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Close Combat Weapons

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WASHINGTON, *July 24, 1917.*

The following pamphlet on Close Combat Weapons is published for the information of all concerned.

[062.22, A. G. O.]

BY ORDER OF THE SECRETARY OF WAR:

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Major General, Acting Chief of Staff.

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The Adjutant General.

WAR DEPARTMENT,
THE ADJUTANT GENERAL'S OFFICE,
Washington, June 19, 1917.

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BY ORDER OF THE SECRETARY OF WAR.

H. P. McCAIN,
The Adjutant General.

CLOSE COMBAT WEAPONS.

Translation from the French of a German official document of January 1, 1917.

Edited at the Army War College, July, 1917.

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HAND GRENADES (Handgranaten.)

GENERAL NOTES.

1. The grenade plays as large a part in close combat as does the rifle or pistol. All men belonging to the fighting force, irrespective of the branch, should be skilled in the throwing of grenades and familiarized with all the circumstances of grenade combat.

2. The precision, range and rapidity of the throw of each grenadier, as well as a well regulated supply of munitions, are of decisive importance in the success of grenade combat. An energetic volley of short duration will suffice to paralyze the enemy.

3. The handle grenades (Stielhandgranaten) do not operate by their fragments, whereas the ovoid grenade produces a great number of very effective fragments. They can be thrown farther, thanks to their superior shape and reduced weight. Ovoid grenades are thrown from under cover as much as possible, on account of the effect of their explosion. The grenades actually in use in the German Army are supplied with time fuses.

ATTACK.

4. Grenades serve specially, during an attack, to annihilate or paralyze an adversary stationed in or behind a shelter who can not be reached by firearms, in order to make him cease all resistance.

5. The equipment of men supplied with grenades differs according to their duty. The following is the usual equipment: A steel helmet is worn; rifle or carbine slung over the shoulder, or pistol; two sandbags filled with grenades and hung around the neck over both shoulders, or special pockets for hand grenades; pioneer tool; gas mask; bag with four days' reserve rations, and two small canteens. Neither haversacks nor cartridge boxes are ordinarily carried (cartridges are carried in the pocket of the jacket or in the pouch).

6. Generally, each man, as well as the commander of the detachment, receives from six to eight handle grenades, or a slightly larger number of ovoid grenades. The men and groups having special duties to perform at certain points of tactical importance in close combat may receive a larger supply of grenades.

7. If, during an attack, the assailants silence the fire of the enemy's trenches, and if they find themselves within throwing range, all the men, while they are running, should cover the enemy's trenches with grenades, then lie prone to await the explosion, and then jump into the trenches without allowing anything to hinder them. If they encounter an incompletely destroyed obstacle at this time, it should be destroyed by means of a prolonged hail of hand grenades. In an attack against isolated enemy positions—for example, against flanking positions, or during the progressive occupation of enemy trenches—only a few men are generally used for throwing, while the rest pass them the hand grenades and guard them.

8. Grenade attacks executed as independent enterprises (offensive reconnaissance, occupation of craters, capture of isolated trench elements, of blockhouses, small woods, and farms) generally require, beside minute preparation, the support of other forces (machine guns, trench mortars, and artillery).

9. It is necessary to take special measures for the replenishment of grenades.

DEFENSE.

10. The best weapons for repelling an enemy attack are machine guns and rifles. Grenades with time fuses, thrown at the enemy at the moment when he rushes forward to storm the trench, often explode only after the enemy has passed them, thus causing no damage. The use of grenades is of importance only when firearms can not be used, or when the enemy entrenches near our own positions, in dead angles, in shell craters, etc., or when the enemy has penetrated to some point of our own trenches.

11. Experienced grenadiers should, above all, be stationed at the exits of the communicating trenches, in the combat trenches (barricaded), in the neighborhood of the flanking machine guns, and in the vicinity of the company commander or of the platoon commander, to act as reserves.

12. Hand grenades should be distributed accordingly, but provision should be made so that they can be rapidly obtained in all other parts of the position.

13. The first supply, consisting of primed grenades, is placed in hermetically sealed boxes, which are deposited in a recess, supported by wooden planks, in the interior wall of the trench. In case of a critical situation, it is best to distribute grenades to all men stationed in the first line. The advance posts and patrols always receive grenades.

14. Other supplies of grenades should be deposited in the positions and lines to the rear, and in the recesses and places under fire. It is necessary to indicate in an exact manner, and recognizable even at night, the path to be followed in reaching these depots.

15. Hand grenades should be deposited in sufficient quantities in the subterranean shelters for the picket detachments and the reserves, so that the troops will not lack them for counter attacks.

16. The observation and combat posts, the positions of the close defense guns, the batteries, the positions of trench mortars and others of like order, receive for their own defense a suitable stock of grenades.

Storage and Transportation.

17. There should be no accumulation of primed grenades, even in the bomb-proof subterranean shelters.

18. Unprimed grenades may be placed in quantities of 400, at a maximum, in the bomb-proof subterranean shelters situated in the rear positions. These localities must not be used as workshops, or to prime grenades. The shelters for the personnel should, whenever

possible, be placed not less than 20 meters (21.87 yards) from the grenade recesses.

19. Grenades are transported either in the cases in which they arrive from the interior (these cases should never be opened before they are used), or in sacks or small boxes. In the latter case, they should be transported without being primed. The detonators and fuses are carried by special men in closed chests.

It is usually only for combat that grenades are brought primed into the first line. The handle grenades are carried six to eight in a sandbag (a man can carry four on his shoulders). The hand grenades (as well as the spherical and lenticular grenades, which still exist in the supplies) are carried in covered chests with compartments. In transporting grenades in wagons or on narrow-gauge railways, only goods of a nondangerous nature should be carried at the same time.

20. To carry on the above, the unit commander gives more exact instruction, according to the position and the nature of the surroundings, for the replenishment, the reassortment, the distribution, and the storage of grenades, primed and unprimed, as well as for their maintenance and transportation. Thus accidents, other than those caused by the enemy's fire, are avoided, and the confidence of the troops in the handling of grenades is increased. In the depots the best means of storing is to leave the grenades in their original cases. If for any reason they are removed from their cases, the fuses and unset grenades should be arranged separately. Exact instructions should be given for the priming of the grenades in the depots.

21. The men should be inculcated with the principle that they are to keep and use their grenades with as much care as their other arms. All commanders should see, under their own responsibility, that grenades are not used for any other purpose than that for which they were intended.

INSTRUCTION.

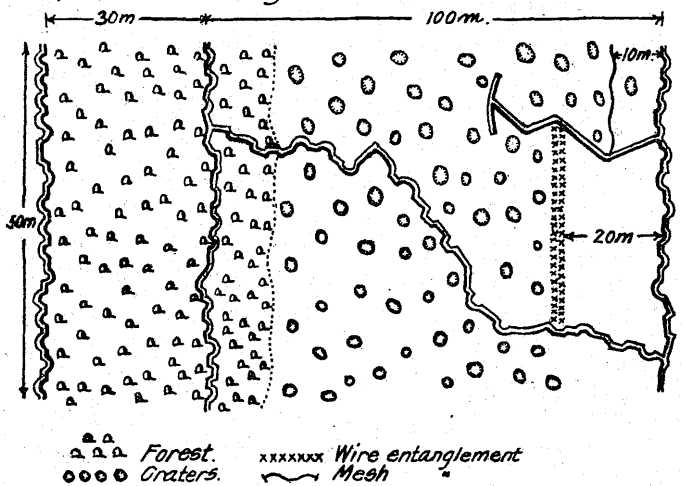
22. The aim of the instruction should be—perfect safety in the use of grenades, a firm conviction that the grenade presents absolutely no danger to the man throwing it (if he handles it as prescribed), and an absolute confidence in its results and efficiency.

23. Instruction should be pushed continually and energetically, particularly in moments of leisure. The drills should be frequent. The men should be equipped as for an attack, and the drills should be held in all weather, because rain, wind, and cold influence the range and precision of the throw. To give the men a taste for these drills and waken their ambition, it is recommended that they be

rewarded by being excused from some duty, or that prizes be offered to the best grenadiers. Avoid having the drills last too long. A sporting contest acts as a stimulant.

24. The instructors, officers, and sergeants, should be familiarized with all the details, and should possess, as far as possible, practical experience of combat. All the men of the fighting force should receive grenade instruction, as well as the sergeants and officers up to the company commander. In the Infantry and the Pioneers as large a number as possible of experienced and intrepid noncommis-

Fig. 1.

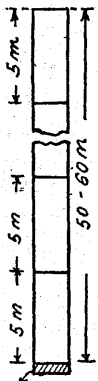


sioned officers and men should be selected to form the personnel of the "sturmtrupps" (assaulting troops) and of the "stosstrupps" (following-up troops).

25. The instruction is given on drill grounds specially prepared, on which the German positions and the enemy's positions in all their details are marked out, as well as the features of the terrain (shell craters, elements of overturned trenches, destroyed obstacles, etc.). The troops should themselves establish drill grounds in the neighborhood of each cantonment. These drill grounds should also permit of throwing on sloping ground. Figure 1 gives a model for a small drill ground.

26. The instruction begins by talks on the various models of grenades, particularly on the composition and action of the fuses, on the mode of action of the fuse and of the charge or explosive, on the preservation of grenades, their priming, their transport, their use, and the measures of security to be taken in regard to them.

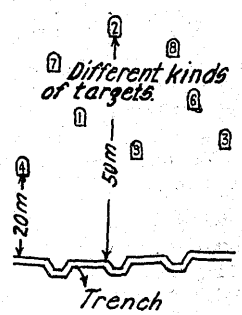
Fig. 2.



27. It continues with drills in the throwing of grenades, to be executed without the fuse, or with sham grenades corresponding in shape, weight, and dimensions to the real grenades. Even with sham grenades, always execute all the motions that would be necessary in handling primed grenades. These motions should pass through the subconscious mind of the grenadier and be executed automatically. It is only under these conditions that he will not forget to reproduce them during the excitement of combat. In order to accustom the men to throw surely and not too fast in the grenade drills, they may be required to throw by the numbers. Grenades should always be thrown at definite targets.

28. The drills should be executed individually and in groups, standing, kneeling, lying prone, and running. If a man has thrown his grenade while running, he should then lie prone, only rising after the explosion has taken place. A throw lying prone is executed without the man's rising, or in rising to a kneeling position for a short time only; in the latter case, he should rise up for a moment, throw the grenade, and drop down quickly.

Fig. 3.

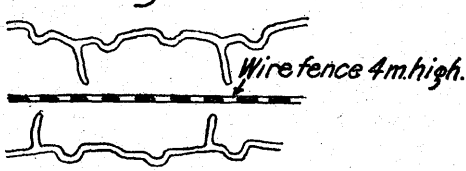


29. In training to throw at a great distance, it is advantageous to establish tracks as shown in figure 2. The drill is executed by one man after another, and the distance attained is announced. It is important in this drill to preserve the accuracy and direction; the grenades falling outside of the track do not count.

30. On the drill ground laid out as shown in figure 3, at the command of the sergeant, the man throws a grenade at the designated wooden target. By preference, for this drill use drill grenades with fuses. The man should identify his target at a glance, and, at the same time, set the grenade and throw it. The object of the drill is attained when the grenade lands within 1 meter (about 1 yard) of the indicated target and the fuse explodes at once. The same drill will afterwards be executed from a sheltered position with loaded grenades.

31. Very special importance should be attached to drills in throwing from one trench to another. Use two trenches with sap heads, distant about 20 to 30 meters (21.87 to 32.8 yards) (fig. 4). First occupy only one trench, then both. Use drill grenades, with and without fuses. First, drill the men one at a time in landing the grenade in the enemy's trench under time conditions such that the enemy can not pick it up and throw it out of the trench. After a

Fig. 4.



few drills, a man placed in the opposing trench should seek to take shelter from grenades as rapidly as possible. In order to obtain a plunging fire, establish between the two trenches a fence of about 4 meters (4.374 yards) in height, or a cord stretched between two posts of 4 meters (4.374 yards) in height, over which the grenade should be thrown.

In throwing by groups, both trenches should be occupied. The two groups of grenadiers practice one after the other. If they are composed of well-drilled men, the two groups may practice simultaneously. The men in the trench should not be placed too near together, as they will crowd each other and will not find sufficient shelter from the grenades thrown at them. In all trench drills, care must be taken that the grenade is not knocked out of the hand by hitting the wall of the trench.

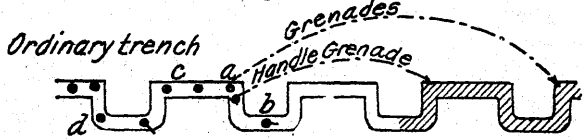
32. The throwing of grenades from one sap head to another is to be practiced like the preceding drill, first without a protecting

grating and then over the top of a grating. When the adversary has erected similar gratings, use grenades supplied with a hook; these can easily be made by hand out of wire. They stay caught to the grating and destroy it. Drill also in throwing from a shell crater at an enemy placed in another crater.

33. The throwing of grenades from behind trees and stumps, at a definite target, requires special training.

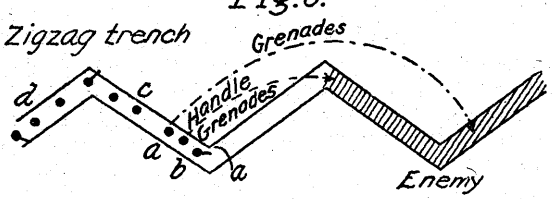
34. When the men have acquired sufficient ease in throwing, drill them with loaded grenades, first alone and then in groups. The

Fig. 5.



grenadiers should be able to obtain complete shelter, corresponding as nearly as possible with that sought in actual combat (trenches, traverses, and shell craters). Spectators should be placed well under shelter, or should keep at a proper distance. The instructor should arrange the drill so that he can follow and conduct it. The safety measures adopted should never be of a nature to awaken fear

Fig. 6.



in the men. All accidents should be absolutely avoided, so as not to cause the men to lose confidence in the grenades.

35. Only those men who have successfully thrown many loaded grenades can be considered as having terminated their instruction.

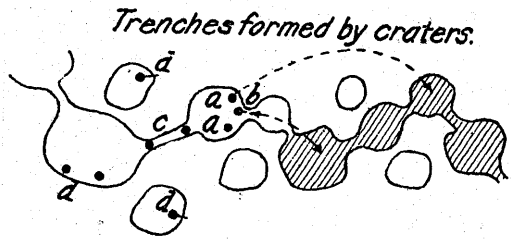
36. To permit of the use of enemy grenades found in the captured trenches, it is necessary to drill each man in the throwing of these grenades. Such of these grenades thus picked up as are not needed for the immediate instruction of the troops should be sent to the rear to be converted into drill grenades.

37. To the regular instruction outlined above are added drills with a given object, as, for instance, the progressive capture of trenches and the fighting against blockhouses and machine guns.

38. The advance in the trenches should first be practiced in rectangular trenches, then in winding trenches, and lastly in zigzag trenches or those formed by shell craters. For the distribution of groups, see figures 5, 6, and 7.

The two grenadiers placed at A at first act alone. One attacks the nearest traverse by means of handle grenades, the other throws ovoid grenades beyond the first, in order to prevent the enemy bringing up grenades. The leader of the group, B, placed laterally, observes the throwing and indicates the direction and distance of the

Fig. 7.



throw. He also protects the group, by means of a rifle or pistol, against a counter offensive from the front. The liaison men at C pass the grenades toward the front. The rest of the group at D, who are used as carriers, stay in the vicinity of the rear traverse and protect the flanks against a lateral enemy attack by means of two men armed with a rifle or pistol. The men are distributed in such a manner that they can avoid enemy grenades falling into the trenches.

This drill is also practiced with an adversary. The losses are announced by the umpires. Substitutes should immediately occupy the posts which have become vacant. Each man in the group should be instructed in the different rôles to be filled.

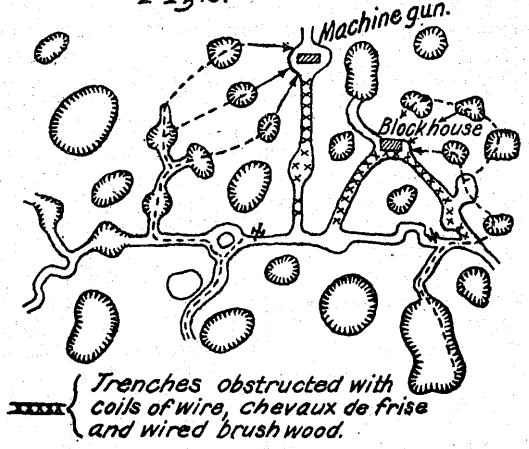
CAPTURE OF A BLOCKHOUSE OR OF A MACHINE-GUN POSITION.

For this drill, works of the type represented by figure 8 should be constructed. While one or two crack shots or a machine gun occupy the attention of the enemy machine guns or blockhouse, by holding the embrasures continually under fire, the rest of the group makes a

rush to the side, taking advantage of all the accidents of terrain, especially of shell craters, and approaches the flank and the rear of the enemy till within grenade range. They then overwhelm the embrasures and the entrance to the blockhouse with grenades, until the enemy is put out of action and they can take the works.

40. Paragraphs 29 and 32 must not be understood as laying down an obligatory mode of instruction. They are only intended as a

Fig. 8.



model to draw from in conducting the instruction. Only the general outline of the attack and the end in view need be uniform.

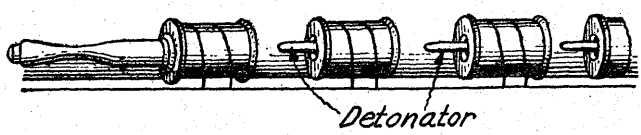
DESTRUCTION OF OBSTACLES.

41. In case of necessity, when there are no other explosives or inflammable materials at hand, grenades may be used for the destruction of obstacles. They are in no way suitable, however, for loading a mine chamber.

42. A long charge (Gestruckte Ladung) serves to cut a breach through a wire entanglement. Take a rod or pole whose length corresponds with the depth of the wire entanglements; attach the grenades to it so as to leave an interval between them of about 15 centimeters (5.9 inches). The mouths of the grenades should all be headed in the same direction. To transmit the explosion from one grenade to another, place in each mouth a detonator held in place by means of a little wooden wedge. Two men creep up with the

long charge and slide it under the wire entanglements or throw it on the latter. The charge is prepared for lighting by fastening into the last grenade a handle with a detonator (see fig. 9). A man placed in a sheltered position fires the detonator by means of a string of sufficient length.

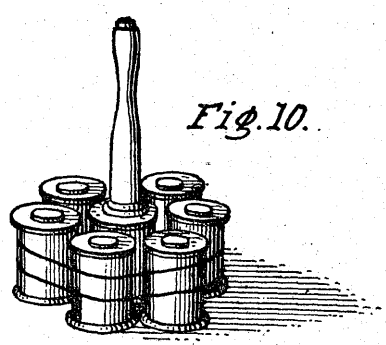
Fig. 9.



43. A concentrated charge is prepared by attaching six or a larger number of grenade bodies to a grenade. It is not necessary in this case to attach a detonator to each grenade body (see fig. 10).

A man creeps to the edge of the wire entanglements to be destroyed. He prepares the charge for lighting (by fastening the handle to a detonator), removes the igniter and throws the charge into the center of the obstacle.

Fig. 10.



44. To destroy an obstacle in the shape of a metallic grating, prepare a small, long charge, which is attached about half way up the obstacle, and then exploded by pulling out the igniter. If this type of operation can not be adopted, throw grenades furnished with hooks. Obstacles of metal grating and of abatis of branches can also be destroyed by throwing a concentrated charge directly at or under the obstacle.

GRENADE MORTARS (GRANATENWERFER).

45. Grenade mortars are used principally to attain an objective which can not be reached by hand grenades. They have a range of 300 meters (328 yards). The dispersion in direction varies from 3 to 5 meters (3.28 to 5.46 yards). The dispersion in range is 50

meters (54.68 yards), at a maximum. For this reason, grenade mortars should be established, whenever possible, in groups of two to six in a flanking position. The rapidity of fire is six rounds a minute. The chief advantage of the grenade mortar, in comparison with the trench mortar, lies in the fact that the fire is difficult for the enemy to locate.

46. In the defense, grenade mortars stationed in or, better still, behind the first line, serve to constantly subdue the enemy, to occasion him daily losses, and to hamper him in his works. This result is obtained by firing round by round, uninterruptedly, or by surprise volleys by night or day.

During an enemy attack barrage fire executed by grenade mortars may render it difficult for the enemy to make inroads into our position, or, if he has already penetrated, may oblige him to abandon the position by covering with projectiles the elements of the trench occupied by him. It is necessary to make frequent changes of position.

47. During our attacks the grenade mortars have proved excellent in the preparation of the assault, two or three minutes before the start, particularly when our artillery fire, on account of the close proximity of the opposing position, can not effectively fire on the more advanced trenches of the enemy. During an advance the grenade mortars follow the assaulting columns and are rapidly installed in the captured lines or in the neighboring shell craters. They then fire on the rear of the enemy and help in repulsing counter attacks.

48. For the organization of the personnel of the grenade mortar service, see the instructions "Grenade Mortar 16," which accompanies each grenade mortar.

RIFLE GRENADE (GEWEHRGRANATE).

49. The rifle grenade, on account of the small accuracy that characterizes it (wind, etc.), is used more to annoy the enemy than to obtain any radical effect. This is the reason their manufacture has been abandoned. Their action is particularly effective for flanking fire, for covering dead angles and for strong fire on a large surface, etc. The simultaneous entrance of several rifles into action is recommended to prevent the enemy's defiling. It is well to combine rifle grenade fire with infantry fire coming from different points, so as to hamper the enemy in determining the points from which the fire comes.

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