the meat and a part in the surrounding liquid; hence, we place the meat in cold water, but bring it to a boil as soon as possible in order to seal the pores after a certain amount of the juice has been extracted and retain the remainder within the meat.

If we want the best quality of boiled beef, we desire to retain the juices within the meat, and the water is made to boil briskly before the meat is introduced. Upon contact with the hot water the pores are sealed, and the temperature may be lowered and the cooking continued at a simmering temperature.

Generally about 10 or 15 per cent of the beef ration should be drawn in bacon and sufficient salt and pickled fish for one meal of each in ten days unless fresh meats other than beef are abundant and procurable at reasonable prices. In the latter case there should be provided such meats as are indicated in paragraph 167, and a sufficient saving on the beef made to cover the cost of purchase.

169. **Soups.**—A good stock soup should be prepared almost daily and be served in a course by itself. Serve plenty of croutons with it and seek constant variety of flavor by the use of various herbs, peppers, ham, bacon, etc. One gallon of good soup is generally sufficient for 10 or 12 men.

170. **Bread and flour.**—This is the cheapest component of the ration, considering the nutritive value, and consequently the greater the quantity used the less will be the running expenses of the mess. Bread should be served in thin slices to prevent waste and be piled closely, as cut, to prevent drying out. All left-over portions not taken on the plates should be dried in a slow oven and crushed into small particles for use in the place of cracker crumbs in croquettes, meat balls, etc. Milk (or French) toast and bread pudding should be served occasionally to use up any surplus that might otherwise be a total loss.

If the flour ration is handled carefully, not more than two-thirds of the allowance should be consumed as bread, but the balance of the cash credit accruing from this component should generally be used for the purchase of flour and other necessary ingredients for preparing biscuits, hot rolls, desserts, etc., in the kitchen.

171. **Vegetables.**—The allowance of vegetables is ample during the winter months, while during the seasons of fresh vegetables a considerable saving should be made. This may be used for the purchase of fresh garden truck or, in case a company garden is provided, should be added to the general-mess fund. During the winter and early spring dried vegetables (various kinds of beans, pease, sweet corn, etc.) should be used in a relatively greater quantity than usual. The wastage is small, the nutritive value high, and the cost generally less than when fresh vegetables are handled.

Remember that onions and tomatoes are most valuable as seasoning components, though they should be served as a vegetable about once a week. Each should generally constitute about one-tenth of the fresh vegetables consumed, although the amount of each might be increased to 20 per cent when the potatoes are of poor quality

and other vegetables scarce. The remaining vegetables should consist of potatoes, unless other fresh vegetables (sweet potatoes, cabbage, turnips, etc.) can be purchased to advantage from the cash credit accruing from this component.

A considerable portion of the cash credit accruing from the dried vegetable component should be used to provide lima beans, kidney beans, chili beans, pease, sugar corn, etc., all of which should be handled in the mess, and attention is invited to the bills of fare.

172. **Dried fruits.**—Excellent recipes are given in this manual for handling dried fruits, and the entire allowance should be consumed in the mess, unless fresh fruit is abundant and sufficiently cheap to be purchased from the savings made on this component.

The acids present in fruit are desirable in a well-regulated diet, and the quantity of dried fruits is based upon ordinary requirements.

173. **Tea and coffee.**—The drinking of tea and coffee in the garrison, almost to the exclusion of water, is largely a matter of habit and a great mistake. The quantity consumed will be greatly reduced when water is also served with each meal, and a well-seasoned soup at dinner. Tea should generally be served for supper—hot in winter and iced, and occasionally flavored with lemon in summer. Always use fresh water; do not boil long nor allow to stand in tin receptacles. Follow the recipes carefully.

The coffee component is little, if any, in excess of requirements when good coffee is made, but the amount consumed decreases as the use of tea is extended.

174. **Desserts and sauces.**—A good dessert should be served daily with the noon meal. The recipes given provide a great variety, generally costing from 1 to 3 cents per man. Note especially the recipes for sauces, which greatly enhance the value of many puddings and other desserts without greatly increasing their cost.

175. **Milk.**—The allowance of milk was based upon requirements for coffee only. If used directly in the coffee there is sufficient for use twice daily. Pour the milk from two 12-ounce cans into 10 gallons of water before serving.

176. **Butter.**—The allowance of butter is sufficient to serve once each day—generally with hot cakes for breakfast or with hot rolls or biscuits for supper. The allowance of one-half ounce per man should be served individually.

177. **Sirup.**—One gallon is sufficient for 40 men; hence, the allowance permits serving it two or three times, with hot cakes or biscuits, during each ten-day period, in addition to general kitchen use.

178. **Flavoring extracts and seasonings.**—The allowance is generally sufficient for normal use in the company kitchen.

179. **Pickles.**—Allow 1 gallon per 100 men for general table use.

180. **Remarks.**—An economical handling of the ration requires good judgment and foresight on the part of the mess sergeant. Prior to issue day he should outline in a general way his bills of fare for the period for which the rations are to be drawn and should be able to show clearly why he is purchasing each component in the quantity designated.

CHAPTER IV.—MEAT CUTTING.

181. **Beef.**—Beef is generally supplied to companies in accordance with the following specifications:

"To be good in quality and condition, fit for immediate use, and from fore and hind quarter meat proportionally, including all the best cuts; no carcass to weigh less than 500 pounds when trimmed; necks to be cut off perpendicularly to the line of the vertebræ, leaving but three cervical vertebræ on the carcass; the shanks of fore quarters to be cut off at the knee joint and of hind quarters at the hock joint (commercial cut), and to compensate for the shank bone thus allowed to remain, 2½ pounds will be deducted from the weight of each fore quarter and 3½ pounds from each hind quarter; difference in weight between fore and hind quarters not to exceed 20 pounds. Necks, kidney fat, beef from bulls and stags, and from females (except from spayed heifers) will be excluded from delivery."

Beef should be drawn in whole quarters, when practicable, to insure getting all parts of the carcass, and special care should be exercised by mess sergeants to see that the contract specifications as to the trimming of necks and the deduction of weight for shanks is strictly complied with.

The fore quarters of a beef of *minimum size* should weigh from 135 to 140 pounds, and the hind quarter not to exceed 15 to 20 pounds less. It is presumed in this case that the side of beef is cut so as to leave twelve ribs on the fore quarter and one on the hind quarter.

Upon receipt, the quarter should be cut as shown in plates opposite pages 43 and 44, no matter how it is to be used. Remember that a *dry, cool atmosphere* is best for its preservation. It is better to hang it on a hook in a temperature of 55 or 60° F., protected from flies and in a well-ventilated place, than to suspend it in a damp ice box. If necessary to place the meat in an ice box, be careful that it does not come in contact with the ice, or the sides or bottom of the box.

182. **Selection of parts for different uses in the kitchen.**—The parts of the carcass should be selected in the following order, when quality alone is considered:

Order.	Roasts.	Steaks.	Boiled beef.[a]	Corned beef.[a]
1	Prime rib.	Loin.	Shoulder.	Brisket.
2	Loin.	Round.	Brisket.	Plate.
3	Round.	Prime rib.	Plate.	Flank.
4	Rump.	Rump.	Flank.	Rump.
5	Chuck.	Clod.	Shank.	Shoulder.
6	Shoulder (or clod).	Chuck.	Neck.	
7	Brisket (only as a last resort).	Shoulder.		

[a] While the higher grades of meat can be *boiled* or *corned* if desired, or to save them from spoiling, the parts above mentioned are those selected during the regular routine of kitchen work as being the most economical.

HIND QUARTER OF BEEF.

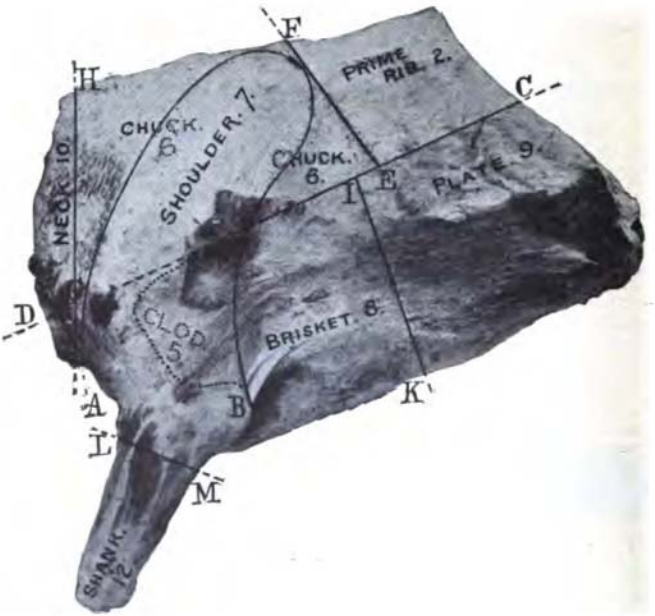


The heavy black lines show the first cuts made upon receipt of quarter for any purpose whatever. Cut from A to B just in front of joint, E to F just under Aitch bone, and G to H, using knife only. Numbers refer to general value of each cut for company use, considering both quarters together.

For *stews*, all parts of the carcass; but for economy, preferably the same as noted for boiled beef.

For *soups*, all bones, broken or sawed, and the particles of meat clinging thereto. Left-over meats can be worked in as noted in the recipes.

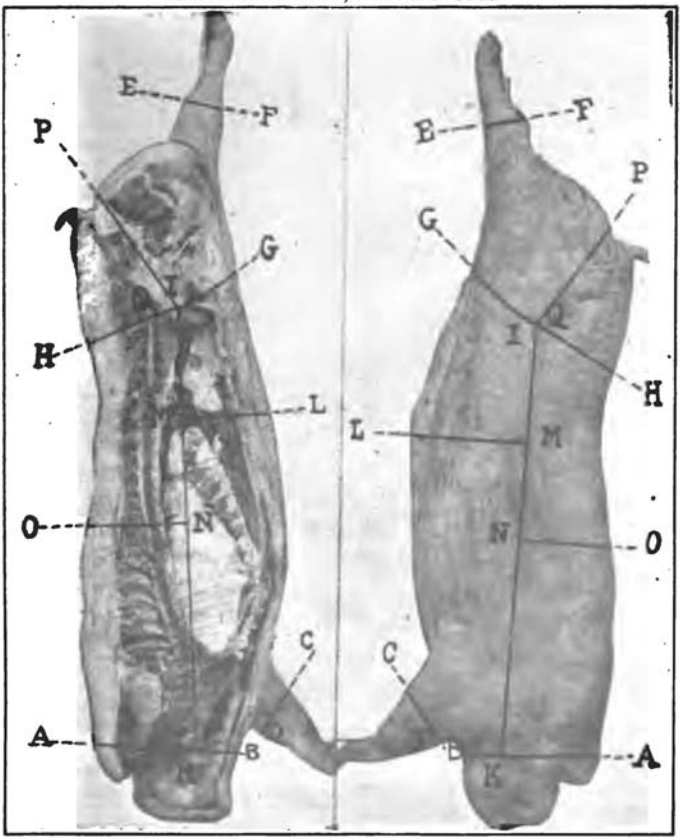
FORE QUARTER OF BEEF.



The heavy black lines show the first cuts made upon receipt of quarter for any purpose whatever. Cut in order A, B, C, D, E, etc. Cut from A to B to remove the shoulder, using the knife only. Numbers refer to general value of each cut for company use, considering both quarters together.

For *Hamburg steak* and *pot pies* meat from all parts of the carcass may be used, though the quality will, of course, depend much upon the tenderness or toughness of the parts used.

CARCASS OF PORK, SHOWING CUTS.



To cut up pork.—First split the carcass into halves; then cut off the neck (A-B), and shanks (C-D and E-F) of the fore and hind quarters; remove the hind quarter by the cut G-H, and then the shoulder, using the knife only. Then cut in order, I-K, L-M, N-O, and P-Q.

Generally speaking, no part of a carcass should be used for soup, boiled beef, or pot pie when there is a sufficient quantity to serve in the form of steaks or roast beef. In case a portion of prime rib, loin, or other high-class meat is left over and is insufficient in quantity to supply roast beef or steak for the entire mess, it would frequently be better to draw a second quarter in order to get a sufficient quantity of high-grade meat than to use the parts remaining in a stew or pot pie.

183. **Pork.**—Fresh pork is not supplied by the Subsistence Department and, when desired, must generally be purchased from savings on the ration, unless hogs are raised by the company. The cutting up of pork is very simple, as the meat is tender and the bones are relatively soft. Unlike beef and mutton, it should be cut as soon as cooled throughout. Follow the directions given accompanying the plate on page 43. If the carcass is thoroughly chilled, it would be well to have two knives and one cleaver in cutting up the carcass, the utensils not in use being kept submerged in a bucket of hot water. If the carcass is still warm, an extra knife is not necessary. The head, skin, and shanks should be used with an equal portion of beef to make *head cheese*. Trim off most of the fat and use the loin for *chops* and the shoulders and hams for *roasts*. All left-over parts, head, skin, and shanks may be used, together with an equal portion of beef in the preparation of *sausage*. (*See* Recipes.)

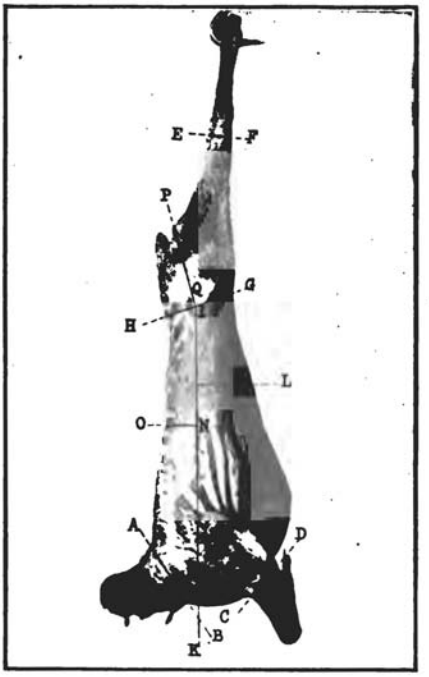
184. **Mutton.**—Mutton is occasionally supplied to companies in accordance with the following specifications:

"To be of a good, fat, marketable quality, from wethers over 1 and under 3 years old; the carcasses to be trimmed with the heads cut off at the first vertebral joint, the shanks of fore quarters at the knee-joint, and of hind quarters at the hock joint; the average weight of the dressed carcass of mutton to be about 50 pounds."

In cutting up the carcass, follow the directions accompanying the plate on page 45.

The leg may be cut into *steaks*, but is generally roasted or boiled. The loin may be cut into *chops*, using one rib to a chop, or may be roasted. The shoulder may be used as a *roast*, when from a young animal, or as a *boil* when from an old one. The brisket and flanks may be used for *stews*, and the neck and shank for *soup stock*. The meat remaining in the soup-stock boiler may be used up in fritters, meat balls, croquettes, etc., though the juices having been extracted, the meat will be hard and dry.

CARCASS OF MUTTON, SHOWING CUTS.



To cut up mutton.—First split the carcass into halves; then cut off the neck (A–B) and shanks (C–D and E–F) of the fore and hind quarters, as indicated; remove the hind quarter by the cut G–H, and then the shoulder, using the knife only. Then cut in order I–K, L–M, N–O, and P–Q for general use in the kitchen, or for packing in the ice box.

CHAPTER V.—BILLS OF FARE FOR ONE MONTH.

185. The following bills of fare have been prepared rather for the purpose of suggesting a suitable variety than to be followed regardless of climate and season.

Fresh fruits and garden truck, when available, will add much to the variety as given, but dried vegetables must be used in relatively greater quantity during the winter months and early spring.

Breakfast.

	Breakfast foods, fruits, etc.	Vegetables.	Meats.	Drinks.
1	Fried corn meal mush and sirup.	.....	Beef hash.....	Coffee.
2	Oatmeal and milk...	French fried potatoes.	Hamburg steak, brown gravy.	Coffee.
3	Milk toast.....	Lyonnaise potatoes...	Liver and bacon....	Coffee.
4	Hot cakes and sirup.	.....	Braised beef.....	Coffee.
5	Hot biscuits and butter.	Boiled potatoes in jackets.	Boiled salt mackerel.	Coffee.
6	Cream of wheat with milk.	Cottage fried potatoes.	Beefsteak and gravy.	Cocoa.
7	Corn meal mush and milk.	Baked potatoes.....	Beef loaf and gravy..	Coffee.
8	Bread and sirup.....	German fried potatoes.	Bacon and eggs.....	Coffee.
9	Fresh fruit.....	.....	Beef potpie.....	Coffee.
10	Fine hominy and milk.	Browned potatoes....	Pork chops and gravy.	Coffee.
11	Stewed fruit.....	French fried potatoes.	Ham omelet.....	Coffee.
12	French toast and butter.	.....	Corned beef hash....	Coffee.
13	Shredded wheat and milk.	German boiled potatoes and gravy.	.....,	Cocoa.
14	Buckwheat cakes and butter.	Onion gravy.....	Fried bacon.....	Coffee.
15	Hot biscuits and butter.	Boiled potatoes in jackets.	Boiled salt mackerel.	Coffee.
16	Stewed prunes.....	French fried potatoes.	Mutton potpie.....	Coffee.
17	Corn muffins and sirup.	Hash browned potatoes.	Beefsteak smothered with onions.	Coffee.

Breakfast—Continued.

	Breakfast foods, fruits, etc.	Vegetables.	Meats.	Drinks.
18	Milk toast	Browned potatoes	Vienna sausage.	Coffee.
19	Peach sauce	Baked potatoes	Braised beef	Coffee.
20	Batter cakes and sirup.		Beef hash	Cocoa.
21	Oatmeal and milk		Irish stew	Coffee.
22	Stewed peaches	French fried potatoes.	Cheese omelet	Coffee.
23	Cream of wheat with milk.	Baked potatoes	Beef loaf and gravy	Coffee.
24	Grape nuts	Hash browned potatoes, fried onions.	Beefsteak	Coffee.
25	Strawberry jelly	Potato cakes	Beef roll and gravy	Coffee.
26	Fried mush and sirup.		Fried liver and bacon.	Coffee.
27	Corn meal mush and milk.	Baked potatoes	Fried sausages and gravy.	Coffee.
28	Milk toast	German boiled potatoes.	Beefsteak potpie	Cocoa.
29	Hot biscuits and butter.	Boiled potatoes	Boiled mackerel	Coffee.
30	Oatmeal and milk		Hash on toast	Coffee.
31	Rice and milk	Cheesed potatoes	Vienna sausage	Coffee.

Bread served with all meals.

Dinner.

	Soups.	Vegetables, salads, etc.	Meats, etc.	Desserts.	Drinks.
1	Bean	Mashed potatoes.	Pot roast and gravy.	Apple pie	Coffee.
2	Beef	Boiled potatoes	Boiled beef and dumplings.	Rice pudding	Coffee.
3	Vegetable	Browned potatoes.	Beef à la mode	Bread pudding	Coffee.
4	Cream of tomato.	Creamed potatoes, cold slaw.	Boiled fish	Lemon meringue pie.	Coffee.
5	Fish chowder	German boiled potatoes.	Soft roast beef and gravy.	Tapioca pudding.	Coffee.
6	Vermicelli	Baked beans piccalilli salad.	Fried bacon	Plum duff sauce.	Coffee.

Dinner—Continued.

	Soups.	Vegetables, salads, etc.	Meats, etc.	Desserts.	Drinks.
7	Split pea.....	Mashed potatoes, mashed turnips.	Roast beef and gravy.	Mince pie.....	Coffee.
8	Potato.....	Boiled sauerkraut, boiled potatoes in jackets.	Boiled corned beef.	Spiced muffins, caramel sauce.	Iced tea.
9	.....	Baked dried pease, candied sweet potatoes, hot slaw.	Roast pork.....	Apple sauce, ice cream, cake.	Coffee.
10	Puree of brown pease.	Creamed potatoes, mashed turnips.	Creamed codfish.	Baked apples with sauce.	Coffee.
11	Barley.....	Stewed Lima beans.	Roast beef, gravy, Yorkshire pudding.	Peach rolls and sauce.	Coffee.
12	Tomato.....	Mashed potatoes.	Boiled beef	Corn starch pudding with shredded cocoanut.	Iced tea.
13	.....	Boiled cabbage, boiled potatoes.	Boiled bacon...	Cottage pudding.	Coffee.
14	Cream of tomato.	French fried potatoes.	Fried fish.....	Apple tarts and sauce.	Coffee.
15	Potato chowder.	Baked parsnips.	Pot roast beef, gravy.	Prune pie.....	Coffee.
16	Rice and tomato.	Boiled potatoes in jackets.	Roast ribs of beef, dressing, gravy.	Fruit rolls, lemon sauce.	Coffee.
17	.....	Baked beans, sliced onions, chili sauce.	Boiled bacon...	Corn bread and sirup.	Coffee.
18	Spaghetti.....	Boiled cabbage, boiled potatoes.	Corned beef....	Rice pudding, caramel sauce.	Coffee.
19	Puree of Lima bean.	Mashed turnips.	Beef à la mode..	Bread pudding.	Iced tea.
20	Vegetable.....	Browned potatoes, baked dried pease.	Roast mutton, mint sauce.	.....	Coffee.

Dinner—Continued.

	Soups.	Vegetables, salads, etc.	Meats, etc.	Desserts.	Drinks.
21	Clam chowder.	Stewed chili, beans, cold slaw.	Soft roast beef, gravy.	Spiced muffins.	Coffee.
22	Cream of tomato.	Spinach greens, boiled potatoes in jackets.	Vienna sausage.	Vanilla ice cream.	Coffee.
23	Puree of potato.	Mashed turnips, stewed tomatoes.	Roast beef, gravy, Yorkshire pudding.	Cocoa meringue.	Iced tea.
24	Cream of celery.	Stewed Lima beans, lettuce salad.	Boiled corned beef.	Lemon sauce caramelized.	Coffee.
25	.....	Mashed potatoes, succotash, pickles.	Soft roast and gravy.	Tapioca pudding, fruit.	Coffee.
26	Macaroni.....	Creamed potatoes, dried stewed corn, sliced tomatoes.	Boiled fish and cream sauce.	Coconut pie...	Iced tea.
27	.....	Baked beans, green onions.	Bacon.....	Corn bread and sirup.	Coffee.
28	Puree of split pease.	Browned potatoes, beet salad.	Pot roast.....	Prune rolls, tart sauce.	Coffee.
29	Bean, with croutons.	Boiled potatoes in jackets, stewed onions.	Roast beef, gravy.	Apricot pie ...	Iced tea.
30	Vegetable.....	German boiled potatoes, stewed tomatoes.	Boiled beef.....	Corn starch pudding, plain milk sauce.	Coffee.
31	Potato.....	Mashed potatoes, string beans, cucumber pickles.	Roast mutton, gravy.	Sweet potato pie.	Coffee.

Bread served with all meals.

Supper.

	Vegetables and salads.	Meats, etc.	Hot rolls, sauces, etc.	Drinks.
1	Boiled rice.....	Curry of beef.....	Stewed prunes.....	Tea.
2	Hashed potatoes, sliced onions.	Beef fritters.....	Jam, bread.....	Coffee.
3	Stewed tomatoes....	Chili con carne with Mexican beans.	Cinnamon buns and butter.	Tea.
4	Rice fritters.....	Beef rolls, brown gravy.	Bread, butter.....	Coffee.
5	Green onions	Irish stew with dumplings.	Parkerhouse rolls, peach sauce.	Tea.
6	Bean salad.....	Macaroni and cheese.	Boiled rice and milk.	Coffee.
7	Stewed dried corn, chili sauce.	Codfish cakes.....	Currant buns and butter.	Iced tea.
8	Browned potatoes...	Tamales and brown gravy.	Orange gelatin.....	Coffee.
9	Potato cake.....	Beef, Spanish.....	Stewed prunes, Jenny Linds.	Tea.
10	.....	"El Ranchero" stew.	Biscuits and butter.	Coffee.
11	Tomato sauce.....	Salmon cakes.....	Spaghetti and cheese.	Cocoa.
12	Cheesed potatoes...	Beefsteak and onions.	Stewed apples.....	Coffee.
13	Boiled rice and milk.	Chop suey hash.....	Jam, sugar buns....	Tea.
14	Boiled rice, piccalilli.	Turkish beef.....	Ginger bread.....	Tea.
15	Baked potatoes.....	Beef loaf, tomato sauce.	New York cinnamon buns.	Cocoa.
16	Potato salad, cold tomatoes.	Beef cheese.....	Bread and butter...	Coffee.
17	Stewed navy beans, chili sauce.	Codfish cakes.....	Coffee cake and butter.	Coffee.
18	Lyonnaise potatoes..	Curry of beef, with rice.	Corn muffins and sirup.	Tea.
19	German boiled potatoes.	Stewed chipped beef, with cream sauce, served on toast.	Apple kuchen.....	Iced tea.
20	Lyonnaise potatoes..	Beef fritters, brown gravy.	Prune butter, bread.	Cocoa.
21	Sliced onions, potato salad.	Cold boiled ham.....	Tea buns and butter.	Tea.
22	.....	Beef hash	Apple sauce, biscuits.	Tea.
23	Stewed kidney beans, cucumber pickles.	Tamales with gravy..	Raspberry gelatin...	Coffee.
24	Macaroni and cheese.	Chili con carne	Jam sandwich buns .	Tea.
25	Potato cake.....	Beef roll, brown gravy.	Strawberry gelatin..	Iced tea.
26	German fried potatoes.	Welsh rarebit on toast.	Cinnamon rolls and butter.	Tea.

Supper—Continued.

	Vegetables and salads.	Meats, etc.	Hot rolls, sauces, etc.	Drinks.
27	Oatmeal fritters.....	Beef and potato pot-pie.	Stewed peaches.....	Coffee.
28	Succotash, tomato sauce.	Beef croquettes.....	Corn muffins and butter.	Cocoa.
29	Potato salad, cold tomatoes.	Beef cheese.....	Jenny Linds.....	Tea.
30	Baked potatoes.....	Beefsteak potpie.....	Blackberry jam.....	Tea.
31	Stewed kidney beans	Beef, Spanish.....	Pineapple gelatin, raisin buns.	Coffee.

Bread served with all meals.

188. **Holiday dinners.**—The following menus for holiday dinners are such as are commonly given when living on the straight ration or when very limited funds are available:

THANKSGIVING DINNER.

Oyster soup and crackers.
Roast turkey and dressing.
Cranberry sauce.
Green pease.
Roast pork and gravy.
Apple sauce.
Mashed potatoes.
Bread and butter.
Apple pie. Pumpkin pie.
Jelly roll and marble cake.
Mixed candies and assorted nuts.
Ice cream.
Cream and coffee.

189. CHRISTMAS DINNER.

Oyster soup and crackers.
Roast chicken with dressing.
Cranberry sauce.
Boiled ham and mashed potatoes.
Green pease.
Celery.
Bread and butter.
Apple pie. Peach pie.
Jelly roll. Layer cake.
Mixed candies and nuts.
Crushed fruit and cream.
Bread and butter.
Coffee.

190. When funds are available for a more elaborate dinner, the following is suggested:

Oyster soup and crackers.
Roast turkey and dressing, cranberry sauce.
Cold boiled ham.
Mashed potatoes. Candied sweet potatoes.
Creamed corn. Creamed pease.
Brown gravy.
Bread and butter.
Shrimp salad. Celery. Olives.
Loaf cake.
Chocolate layer cake. Fruit cake.
Jelly roll.
Mince pie. Lemon meringue pie.
Cheese and crackers.
Mixed nuts. Assorted candies.
Apples. Oranges. Bananas.
Grapes.
Chocolate. Coffee.
Cigars.

CHAPTER VI.—WEIGHTS AND MEASURES.

191. The ordnance tin cup holds about seven-eighths of a quart, and is most convenient in determining the weights of the several components of the ration used in camp and on the march. By filling it level full of the several articles noted below, the weights there given were accurately determined.

Weight of one ordnance tin cup level full.

	Pounds.	Ounces.
Apples, evaporated		8
Beans, chili	1	7
Beans, issue	1	8
Beans, kidney	1	5
Beans, lima	1	5
Bread crumbs		15
Coffee, R. & G	1	4
Coffee, Java, ground	1	
Coffee, Mocha, ground	1	2
Corn, sweet, dried	1	
Corn meal	1	4
Currants	1	8
Eggs, broken	1	13
Flour	1	
Hominy	1	4
Milk, fresh	1	12
Oatmeal		9
Peaches, evaporated	1	
Pease, dried	1	8
Prunes	1	2
Raisins	1	
Rice	1	8
Salt, coarse	1	15
Salt, issue	2	
Sirup, cane	2	7
Sugar, cut loaf	1	
Sugar, granulated	1	8
Tea, English breakfast		6
Tea, Oolong		7
Tea, Young Hyson		10

One 3-gallon bucket of potatoes weighs 17 pounds; when peeled, these will make about 15 pounds.

One 3-gallon bucket of onions weighs about 14 pounds; when peeled, these will make about 11 pounds.

Six issue candles make 1 pound.

Ten lantern candles make 1 pound.

One bar of issue soap makes 1 pound.

CHAPTER VII.—RECIPES.

BREAKFAST DISHES.

192. Milk for breakfast foods.

Ingredients used:

2 1-pound cans evaporated milk.
8 ounces sugar.

Add a pinch of salt and sufficient water to make 1 gallon. Whip well a few minutes.

This recipe is sufficient for about 20 men.

193. Cakes, batter (for 60 men).

Ingredients used:

8 pounds flour.
32 ounces sugar.
16 eggs.
8 ounces baking powder.

Make a batter of the flour, sugar, and eggs (if practicable, about ten hours before the cakes are to be made); when about to make the cakes, grease the griddle with a piece of bacon or ham, and mix in the baking powder with each portion immediately before using. If, for example, one-eighth of the above amount is to be baked at a time, 1 ounce of the baking powder should be added to each portion. Serve hot with butter, sirup, or both.

194. Cakes, buckwheat (for 60 men).

Ingredients used:

5 pounds buckwheat flour.
5 pounds wheat flour.
2½ pounds molasses, or
2½ pounds sugar.
2 ounces salt.
10 ounces baking powder.

Mix the flour and molasses (or sugar) together, and add sufficient water to make a stiff batter. When about to make the batter, grease the griddle with a piece of bacon or ham, and add the baking powder to each portion immediately before using, as explained in the preceding recipe.

If desired, this batter may be set the evening before, with 3 cakes of dried yeast, allowing it to stand about twelve hours in a temperature of 80° F. In this case, 3 ounces of baking powder may be added, if desired, but this is not a necessity. Serve hot with sirup, butter, or both.

195. Cakes, corn (for 60 men).

Ingredients used:
- 3 pounds flour.
- 3 pounds corn meal.
- 1½ pounds sugar.
- 12 eggs.
- 6 ounces baking powde

Mix the flour, corn meal, sugar, and eggs into a batter, beating well for about five minutes, and let stand for two hours before using. Add the baking powder just before baking, mixing it into each portion baked separately. In no case should all of the baking powder be added at once. Serve hot with sirup, butter, or both.

196. French toast (for 60 men).

Ingredients used:
- 17 pounds bread.
- 1 pound sugar.
- 1 pound sirup.
- 1 can evaporated milk.
- 6 eggs.
- 2 pounds flour.

Cut the bread in slices about one-half inch thick; dip in a batter made of the eggs, flour, milk, sugar, and water; add salt to taste; fry the same as batter cakes. Serve hot with butter.

197. Hominy, fried (for 60 men).

Ingredients used:
- 6 pounds hominy.
- 4 gallons water.

Place the water in a boiler on the range; when boiling add the hominy and boil from twenty to thirty minutes; remove from the boiler, spread about 1 inch deep in well-greased pans and allow to cool; cut in pieces about 2 inches square; roll in flour and fry in deep lard. Serve hot with sirup or butter.

198. Milk toast (for 60 men).

Ingredients used:
- 12 pounds bread.
- 2 pounds sugar

Slices of bread left over may be used. Place in a large bake pan—not more than one-third full—and brown in a 15-count oven. Sprinkle with the sugar and saturate with boiling water. Serve in vegetable dishes, with milk poured over it.

199. Mush, corn meal (for 60 men).

Ingredients used.

6 pounds corn meal.
1½ pounds sugar, if not on table.
1 ounce salt.
4 gallons water.

Allow the water to come to a boil, and pour in the corn meal, meanwhile whipping well to prevent lumping. Allow to cook for about twenty minutes and then allow to stand about the same length of time where it will remain hot. Place in vegetable dishes and serve hot with fresh, or evaporated, milk poured over it.

200. Mush, corn meal fried (for 60 men).

Ingredients used:

7 pounds corn meal.
4 gallons water.

Prepare in the same manner as corn-meal mush; pour into a well-greased bake pan to a depth of about 1 inch and allow to cool. When cool, cut into pieces about 2 inches square; roll in a flour batter and fry in deep lard. Serve hot with sirup.

This preparation may be improved by dipping each piece in an egg batter before rolling in the flour.

201. Mush, oatmeal (for 60 men).

Ingredients used:

5 pounds oatmeal.
½ pound sugar.
1 ounce salt.
6 cans evaporated milk.
3½ gallons water.

Place the water in a boiler and allow it to come to a boil; whip the oatmeal in slowly and allow to boil for five minutes. Let simmer one-half hour and serve with milk and sugar.

202. Mush, rolled wheat (for 60 men).

Ingredients used:

5 pounds rolled wheat.
½ pound sugar.
1 ounce salt.
3½ gallons water.

Let the water come to a boil; add a little salt and the sugar; pour the rolled wheat in slowly to prevent the formation of lumps. Let cook in a closed boiler about twenty minutes and serve with hot milk.

203. Prepared breakfast foods. Follow the directions given on the packages.

SOUPS.

204. Barley soup (for 60 men).

Ingredients used:

6 gallons beef stock.
3 pounds barley.
1½ pounds chopped onions.

Mix all ingredients well and allow to boil for one hour, when the soup will be ready to serve. Salt and pepper to taste. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

205. Barley and tomato soup (for 60 men).

Ingredients used:

5½ gallons beef stock.
3 pounds barley.
10 pounds tomatoes.
1 pound diced bacon.

Mix all ingredients well; salt and pepper to taste; and allow to boil for one hour. If ripe tomatoes are used, they should be stewed and pressed through a colander before being added to the soup. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

206. Bean soup (for 60 men).

Ingredients used:

6 pounds beans.
7 to 9 gallons water or beef stock.
5 pounds soup bone.
1½ pounds bacon.

Clean and wash the beans well; place in the water (or beef stock) in a boiler near the center of the range and allow to simmer overnight. About 7.00 a. m. add the soup bone and bacon; boil until about 10 o'clock, or until the beans have gone to pieces, and pass through a colander. Place on the range again and allow to come to a boil; regulate the amount of stock or water so that, when the soup is ready

to serve, there will be about 6 gallons; thicken with a flour batter, and season with pepper and salt. Serve hot with hard or fresh bread.

207. Beef soup (for 60 men).

Ingredients used:

6 gallons beef stock.
3 pounds beef.
1 can tomatoes.
1½ pounds rice, if desired.
1 bunch parsley, if desired.

This soup can be made to best advantage on days when boiled beef is served. After boiling the beef until done, take it out and skim off the grease; dice the beef to the size of a bean and add to the water (or stock); add the tomatoes and, if desired, a little rice; regulate the amount of beef stock so that, when the soup is ready to be served, there will be about 6 gallons. Season to taste and serve hot.

208. Chicken soup (for 60 men).

Ingredients used:

6 gallons beef stock.
10 pounds chicken.
1 pound rice.
4 ounces parsley.

After dressing, boil until well done; remove the chicken and take out the bones; place the bones in the beef stock and boil for one hour; remove the bones and strain the stock; dice the chicken very fine and place in a boiler with the beef stock; add the rice and boil for one-half hour; add enough stock and water to make 6 gallons; pepper and salt to taste. Before serving, place a little parsley in each tureen.

209. Clam chowder (for 60 men).

Ingredients used:

6 quarts clams.
8 pounds potatoes, diced.
1 pound bacon, diced and browned.
10 quarts beef stock.
½ pound chopped onions, browned.

Cook the potatoes, bacon, and onions in the beef stock until well done; add the clams and let come to a boil; thicken slightly with a flour batter, and it will be ready to serve. Salt and pepper to taste and regulate the amount of beef stock so that when the soup is ready to serve there will be about 6 gallons.

210. Codfish chowder (for 60 men).

Ingredients used:

5 pounds codfish, shredded.
1½ pounds bacon, diced.
1½ pounds onions, chopped.
6 pounds potatoes, diced.
1 pound hard bread.
2 cans evaporated milk, if desired.
6 gallons beef stock.

Brown the bacon and onions in a bake pan on the top of the range; add the potatoes and codfish and cover well with stock; let boil until done, say twenty minutes; break the hard bread in small pieces and toast slightly in the oven, adding to the chowder after the potatoes are done. Then add the milk, if it is desired. Regulate the amount of beef stock so that when the soup is ready to serve there will be about 6 gallons.

211. Corn chowder (for 60 men).

Ingredients used:

3 No. 2 cans corn.
1½ pounds diced bacon.
1½ pounds onions.
6 pounds potatoes, diced.
2 cans evaporated milk.
1 pound hard bread.

Fry the bacon and onions in a bake pan on the top of the range until brown; add the potatoes and cover well with stock; let boil until done; break up the hard bread into small pieces; toast slightly and add to the chowder when the potatoes are done; add the milk, but do not allow to boil. Regulate the amount of beef stock so that when the soup is ready to serve there will be about 6 gallons.

212. Cream of cabbage (for 60 men).

Ingredients used:

6 pounds cabbage, chopped fine.
6 gallons beef stock.
2 1-pound cans evaporated milk.
1 pound fat, butter preferred.
1 pound flour, browned in the fat.

[illegible] the cabbage about fifteen minutes; drain the water off and add [illegible] of stock; let cook about one hour; thicken with a flour batter

and just before serving season with white pepper, salt and celery salt, and add the cream. Regulate the amount of beef stock so that when the soup is ready to serve there will be about 6 gallons.

213. Cream of celery (for 60 men).

Ingredients used:

6 pounds celery, diced fine.
5 gallons beef stock.
1 pound fat, butter preferred.
1 pound flour, browned in fat.
2 1-pound cans evaporated milk.

Add the celery to the beef stock and boil about one hour; season with white pepper, celery salt and salt; thicken with batter made of the fat and flour, and just before serving add the milk. Regulate the amount of beef stock so that when the soup is ready to serve there will be about 6 gallons.

214. Cream of tomato soup (for 60 men).

Ingredients used:

5 gallons beef stock.
4 No. 3 cans tomatoes.
2 1-pound cans evaporated milk.
1 pound fat, butter preferred.
1 pound flour, browned in fat.

Add the tomatoes to the stock and boil from one and one-half to two hours; season with celery seed, mustard, comina, salt, and pepper; thicken slightly with a flour batter and add the milk. Regulate the amount of beef stock so that when the soup is ready to serve there will be about 6 gallons. Serve hot.

215. Lentil soup.

Prepared in the same manner as bean soup, substituting lentils for beans.

216. Macaroni soup (for 60 men).

Ingredients used:

3 pounds macaroni.
6 gallons beef stock.

Break the macaroni in pieces about 1 inch long and boil in the stock about forty minutes, seasoning to taste with salt and pepper. Regulate the amount of beef stock so that when the soup is served there will be about 6 gallons.

217. Macaroni and tomato soup (for 60 men).

Ingredients used:

5 gallons beef stock.
2 pounds macaroni.
3 No. 3 cans tomatoes.
½ pound chopped onions, browned if desired.
1 pound bacon, browned if desired.

Mix all the ingredients; pepper and salt to taste, and allow to boil for forty minutes, when it will be ready to serve. Regulate the amount of beef stock used so that when the soup is ready to serve there will be about 6 gallons.

218. Noodle soup (for 60 men).

Ingredients used:

4 pounds dry noodles.
6 gallons beef stock.

Add the noodles to the stock and allow to boil three-fourths of an hour, seasoning with pepper and salt (and tomatoes if desired). Regulate the amount of beef stock so that when the soup is ready to serve there will be about 6 gallons.

To prepare the noodles.—To each pound of flour, add one-fifth ounce of salt; mix with milk or water until the dough is very stiff. If practicable, add two eggs to each pound of flour used. Roll the dough out until it is about one-eighth of an inch thick; sprinkle a little flour over it and roll it up. Cut slices from the end of the roll about one-eighth to one-fourth inch thick and spread on a board or cloth in the sun to dry. The noodles thus prepared will keep indefinitely.

219. Oxtail soup (for 60 men).

Ingredients used:

8 pounds oxtail, chopped into one-half inch cubes.
5 gallons beef stock.
2 pounds fried carrots, diced.
2 pounds fried onions, diced.
2 No. 3 cans tomatoes.
1 pound fat, butter preferred.
1 pound flour, browned in fat.

Add the oxtail, carrots, onions, and tomatoes to the beef stock, and let simmer until the tails are well done; thicken with the flour

batter. Regulate the amount of beef stock so that when the soup is ready to be served there will be about 6 gallons. The above recipe should produce a thick soup of a reddish color. Serve hot.

220. Oyster stew (for 60 men).

Ingredients used:

12 No. 2 cans oysters.
5 gallons beef stock.
3 1-pound cans evaporated milk.
½ bottle Worcestershire sauce.

Drain the oysters through a colander; thicken the beef stock slightly with the flour batter, and add the liquor from the oysters; bring to a boil and add the oysters; season to taste with pepper and salt; flavor with Worcestershire sauce, and allow to boil five minutes. Regulate the amount of beef stock so that when the stew is ready to serve there will be about 6 gallons. Add the oysters just before serving.

221. Pea soup (for 60 men).

Ingredients used:

6 No. 2 cans green pease, or equivalent of fresh pease.
6 gallons beef stock.

Allow to boil ten minutes, if canned pease are used, or until well done in the case of fresh pease. Regulate the amount of beef stock so that when the soup is ready to serve there will be about 6 gallons. Season with salt and pepper and serve hot.

222. Potato chowder (for 60 men).

Ingredients used:

10 pounds potatoes, diced.
1½ pounds bacon, diced.
2 pounds onions.
1 pound soda crackers.
1 or 2 cans evaporated milk.
5 gallons stock.

Fry the bacon until crisp, add the onions, and fry until brown; add the potatoes and 5 gallons of stock, and let boil until the potatoes are done; season well with pepper, salt, cayenne pepper, and a trifle of garlic; remove from the range and add the milk and crackers. Now ready to serve.

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223. Potato soup (for 60 men).

Ingredients used:

10 pounds potatoes, diced.
6 gallons beef stock.
1 pound onions, chopped and browned.
1 can evaporated milk.
1 pound fat, butter preferred.
1 pound flour, browned in fat.

Boil the potatoes in the stock until well done; pass through a colander and let come to a boil again; thicken with the flour batter and season to taste; add the chopped onions and evaporated milk. Regulate the amount of beef stock so that when the soup is ready to serve there will be about 6 gallons. Serve hot.

224. Purée of beans (for 60 men).

Ingredients used:

6 pounds issue beans.
6 gallons beef stock.
5 pounds soup bone.
½ pound bacon, diced and browned.
1 pound fat, butter preferred.
1 pound flour, browned in fat.

About 3 o'clock on the afternoon of the day before the soup is to be served, place the beans, bacon, bone, and stock in the boiler, and let simmer over night, or until the beans are thoroughly broken to pieces. Pass through a colander, and place on the stove again; add the flour batter and season to taste; allow to simmer at least one hour before serving. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

225. Purée of brown beans (for 60 men).

Ingredients used:

6 pounds brown beans.
1 pound onions, fried.
5 pounds soup bone.
6 gallons beef stock.
1 pound fat, butter preferred.
1 pound flour, browned in fat.

Cook the beans, onions, and soup bone slowly over night in the beef stock; pass through a colander and replace on the range, allowing to come to a boil again; meanwhile make a batter of the fat and flour, and add it to the soup after the latter has come to a boil. Season with pepper, salt, chili pepper, etc. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

226. Purée of carrots (for 60 men).

Ingredients used:

10 pounds carrots, peeled and finely diced.
1 pound butter, lard, or drippings.
1 pound flour, browned in the fat.
6 gallons beef stock.

Braise or fry the carrots with a little fat until brown; add the stock and the bone; season to taste and let simmer over night. In the morning pass through a colander; add the flour batter, and allow to simmer for one hour. Vermicelli or noodles may be substituted for the flour and fat in which it is browned. Regulate the amount of beef stock so that, when the soup is served, there will be about 6 gallons.

227. Purée of green pease (for 60 men).

Ingredients used:

6 pounds green pease.
5 pounds soup bone.
6 gallons beef stock.
2 pounds bacon, diced.
1 pound onions, fried.
1 pound fat, butter preferred.
1 pound flour, browned in the fat.

Cook the pease, soup bone, and fried onions slowly over night in the stock; in the morning pass through a colander, add the flour batter, season with comina, oregano, garlic, etc., and allow to simmer one-half hour before serving. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

228. Purée of green pease and tomatoes (for 60 men).

Prepare in the same manner as Purée of green pease, using two No. 3 cans of tomatoes, and reducing the amount of green pease used to 5 pounds.

229. Purée of lima beans (for 60 men).

Ingredients used:

6 pounds lima beans.
5 pounds soup bone.
1 pound bacon, diced and fried.
6 gallons beef stock.
1 stalk celery.
1 or 2 cans evaporated milk.
1 pound fat, butter preferred.
1 pound flour, browned in fat.

Place the beans, soup bone, bacon, and celery in the boiler together with the beef stock; season with pepper, salt, and celery salt, and allow to simmer over night. In the morning, work through a colander, replace on the range and let come to a boil; thicken with the flour batter; allow to cook one-half hour and it will be ready to serve. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

230. Purée of potatoes (for 60 men).

Ingredients used:

12 pounds potatoes, diced fine.
6 gallons beef stock.
1 pound bacon, diced and browned.
1 pound fat, butter preferred.
1 pound flour, browned in fat.

Add the diced potatoes to the beef stock and boil until they are completely broken to pieces, seasoning with pepper, salt, celery salt, etc. A stalk of celery may be added if desired. Thicken slightly with the flour batter, when it will be ready to serve. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

231. Purée of split pease (for 60 men).

Ingredients used:

6 pounds split pease.
6 gallons stock.
1 pound bacon, diced and browned.
5 pounds soup bone.
1 pound fried onions.
1 or 2 cans evaporated milk.
1 pound fat, butter preferred.
1 pound flour, browned in fat.

Place the pease, bacon, soup bone, and onions in the beef stock and let simmer over night, or until the pease have become com-

pletely broken to pieces. About 10 o'clock next day pass through a colander and allow to come to a boil again; season to taste and thicken with the flour batter; let simmer one hour and add the milk before serving. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

232. Purée of vegetables (for 60 men).

Ingredients used:

12 pounds mixed vegetables, chopped fine.
6 gallons beef stock.
1 pound bacon, diced and browned.
1 pound onions, fried.
1 pound carrots, fried.
5 pounds soup bone.
1 pound fat, butter preferred.
1 pound flour, browned in fat.

Add the vegetables, bacon, fried onions, fried carrots, and soup bone to the stock and allow to cook slowly over night, or until the vegetables are completely broken up; season with a variety of spices, and about 10 o'clock the next day pass through a colander and replace on the range; allow to come to a boil, and thicken with the batter. Regulate the amount of beef stock used so that, when the soup is ready to serve, there will be about 6 gallons.

233. Rice soup (for 60 men).

Ingredients used:

3 pounds rice.
6 gallons beef stock.
½ pound chopped onions, browned.
1 pound bacon, diced and browned.

Wash the rice well; then add it, together with the bacon and onions, to the stock, and allow to boil for one-half hour.

234. Spaghetti-soup (for 60 men).

Ingredients used:

3 pounds spaghetti.
6 gallons beef stock.

Add the spaghetti to the beef stock and allow to boil about three-fourths of an hour. Season with salt and pepper.

235. Split-pea soup (for 60 men).

Ingredients used:

6 pounds split pease.
6 gallons beef stock.
1 pound bacon, diced and browned.

Add the pease and the bacon to the beef stock and let simmer over night; thicken slightly with a flour batter and serve hot. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

236. Stock for soup. Save all of the bones that come into the kitchen; do not throw them away until all the nutriment has been extracted. Place the bones in the soup stock boiler, with sufficient cold water to cover them from 4 to 6 inches, and allow them to simmer until all the particles of meat attached to them have become loose. There will probably now be sufficient soup stock in the boiler for immediate use. Trim off the bones, saw or crack them, and place in the boiler again, adding more water if necessary, and leaving the bones in the stock until all the nutriment has been extracted (this will require from six to nine hours). When boiled beef is prepared, more stock may be obtained.

If all the bones are saved, they should produce sufficient stock for a soup each day, and for use in stews, gravies, etc.

237. Tomato soup (for 60 men).

Ingredients used:

3 gallons tomatoes, or
8 No. 3 cans tomatoes.
3 gallons beef stock.
1 pound bacon.

Mix all ingredients well and boil for one and one-half hours; remove the bacon and press the soup through a colander to separate the skins and seeds of the tomatoes. Replace on the range and thicken slightly with a flour batter; pepper and salt to taste and color lightly with brown sugar. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons.

Over-ripe or bruised tomatoes may—to prevent waste—be used in the preparation of this soup.

238. Tomato and rice soup (for 60 men).

Ingredients used:

3 cans tomatoes.
2 pounds rice.
5 gallons beef stock.

Mix all ingredients well; season with salt and pepper, and a small piece of garlic; allow to boil from one to two hours, when it will be ready to serve.

239. Vegetable soup (for 60 men).

Ingredients used:

1 pound cabbage.
½ pound onions.
1 pound potatoes.
½ pound rice.
1 can tomatoes.
1 ounce chopped parsley.
5 gallons beef stock.

Mix all ingredients well; season to taste with salt and pepper; boil for one hour or more, when it will be ready to serve. Regulate the amount of beef stock so that, when the soup is ready to serve, there will be about 6 gallons. The parsley should generally be added just before serving. Many other vegetables may be substituted for those given above.

240. Vermicelli soup (for 60 men).

Ingredients used:

3 pounds vermicelli.
1 pound chopped onions, browned.
6 gallons beef stock.

Mix all the ingredients well; season to taste with salt and pepper; boil one-half hour, and it will be ready to serve.

241. Welsh rarebit (for 60 men).

Ingredients used:

6 gallons beer, or beef stock.
6 pounds grated cheese, American preferred.
1½ pounds fat, butter preferred.
1½ pounds flour, browned in fat.

Allow the beer or stock to come to a boil, and add the grated cheese. Make a batter of the butter and flour and, when smoking hot, add to the mixture. Season with salt and cayenne pepper. Serve in soup tureens with crackers or croutons.

MEATS.

242. Bacon, boiled (for 60 men).

Ingredients used:

15 pounds bacon.

Cut in pieces weighing about 5 pounds each; wash thoroughly and place in cold water; let come to a boil and cook for two hours.

243. Bacon, fried (for 60 men).

Ingredients used:

15 pounds bacon.

Cut about 5 slices to the inch; place in a bake pan and pour boiling water over it, and allow to stand for five minutes. Drain off all the water and fry on a hot range or in a quick oven; when done, remove from the range and allow to cool slightly before serving.

244. Bacon and cabbage (for 60 men).

Ingredients used:

15 pounds bacon.

30 pounds cabbage.

Wash and clean the cabbage; place in the boiler with sufficient water to three-fourths cover the cabbage; place the bacon on top of the cabbage; after boiling two hours remove the bacon and allow the cabbage to boil one hour longer. To prevent discoloration, the boiler should be ventilated during the process of cooking. Serve hot, the bacon being sliced and placed on top of the cabbage.

245. Beef à la mode (for 60 men).

Ingredients used:

20 pounds beef rounds, bottom preferred.

1 pound bacon or pork.

1 pound fat, butter preferred.

1 pound flour, browned in fat.

3 gallons beef stock.

1 pound carrots, diced.

4 large issue pickles.

Cut the beef into slices of about 5 pounds each, and the bacon (or pork) into strips about the size of the little finger and the length of the pieces of beef; roll the strips of pork in garlic and cayenne pepper, and cut slits in the pieces of beef with a narrow-bladed knife with the grain of the meat, and insert about 4 of these strips of bacon in each piece of beef. Make a gravy of the flour, fat, and beef stock; place in a medium-hot oven and cook slowly for about three hours, or until well done. Remove the meat and slice across the grain, replace in the gravy and cook a little longer; or, it may be sliced and placed on a platter with the gravy poured over it, in which case it would be ready to serve. In any case it should be served with hot gravy. The gravy should be very spicy; therefore while preparing it season well with garlic, bay leaves, etc.

246. Beef, boiled (for 60 men).

Ingredients used:

20 pounds beef.

Cut into pieces weighing about 5 pounds each; cover with water—preferably hot, in order to seal it and retain the juices—and allow to boil from two to three hours, according to the quality of the beef.

247. Beef, braised (for 60 men).

Ingredients used:

22 pounds beef.
1 pound onions.
2 pounds fat, butter preferred.
½ pound flour.

Dice the beef into 1-inch cubes; place the fat in a bake pan and allow to get hot; then put the beef in, together with the onions; put on top of the range or in a quick oven and stir frequently for about twenty minutes. Sift the dry flour in and allow to cook for about five minutes; add sufficient beef stock to nearly cover the meat and stir frequently. Season with salt and pepper, and allow to cook until well done.

248. Beef, corned (for 60 men).

Ingredients used:

4 gallons water.
2 pounds sugar.
8 ounces saltpeter.
16 pounds salt.

Dissolve and boil about fifteen minutes; pour into a 15-gallon keg and allow to cool. The brine should be prepared in the evening so that it will be given time to cool thoroughly before the meat is introduced. Cut the meat in pieces weighing about 5 pounds each and probe each piece with a steel at 1-inch intervals to allow the brine to penetrate all parts. Place the meat in the brine and keep at a temperature of from 50° to 60° F. from seven to nine days. During the time the meat is in the brine it should be removed at least three times, alternating the upper and lower pieces. If the beef used is not refrigerated beef, in hot weather it should be packed in cracked ice for 12 hours before corning. The above recipe is sufficient for corning 60 pounds.

To make spiced corned beef, place in the center of each piece of beef a small piece of garlic, and add to the brine 1 ounce each of cloves, whole peppers, and bay leaves.

To cook, use the recipe given for boiled beef.

249. Beef curry (for 60 men).

Ingredients used:

20 pounds beef.
1½ ounces curry powder.

Cut the beef into 1-inch cubes and place in a bake pan; cover with beef stock or water; season with salt, pepper, and curry powder. When nearly done, thicken slightly with a flour batter. Serve hot.

250. Beef dressing (for 60 men).

Ingredients used:

6 pounds meat scraps of any kind.
8 pounds bread.
1 pound onions, browned.
½ gallon beef stock.

Run the meat scraps through a chopper; soak the bread in cold water and squeeze well with the hands; add the onions, season with salt, pepper, and sage; mix well, adding sufficient beef stock to make about the same consistency as hash, and spread 2 or 3 inches deep over the bottom of a well-greased pan. Spread a little grease over the top and bake for forty minutes in a medium oven. Serve hot with beef and gravy.

251. Beef, chipped (for 60 men).

Ingredients used:

15 pounds chipped beef.
1 pound fat, butter preferred.
1½ pounds flour, browned in fat.
2 12-ounce cans evaporated milk.
1 bunch parsley.
½ ounce pepper.
6 quarts beef stock.

Melt the fat in the pan, and add the flour; when it has cooked a few minutes, add the milk, dissolved in the beef stock, or water. Stir the batter in slowly to prevent lumping, and then add the beef. Cook a few minutes, add the parsley, and serve on toast.

If the beef is very salty, it should be scalded before cooking.

252. Beef fritters (for 60 men).

Ingredients used:

10 pounds cooked meat.
5 pounds bread.
2 pounds onions.

Soak the bread and remove the water by squeezing with the hands; grind the meat fine and add to the bread; mince the onions, and mix all together; salt and pepper to taste; mold into cakes of about 3 ounces each; roll in flour and fry in deep grease until brown. Serve hot with tomato sauce or tomato gravy.

253. Beef hash (for 60 men).

Ingredients used:
- 15 pounds potatoes.
- 2 pounds onions.
- 15 pounds meat scraps, etc.
- 6 quarts beef stock.

Chop the whole fine and add the beef stock until the mixture is of the consistency of ordinary mush; place about 3 inches deep in a well-greased pan; smooth the top evenly with the hand and grease slightly; bake in a medium oven for one and one-half hours.

Scraps of beef or pork, a mixture of both, or corned beef may be used for making hash.

In hot weather, or when the ingredients have been held over for some time, the hash should be spread not more than 2 inches deep in a pan and first placed in a quick oven—say 10 counts—until the hash is thoroughly heated through—say twenty minutes—then the temperature may be reduced until the cooking is done.

Beef hash with green peppers.—Prepare in the same manner as beef hash, adding 2 or 3 pounds of green peppers chopped about the size of a lima bean.

254. Beef hearts stewed (for 60 men).

Ingredients used:
- 18 pounds beef hearts.
- 1 No. 3 can tomatoes.
- 1 pound onions, fried.
- 1 pound flour.
- 3 gallons beef stock.

Make a gravy of the flour and beef stock and put on the range; meanwhile split the hearts in two and wash them thoroughly, and when the gravy comes to a boil put them in. Cook in the oven or on top of the range until done; slice and serve on a platter with the gravy poured over them. Season with cloves, allspice, bay leaves, a little garlic, pepper and salt, while cooking.

255. Beef hearts stuffed (for 60 men).

Ingredients used:

18 pounds beef hearts.
6 pounds bread crumbs.
2 pounds onions, browned.
1 pound bacon sliced.
½ pound fat.

Wash and clean the hearts and allow to drain; soak the bread crumbs, squeeze out well, and add the fried onions. Season with thyme, pepper and salt, and stuff the holes in the hearts with dressing. Place the hearts in a bake pan with a slice of bacon on top of each, and bake in a moderately hot oven. After the hearts have become somewhat sealed, so as to retain the juices, the temperature of the oven should be gradually reduced. Before serving, place the dressing on a platter, slice the hearts thin and spread over the dressing.

256. Beef loaf (for 60 men).

Ingredients used:

12 pounds beef.
3 pounds bread crumbs.
2 pounds onions, browned.
1 pound flour.
1 or 2 quarts beef stock.
½ pound bacon.

Grind the meat through a chopper; soak the bread in water, and then squeeze out well; mix the meat, bread crumbs, and onions together; make into loaves about the shape of an egg divided lengthwise, and place in a bake pan a few inches apart. Then make a batter of the flour, using a quart or two of beef stock, rub this over the loaves and cook in a slow oven. A slice of bacon may be placed on the top of each loaf if desired. The loaf should be well seasoned, and serve hot with gravy.

257. Beef potpie (for 60 men).

Ingredients used:

20 pounds beef.
— gallons stock.

Cut the beef into pieces about the size of a hazelnut; fry slightly in a small amount of grease, and add sufficient stock, or water, to cover the meat. Allow to simmer until the meat will nearly fall apart, and season with salt, pepper, and onions. Thicken slightly with flour batter, and place in a dish or pan at least 2 inches deep,

with a crust or biscuits spread over it. Place in the oven and brown in the same manner as ordinary pies.

258. Beef, pot roast (for 60 men).

Ingredients used:

22 pounds beef.
2 pounds onions.
½ pint vinegar.
1 clove garlic.

Cut the beef into pieces weighing about 5 pounds each; place in a large Dutch oven, or camp kettle, with cover, season well, add onions and vinegar, and place in a hot oven—say 12 counts—for for about twenty minutes; then reduce the temperature and cook slowly until well done. The meat should be turned three or four times while cooking. When done, remove from the kettle and slice; make a thick gravy in the same pot; place the meat on the platters, and pour the gravy over it. Left-overs from this recipe may be used in hash, potpies, etc.

259. Beef, roast (for 60 men).

Ingredients used:

25 pounds beef.
1 quart beef stock.

Cut the beef into pieces weighing about 5 pounds each; place in a quick oven and cook for about one-half hour; then dredge with salt, pepper and flour, and add 1 quart of beef stock, adding more later if necessary. The roast will then be sealed so as to retain the juices and the temperature of the oven should be allowed to diminish gradually, cooking the meat slowly from one to two hours more. Baste frequently while roasting. Just before serving, cut in thin slices, across the grain, and retain all chunks of fat, bones, tendons, etc., as they would not be consumed if served, but can be used to great advantage in the kitchen. Serve hot with gravy.

260. Beef rolls (for 60 men).

Ingredients used:

8 pounds meat scraps, etc.
3 pounds bread crumbs.
5 pounds flour.
1 pound onions, browned.
1 ounce chili pepper.

Take any scraps of lean meat and pass through a chopper; soak the bread crumbs and squeeze well; mix with the meat and season with salt, onions, chili pepper, etc., and mix well. Make a pie

crust, or rich biscuit dough, and roll into long strips as for apple rolls. Spread the meat and bread mixture over the dough; roll up in lengths equal to that of the bake pan; garnish the top with beaten eggs, and bake in a slow oven.

261. Beef, soft roast (for 60 men).

Ingredients used:
20 pounds beef.
1 pound onions, fried brown.
2 pounds flour.

Use meat from the chuck, brisket, shoulder, or other inferior part of the carcass; cut into 5-pound pieces; make a gravy of beef stock and flour batter; season well with pepper and salt; put the meat in the gravy, and cook in a moderate oven until done. The gravy should cover the meat in the pan about one-half inch, the same as in the preparation of beef à la mode. The browned onions should be added before cooking. Slice the meat and serve on a platter, with hot gravy poured over it.

262. Beef, Spanish (for 60 men).

Ingredients used:
20 pounds beef.
2 No. 3 cans tomatoes.
5 pounds onions, chopped.

Cut the beef into 1½-inch cubes; fry in a little hot fat for about five minutes; pour off the fat and add the tomatoes and onions. Add sufficient beef stock to cover the meat; thicken with a flour batter, and allow to simmer for two hours. Serve hot.

Scraps of cooked meat may be used to the extent of one-half of the meat component—it should be allowed to cook for but one-half hour.

263. Beefsteak potpie (for 60 men).

Ingredients used:
20 pounds beefsteak, cut small.
7 pounds flour.
1 pound fat, butter preferred.
3 gallons beef stock.
2 pounds onions, fried.

Heat the fat until it smokes; add 1 pound of flour (browned in the fat), and add slowly the 3 gallons of stock or enough to make a thin gravy; then add the onions. Season with pepper and salt; roll the small pieces of steak in flour and fry in deep lard, putting each piece in the gravy immediately after it is fried. Make a regular biscuit dough of about 6 pounds of flour; cut out the biscuits; place

them over the top of the steak and gravy, and allow them to brown in the oven. Serve hot.

Almost any quality of meat may be utilized in this recipe.

264. Beefsteak (for 60 men).

Ingredients used:

20 pounds beefsteak, with bones and fat removed.

For directions for the selection of steaks, see paragraph 182. Cut the steak into pieces weighing about 3 ounces each, and if tough beat each piece with the flat side of a cleaver; place a small quantity of flour in a dish pan and season well with pepper and salt; take each portion of the steak and roll well in the flour and meanwhile have the deep grease get smoking hot; drop the portions of steak into the grease, being careful not to cool it by the introduction of too much meat at a time. The total amount of meat frying should never exceed one-fourth of the weight of the grease. Fry until nicely browned; remove the steaks to a colander; allow to drain a short time, and repeat the operation until all the steak is fried. If necessary the frying may be done in shallow lard, but deep lard is preferred.

265. Beefsteak and mushrooms (for 60 men).

Ingredients used:

20 pounds beefsteak, without bones or fat.
6 No. 2 cans mushrooms.
1 pound butter.
1 pound flour.

Prepare the beefsteak in the ordinary manner; place the butter in a frying pan; when smoking hot, pour the flour in the pan and stir well to prevent the flour from burning. After it becomes smooth pour in the liquor from the mushrooms, beating well with a wire whipper; add the diced mushrooms and allow to boil for five minutes. Place the fried beefsteak on the platter and pour the mushrooms and gravy over the steak. Serve hot.

266. Beefsteak and onions (for 60 men).

Ingredients used:

20 pounds beefsteak, without bones or fat.
12 pounds onions, sliced.
1½ pounds fat.
2 quarts beef stock.

Prepare the beefsteak in the ordinary manner; place the fat in a large bake pan; add the sliced onions and beef stock; season well with pepper and salt and set over a hot fire until the stock is entirely

evaporated, when the onions will be nearly done; allow to brown slightly, stirring frequently. Serve the steak on a platter and cover it with the onions.

267. Beefsteak, Hamburg (for 60 men).

Ingredients used:
20 pounds beef.
3 pounds onions.

Run the meat through a chopper twice; chop the onions fine with knives; mix well and season with pepper and salt; mold into steaks about 3 inches in diameter and about one-half inch in thickness; roll in flour and fry in deep lard. Serve hot with gravy.

268. Beef, Turkish (for 60 men).

Ingredients used:
18 pounds beef.
5 quarts rice.
1 pound fat, butter preferred.
1 pound flour, browned in fat.
2 pounds onions, browned.
3 gallons stock.

Make a batter of the flour and fat, adding the stock and onions to make a gravy; cut the meat in 1-inch cubes; season with cayenne pepper, salt, and a little garlic; salt, roll in flour, and fry in deep lard. After the meat is fried, put immediately in the gravy and allow to simmer for two hours. While cooking it may be necessary to add a little more stock. Meanwhile boil the rice (and fry if desired) and place around the platter, making a nest in the center into which the stew is poured.

269. Bird potpie (for 60 men).

Ingredients used:
25 pounds fowl.

Small fowl and birds, such as pigeons, doves, robins, etc., are best prepared for army messes in the form of a potpie. Pick and clean the birds and split in two lengthwise; season with pepper and salt; roll in flour and fry in 2 inches of hot fat until about half done—this will require about three minutes. Remove from the fat and place in a pan, pouring in just sufficient beef stock to cover the birds; allow them to simmer for about thirty minutes; place in vegetable dishes and cover with a top crust one-fourth of an inch in thickness moistening the edge of the dish slightly with water, so that the crust will adhere to it. Before covering with the crust, season

with salt, pepper, and vinegar (or lemon), and thicken slightly with a flour batter. Bake on the oven shelf for about ten minutes and serve hot. On account of the length of time required in its preparation, a potpie should be served only for dinner and supper.

270. Birds on toast. Prepare in the same manner as explained in the recipe for bird potpie, omitting the crust. When done, cover the platter with toast and spread the birds over, allowing plenty of gravy, so as to soak into the toast well.

271. Brains and eggs (for 60 men).

Ingredients used:

15 pounds beef brains.
2 pounds bacon.
2 pounds onions, chopped fine.
40 eggs.
2 ounces salt.
½ ounce pepper.

Clean and wash the brains well and dice into about one-half inch cubes; dice the bacon into small cubes or run it through a meat chopper; fry the bacon and onions until brown; add the brains and cook until nearly done—say about three-quarters of an hour; add the eggs, beaten slightly, and fry about ten minutes more. Season with salt and pepper. Serve on platters covered with small bits of dipped or dry toast, if desired.

This preparation may, of course, be enriched by the addition of more eggs and reducing the amount of brains used accordingly.

272. Chicken, curry of (for 60 men).

Ingredients used:

25 pounds chicken.
1½ ounces curry powder.
6 pounds rice.
1 quart flour (if desired for batter).

Cut each chicken in about 10 or 12 pieces, in the same manner as in the preparation of a chicken pie; wash well and place in a large bake pan, covering with about 3 inches of water. When it reaches the boiling point, allow to simmer two hours or until done. Season to taste with salt after the chicken has cooked about an hour. Meanwhile make a paste of the curry powder and about 1 quart of broth from the pan, add to the mixture, and when served garnish the platter with boiled rice. If desired, the mixture may be thickened by the addition of a flour batter.

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273. Chicken fricassee (for 60 men).

Ingredients used:

25 pounds chicken.
2 pounds butter.
1 pound flour.
1 stalk celery.
12 hard-boiled eggs.
2 12-ounce cans evaporated milk.
3 gallons beef stock.

Divide each chicken into about 12 pieces, natural divisions; make a gravy, using 1 pound butter, 1 pound flour, and the beef stock; pepper and salt the chicken well; roll in flour and fry in deep lard, putting it in the gravy when fried. Dice the celery and add to the gravy; season well with celery salt and allow to simmer until done. Before serving add 2 cans of evaporated milk and 1 pound of butter. Care should be taken to break up the chicken as little as possible. When adding the butter and milk, care should be exercised to have the gravy so thick that the butter will be taken up by it and not float on top. Serve on a platter, with or without rice. Old fowls may be utilized to good advantage in this recipe.

274. Chicken, fried (for 60 men).

Ingredients used:

45 pounds chicken.
6 eggs, beaten.
2 pounds cracker meal.

Fowls over six months old should not be fried. Divide each chicken in about 10 pieces, dipping each piece in the beaten eggs and then in the cracker dust, and if the mixture does not adhere to the pieces sufficiently, repeat the operation. Fry in deep lard at a smoking temperature until brown. Drain well in a colander, and place in a pan in the oven, or on the mantel of the range to keep warm until served.

275. Chicken, roast (for 60 men).

Ingredients used:

45 pounds chicken.
2 pounds minced onions.
8 pounds bread crumbs.
8 pounds potatoes.

Fill the space vacated by the entrails and craw with stuffing; sew up with a strong thread; bend the wings under the back and tie them to the body; make a batter of flour and fat, seasoning it with pepper and salt; rub the batter over the chicken and place in the oven; add a little hot water, and baste frequently until done, from one and one-half to two and one-half hours. When the flour is brown, check the heat. When done, the legs should be easily separable from the body.

To make the stuffing.—Moisten the bread crumbs with water; season with pepper and salt, sage, thyme, or other flavors; stuff well into the chicken.

276. Chicken stew with dumplings (for 60 men).

Ingredients used:

25 pounds chicken.
15 pounds potatoes, diced:
5 pounds flour for dumplings.

Cut each chicken into 10 or 12 pieces and place in sufficient hot water to cover it; allow to boil until nearly done and add the diced potatoes; when the potatoes are nearly done, thicken the stew slightly with a flour batter; season with salt and pepper; add dough for the dumplings and allow to cook ten or fifteen minutes, depending on the size of the dumplings. If desired, the amount of dumplings may be increased and the amount of chicken correspondingly reduced. Time to prepare, about two and one-half hours.

277. Chili con carne (for 60 men).

Ingredients used:

15 pounds meat scraps.
3½ ounces chili peppers, ground.
3½ quarts beans, chili.

Trim all the fat from the meat and chop into half-inch cubes; place in a bake pan and fry in the same manner as beefsteak, but using a smaller amount of fat; cover with about 1 inch of beef stock; add the ground chili and pepper, and salt to taste. Run two-thirds of boiled chili beans through a meat chopper and mix all together; then add the remaining third of the beans whole. While cooking, it may be necessary to add more beef stock to replace that lost by evaporation. When ready to serve, there should be just sufficient beef stock to cover the preparation. Baked beans may be substituted for chili beans.

278. Duck, roast (for 60 men).

Ingredients used:

45 pounds duck.
2 pounds minced onions.
8 pounds bread crumbs.
8 pounds potatoes.

Fill the space vacated by the entrails and craw with stuffing; sew up with a strong thread; bend the wings under the back and tie them to the body; make a batter of flour and fat, seasoning it with pepper and salt; rub the batter over the duck and place in the oven; add a little hot water, and baste frequently until done, from two to three hours. When the flour is brown, check the heat. When done, the legs should be easily separable from the body.

To make the stuffing.—Moisten the bread crumbs with water; season with pepper and salt, sage, thyme, or other flavors; stuff well into the duck. When practicable, apple sauce should be served with duck.

279. Game, small. Pigeons, doves, etc., should, for army messes, be made into potpies. They are prepared in the form of a stew and served on a platter over toast. (See pars. 269 and 270.)

280. Geese, roast (for 60 men).

Ingredients used:

45 pounds geese.
2 pounds onions, minced.
8 pounds bread crumbs.
8 pounds potatoes.

Pick and clean the geese well, saving the heart, liver, and gizzard for the stuffing. To prepare the stuffing, soak the bread well in water and squeeze out with the hands; add the minced onions and potatoes; season with pepper, salt, a little sage, thyme, or other flavor; mix well and stuff into the geese, filling the space vacated by the entrails and craw. Sew up the geese with a strong thread; bend the wings under the back and tie down to the body. Make a batter with flour and fat, seasoning it with pepper and salt, and rub the geese with it before placing them in the oven (if the geese are very fat, this may be omitted). After they have been in the oven about twenty minutes add a little hot water and baste frequently until done. This will generally require about two and one-half hours, but depends, of course, upon the age and quality of the fowls. The above stuffing is the one generally used, but if desired the bread may be soaked in oyster juice and oysters (proportion one-third) may be used in the preparation or the sliced onions may be replaced

by chopped celery, or the bread may be cut into cubes a little more than an inch and toasted before using. A little lemon juice may well be added. Sometimes in Spanish countries the onions or celery are replaced by currants or raisins. This preparation may be used at any time when stuffing is required, being equally good for fowl or fish. Serve apple sauce with it when practicable.

281. Ham, boiled (for 60 men).

Ingredients used:

20 pounds ham.

Wash and scrape the ham, removing any part that may be decayed; place in sufficient water to cover it and allow to boil for one hour; remove from the range and allow to cool before taking from the water; slice and serve either hot or cold.

282. Ham, fried (for 60 men).

Ingredients used:

25 pounds ham.

Trim off most of the fat and slice thin; if salty, parboil; fry in its own grease in the oven or on the top of the range.

Appropriate for breakfast when served with eggs.

283. Hash, chop suey (for 60 men).

Ingredients used:

4 pounds fat bacon, chopped fine.
1 gallon onions, chopped fine.
10 pounds cooked beef, coarsely ground.
10 pounds turnips, cooked and chopped.
3 cans corn.
1 ounce chili powder.
1 gallon soup stock.
2 cans tomatoes.

Place the bacon in a large bake pan and put in the oven until well rendered; add the onions and fry until half done; add the other ingredients and bake for one hour.

The chili powder referred to does not mean cayenne pepper, but a mixture of chili, comina, oregano, and garlic, as sold under the name *chili powder*.

284. Head cheese (for 60 men).

Ingredients used:

20 pounds beef.
10 pounds pork.

Use any kind of beef scraps; of the pork, use snout, ears, skin, feet, etc.; place in a pot and allow to boil. When the pork is done,

remove and pass through a meat chopper, allowing the beef to continue boiling until done; remove the beef and dice in one-half inch cubes; mix the whole and season with pepper, salt, vinegar, and cloves, adding sufficient of the stock in which the meat was cooked to give it the consistency of a thick stew. Replace on the range, allow to boil five minutes longer, and pour in a pan about 4 inches deep; allow to cool in a temperature of 50° to 60° F., and it will be ready to serve the next day.

285. Liver and bacon in gravy (for 60 men).

Ingredients used:

15 pounds liver.
8 pounds bacon.
6 pounds onions, browned.
2 pound flour.
4 gallons stock.

Slice the bacon thin and wash in boiling hot water, not allowing it to remain in the water more than five minutes; fry quickly until medium well done. Roll the slices of liver in flour and fry in the fat left after frying the bacon; add the liver and bacon to the stock and bring to a boil; thicken slightly with a flour batter, adding salt and onions to taste. Serve hot.

286. Mutton, boiled (for 60 men).

Mutton may be boiled in the same manner as beef (see par. 246), but is usually used for roasts or stews.

287. Mutton chops (for 60 men).

Ingredients used:

20 pounds mutton loin.

Cut in slices weighing from 2 to 4 ounces, roll in flour, and fry the same as beefsteak. Serve hot. Generally served for breakfast or supper.

288. Mutton potpie (for 60 men).

Ingredients used:

15 pounds mutton.
15 pounds potatoes.
3 pounds onions.
2 pounds lard.
5 pounds flour.

Trim the fat from the mutton and cut into 1-inch cubes; allow to stew until nearly done, add the potatoes and onions, cut in pieces about the same size as the mutton. When nearly done, pepper and

salt to taste and add sufficient stock to cover the meat and vegetables. When done, place in vegetable dishes and cover with a crust about three times as thick as an ordinary pie crust, moistening the inside of the top of the dish with water, so that the crust will adhere to it. If desired, the amount of mutton used may be reduced to 10 pounds and the amount of vegetables increased accordingly.

Nearly any kind of lean meat—beef, veal, venison, young goat—also chicken, turkey, wild fowls, and rabbit, may be used in making potpies.

289. Mutton, roast (for 60 men).

Ingredients used:

25 pounds mutton.

Cut the mutton into pieces weighing about 5 pounds each; place in a quick oven and cook for about one-half hour. The roast will then be sealed so as to retain the juices, and the temperature of the oven should be allowed to diminish gradually, cooking the meat slowly from one to two hours more. Baste frequently while roasting.

290. Mutton stew (for 60 men).

Ingredients used:

15 pounds mutton.
20 pounds potatoes.
4 pounds onions.

Cut the mutton into 1-inch cubes; add sufficient beef stock or cold water to just cover the mutton; allow to simmer slowly for one and one-half hours, or until the mutton is done; add the vegetables, and allow to cook until done; season to taste with pepper and salt, and thicken slightly with a flour batter. Serve hot, with or without dumplings.

291. Omelet (for 60 men).

Ingredients used:

120 eggs.
4 12-ounce cans evaporated milk.
1 pound drippings.

Mix the eggs and evaporated milk; pepper and salt to taste; add 1 quart of water and whip well; put 1 pound of bacon drippings or other fat into the bake pan, and when the fat begins to smoke pour in the mixture (not more than 3 inches deep) and bake in a medium oven.

Cheese omelet.—Add to the plain omelet given above about 3 pounds of diced cheese.

Ham omelet.—Add to the plain omelet given above about 3 pounds of finely chopped cooked ham.

Tomato omelet.—Prepare in the same manner as the plain omelet, substituting two small cans of tomatoes for the water.

292. Pigs, little, roasted (for 60 men).

Ingredients used:

40 pounds little pigs.

Clean the pigs and scrape off the hair, stuff with an ordinary dressing, and sew up. Season well on the outside, slit the throat, and pass the forelegs through to the front; double the hind legs under, the pig lying down on its stomach. If practicable, place in a pan so that no part of the pig projects above the top. Roll out a crust made of water and flour and spread over the pig, moistening the sides of the pan with water so that the crust will adhere to it. Before putting on the crust about 1 inch of beef stock should be poured into the pan. Bake slowly three or four hours.

293. Pork chops and steaks (for 60 men).

Ingredients used:

20 pounds lean pork.

Cut into pieces about one-half inch thick and weighing from 3 to 5 ounces each; fry in the same manner as beefsteak until done; or they may be breaded in flour or corn meal and fried. Serve hot with sauce (tomato preferred) or some kind of salad. After trimming the fat from the hog, about three-fourths of the meat can be cut into chops and steaks.

294. Pork, corned, with cabbage (for 60 men).

Ingredients used:

20 pounds corned pork.

25 pounds cabbage.

Wash and clean the cabbage; place in a boiler with sufficient water to three-fourths cover the cabbage; place about one-third of the pork on top of the cabbage, cooking the remainder in a separate boiler. Allow the cabbage to simmer about three hours and the pork about two. To prevent discoloration, the boiler should be ventilated during the process of cooking. Serve hot, the pork being sliced and placed on top of the cabbage.

295. Pork, roast (for 60 men).

Ingredients used:

25 pounds lean pork.

Cut into pieces weighing about 5 pounds each; make slits along the sides of each piece, about one-fourth of an inch deep and one-

half inch apart; place in a medium hot oven and allow to cook until well done—about two and one-half hours. Season to taste with pepper, salt, and vinegar. Slice and serve hot with apple sauce.

296. Possum (for 60 men).

Ingredients used:

25 pounds possum, dressed.

Clean and skin the possums, allow to hang in the open air for several hours, and then place in the ice box for at least twenty-four hours before cooking. Stuff with an ordinary dressing (sage preferred); set in a deep pan, so that no part will project above the top; season well with pepper and salt, and pour about 1 inch of beef stock into the pan. Fill the vacant places with peeled sweet potatoes, and sprinkle a little flour over the whole; cover with a crust the same as for potpie, omitting the fat, as the crust will be removed after baking, and not be served. Allow to bake slowly for about three hours. Remove the crust and serve hot.

297. Potato pie (for 60 men).

Ingredients used:

20 pounds potatoes, boiled and mashed.
12 pounds beef, diced.
3 pounds onions, browned.
1 bunch parsley.

Season the mashed potatoes with pepper and salt, put a layer of potatoes about half an inch thick in a vegetable dish, roll the beef in flour, season with salt and pepper, and fry brown in a little fat; brown the onions and mix with the beef; add a little beef stock, and cook for about fifteen minutes; place a thin layer of chopped onions inside of the layer of potatoes in the vegetable dish; fill up with the mixture of meat; chop a little parsley very fine and spread over it. Place a layer of mashed potatoes on the top and round off nicely. Grease well, and bake until nicely browned. Serve hot in the dish in which baked.

298. Sausage, pork (for 60 men).

Ingredients used:

10 pounds lean beef.
6 pounds fat pork.
6 pounds lean pork.

Run the beef through a meat chopper once; cut the pork into pieces about one-half the size of an egg; mix the chopped beef with the pieces of pork and run through the meat chopper once more. If it is desired to make a better quality of sausage, use all lean pork and

no beef. If the supply of pork is limited, the proportion of lean pork may be reduced and the beef increased accordingly.

It will be noted that in the above recipe the beef is run through the meat chopper twice and the pork but once. This is usually necessary on account of the more fibrous texture of the beef.

Mold into small cakes about one-half inch in thickness; dip in beaten eggs and then in cracker dust or flour. If eggs are not obtainable, roll in flour only. Fry in deep lard.

Link sausages.—Puncture the skin of each link with a fork, place in a pan, and fry quickly until a delicate brown.

299. Sausage, pork, in blankets (for 60 men).

Ingredients used:

20 pounds link sausages.
1 egg, beaten.
1 pound lard.
3 pounds flour.
1 ounce salt.

Make a dough of the three last-named articles and roll out as for pie crust; inclose each link separately, or two links in one piece of paste; garnish with the egg and a trifle of water and bake until a delicate brown.

300. Sausage, Vienna (for 60 men).

Ingredients used:

20 pounds Vienna style sausage.

Place in boiling water, but do not allow to boil after introducing them, as this would cause the skins to crack and look unsightly when served, and also injure the flavor. Long cooking will also injure the quality, and sausages should not be put in the water more than three-fourths of an hour before serving.

Sausage, Vienna, in blankets.—Prepare in the same manner as pork sausage, or they may be fried in deep lard if desired.

301. Turkey, roast (for 60 men).

Ingredients used:

40 pounds turkey, dressed and drawn.
2 pounds minced onions.
8 pounds bread crumbs.
8 pounds potatoes.

Fill the space vacated by the entrails and craw with stuffing, sew up with a strong thread, bend the wings under the back and tie them to the body, make a batter of flour and fat, seasoning it with pepper and salt, rub the batter over the turkey, place in the oven; add a

little hot water, and baste frequently until done. When the flour is brown, check the heat. When done the legs should be easily separated from the body.

To make the stuffing.—Moisten the bread crumbs with water, season with pepper and salt, sage, thyme, or other flavors; stuff well into the turkey.

302. Tamales (for 60 men).

Ingredients used:

8 pounds meat scraps.
5 pounds flour.
5 pounds mashed potatoes.
2 ounces salt.

Run the meat through a chopper and season with chili pepper, oregano, comina seed, and garlic; moisten with beef stock. Meanwhile, make a stiff dough, using the flour and potatoes. Take about one-third of the dough and roll out on the table, using the corn meal for dusting; roll out until about the thickness of ordinary pie crust; trim it on the side toward you and lay on the edge a roll of the mixture a little larger than the little finger; roll the dough about the meat and, when it meets, moisten slightly with water to make it hold together. Then cut from the sheet of dough remaining and repeat the operation. Cut the roll in pieces about as long as sausages and fry in deep lard. Serve hot with chili sauce.

303. Turkish stew (for 60 men).

Ingredients used:

18 pounds raw lean meat.
5 pounds rice.

Dice the meat into 1-inch cubes, season well with cayenne pepper, roll with flour, and fry brown in a little grease. Brown a few onions and add to the meat; cover the whole with beef stock and season with cayenne pepper, salt, parsley, and a little garlic. Cook slowly on top of the range, or in the oven, for about two hours. Boil the rice until the grains may be crushed between the fingers, but still retain their original form; drain off all the water; make a border of rice around the platter, leaving a crater into which the stew should be poured. Serve hot.

304. Veal cutlets (for 60 men).

Ingredients used:

25 pounds veal.

Cut in slices weighing from 2 to 4 ounces, roll in flour, fry the same as beefsteak. Serve hot. This is generally served for breakfast or supper.

305. Veal roast (for 60 men).

Ingredients used:

25 pounds veal.

Cut the veal into pieces weighing about 5 pounds each; place in a quick oven and cook for about one-half hour. The roast will then be sealed so as to retain the juices, and the temperature of the oven should be allowed to diminish gradually, cooking the meat slowly from one to two hours longer. Baste frequently while roasting. Veal, like mutton and pork, should be served well done.

306. Venison cutlets (for 60 men).

Ingredients used:

25 pounds venison.

Cut in slices weighing from 2 to 4 ounces, roll in flour, and fry the same as beefsteak. Serve hot. This is generally served for breakfast or supper.

307. Venison roast (for 60 men).

Ingredients used:

25 pounds venison, ham preferred.

Cut into pieces weighing about 5 pounds each; lard well every 2 inches, the strips of fat being well seasoned with pepper and salt, and, if desired, a little garlic, and roast in the same manner as beef, except that it should always be well done. Serve hot with gravy poured over it.

Other parts may be roasted in the same manner, but will require less cooking, according to the size of the pieces. Parts not suitable for roasts may be utilized in steaks, hash, stews, fritters, etc.

SAUCES FOR MEATS.

308. Cranberry sauce (for 60 men).

Ingredients used:

10 quarts cranberries.

2½ pounds sugar.

Wash and boil the berries well; put in a clean boiler with about 1 inch of water; cover tightly and boil until the berries break to pieces and cover themselves with their juice; remove the lid and let simmer in order to dry them out. Sweeten with sugar, boil about five minutes, and pour into an earthen or wooden vessel and cool. Serve cold with chicken or turkey, or nearly any kind of meat or cake.

309. Giblets sauce or gravy: This should be made only when poultry is being prepared. Take the hearts and livers of the fowls and let boil about fifteen minutes; add to the gravy in the pan in which the fowls are roasting. Season with thyme, sage, pepper, and salt, or celery salt, if desired. May be thickened with a flour batter.

310. Rhubarb sauce: Take about 20 pounds of rhubarb, wash well and dice in one-half inch cubes and place in a clean boiler with about 1 inch of water; cover tightly and let steam slowly for about one and one-half hours. Then remove the lid and allow the water to evaporate for about an hour. Season with sugar and serve with cake or meat, or use for filling for pies.

311. Tomato sauce.

Ingredients used:
- 6 cans tomatoes.
- 1 pound onions, chopped.
- ½ ounce cinnamon.
- ¼ ounce cloves.
- 3 chili pods.
- 2 ounces salt.
- 2 ounces sugar.
- ½ pound butter.
- ½ pound flour.

Cook all the ingredients except the flour and butter, adding 2 quarts of water. Boil slowly for one and one-half hours. Remove from the range and run through a fine colander or sieve. Replace on the range and put the butter in a frying pan. When it becomes hot, add the flour; stir until smooth and add to the sauce. Excellent for fish, meats, or croquettes.

FISH.

312. Baked fish (for 60 men).

Ingredients used:
- 30 pounds fish.
- 2 pounds bacon or salt pork.

Fish weighing from 5 pounds upward are preferred. Dress and place in a bake pan with 3 or 4 slices of bacon over each fish, and about 1 inch of water in the pan; season well with pepper and salt; place in a hot oven and bake one hour, basting frequently and allowing the oven to cool gradually while baking.

If desired, the entrails may be withdrawn from beneath the gills without cutting the belly open, and stuffing in accordance with the following recipe:

Ingredients used:
8 pounds bread scraps.
2 pounds browned onions.
4 pounds potatoes.

Soak the bread and allow it to stand about one-half hour in cold water, squeeze out as dry as possible without mashing the bread; add the fried onions and mashed potatoes; mix well, season with salt, pepper, a little minced parsley or sage, and a trifle of vinegar. Stuff the fish and bake as above.

313. Boiled fish (for 60 men).

Ingredients used:
30 pounds fish.

Fish weighing from 5 pounds upward are preferred. Take a large bake pan half full of boiling water and place in a hot oven; place the fish in the water, add a little salt and bring to a boil as soon as possible, using only sufficient water to barely cover the fish. Allow to simmer until the meat may be easily separated from the bone, ordinarily about one hour. Should be served with a cream sauce, or with butter melted over it. May be spiced to give any desired flavor.

314. Codfish, salt, boiled (for 60 men).

Ingredients used:
20 pounds salt codfish.

Break the fish into pieces weighing about 2 ounces each; allow to boil for fifteen minutes to remove the salt, change the water and boil until done, ordinarily about thirty minutes. Serve hot with cream sauce.

315. Codfish cakes (for 60 men).

Ingredients used:
10 pounds salt codfish.
10 pounds potatoes.
12 eggs.

If whole cod is used, soak, boil, remove the bones, and pass through a meat chopper; mix with the potatoes and eggs, season to taste with pepper and salt, and mold into cakes weighing about three ounces each. Roll in cracker crumbs or flour and fry in deep fat. Serve hot with tomato gravy. These cakes may be improved by dipping in egg batter before frying.

316. Cream sauce for codfish (for 60 men).

Ingredients used:

1 pound fat, butter preferred.
4 12-ounce cans evaporated milk.
½ pound onions, minced.
½ pound pickles, minced.
6 hard-boiled eggs, minced if desired.

Thicken 1 gallon of boiling water with a flour batter, and season well with pepper and salt; let come to a boil and add the fat, milk, onions, and pickles; whip well and spread over the fish on the platter. The sauce may be improved by the addition of 6 hard-boiled eggs, chopped fine.

Crab salad. See Salads.

317. Fried fresh fish (for 60 men).

Ingredients used:

30 pounds fresh fish.

Clean and slice (or split) into pieces not more than 1 inch thick; roll in flour and cornmeal, and fry in deep lard until thoroughly browned. Serve hot with salad or pickles, and, if practicable, tomato or Worcestershire sauce.

Lobster salad. See Salads.

318. Oysters, fried (for 60 men).

Ingredients used:

360 oysters (6 to 8 quarts, according to size).
18 eggs.
4 pounds cracker meal.

Remove from can, or shells, and dry with a cloth; dip in egg batter and drop in a pan with cracker dust. After enough have been dropped in, shake pan well; take each one between the hands, press well, and lay in the frying pan. Fry until slightly brown. Serve with hot tomato or Worcestershire sauce, and, if practicable, with slaw or salad.

319. Oysters, scolloped (for 60 men).

Ingredients used:

12 quarts oysters, or about six for each man.
3 pounds bacon, or butter if desired.
2 cans evaporated milk.
6 pounds bread, diced, and toasted.

Dice the bacon and fry until crisp; add the oysters, allow to come to a boil and add the bread. Let stand about fifteen or twenty min-

utes at very near the boiling point and add the cream just before serving.

Oyster stew. See Soups.

320. Salmon cakes (for 60 men).

Ingredients used:

12 cans salmon.

25 pounds mashed potatoes.

Mix well, adding a little beef stock and flour; make into cakes of about 3 ounces each; roll in flour, fry in hot fat and serve hot with tomato gravy or tomato sauce.

321. Salmon hash (for 60 men).

Ingredients used:

12 cans salmon.

25 pounds mashed potatoes.

Mix well, adding a little beef stock; spread 3 inches deep or less in a bake pan (slightly greased) and allow to bake in a medium oven for forty minutes or an hour. Serve hot.

322. Spanish style fish (for 60 men).

Ingredients used:

20 pounds dressed fish.

Any kind of fish suitable for boiling may be used. If the fish are large, cut in pieces weighing about 5 pounds. Place the fish in a bake pan containing boiling water, and permit it to simmer until well done; remove the pieces with a skimmer, draining them as well as possible. Serve on platters with Spanish fish sauce, prepared according to the following recipe:

323. Spanish fish sauce (for 60 men).

Ingredients used:

1 pound fat.

2 pounds mixed onions.

4 minced tomatoes.

4 kernels garlic.

4 ounces chili colorado.

2 gallons beef stock.

Mix the onions, tomatoes, garlic, and chili; fry in grease until well done; add 2 gallons of beef stock and let boil about ten minutes; thicken slightly with a flour batter, and season with salt to taste. Serve hot over the fish.

This sauce may also be used for baked fish and various kinds of meats.

VEGETABLES.

324. Asparagus (for 60 men).

Ingredients used:

15 No. 2 cans asparagus, or
15 bunches fresh asparagus.

Open the cans and place them on the range where there is no danger of boiling; when hot, pour off the liquid and use it in preparing the cream sauce. Serve hot.

325. Beans, baked (for 60 men).

Ingredients used:

15 pounds beans, issue.
2 pounds bacon, diced.
5 ounces sugar, or
½ pint molasses.

Wash the beans thoroughly in cold water; place the bacon in the boiler or jar; pour in the beans and add the sugar (or molasses), together with about 5 gallons of water; salt to taste, place on the range and let come to a boil; after about fifteen minutes, cover with a lid and place in the oven. If the beans are to be served for dinner, the above work should be attended to the preceding evening, and the fire should be left so as to keep up a slow heat for the greater part of the night. The first thing in the morning more water should be put in (if necessary), covering the beans about 1 inch. If the breakfast requires a hot fire, the oven door should be left partly open, so that the beans will only simmer. If the oven can not be thus regulated, the beans should be removed and placed on the range or mantel, where they will barely simmer. It may be necessary to add more water several times in the course of the morning (in order to keep the beans barely covered). By 10 o'clock in the morning there should be sufficient juice in the kettle, so that bubbles will rise to the surface as the beans simmer; in one-half hour the beans will be ready to serve, and should be removed to a place where they will be kept warm. Serve hot with some kind of a salad.[a]

[a] Water added while cooking should be boiling hot. Especially in summer, the beans should not be soaked, as they may sour and have a bad flavor. Beans left over may be used in the preparation of bean salad or chili con carne.

326. Beans, boiled (for 60 men).

Ingredients used:

15 pounds beans, issue.
2 pounds bacon, diced.

Wash the beans thoroughly and place on the range in a boiler with about 5 gallons of water; when they reach the boiling point skim them and allow to simmer for at least four hours. After they have simmered about two hours, add the bacon; season with salt and pepper. If necessary to add water during the process of cooking, it should be boiling hot. Serve hot.

327. Beans, Lima (for 60 men).

Ingredients used:

12 pounds Lima beans.
½ pound of flour.
1 pound bacon, diced.

Wash the beans thoroughly; place in a boiler with about 5 gallons of water; let boil ten minutes and pour off the water; add the flour and bacon and mix well; salt and pepper to taste; add about 4 gallons of water, and allow to simmer until well done. Serve hot.

The flour is used for the purpose of keeping the beans whole while cooking. Time required to prepare, about four hours.

328. Beans, stringless (for 60 men).

Ingredients used:

24 pounds stringless beans.
1½ pounds bacon. diced.

Break the beans into pieces about 1 inch long; wash well and place in a closed boiler with sufficient water to one-third cover the beans, i. e., if the beans should be 12 inches deep there should be 4 inches of water after the beans have been placed in the water. Add the bacon; place on the range and let simmer for three-fourths of an hour; add more water, or beef stock (if necessary to barely cover the beans); thicken slightly with a flour batter and allow to simmer for about fifteen minutes. When done, the liquid should be of the consistency of a thick sirup. Beans left over may be used in making salads.

329. Beets, boiled (for 60 men).

Ingredients used:

22 pounds beets.

Wash the beets thoroughly and boil until well done; hold under a faucet and rub the skins off with the hands; cut into slices, or, if

young and tender, they may be served whole. Serve hot with cream sauce or gravy poured over them.

While washing and cooking great care should be exercised to avoid puncturing the skins.

330. Cabbage, Bavarian (for 60 men).

Ingredients used:

30 pounds cabbage.
5 pounds salt pork, or sliced bacon.
1 quart vinegar.

Strip off the outer leaves and cut out the core; cut up the same as for sauerkraut; wash and place in a boiler; add the salt pork (or bacon) to the cabbage; season with salt and pepper; add the vinegar, together with a gallon of water; boil slowly in an open boiler for three hours, adding boiling water if necessary; thicken slightly with a flour batter, and boil about five minutes longer, when it will be ready to serve.

331. Cabbage, boiled (for 60 men).

Ingredients used:

30 pounds cabbage.
5 pounds bacon, salt pork, or corned beef.

Strip off the outer leaves and cut out the core; wash and place in a boiler; add the meat, season with salt, and allow to boil in an open boiler for about three hours—adding more boiling water if necessary—at the end of which time it should be ready to serve.

332. Cabbage, fried (for 60 men).

Ingredients used:

22 pounds cooked cabbage.
2 pounds bacon drippings.

Chop the cabbage fine and add the bacon drippings; set on a range in a covered pan and let fry about one-half hour, stirring frequently to prevent burning. Season to taste with pepper and salt. Serve hot.

333. Carrots, baked (for 60 men).

Ingredients used:

22 pounds carrots.
1 pound bacon.

Scrape and wash the carrots well, and place in a well-greased bake pan with the sliced bacon over them; season with salt and pepper; cover with a large pan to prevent evaporation, and bake slowly for about one hour.

334. Carrots, boiled (for 60 men).

Ingredients used:

22 pounds carrots.
1 pound bacon drippings.

Scrape and wash the carrots well and place in an open boiler; cover with water and boil until thoroughly done; remove and place in a bake pan with the bacon drippings; season with salt and pepper and bake in a quick oven for about twenty minutes, when they will be ready to serve.

335. Carrots, mashed (for 60 men).

Ingredients used:

22 pounds carrots.
4 quarts beef stock.
1 pound bacon drippings.

Peel the carrots and cut in slices not more than one-half inch thick; place in an open boiler and pour in the beef stock; cook slowly until thoroughly done. When done, pepper and salt to taste; add the bacon drippings and mash thoroughly. Serve hot.

Carrots may also be used in various other dishes, such as beef à la mode, beef soup, vegetable soup, etc.

336. Corn, canned (for 60 men).

Ingredients used:

10 No. 2 cans corn.
4 quarts beef stock.
2 ounces sugar.
1 1-pound can evaporated milk.

Remove from the cans and place in a boiler; add the beef stock (strained), together with the sugar and milk; season to taste with salt and mix well. Place on the range where not too hot and allow to come almost to a boil; thicken slightly with a flour batter and allow to remain on the range for fifteen minutes or until it comes to a boil, when it will be ready to serve.

337. Corn, green (for 60 men).

Ingredients used:

180 ears.

Remove the husks and trim the ends; brush the silk off with a new scrubbing brush; place in well-salted boiling water and boil about twenty minutes. Serve with butter if practicable.

338. Egg plant (for 60 men).

Ingredients used:

20 pounds egg plant.

5 eggs.

Peel the egg plant, and slice lengthwise; beat the eggs well and add to them about 1½ pints of water; season the egg plant with salt and dip in the egg and water mixture; roll in flour and place on a board lightly covered with flour; remove with a cake turner, and fry in deep grease until browned; place on a platter and drain off the fat well before serving.

339. Greens (for 60 men).

Ingredients used:

30 pounds greens.

5 pounds bacon.

Put the greens in 2 gallons of water, together with the bacon, and boil in an open boiler for about two hours; remove the bacon and strain the water from the greens; chop fine and place in a well-greased bake pan; add beef stock to moisten and bake in the oven for about one-half hour; salt and pepper to taste; slice the bacon and serve on top of the greens. Greens may be improved by the addition of minced hard-boiled eggs.

Asparagus, beet, cabbage, dandelion, spinach, and other greens may be prepared according to the above recipe, but the time required for cooking will depend upon the particular kind of greens used. Cabbage greens in particular require more cooking than others.

340. Hominy (for 60 men).

Ingredients used:

6 pounds fine hominy.

Place 4 gallons of water in a boiler on the range; when boiling, add the hominy and boil from twenty to thirty minutes; remove to the end of the range and let simmer for half an hour. Serve with milk.

341. Macaroni and cheese (for 60 men).

Ingredients used:

6 pounds macaroni.

2 pounds cheese, diced.

Add the macaroni to 4 gallons of boiling water, salted to taste; allow to boil about twenty minutes, but not until it becomes flabby, and strain the water off; spread about one-third of the macaroni in the bottom of a well-greased bake pan; then one-third of the diced

cheese on the macaroni; continue the alternate layers until all is in the bake pan. Bake in the oven about thirty minutes and serve hot.

If desired, 2 or 3 pounds of toasted bread crumbs, with or without a like number of cans of tomatoes, may be used with the cheese between the layers of macaroni.

342. Onions, boiled (for 60 men).

Ingredients used:

22 pounds onions.

Select onions not more than half as large as eggs; boil from one-half to three-fourths of an hour, and serve with cream sauce.

Left-over boiled onions may be used in making gravy, hash, stewed potatoes, or lyonnaise potatoes.

343. Onions, fried (for 60 men).

Ingredients used:

12 pounds onions, peeled and sliced.
1 pound lard or drippings.
2 quarts beef stock.

Put all in a bake pan on top of the range, with a hot fire. When the water is all evaporated, the fat in the pan will be sufficient to brown the onions. Stir frequently and season with pepper and salt. May be served with beefsteak, or as a vegetable.

344. Onions, stuffed (for 60 men).

Ingredients used:

15 pounds onions, medium size.
3 pounds toasted bread crumbs.
8 pounds meat scraps.
8 pounds bread scraps.

Peel the onions with a sharp knife and dig out the center from the top end, leaving a shell. Meanwhile prepare a dressing, using the meat and bread, and stuff each onion full. Sprinkle the toasted bread crumbs in a well-greased bake pan and place the onions in the pan; grease well over the top and bake forty minutes in a medium oven. Serve hot with chili or tomato sauce poured over it.

The above preparation may be used as the meat component of a meal if desired.

345. Onions with grated cheese (for 60 men).

Ingredients used:

15 pounds onions.
1 pound fat.
1 pound cheese, grated.

Peel and slice the onions and fry until well done; mix the grated cheese with the onions, and bake in a hot oven (about 12 counts) for twenty minutes.

346. Parsnips, baked (for 60 men).

Ingredients used:

22 pounds parsnips.
1 quart beef stock.
3 pounds bacon.

Scrape and wash the parsnips thoroughly and place in a well-greased bake pan; season with pepper and salt and pour the beef stock over them; place strips of bacon over the parsnips and cover with a pan to prevent evaporation; place in the oven and bake slowly until thoroughly done.

Parsnips may also be used in beef and vegetable soups, but this use of them is not recommended, as they give a strong flavor.

347. Parsnips, mashed (for 60 men).

Ingredients used:

30 pounds parsnips.
1 pound bacon drippings.
4 gallons water.

Scrape and wash the parsnips thoroughly, and place in an open boiler; pour the water over them and cook slowly until thoroughly done. When done, pour off the water and add the bacon drippings; salt and pepper to taste, and mash thoroughly.

Parsnips left over may be served later by preparing as follows: Place in a bake pan, smooth off the top and grease lightly, and place in the oven until browned, say forty minutes.

348. Pease, American, canned (for 60 men).

Ingredients used:

10 No. 2 cans pease.
½ pound butter.

Empty the pease into a stew pot; pepper and salt to taste and add the butter; allow to come to a boil; thicken slightly with a flour batter, and let come to a boil again, when they will be ready to serve.

349. Pease, green (for 60 men).

Ingredients used:

10 quarts green pease.
5 quarts beef stock.
1 pound butter or drippings.
3 cans evaporated milk.

Carefully pick over and place in a boiler or stewpot; add the beef stock and butter; season with salt and pepper, and allow to boil for about fifteen minutes; thicken with a flour batter, and let come to a boil again. A smaller amount of milk, or none at all, may be used, but the amount indicated should be used if practicable.

350. Potatoes, baked (for 60 men).

Ingredients used:

22 pounds potatoes.

Select potatoes of about the same size; wash well and place in the smaller of two pans; rub a little grease over each potato with the hands, and cover with the larger pan; bake until well done, usually about one hour. Pinch each potato to break the skins, just before serving.

351. Potatoes, boiled (for 60 men).

Ingredients used:

22 pounds potatoes.

Peel and put in cool water; salt and allow to boil slowly until thoroughly done (about twenty to forty minutes); strain thoroughly; remove the lid, replace on the range, and allow the potatoes to remain about three minutes longer. Serve in vegetable dishes.

352. Potatoes, browned (for 60 men).

Ingredients used:

22 pounds potatoes.

Select the small potatoes; wash and boil them until done; peel and add sufficient fat to grease well. Having mixed the potatoes, spread over the bottom of a well-greased bake pan in a single layer, and bake in a brisk oven until brown, usually about thirty minutes.

353. Potato cakes (for 60 men).

Ingredients used:

22 pounds potatoes.
1 pound flour.
2 ounces green chopped parsley.

Run the potatoes through a meat chopper, and roll into cakes weighing about 3 ounces each; roll in flour and fry in deep lard until nicely browned; serve as a vegetable with any kind of meat. Left-over potatoes prepared in any manner may be used in this recipe.

354. Potatoes, cheesed (for 60 men).

Ingredients used:

22 pounds potatoes.
1 gallon beef stock.
1 pound grated cheese.

Use any left-over cooked potatoes; cut about the size of a Lima bean; season with salt and pepper; mix with the beef stock; add the

grated cheese. Spread 2 or 3 inches deep over the bottom of a well-greased bake pan and bake for about thirty minutes in a quick oven.

355. Potatoes, creamed (for 60 men).

Ingredients used:

22 pounds potatoes.
1 gallon beef stock.
1 can evaporated milk.
2 ounces parsley.

Boil the potatoes until well done; peel and slice crosswise; allow the beef stock to come to a boil on the range; thicken with a flour batter and add the evaporated milk; place the potatoes in a bake pan and pour the mixture over them, it being just about sufficient in quantity to cover the potatoes. Allow to come to a boil and remove from the range immediately. Meanwhile, chop the parsley very fine and, before serving, sprinkle evenly over the potatoes. Salt to taste.

356. Potatoes, fried (for 60 men).

Ingredients used:

22 pounds potatoes.

Wash the potatoes and boil until they may be easily pierced with a fork; peel and slice crosswise; season with salt, adding sufficient fat to moisten; spread over the bottom of a well-greased bake pan to the depth of about 2 inches, and bake in a brisk oven for about thirty minutes.

357. Potatoes, French fried (for 60 men).

Ingredients used:

22 pounds potatoes, peeled.

Cut lengthwise into one-half inch slices, and fry in deep lard until nicely browned; after frying, dust slightly with salt, and serve hot with any kind of meat.

On account of the quantity of potatoes to be prepared for an organization mess, it is not advisable to cut in thin slices, as is usually done. This is a dish much relished by the men, and on account of its comparative cheapness it is recommended for frequent use.

358. Potatoes, German boiled (for 60 men).

Ingredients used:

22 pounds potatoes.
1 pound onions, browned.

Cut the potatoes into pieces about the size of an egg; place in cool water and let boil slowly until done; place in vegetable dishes and over each place about two basting spoonfuls of browned onions. Serve hot.

Potatoes left over from this recipe may be used in lyonnaise potatoes, salads, fried potatoes, hash, stews, and in various other ways.

359. Potatoes, hashed (for 60 men).

Ingredients used:

22 pounds potatoes.
1 gallon beef stock.

Cut the cooked potatoes into pieces about the size of a Lima bean; season with salt and pepper, and mix with beef stock the same as when making hash; spread 2 or 3 inches deep over the bottom of a well-greased bake pan; spread a little fat over the top and bake for about thirty minutes in a quick oven.

360. Potatoes, Lyonnaise (for 60 men).

Ingredients used:

22 pounds potatoes.
2 pounds onions.

Wash the potatoes and boil them until they may be easily pierced with a fork; peel and slice crosswise; wash and slice the onions, fry brown and add to the potatoes. Season with pepper and salt, adding sufficient fat to moisten, and spread about 2 inches deep in the bottom of a well-greased bake pan. Bake about thirty minutes in a quick oven.

361. Potatoes, mashed (for 60 men).

Ingredients used:

22 pounds potatoes.

Peel, wash in cold water, and boil until thoroughly done; strain, salt, and mash well. Instead of the milk and butter often used in this preparation, carefully strained beef stock and fat may be used. Whip well with a basting spoon for about five minutes and serve hot.

362. Potatoes, sweet, baked (for 60 men).

Ingredients used:

22 pounds sweet potatoes.

Wash well and remove all defective spots; place in a bake pan and cover with a second pan to prevent evaporation while baking, and bake until well done, usually about thirty-five minutes.

If desired, the potatoes may be peeled, rolled in fat, and lightly sprinkled with sugar and salt before baking.

363. Potatoes, sweet, boiled (for 60 men).

Ingredients used:

20 pounds sweet potatoes.

Wash thoroughly and cut out any defective spots; let boil until thoroughly done; strain the water off, and serve hot with meat and gravy, or butter. Time, about one-half hour.

364. Potatoes, sweet, candied (for 60 men).

Ingredients used:

20 pounds sweet potatoes.
1 pound butter.
1 pound sugar.
1 gallon beef stock, strained.

Wash the potatoes and boil until fairly well done; peel and slice lengthwise; spread in 3 layers in a bake pan, putting about one-third of the sugar and butter on top of each layer; pour the beef stock over the whole and bake in a medium hot oven for forty minutes or an hour.

365. Potatoes, sweet, fried (for 60 men).

Ingredients used:

22 pounds sweet potatoes.

Peel the potatoes and slice lengthwise, as for French fried potatoes, and fry in deep lard.

366. Rice, boiled (for 60 men).

Ingredients used:

5 pounds rice.
3 gallons water.

When the water comes to a boil, add the rice. When the rice may be mashed in the fingers, pour into a colander and drain well, after which each grain should be whole and separate.

367. Rice, fried (for 60 men).

Ingredients used:

5 pounds rice.
2 pounds fat.
1 pound onions, diced.

Boil the rice as in the preceding recipe; place the fat in a bake pan; set on the range and let come to a smoking temperature; add the onions and let them brown slightly; add the rice and stir continually with a cake turner to prevent burning and to mix the grease with it thoroughly. Rice may be cooked in a hot oven, but must be stirred every few minutes. About fifteen or twenty minutes are required to fry it. It may be served with beef curry, Turkish stew, or as a vegetable.

368. Sauerkraut (for 60 men).

Ingredients used:

5 gallons sauerkraut.
3 gallons beef stock.

Season to taste and allow to simmer for about two hours. Sauerkraut should be cooked with some kind of meat.

369. Spinach, boiled (for 60 men).

Ingredients used:

40 pounds fresh spinach.
5 pounds bacon.

Place a 5-pound piece of bacon in about 1½ gallons of water, and allow to boil one hour; remove the bacon and place the spinach in the water; cover tightly and allow to boil for one-half hour; strain off the water, season with pepper and salt, and place in vegetable dishes. Cut the bacon into thin slices and spread on the spinach, when it will be ready to serve. Or, place the spinach in 1½ gallons of boiling water and allow to boil for one hour; strain off the water, chop well, salt and pepper to taste, and place in well-greased vegetable dishes. Cover with thin slices of bacon and place in a 15-count oven until the bacon is cooked, say twenty minutes, when the whole will be ready to serve.

370. Spinach, canned (for 60 men).

Ingredients used:

6 cans spinach.

Remove from cans, chop fine, and place in a well-greased bake pan; cover slightly with fat; place in a brisk oven, and bake for one-half hour, when it will be ready to serve. Or, place a 5-pound piece of bacon in a boiler containing 1½ gallons of water; allow to boil for one hour; remove the bacon and empty the contents of the cans into the boiler, and let come to a boil. Strain off the water, season with salt and pepper and place in vegetable dishes; cut the bacon into thin slices and place on the top of the spinach. Ready to serve.

371. Squash, baked (for 60 men).

Ingredients used:

22 pounds squash.
1 pound bacon drippings.

Peel the squash, remove the seeds and clean well; cut in pieces not more than 2 inches square; spread over the bottom of a bake pan, and pour over them about 1 pound of bacon drippings; season with salt and pepper; cover with a larger pan to prevent evaporation, and bake in a slow oven until well done. Or, select squashes weighing about 5 pounds each; split in halves and clean well, without peeling; sprinkle with salt and sugar, and place in a bake pan with the cut side up. Bake in a slow oven until thoroughly done.

372. Squash, canned, baked (for 60 men).

Ingredients used:

8 cans squash.

Remove from the cans and place in a well greased bake pan; spread evenly and add a small amount of fat; place in a brisk oven and bake for one-half hour, when it will be ready to serve.

373. Squash, mashed (for 60 men).

Ingredients used:

15 pounds squash.
2 quarts beef stock.
1 pound bacon drippings.

Peel the squash, remove the seeds and clean well; cut in pieces not more than 2 inches square; place in a boiler and pour over it about 2 quarts of beef stock; close the boiler with a tight lid and boil for about two hours (or until well done); add the bacon drippings; season well with salt and pepper, and mash well before serving.

374. Succotash (for 60 men).

Ingredients used:

1½ gallons corn, cut from the cob.
1½ gallons cooked Lima beans.
1 pound bacon, diced.

Mix together the corn, beans, and diced bacon; pour over the mixture sufficient beef stock to cover it; place in the oven and stew for thirty minutes; thicken slightly with a flour batter and boil for five minutes more, when it will be ready to serve.

375. Tomatoes, stewed (for 60 men).

Ingredients used:

20 pounds tomatoes.

Place 8 or 10 tomatoes in a colander at a time, and set in boiling water for about one-half minute; peel, split in halves and place in the stew pot; stew for one-half hour and add 2 quarts of strained beef stock; season with pepper and salt, and add bread crumbs if desired.

Stewed canned tomatoes.—Take 6 small cans of tomatoes; remove from the cans, place in the stew pot and add 2 ounces of sugar and one-half pound of bacon drippings; pepper and salt to taste, and if desired, add bread and beef stock. Place on the range, allow to come to a boil and serve immediately.

Canned tomatoes may also be served just as taken from the can. This makes a palatable dish in the field, or on the march.

376. Turnips, boiled (for 60 men).

Ingredients used:

22 pounds turnips.

5 pounds bacon, or salt pork.

Peel and cut in half-inch slices; add the bacon (or salt pork); season with pepper and salt, and allow to boil slowly from forty minutes to two hours, when they will be ready to serve.

377. Turnips, mashed (for 60 men).

Prepare as directed in the preceding paragraph, and mash well before serving.

Turnips left over from a meal may be served again when prepared as follows: Place in vegetable dishes, cover with a few strips of bacon or salt pork; place in the oven until slightly browned—say fifteen minutes—when they will be ready to serve.

378. Turnips, Philippine, native (for 60 men).

Ingredients used:

25 pounds Philippine turnips.

5 pounds bacon, diced.

Peel and cut in slices about one-half inch in thickness; boil for about three hours; run through a meat chopper and season with pepper, salt, and vinegar to taste. Spread in a bake pan; sprinkle with small diced bacon, and bake for one-half hour, when it will be ready to serve. Serve as a vegetable.

This turnip is called by the natives "cincomas" and very much resembles the American turnip, being very good when properly prepared.

SALADS.

379. Bean salad (for 60 men).

Ingredients used:

15 pounds baked beans.

3 pounds onions, chopped fine.

2 pounds pickles, chopped fine.

Mix thoroughly and season with salt, pepper, mustard, and vinegar; garnish with lettuce leaves or other greens, and serve cold. Baked beans left over from dinner are frequently available for salads.

380. Celery salad (for 60 men).

Ingredients used:

12 pounds celery, diced fine.
2 pounds mashed potatoes.
2 pounds bacon grease or olive oil.
1 pint vinegar.
1 pint water.
2 ounces mustard.
12 hard-boiled eggs (if desired).

Dice the celery fine, chop the eggs, and mix the two together. For the dressing, mash the potatoes thoroughly; add the bacon grease (or olive oil) with the vinegar very slowly, and add a little salt, with cayenne pepper and mustard. The sauce should then be of the consistency of cream or gravy. Mix well and serve cold.

381. Chicken salad (for 60 men).

Ingredients used:

30 pounds chicken.
2 bunches celery, diced.
1½ pints olive oil.
1 quart vinegar.
2 ounces mustard.
1 pound mashed potatoes.

Wash the chicken thoroughly, place in boiling water, and boil until the meat may be easily separated from the bones. Run the meat through the chopper and, when cold, add the diced celery. Mix the mustard, olive oil, and vinegar, and pour over the salad; mix well and season with pepper and salt. May be served with or without Mayonnaise dressing.

382. Crab salad (for 60 men).

Ingredients used:

6 cans salted crabs.
12 pounds celery, diced.
½ pound onions, chopped.
½ pint olive oil, or
½ pound bacon.
1 pint vinegar.
1 ounce mustard.
½ pound mashed potatoes.

Pour the crabs into a chopping bowl or dish pan and add the onions and diced celery; add the mustard, olive oil, and vinegar to the potatoes, and whip well; pour the mixture over the salad and mix well.

Cabbage may be substituted for the celery, and bacon for the olive oil if desired. If bacon is used, it should be fried to a crisp before mixing with the other ingredients.

383. Cucumber salad (for 60 men).

Ingredients used:

20 pounds cucumbers.
3 pounds onions.

Peel the cucumbers and slice thin; cover with salted cold water and allow to stand for about two hours. Drain and wash well, add the onions, season with salt, pepper, and vinegar, and serve ice cold.

384. Lettuce salad (for 60 men).

Ingredients used:

20 pounds lettuce.
6 hard-boiled eggs, minced fine.
1 pound bacon, diced and browned.
1 quart vinegar.

Wash and clean the lettuce thoroughly; mix the bacon, mustard, minced eggs, vinegar, and a little pepper and salt, and pour over the lettuce when cold. Serve ice cold.

385. Lobster salad (for 60 men).

Ingredients used:

12 cans lobsters.
12 pounds celery.
½ pound bacon or olive oil.
½ pound onions, chopped.
1 pint vinegar.
1 ounce mustard.
½ pound mashed potatoes.

Pour the lobsters into a chopping bowl or dish pan, add the onions and diced celery, and mix well; add the mustard, olive oil, and vinegar to the potatoes, and whip well; pour the mixture over the salad and mix well.

Cabbage may be substituted for the celery, and bacon for the olive oil if desired. If bacon is used, it should be fried to a crisp before mixing with other ingredients.

386. Mango pickles (for 60 men).

Ingredients used:

20 pounds green mangoes.

Peel the mangoes and cut into small pieces about the size of a Lima bean; place in salt water in an earthenware or porcelain vessel, and allow to stand for about twelve hours. They should be consumed within twenty-four hours, as they spoil quickly.

387. Piccalilli salad (for 60 men).

Ingredients used:

3 pounds cabbage, minced.
3 quarts tomatoes, minced.
3 pounds onions, minced.
3 pounds pickles, issue, minced.
½ quart vinegar.

Mix all the ingredients well; season with salt, cayenne pepper, and cloves, and add sufficient water to make 2 gallons. Serve with baked beans or meat of any kind.

388. Pickled beets (for 60 men).

Ingredients used:

20 pounds beets.

Boil the beets until done and rub the skins off with the hand; cut into quarter-inch slices; season with salt and vingear, and allow to stand about five hours before serving. Serve cold.

389. Potato salad (for 60 men).

Ingredients used:

20 pounds potatoes.
1 pound onions, minced.
1 pound bacon, diced and browned.
1 pint water.
1 pint vinegar.

Boil the potatoes until well done; peel and cut crosswise into thin slices; place the potatoes in a chopping bowl with the onions over them; fry the bacon until brown, and while still hot dash over the potatoes, and add the vinegar and water. Mix well, pepper and salt to taste, and allow to stand for two hours before serving.

390. Slaw (for 60 men).

Ingredients used:

30 pounds cabbage.
2 pounds bacon, diced and browned.
6 pounds onions.
1½ quarts vinegar.

Wash the cabbage thoroughly and chop it fine; add the onions, bacon, and vinegar, and season to taste with pepper and salt. Mix thoroughly and let come to a boil in a closed vessel, when it will be ready to serve. Serve hot or cold, as desired.

391. Sliced onions (for 60 men).

Ingredients used:

12 pounds onions.

Peel and wash the onions; cut into thin slices and serve without a dressing, or with a dressing made of pepper, salt, and vinegar. If desired, onions and pickles, or onions, pickles, and cabbage, may be used in equal proportions.

392. Sliced tomatoes (for 60 men).

Ingredients used:

15 pounds tomatoes.

Wash the tomatoes well and dip 6 or 8 at a time in boiling water, so that the skins may be easily removed; allow to cool and place in the ice chest for an hour or two; when thoroughly chilled, slice thin and place in an ice chest until required.

393. Stringless-bean salad (for 60 men).

Ingredients used:

12 pounds cold stringless beans.

To the cold beans add a little mustard, salt, and vinegar to taste and mix well. Serve cold.

394. Vegetable salad (for 60 men).

Ingredients used:

10 pounds cooked vegetables.

Nearly any kind of left-over cooked vegetables may be used in making vegetable salads by seasoning with mustard, vinegar, and bacon grease or olive oil.

DESSERTS.

395. Apple rolls (for 60 men).

Ingredients used:

6 pounds flour.
3 pounds lard.
1½ gallons stewed apples.

Prepare the dough the same as for pies, and the apples the same as for apple pies, but a little drier; roll the dough out into strips about 7 inches wide and a little longer than the width of the pan; set the farther end of the pan up about 4 inches from the table; spread one of the strips of dough across the lower end of the pan and place the

apples for one roll on this strip; fold the farther side of the strip of dough over toward you and then fold the nearer side from you, tucking it under the roll. Continue making the rolls in the same manner—rolling them up like a cigarette—and placing them in succession beyond the previous one made. When the pan is filled, trim off the ends with a knife. In no case should the rolls be over 3 inches thick. Bake about forty minutes in a 15-count oven; cut lengthwise of the pan into pieces about 3 inches long. Serve hot or cold, with a cream sauce, in vegetable dishes.

Any kind of stewed fruit may be substituted for the apples, and the rolls named accordingly.

396. Apple sauce (for 60 men).

Ingredients used:

5 pounds evaporated apples.

Place the apples in three times their bulk of water and allow to come to a boil; remove to a part of the range where they will only simmer. After two hours, remove and season with sugar to taste and flavor with lemon extract or sliced lemons. Serve cold with cake.

If desired, the apples may be run through a colander or meat chopper after cooking.

397. Brown betty (for 60 men).

Ingredients used:

9 pounds bread or bread scraps.
6 pounds caramelized sugar.
2 pounds currants or other dried tart fruit.

Dice the bread into 1-inch cubes and brown in a slow oven; place 3 gallons of water on the range and add the caramelized sugar, together with the fruit; thicken slightly with a flour batter; pour over the diced toast. Let cook in the oven about twenty minutes and serve with plain sauce.

398. Cake, corn (for 60 men).

Ingredients used:

4 pounds flour.
4 pounds corn meal.
4 pounds sugar.
2 pounds fat.
16 eggs.
7 ounces baking powder.
½ ounce extract.
1½ ounces salt.

Whip the sugar, fat, extract, and salt to a cream, and add the eggs slowly; then add the flour, corn meal, and baking powder, together with sufficient water to make a stiff batter; bake in an 18-count oven for about forty minutes. This cake may be put up in different forms, using the biscuit molds as well as bake pans.

399. Cake, layer (for 60 men).

Ingredients used:

2 pounds lard, butter, or drippings.
4 pounds powdered or granulated sugar.
16 eggs.
½ ounce extract.
8 pounds flour.
6 ounces baking powder.

Beat the lard, sugar, eggs, and extract together for about ten minutes, and add the flour and baking powder, together with sufficient milk or water to make a stiff batter. Bake about twenty minutes in a 15-count oven. The name given the cake will depend upon the kind of filling used between the layers.

400. Cake, plain (for 60 men).

Ingredients used:

6 pounds flour.
3 pounds sugar.
2 pounds butter, lard, or drippings.
5 ounces baking powder.
8 eggs.
1 ounce salt.
½ ounce extract.

Break the eggs in a wooden bowl, with the lard, sugar, extract, and salt, and whip to a cream; sift the flour in on top of the mixture, and the baking powder on top of the flour, mixing the baking powder slightly with the flour without disturbing the mixture below. Add sufficient water to make a stiff batter; place in well-greased bake pans with greased papers over the bottom; bake about forty minutes in an 18-count oven. Do not remove from the pans until cold (about two hours); otherwise it will break. This cake may be served with coffee in the morning, in addition to the regular breakfast; with apple sauce, stewed prunes, or peaches; as a cottage pudding, with a suitable sauce; or with ice cream.

401. Custard (1 gallon).

Ingredients used:

1 quart eggs.
2 quarts milk.
2 pounds sugar.
¼ ounce extract.

Beat the eggs to a foam with the milk and sugar; pour in a well-greased bake pan and cook in a slow oven. If the eggs are not strictly fresh, it may be necessary to add about 2 ounces of corn starch to each gallon, and this is advisable in any case. The number of eggs may be reduced and the amount of corn starch correspondingly increased, if desired. Any desired flavoring may be used. Serve cold.

402. Fritters, corn (for 60 men).

Ingredients used:

2½ pounds corn meal.
2 pounds sugar.
5 pounds flour.
4 ounces baking powder.
12 eggs.

Make into a soft dough; fry in about 3 inches of fat, or drippings, in a receptacle on top of the range; drop the mixture from a spoon into the fat (which should be at a smoking temperature), keeping each fritter as nearly round as possible and being careful not to have more than two-thirds of the surface of the fat covered with fritters at any time.

403. Gelatin (1 gallon).

Ingredients used:

3 ounces gelatin dissolved in 3 pints water.
2 pounds sugar, dissolved in water.
¼ ounce extract.

When the gelatin is dissolved, add 5 pints of boiling water and the sugar. Allow to cool in the air and add the flavoring extract. Then set in a temperature of about 50° F. until it jellies. Ready to serve.

This is the basis for all jellies. For instance, 1 pint of sherry, ½ pint of brandy, or 1 quart of sliced fruits, berries, etc., may be added, together with the flavoring extract as desired, but in no case should the whole exceed 1 gallon. One gallon is sufficient for about 20 men.

404. Ice, lemon (1 gallon).

Ingredients used:

18 lemons.
1½ pounds sugar.
1 ounce gelatin.
3 quarts water.
1 teaspoonful lemon extract.

Squeeze the juice from the lemons and grate the rinds; add these, together with the sugar, to the water. Let come to a boil, cool, add the extract, and freeze as ice cream. Sufficient for about 20 men.

405. Ice, orange (1 gallon).

Ingredients used:

12 oranges.
2 quarts water.
3 lemons.
1½ pounds sugar.
½ ounce orange extract.
1 ounce gelatin.

Squeeze the juice of the oranges and lemons into the water, at the same time adding the gelatin, three orange rinds, and the flavoring extract. Add sufficient water to make 1 gallon and freeze as ice cream. Sufficient for about 20 men.

406. Ice, pineapple (1 gallon).

Ingredients used:

3 or 4 pineapples, according to size, or
2 No. 2 cans pineapples.
1½ pounds sugar.
2 quarts water.
1 ounce gelatin.

Place the water on the range and let it come to a boil; add the juice of the pineapple (if canned pineapples are used), and dice the pineapples to about the size of a bean, adding them together with the sugar and gelatin to the water. Allow to come to a boil, then cool and freeze as ice cream.

Raspberries, gooseberries, strawberries, or any tart fruit may be used in the same way. If the fruit contains much acid, the amount of water used should be correspondingly increased.

407. Ice cream (1 gallon).

Ingredients used:

2½ quarts water.
3 ounces flour.
1½ pounds sugar.
10 eggs.
½ ounce extract.
2 12-ounce cans evaporated milk.

Boil 2 quarts of water and add a batter made of the flour and 1 pint of water; then allow to come to a boil again, remove from the range, and add the sugar, eggs, a pinch of salt, flavoring extract, evaporated milk, and sufficient water to make 1 gallon. Whip well, and allow to cool before putting in the freezer. One gallon is sufficient for 20 men.

408. Ice cream (chocolate).

Ingredients used:

3 ounces chocolate grated.
1½ quarts water.
3 ounces flour.
1½ pounds sugar.
2 12-ounce cans evaporated milk.
10 eggs.

Put the grated chocolate in 2 quarts of water on the range and let come to a boil; add a batter made of the flour and a pint of water; let come to a boil again and remove from the range. Add the eggs and sugar; whip well and add the milk, together with sufficient water to make 1 gallon; allow to cool before putting in the freezer. Sufficient for about 20 men.

409. Ice cream, coffee (1 gallon).

Ingredients used:

6 ounces coffee.
1½ pounds sugar.
4 to 10 eggs.
2 12-ounce cans evaporated milk.
3 ounces flour.

Add the coffee to 1 quart of boiling water; then remove from the range, cover well, and allow to stand until cool. Place a quart of water on the range, make a batter, using the flour and 1 pint of water, adding the batter to the quart of water on the range when the latter has reached the boiling point. Let come to a boil, remove from the

range, and strain the coffee into the mixture through a clean cloth. Add the eggs, sugar, and cream. Whip well and add sufficient water to make 1 gallon. Freeze as ordinary ice cream. Sufficient for about 20 men.

410. Pie crust (1-pound mixture).

Ingredients used:
1-pound flour.
9 ounces lard.
½ ounce salt.

Rub the lard and flour together in the hands and mix well; add sufficient water to make a moist dough. Have everything cool and work as little as possible. The 1-pound mixture will make about 3 double crusts.

About 4½ pounds of flour, 2½ pounds of lard, and 1 ounce of salt will make double crusts for 1 dozen 9-inch pies.

411. Pie, apple.

Ingredients used:
1 gallon stewed apples, or
3 pounds evaporated apples.
1½ pounds sugar.
¼ ounce cinnamon.

Add the sugar and spice to the stewed apples and mix well. The addition of a few slices of lemon will improve it. Make the pies with a double crust and bake about twenty minutes in a 15-count oven.

The above recipe is sufficeint for about 7 pies.

Nearly any kind of fruit may be substituted for the apples in the above recipe.

412. Pie, coconut (1-gallon mixture).

Ingredients used:
20 eggs.
1½ pints milk.
2½ pounds sugar.
½ ounce extract.
½ pound butter.
5 pounds coconut.

Beat the eggs, milk, sugar, and extract together, and add sufficient water to make 1 gallon. Prepare about 12 or 14 single crusts and spread about 6 ounces of cocoanut in each crust; then pour in the mixture prepared as above, adding to each pie a piece of butter about the size of a walnut. Bake in a 15-count oven about twenty minutes.

413. Pie, lemon meringue (1-gallon mixture).

Ingredients used:

2½ quarts water.
2 pounds granulated sugar.
6 to 10 lemons.
½ pound butter.
12 ounces cornstarch.
16 eggs.
1 can evaporated milk.
½ pound powdered sugar.

Add the juice of the lemons, together with the rinds, to the water; allow to boil five minutes and remove the rinds; add the sugar and butter; mix the cornstarch in a pint of water and add, stirring in quickly; let come to a boil and remove from the range. Whip the yolks of the eggs and add, together with the milk, sufficient water to make 1 gallon. This mixture will be sufficient for 8 pies. Take the usual crust, one for each plate only; roll out as usual and prick a few times with a fork; bake the crusts until light brown and pour in the mixture. Let stand for a while and beat the whites of eggs and powdered sugar to a cream. Place about one-fourth inch of the beaten eggs and milk over each pie and coat with granulated sugar if desired. Bake in a 12-count oven about three minutes.

414. Pie, mince: For each pie take one-third pound of mince-meat and two-thirds liquid. The liquid may be either sugar sirup, molasses, cider, or a mixture of one-tenth brandy and nine-tenths water. Mix the mince-meat thoroughly and use a double crust; bake about twenty minutes in a 15-count oven.

To make mince-meat.

Ingredients used:

5 pounds beef.
5 pounds suet.
20 pounds dried apples.
10 pounds dried peaches.
1 pound cinnamon.
¼ pound cloves.
1 ounce black pepper.
10 pounds sugar.
1 pound salt.
10 pounds seeded prunes.

And, if desired—
5 pounds currants.
15 pounds raisins.
2 pounds candied citron.
1 pound lemon peel.
1 pound orange peel.

Run the beef, suet, apples, peaches, and prunes through the meat chopper, each separately; mix with the spices, adding only sufficient water to moisten; pack in a suitable keg that has been thoroughly cleaned. This preparation is suitable for use in garrison or in the field and will keep as long as water is kept from it. Five pounds is sufficient for 15 pies, the above recipe being sufficient for 150 pies.

415. Pie, pumpkin.

Ingredients used:
25 pounds pumpkin.
6 pounds sugar.
20 eggs.
1 nutmeg.
½ ounce cloves.
½ ounce ginger.
1 ounce salt.
2 12-ounce cans evaporated milk.

Peel and clean the pumpkin; cut into pieces about 2 ounces each; pour 1 inch of water into a boiler; then put in the pumpkin. One inch of water will be sufficient, even though the boiler be filled with pumpkin, as pumpkin (or squash) contains much water. Let boil slowly until done, say forty minutes. Then mash well, add the beaten eggs, sugar, milk, and spices and mix well; make the pies without a top crust, and bake slowly. This recipe may be improved by the addition of a small amount of cream, or of one or more eggs. Sufficient for about 15 pies.

416. Prunes, stewed (for 60 men).

Ingredients used:
5 pounds prunes.

Place the prunes in a receptacle with about three times their bulk of water and set on a part of the range where they will keep hot but not boil. After two hours remove and season to taste with cinnamon, cloves, or nutmeg and a little vinegar. Serve cold if practicable.

Apples, peaches, and other fruits may be prepared in the same manner.

417. Pudding, apple (for 60 men).

Ingredients used:

4 pounds apples.
16 pounds bread.
4 pounds sugar.
2 ounces cinnamon.

Stew the apples in 1½ gallons water; slice the bread and toast it; spread the toast in the bottom of a well-greased bake pan; then spread over it a layer of the apples sprinkled with sugar and cinnamon; continue alternate layers of toast and apples until all is used; bake in a quick oven about twenty minutes and serve with a plain or caramel sauce.

Nearly any kind of fresh or dried fruit may be used and the pudding named accordingly.

418. Pudding, bread, with sauce (for 60 men).

Ingredients used:

12 pounds bread crusts.
2 pounds dried fruit.
2 pounds sugar.
1 ounce cinnamon.
2 cans evaporated milk.
6 eggs.

Soak the bread in cold water and squeeze out well with the hands; season well with sugar and cinnamon; mix well and spread about 1 inch deep in pans; over this spread about 1 inch of stewed fruit; then another layer of the bread, and over the top spread sugar and cinnamon; bake about forty minutes in a medium hot oven. Serve hot or cold with cream sauce. This makes an excellent dish and gives an opportunity to use all the scraps of bread on hand. A better pudding can be made by dipping the bread in milk and not squeezing it out. It will be still further improved by adding eggs.

419. Pudding, cornstarch (for 60 men).

Ingredients used:

4 pounds sugar.
1 ounce salt.
3 packages cornstarch.
4 cans evaporated milk.
1 ounce flavoring extract.

Dissolve the cornstarch in about 3 quarts of cold water and when dissolved add to 3 gallons of boiling water; add the sugar and

milk, and after cooking five minutes remove from the range, cool, and add the extract. This recipe will be considerably improved by the substitution of milk for water and the addition of about 4 eggs to each gallon. Pour into vegetable dishes, and when cool set in ice box; serve cold with milk.

420. Pudding, plum (for 60 men).

Ingredients used:

2 pounds sugar.
3 pounds dried fruit, chopped fine.
3 pounds beef suet, chopped fine.
1½ ounces salt.
½ ounce cloves.
1 ounce cinnamon.
½ nutmeg.
4 ounces baking powder.
6 pounds flour.

Mix the flour, baking powder, salt, beef suet, fruit, and spices in the order named; dissolve the sugar in water and add together with sufficient cold water to make a stiff dough; use 5-pound lard pails or pudding cans and fill each about two-thirds full of the mixture. If no lids are provided, tie a cloth tightly over the top of each pail or can. Place in a boiler containing sufficient boiling water to one-third submerge the pails or cans and maintain the water at about the same height during the process of cooking by the addition of more boiling water when necessary. Boil from five to eight hours. Remove from the cans, split lengthwise through the center, and serve in large vegetable dishes, with a dressing prepared as follows:

Sauce for plum pudding.

Ingredients used:

1½ pounds sugar.
1 tablespoonful lemon extract.
½ pint vinegar.
1 can evaporated milk.
½ ounce salt.

Dissolve the sugar in a gallon of water; let come to a boil and, after boiling about two minutes, remove from the range and add the vinegar, milk, and salt. Whip for a few minutes with a wire whipper and serve hot.

421. Pudding, rice (for 60 men).

Ingredients used:

5 pounds rice.
15 eggs.
3 cans evaporated milk.
5 pounds sugar.
¼ ounce extract.

Boil the rice for a few minutes and then strain through a sieve; add the eggs, cream, and sugar, with a pinch of salt and sufficient water to cover about one-half inch; bake slowly in the oven until slightly brown. The rice should not be overboiled, as the kernels should remain separate and firm. Serve with cold or hot sauce flavored with lemon.

422. Pudding, tapioca (for 60 men).

Ingredients used:

3 quarts water.
18 ounces tapioca.
1½ pounds sugar.

Add the tapioca to boiling water and immediately reduce the temperature to about 180° F., allowing it to stand at this temperature for about two hours; serve with a milk sauce or caramel sauce; currants, raisins, etc., as well as any kind of flavoring extract, may be added.

SMALL DOUGHS.

423. To prepare liquid yeast: One-gallon mixture.

Ingredients used:

½ pound potatoes.
2 ounces sugar.
1 ounce hops.
½ pound flour.
1 ounce dried yeast.

Add the sugar and potatoes to about 2 quarts of water and boil until the potatoes are well done, adding 1 ounce of hops about ten minutes before removing the boiler from the range. Mash the potatoes and beat into a pulp with a wire whipper; strain through a colander and set back on the range, letting the mixture come to a boil.

Meanwhile make a batter of the flour and a quart of water, adding same to the mixture on the range; stir well with the wire whipper and do not allow to come to a boil. Remove from the range and set in a cool place.

Having soaked the dried yeast [a] in 1 quart of cold water until thoroughly soft, add to the above mixture when it has cooled to a temperature a little lower than that of the hand. Stir it well and set in a temperature of about 80° F. for twenty-four hours, when it should be ready for use. The yeast is now said to be "ripe" and should be set in a temperature of from 50° to 60° F. until used. Stir well each time before using, and make fresh each week, as it can not generally be preserved for a longer period.

424. One gallon dough mixture: For small doughs used in the kitchen.

To make the sponge.—Take 3 yeast cakes and soak in a pint of luke warm water until soft (or use 1 pint of stock yeast prepared in the kitchen) and add 2 medium sized potatoes which have been boiled until well done, adding enough luke warm water to make one-half gallon. Make into a stiff batter and let rise and fall. When it has dropped about 1 inch, make a dough by adding the following ingredients:

	Jenny Linds or sweet fruit dough.	Plain sweet dough.
Salt.....ounces..	3	3
Sugar.....pounds..	1½ or 1	½
Butter, lard, or drippings [a].....pounds..	2, 1½, 1, or ½	½
Eggs [a].....number..	10, 6, or 4	0
Raisins [a].....pounds..	3, 2, or 1	0
Currants [a].....pounds..	3, 2, or 1	0
Extracts [a].....ounces..	1 or ½	0

[a] Where two or more quantities are given in the same column, correspondingly large or small amounts should be used together. The richness of the product depends upon the quantities of such ingredients used.

NOTE.—The temperature of the sponge, of the dough, and of the buns, while proving, should be as nearly as possible about 80° F.

About 10 eggs will make 1 pint.

Before adding the flour, sugar, or lard, sufficient water should be added to the sponge to make 1 gallon. Make a stiff dough and let rise to about 3 times its size, punch down, work over and per-

[a] One-half ounce of compressed yeast, or one pint of stock yeast may be substituted for the dried yeast, but if stock yeast is used, the amount of water must be correspondingly reduced.

COMPANY PROOF BOX.



Of great use in the preparation of small doughs in cold weather, or in windy kitchens. A pan of steaming hot water may be placed on the botto secure a proper temperature.

mit to rise to twice its original size, then work into 1-pound loaves (round), weighing the dough on the scales, and let prove for about fifteen or twenty minutes. Then, for small doughs, cut into 8 equal parts. This can best be done by rolling the proof ball or loaf out into a long cylinder, dividing it in halves with the scraper, subdividing each half into halves, and then in a similar way subdividing again.

The above recipe is sufficient for about 180 buns, or about 22 Jenny Linds.

425. One pound mixture.

	Plain cake (stiff batter).	Biscuit (soft dough).	Fruit pudding.	Batter cake.
Sugar.....ounces..	10, 8, 6, or 4	$\frac{1}{2}$	[a] 8, 6, or 4	[b] 4, 3, 2, or 1
Lard, butter, or drippings.ounce..	8, 6, 4, or 3	4 or 2	.....	.....
Salt.....ounce..	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Extracts.....ounce..	$\frac{1}{2}$	.....	.....	.....
Eggs.....number..	6, 4, or 2	.....	6, 4, or 2	6, 4, or 2
Dried fruits.....ounces..	.....	.....	8, 6, or 4	.....
Suet.....ounces..	.....	.....	6, 4, or 2	.....
Cinnamon.....ounce..	.....	.....	$\frac{1}{2}$	.....
Cloves.....ounce..	.....	.....	$\frac{1}{2}$	.....
Ginger.....ounce..	.....	.....	$\frac{1}{2}$	.....
Nutmeg.....sounce..	.....	.....	$\frac{1}{2}$	.....
Baking powder.....ounces..	1, $\frac{3}{4}$, or $\frac{1}{2}$	$1\frac{1}{2}$	1, $\frac{3}{4}$, or $\frac{1}{2}$	$1\frac{1}{2}$ or 1
Flour.....pound..	1	1	1	1
Molasses.....ounces..	.....	.....	[a] 9, 7, or 5	[b] 5, 4, 3, or 2

[a] If using molasses and sugar in fruit pudding do not exceed 9 ounces of both in a 1-pound mixture.

[b] If using mosasses and sugar in batter cakes do not exceed 5 ounces of both in a 1-pound mixture.

NOTE.—Where two or more quantities are given in the same column correspondingly large or small amounts should be used together. The richness of the product depends upon the quantities of such ingredients used.

426. *Table of oven temperatures as determined by the hand—second counts.*

	First counts.	Counts after browning.	Time.
Meats:			
Beef roast, 5-pound pieces	10	18	1½ to 2½ hours.
Mutton roast, 5-pound pieces	12	20	2 to 2½ hours.
Pork roast, 5-pound pieces	15	20	2 to 3½ hours.
Veal roast, 5-pound pieces	12	18	2½ to 3 hours.
Venison roast, 5-pound pieces	12	18	2½ to 3 hours.
Turkey roast, 12 pounds each	12	18	2 to 3½ hours.
Chicken roast, 3 pounds each	12	18	1½ hours.
Duck roast, 3 pounds each	12	18	1½ hours.
Salmon hash	12	16	1 to 1½ hours.
Vegetables:			
Beans	15	30	12 hours.
Carrots	15	17	1 hour.
Parsnips	15	17	40 to 60 minutes.
Potatoes, baked	12	15	30 to 40 minutes.
Potatoes, browned	10	15	20 to 30 minutes.
Potatoes, cheesed	15	18	40 minutes.
Potatoes, hashed	12	15	30 minutes.
Potatoes, Lyonnaise	12	15	30 minutes.
Potatoes, sweet	15	17	30 to 60 minutes.
Squash	15	17	30 to 40 minutes.
Breads:			
Braided bread, 2-ounce	12	14	20 to 25 minutes.
Cinnamon rolls, 2-ounce	10	12	10 to 15 minutes.
Jenny Linds, 16-ounce	18	20	30 to 40 minutes.
Muffins, 2-ounce	15	15	20 to 30 minutes.
Parkerhouse rolls, 2-ounce	10	12	10 to 15 minutes.
Raisin buns, 2-ounce	15	18	35 to 40 minutes.
Sandwich buns, 2-ounce	10	12	10 to 15 minutes.
Tea buns, 2-ounce	15	18	35 to 40 minutes.
French bread, 18-ounce (13 inches long)	14	30	40 minutes.
Cakes:			
Apple, 16-ounce (6 by 10 inches)	15	18	20 to 30 minutes.
Coffee, 16-ounce (6 by 10 inches)	15	15	15 to 20 minutes.
Apple kuchen, 16-ounce	15	18	25 to 30 minutes.

427. Biscuits (for 60 men).

Ingredients used:

10 pounds flour.
1½ pounds fat (lard preferred).
2 ounces sugar.
2 ounces salt.
10 ounces baking powder.

Mix the dry ingredients and sift; work in the lard and mix thoroughly; add sufficient water to make a soft dough; roll out about one-half inch thick; cut out with a biscuit cutter and place in bake pan about one-half inch apart; bake in a 12-count oven about ten minutes; serve hot with butter or sirup.

When using baking powder, it is better to use cold water (or milk) and keep in a cool place before baking.

428. Bread, corn (for 60 men).

Ingredients used:

5 pounds cornmeal.
3 pounds flour.
1½ ounces sugar.
8 ounces fat (lard or drippings).
8 ounces baking powder.

Mix the ingredients and sift; work in the lard and mix thoroughly; add sufficient water to make a soft dough; spread in bake pans to depth of two inches, and bake in a 15-count oven for about forty minutes.

429. Take all the good scraps of bread, using up that which might otherwise be wasted; place in a dripping pan in a slow oven for about one hour; leave the oven door slightly ajar to allow the moisture to escape; when thoroughly dried out, pass through a meat chopper and then through a coffee mill. Keep in a dry place and they will keep almost indefinitely. Used for rolling meats for frying.

430. Buns, corn (for 60 men).

Ingredients used:

4 pounds corn meal.
1 quart yeast.
4 ounces salt.
½ pound fat.
1 pint sirup.
5 quarts water.

Let the water come to a boil and whip the corn meal in slowly to prevent the formation of lumps; let boil for five minutes; when cool,

add the yeast, salt, fat and sirup; add sufficient flour to make a stiff dough, and handle the same as other yeast preparations.

431. Buns, currant (for 60 men).

Ingredients used:

3 pounds currants.
¼ pound sugar.
½ pound lard.

Prepare a 1-gallon mixture as in paragraph 424 using the ingredients above-named in the dough, in addition to those used in the plain dough mixture. After proving and molding into loaves, divide each loaf into 8 equal parts, and round up each piece; place in pan about 1 inch apart; glaze the tops with melted lard; set in a temperature of 80° F. Let rise to twice their size and bake in a medium oven (18-count) for forty minutes.

432. Buns, graham (for 60 men).

Ingredients used:

7 pounds graham flour.
¼ pound sugar.

Prepare a 1-gallon mixture as in paragraph 424, using the graham flour in place of an equal amount of wheat flour, and the additional quarter pound of sugar in making the dough. After proving and molding the loaves, divide each loaf into 8 equal parts and round up each piece; place in a bake pan about 1 inch apart; glaze the tops with melted lard or drippings; set in a temperature of 80° F.; let rise to twice their size, and bake in an 18-count oven about forty minutes.

433. Buns, sugar (for 60 men): Prepare a 1-gallon mixture as in paragraph 424; after proving and molding, divide each loaf into 8 equal parts and round up each piece; place in the pan about 2 inches apart; glaze the tops with melted lard; let prove about six minutes; flatten the tops with the hand and sprinkle well with sugar. Set in a temperature of 80° F.; let prove twice their size, and bake in a 15-count oven about fifteen minutes.

434. Buns, tea (for 60 men): Use the plain sweet dough mixture as in paragraph 424, and prepare in the same manner as currant buns, omitting the additional ingredients used in the latter.

435. Cake, apple (for 60 men).

Ingredients used:

12 pounds fresh apples.

Prepare a 1-gallon mixture of sweet dough as in paragraph 424. After proving and molding, roll out in pieces of about 1 pound each

and about 8 inches square; place in the bake pans, peel the apples and cut into very thin slices; place in thin layers over the top; sprinkle with a little cinnamon and sugar; let prove to twice their size, and bake in a 20-count oven about thirty minutes. If desired, a custard consisting of one-third eggs and two-thirds milk, with about 2 pounds of sugar to the gallon, may be poured over the cake before baking.

Apple kuchen: Prepare a 1-gallon mixture of sweet dough as in paragraph 424, molding it into pieces weighing about 1 pound each; let prove to twice their size; roll out three-fourths of the loaves about the size of a pie tin and about one-fourth inch in thickness; put in a pie tin and cover with a thin layer of cooked apples seasoned highly with cinnamon and sugar; then use the remainder of the dough, cut into strips weighing about 1 ounce each, by placing the strips over the fruit, each strip extending entirely across the tin, and press the ends against the dough in the tins so that they will adhere. Bake in a 20-count oven about thirty minutes.

436. Cake, coffee (for 60 men).

Ingredients used:

2 pounds sugar.

2 ounces cinnamon.

Prepare a 1-gallon mixture of sweet dough as in paragraph 424; after proving and molding, roll out into pieces about 8 inches square, place in a bake pan and glaze the tops with melted lard or drippings; sprinkle with sugar and cinnamon mixed; let prove in a temperature of 80° F. until they double in size; bake in a 12-count oven about twenty minutes.

437. Jenny Linds (for 60 men): Prepare a 1-gallon mixture as in paragraph 424; after proving and molding into loaves, roll out in circular form and about one-half inch in thickness; glaze the top with melted lard and fold together so that the upper portion will hardly cover the lower portion; let prove in a temperature of 80° F. until they double in size; bake in a 22-count oven about forty minutes.

438. Parkerhouse rolls (for 60 men): Prepare a 1-gallon mixture as in paragraph 424; after proving and molding, cut each loaf into 8 equal parts; round up and let prove about six minutes; roll out about one-half inch thick; make a crease through the middle of each piece; glaze over one-half of each piece with melted lard; fold and press the edges together. Place in a well-greased pan about 2 inches apart, let rise and bake in a hot oven (12-count) for about fifteen minutes.

439. Twists (for 60 men): Prepare a 1-gallon mixture of sweet dough as in paragraph 424; after proving and molding, roll each loaf out to about one-fourth inch in thickness; then sprinkle one-half with currants, sugar, and cinnamon, and fold the other half upon it, press down slightly and then cut into strips about 1 inch wide; twist from one end and place in the pan so they will just touch each other; let prove in a temperature of 80° F. until it doubles in size, and bake in a 15 or 18 count oven about thirty-five minutes.

DRINKS.

440. Cocoa or chocolate (one gallon).

Ingredients used:

3 to 5 ounces cocoa or chocolate.
5 ounces sugar.
4 ounces evaporated milk.
1 gallon (scant) of water.

Let the water come to a boil, add the cocoa and boil five minutes; add the milk and sugar to taste. Whip slightly with a wire whipper before serving. One gallon is sufficient for from 6 to 10 men. Serve hot.

441. Coffee (for 60 men): Coffee is generally served for breakfast and dinner, and should always be prepared fresh at least once a day. The following method is suggested:

Breakfast.—Put 7½ gallons of water in the boiler and let come to a boil; add 2¼ pounds roasted and ground coffee, and remove from the range immediately. Allow to stand fifteen minutes; add 1 pint of cold water, and allow to stand a few minutes longer before serving. To sweeten add 4 or 5 ounces of sugar to each gallon.

Dinner.—Allow the grounds to remain in the boiler and add sufficient water to make 7½ gallons; allow to come to a boil and add 3 ounces of coffee, roasted and ground, for each gallon of fresh water used; remove from the range and allow to stand fifteen minutes; add a pint of cold water, and allow to stand a few minutes before serving.

Coffee should be made for immediate use only.

To parch or roast coffee: Place about 10 pounds of green coffee in a bake pan and set in a brisk oven, leaving the door catch on the first notch until the coffee is thoroughly dried. Close the oven and stir frequently with a spoon until nicely browned.

442. Lemonade (for 60 men).

Ingredients used:

7½ gallons ice water.
4 pounds sugar.
60 lemons.

Squeeze the juice from the lemons with a lemon squeezer and add to the water; sweeten to taste and stir thoroughly before serving. Serve ice cold.

443. Tea (for 60 men).

Ingredients used:

7½ gallons fresh water.
3½ ounces good tea.

Allow the water to come to a boil; suspend the tea from the top of the boiler in a muslin cloth and allow to stand in the boiling water for five minutes. The cloth should be sufficiently large to give the tea plenty of room, so that the boiling water will penetrate all portions of it. Remove the leaves and serve immediately.

Iced tea.—Place 2 gallons of water in a boiler, and when boiling, add 5 ounces of tea and prepare as in the preceding recipe. Just before serving, add sufficient cold water and ice to make 10 gallons. A dozen sliced lemons may be added, if desired.

To sweeten tea, add about 4 ounces of sugar to each gallon of tea.

PART II.

CHAPTER I.—FIELD COOKING.

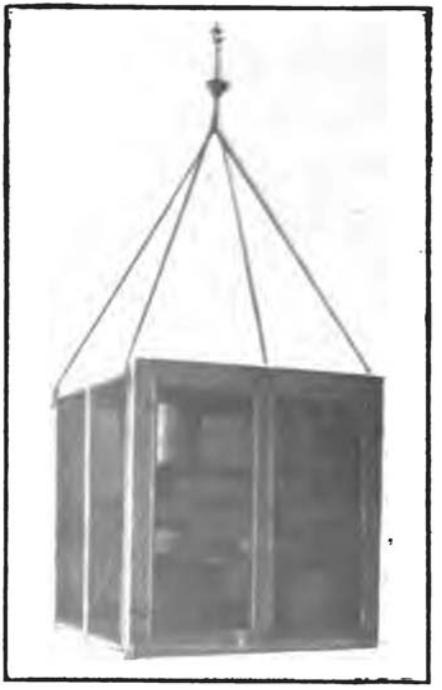
444. **In permanent camp.**—Cooking in a permanent camp is very similar to cooking in garrison, and when fresh beef is regularly supplied the same bills of fare can be followed very closely. The dining-room arrangements are more simple and the kitchen work reduced, as the individual mess kits are used and each man generally looks after his own. When the regular equipment is provided, small doughs should be handled freely and plenty of buns and rolls baked. When bacon constitutes a large part of the meat component, sufficient fat may be saved for use with the suet in frying fritters, crullers, doughnuts, etc., and for making pastries.

There must necessarily be a greater waste in camp than in garrison, and consequently an organization can not live as well on the straight ration. As stated before, the individual mess kits are generally used; each man approaches the issuing table and receives on the different parts of the mess kit the various components of the meal, taking as much as he wants. There is a general tendency to take away more than can be eaten, and consequently there is a great waste. Great care should be exercised to reduce this waste to a minimum.

The conveniences of a long-established camp gradually approach those of garrison, and where great care is exercised troops will fare much better on the same ration than others in garrison with indifferent supervision.

Flies are always a pest in a summer camp (or in the tropics) and a screened cage becomes almost a necessity. It is not issued and must be constructed at the expense of the company fund. Coal oil should be used freely about the refuse cans, to keep away the flies and destroy their larvæ. Kitchens and dining rooms should be screened if possible and kept scrupulously neat. Table legs should be placed in cans of water when insects are troublesome.

SWINGING CAGE.



Especially useful in the Tropics, or in camp. It should be suspended in such a manner that a cup of oil placed as shown will prevent insects from reaching the cage.

Dimensions, about 3 feet square and 3 feet high.

It is not regularly supplied, and if provided must be constructed at the expense of the company fund.

FIELD MESS CHEST.



Especially adapted for the use of troops on the march. It should be carried in the back end of an escort wagon and not removed when camp is reached. All of the smaller components of the ration required for daily use should be carried in the chest, which holds about 200 rations. All of the drawers should set in pigeonholes so that the boxes shall be very firm, the drawers slide easily, and the components not shake out and mix. The lid sets closely against the front of the drawers and prevents leakage and consequent mixture of the ingredients. When lowered the lid serves as a table for molding bread or for other kitchen use.

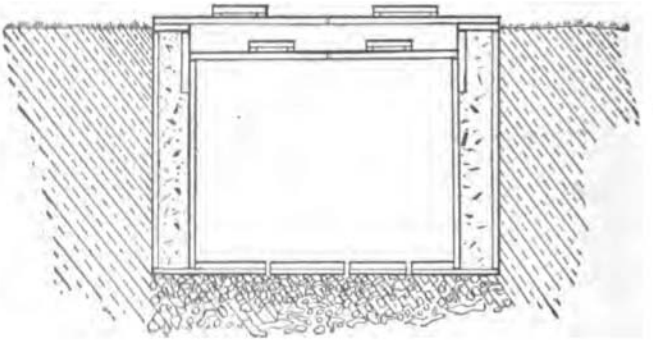
Dimensions, 3 feet 2 inches long, 2 feet 8 inches high, and 2 feet 8 inches deep. Strong rope or "field desk" handles should be placed on the sides. Constructed of pine and should weigh about 100 pounds.

It is not supplied to troops, and must be constructed at the expense of the company if desired.

A field mess chest, such as is illustrated, would be a great convenience here, as well as when transporation is sufficient for it to be carried on the march. It is not issued, but must be constructed at the expense of the company fund.

An ice box is often a great convenience, and may be constructed by simply setting a dry goods box inside of a larger one, preparing the necessary lids, and filling the space between the two boxes—say, 4 to 8 inches—with sawdust, gunny sacks, leaves, grass, hay, straw, etc. Or even better, a single box may be set in the ground and packed around with materials as noted above or with solid earth.

IMPROVISED ICE BOX.



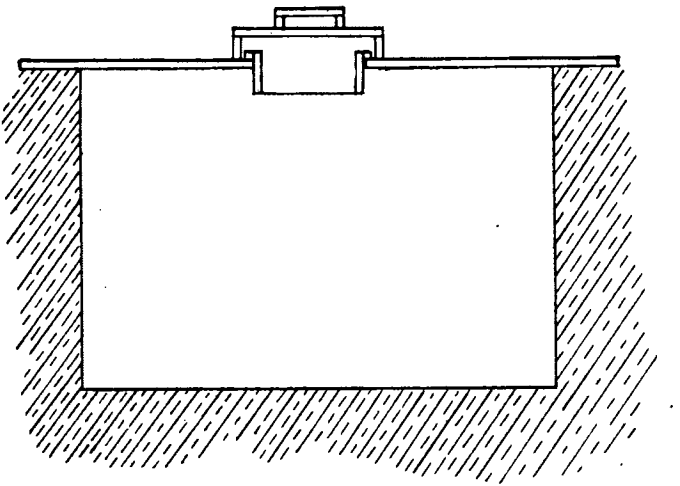
To provide a simple ice box for the field that will be thoroughly satisfactory, sink a packing box of suitable size into the ground and prepare a close-fitting cover in two parts, for convenience in handling. It is well to surround the box with heavy paper or with packed straw or grass to prevent dirt from falling in through the cracks. To provide drainage, bore several holes in the bottom of the box, and, if practicable, put a quantity of stone or gravel in the bottom of the pit before installing the box. If facilities are at hand, provide a double box as shown. It will be more cleanly and, on account of the double top, the ice will last longer.

Frequently only the solid refuse from the kitchen can be carried away, and it is necessary to construct a pit for slops. It should be carefully covered and supplied with a trap door.

445. **In temporary camp.**—In a temporary camp, say, of from five to ten days, the cooking is very much the same as in permanent camp. Meals are served to the men in the same manner, and the same care must be exercised in the prevention of waste. In hot or wet weather

a fly should be stretched over the range and the rations carefully protected. Frequently the escort wagon in which the rations are carried may be used for the storage of mess supplies, and a tent fly

PIT FOR SLOPS.



Whenever facilities are not provided for disposing of the kitchen waste, it becomes necessary to dig a pit. In short camps not likely to be used again, all kitchen waste may be thrown into the pit, but in camps of longer duration it is necessary to strain all dish water, etc., through a box sieve suitably placed over the pit, and then to burn all solid matter in the range or incinerator. To darken the pit and keep it free from flies, make a solid board top, tamp with dirt and provide a detachable box sieve with cover, as shown. The pit should generally be about 2½ feet wide, 5 feet long, and 4 feet deep when dug in clay. In more permeable soil, the dimensions may be somewhat reduced.

should then be put up for the protection of the cooks and food before issue. When possible a wall tent and fly should be used in place of the arrangement just indicated.

COMPANY INCINERATOR.



Dig two trenches 10 feet long and 10 or 12 inches wide, bisecting each other. At the point of bisection have the trenches from 15 to 18 inches deep, gradually shallowing up from this point to their several origins. Over the place of bisection place four boards to support an ordinary sugar or flour barrel. Around the barrel pile sods of earth up to the top of the barrel. Pack tightly. Make a fire in the trench under the barrel, which, upon being burned out, leaves a hard cone. According to the direction of the wind, leave one trench open and plug the other three openings near the cone with boards, turf, or loose soil. This gives a draft of air through the open trench and up through the cone, which acts as a flue.

If the soil is full of clay, the cone is easily made. If not it can be done in the manner shown in the illustration by using sods.

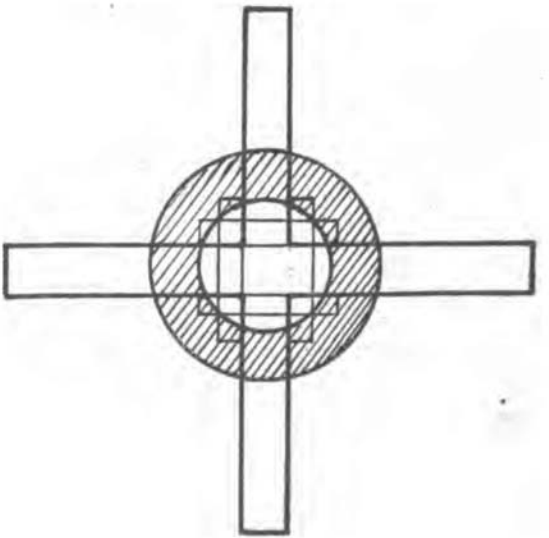
All the garbage of a company kitchen in the field can be easily disposed of by this means.

At the end of each day the ashes and tin cans should be raked out of the fireplace and a fresh fire started in the morning.

The fire is kept up by dropping fuel material down the cone, and garbage is fed to it in the same manner.

Though not absolutely necessary where the range is supplied, an excavation should be made for protection to the fire of an open grate used in windy weather. A pit 1 foot deep, with the additional protection afforded by the earth thrown up on the sides, will be ample.

PLAN AND CROSS SECTION OF COMPANY INCINERATOR.



446. **On the march.**—When first leaving the post or permanent camp, from one to three days' supply of fresh bread and such quantity of fresh meat as can be carried and kept from spoiling should be taken along. This will help out until the cooks get used to the new conditions, and will insure at least two good components for the meal. Thereafter canned goods and hard bread may be used to the greatest advantage; and, fortunately, troops in the field can now be issued canned corned beef, canned corned-beef hash, canned roast beef, canned tomatoes, jam, etc., all of excellent quality, nicely put up in suitable-sized cans and easily supplemented by other canned provisions from the commissary. Bacon, hard bread, and dried vegetables must of course generally be used, however, almost to the exclusion of the more bulky components when on the march.

Generally there is little time to prepare breakfast, and no attempt should be made to secure a great variety, but to have a few components, good and substantial, and plenty of coffee. Upon arrival in camp it is necessary to get a quick meal, as the men, having been hurried away in the morning, and probably having had a hard day's march, are hungry and tired; the idea is to get something ready quick. Suppose the command leaves camp at 6 a. m. It should generally arrive in camp between 12 and 2.30 p. m.; there should be three meals for the day, so a light lunch will suffice. Additional help should be gotten from the company to quickly get wood and water. The fire should be started at once and lunch should be ready to serve in thirty minutes. This will give plenty of time to prepare a good dinner, which should be served about 6.30 p. m.

Suitable bills of fare are given in the following chapter.

447. **Pack transportation.**—When pack transportation is resorted to, the question of weight is of great importance, and nothing should be taken along that can be dispensed with. The range can be packed by placing the roaster on one side and the boiling plate, with utensils, on the other side, making a well-balanced load of about 200 pounds.

When even pack transportation can no longer be resorted to, the range will have to be abandoned and the utensils carried by the cooks. The boilers, etc., have been especially designed with this purpose in view.

In choosing the rations to take when pack transportation is used, it is of course desirable to carry only those articles which have a great deal of nutriment and little weight in proportion. The following should form a large part of the ration: Bacon, canned corned beef, canned roast beef, hard bread, flour and baking powder, beans, dried pease, and dried fruits.

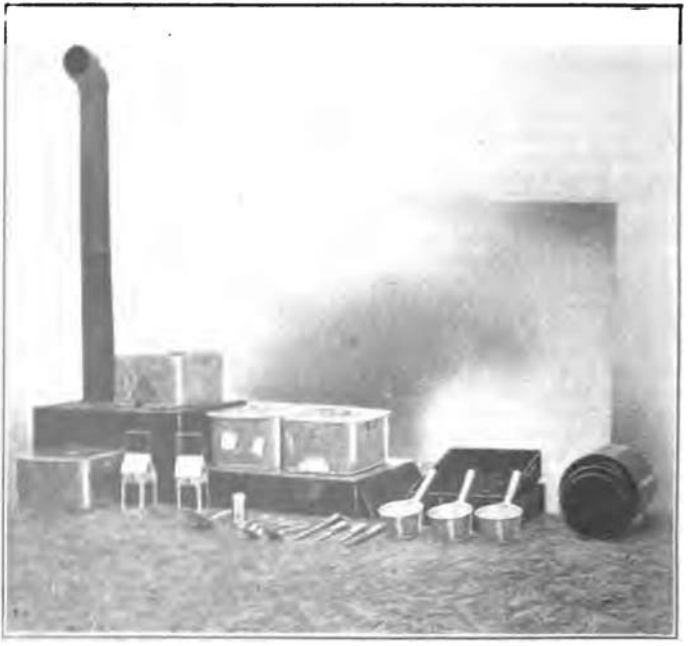
The packing boxes should be made of light material, not more than three-fourths of an inch in thickness, but trimmed at the corners with tin extending about 4 inches along the sides and ends; the cover should be attached with two light hinges. The boxes do not have to be especially strong, as they are wrapped in canvas before being packed on the mule; they should be about 2 feet 6 inches long, 1 foot 6 inches wide, and 1 foot 4 inches high.

448. **Personnel.**—The permanent personnel of the garrison mess (mess sergeant and cooks) should be supplemented by the addition of one man for general work about the kitchen in the field. It is suggested that the man performing the duties of dining room orderly in garrison be used for this purpose. In addition, a suitable detail (say from two to four men) will be made to get wood and water and to assist in establishing the kitchen.

449. **The army field ranges Nos. 1 and 2** are the only cooking devices now supplied to troops. The No. 1 range is issued to organizations of the size of a company of infantry or less, and the No. 2 range to detachments, officers' messes, etc., or added to the equipment of organizations larger than a company of infantry. The size of the No. 1 range is based upon the requirements of a company of infantry at war strength, as found by actual test, and the utensils supplied, while in good condition, are ample.

The range should be set up with the firing end toward the wind, and the sides should not be banked more than is necessary to seal the cracks where contact is made with the ground. Although a trench is not necessary, a slight excavation under the boiling plate will give a larger-sized fire box, and will generally prove more satisfactory. Articles brought to a boil on the boiling plate will continue to simmer when placed on top of the oven, and will keep sufficiently hot for issue when set on the ground with one side against the side of the oven or boiling plate, thus leaving the range free for other work.

NEW ARMY FIELD RANGE.



CHAPTER II.—TEN DAYS' BILL OF FARE FOR THE FIELD.

450. Assuming that field rations for ten days have been supplied, as indicated below, and the variety given is considered as unusually fortunate, the bills of fare cited are considered as appropriate and, in all respects, covered by the articles provided. It should be borne in mind that no savings can be made on the field ration, and hence it is assumed that no additional articles have been purchased.

Ten days' rations drawn as follows:

Meat component:

- Fresh beef, five days.
- Bacon, three days.
- Corned beef, one day.
- Corned-beef hash, one day.

Bread: Probably two or three days' supply of soft bread taken when starting on march; two days' supply of hard bread, and the remainder in flour (with baking powder).

Dried vegetables:

- Beans, eight days.
- Rice, two days.

Fresh vegetables:

- Potatoes, six days.
- Onions, two days.
- Tomatoes, two days.

Other components:

- Jam, ten days.
- Coffee, eight days.
- Tea, two days.
- Sugar, ten days.
- Milk, ten days.
- Vinegar, five days.
- Pickles, five days.
- Salt, ten days.
- Pepper, ten days.

The milk is considered sufficient for the coffee.

Where bread is noted on the bill of fare, hard bread, soft bread, or biscuits are to be served, according to circumstances.

	Breakfast.	Lunch.	Supper.
1	Beef, Spanish. Lyonnaise potatoes. Bread. Coffee.	Corned beef. Cold tomatoes. Bread. Coffee.	Beef soup. Boiled beef. Boiled potatoes in jackets. Bread and coffee.
2	Baked beans and bacon. Onions and pickles. Bread and coffee.	Bacon. Boiled rice. Bread. Tea.	Beefsteak. Fried onions. Bread and jam. Coffee.
3	Beef stew. Bread. Coffee.	Cold boiled beef. Pickles. Bread. Coffee.	Roast beef and gravy. Boiled potatoes. Sliced onions. Bread and tea.
4	Beef hash. Bread. Coffee.	Fried bacon. Boiled potatoes. Bread. Tea.	Tomato soup. Boiled beef. Browned potatoes. Bread and coffee.
5	Baked beans and bacon. Sliced onions. Bread and coffee.	Cold beans and pickles and onions. Bread. Coffee.	Irish stew and dumplings. Bread. Tea.
6	Beefsteak. Baked potatoes. Bread and coffee.	Sliced cold corned beef. Blackberry jam. Bread and coffee.	Roast beef and gravy. Boiled potatoes. Bread and coffee.
7	Corned-beef hash. Pickles. Bread. Coffee.	Fried bacon. Cold tomatoes. Bread. Tea.	Bean soup. Boiled beef. Pickles and bread. Coffee.
8	Baked beans and bacon. Pickles. Bread and coffee.	Bacon. Rice pudding and jam. Bread. Coffee.	Beefsteak and gravy. Fried potatoes. Bread. Tea.
9	Corned-beef hash. Bread. Coffee.	Sliced cold corned beef. Cold tomatoes. Bread and coffee.	Beefsteak and gravy. Baked potatoes. Bread. Coffee.
10	Beef stew with dumplings. Bread and jam. Coffee.	Fried bacon. Boiled potatoes. Fried onions. Bread and coffee.	Beef hash. Sliced onions. Bread. Coffee.

CHAPTER III.—FIELD COOKING EXPEDIENTS.

451. As before stated, it is intended that the field range shall be carried so long as wagon transportation is available. Thereafter, it may be carried on a pack mule, but if none is available, it will have to be abandoned, and the boilers and other utensils carried by the cooks. Ordinarily, thereafter, only boiling and frying can be done, unless clay ovens or dugouts are constructed. To utilize the boilers to the best advantage, an iron rack may sometimes be quickly constructed from materials at hand. In good soil, however, a narrow trench for the fire is about the most satisfactory device that can be used. It should be of such width that the boilers may be set across it. If available, green trunks of trees (say about 8 inches in diameter) may be laid parallel to each other at a suitable distance apart for supporting the boilers, the fire being built between them; or, similarly, rocks of suitable thickness may be arranged in a convenient manner for supporting the boilers above the fire to be built under them. If more time is available, an oven may be dug in a bank and vertical flues constructed, over which the boilers may be placed. After firing, the coals may be withdrawn and the baking done in the same chamber; or the dugout may be used for baking and roasting only, and the boiling otherwise provided for, so that all portions of the meal may be cooked at the same time. Attention is also invited to the open trench for baking, the clay oven above ground, and to the simple range made by covering a trench of suitable width with a bake pan or two for a boiling surface, and utilizing two or more coffee cans, set end on, for a flue. Beans may be baked in dugout ovens, clay ovens, etc., such as are mentioned above, or in a vertical hole dug in the ground, in which a jar or kettle containing them may be set and packed about with coals and hot ashes, and suitably covered.

Improvised ice boxes and pits for slops have been considered in Chapter I of Part II.

To preserve fresh beef, hang it in as cool and shady a place as possible; keep dry, and well protected from flies. In moderately cool weather, this method of preservation is better than resorting to a damp ice box.

The fireless-cooker idea should be utilized whenever time and materials are at hand. (See Part III, Chapter I.) Many things can be cooked in it to better advantage than in a range; and, inciden-

IMPROVISED FIELD OVENS.



On the left is shown a mud oven resulting from molding sand over two barrels placed end-on, the mold thus formed being covered with about 6 inches of clay, into which hay or straw has been chopped. The oven was then allowed to bake in the sun for about two days and then dried out by a slow fire.

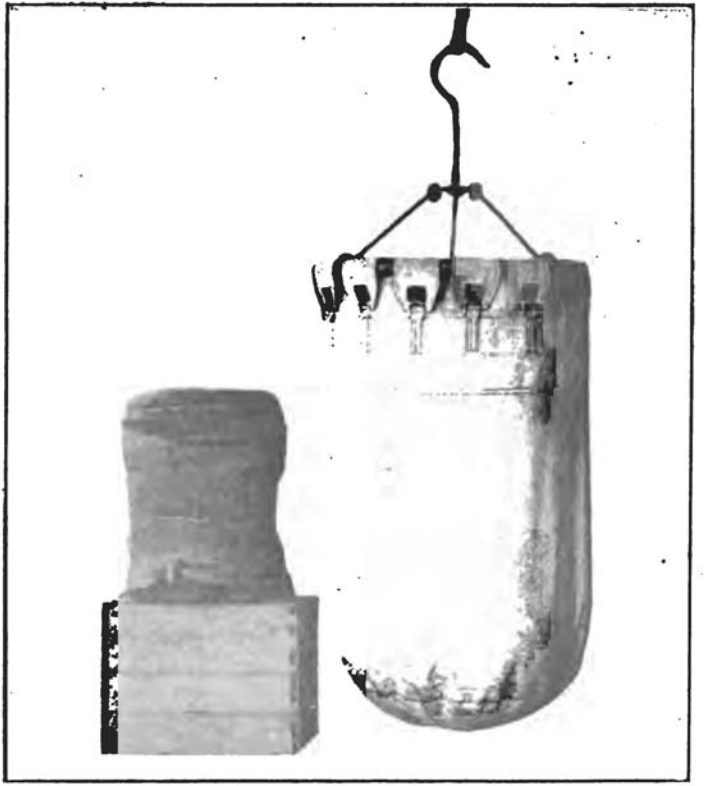
In the bank are seen two simple ovens constructed and used for baking the same day. In both cases a fire is built in the oven two or three hours before baking; the coals are then withdrawn and the baking begun when the temperature of the oven is sufficiently reduced.

On the right is seen a mud range constructed in the same manner as the oven first described, except that suitable holes are left in the top for the escape of gases for boiling. A mud chimney should be constructed if time is available.

After the vegetables, soup, coffee, etc., are prepared the fire may be withdrawn and baking or roasting done, as in the barrel oven.

tally, there is a great saving of fuel. Ordinarily, boilers and packing boxes, with hay, paper, sawdust, or gunny sacks as filling, may be used with excellent results.

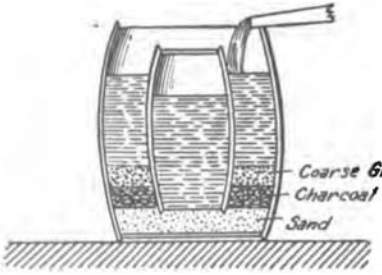
WATER COOLING DEVICES.

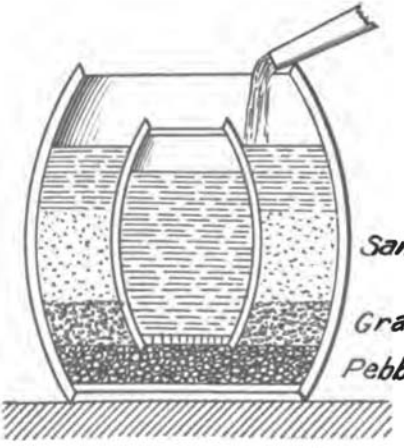


On the left is shown a 10-gallon coffee boiler wrapped with wet burlap, or grain sacks. On the right is a canvas bag containing fresh water. In each case the water in the receptacles is kept cool by evaporation, and hence the receptacles should be placed in a draught if possible.

It may frequently be desirable to improvise a simple filter in the field for the purpose of clarifying drinking water for the troops, and rendering it more palatable. Such filters are generally constructed by setting a barrel or keg within a larger receptacle—a box or barrel, as shown in the illustrations—and allowing the water to pass through successive layers of sand, gravel and pebbles, or charcoal; thence through holes in the bottom of the inner receptacle to the containing reservoir. By this process disease-bearing germs are not removed, and should the water come from a doubtful source, it should be boiled (and aerated if practicable) before using.

IMPROVISED FILTER.





The filter should be cleaned every day or two and the upper layers of sand thoroughly washed or replaced. Otherwise, the filter becomes a dangerous breeding place for disease-bearing germs, rendering its use more detrimental than beneficial to the troops.

PART III.

CHAPTER I.—FIRELESS COOKERS.

452. The "fireless cooker" may be defined as a device constructed for the reception of hot food or for the hot articles from which it is being prepared. It consists essentially of such nonconducting materials as may be necessary to maintain the food at a proper temperature for cooking for a number of hours.

It is generally a box-like arrangement, lined with a nonconducting material, within which is the "well" or reservoir, into which the vessel containing the hot soup, coffee, meats, vegetables, etc., is placed.

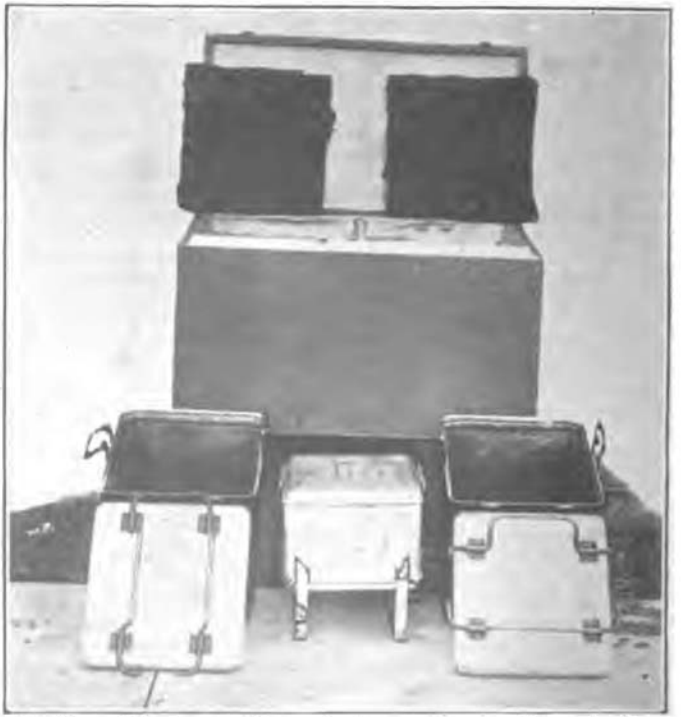
Many different makes of fireless cookers are found on the market, and various materials—asbestos, paper, felt, hay, indurated fiber, etc.—are used as nonconductors. In some types heated soapstones are placed in the "well" to keep the food at a cooking temperature for long periods, or to actually supply the heat ordinarily given to the food by placing it upon the range or within an oven.

Generally during the ordinary process of cooking a certain amount of heat is continuously applied to the vessel containing the food, and after it has attained a certain temperature the heat required is but little more than sufficient to replace that lost by radiation, evaporation, etc. To cook food simply requires the application of a certain amount of heat at a temperature between 130° and 385° F. (in the case of fireless cookers, between 130° and 212° F.), though the lower the temperature the longer the process will be.

The object of the fireless cooker is simply to prevent the loss of heat from food containing a sufficient number of heat units above 130° F. to cook it, thus effecting a great saving of fuel, and incidentally rendering it unnecessary for one to give his constant attention to the food being cooked. Furthermore, some articles are actually better when prepared in a fireless cooker, e. g., tough meats, that are ordinarily improperly cooked by any quick process, are rendered more tender and palatable by the long, slow process required when the fireless cooker is used.

To prepare food for the fireless cooker, the general idea is to place it on the range until the articles to be cooked are heated through,

EXPERIMENTAL FIRELESS COOKER ISSUED BY THE SUBSISTENCE DEPARTMENT.



It will provide about 9 gallons each of two components of a meal and may frequently be used to advantage in garrison and in the field whenever transportation is available.

or have taken up such an amount of heat that when transferred to the cooker they will contain within themselves sufficient heat to complete the process. By experience, the following times of cooking, etc., have been ascertained:

453.

Articles of food.	Number of minutes at boiling point before putting in cooker.	Number of hours in the fireless cooker.
Beef à la creole	45	6
Beef à la mode	45	3
Beef, corned	45	3
Beef, curry of	20	3
Beef, roast, soft	45	3
Beef, Spanish	20	3
Beef, Turkish	20	3
Beans, Boston baked	60	12
Beans, Lima	45	3
Beans, kidney	90	6
Beans, string, green	30	2
Cabbage, with bacon	20	3
Cabbage, Bavarian	20	3
Cabbage, with fresh pork	45	3
Carrots, boiled	20	3
Chicken à la creole	45	6
Chicken, curry of	45	4
Chili con carne	30	3
Codfish, creamed	15	2
Ham, boiled	45	4
Mutton stew	20	4
Parsnips	30	3
Pork, fresh, boiled	60	4
Potatoes, Irish	15	2
Potatoes, sweet	20	2
Sauerkraut, with bacon or salt pork	45	3
Succotash	20	3
Tomatoes, stewed	20	1
Turnips, boiled	60	3

NOTE.—Meats should not be cooked in pieces weighing more than from 3 to 5 pounds.

To get the best results, most articles of food to be cooked should be covered with liquid when put into the cooker.

Such vegetables as potatoes, parsnips, etc., should be about half cooked before putting in the cooker, the water drained off, and the

tubers or roots allowed to finish cooking with the retained heat. Such articles should preferably remain in the cooker for a few hours only.

A considerable amount of acid is found in tomatoes, and dishes containing them in quantity should not be permitted to remain in the fireless cooker or other tin receptacle for longer than four or five hours.

IMPROVISED FIRELESS COOKER.



This cooker consists of an ordinary ash can or water can for receiving a milk can, or such a boiler as is represented. Hay or straw is generally used for packing. Upon arrival in camp the large cans are used as receptacles for water and the smaller ones for cooking.

Tea and coffee should be prepared in the utensils provided, and the tea leaves or coffee grounds (which should have been tied loosely in a sack) should be removed before setting the same in the cooker.

To get the best results the vessels should be well filled, and where two or more "wells" are provided all should be used if practicable.

CHAPTER II.—MESSING ON RAILROAD TRAINS.

454. *Standard kitchen car.*—This is a remodeled tourist sleeper, designed to cook for a battalion (peace strength) from two to five days or longer, and to carry 42 men. Only limited facilities are provided for cold storage and for the storage of nonperishable articles, so that the bulk of the food supplies must be carried in a baggage car. For this reason, arrangements should always be made to have a portion of a baggage car, say from one-third to one-half, allotted for this purpose, and in making up the train this portion of the baggage car should be placed next to the kitchen. The garrison ration will be issued, and a considerable saving should be made from the credit allowance on beef, beans, dried fruits, sugar, sirup, flavoring extracts, etc., and canned meats, canned vegetables, and canned fruits purchased with the savings made.

An officer will be detailed by the commanding officer of the troops entrained to take charge of the messing arrangements, and he will be assisted by a mess sergeant. The mess officer will designate the hours for meals and the manner in which they are to be served, and make request for the necessary details for kitchen police and waiters. Generally one or two cooks will be provided by the Pullman Company, and the company cooks should be detailed to render them the necessary assistance and to perform the duties of kitchen police.

For serving the meal, the company mess sergeant and one man for each article on the bill of fare should report from each company. The serving of the meal will not begin until everything is ready. The details will then be called up in order, and the quantities due each organization having been determined, the troops farthest from the kitchen will be served first.

455. The following bills of fare are considered appropriate:

	Breakfast.	Dinner.	Supper.
1	Link sausages. Fried potatoes. Bread and butter. Coffee.	Corned beef and cabbage. Pickles. Bread. Coffee.	Vegetable Soup. Boiled beef. Potatoes. Bread and butter.
2	Beefsteak. Baked potatoes. Gravy. Bread. Coffee.	Vegetable soup. Roast beef. Stewed tomatoes. Browned potatoes. Bread and butter. Coffee.	Bacon. Fried potatoes. Bread and butter. Coffee.
3	Bacon and eggs. Fried potatoes. Bread. Coffee.	Corned beef and cabbage. Sliced onions. Bread. Coffee.	Vegetable soup. Beefsteak. Browned potatoes. Bread and butter. Coffee.

456. *Detachment kitchen car.*—This car is designed, first, for journeys where the number or men and the distance do not warrant the use of the standard kitchen car, and, second, for long journeys (forty-eight hours or more) for 30 men or less.

The car is provided with a gas range attached to the Pintsch gas tanks, and will cook for as many men as can be carried on the car. There is no ice box or refrigerator on this car, and consequently fresh beef can not generally be carried for more than two meals, unless the weather is such that the meat may be carried in sacking on the platform. Travel rations and fresh bread for 30 men for five days can be carried in the locker and vacant section in the car, and, if the detachment is without an experienced cook, travel rations should be carried, and coffee made under the direction of the officer or non-commissioned officer in charge. On short journeys, where an experienced cook is available, the garrison ration should be provided.

457. The following bills of fare are considered appropriate:

	Breakfast.	Lunch.	Supper.
1	Beefsteak and gravy. Boiled potatoes. Apricots. Bread and coffee.	Baked beans. Blackberry jam. Bread and butter. Coffee.	Beef stew. Bread and butter. Coffee.
2	Cold sliced corned beef. Boiled potatoes and gravy. Canned peaches. Bread and coffee.	Cold sliced corned beef. Canned peas. Bread. Coffee.	Beefsteak. Boiled potatoes. Bread and jam. Coffee.

458. *Pintsch gas cooker.*—This cooker is designed for the use of troops traveling in any type of car equipped with the Pintsch gas-lighting system, and practical experience has shown that sufficient gas is generally available for all cooking to be done. It has sufficient capacity for cooking for 48 men (the maximum number carried in one car) and supplies two hot components of the meal—as, for example, hot coffee and stewed corn—although but one article can be cooked at a time. One cooker is supplied with each car and contains ample utensils for cooking and serving the food, though the individual mess kits must be carried.

459. *Directions for use.*—In setting up the gas cooker the work should be supervised by a commissioned officer. If none is present, then by the noncommissioned officer in charge.

(*a*) Set burner and stand in men's wash room or other suitable place and connect same with the nearest four-tipped burner, as follows:

(*b*) Remove glass bowl and turn over to porter. Unscrew 4-flame cluster, being careful not to unscrew the cluster stem. Screw short pieces of gas tubing to cluster stem where 4-cluster flame was removed by the coupling at one end of the tubing. Then attach long piece of tubing to short piece and connect with the burner of the cooker. After the meal has been prepared disconnect long piece of tubing and allow end to remain attached to the cluster stem. When it is desired to operate the cooker, connect long piece of tubing to short piece.

If it is not practicable to make connections with a 4-flame cluster, connect burner of cooker with a 1-burner bracket lamp, as follows:

With pliers remove gas tip and loosen the governing screw so as to insure a free flow of gas.

If the governing screw sticks, tap lightly with the handle of the screw-driver until it can be easily removed. Do not entirely unscrew the governing screw. Slip rubber end of tubing over pillar and connect other end to the burner of the cooker.

(*c*) The connections having been made, turn on the gas at the lamp and burner of the cooker and light with a wax taper. The greatest heat is obtained by having a strong blue flame.

(*d*) The burner being lighted, set on the largest copper boiler if it is desired to make coffee. The boiler should be filled about two-thirds full, additional water being added when the coffee has come to a boil.

After coffee has been made remove and set boiler on one of the asbestos mats, to prevent damage to the floor of the car. The second boiler is then set on the burner, with such food as may be desired to cook. Water must be added to prevent burning of food and melting the boilers. Stirring is also necessary when preparing certain foods.

It requires about one hour and twenty minutes to prepare coffee and cook one hot dish for 48 men.

After the meal is prepared set the galvanized-iron boiler on the burner and heat the necessary water for washing the mess kits and utensils.

460. Caution.—(*a*) Do not put boilers on without water in them.

(*b*) Always add a little water, about 1 quart to every 10 pounds of food, to prevent burning.

(*c*) Remove the coffee and hot water from the copper vessels as soon as practicable, to preserve the tinning inside.

(*d*) Look at the gas flame occasionally, to see that it has not blown out.

(*e*) To reduce gas consumption and save time, get hot water for washing dishes from the locomotive.

(*f*) Never light the gas with boiler set on heater.

(*g*) If the roadbed is rough and there is considerable motion to the train, secure the stand and burner by the two leather straps furnished with the cooker. To prevent the splashing of water when

coffee is made or water being heated, place round slop board in the boilers so as to counteract the motion of the car.

(*h*) In case of leaks in the gas tubing, cut at leak with sharp knife and connect the two pieces of tubing with a coupler, wrapping ends of tubing with wire.

(*i*) Handle the equipment intelligently and carefully. Never pack any article unless clean and dry. When returned to a depot or post, the equipment should be completely overhauled, cleaned, and tested.

461. The garrison ration will be used when the cooker is provided, and it is recommended that articles be purchased from the credit allowance as follows:

Beef, corned, canned.
Hash, corned beef.
Salmon, canned.
Potatoes, about one-third of allowance.
Soft bread.
Hard bread.
Tomatoes.
Jam.
Coffee, roasted and ground.
Tea.
Sugar.
Milk, evaporated.
Pickles.
Salt.
Pepper.
Butter.
Sirup.
Soap.

A quantity of canned baked beans should be purchased, as they can be readily heated by the cooker and the dried beans can not be cooked en route. If the journey is an extended one, fresh onions may be purchased; also a small quantity of bacon.

On account of the limited space available for cooking, it is not desirable to prepare elaborate meals, but the fare can be much improved by purchasing extra articles of food from the company fund.

462. The following is a list of a few articles of food which can be utilized when preparing meals with the gas cooker:

Beans, stringless, canned.
Beef stew, canned.
Chocolate.
Cocoa.
Corn, canned.
Eggs, fresh.
Frankfurter sausage, canned or fresh.
Fruit, fresh.
Hominy, canned.
Peas, canned.
Plum pudding, canned.
Sauerkraut, canned.
Soups, canned.
Vienna sausage, canned or fresh.

463. The following are sample bills of fare for two days when using the Pintsch gas cooker:

FIRST DAY.	SECOND DAY.
Breakfast:	Breakfast:
Hot corned-beef hash.	Hot baked beans.
Soft bread and butter.	Soft bread and butter.
Coffee.	Coffee.
Dinner:	Dinner:
Cold corned beef.	Cold meats.
Hot baked beans.	Stewed tomatoes and corn.
Soft bread.	Soft bread.
Pickles.	Tea.
Coffee.	
Supper:	Supper:
Cold meat (boiled ham or roast beef cooked before starting on journey).	Hot corned-beef hash.
Stewed tomatoes.	Soft bread.
Soft bread and jam.	Coffee.
Tea.	Sirup.

CHAPTER III.—MESSING ON TRANSPORTS.

464. The food for troops traveling on transports is prepared from the articles of subsistence stores composing the garrison ration, varied by the substitution of other articles of authorized subsistence stores, the total value not to exceed 24 cents per man per day. No savings are made for distribution among troops.

Although the duties of the commissary are usually performed by the transport quartermaster, who is held responsible for the discipline, good conduct, and efficiency of the employees of his department, and for the care and preservation of subsistence stores, cleanliness of troop galleys, and prevention of waste, and is required to see that the quantity and quality of provisions are satisfactory, the messing of troops on board is under the immediate charge of a mess officer detailed by the commanding officer of the troops.

465. The mess officer is assisted by a noncommissioned officer, who is under his immediate charge, and by such other assistants (noncommissioned officers, cooks, bakers, waiters, etc.), also detailed from the troops on board, as may be necessary. He is required to see that the meals are served in the proper order and at the proper time; that utensils are cleaned and put away after each meal; and that the mess decks are properly policed. He prescribes the order in which the different companies are to be served and prevents crowding and confusion in the troop galleys. He is responsible for the articles of table furniture used and receipts to the transport quartermaster for them. Under the direction of the commanding officer, he should see that the casuals on board are divided into suitably sized "mess squads" and that all troops are assigned to certain tables for their meals, and that when all can not be assigned at the same time, the "sittings" and assignments are such that no organization is placed at a disadvantage. The mess officer makes an inspection of the decks at each meal and sees that his published orders are being carried out.

There should be an officer present with each organization at each meal to see that the men appear at the tables properly dressed, with their hands and faces washed, and their hair combed; also that they do not sit down to the table with their hats on. Experience has

shown that troops can be made to appear just as well at their meals on board ship as in their barracks, and that they can be taught to preserve the same order and cleanliness as when on shore. The company officer must see that his men are served in an orderly manner and that undue waste is prevented. He should see that his men do not consume more than their allotted time at the tables, and that the tables are cleaned off and in good condition for the next "sitting." He should see that the men not assigned to his portion of the mess decks for meals (or not authorized to pass through) are required to keep out. Fifteen minutes before meals the mess decks should be cleared and no one (not on duty) allowed to enter until mess call sounds, and then only those men who are assigned to that particular sitting.

466. It is the mess officer's most important duty to see that the troops on board get the full benefit of their ration allowance. To do this, he should secure from the adjutant a statement of the number of men to be subsisted in the troop mess. He should then request the commissary to direct the chief steward to furnish him each day a list of the stores turned over to the troop galley, and the bill of fare; also a price list of all stores on hand. The noncommissioned officer detailed as assistant should check the list of stores actually turned over to the troop galley, and note also the amount of bread actually issued. The mess officer has now complete data to enable him to determine just which articles of the ration and what other articles of subsistence stores may be purchased for the mess. He should keep a balance sheet, in order to know from day to day how the value of the food consumed compares with the daily allowance of 24 cents per man. In making this calculation it should be remembered that each 100 pounds of flour baked should produce about 140 pounds of bread; that the regular bakers are paid the same as other ship's employees, and that the enlisted men detailed to assist them are given no extra compensation. The amount of bread actually consumed should never exceed 1 pound per man daily, and with proper care it should not exceed 12 ounces. The consumption of the meat and fresh vegetable components will ordinarily be about equivalent to the garrison allowance.

From a consideration of the above facts, it would seem that the troops should get all the meat and vegetables they want, and that there should be no reason for having a "stew," no matter what it is called on the bill of fare (beef stew, family style; beef, Spanish style; potpie, or curry of [illegible] than once a day.

The troops should, however, be provided every day with a good stock soup.

467. There is always a much greater percentage of waste on board ship than in a company mess on shore, but this waste may be greatly reduced by careful supervision. There are usually a great many casuals on board, especially on the return of the troops from foreign service, and it is only by the most careful supervision that great unnecessary waste among them can be prevented. Usually bread on transports is cut up into huge chunks; a great saving can be made by cutting it into thin slices instead, and insisting that all slices not actually issued to the men be returned to the bread room for reissue. In a similar manner, potatoes, soup, hash, meat, and all other components of the ration not served to the men, no matter how small, should be carefully saved by the mess sergeant and returned to the galley. By taking great personal interest in the messing of troops, getting the assistants interested, and keeping an accurate check on the components of the ration received at the galley, an excellent mess can be maintained.

468. For a command of 1,000 men, the following details from the troops are usually made.

One noncommissioned officer in general charge.—He keeps check on the rations received, superintends the work of the men in the galley during the preparation of the meals and during their service. He calls up the details from the different mess squads in their proper order, and sees that the different components of the meal are issued out in sufficient quantities, according to the number of men in the various squads. (The detail directed to report at the galley at meal time, from each squad, usually consists of the mess sergeant and 3 privates.) The noncommissioned officer in general charge receives any complaint made, and, if unable to remedy the same, at once reports the facts to the mess officer.

One noncommissioned officer and two men to carve meat.—This noncommissioned officer to assist the noncommissioned officer in general charge in any way directed.

Two cooks for day duty.

Two cooks for night duty, roasting beef, etc.

Two bakers.

One assistant butcher.

One man to attend to the coffee boiler.

Two men for general work, peeling potatoes, etc.

Altogether, about 1 man for every 50 on board. Prisoners are usually available for getting up rations from the hold. Troops usually have little to do on board, and the mess officer should be given as many men as he desires to assist in the work in and about the troop galley.

469. *Steam cooking.*—Generally speaking, food on transports is cooked by steam. There is an impression that the steam used in cooking comes in direct contact with the food and that there is a peculiar taste to steam-cooked food. This is a mistake. A steam jacket surrounds the bottom and sides of the vessel, being separated from it about an inch and a half and having no connection with the inside of the vessel. In some cooking pots this jacket extends only halfway up the sides, while in others it extends to the top. There is absolutely no difference between boiling and stewing in the steam pot and by the ordinary method on the range.

470. *Preparation of meats.*—Beef may be roasted nicely in any steam pot of sufficient capacity, to which the steam is supplied through an inch pipe, with 60 pounds pressure. The beef should be cut in pieces weighing about 5 pounds each—no part of the meat coming above the steam jacket. Begin to baste the beef after about half an hour. When it is about half done, take an iron hook (about 2 feet long, with a 2-inch hook, and wire grip) and turn the pieces over one by one.

This method of roasting has no equal for medium and well done roasts, but the range is better for rare roasts. The steam pot is better than the range for cooking fat meats, pork, and mutton.

471. *Bread and cake.*—On account of the limited space, the "straight dough" process of baking bread should be followed on transports. Allow the dough to rise twice and work it down; allow it to rise again and mold into loaves. One-pound loaves are the best size to bake, as they may be baked in from thirty to forty minutes. With the proper number of bakers, the work pertaining to baking bread should should be over by 1 a. m. This leaves the shop vacant until 5 or 6 a. m., when the pastry cooks go on duty. This time should be utilized for baking cakes and pies for the troops on board. To do this work, a shift of 3 bakers (for 1,000 men) should come on duty at 12 midnight and leave at 6 a. m. The fat required in the baking of these pies and cakes can be saved from the beef com-

ponent of the ration. The following recipe for cake has been handled on board the transport with marked success:

50 pounds sugar.
25 pounds fat.
400 eggs.
1 bottle lemon extract.
2 pounds salt.
100 pounds flour.
10 8-ounce cans baking powder.

Beat the sugar, fat, eggs, lemon extract, and salt together for about fifteen minutes; then add the flour and baking powder, mixing well. Add sufficient water to make a stiff batter. Spread from 1½ to 2 inches deep in bake pans, and allow to bake from thirty to fifty minutes in a medium hot oven.

By using the same recipe, and adding raisins or currants, excellent cake can be made; or, by taking 2 pounds of chocolate and blending it with one-half of the mixture. In the latter case, place the light half of the mixture in the pans first, and spread the part containing the chocolate on top of this. Or, 10 pounds of chocolate might be poured into the cake first described.

Still another kind may be made by making an icing of the whites of 20 eggs, a bottle of lemon extract, 10 lemons, 1 ounce of tartaric acid, and sufficient powdered sugar to thicken it; whip well and spread over the cakes. The recipe could be further varied by adding other flavors, or by making a layer cake. These cakes would be called plain cake, raisin cake, currant cake, marble cake, chocolate cake, lemon cake, lemon layer cake, etc.

Generally speaking, the diet on board ship is too "heavy," considering the amount of work done by the men. Too much meat is consumed; a greater variety of light food should be supplied them. Boiled fresh fish with cream sauce can easily be handled three times a week on board ship. Men do not easily tire of fresh fish, boiled or fried, but always tire of canned salmon when frequently served.

CHAPTER IV.—TEN DAYS' BILLS OF FARE FOR TRANSPORT MESS.

472.

First day.

BREAKFAST.

Fine hominy, with sugar.
Beef stew, family style.
Fresh bread and coffee.

DINNER.

Vermicelli soup.
Boiled bacon, with cabbage.
Potatoes.
Fresh bread.

SUPPER.

Stewed apples.
Braised beef.
Fresh bread and butter.
Tea.

Second day.

BREAKFAST.

Rolled oats, with sugar.
Pork and beans.
Fresh bread and coffee.

DINNER.

Vegetable soup.
Roast beef.
Potatoes.
Fresh bread and coffee.

SUPPER.

Stewed prunes.
Corned-beef hash.
Fresh bread and butter.
Cocoa.

Third day.

BREAKFAST.

Corn mush, with sugar.
Fried bacon.
Potatoes.
Fresh bread and coffee.

DINNER.

Pea soup.
Braised steak.
Potatoes.
Fresh bread.

SUPPER.

Canned peaches.
Salmon fish hash.
Fresh bread and butter.
Coffee.

Fourth day.

BREAKFAST.

Cracked wheat, with sugar.
Vienna sausage.
Potatoes.
Fresh bread and coffee.

DINNER.

Corned beef, with cabbage.
Potatoes.
Fresh bread.
Coffee.

SUPPER.

Stewed tomatoes.
Rice pudding and canned fruit.
Fresh bread and butter.
Tea.

Fifth day.

BREAKFAST.

Fine hominy, with sugar.
Irish stew.
Fresh bread.
Coffee.

DINNER.

Beef soup.
Roast mutton, with gravy.
Potatoes.
Plum pudding, with sweet sauce.
Fresh bread.

SUPPER.

Corned beef hash.
Blackberry jam.
Fresh bread and butter.
Tea.

Sixth day.

BREAKFAST.

Corn mush, with sugar.
Pork sausage.
Fresh bread and coffee.

DINNER.

Bean soup.
Corned pork, with sauerkraut.
Potatoes.
Fresh bread.

SUPPER.

Stewed prunes.
Macaroni and cheese.
Potatoes.
Fresh bread and butter.
Cocoa.

Seventh day.

BREAKFAST.

Rolled oats, with sugar.
Boiled salt mackerel.
Fresh bread and coffee.

DINNER.

Rice and tomato soup.
Roast beef.
Pickled cucumbers.
Potatoes.
Fresh bread.

SUPPER.

Stewed apples.
Mutton potpie.
Fresh bread and butter.
Tea.

Eighth day.

BREAKFAST.

Cracked wheat, with sugar.
Fried bacon.
Potatoes.
Fresh bread and coffee.

DINNER.

Vegetable soup.
Boiled beef and dumplings.
Potatoes.
Fresh bread.

SUPPER.

Corned beef hash.
Blackberry jam.
Fresh bread and butter.
Coffee.

Ninth day.

BREAKFAST.

Rolled oats, with sugar.
Beef stew, family style.
Fresh bread and coffee.

DINNER.

Barley soup.
Roast beef, with brown gravy.
Potatoes.
Fresh bread.

SUPPER.

Stewed peaches.
Braised beef.
Potatoes.
Fresh bread and butter.
Cocoa.

Tenth day.

BREAKFAST.

Corn mush, with sugar.
Pork and beans.
Fresh bread and coffee.

DINNER.

Cream of tomato soup.
Sliced corned beef.
Potatoes and sauerkraut.

SUPPER.

Canned apples.
Beef hash.
Fresh bread and butter.
Coffee.

CHAPTER V. INDIVIDUAL COOKING.

473. For such individual cooking as may be necessary for the soldier when thrown upon his own resources, the following bills of fare have been prepared. Where the tin cup and spoon are mentioned, reference is made to those issued with the field mess kit.

Remember that the best fire for cooking is a small, clear one, or better yet, a few brisk coals.

Almost anything that can be cooked at all can be prepared in the mess kit, though the variety is necessarily small and quantities limited on account of few utensils of small capacity.

474. *Company commanders* in estimating the amounts that will be required for each meal may assume that one man will consume for one meal about[a]—

1 ounce of sugar.
½ ounce of coffee, 1 ounce chocolate or cocoa, or $\frac{1}{10}$ ounce of tea.
4 ounces of dried vegetables.
4 ounces of flour or 4 hardtacks.
8 ounces of fresh vegetables.
4 ounces of sliced bacon or 6 to 8 ounces of fresh meat.
½ ounce of salt.
$\frac{1}{30}$ ounce of pepper.

475. *Bills of fare.*

	Meats.	Vegetables.	Bread, etc.	Drink.
1	Bacon	Boiled rice	Flapjack	Coffee.
2	Meat and vegetable stew		Flapjack	Coffee.
3	Broiled steak	Fried potatoes and onions.	Hard bread	Cocoa.
4	Bacon	Stewed tomatoes	Hoecake	Coffee.
5	Bacon	Oatmeal	Hard bread	Tea.
6	Bacon	Baked potatoes; rice	Flapjack	Chocolate.
7	Fried steak	Boiled potatoes; cold tomatoes.	Hard bread	Coffee.
	Etc.	Etc.	Etc.	Etc.

[a] For table of weights and measures see paragraph 191.

Bills of fare—Continued.

OR, WHEN TIME IS MORE LIMITED.

8	Fried bacon.....	Fried potatoes.....	Hard bread .	Coffee.
9	Fried bacon.....	.....	Flapjack....	Coffee.
10	Corned beef (cold).....	Tomato stew.....	Hard bread .	Coffee.
11	Fried fish and bacon.....	Baked potatoes.....	Hard bread .	Coffee.
12	Meat and vegetable stew..	.....	Hoecake....	Tea.
13	Broiled steak.....	Baked potatoes.....	Hard bread .	Cocoa.
14	Boiled fish.....	Fried potatoes.....	Hard bread .	Tea.
	Etc.....	Etc.....	Etc.....	Etc.

SUGGESTIONS FOR HANDLING BILL OF FARE NO. 1.

476. Take two-thirds of a cup of water and bring to a boil. Add 4 spoonfuls of rice and boil until soft, i. e., until it can be mashed by the fingers with but little resistance. This will require about fifteen minutes. Add 2 pinches of salt and, after stirring, pour off the water and empty the rice out on the lid of the mess pan.

Meanwhile, fry 3 slices of bacon until slightly browned in the mess pan over a brisk fire or hot coals, and lay them on top of the rice, leaving sufficient grease in the pan in which to fry the flap jack.

Take 6 spoonfuls of flour and one-third spoonful of baking powder and mix thoroughly. Add sufficient cold water to make a batter that will drip freely from the spoon. Add a pinch of salt and 2 pinches of sugar and pour the batter into the mess pan, which should contain the grease from the fried bacon. Place over medium hot coals and bake from five to seven minutes; see that it will slip easily in the pan and then, by a quick toss, turn it over and continue the baking from five to seven minutes longer or until, by examination, it is found to be done.

While the batter is frying, wash out the tin cup; two-thirds fill with water and let come to a boil. Add 1 medium heaping spoonful of coffee and stir well, and, if desired, 1 spoonful of sugar and let boil for about five minutes. Let simmer for about ten minutes longer. Settle by a dash of cold water or let stand a few minutes.

A hot meal is now ready to serve. Time about forty minutes.

RECIPES.

477. *Drinks.*

[For one meal for one man.]

Article and amount.	Amount of water.	Add when—	Let boil.	Add sugar if desired.	Remarks.
	Cup.		*Min.*	*Sp'nful.*	
Coffee, 1 heaping spoonful.	¾	Water boils.	5	1	Stir grains well when adding. Let simmer ten minutes after boiling. Settle with a dash of water or let stand a few minutes. Ready to serve.
Cocoa, 1 heaping spoonful.	¾	...do..	5	1½	Stir when adding until dissolved. Ready to serve when sufficiently cooled.
Chocolate, 1 cubic inch.	¾	...do..	5	1½	Do.
Tea, ½ level spoonful.	¾	...do..	5	1	Let stand or "draw" eight minutes. If allowed to stand longer, the tea will get bitter unless separated from the grains.

NOTE.—**Coffee** made by above recipe is of medium strength and the same as when using 4 ounces to the gallon of water. It is within the limit of the ration if made but twice each day.

Tea.—A little more than medium strength, the same as when using ¾ ounce to the gallon, and within the ration allowance if made three times per day.

Chocolate and cocoa.—About 1 ounce per man per meal. If available, milk should be used in the place of water, and should be kept somewhat below the boiling point. Mix a 1-pound can of evaporated milk with 3½ quarts of water to make 1 gallon of milk of the proper consistency for use in making cocoa or chocolate.

478. *Dried vegetables.*

[For one meal for one man.]

Article and amount.	Amount of water.	Add when—	Let boil.	Season with pinches of salt.	Add heaping spoonful sugar if desired.	Remarks.
	Cup.		*Hours.*			
Rice, 4 heaping spoonfuls.	¾	Water boils.	½	2	1	Should be boiled until grains (while still nicely separated) may be crushed between the fingers with but little resistance. Then drain off the water.
Cornmeal, hominy, fine oatmeal, 4 heaping spoonfuls.	½	...do...	½	2	.....	All water should now be taken up by the cornmeal, hominy, or oatmeal, which forms a thick paste.
Dried sweet corn, 4 heaping spoonfuls.	½	...do...	½	2	1	
Lima beans, 4 heaping spoonfuls.	¾	Water is put on.	2 or 3	1	.....	When done the beans should still be whole but soft. Add one small slice of bacon one-half hour before done. Add water as required.
Chili beans and frijoles, 4 heaping spoonfuls.	¾	...do...	3 or 4	1	.....	Above remark applies.
Beans, issue dried green peas, hominy, coarse split peas, 4 heaping spoonfuls.	¾	...do...	3 or 4	1	.....	Not recommended on account of time required for cooking.

NOTE.—By a *heaping spoonful* is meant here all that can readily be taken up.
A *pinch of salt* is the amount that can readily be taken up between the end of the thumb and forefinger.

MEATS.

479. **Bacon.**—Cut side of bacon in half lengthwise. Then cut slices about five to the inch, three of which should generally be sufficient for one man for one meal. Place in a mess pan with about one-half inch of cold water. Let come to a boil and then pour the water off. Fry over a brisk fire, turning the bacon once and quickly browning it. Remove the bacon to lid of mess pan, leaving the grease for frying potatoes, onions, rice, flapjacks, etc., according to recipe.

Fresh meat—*To fry.*—To fry, a small amount of grease (1 to 2 spoonfuls) is necessary. Put grease in mess pan and let come to a smoking temperature, then drop in the steak and, if about one-half inch thick, let fry for about one minute before turning—depending upon whether it is desired it shall be rare, medium, or well done. Then turn and fry briskly as before. Salt and pepper to taste.

Applies to beef, veal, pork, mutton, venison, etc.

Fresh meat—*To broil.*—Cut in slices about 1 inch thick, from half as large as the hand to four times that size. Sharpen a stick or branch of convenient length, say from 2 to 4 feet long, and weave the point of the stick through the steak several times so that it may be readily turned over a few brisk coals or on the windward side of a small fire. Allow to brown nicely, turning frequently. Salt and pepper to taste. Meat with considerable fat is preferred, though any meat may be broiled in this manner.

Fresh meat—*To stew.*—Cut into chunks from one-half inch to 1-inch cubes. Fill cup about one-third full of meat and cover with about 1 inch of water. Let boil or simmer about one hour or until tender. Add such fibrous vegetables as carrots, turnips, or cabbage, cut into small chunks, soon after the meat is put on to boil, and potatoes, onions, or other tender vegetables when the meat is about half done. Amount of vegetables to be added, about the same as meat, depending upon supply and taste. Salt and pepper to taste. Applies to all fresh meats and fowls. The proportion of meat and vegetables used varies with their abundance and fixed quantities can not be adhered to. Fresh fish can be handled as above, except that it is cooked much quicker, and potatoes, onions, and canned corn are the only vegetables generally used with it, thus making a chowder. A slice of bacon would greatly improve the flavor. May be conveniently cooked in mess pan or tin cup.

FRESH VEGETABLES.

480. **Potatoes, fried.**—Take two medium-sized potatoes or one large one (about one-half pound), peel and cut into slices about one-fourth inch thick and scatter well in the mess pan in which the grease remains after frying the bacon. Add sufficient water to half cover the potatoes, cover with the lid to keep the moisture in, and let come to a boil from fifteen to twenty minutes. Remove the cover and dry as desired. Salt and pepper to taste. During the cooking the bacon already prepared may be kept on the cover, which is most conveniently placed bottom side up over the cooking vegetables.

Onions, fried.—Same as potatoes.

Potatoes, boiled.—Peel two medium-sized potatoes or one large one (about one-half pound), and cut in coarse chunks of about the same size—say 1½-inch cubes. Place in mess pan and three-fourths fill with water. Cover with lid and let boil or simmer for fifteen or twenty minutes. They are done when easily penetrated with a sharp stick. Pour off the water and let dry out for one or two minutes over hot ashes or light coals.

Potatoes, baked.—Take two medium-sized potatoes or one large one cut in half (about one-half pound). Lay in a bed of light coals, cover with same and smother with ashes. Do not disturb for thirty or forty minutes, when they should be done.

Canned tomatoes.—One 2-pound can is generally sufficient for five men.

Stew. Pour into the mess pan one man's allowance of tomatoes, add about two large hardtacks broken into small pieces, and let come to a boil. Add salt and pepper to taste, or add a pinch of salt and one-fourth spoonful of sugar.

Or, having fried the bacon, pour the tomatoes into the mess pan, the grease remaining, and add, if desired, two broken hardtacks. Set over a brisk fire and let come to a boil.

Or, heat the tomatoes just as they come from the can, adding two pinches of salt and one-half spoonful of sugar if desired.

Or, especially in hot weather, eaten cold with hard bread they are very palatable.

HOT BREADS.

481. **Flapjack.**—Take 6 spoonfuls of flour and one-third spoonful of baking powder and mix thoroughly (or dry mix in a large pan before issue, at the rate of 25 pounds of flour and three half-pound cans of baking powder for 100 men). Add sufficient cold water to make a batter that will drip freely from the spoon, adding a pinch of salt. Pour into the mess pan, which should contain the grease from fried bacon, or a spoonful of butter or fat, and place over medium-hot coals sufficient to bake so that in from five to seven minutes the flapjack may be turned by a quick toss of the pan. Fry from five to seven minutes longer or until, by examination, it is found to be done.

Hoecake.—Hoecake is made exactly the same as a flapjack by substituting *corn meal* for *flour*.

EMERGENCY RATION.

482. **Emergency rations.**—Detailed instructions as to the manner of preparing the emergency ration are found on the label with each can. Remember that even a very limited amount of bacon or hard bread, or both, taken with the emergency ration makes it far more palatable, and greatly extends the period during which it can be consumed with relish. For this reason it would be better to husband the supply of hard bread and bacon to use with the emergency ration when it becomes evident that the latter must be consumed, rather than to retain the emergency ration to the last extremity to be used exclusively for a longer period than two or three days.

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