BOMBA 3 Mtr.

This anti-personnel bomb consists of an outer steel casing (1) which shaped as a cylinder with one end coned. The open end is fitted with an adapter (2) into a groove in which the top of the bomb case is pressed at intervals.

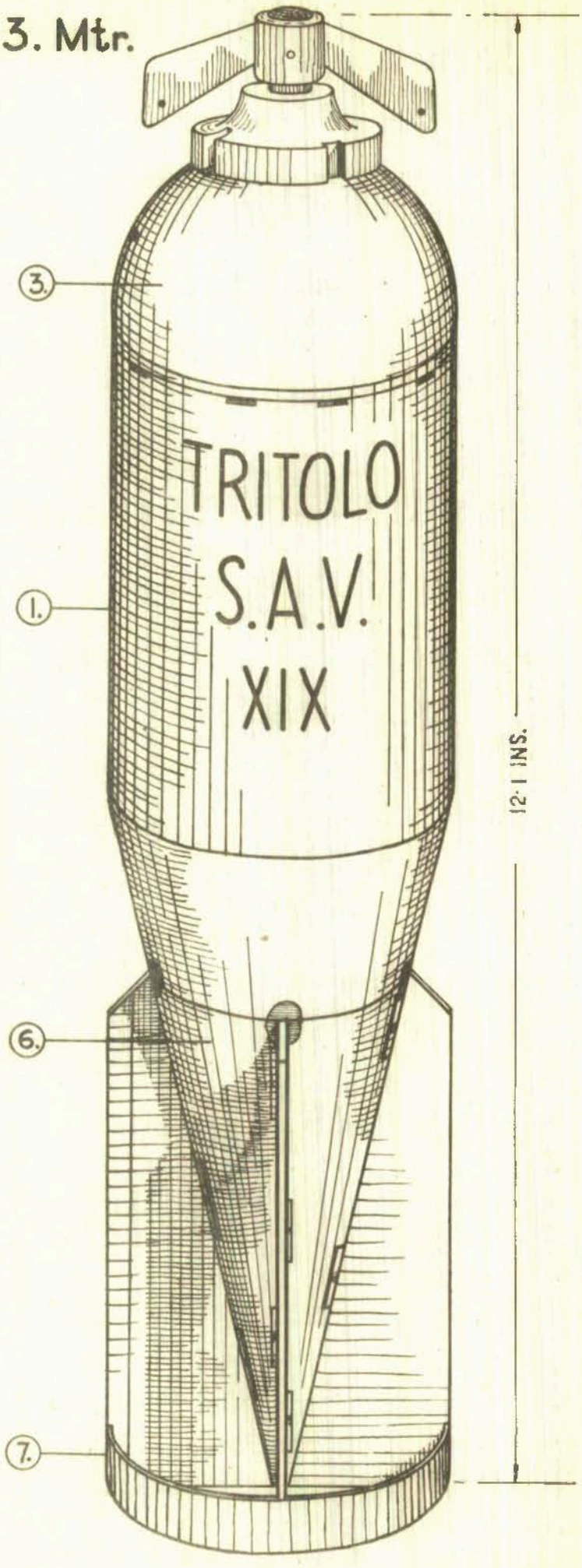
On to this adapter screws the steel head of the bomb (3). The inner sheet steel cylinder (4) which is hemispherical at the closed end contains 6 ozs. T.N.T. as a block filling, the upper block being shaped to take the lower part of the fuze body and the detonator.

The annular space (5) between the inner and outer steel cylinder (1) and (4) is filled with concrete in which are embedded steel pellets.

The tail consists of the hollow cone (6) spot welded to the bomb body and the four fins are spot welded to this cone. At the outer end the fins are strengthened by the steel ring (7) which is 0.37-ins wide and 0.1-ins thick. The ring is spot welded to the fins.

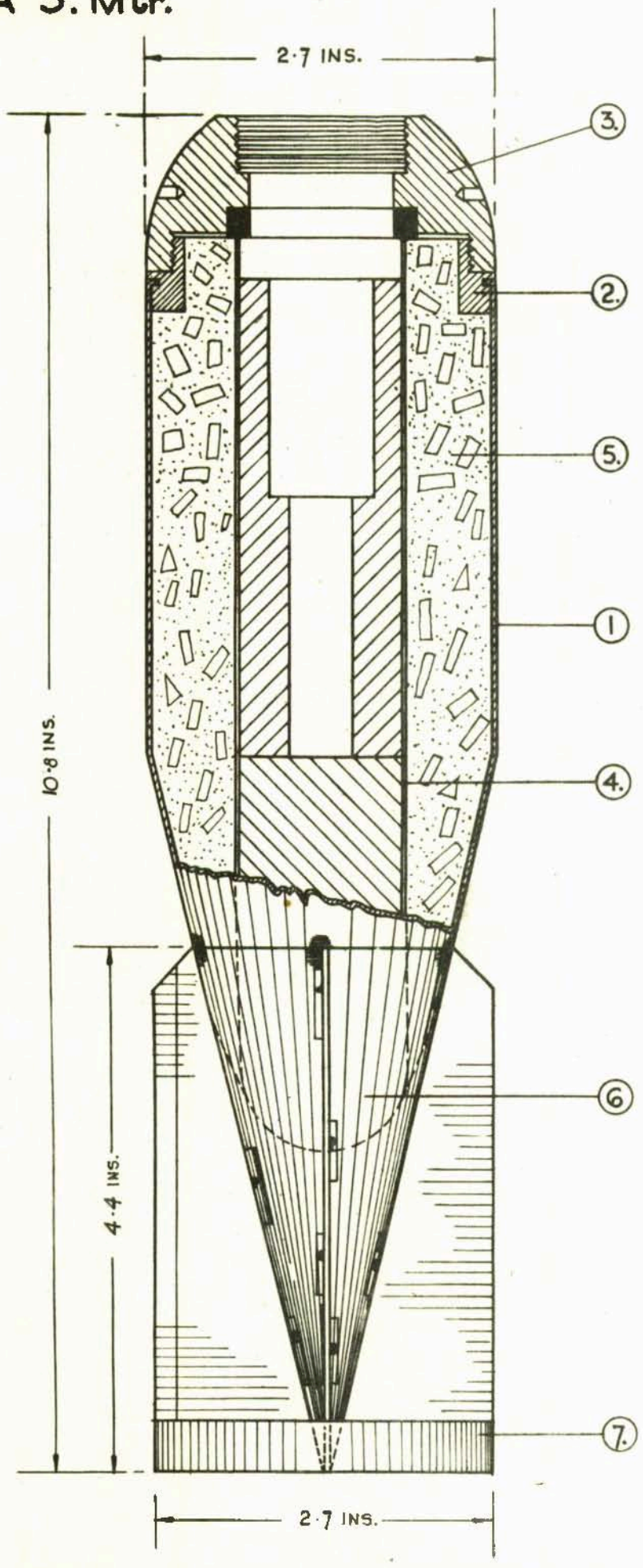
	Designation	Type
	Old Bomba New Bomba 3 Mtr.	Anti-personnel
1.	O/A Length of Fuzed Bomb.	12.1-ins/307-mm.
2.	O/A Length less Fuze or Lug.	10.8-ins/274-mm.
3.	Length of Body.	8.2-ins/208-mm.
4.	Dia. of Body.	2.7-ins/70-mm.
5.	Max. thickness at (point / nose	
6.	Wall thickness (total)	0.75-ins/19-mm.
7.		
8.	Material and construction of bomb body.	Two concentric sheet steel containers. Annular space between loaded with steel pellets embedded in concrete.
9.	Suspension System.	Loaded in container.
10.	Colouring of bomb.	Body - Black Nose - Black
11.	Markings on bomb.	Tritolo S.A.V. XIX
12.		
13.	Length of Tail.	4.4-ins/112-mm.
14.	Dia. of tail.	2.7-ins/70-mm.
15.	Material of tail.	Sheet Iron.
16.	Colouring of tail.	Black
17.	Markings on tail.	Nil.
18.	Construction of Tail.	Four fins mounted on cone, with strengthening band around outer extremities.
19.		
20.	Nature of filling	T.N.T.
21.	Weight of filling.	0.17 Kg.
22.	Total Weight.	3.01 Kg.
23.	Weight of Bomb Case.	
24.	Charge/Total Wt. Ratio.	
25.	Fuze - our designation.	Nose - M (Page 203)
26.		

BOMBA 3. Mtr.

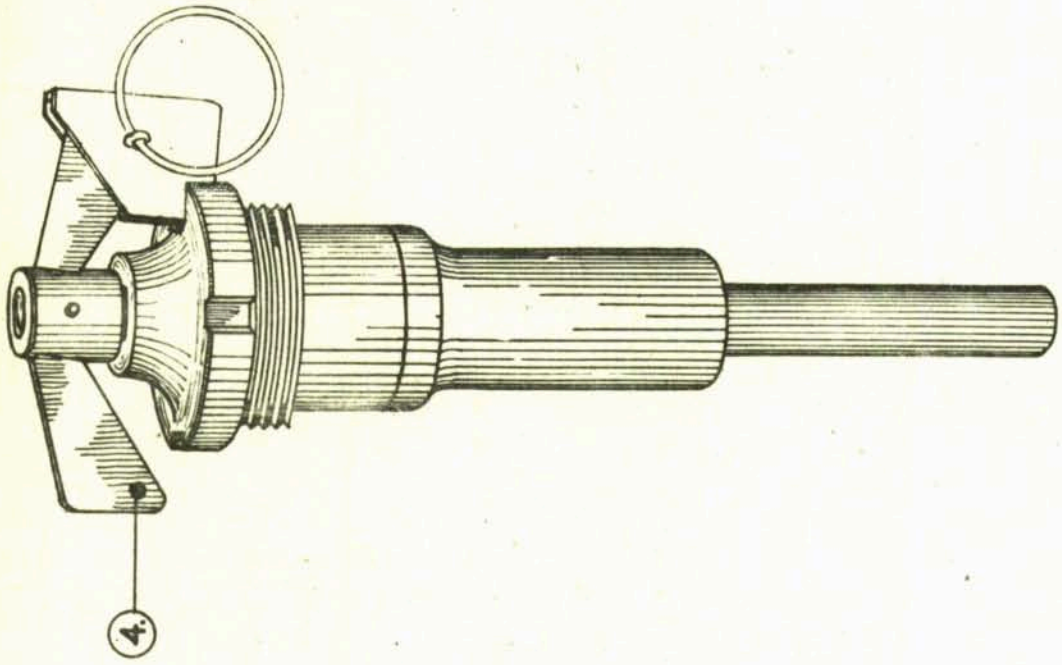


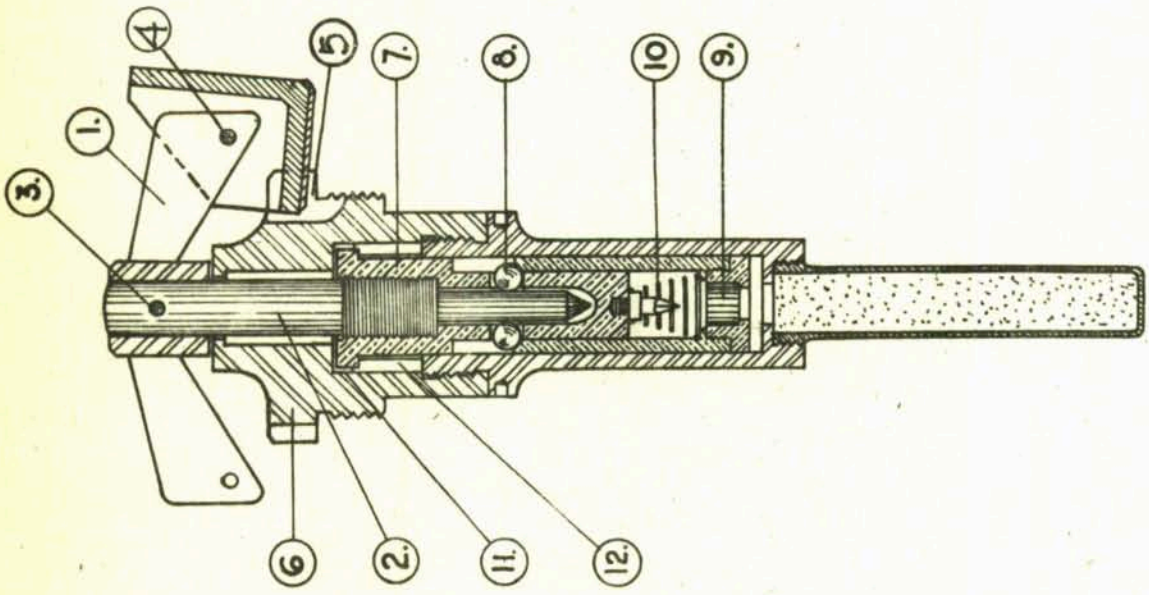
BOMBA 3. Mtr.

200



FUZE. M.





ITALIAN Designation of fuze Spoletta For Bomba 3 Mtr.		Our Designation. M
		Classification. Nose - Mech Impact
		Markings. Nil.
		Bomb in which employed. 3 Mtr.
1.	Colour.	Unpainted Aluminium
2.	O/A Length less gaine.	4.1-ins/104-mm.
3.	Max. spread over vanes.	2.4-ins/60-mm.
4.	Dia. over threads where screwed into bomb.	1.3-ins/34-mm.
5.	Material.	Striker Mechanism - Brass. Body and Vanes - Aluminium
6.	Type of Gaine.	Detonator only.
7.		

Description of Fuze.

The vanes (1) are attached to the spindle (2) by a pin (3). During transport on the ground, the vanes are prevented from rotating by means of a metal clip (13) which is attached to the vane by means of a split pin (14) through one of the holes (4). This clip engages in one of the four slots (5) in the fuze body, this slot having been cut deeper than the others in order to receive it. An alternative method of preventing rotation of the vanes is to secure them to the body of the fuze by a wire passing through the holes (4).

When the bombs are loaded into their container these safety devices are removed. During the fall of the bomb, after release from the container, the vanes rotate and the spindle (2) rises in the fuzehead (6). When 0.6-ins. of the spindle are visible below the vanes, the fuze is fully armed. The lower part of the spindle, when withdrawn from the striker (7), allows the steel balls (8) to fall inwards and so release the striker. This latter is then kept away from the cap (9) only by the creep spring (10). The vanes are not detached from the fuze when the latter is fully armed, so that the spindle (2) acts as a hammer and on impact forces the striker onto the cap. Rotation of the striker is prevented by the two projections (11) moving in the slots (12).

Handling of fuzed bomb.

If the visible portion of the spindle be bound with tape to prevent movement the bomb can be carried horizontally providing all jolting be avoided.

To Defuze the Bomb.

(a) Observe any visual indications of arming.
(b) Avoid any longitudinal blow on the fuze or jerk on the bomb.
(c) Bind the spindle to prevent longitudinal movement.
(d) Ensure that the vanes are not rotated.
(e) Carefully unscrew the fuze and remove complete with detonator.
(f) Unscrew the detonator from the fuze and pack separately.

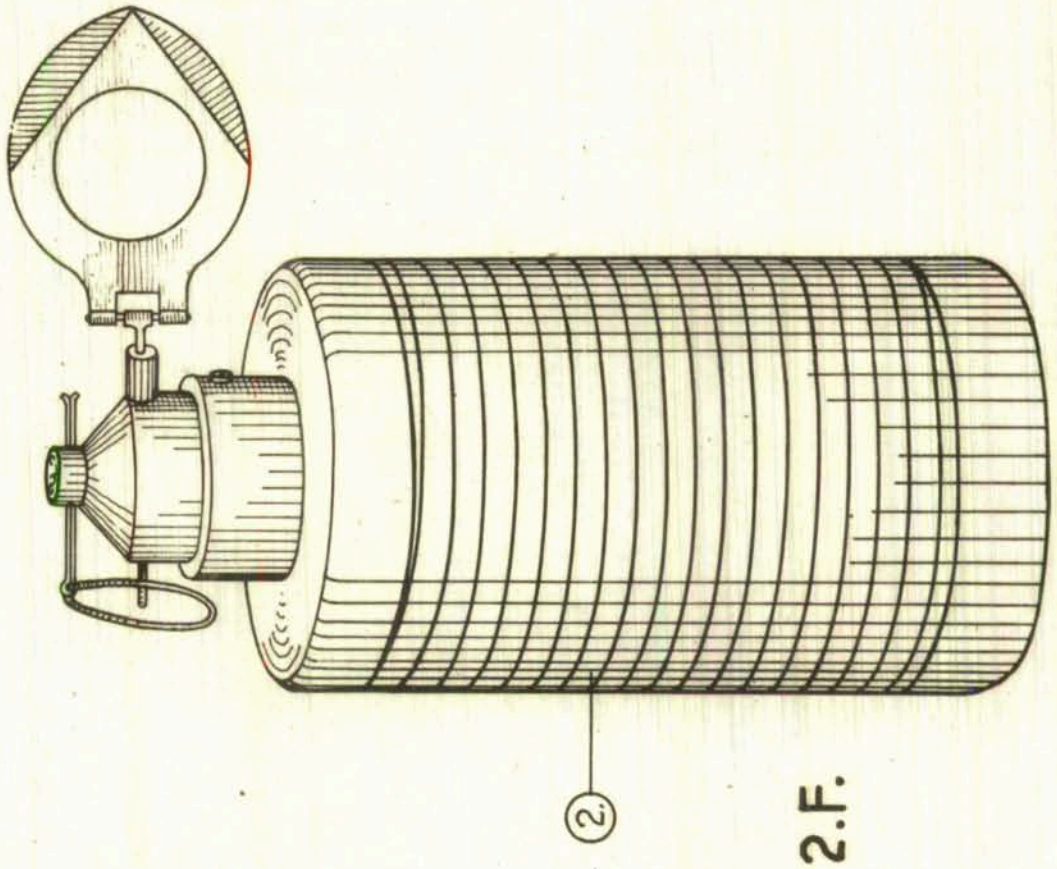
BOMBA 2 F

The anti-personnel bomb 2 F is a tail-less bomb, in the shape of a right cylinder. The inner then sheet steel cylinder (1) contains the explosive charge consisting of T.N.T. On the outside of this cylinder is wound a continuous band of strip metal (2). This is located between the cup-shaped ends (3) and (4) which are pressed on to the inner cylinder. The end (4) is cut and threaded to take the fuze K.

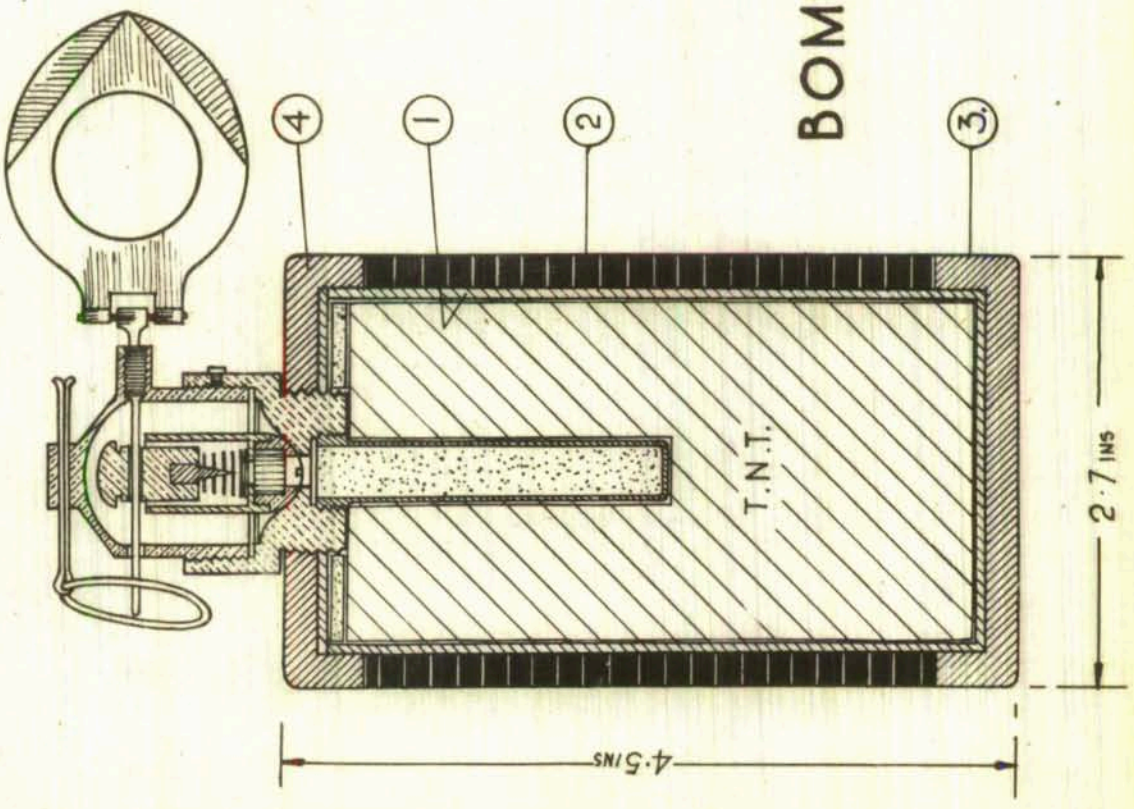
A variation of this bomb is shown in which the steel strip is placed inside the outer steel cylinder (5). This latter is 0.1-inches thick and has a loose base (7). The T.N.T. in the form of a block charge (6) lies within the coiled strip (8) and is shaped to take the detonator. The disc (9) which is recessed and screwed to take the fuze K screws into the cylinder (5).

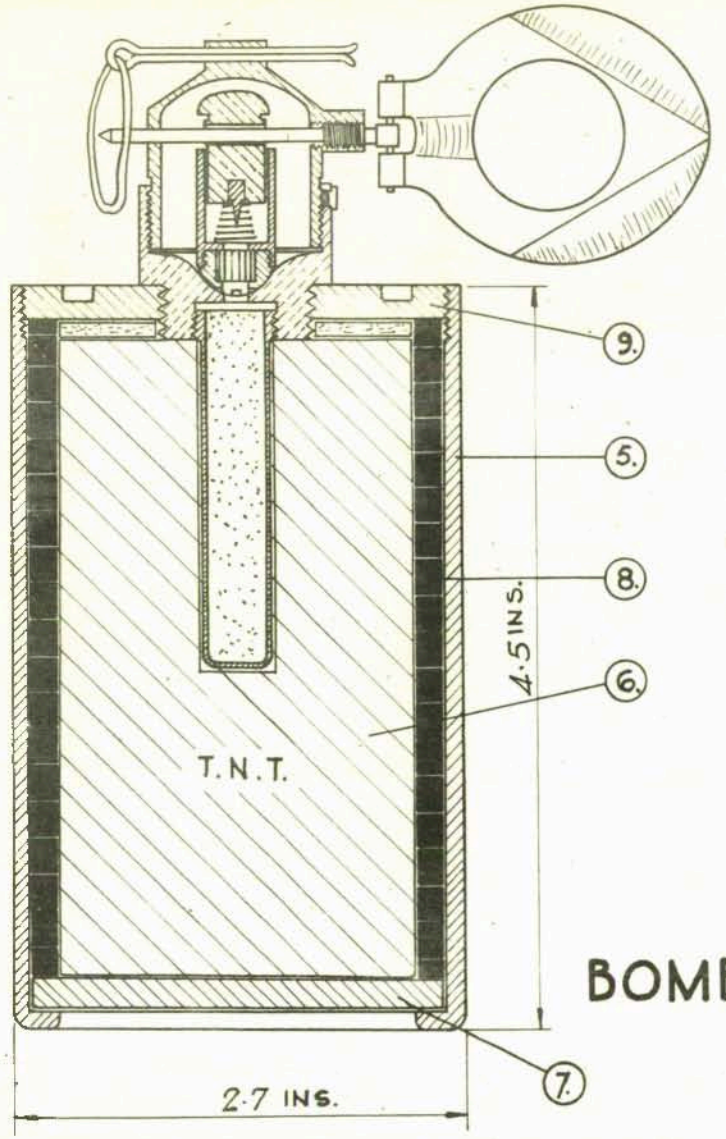
The coiled strip metal in both cases is 0.2-inches by 0.18-inches and has the same total length. In the former case the coil is wound on a diameter of 2.2-inches with the smaller dimension set longitudinally. In the latter case the coil is wound on the same diameter but with the longer dimension longitudinally. On detonation it breaks up into short lengths 1 to 2-inches long.

Designation		Type
Old	SPEZZONE da Kg 2 A FRATTURA PRESTABILITA	Anti-personnel Fragmentation Bomb
New	Bomba 2F	
1.	O/A Length of Fuzed Bomb.	6.1-ins/155-mm.
2.	O/A Length less Fuze or Lug.	4.5-ins/115-mm.
3.	Length of Body.	4.5-ins/115-mm.
4.	Dia. of Body.	2.7-ins/70-mm.
5.	Max. thickness at (point / nose	
6.	Wall thickness	0.28-ins/6.5-mm.
7.		
8.	Material and construction of bomb body.	See page 205
9.	Suspension System.	Carried in container or in BOMBA 100 sp.
10.	Colouring of bomb.	Black
11.	Markings on bomb.	Nil.
12.	Note	This bomb has no tail.
13.	Length of Tail.	
14.	Dia. of tail.	
15.	Material of tail.	
16.	Colouring of tail.	
17.	Markings on tail.	
18.	Construction of Tail.	
19.		
20.	Nature of filling.	T.N.T.
21.	Weight of filling.	0.36 Kg.
22.	Total Weight.	1.8 Kg.
23.	Weight of Bomb Case.	
24.	Charge/Total Wt. Ratio.	
25.	Fuze - our designation.	Type K (Page 213).
26.		

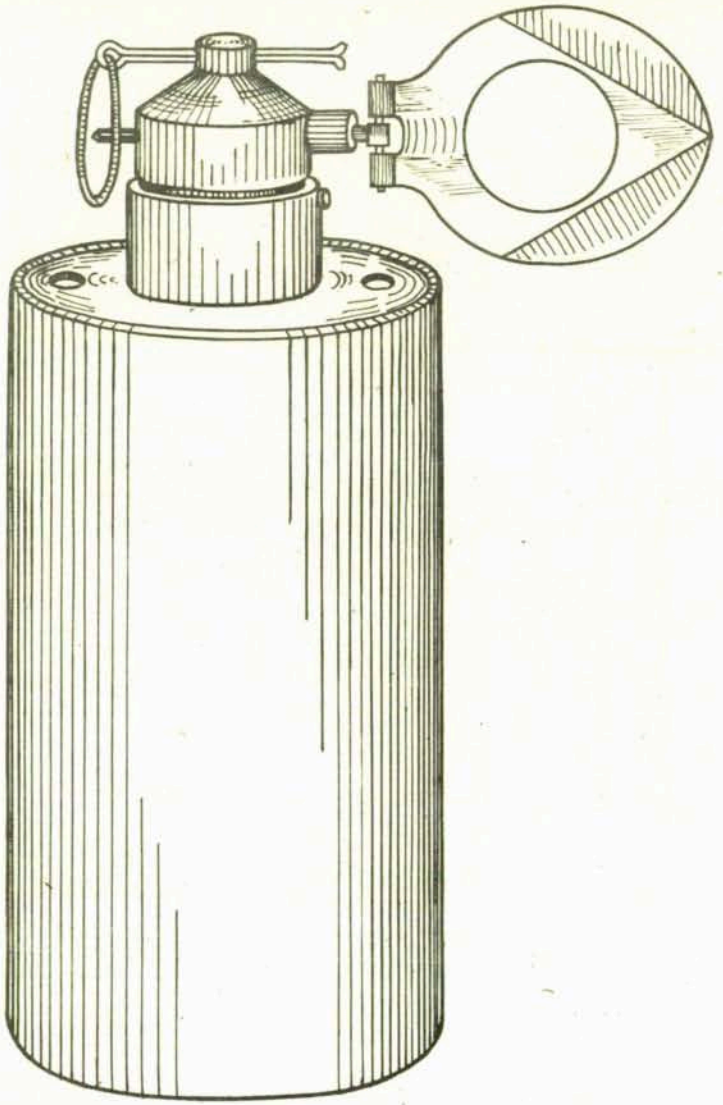


BOMBA 2.F.





BOMBA 2.F.

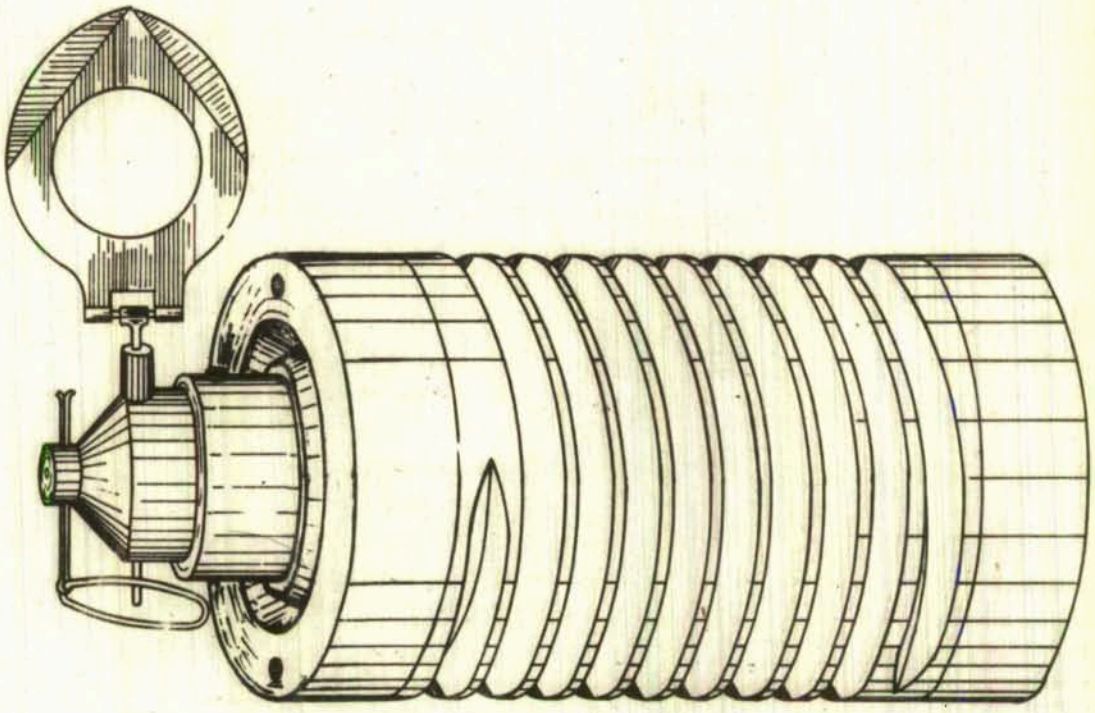


BOMBA da Kg 2

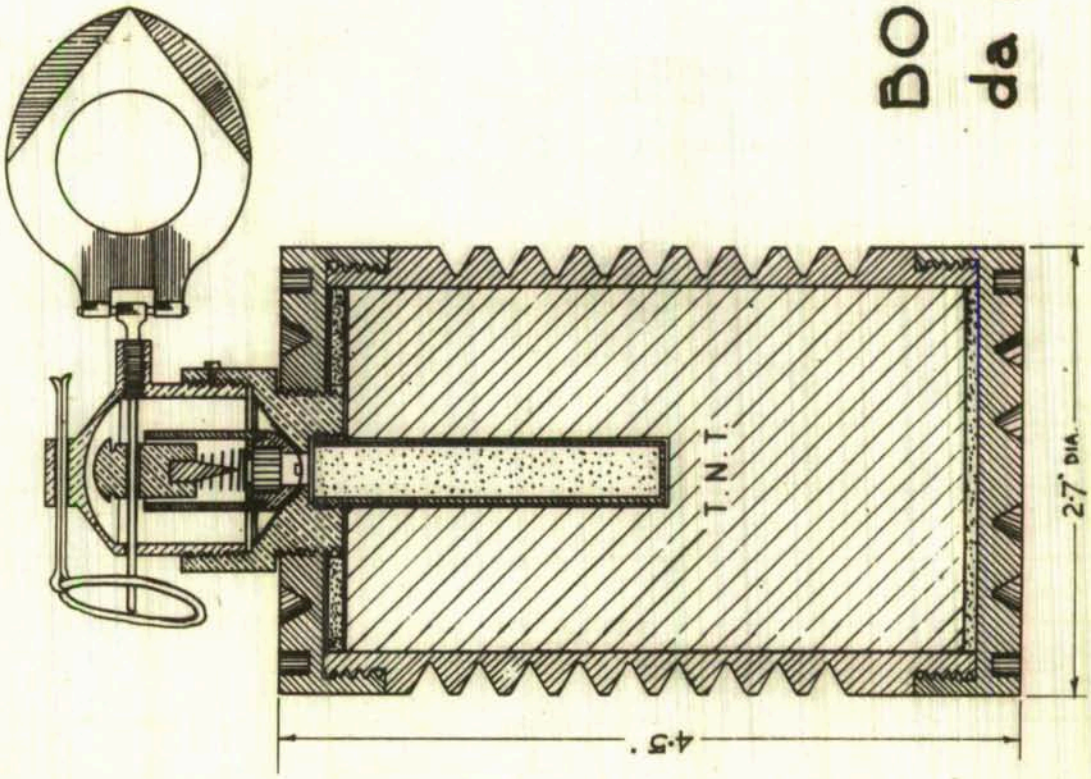
This bomb is the early model of the 2 Kg anti-personnel bomb having been subsequently developed into the 2 F. and 2 Mtr. described on Pages 205 and 215 respectively.

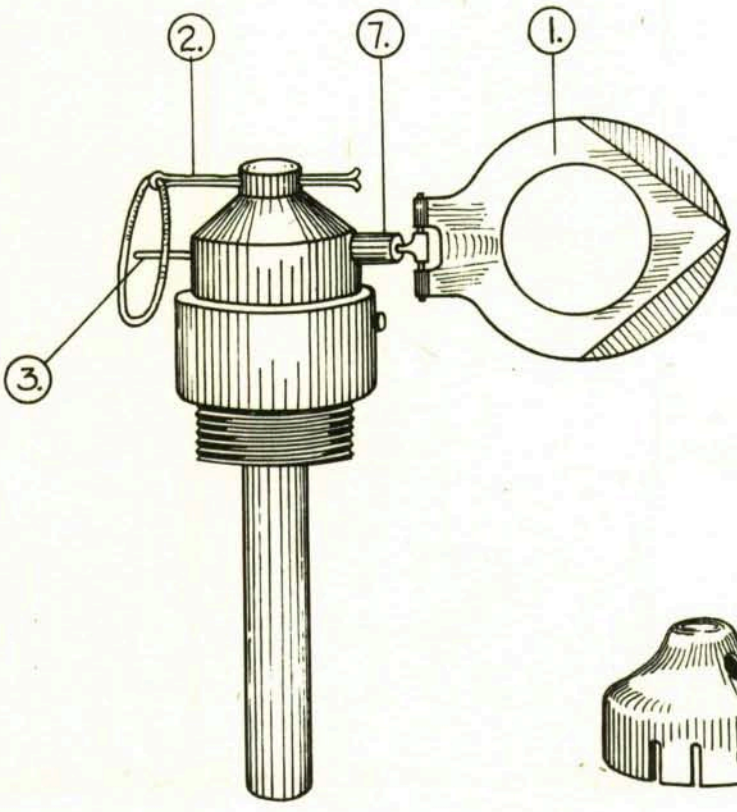
It consists of a steel cylinder with one end closed and the other screw threaded to receive a closing cap into the centre of which the fuze screws. Both the body and the ends of the bomb are deeply grooved sprially to assist fragmentation.

	Designation Old Bomba New Bomba ka Kg.2	Type Anti-personnel
1.	O/A Length of Fuzed Bomb.	6.1-ins/155-mm.
2..	O/A Length less Fuze or Lug.	4.5-ins/115-mm.
3..	Length of Body	4.5-ins/115-mm.
4.	Dia. of Body.	2.7-ins/70-mm.
5.	Max. thickness at (point / nose	
6.	Wall thickness	.25-ins/6-mm.
7.		
8.	Material and construction of bomb body.	Steel cylinder deeply grooved. End and top which latter screws on to the main cylinder are also grooved to assist fragmentation.
9.	Suspension System.	Carried in container or in Bomba 100.Sp.
10.	Colouring of bomb.	Black
11.	Markings on bomb.	Nil.
12.	Note	This bomb has no tail.
13.	Length of Tail.	
14.	Dia. of tail.	
15.	Material of tail.	
16.	Colouring of tail.	
17.	Markings on tail.	
18.	Construction of Tail.	
19.		
20.	Nature of filling.	T.N.T.
21.	Weight of filling.	0.36 Kg.
22.	Total Weight.	1.61 Kg.
23.	Weight of Bomb Case.	
24.	Charge/Total Wt. Ratio.	
25.	Fuze - our designation.	Type K (Page 213)
26.		

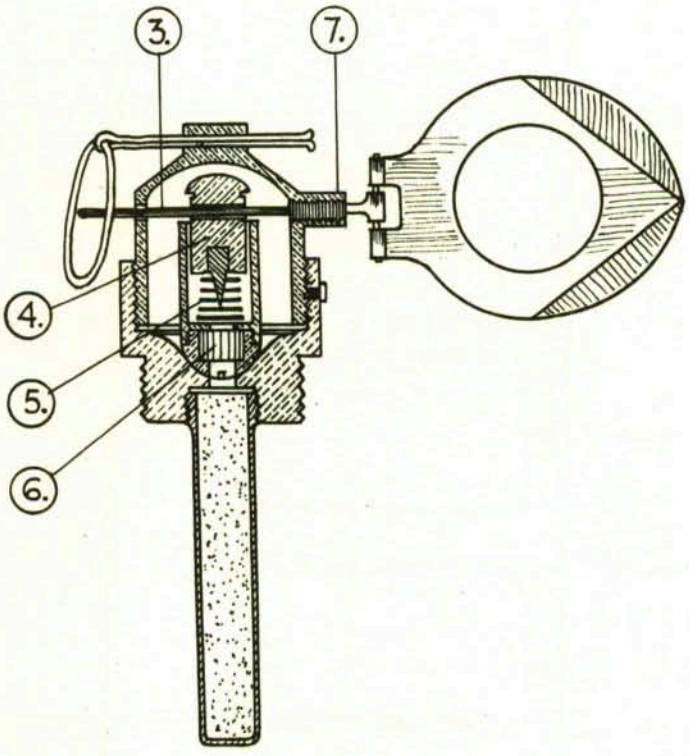


BOMBA
da Kg. 2.





FUZE COVER.



FUZE. K.

ITALIAN. Designation of Fuze.		Our Designation. K
		Classification. Mech Impact
Spoletta per Bomba da Kg 2		Markings. Nil
		Bomb in which employed. See Below
1.	Colour.	Unpainted Brass Unpainted Zinc Alloy
2.	O/A length less gaine.	1.8-ins/47-mm.
3.	Max. spread over vanes.	
4.	Dia. over threads where screwed into bomb.	0.9-ins/24-mm.
5.	Materials.	Fuze Head, cap holder and striker - Brass; Fuze body - Zinc alloy: Vane - Aluminium. N.B. Fuze head sometimes fitted with a sheet iron cover painted black.
6.	Type of gaine.	Detonator only.
7.		

Description of Fuze

This fuze is the type employed in 2 Kg anti-personnel bombs 2.F and 2-Mtr. and in the incendiary bombs 2.I and 1.I. It may also be used in the chemical bombs 4.C. 2.C and Furetto.

The fuze screws into the end of the bomb, and carries a large detonator screwed into the base. In the unarmed position, the vane (1) lies over the head of the fuze, and is held by a split pin (2).

To arm the fuze this pin is withdrawn, and the vane freed. If the fuze should be found with this pin in position, it should not be assumed that the fuze is safe, as the pin has no other function than to hold the vane to prevent premature arming.

When the bomb falls the vane rotates, and unscrews the safety rod (3) which eventually falls away. The striker (4) is then held away from the cap only by the light creep spring (5). Both the striker (4) and the cap holder (6) are then free to move. On impact, they ride up the dome-shaped surfaces within the fuze, and the needle and cap approach one another. This ensures that the fuze will function however the bomb may fall.

Handling of the Fuzed Bomb.

No attempt should be made to insert a wire in the open end of (7) as this may force the striker on to the cap. The bomb may be carried on its side, but all jerking must be carefully avoided.

To Defuze the Bomb.

(a) Lay the bomb carefully on its side.

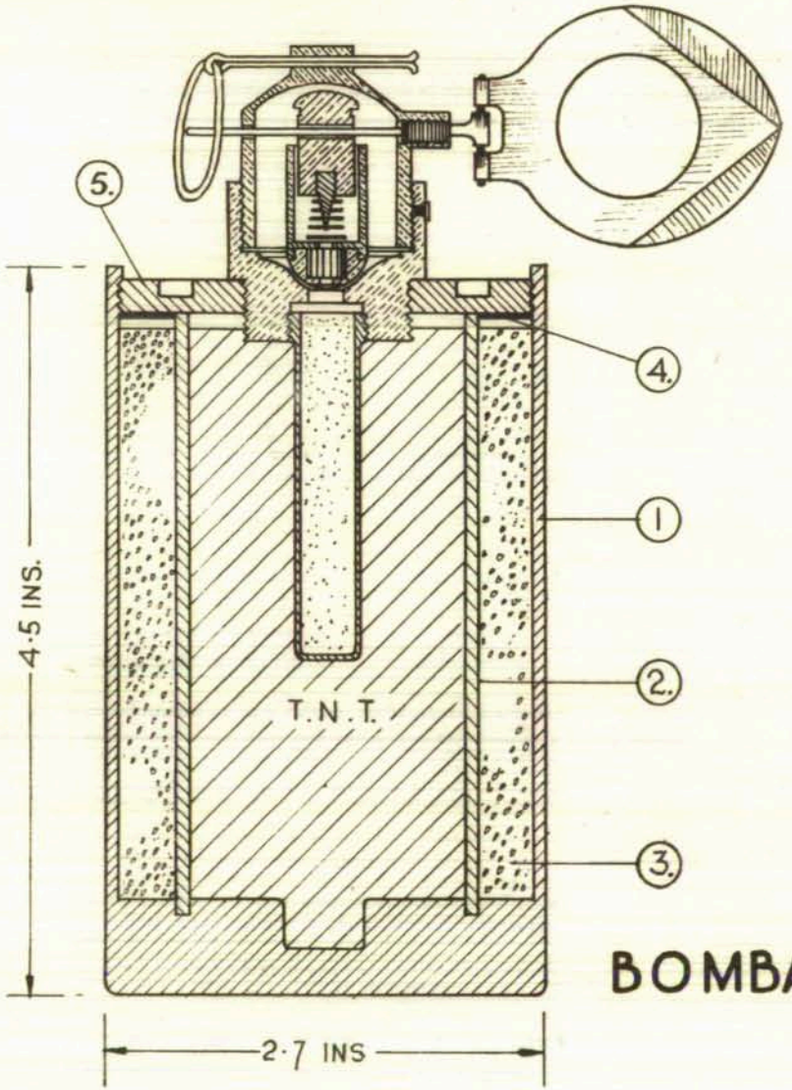
(b) Unscrew the fuze without jolting the bomb and remove the fuze complete with detonator.

(c) Unscrew the detonator from the fuze and pack separately.

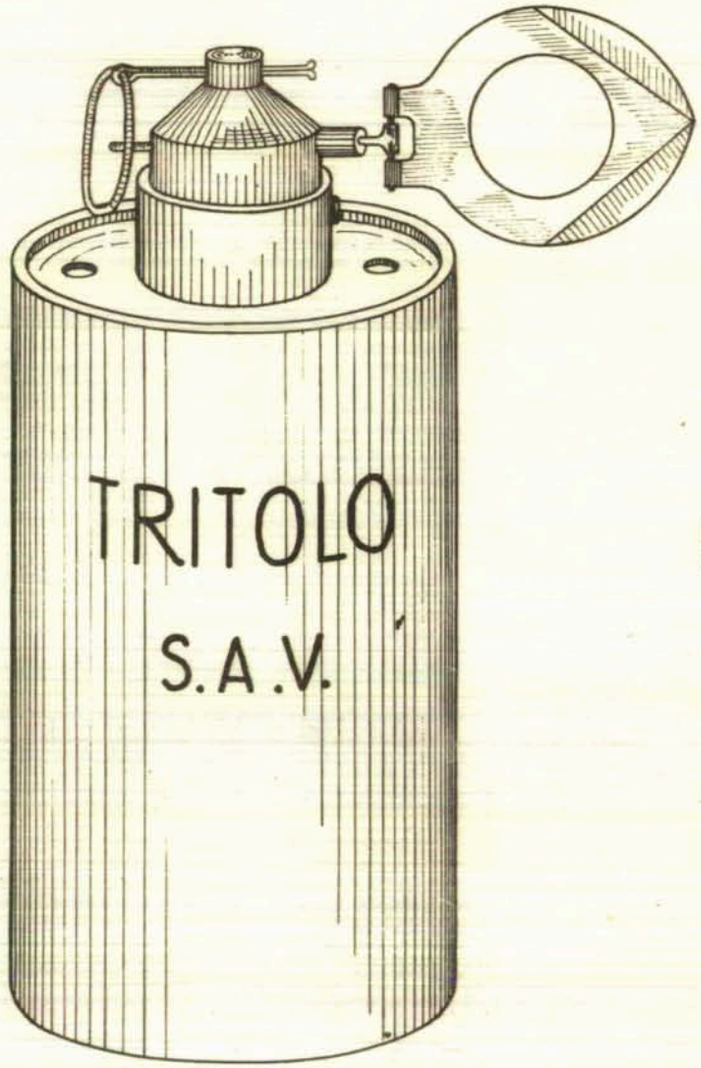
BOMBA 2 Mtr.

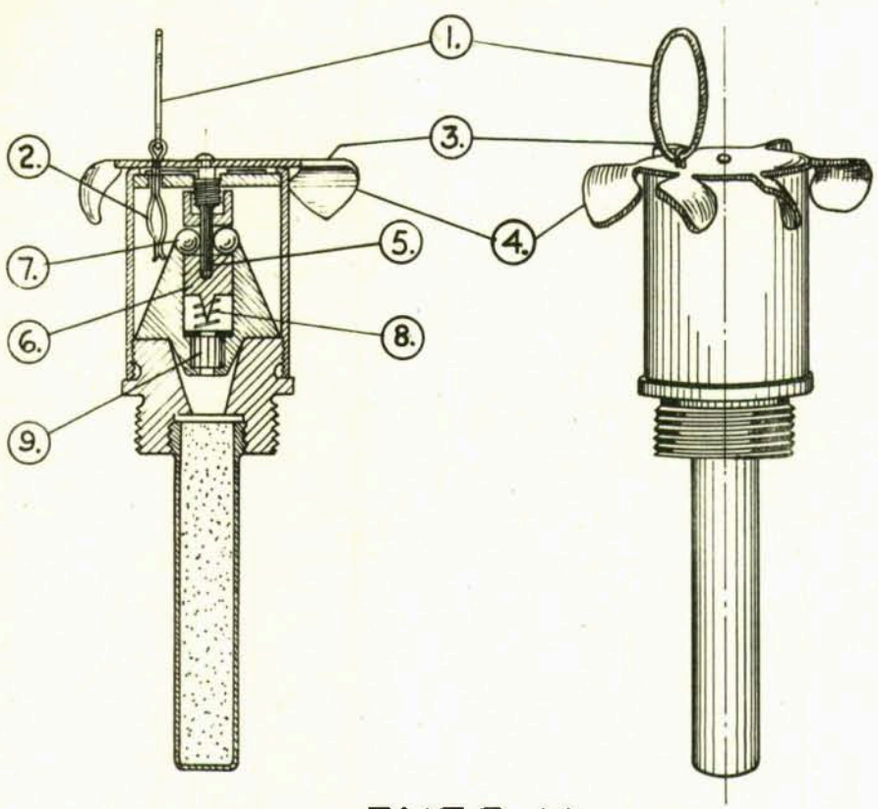
The bomb 2 Mtr. resembles in extemal appearance and dimensions the variation of the 2 F bomb described on Page 205. Within the outer cylinder (1) and concentric with it is a smaller cylinder (2). The annular space (3) between the two cylinders is filled with concrete in which steel pellets are embedded. The concrete is covered with a perforated disc (4) and the screwed disc (5), which seals the bomb, is threaded to take the fuze K.

	Designation Old Spezzone da kg 2 A Mitraglia New Bomba 2 Mtr.	Type Anti-personnel
1.	O/A Length of Fuzed Bomb	6.1-ins/155-mm.
2.	O/A Length less Fuze or Lug.	4.5-ins/115-mm.
3.	Length of Body.	4.5-ins/115-mm.
4.	Dia. of Body.	2.7-ins/70-mm.
5.	Max. thickness at (point / nose	
6.	Wall thickness.	0.5-ins/12-mm.
7.		
8.	Material and construction of bomb body.	Loading of steel pellets embedded in concrete between two thin walled cylinders.
9.	Suspension System.	Carried in container or in BOMBA 100 sp.
10.	Colouring of bomb.	Black
11.	Markings on bomb.	TRITOLO - S.A.V.
12.	Note.	This bomb has no tail.
13.	Length of Tail.	
14.	Dia. of tail.	
15.	Material of tail.	
16.	Colouring of tail.	
17.	Markings on tail.	
18.	Construction of Tail.	
19.		
20.	Nature of filling.	T.N.T.
21.	Weight of filling.	0.36 Kg.
22.	Total Weight.	1.75 Kg.
23.	Weight of Bomb Case.	
24.	Charge/Total Wt. Ratio.	
25.	Fuze - our designation.	Type K (Page 213)
26.		

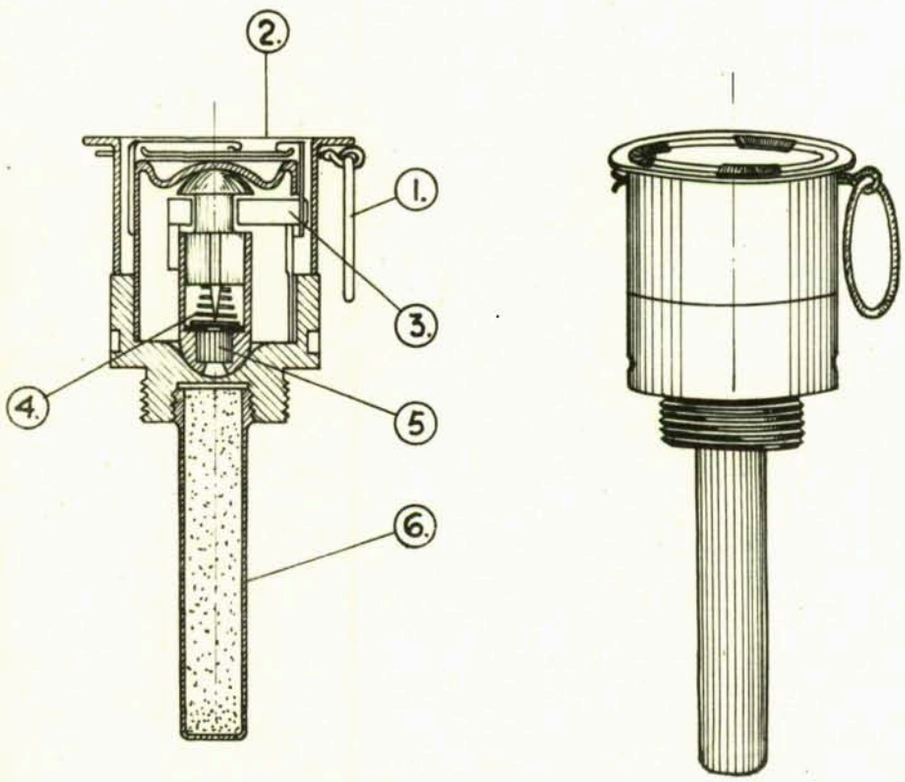


BOMBA 2.Mtr.





FUZE. U.



FUZE. Q.

ITALIAN Designation of fuze.		Our Designation. Q
		Classification. Mech Impact.
		Markings. Nil
		Bomb in which employed. See below.
1.	Colour.	
2.	O/A length less gaine.	
3.	Max. spread over vanes.	
4.	Dia. over threads where screwed into bomb.	
5.	Materials.	
6.	Type of gaine.	Detonator only.
7.		

Description of Fuze. (Page 218)

This is described in documents as the universal type and can be employed in bombs of 2 Kg.

The safety pin (1) is U-shaped. When it is withdrawn, the cap (2) is free to fall away, releasing the safety bolts (3). The striker is then freed, and on impact compresses the creep spring (4) and fires the cap (5) which in turn fires the detonator (6).

The striker assembly here resembles that used in the fuze K.

Handling of fuzed Bombs.

As this fuze is sensitive to shock, it should only be carried on its side, and all jerking carefully avoided.

To Defuze the Bomb.

(a) Lay the bomb carefully on its side.

(b) Unscrew the fuze without jolting the bomb and remove the fuze complete with detonator.

(c) Unscrew the detonator from the fuze and pack separately.

ITALIAN Designation of fuze.		Our Designation. U
		Classification. Mech. Impact
		Markings. Nil.
		Bomb in which employed. See Below.
1.	Colour.	
2.	O/A length less gaine.	
3.	Max. spread over vanes.	
4.	Dia. over threads where screwed into bomb.	
5.	Material.	
6.	Type of Gaine.	Detonator only.
7.		

Description of Fuze (Page 218)

This small detonating fuze appears to be equally suitable for employment in small bombs, e.g. 2 Kg, as the fuze Type Q. No specimens have yet been recovered.

When the ring (1) is pulled to withdraw the safety pin (2), the cap (3) can rotate by air pressure on the vanes (4). This causes the arming rod (5) to be withdrawn from the slot in the striker (6). The vanes and cap rise above the head of the fuze, so that when the rod (5) has risen sufficiently with the cap, the steel balls (7) can move inwards and free the striker (6). On impact, the striker compresses the creep spring (8) and fires the cap (9).

Handling of fuzed bomb.

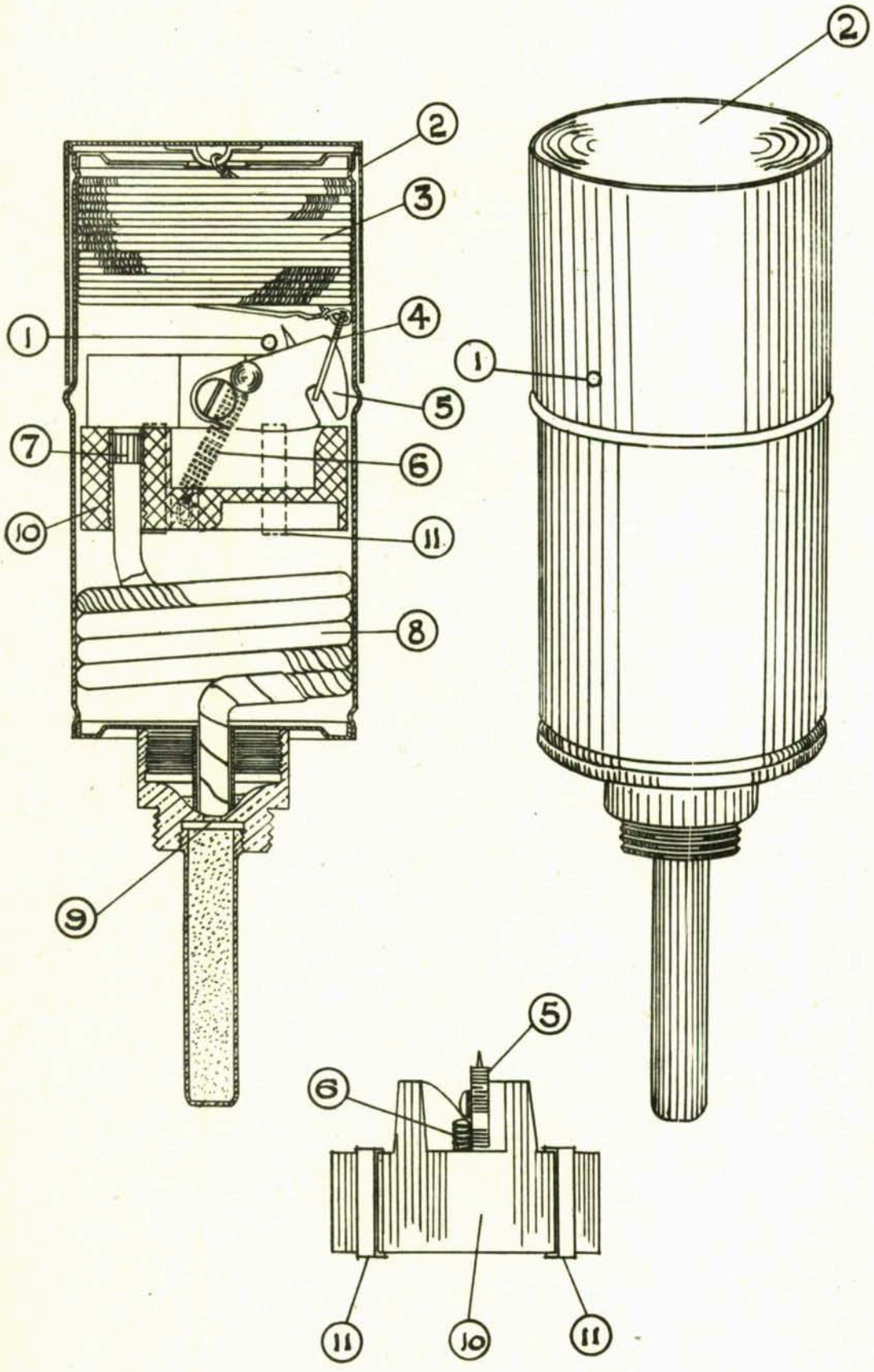
The fuze is sensitive to jerking, and bombs containing it should only be carried with the fuze horizontal.

To Defuze the Bomb

(a) Lay the bomb carefully on its side.

(b) Unscrew the fuze without jolting the bomb and remove the fuze complete with detonator.

(c) Unscrew the detonator from the fuze and pack separately.



FUZE H.

ITALIAN. Designation of fuze.		Our Designation. Type H.
		Classification. Deliberate Firing.
		Markings. Nil.
		Bomb in which employed. See below.
1.	Colour.	Green.
2.	O/A length less gaine.	5.5-ins/141-mm.
3.	Dia. of fuze.	2.2-ins/57-mm.
4.	Dia. over threads where screwed into bomb.	0.9-ins/24-mm.
5.	Material.	See below
6.	Type of Gaine.	See below.
7.		

Description of Fuze.

This fuze is designed to permit the crews of Italian aircraft, forced to land in enemy territory, to destroy their aircraft by using the 1 Kg or 2 Kg Incendiary bombs or the 2 Kg Anti-Personnel bombs.

The fuze consists of a cylindrical sheet iron container which is divided into two halves by a diaphragm, and is fitted with a close fitting sheet iron cover and brass adaptor for screwing into the standard fuze socket in these types of bombs. The cover is held in position by a safety pin which also prevents the rotation of the striker. When the safety pin has been removed from the hole (1) the cover 2 can be pulled away. To the inside of this cover is attached one end of a piece of cord (3) which is 6 metres (19-ft.4-ins) in total length. The other end of the cord is attached by a wire loop (4) to the striker (5). When the cord is pulled taut the striker moves over with the aid of the spring (6) and fires the cap (7). This ignites a 3-ft. length of safety fuze (8) which burns for about 90 secs., and fires through the hole (9). The striker mechanism is mounted on the bakelite mounting (10) which is positioned in the container by means of four strips (11) spot welded to the latter.

Handling of Fuzed Bomb.

The bomb which is being used for this purpose will be found securely attached to the aircraft near the petrol tanks or other vulnerable point. When Italian aircraft are being examined search should be made for the bomb which, when found should be removed complete with Fuze. The fuze should then be removed from the bomb, and if present the detonator from the fuze. These should then be packed separately.

SECTION 5(b)

(b) ANTI-AIRCRAFT BOMBS

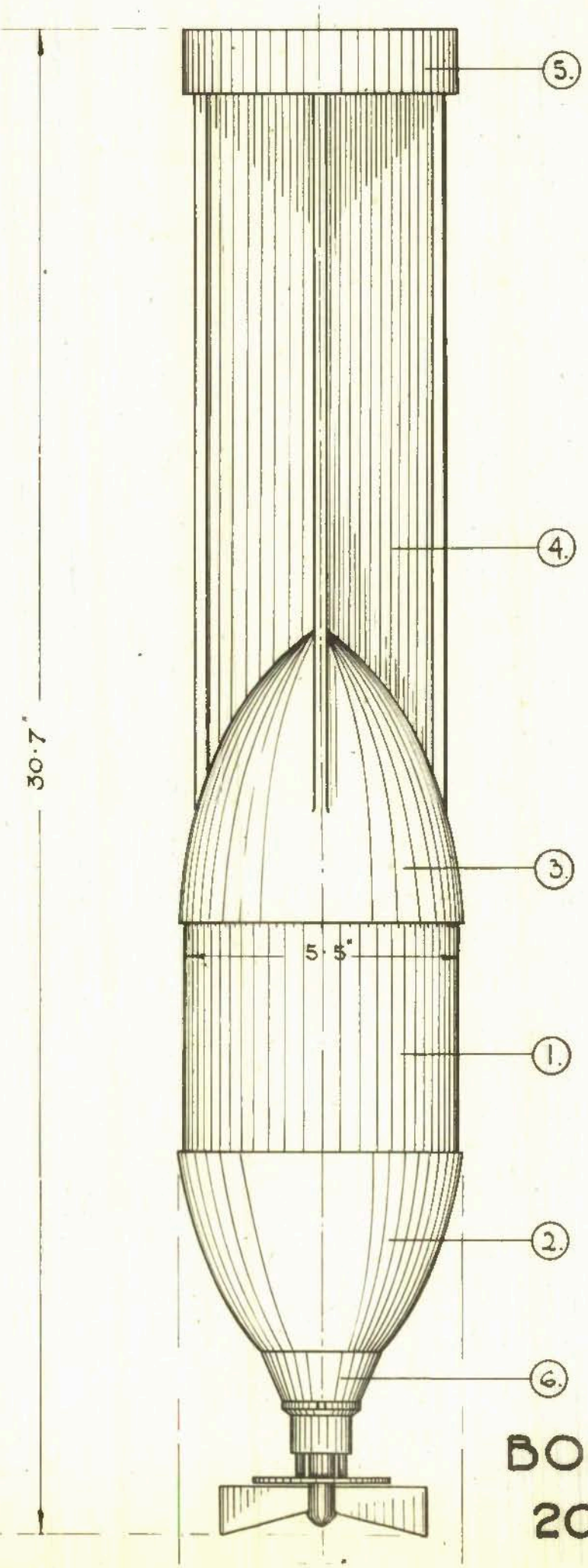
BOMBA 20 cV

This bomb consists of a cylindrical body (1) together with two shaped pieces of slightly larger diameter forming the nose (2) and the base (3). Mounted on the latter are four sheet metal fins (4) which are rolled along their outer edges for greater strength. A strengthening band (5) is welded round the rear end of these fins.

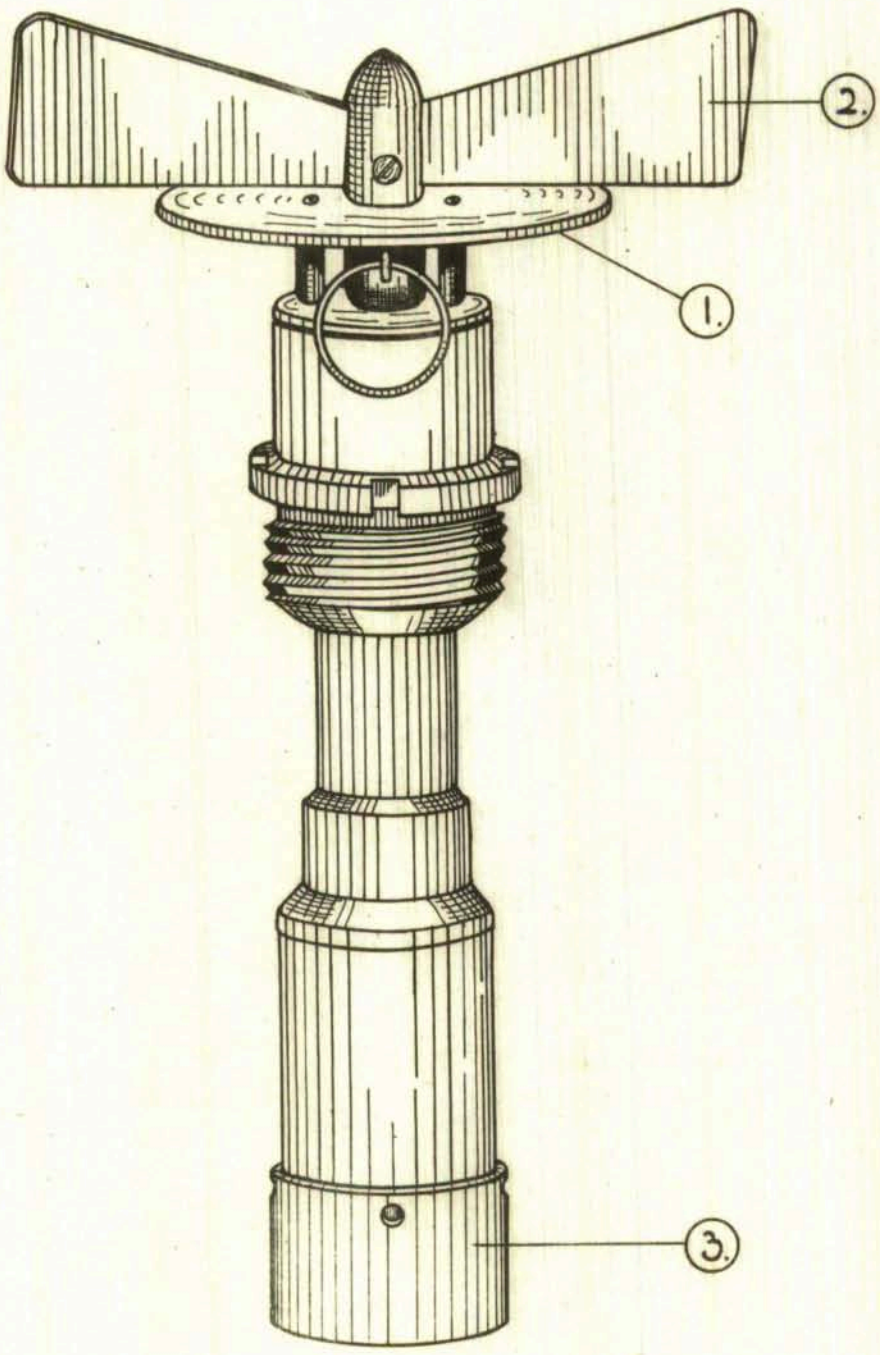
The bomb is constructed of concentric sheet metal pressings, the annular space between which is filled with steel pellets embedded in concrete. The nose of the bomb is threaded to receive the brass adaptor (6) for fitting the fuze.

This bomb is used for air-to-air bombing.

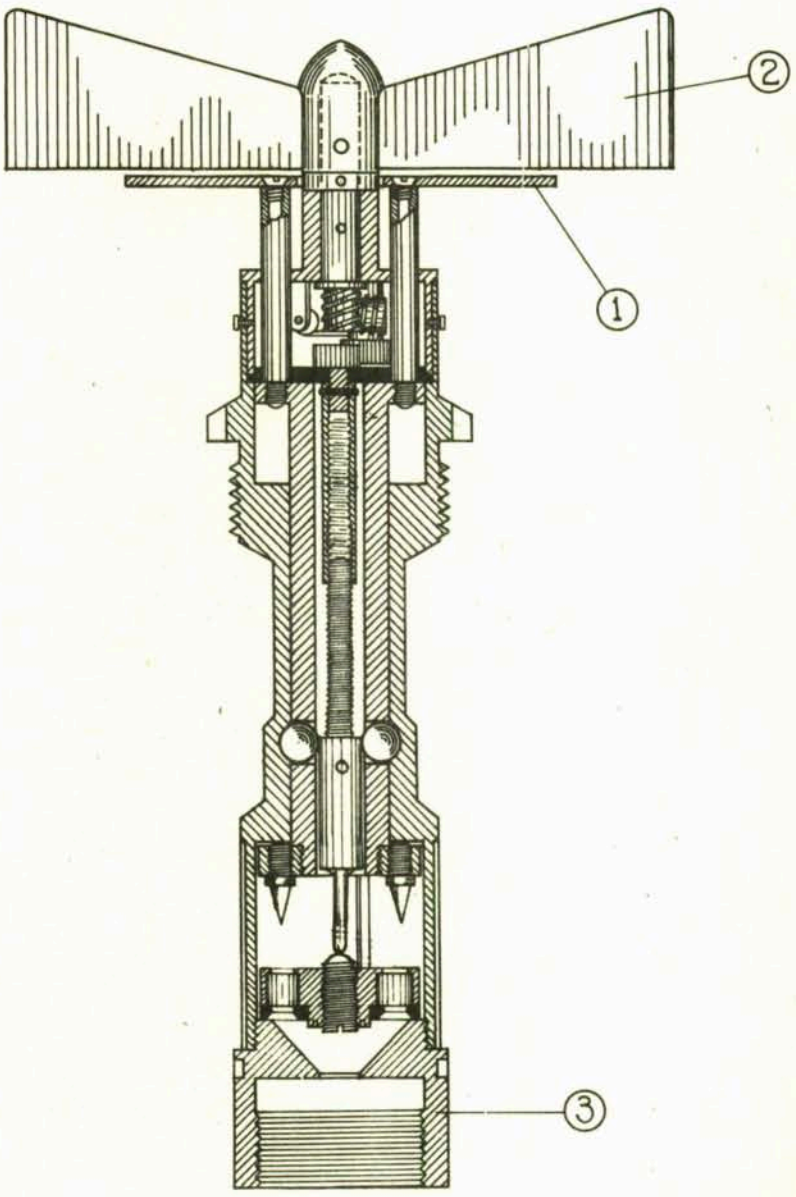
Designation Old Bomba da Kg 20 c.a. New Bomba 20 cV.		Type ANTI-AIRCRAFT
1.	O/A Length of Fuzed Bomb.	30.7-ins/778-mm.
2.	O/A Length less Fuze or Lug.	27.1-ins/688-mm.
3.	Length of Body.	15.5-ins/393-mm.
4.	Dia. of Body.	5.5-ins/139-mm.
5.	Max. thickness at {point / nose	
6.	Wall thickness.	1.1-ins/28-mm.
7.		
8.	Material and construction of bomb body	Loading steel pellets embedded in concrete in annular space between two drawn steel containers.
9.	Suspension System.	Horizontal.
10.	Colouring of bomb.	
11.	Markings on bomb.	Nil.
12.		
13.	Length of Tail.	18.0-ins/457-mm.
14.	Dia. of tail.	5.6-ins/143-mm.
15.	Material of tail.	Sheet iron.
16.	Colouring of tail.	
17.	Markings on tail.	Nil.
18.	Construction of Tail.	Four fins mounted on conical end cap of bomb, with strengthening band round outer extremities.
19.		
20.	Nature of filling.	
21.	Weight of filling.	
22.	Total Weight.	Nominal 20.0 Kg.
23.	Weight of Bomb Case.	
24.	Charge/Total Wt. Ratio	
25.	Fuze - our designation.	Nose - Type I.1 (Page 233).
26.		



BOMBA
20 cV.



FUZE I. 1.



FUZE I. 1.

ITALIAN Designation of fuze.		Our Designation I.1
		Classification: Nose - Fixed Time short Delay.
		Markings. See below.
		Bomb in which employed. 20 cV.
1.	Colour.	Vanes - Green Fuze - Unpainted Brass
2.	O/A length less gaine.	7.5-ins/190-mm.
3.	Max. spread over vanes.	4.25-ins/108-mm.
4.	Dia. over threads where screwed into bomb.	1.4-ins/35-mm.
5.	Material.	Brass.
6.	Type of Gaine.	Short Gaine Type 2
7.		

Description of Fuze.

This fuze is essentially the same as fuze I and differs from it only in the following respects.

1. The marking denoting the fall required to operate the fuze is stamped on the circular plate (1) and not on the vane (2). The marking on the specimen recovered is

m.450

2. The base plug (3) is screw-threaded internally to receive a gaine adaptor.

Handling of Fuzed Bomb.

There is no visual indication of arming. Since both the striker and the cap holder move within the armed fuze and there is no creep spring holding them apart, the fuze must be regarded as being in a most dangerous condition and the bomb should be detonated in situ whenever possible.

If the bomb must be moved, first secure the pressure plate so that it cannot move. If the pressure plate has not been depressed, wedge it in position by means of a small piece of wood. If the pressure plate has been depressed, do not attempt to move it as the needles may have pierced the caps without firing them and withdrawal may cause the bomb to function.

After securing the pressure plate, move the bomb slowly and carefully into the horizontal position taking care not to pass the bomb, and hence the fuze, through the vertical in so doing. The bomb may now be moved horizontally for subsequent demolition if all jolting be avoided. No attempt should be made to defuze the bomb.

BOMBA 3 cV.

The bomb consists of two containers (1) and (2) of mild sheet steel. The space between them is filled with steel pellets embedded in concrete (3).

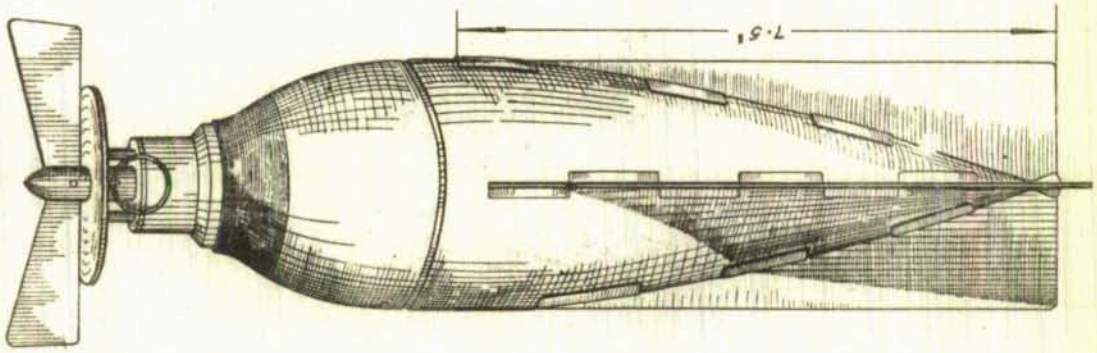
In the body a collar (4) is inserted, the upper part being threaded externally. This screws on to a collar (5) which is rivetted to the head of the bomb (6). The head and the body of the bomb are loaded separately with their charge of concrete and steel. The brown substance (7) which tops the head filling forms a cushion and a sealing when the head is screwed on to the body. It is a resinous waterproof compound.

The outer casing of the bomb forms the tail cone on to which the vanes are spot welded.

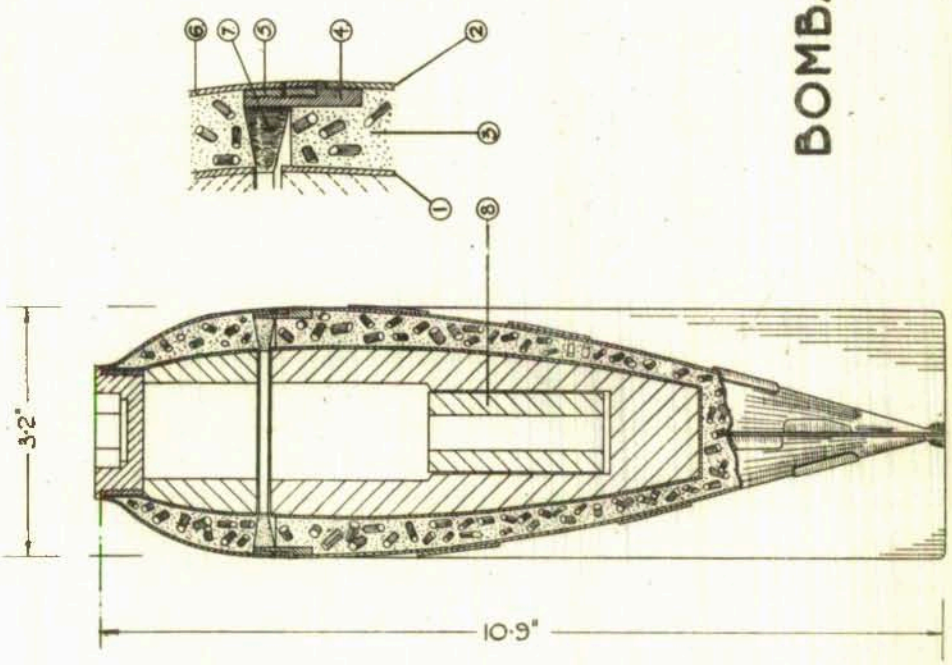
The bomb is usually transported plugged and the HE filling is TNT with a pressed hollow TNT pellet (8) surrounding the detonator.

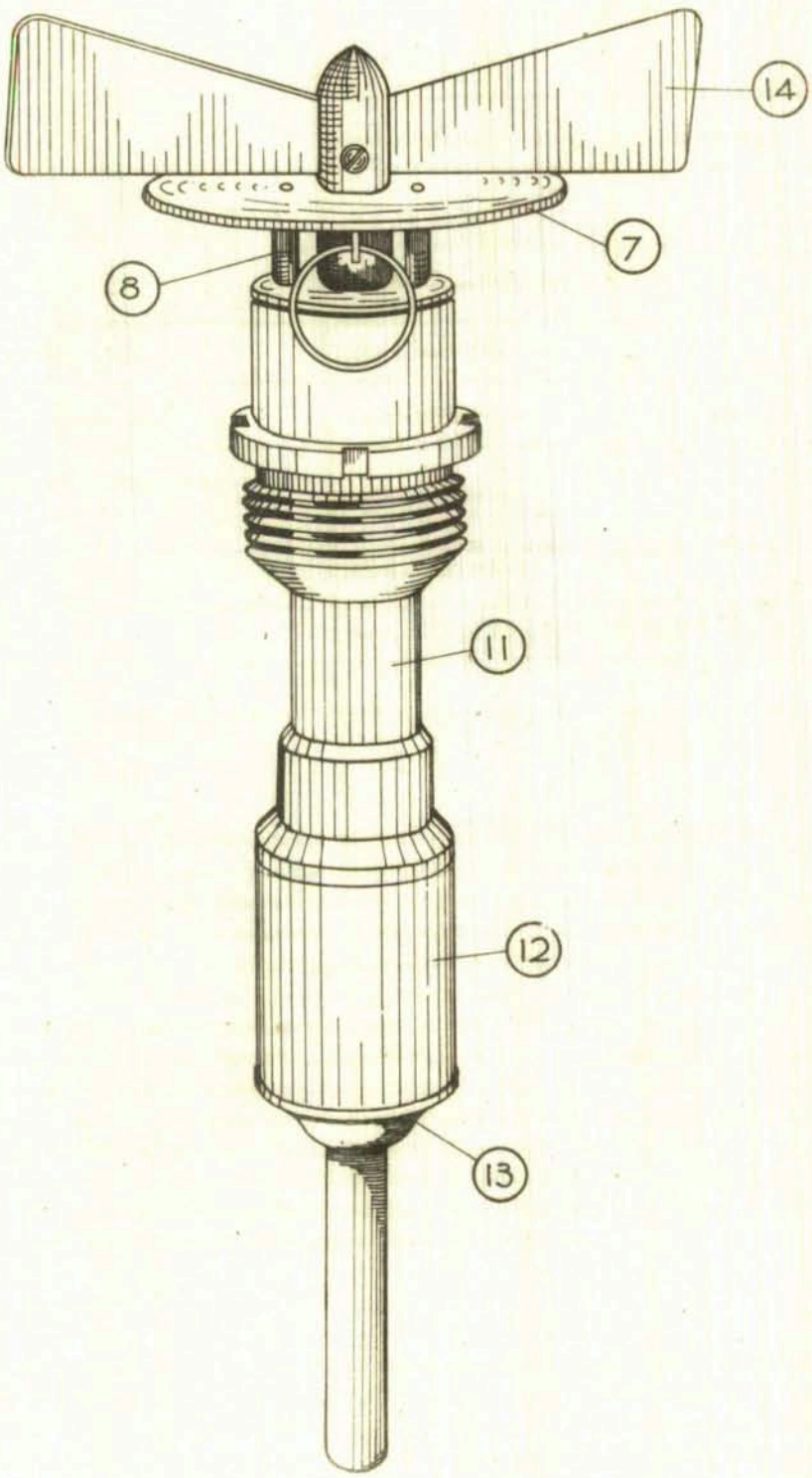
The bomb as its designation (contro Velivoli) indicates is used by aircraft against enemy aircraft.

Designation. Old Bomba da Kg 3 c.a. New Bomba 3 cV		Type ANTI-AIRCRAFT
1.	O/A Length of Fuzed Bomb.	13.5-ins/344-mm.
2.	O/A Length less Fuze or Lug.	10.9-ins/277-mm.
3.	Length of Body.	8.7 -ins/220-mm.
4.	Dia. of Body.	3.2-ins/82-mm.
5.	Max. thickness at (point / nose)	
6.	Wall thickness (total)	0.55-ins/14-mm.
7.		
8.	Material and construction of bomb body.	Loading steel pellets embedded in concrete in annular space between two thin walled containers.
9.	Suspension System.	
10.	Colouring of bomb.	1-in. red band round nose.; Body apple green.
11.	Markings on bomb.	AMATOLO
12.		
13.	Length of Tail Fins.	7.5-ins/90-mm.
14.	Dia. of tail Fins.	3.2-ins/81-mm.
15.	Material of tail.	Sheet iron.
16.	Colouring of tail.	Apple Green.
17.	Markings on tail.	Nil.
18.	Construction of Tail.	Four fins spot welded to body.
19.		
20.	Nature of filling.	AMATOL
21.	Weight of filling.	0.40 Kg.
22.	Total Weight.	Nominal 3.0 Kg.
23.	Weight of Bomb Case.	
24.	Charge/Total Wt. Ratio.	
25.	Fuze - our designation.	NOSE - TYPE 1 (Page 241)
26.		



BOMBA 3 cV.





FUZE I.