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# GERMAN INFANTRY WEAPONS



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forearm. A small cleaning kit similar to the rifle cleaning kit is carried by the antitank rifleman.

## 6. HAND GRENADES

The hand grenades used by the German Army are all of the "offensive" type: that is, they have a thin metal casing with a high proportion of explosive filler. Being of this type, they depend on the blast effect, instead of on the fragmentation of the case as in the U. S. "defensive-type" Mills grenades. They can be used safely by troops advancing erect in the open, because they can be thrown to a distance greater than their effective bursting radius. The model 24 and model PH 39 stick-type, or "potato masher"-type, grenades are used more often than the "egg"-type and can be regarded as the standard hand grenades of the German Army. In addition, there is a smoke stick grenade which differs from the regular stick, or "potato masher," only in the marking on the head of the grenade.

## 7. STICK HAND GRENADE, MODEL 24 (*STIELHANDGRANATE 24*)

### a. How to Identify

The stick hand grenade, model 24, may be identified by—

(1) Metal casing or body screwed onto a wooden handle with a metal cap.

(2) Model marking on the casing or body of the grenade.

(3) Porcelain ball attached to a cord in the exposed cavity after the metal cap is unscrewed.

### b. Characteristics

(1) *General.*—This grenade consists of a thin iron or steel casing, or head, containing the explosive filler and screwed onto a hollow wooden handle, through the center of which runs a double length of cord (see fig. 25). This cord is attached at one end to a lead ball which is part of the friction-igniter-detonator system, and at the other end of a procelain ball. The cavity in which the porcelain ball rests is closed by a metal cap that screws on. Inside the cap is a spring-actuated metal disk that prevents movement of the porcelain ball.

(2) *Table of characteristics.*—

| | |
|---|---|
| Over-all length | 1 foot 2 inches. |
| Weight | 1 pound 5 ounces. |
| Weight of explosive filler | 6 ounces. |
| Time of delay fuze | 4 to 5 seconds. |
| Effective blast radius | 12 to 14 yards. |

### c. How to Operate

(1) *Safety.*—(a) The detonator is not assembled to the grenade until it is carried into combat.

(b) The metal cap on the end of the handle holds the porcelain ball in place and is not removed until the grenade is to be thrown.

(2) *To arm and throw.*—(a) *To arm grenade.*—The wooden handle is unscrewed from the head, and the metal end of the delay fuze is exposed in the interior of the handle. Insert a detonator into the open end of the delay fuze. The head and the handle are screwed together again.

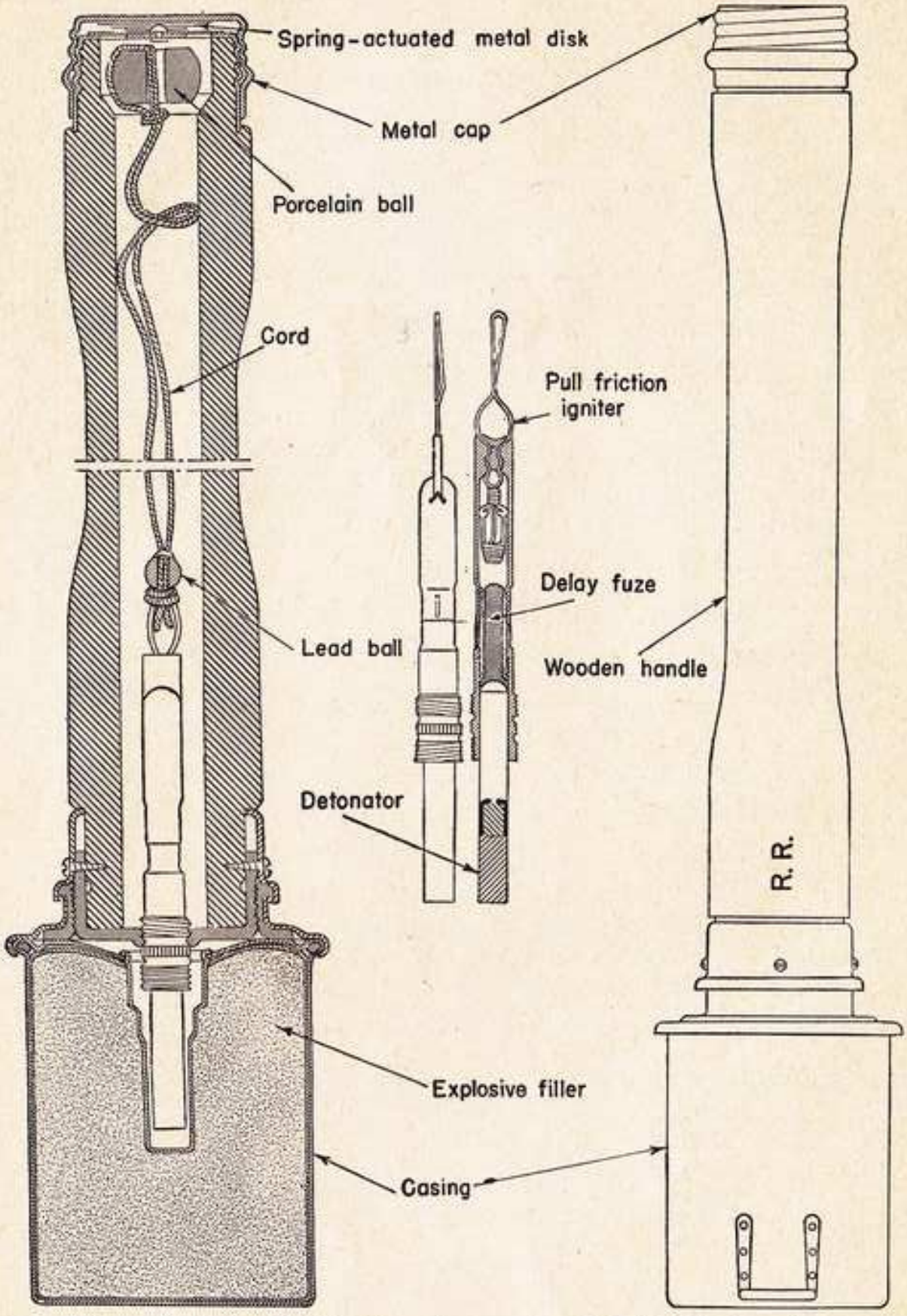


**Figure 25.—Sketch of *Stielhandgranate* 24 (stick hand grenade, model 24), showing outside and cross section of grenade and fuze. (The cross section of the grenade is drawn to a larger scale than the scale of the sketch of the outside view.)**

(b) *To throw grenade.*—Unscrew the metal cap, pull out the porcelain ball as far as it will go, and throw. Do not throw too soon, as there is a 4- to 5-second delay.

(3) *To disarm grenade.*—(a) Unscrew the handle from the head; (b) remove the detonator from the open end of the delay fuze; (c) replace the handle.

### d. Method of Carrying

Stick hand grenades, model 24, are carried in—

(1) A metal case holding 15 grenades and 15 detonators (see fig. 26);

(2) A sleeveless jacket fitting over the blouse. (In this jacket there are 10 pockets, 5 in front and 5 in the back, in which the grenades are carried with the heads down.)

(3) The belt with the grenades stuck in, handle first.

### e. Use as a Booby Trap

This grenade may be made into a booby trap by removing the delay fuze. (See fig. 25.) When troops attempt to use the captured grenades, pulling the friction wire causes the grenades to explode immediately without the usual 4- to 5-second delay.

To see whether or not the delaying device has been removed from the grenade, it may be tested as follows: (1) unscrew the head (explosive cylinder) from the wooden handle; (2) remove the detonator and the fuze which project from the handle; (3) unscrew the cap at the end of the handle and let the porcelain ring hang down; (4) unscrew the delayed-action device in the top of the handle to make sure whether the delayed-

action cylinder actually contains the column of compressed black gunpowder.

To reassemble the grenade, carry out the above operations in the reverse order.

If time is short, it may be sufficient to take one from each batch of suspected grenades, unscrew the

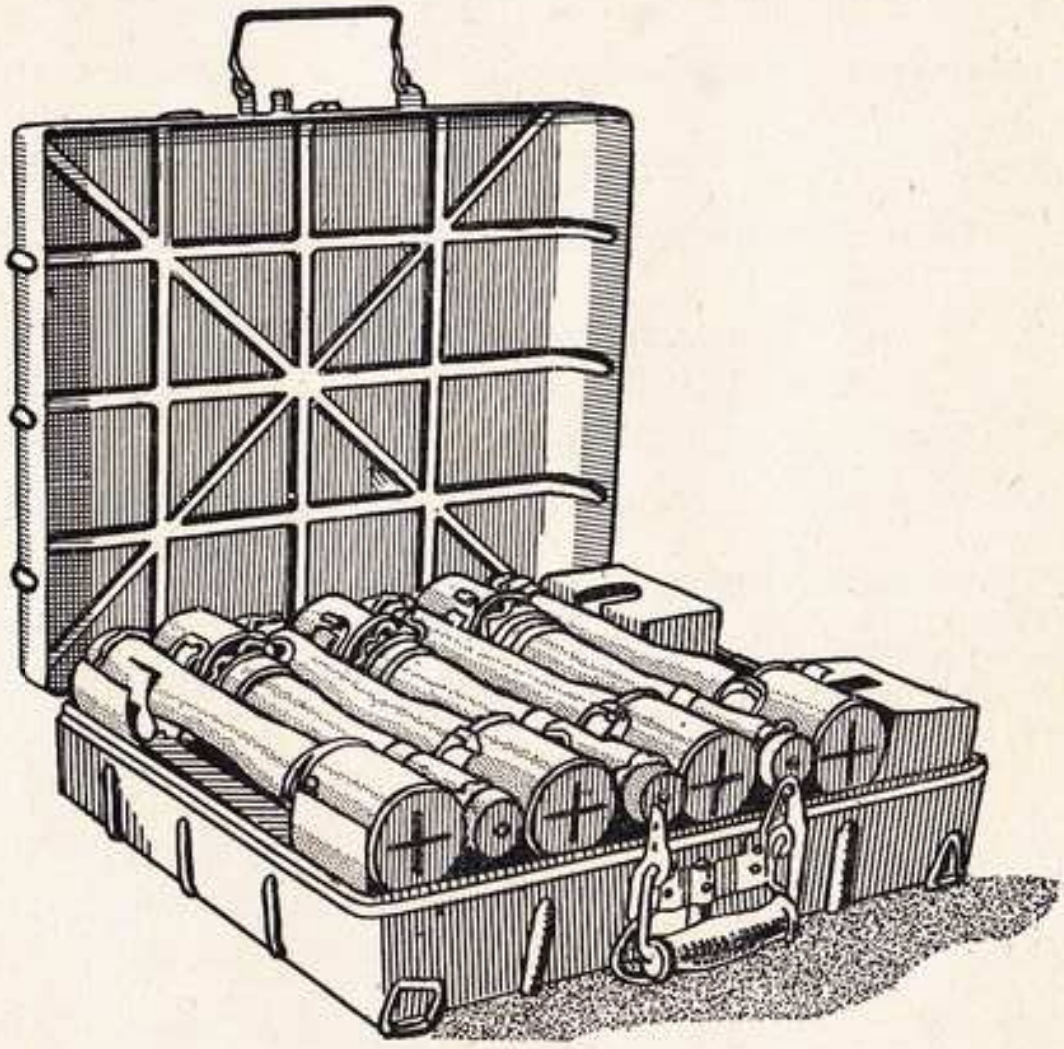

**Figure 26.—Method of carrying and packing stick-type grenades.**

handle from it, and operate the fuze by pulling the cord from a distance. It will then be obvious whether the explosion takes place immediately or after an interval of 4 to 5 seconds.

## 8. STICK HAND GRENADE, MODEL PH 39 (*STIELHANDGRANATE PH 39*)

### a. How to Identify

The stick hand grenade, model PH 39, may be identified by—

(1) Metal casing or body screwed to a wooden handle with a metal cap.

(2) Model marking on the casing or body of the grenade.

(3) Cord attached to the friction igniter being also attached to the metal cap (this being observed on unscrewing the metal cap on the handle).

### b. Characteristics

(1) *General.*—Like the model 24 stick grenade, the model PH 39 consists of a thin iron or steel casing, or head, containing the explosive filler. This head is screwed onto a hollow wooden handle, through the center of which runs a double length of cord. At one end, this cord is attached to a lead ball which is part of the friction-igniter-detonator system, and at the other end to the metal cap which screws onto the end of the handle.

(2) *Table of characteristics.*—

| | |
|---|---|
| Over-all length | 1 foot 4 inches. |
| Weight | 1 pound 6 ounces. |
| Weight of explosive filler | 7 ounces. |
| Time of delay fuze | 4 to 5 seconds. |
| Effective blast radius | 16 yards. |

### c. How to Operate

(1) *Safety.*—(a) The detonator is not assembled to the grenade until it is carried into combat.

(b) The metal cap on the end of the handle is not unscrewed until the grenade is to be thrown. The cap may be unscrewed carefully and lifted slightly to be sure that the grenade is a model PH 39, as the cord that starts the delay fuze is attached to the metal cap on the model PH 39 grenade.[12] However, the cap should not be pulled away from the handle, as this action would start the fuze burning.

(2) *To arm and throw.*—(a) *To arm grenade.*—Before use in action, the grenade is ordinarily carried without the detonator assembled. To arm the grenade, the wooden handle is unscrewed from the grenade head, and the hollow end of the delay fuze is exposed; a detonator is inserted into the hollow end of the delay fuze; and the casing and the handle are screwed together again.

(b) *To throw grenade.*—Unscrew the metal cap and pull it away from the grenade handle to the full length of the cord. This ignites the 4- to 5-second delay fuze, and the grenade should then be thrown with an overarm motion.

(3) *To disarm grenade.*—The grenade is disarmed by unscrewing the handle from the head, removing the detonator from the open end of the delay fuze, and then replacing the handle.

### d. Method of Carrying

Like the model 24, the PH 39 grenades are carried in—

(1) A metal case holding 15 grenades and 15 detonators.

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[12] In this respect it differs from the model 24.

(2) A sleeveless jacket fitting over the blouse. (In this jacket there are 10 pockets, 5 in front and 5 in back, in which the grenades are carried with the heads down.)

(3) The belt with the grenades stuck in, handle first.

### e. Use as a Booby Trap

The removal of the delay element in the fuze of this grenade will cause the grenade to explode at once without the usual 4- to 5-second delay. The grenade may be examined in the same manner as is described for the model 24 grenade (see par. 7e, p. 43, above).

## 9. SMOKE HAND GRENADE, MODEL 34 (NEBELHAND-GRANATE 34)

The smoke grenade, model 34, which is a standard stick grenade with the explosive filler replaced by smoke composition, is handled in the same manner as the other stick grenades and is identified only by a broken white line painted around the head of the grenade near its base.

## 10. EGG-TYPE HAND GRENADE, MODEL 39 (EIERHAND-GRANATE 39)

### a. How to Identify

The egg-type hand grenade may be identified by—

(1) Egg shape, of gray-green painted metal with a raised rib around the middle.

(2) Blue knob protruding from one end.

### b. Characteristics

(1) *General.*—This is a small thin-cased "offensive"-type grenade with a high proportion of a low-grade high explosive (see fig. 27). It is ignited by a friction-type igniter and a 4- to 5-second delay fuze.

(Fig. 28 illustrates the shaving-stick grenade, which has the same type of detonator as the egg-type.)

(2) *Table of characteristics.*—

| | |
|---|---|
| Over-all length | 3 inches (approximately). |
| Weight | 12 ounces. |
| Maximum diameter | 2 inches. |
| Time of delay fuze | 4 to 5 seconds. |
| Thickness of casing | .02 inch. |

### c. How to Operate

(1) *Safety.*—The detonator is not assembled to the grenade until it is carried into combat.

(2) *To arm and throw.*—(a) *To arm grenade.*—Unscrew the knob from the grenade; be sure that the exposed pocket is clean; unscrew the protective cap from the detonator end of the knob; draw a detonator (standard No. 8) from its box and check the open end to see that it is dust free and not distorted (do not use a dusty or distorted detonator); carefully slip the detonator onto the detonator end of the knob, screw the armed fuze by hand, and then use the key supplied to tighten the fuze.

(b) *To throw grenade.*—Unscrew the blue [13] knob, and pull. Throw the grenade, remembering that it has a 4- to 5-second delay.

(3) *To disarm grenade.*—(a) Unscrew the knob from the grenade; (b) remove the detonator from the end of the knob; and (c) replace the knob. To render the igniter inoperative, carefully unscrew the knob,

[13] It has been reported that a red knob is used for those igniters having no delay element. Blue knobs have been reported on igniters having a 4- to 5-second delay. (See e, on the opposite page.)

taking care not to exert any pull on the cord. Then cut the cord with scissors and replace the knob with the cord inside.

### d. Method of Carrying

The egg-type grenades are carried in—

(1) The pockets.
(2) Any convenient container.

### e. Use as a Booby Trap

Like all other matériel, these egg-shaped grenades can be used as booby traps. It has been reported that

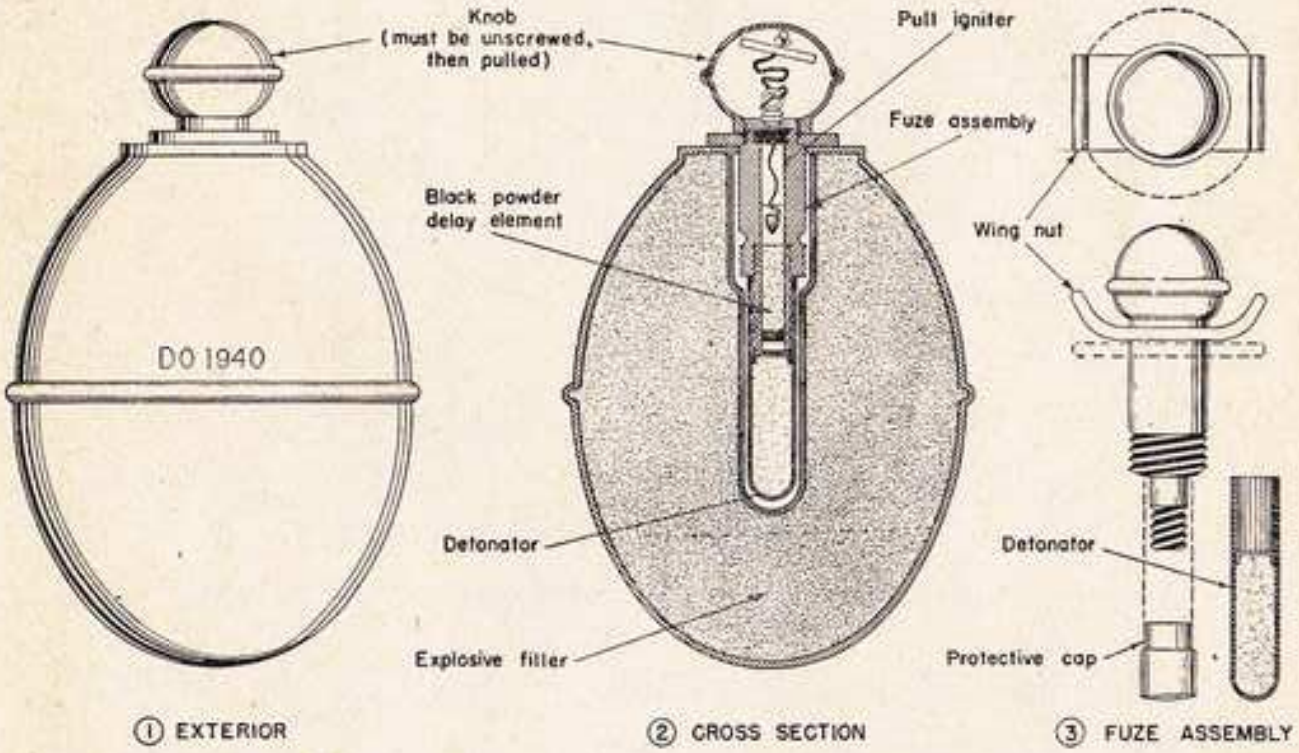


**Figure 27.—Sketch of Eierhandgranate 39 (egg-type hand grenade, model 39).**

the Germans in Africa have put red primer caps on the grenades which are used as traps. If the red primer cap is unscrewed and the firing string pulled, the explosion occurs instantaneously rather than after

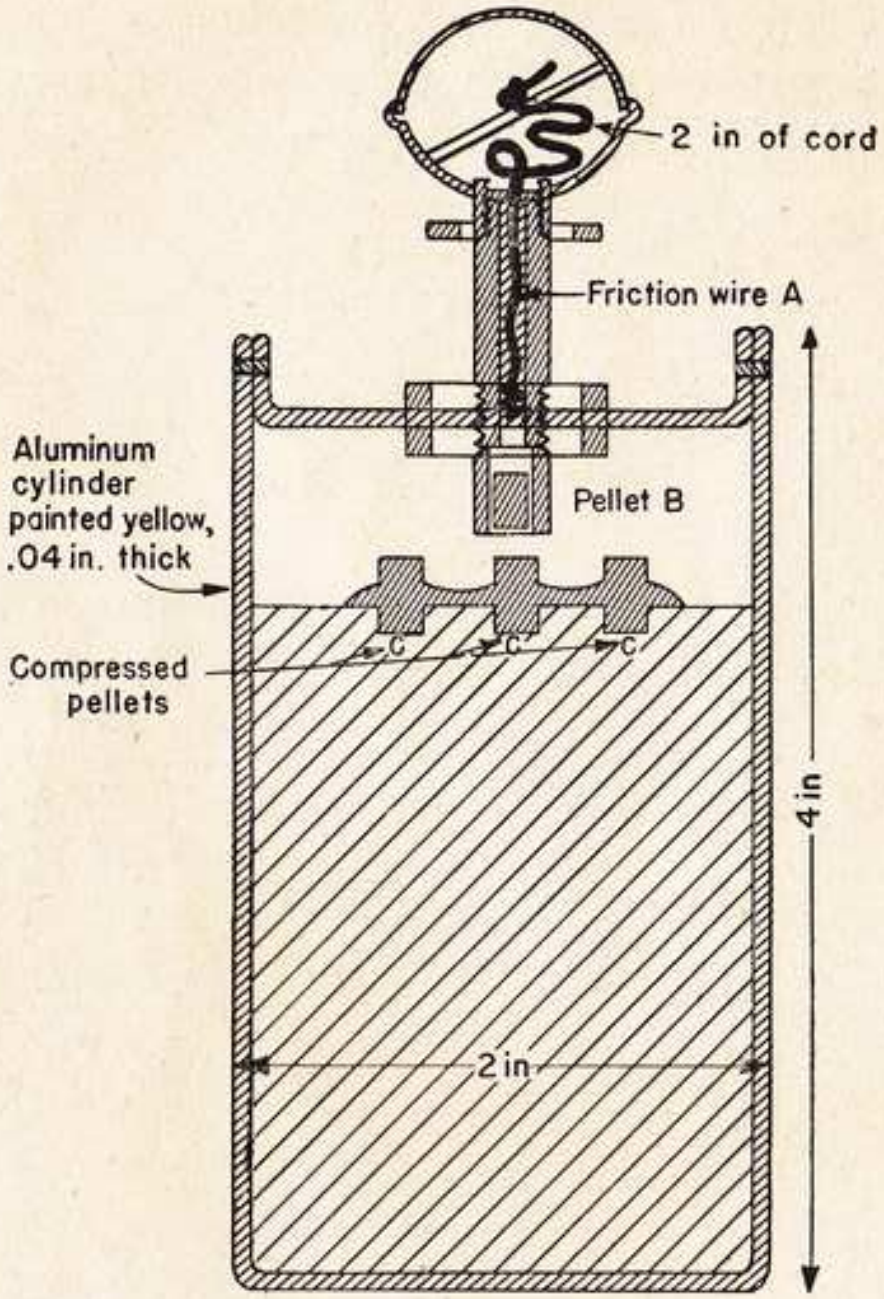


**Figure 28.—Cross section of shaving-stick grenade.**

a 4- to 5-second delay—the standard delay with the blue cap.

## 11. SPECIAL USES OF STICK GRENADES [14]

For special demolition, antitank, and antipillbox work, the heads of six model 24 or model PH 39 stick

[14] See TM 5–325, "Enemy Land Mines and Booby Traps" (April 19, 1943), pp. 1–96, for detailed information on the construction of German land mines and booby traps, many of which are made from grenades.

grenades can be removed from their handles and fastened securely around a seventh stick grenade from which the handle is not removed (see figs. 29 and 30). The whole can then be used as a convenient

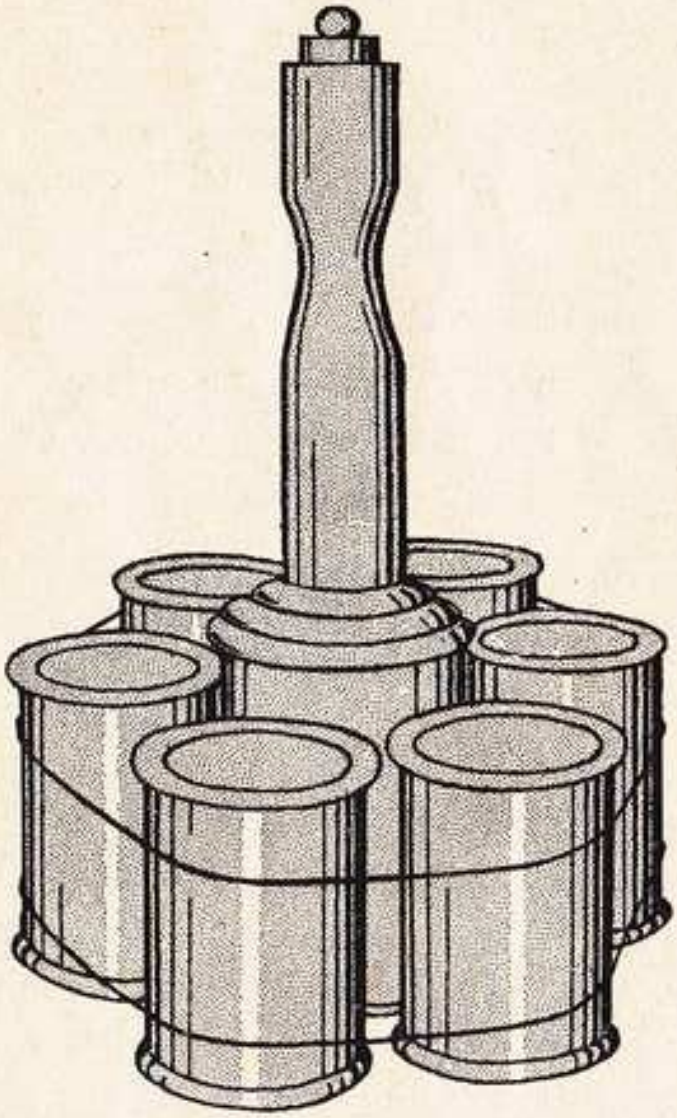

**Figure 29.—Concentrated charge (*geballte Ladung*) made from several stick grenades. (This charge is used for demolition purposes.)**

concentrated charge (*geballte Ladung*) for the above purposes.

Bangalore torpedoes for blowing paths through barbed wire can also be made by binding the desired

number of grenade heads behind one another on a long stick or board (see fig. 31); the grenade nearest the operator is complete with handle and detonator, and to it is attached a long wire or cord.

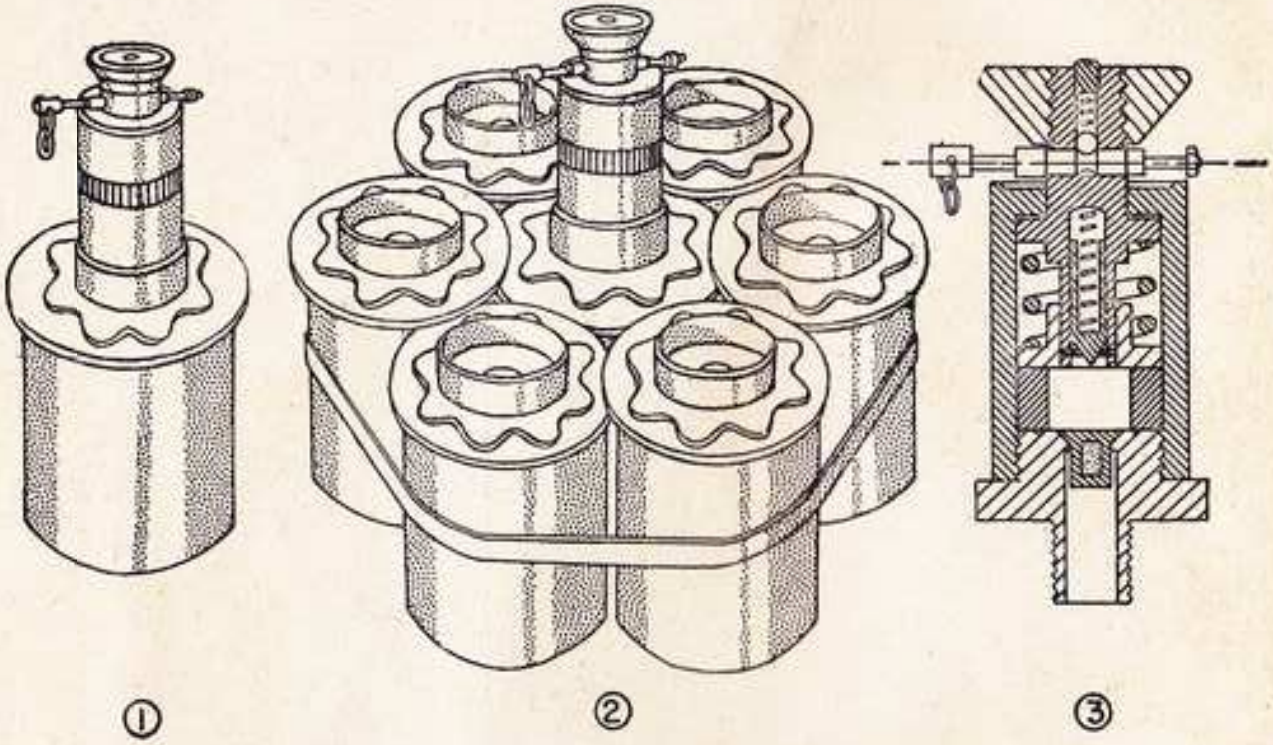


**Figure 30.—① Stick grenade antipersonnel mine. (This mine is improvised from the head of a stick grenade and pressure igniter 35 (*Druckzünder 35, D.Z. 35*), which is screwed into the head of the grenade.) ② Stick grenade cluster mine. (This mine is a variation of mine ①.) ③Cross section of pressure igniter 35 (*Druckzünder 35, D.Z. 35*).**

**Figure 31.—Stick grenades used as Bangalore torpedo.**