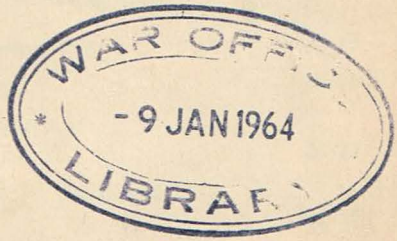
THE BREDA MACHINE GUN MODEL 30



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THE BREDA MACHINE GUN - MODEL 30

GENERAL NOTES

An air cooled, recoil operated weapon. Is fired shoulder-controlled from a bipod. To avoid overheating, strain, and excessive expenditure of ammuntion, bursts should be of 5 or 6 rounds.

To preserve the life of the barrel; it is advisable to change after every 200 rounds at rapid rate.

GENERAL DESCRIPTION

Muzzle Velocity	2050' per second.
Calibre	6.5 mm. (.256").
Barrel	4 grooves, right hand turn.
Rate of fire	400 to 500 rounds per minute.
Length (overhall)	48".
Weight	21 lbs.
Method of loading	Chargers of 20 rounds.
Type of sights	Foresight — blade. Backsight — bed. A "V" sight. Graduated from 300 metres to 1500 metres. There is no marking for 400 metres. Fixed sight up to 300 metres. (As the variation between metres and yards gives a discrepancy of 70+ at 750+ a deduction of 50 from each range up to 750+ will give a reasonably accurate elevation. Subsequent corrections are made by observation of strike.)

The secret of success with this weapon is:

"KEEP IT CLEAN - KEEP IT LUBRICATED"

DETAILED DESCRIPTION OF THE PARTS

(For use of Unit Armourers)

PREDOMINATING FEATURES

1. Protecting jacket (body extension).
2. Foresight.
3. Bracket for attachment of legs bipod.
4. Recesses inside body.
5. Interrupted threads for union of guard trigger and body.
6. Lugs for fixing body cover.
7. Fermeture nut.
8. Guide fermeture nut (with locking wedge).
9. Safety piston.
10. Bed backsight.
11. Lever retaining fermeture nut.
12. Spring lever retaining fermeture nut.
13. Guard trigger.
14. Catch safety (hand).
15. Trigger.
16. Wings securing guard trigger to butt.
17. Guide spring recoil.
18. Pin firing release.
19. Block breech.
20. Spring recoil.
21. Spring buffer.
22. Spring pin firing.
23. Pin firing.
24. Pump lubricating cartridges.
25. Butt.
26. Grip guard trigger.
27. Strap butt.
28. Legs bipod.
29. Tubular catch fixing bipod legs.
30. Recess for leg plunger. Open position.
31. Recess for leg plunger. Closed position.
32. Shoes.
33. Rib of shoes.
34. Barrel.

The Body.

At the front is an attachment for the union of the body extension, and at the rear nine interrupted threads in groups of three for the attachment of the guard trigger. Above are two lugs which serve as a joint for the combined cover-body with box lubricating. This cover-body closes the two apertures. The forward aperture forms the housing for the fermeture nut and contains two recesses for the engagement of the guide fermeture nut; in the rear of the aperture are two holes for the bolt fixing guide fermeture nut; this bolt is fitted with a catch and plunger to facilitate removal of the guide and a recess is formed on left side of body for correct engagement of the plunger.

In the rear aperture of the body are formed two ribs; in the right hand rib is an orifice which enables lubricant from the spout of the lubricating box to pass through to the cartridges. At the rear is a housing which contains the safety piston and spring, also a screwed cap which, when fully screwed down, ensures that the point of the piston projects through the inside of the body; there is also a recess for the head of catch securing body cover.

At the rear of the body is the maker's marking of the weapon; the bed backsight, and the catch, operated by twin ears which secures the body to the guard trigger. The box lubricating contains the lubricant, and on its rear face are two indentations to engage the plunger of the catch cover in either open "A" or closed "C" positions. (C-o = CHIUSO = CLOSED - A = APERTO = OPEN). The upper surface is machined to break up the reflection of light and facilitate aiming. At the rear is the backsight of tangent aperture type graduated from 300 to 1,500 metres; is fitted with a slide, operated by a knurled head which transmits the movements through a pinion and rack. There is no marking for 400 metres. A fixed "V" sight is provided which is equivalent to 300 metres.

On the right of the body there is an aperture in which the magazine enters, and at the rear a housing for the ejector. A plate cover is fitted for retaining the feed block and ejector, this also acting as a recess for the engagement of the catch handle cocking when in the forward position. At the right rear are grooves for the reciprocating movement of the handle cocking, and three recesses which, when placed in alignment with similar studs on the handle, enable it to be removed from the body. There is also a recess for engaging

the hook of the handle when retaining the recoiling portions in the backward position.

On the left is the ejection opening which may be closed by means of a cover fitted with catch and plunger, for securing in the open and closed positions; projecting into the interior of the body is an elongated solid projection which serves as a guide for the breech block.

In the base are two elongated apertures which permit the access of the lever retaining nut fermeture. On the underside are grooves and housing for the cover lever fermeture nut and spring; the complete mechanism being protected by a cover being held in place by a spring and plunger.

The Guard Trigger.

Is rigidly connected to the butt and contains the trigger mechanism. On its upper inner surface are nine interrupted threads for engagement with the body, a spring and plunger on the body, engaging in a recess in the guard trigger ensures that it is correctly and securely aligned. The guard is in two portions; the front, closed at rear by a sliding plate which carries a sprung retaining catch. The interior is traversed by the hand safety catch with catch and plunger; the plunger engages in suitable indentations marked "F" (FIRE) which permits movement of the lever firing and "S" (SAFETY) which impedes the movement thus rendering the gun safe. The rear portion is rectangular, contains the lever firing mechanism and terminates in two wings for attachment to the butt. In the interior of the guard is a boss which serves as a guide for the guide-spring buffer; this has two apertures — the one in the centre of the boss being a passage for the tail of the pin firing, and the upper one a passage for the sear. Immediately in rear of head of boss is a recess for the operation of the pin firing release and its spring.

The Barrel.

Is fitted at muzzle with an eliminator-flash and annular rings to facilitate cooling, also a handle for removal and replacement. To the rear of the annular grooves are two longitudinal recesses for the engagement of the two projections on the catch barrel, thus securing the barrel to the body when the catch is closed. At the rear are two lugs; these when fitted into appropriate recesses in the fermeture nut, lock barrel and fermeture nut together. Between these two lugs and the first annular ring, stands a semi-circular projection.

This prevents the closing of the catch barrel unless the barrel is completely home. Midway along the barrel are four longitudinal ribs to position the barrel inside the projector foresight. The barrel is rifled to 6.5 mm. and chambered for the cartridge model 91 for machine guns. A recess on the rear face permits the operation of the extractor.

The Body Extension.

Is fixed to the body and held by two flush securing screws. It provides support to the barrel and positions the magazine in the open position. On the front is the foresight, and on the opposite side are lugs for the attachment of the legs bipod; on the right is an aperture for the tooth of the magazine locking lever, and on the left a bracket for the attachment of the sling. At the rear, an aperture is formed in the base for the protrusion inside the body of the operating lugs of the catch barrel; on the left exterior is an indentation for positioning the plunger catch barrel. The lugs in the centre of the catch, when engaged in their appropriate position at the rear of the barrel, serve to position and secure the barrel during firing.

The Block Breech.

Has five lugs at the head, which, in the forward and backward action correspond to five recesses in the fermeture nut. It carries the extractor, and opposite has a groove for the free passage of the ejector head; below this groove are two teeth and these, engaging the cartridge held in feed block, carry it forward into the chamber.

In the body of the breech block is a longitudinal aperture for the passage of the tooth of the pin firing and safety piston; a raised portion on its rear upper surface terminates in a ramp which determines the distance for the operation of the tooth of safety piston and tooth of pin firing. On the left is a broad longitudinal groove in which operates the guide breech block in the body. At the front is an inclined plane which engages the rear tooth of the lever-retaining fermeture nut. At right rear is a projection for the engagement of the tooth of the cocking handle and through the centre is a hole, tapered at front for the passage of the pin firing; on rear circumference is a cannelure for the bearing of the spring recoil.

The Nut Fermeture.

On its upper surface carries two lugs with inclined faces which operate in conjunction with the inclined portion of

the guide fermeture nut. At the base is a recess for the engagement of the front tooth of the lever retaining fermeture nut. Inside at front are two raised segments. These, when the barrel is turned to the locked position, securely hold the barrel in the fermeture nut against the face of block breech. Inside at rear are five raised portions which, when aligned with their appropriate recesses in the block breech, enable it to close and the fermeture nut to rotate, thus sealing the breech.

The Lever Retaining Fermeture Nut.

Has a housing for its spring and a cover to unite it with the body. The lever has two teeth; the forward tooth rising through front aperture in the body, engages the recess in the fermeture nut the rear tooth protruding through its aperture, and meeting the inclined plane at front of block breech is depressed. This also lowers the front tooth and permits the free rotation of the fermeture nut from left to right, and when the breech block is fully home the fermeture nut seals the breech.

The Guide Fermeture Nut.

Has two outside arms terminating at the front with lugs, and at the rear with two semicircular recesses. It is traversed by an inclined plane which operates in conjunction with the lugs on fermeture nut.

The right arm carries an adjusting wedge secured in back or forward position by a transverse sliding key. This adjusting wedge controls the amount of rotary locking movement which the fermeture nut is permitted. When it is placed at the rear of the guide fermeture nut, the maximum rotation of the fermeture nut is allowed (correct position for new barrels). When placed in the forward position the rotation of the fermeture nut is minimised due to the earlier engagement of the adjusting wedge (correct position for worn barrels). When the correct position is determined, the adjusting wedge must be securely positioned by its sliding key.

The Spring Recoil.

Is a strong spiral spring with a normal uncompressed length of 15 and three quarter inches. It engages at the front with the cannelure at base of block breech, and at the rear against the raised base of the guide spring recoil.

The Guide Spring Recoil.

Is a hollow cylinder of two diameters. The interior of the larger diameter serves as a housing for the spring buffer, and the exterior for the spring recoil; the inside of the cylinder of smaller diameter serves as a passage for the pin firing and the front face forms a base for the spring pin firing.

The Handle Cocking.

Serves to draw back the recoiling portions by hand, has a projecting tooth for engaging the block breech, and four recesses for its removel from the body. On its exterior front is a claw which holds the handle in the forward position during firing, and at the rear is a lever with serrated face, bearing on its inner surface a hooked claw; this, when projected into the body retains the recoiling portions in the backward position. To operate, the handle must be pulled back by hand, and the serrated lever forces inward against its spring; by releasing the handle the recoiling portions are now retained in the backward position by the hooked claw engaging in recess in body.

To release pull back the cocking handle, and the recoiling portions are now held in check by the handle only.

The Firing Mechanism.

Consists of lever firing and trigger, pin firing release, piston safety, pin firing and spring pin firing.

The lever firing consists of the lever, the sear and the spring lever firing. When the trigger is pressed, the sear is forced forward and its inclined face depresses the pin firing release, thus releasing pin firing.

The pin firing release operates in a recess in the boss of the guard trigger, and on its upper surface carries a recess in which the sear engages, on its lower surface is a position for its operating spring; in the centre is an aperture, chamfered on the front face to permit easy access by rear of pin firing, and sharp on rear face for the retention of the pin firing until the pin firing release is operated by the sear.

The Safety Piston.

Is situated on a platform in the body and operates in its appropriate aperture in the breech block. The interior is a hollow cylinder and its exterior base terminates in a tooth in the form of an inclined plane.

Important.—When the piston is assembled to the gun, the beak or head of tooth must face the rear of the gun and project into the interior of body. The spring chamber must be uppermost and contains a spring whose function is to cause the beak of piston to protrude through the body. It is secured in position by a screwed cap, having in its centre an orifice for lubricating the piston.

The tooth piston projecting through into the inside of the body, prevents the pin firing going forward until the completion of the forward movement of the block breech; then, the piston is lifted by the ramp of the block breech; this does not take place until the breech is completely sealed.

The firing pin consists of the point and the head with two teeth to engage the tooth of the safety piston, and the stem which terminates in a lug for engagement with the pin firing release.

The spring firing pin is a coiled spring and uncompressed has a length of 7 and seven eighths inches.

Components of Ejection.

Consist of the ejector and the extractor. The ejector has an oval head and a catch operated by a coiled spring. The projecting head of ejector, being opposite the head of extractor, causes the fired case to be ejected on the backward movement of the breech block.

The extractor has a head for engaging the rim of the cartridge; a hole at the base for positioning, and a pivot and spring.

The Feed Block.

Consists of feed block, magazine and charger. The feed block carries on its upper and lower surfaces projections for engagement with the right side of the body; it has curved lips to receive the cartridges when presented by the magazine to the two teeth on the front face of breech block. The upper lip has an orifice for the passage of the lubricant from the reservoir to the cartridge. Closing the feed block is a cover with operating spring, and a T shaped cannelure which serves to unite the magazine and the feed block. It has a rectangular aperture to receive the hook of the closing lever when the magazine is closed. At the base of the mouth is a large slot, and in the centre projects a small tongue; when the magazine is closed to the gun it compresses and lowers the cartridge release and permits the cartridges to pass forward to the mouth of the feed block.

The Magazine.

Is secured to the cover of the feed block by means of a dovetailed projection on its front face sliding into a corresponding cannelure on the cover feed block. On this face is a sprung lever for securing to the cover and on the opposite side is a hooked lever with serrated head operated by a spiral spring; this hook lever secures the magazine to the feed block during firing. At the base of magazine is a claw, having an arm situated on the top of the magazine; this claw when engaged in its appropriate aperture in the body extension, positions the magazine while loading and during transport. The lever is operated by a spiral spring. The arm situated on top of the magazine has a projection on the end for quick release of claw from body extension, and enables the magazine to be rapidly placed in the closed position. Situated on the underside is a bracket which carries the cartridge release; it is operated by a spring, and protrudes in the interior of magazine, it operates only when the magazine is in the open position. When the magazine is closed to the gun, the tongue of feed block withdraws the cartridge release and permits cartridges to move forward against the inner lips of feed block.

On the upper surface is a longitudinal aperture which provides a passage for the indicator platform magazine; this indicator, coloured red, is an integral part of the platform and serves to indicate to the firer the number of cartridges remaining in the magazine. In the interior is a laminated main spring and the platform is of white metal. When the magazine is empty the platform is retained by the cartridge release.

The Charger.

Is of brass and when filled contains 20 cartridges. Consists of two grooves, the broader for the base of the cartridge and the narrower for the bullet. The ends are closed by soft brass tongues and a handle is formed to facilitate loading.

The Automatic Cartridge Lubricating Pump.

Consists of the oil reservoir and pump. In the reservoir is carried the lubricant for the automatic lubrication of the cartridges. The pump consists of the body and piston with bevelled head; this bevelled head protruding into the interior of the body engages with the breech block during recoil and run out, thus causing the pump to operate and force lubricant

through the spout to the cartridge. On the upper exterior surface is a screwed cap for closing the oil filling aperture; the cap is fitted with two holes for the engagement of the closing key, and it is necessary that at all times the catch should be securely screwed down to prevent loss of oil.

The Butt.

Is fitted with a butt plate carrying on its upper surface the butt strap operated by a spring and plunger. Passing transverse through the centre of the butt is an aperture for the sling. The butt is fixed to the guard trigger extension and is secured by two screws. The grip is of pistol type and the pins axis trigger also secures the joint of grip and guard. The grips are of wood held in place by two screws.

The Sling.

Is of grey green leather fitted into the aperture of the butt and equipped at one end with a metal button, it is secured at the front by a button and sprung hook.

The Bipod.

Has two legs fitted with two lugs on the body extension. Two sliding caps, serrated on their outer surface, telescope over the legs and enable them to be placed in two positions; one, fixed under the body extension for transport, and the other for firing. The sliding caps are retained in position by their own springs. When it is necessary to change the position of the legs, slide down the caps thus freeing them; they may now be moved to the new position and the caps will automatically return to the locked position. At the base of the legs, rectangular curved shoes are fitted and underneath the shoes, raised webs assist in maintaining direction during firing.

The bipod may be controlled quickly in direction for an angle of about 50°. Elevation 9° Depression 5°.

CONTENTS OF MAINTENANCE BOX

Items secured to Lid.

(1) Spare barrel (fitted to exterior).
(2) Cylindrical tin containing:
2 Spare springs recoil.
2 " " firing.
2 " pin firing.

(3) 2 Spare springs magazine.
(4) Brush cleaning body.
(5) Brush for oiling.
(6) Brush cleaning barrel.
(7) Rod cleaning barrel (in three pieces). (.)

Interior of Box.

(1) 1 Can oil (for lubricating oil) (.)
(2) 3 Cans (for Breda oil or olive oil or British oil "A") (.) 1 only
(3) Tin for spare parts (contents shown below) (.)
(4) Screwdriver. (.)
(5) Hammer (with soft metal head) (.)
(6) Spare magazine. (.) 1 only
(7) 2 Punches (.)
(8) Tool combination. (.)
(9) „ hand extractor. (.)
(10) „ plug clearing. (.)

Tin for spare parts.

Contents:
Spare Ejector (.)
" safety piston (.)
" cap housing safety piston with spring (.)
" sear (.)
" extractor (.)
" lever retaining fermeture nut. (.)
Springs:
Lever firing. (.)
Release firing pin. (.)
Lever retaining fermeture nut. (.)

(.) These items will be carried in the spare parts wallet, when such wallet is issued.

SECTION 1. HOLDING, AIMING, FIRING.

Lesson 1. Introduction and Loading the Charger.

Stores: Gun, Dummies, Charger.

1. Introduction.

During the first 10 minutes of the lesson the instructor will give a brief description of the weapon. (General Notes.)

2. Loading the Charger.

Instructor demonstrates:

1. Holding the charger in the left hand with the tongue turned upwards, place the first cartridge on the lower step

of the platform, with the base in the broader of the guides. Place the second cartridge on the second step, and continue until the charger contains 20 rounds. The tongues must now be closed to secure the rounds.

It is necessary that a check be made to ensure that the charger contains the full 20 rounds, thus preventing the possibility of stoppages later. Should it, for any reason, not be possible to fill the charger completely, the cartridges should be fed into the magazine by hand.

2. Give conditions of test.

Practise squad.

Lesson 2.—Loading, Unloading, Sightsetting.

Stores: — Gun, Charger, Dummy Cartridges.

Instructor explains and demonstrates.

1. Loading.

1. The firer lies prone behind the gun, gripping the small of the butt with the left hand, and the guard grip trigger with the right. On the command "load" the handle of the charger is gripped in the right hand, and pressed firmly into the magazine with the bullets facing the gun. The charger is now pulled firmly to the rear, thus leaving the rounds in the magazine.
2. Grasping head of lever on upper face of magazine, swing towards feedblock. Magazine is now assembled to gun.
3. The cocking handle is drawn sharply to the rear and released. The gun is now loaded.
4. Give conditions of test.

2. Unloading.

1. Bring recoiling portions to rear.
2. Fix the magazine to its catch in the recess of the body extension.
3. Remove from the feedblock the four (4) rounds which normally remain when the magazine is removed.
4. Inspect the gun to see that no cartridges remain.
5. Release cocking handle, draw to rear and release.
6. Safety catch to "F". Press trigger and apply safety catch.
7. Lower butt strap, lower butt to ground.
8. Practise squad.

3. Sightsetting.

1. Instructor describes the backsight, graduated from 300 to 1500 (metres). Explains that for all practical purposes markings may be considered as "yards."

There is a fixed "V" sight for ranges up to 300 yards.

2. To adjust sights, raise the leaf, rotate the milled head screw until top of slide is on the line beneath the figure denoting the required range. When not in use the leaf of backsight will be lowered. When "50's" are required the top of the slide will be positioned halfway between graduations.

3. Give conditions of test.

4. Practise squad.

4. Single loading.

1. In the absence of the magazine, the gun may be loaded by hand, one cartridge at a time being fed into the ejection opening, having first completely pulled back the cocking handle, and fixed the catch in the rear position.

2. It is necessary that attention be drawn to the necessity for securing the cocking handle thus, otherwise the pin firing may not be retained by the pin firing release, and should the breech block go forward, it may strike the cap of the cartridge and cause an explosion ouside the barrel.

3. Practise squad in single loading.

5. To reload.

When the magazine is empty, it will be opened, clipped against the side of the body extension, reloaded and closed to gun. The gun is recocked and firing continued.

Lesson 3.—Holding, Aiming and Firing.

Stores required. — Gun, aiming disc, landscape target if available

Instructor explains and demonstrates.

1. Holding.

(a) The firer lies prone behind the gun, gripping the small of the butt with the left hand, and the guard grip trigger with the right. First finger of right hand on trigger. The shoulder strap rests above the firer's shoulder. The cheek rests on the butt. The gun must be held firmly into the shoulder.

(b) Instructor demonstrates how to use elbows as a means of obtaining elevation and depression.

(c) Practise squad.

2. Aiming.

(a) Instructor explains that rules of aiming are the same as for service rifles.

(b) Questions squad on rules of aiming.

3. Firing.

When firing, the trigger must be pressed decisively, and the gun will normally be fired in bursts of five or six rounds.

(Practise squad in holding, aiming, and firing, using aiming disc or landscape target.)

SECTION 2.—STRIPPING, CLEANING, MECHANISM.

Lesson 4.—Stripping and Assembling.

Stores required. — Gun, Spare parts.

Instructor will describe each component as it is removed.

Stripping is necessary for the correct cleaning of the gun, and the exchange of broken parts. Care must be taken to adhere to the correct sequence of stripping. *No unnecessary force will be used.* During practise, to avoid damage to the gun, no time limits will be set.

Sequence.

Ensure that the gun is unloaded and magazine empty.

1. Removal of butt, recoil spring, recoil spring guide, and buffer spring.

Remove butt by pressing forward the two serrated ears at the base of the bed-backsight, thus disengaging the plunger from the recess in the guard trigger. Rotate the butt to the right (60°). Withdraw butt. Care must be taken to resist the outward pressure of the recoil spring.

2. Breech block, pin firing, and spring pin firing.

Pull the cocking handle to the rear, until the projections are released from recesses in the body. The components, including the cocking handle, may then be taken out by hand.

3. The body cover.

Position head of securing catch at "A". Remove axis pin at front. Remove cover.

4. The magazine from feed block.

Release magazine from body extension, press forward securing lever, and slide off magazine.

5. Plate cover, ejector, and feed block.

Raise the plate cover ejector and remove. Press out ejector. Draw back feedblock until its projections are disengaged from body. Remove.

6. The barrel.

Withdraw sprung head and lower catch barrel. This releases operating lugs from their engagement. Rotate barrel from right to left one quarter turn.

Push barrel forward until rear end is disengaged from fermeture nut. Withdraw barrel to rear until it is completely free from housing.

7. The guide fermeture nut.

Pull out spring head of securing bolt, rotate until arm is in horizontal position.

Remove bolt and draw guide fermeture nut to rear. This releases the two curved front teeth from recess in body.

Remove guide.

8. Fermeture nut.

Lift out from housing.

ASSEMBLING

Reverse the order of stripping.

Particular attention must be paid to the following points:

(a) When replacing the fermeture nut ensure that it is in the open position, with the two operating lugs to the left.

(b) When replacing the barrel, turn the handle to the right after engagement with the fermeture nut. Should the handle *not* be turned, the barrel cannot be properly closed due to the semi-circular projection at rear of barrel fouling the catch. Should the catch barrel not correctly close, the barrel is incorrectly engaged.

Should the gun be fired in this condition, an explosion will occur without the breech being correctly sealed. This is extremely dangerous to the firer, and may cause the barrel to be forced violently forward.

(c) When replacing the recoiling portions, the cocking handle will be replaced first, then the breech block, followed by firing pin and springs.

Lesson 5.—Additional Stripping.

Stores required. — Gun, Spare Parts Box complete.

1. The magazine.

To remove main spring from magazine. (This is a difficult manœuvre and will only be carried out when strictly necessary.)

Draw the platform to the base of the magazine by forcing down the indicator with pliers or screwdriver, until the platform can be removed from the longitudinal slot.

The spring may now be removed from magazine.

In replacing, ensure that the spring is refitted in the same position as when removed.

2. Piston safety.

Unscrew cover and remove.

Remove Piston, Safety.

When replacing, ensure that hook of piston faces the firer.

3. Lever retaining fermeture nut.

Depress plunger and withdraw cover to rear. Remove cover.

Push out axis pin, remove lever and spring. Assemble in reverse order.

4. Firing mechanism.

Remove screws and nuts keeping trigger guard to butt, and detach butt.

Remove trigger axis pin, and detach guard trigger.

Withdraw trigger and firer lever.

Remove Safety Catch hand.

withdraw sliding plate with aid of punch. Remove spring, firing lever.

Depress pin firing release, and push out sear from rear.

Remove pin firing release and spring.

Assemble in reverse order, except that sliding plate is replaced *after* trigger axis pin.

When assembling pin firing release, ensure that chamfered edge is facing the muzzle end of gun.

Ejection Opening cover.

Raise plunger and tap cover back with soft metal hammer until clear of guide grooves.

Extractor.

Push out pin and remove extractor.
Assemble in reverse.

Lesson 6.—Cleaning, Lubrication and Maintenance.

Stores required : — Gun, cleaning kit, spare parts.

Instructor explains:

The cleaning of the gun will be carried out frequently and carefully to ensure that it is always in a fit condition to function correctly. It should be kept lightly oiled.

1. Ordinary cleaning.

Will be carried out immediately after firing; after subjection to rain or dust, or as considered necessary. The recoiling portions may be cleaned with paraffin, ensuring before replacement all traces of paraffin are removed.

Thorough cleaning.

Should be carried out periodically as considered necessary, or after lengthy periods of firing.

The gun should be completely stripped, carefully cleaned and re-assembled.

When necessary to clean the interior of the magazine the housing of the lever retaining fermeture nut, or the interior component parts of the guard, trigger, this will normally be done under the supervision of an officer or N.C.O.

2. Lubrication.

The oil reservoir should be kept filled with oil, an operation necessary after every thousand rounds. The lubricant used for this purpose is *Oil Breda.* This is a mixture which is anti-freezing, even at low temperature, and is used both to lubricate the mechanism and the cartridges. In the event of *Oil Breda* not being available, pure *Olive Oil* may be used, or in the absence of both these oils, *British Oil* "A". M.80 with one teaspoonful of Sulphur to a pint of oil.

General service oil may be used for other parts of the weapon.

3. Maintenance.

To ensure the regular functioning of the gun, it is necessary that special attention be paid to lubrication, ensuring that congealed oil does not impede the regular movements of the working parts.

The gun should be oiled constantly as a protection against damp, and when stored should be coated with grease.

To ensure that normal functioning of the gun is maintained, and to receive from the gun the longest possible life, the only repairs which will normally be carried out are the exchange of the various spare parts and such repairs as are obviously within the capability of the armourer.

Instructor questions squad.

Lesson 7.—Care and Cleaning.

Daily and Before Firing.

Stores required :— Gun, magaazines, spare barrels, cleaning kit, spare parts box.

Cleaning consists of :

Cleaning rod (in three parts).
Oil containers.
Flannelette.
Wire brush.
Brush, cleaning barrel.
Brush, cleaning body.
Brush, Oil.

The various articles of the cleaning kit will be explained as they are used.

Daily cleaning.

Explain and Demonstrate.

Clean both barrels, using the cleaning rod. A dry piece of flannelette will be put through the eye at the end of the cleaning rod. The rod will be placed in from the breech end. When the barrel has been cleaned with dry flannelette, a slightly smaller piece of flannelette, well oiled, will be similarly used to oil the barrel.

Note.—If the gun has been used for instructional purposes, it may be necessary to strip it completely in order to clean the working parts thoroughly.

BEFORE FIRING

Strip completely.

Clean the components and remove any traces of congealed oil. Check the condition of the components noting particularly the recoiling portions and springs. Fill the lubricating box with *Breda Oil,* and ensure the spout is free from obstruction.

Lubricate the recoiling portions, and ensure that the spring in the magazine is working correctly. Examine the charges for distortion. Check and clean contents of spare parts box.

Question and practise squad.

Lesson 8.—During Intervals of Firing.

Unload.
Oil working parts as necessary.
Refill lubricating pump.
If reserve ammunition available refill empty chargers.

After Firing.

Strip completely.

Clean barrels using boiling water if necessary. Clean thoroughly all components. Particular attention must be paid to remove fouling from breech block, fermeture nut and guide fermeture nut.

Clean interior of body. Oil all parts and re-assemble.

Clean and check contents of spare parts box.

Question and practise squad.

Lesson 9.—Mechanism.

It will greatly assist the work of the instructor if a spare gun, stripped down, is available during the periods of instruction on mechanism.

Stores required:

Gun (assembled)
Gun (stripped)
Spare parts box complete.
Diagram (if available).
Dummy cartridges.
Chargers.

Action of the Mechanism.

Instructor demonstrates, explains, and asks questions at the end of each phase.

When the lever of the safety catch is placed in the top position (marked "F") and the magazine assembled to the feed block the cocking handle is drawn to the rear.

Backward Action by Hand.

On drawing the cocking handle to the rear, the breech block, and firing pin, are withdrawn, and the recoil spring and spring firing pin compressed.

The first movement of the cocking handle causes the breech block to be withdrawn. The fermeture nut, being connected by its five lugs, is also drawn back, bringing with it the barrel.

During this movement, the upper lugs on the fermeture nut bearing against the traversing portion of the guide fermeture nut, cause the fermeture nut to rotate to the left, until it engages the front tooth of the lever retaining, and remains stationary. This movement brings the recesses in the fermeture nut opposite the lugs on the head of the breech block, allowing the breech block to continue its backward movement.

Forward Action.

On pressing the trigger the spring recoil asserts itself carrying forward the breech block and cocking handle. The latter, at the end of its run, is held stationary by its catch becoming engaged in the forward recess. The firing pin is held to the rear by the pin firing release.

The breech block during its forward movement, slides a cartridge from the feed block into the chamber. Immediately the lugs of the breech block have entered their recesses in the fermeture nut, the inclined plane on the underside of the breech block depresses the rear tooth of the lever retaining, which causes the forward tooth to be depressed.

The breech block, in the final stages of its forward movement, causes the fermeture nut (now freed from the front tooth of the lever retaining) to rotate to the right, its lugs traversing the guide fermeture nut. The inclined plane at rear of breech block has lifted up the safety piston, allowing for free forward movement of the firing pin.

The movement of the fermeture nut being completed, the breech is now sealed, by the lugs on the breech block bearing against the opposing lugs on the fermeture nut. This causes a secure union of the breach block, fermeture nut and barrel.

The gun is now ready to fire.

Firing.

Pressure being applied to the trigger causes the sear to lower the pin firing release, thus allowing the spring firing pin to take command. This propels the firing pin forward through the breech block, against the cap of the cartridge, and fires the charge.

Backward Action by Recoil.

On the charge being fired the gas produced by the explosion driving against the base of the cartridge causes it to be driven violently against the head of the breech block. This shock of recoil forces back the barrel, fermeture nut and breech block, thus repeating automatically, all movements of these components as already described in cocking by hand.

The empty case, being gripped by the extractor, is withdrawn, until it strikes the ejector, then being ejected through the ejection opening.

On cessation of the gas action the breech block, propelled by its spring, returns forward, sliding into the chamber a second cartridge.

Automatic Fire.

On continued pressure being applied the pin firing is released and allowed to go forward until the tooth of the safety piston engages in the tooth on the head of the pin firing.

When the ramp on the breech block strikes the boss of the safety piston, the piston is forced upwards, thus releasing the firing pin which moves forward, striking the cap of the cartridge. Thus the firing pin may only strike the cap when the breech block has *completed* its forward movement, and the breech is completely sealed.

If bursts of fire are required it is only necessary to release pressure on the trigger. This causes the hook of the firing pin to become engaged in the firing pin release. The recoiling portion continue to go forward, placing a fresh cartridge in the chamber.

As the breech block is now fully home, the safety piston is elevated, and it is only necessary to apply pressure to the trigger, thus releasing the pin firing from the pin firing release.

SECTION 3.—ELEMENTARY HANDLING, STOPPAGES, IMMEDIATE ACTION.

Lesson 10. — Elementary Handling. The Gun Team.

1. Stores.

Gun.

Maintenance.

Ammunition box, complete with chargers and dummy cartridges.

Groundsheets.

2. Before the lesson begins, stores are laid out, with the gun on the left, ammunition to the right of the gun, and maintenance box a few paces to the rear and in the centre of gun ammunition.

Ground sheets should be placed in "Action" and "Cease firing" position.

3. If at any time the instructor wishes to change round the gun numbers, he should order "Fall Out 1" No. 1 becomes No. 3, No. 2 becomes No. 1, and No. 3 becomes No. 2.

The instructor may change over the whole gun team at any time he wishes to do so by giving the command "Fall in" on which command the whole squad will fall in a few paces in rear of stores. The instructor may now number off the squad and continue drill from the command "Take Post."

4. Instructor explains and demonstrates each movement.

"Fall In."

Squad falls in, in single rank, a few paces in the rear of stores, is numbered off, and stood at ease.

"Take Post."

The whole come to attention. No's 1, 2 and 3, turn to the right, double off, and act as under. Remainder of the squad as soon as No's 1, 2 and 3 are in position, turn to left and double to left of stores to watch movements of gun team.

No. 1. — Lies down and examines gun as follows:
(*a*) Barrel to ensure correctly placed.
(*b*) Magazine for correct fitting to feedblock.
(*c*) Tests recoiling portions.
(*d*) Opens ejection cover.
(*e*) Places safety catch at "Safe" and tests.

On receipt of report from No. 2, reports No. ..... gun "Correct" (or otherwise.)

No. 2.—Lies down on left of ammunition box. Inspects ammunition in chargers, and, on receipt of report from No. 3, reports to No. 1, "Ammunition and spare parts correct" (or otherwise.)

No. 3.—Lies down on left of maintenance box. Inspects spares including barrel, and, on completion, reports to No. 2, "Spare parts correct" (or otherwise.)

"Prepare for Action."

No. 2.—Removes charger from ammunition box and loads magazine by pressing charger firmly into magazine, with bullets facing the gun. The charger is now withdrawn sharply, thus leaving the cartridges in the magazine. Closes magazine to feedblock. Returns empty charger to ammunition box. Closes ammunition box.

"Action."

No. 1.—Jumps up, carrying gun by butt and asbestos handle, doubles forward to "Action" position, places gun down gently, lies prone behind it, loads the gun. He awaits further orders.

No. 2.—Allows No. 1 a few paces start. Jumps up, carrying ammunition box, doubles forward to the "Action" position, lies down on right of No. 1. He then opens ammunition box, removes loaded charger, and prepares to feed gun.

No. 3.—Allows No's 1 and 2 to take up position of action jumps up, doubling forward with maintenance box, placing it in a convenient position beside No. 2.

Doubles back and lies prone a few paces in rear of gun.

Fire Orders. A Fire Order is Given.

"Stop."

No. 1.—Knocks down back sight, places safety catch at "Safe," withdraws cocking handle to rear (see footnote) rests butt and lowers shoulder strap.

"Go On."

No. 1.—Raises backsight, releases cocking handle, raises shoulder strap, and brings gun into shoulder. When comfortable places safety catch to "Fire" and carries on firing.

"Unload." (If firing, command "Stop" will always precede this order.)

No. 2.—Removes magazine from feed block and secures to body extension. Clears loose rounds from feedblock and, on conclusion, reports to No. 1, "Feedblock clear."

No. 1.—Proceeds to clear gun by releasing cocking handle, pulling to rear and again releasing. Raises butt into shoulder, presses trigger, sets safety catch at "safe", lowers shoulder strap, lowers gun to ground, reports "gun clear."

"Cease Firing."

No. 2.—Will close the lid of the ammunition and maintenance boxes, after having replaced such spares as were lying at the gun, and push maintenance box clear of gun, to right.

No. 3.—On seeing No. 2 position maintenance box, will double forward, pick it up and return to original "prepare for action" position. When No. 3 is clear, No's 1 and 2 will pick up gun and ammunition respectively, and double with them the original "Prepare for Action" position. All numbers will then lie perfectly still.

"Barrel Changing."

1. Practise in barrel changing will be given in the "Action" position. The actions of No's 1 and 2 are as follows :

When the barrel requires changing No. 1 will call out (to No. 2) "Barrel," at the same time pulling the cocking handle to rear. When No. 2 has replaced barrel, releases cocking handle and carries on firing.

No. 2.—Disengages barrel catch, removes barrel and immediately replaces fresh barrel.

2. Give conditions of test.

Practise squad.

(*Foot note*). This action is carried out to withdraw the live round from the chamber, thus safeguarding against possible self explosion of the round.

Lesson 11.—Immediate Action and Stoppages.

Stores required :

Gun.
Spare parts.
Dummy cartridges.
Landscape target.
Groundsheets.

Instructor's Note :

Instruction in immediate action and stoppages will take the following form :

(*a*) Instructor sets up the stoppage and demonstrates immediate action.

(*b*) Sets up stoppage again, opens body cover, and explains to squad condition of the gun at time of stoppage, and explains the cause.

(*c*) Practises squad in immediate action.

Instructor explains :

INTRODUCTION

1. Correct attention to points before and during firing will minimise the stoppages on the gun. It is necessary at all times to inspect carefully the various components and to anticipate possible stoppages. The substitution of damaged parts, particularly deformed springs, will assist in prevention of stoppages.

2. Springs which have become shortened through any cause whatsoever must not be stretched in an attempt to restore them to their normal length. If it is not possible to exchange the springs immediately it is preferable to continue using them in their shortened state.

3. It is necessary to emphasise that when pressure is applied to the trigger it must be drawn to the rear for its maximum possible movement. Failure to do this will result in the subsequent breaking of the firing pin.

4. At all times when the cocking handle is secured in the rear position it will be kept engaged by pressure of the firers right hand. (This avoids the possibility of the cocking handle becoming free, thus allowing the recoiling portions to move forward while stoppages are being remedied.)

5. Should it be necessary to use the hand extractor while the barrel is hot, care must be taken to safeguard against possible self explosion of the round.

6. Stoppages are divided into "Probable" and "Possible" stoppages. Immediate action in all cases is as follows:

(*a*) Draw the cocking handle to the rear and secure.

(*b*) Glance through the ejection opening into the feedway, to ascertain, if possible, cause of the stoppage. The firer will also feel inside the feedway with fingers of left hand.

Immediate action is not considered complete until the aim is relayed and the trigger pressed.

PROBABLE STOPPAGES

1. Misfire.

Explain and demonstrate with gun loaded that if the gun stops, firer will draw back the cocking handle and secure.

He will look and feel into the feedway to ascertain

(*a*) If there is any obstruction in the feedway.

(*b*) If there is any obstruction in the chamber.

He will release the cocking handle and resume firing.

Instructor again sets up the stoppage, and explains and demonstrates that at the time of the stoppage the recoiling portions are forward, and a live round is in the chamber. The firing pin goes forward but no explosion takes place.

Explains that cause of stoppage is a misfire.

Practise squad in I.A., and question as to cause of stoppage.

2. Broken or bent firing pin spring or friction of the firing pin in the breech block.

Instructor explains and demonstrates that if after applying I.A., and pressing the trigger the gun does not fire, the gun will be unloaded and stripped down to the breech block.

It will then be examined for

(*a*) Broken or bent firing pin point.

(*b*) Broken firing pin spring.

(*c*) Dirt in the breech block causing friction of the firing pin.

Replace or clean as necessary.

The gun will be assembled and firing resumed.

Instructor again sets up stoppage and explains that condition of gun at the time of stoppage was the same as for misfire. Explains that it is unlikely that two misfires follow each other.

Explains that stoppage is due to:

(*a*) Broken or bent firing pin point

or

(*b*) Broken firing pin spring

or

(*c*) Dirt in the breech block, causing friction on the firing pin.

Practise squad in I.A.

3. Empty magazine.

With an empty magazine on the gun, the instructor demonstrates and explains that when the gun stops the firer applies I.A. On feeling inside the feed-block the magazine platform can be felt, indicating that the magazine is empty.

The gun is reloaded and firing continued.

Instructor sets up stoppage again, and shows squad the condition of the gun. The magazine platform is close up against the lips of the feed-block, and there is no round in the chamber.

Practise squad in I.A.

4. Separated case or damaged round.

Instructor sets up the stoppage and demonstrates and explains that when the stoppage occurs the firer attempts to apply I.A. The cocking handle will only come to the rear with great difficulty. On feeling inside the feed-way a round is felt not fully home in the chamber. The barrel is removed and the separated case or damaged round removed by means of the clearing plug or cleaning rod.

The barrel is replaced and firing resumed.

Instructor again sets up stoppage and shows squad condition of the gun. The cartridge is not housed correctly in the chamber, recoiling portions cannot complete forward movement and the firing pin is held to rear by the safety piston.

Explains that cause of stoppage is a separated case (or damaged round) in chamber.

Practise squad in I.A.

5. Incomplete sealing of the breech (due to dirt in fermeture nut, housing or mechanism.)

Instructor sets up stoppage, and demonstrates, and explains that when the gun stops, pressure on the trigger does not send the firing pin forward. The firer applies I.A. and resumes firing. The gun fires a few rounds and stops again. The cocking handle is drawn to the rear and secured. The gun is inspected for:

(*a*) Dirt in the fermeture nut.

(*b*) Dirt in the housing fermeture nut.

(*c*) Dirt in the mechanism.

Cleaning of the affected part is carried out and firing resumed.

Instructor again sets up stoppage and explains to squad condition of the gun.

The recoiling portions have not completed forward movement. The breech is not completely sealed. The firing pin is held to rear by safety piston.

Practise squad in I.A.

6. Oblique feed (incorrect presentation of the cartridge to the chamber.)

Instructor demonstrates and explains that when the gun stops the firer applies I.A. A live round can be seen protruding obliquely from the feed-block. The round is removed by means of the hand extractor, or, if this method is not successful, by removing the magazine and clearing the feed-block.

Firing is resumed.

Instructor again sets up stoppage and shows squad condition of gun.

Explains that cartridge should be propelled forward to enter chamber freely. It passes in an oblique line and is held by the head of the breech-block and the fermeture nut.

Practise squad in I.A.

Instructor demonstrates:

If the gun should stop in this condition again the firer will remove the cartridge and inspect the gun for:

(*a*) Weak magazine spring.

(*b*) Damaged lips of feed-block.

Practise squad.

7. Faulty ejection.

(*a*) Instructor explains and demonstrates that when the gun stops, firer applies I.A. An empty case and live round are causing an obstruction in the feedway.

The obstruction is removed and firing continued.

Setting up the stoppage again, the instructor shows squad the condition of the gun.

During backward movement of the recoiling portions the empty case is not ejected, and remains in the feedway. On coming forward the breech-block feeds a round from the feedblock. This round is jammed against the empty case.

Explains that cause of stoppage is faulty ejection.

Practice squad in I.A.

(*b*) Instructor demonstrates and explains that, if after firing a few rounds gun again stops in this condition, the firer will remove the obstruction, and inspect the gun for:

(*a*) Broken or damaged ejector or spring.

(*b*) Dirt in, or faulty lubrication of mechanism.

(*c*) Faulty lubrication of cartridge, due to empty pump or obstruction in the spout.

The affected part will be replaced, cleaned or lubricated as necessary.

Firing will be resumed.

Practise squad.

8. Incorrect extraction.

Instructor explains and demonstrates that when the gun stops firer applies I.A. An empty case is in the chamber and a live round from the feedblock is being borne against its base.

Firer removes obstructed cartridge and empty case by means of the hand extractor. (If empty case cannot be removed by this means, the barrel will be removed and the case forced out by means of cleaning rod.)

Instructor having again set up stoppage, shows squad condition of gun.

The fired case is not extracted during the backward movement of the recoiling portions.

When the recoiling portions come forward, feeding a fresh cartridge from the feedblock, this cartridge finds the chamber obstructed.

Practise squad in I.A.

(*b*) Instructor demonstrates and explains that if after firing a few rounds gun again stops in this condition, the firer will examine the gun for:

Broken extractor spring.

Practise squad.

1. Broken or distorted lever retaining fermeture nut or broken recoil spring, causing repeated incomplete sealing of the breech.

Instructor practises squad in Probable Stoppage 5, and then demonstrates that if the gun stops again in this condition, after having cleaned and lubricated the fermeture nut, housing, or mechanism, the firer will strip the gun and inspect for:

(*a*) Broken or distorted lever retaining fermeture nut.

(*b*) Broken recoil spring.

Replace as necessary.

Instructor sets up stoppage again and explains to squad that if the lever retaining is broken or distorted the breech will not be sealed correctly.

A broken recoil spring will have the same effect, the breech block not being propelled forward with sufficient force to rotate the fermeture nut.

Practise squad.

Breakage or wearing of pin firing.

Instructor removes butt and demonstrates action of pin firing and pin firing release.

Instructor explains to squad that breakage or wearing of the pin firing is caused by dirt of fragments accumulating in the pin firing release, or by incorrect pressure of the trigger by the firer.

In both cases the pin firing release is not depressed to its fullest extent, thus preventing free movement of the firing pin through the aperture of the pin firing release, causing the pin firing to strike against the pin firing release during the formers rapid backward and forward movement.

Should the firing pin break or become worn at the bent, where it engages the pin firing release, a "runaway gun" may result, as release of pressure on the trigger does not cause the bent to become engaged in the pin firing release.

The spring pin firing therefore propels the firing pin forward each time the latter comes to the rear.

Instructor explains, that should this happen, on active service the gun may be kept in the shoulder until the magazine is empty, when the gun will be stripped down to the breech block, and the pin firing exchanged.

Should it be necessary to *stop* the gun firing, No. 2 will release the magazine from the feed block.

Instructor questions squad.

Explosion outside the barrel.

Instructor removes safety piston and demonstrates to squad that in the event of the safety piston becoming worn, the firing pin is allowed to go forward before the breech is correctly sealed.

Should this happen the cap of the cartridge is struck and the round exploded before it is correctly housed in the chamber.

This may prove extremely dangerous to the firer.

The safety piston must be examined, and if worn or damaged, replaced.

Instructor questions squad.

IMMEDIATE ACTION AND STOPPAGES — PROBABLE STOPPAGES.

Cause	Effect on Gun	Remedy	Action if stoppage recurs
1. Misfire or Empty Magazine.	Firing pin goes forward but no explosion takes place	Apply I.A. If feed way is clear, and magazine contains cartridges, release cocking handle and carry on firing. If magazine empty reload, carry on.	If stoppage recurs: Examine gun for (*a*) Broken or bent firing pin point or broken spring. (*b*) Friction of the firing pin in breech-block.
2. Separated case or damaged round.	The cartridge is not housed correctly in the chamber. Recoiling portions cannot complete forward movement. Safety piston retains firing pin in rear position.	Apply I.A. If pulling back the cocking handle does not remove the separated casing or damaged round, change barrels, reload, carry on firing. (No. 2 will remove separated casing or damaged round from barrel by means of clearing plug or rod respectively).	*Not likely to recur.* *Note:* This stoppage is easy to recognise as the recoiling portions can usually only be brought to the rear with great difficulty. In the event of the firer being unable to draw cocking handle to the rear the barrel will be removed first.
3. Incomplete sealing of the breech, due to dirt in fermeture nut, housing or mechanism.	Recoiling portions do not complete forward movement owing to friction set up by dirt in fermeture nut, housing or mechanism. The breech is therefore not sealed.	Apply I.A.	Examine gun for dirt in fermeture nut, housing or mechanism. Clean and lubricate as necessary.

Cause	Effect on Gun	Remedy	Action if stoppage recurs
4. Oblique feed i.e., incorrect presentation of cartridge to chamber.	Cartridge should be propelled forward by breechblock to enter chamber freely. It passes in an oblique line, and is held by the head of the breech block and fermeture nut.	Apply I.A. Remove cartridge, if necessary using the hand extractor.	Examine gun for: Weak magazine spring or damaged lips of feed-block.
5. Faulty ejection.	During backward movement of the recoiling portions, the empty case is not ejected, and remains in the feedway. On coming forward the recoiling portions and the cartridge from the feed block, are jammed by the empty case.	Apply I.A. Remove empty case from feedway.	Examine gun for: (*a*) Broken or damaged ejector or spring. Replace. (*b*) Dirt in or faulty lubrication of mechanism. Clean and lubricate. (*c*) Faulty lubrication of cartridge. Re-fill pump and examine spout.
6. Incorrect extraction.	The fired case remains in the chamber, and the following cartridge finds the chamber obstructed.	Apply I.A. Remove obstructed cartridge. Remove empty case by means of hand extractor. If not successful, remove barrel and force out case by means of rod.	Examine extractor and spring. Replace as necessary.

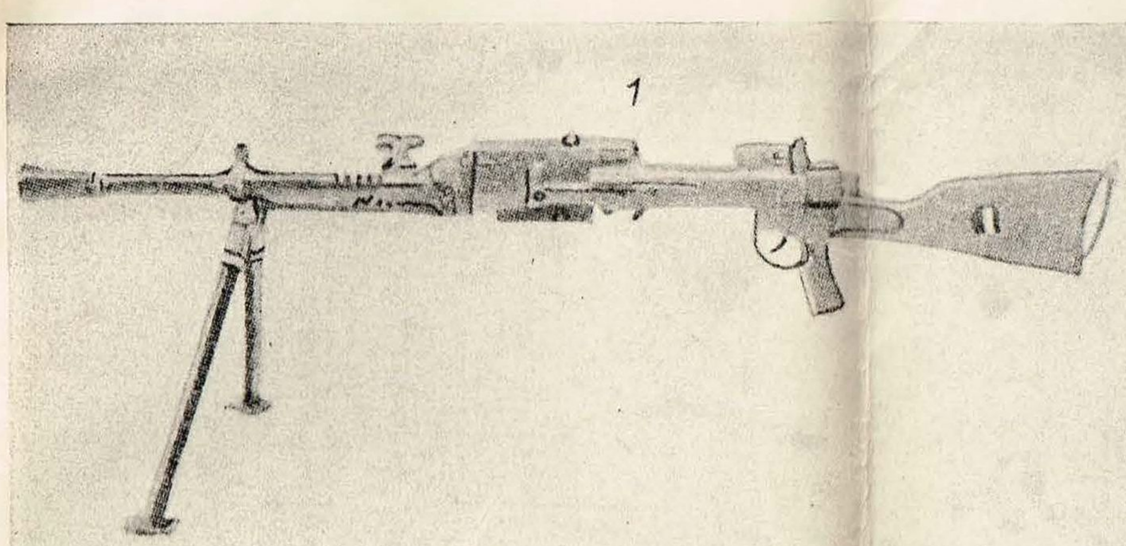
POSSIBLE STOPPAGES.

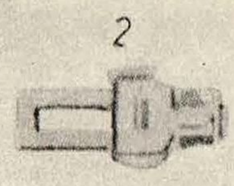
Cause	Effect on Gun	Remedy	Remarks
1. Broken or distorted lever retaining fermeture nut or Broken recoil spring.	Repeated incomplete sealing of the breech.	If stoppage recurs, even after carrying out immediate action as in "Possible stoppages 3"—(i.e. cleaning and lubricating of fermeture nut, housing and mechanism), inspect gun for broken or distorted lever retaining fermeture nut, and broken recoil spring.	
2. Worn barrel.	Repeated faulty ejections, due to wastage of the gases caused by the explosion.	If stoppage recurs after application of immediate action (Possible stoppage 5) change barrel and have the worn barrel tested A.F.B. 202.	

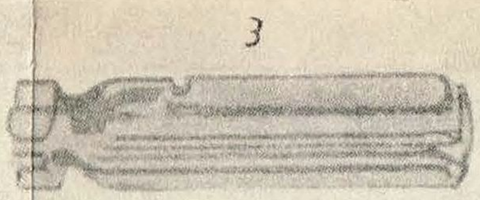
Cause	Effect on Gun	Remedy	Remarks
Breakage of the pin firing.	Should the firing pin break, or become worn at bent where it engages the release firing pin, a "runaway gun" may result, as release of pressure on the trigger does not keep the firing pin to rear.	No. 2 removes magazine from feedblock. No. 1 strips gun and replaces firing pin.	The breakage or wearing of the firing pin is caused by dirt or fragments accumulating in the pin trigger release or by incorrect pressure of the trigger by the firer. In both cases the firing pin is not afforded free movement through the aperture of the pin firing release, causing the pin firing to strike against the pin firing release during the formers rapid backward and forward movement.
4. Explosion outside the barrel.	Owing to breakage of piston safety, the pin firing is allowed to go forward and strike the cap before the breech is correctly sealed.	Examine piston safety, replacing as necessary.	

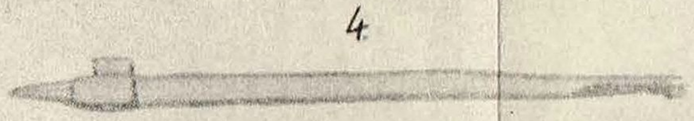
BREDA MACHINE GUN MODEL 30

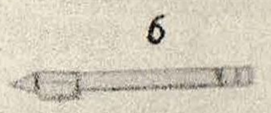
SHEET 1

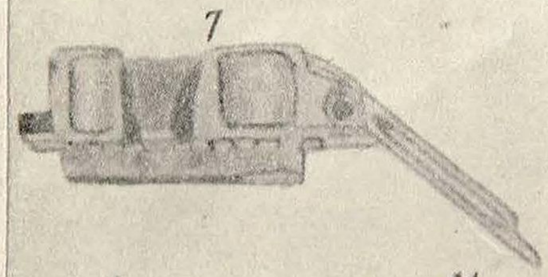


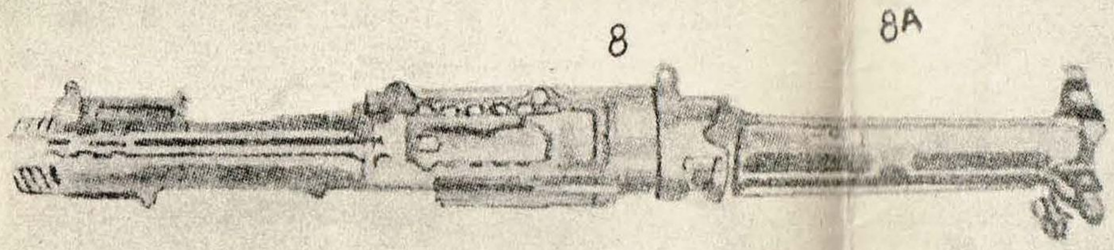


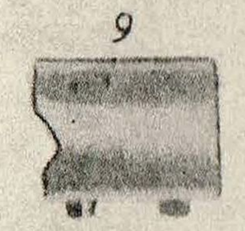


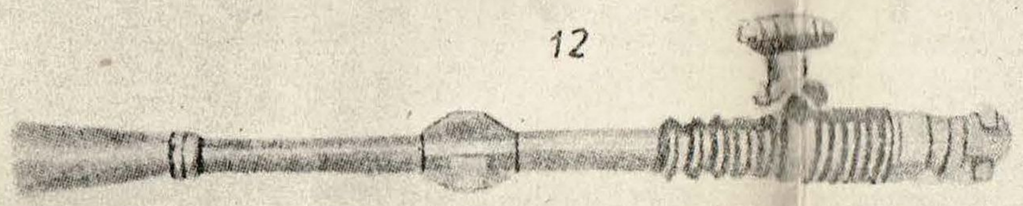


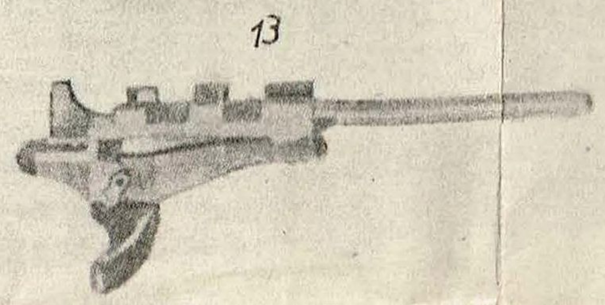


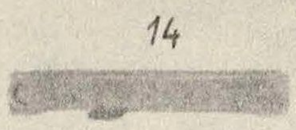


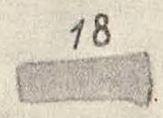


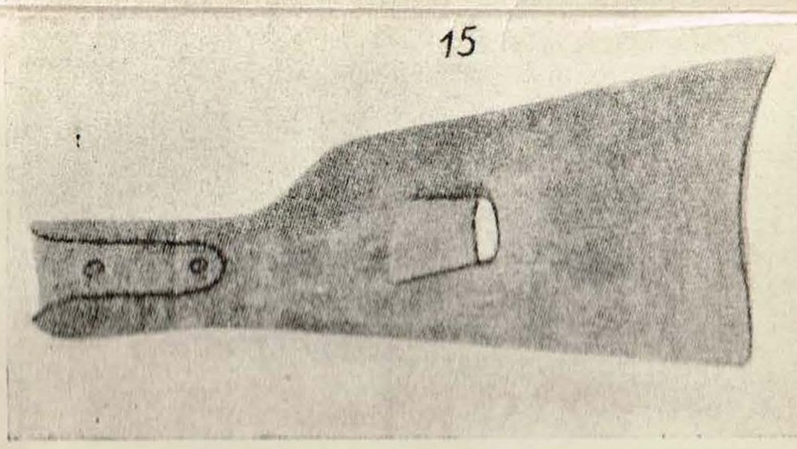


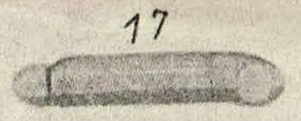


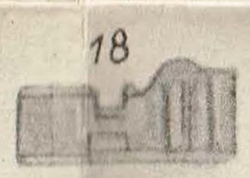


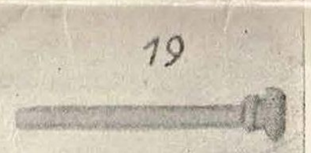


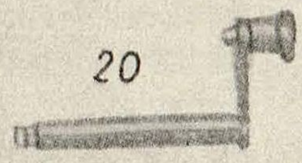


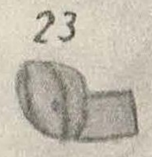










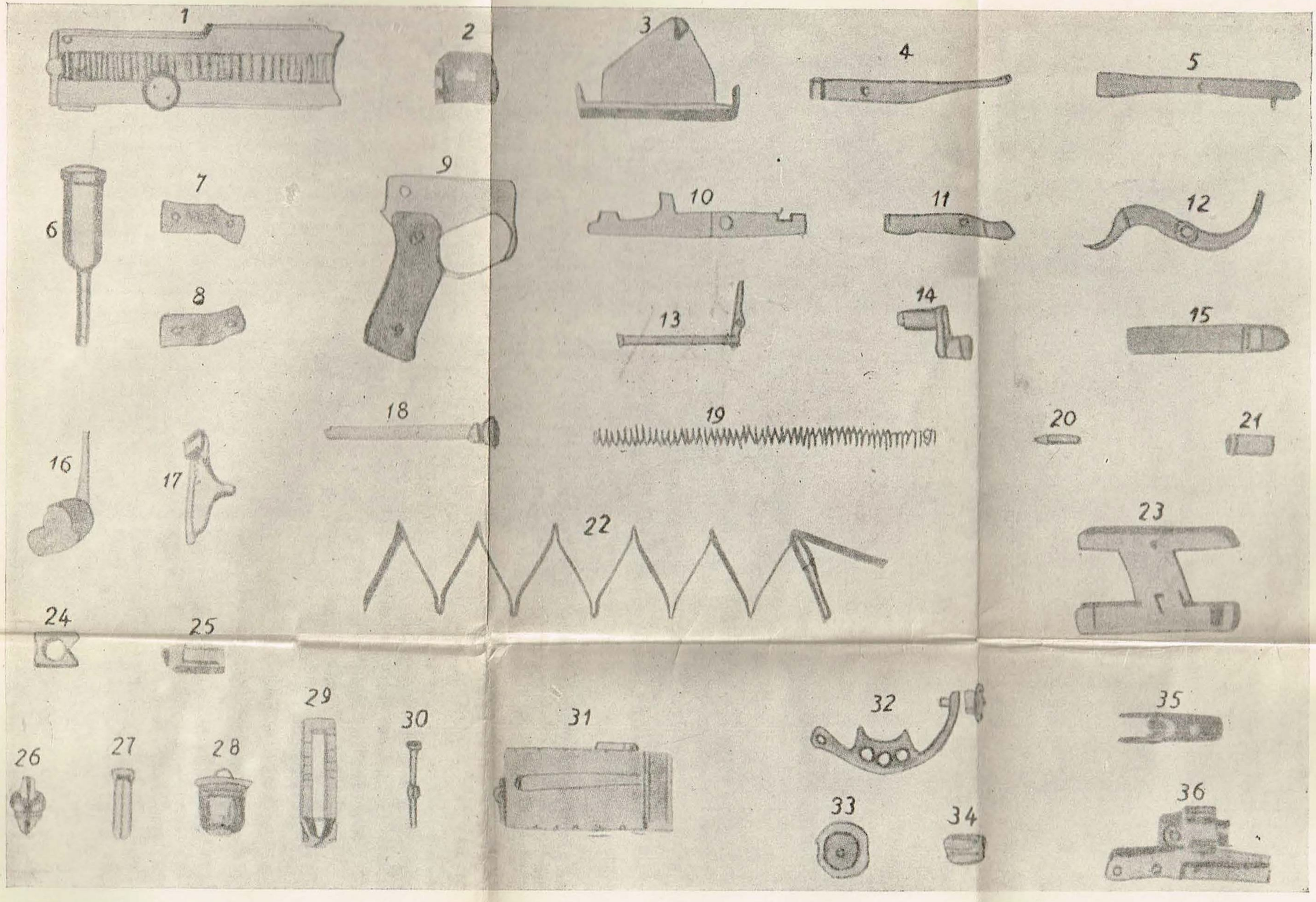


1 Gun Breda L/A Model 30.
2 Tangent Sight with Slide assembled.
3 Bolt Breech.
4 Pin firing.
5 Ejector.
6 Sear.
7 Feed Block.
8 Body 8a Body Extension.
9 Fermeture Nut.
10 Nut Pump lubricating body.
11 Head Elevating Slide T.S.
12 Barrel.
13 Handle Cocking assembly complete.
14 Cover Housing lever retaining Fermeture Nut.
15 Butt.
16 Butt Plate with strap.
17 Cover Ejection opening.
18 Cover Plate Ejector.
19 Pin Joint Cover
20 Pin guide Fermeture Nut.
21 Cap Housing Safety Piston with spring.
22 Pump Lubricating (Body).
23 Body Ejector.

SKETCH No. S. 2/1

BREDA MACHINE GUN MODEL 30

SHEET 2



1 Cover.
2 Slide Tangent Sight.
3 Platform Magazine.
4 Extractor.
5 Magazine Assembly Catch.
6 Guide Spring Recoil.
7 Grip Trigger Guard (left)
8 Grip Trigger Guard (right)
9 Trigger Guard
10 Lever Retaining Fermeture Nut.
11 Rear Magazine Catch.
12 Lever Firing With Trigger.

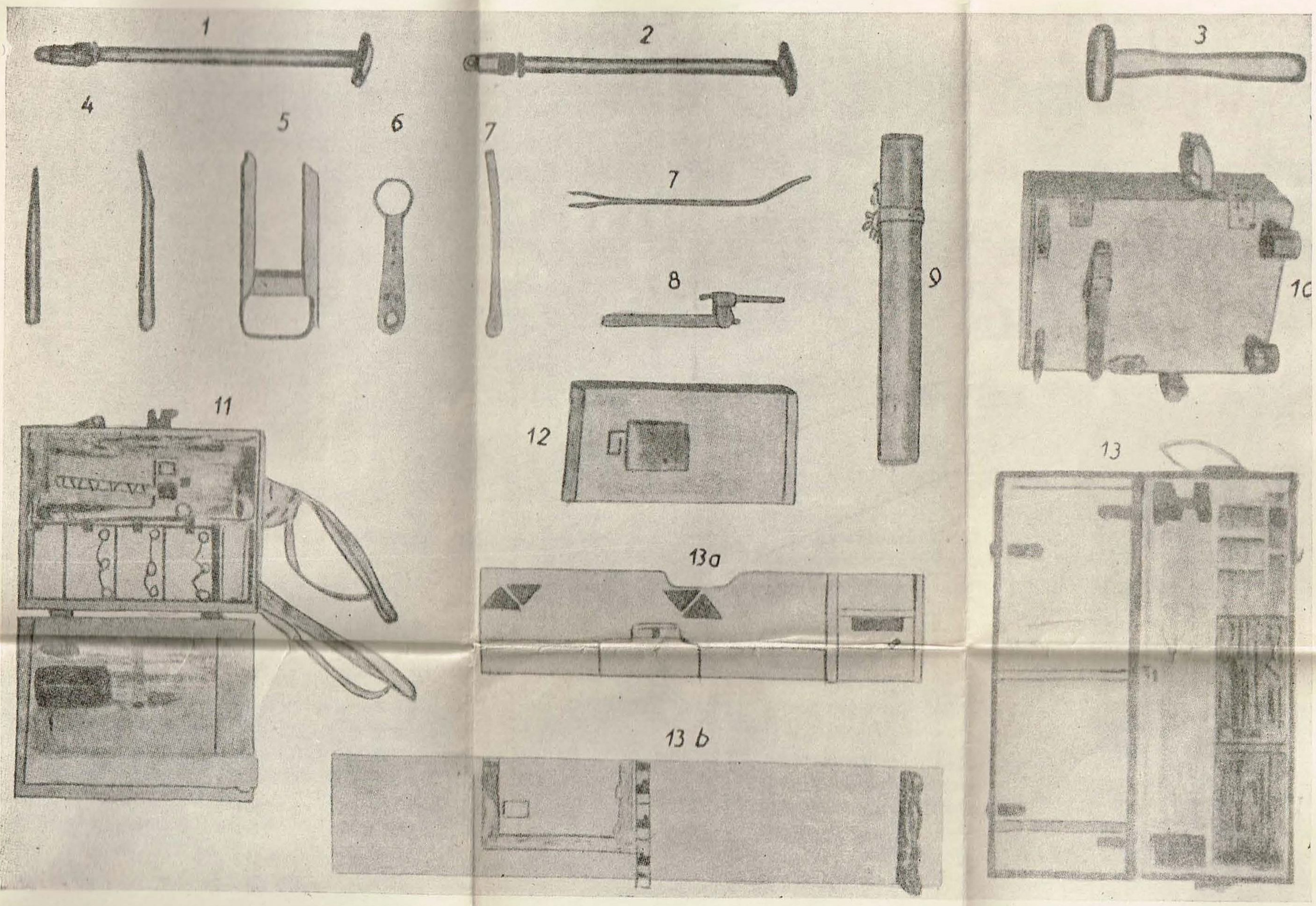
13 Front Magazine Catch.
14 Safety Catch.
15 Spring Tangent Sight.
16 Ejector Complete.
17 Cartridge Release.
18 Pin Joint Cover.
19 Spring Pin Firing.
20 Pin Extractor.
21 Pin Axis Firing Lever.
22 Spring Magazine.
23 Guide Fermeture Nut.
24 Release Firing Pin.

25 Piston Safety.
26 Piston Pump Lubricating.
27 Piston Spring Strap Butt.
28 Pump Lubricating Assembled.
29 Sight Tangent With Open Sight.
30 Ratchet Pin Slide Tangent Sight.
31 Magazine.
32 Catch Barrel.
33 Cap Housing Piston Safety.
34 Cap Oil Reservoir.
35 Rear Catch Cocking Handle.
36 Body Trigger Guard.

SKETCH No. S. 2/2

BREDA MACHINE GUN MODEL 30

SHEET 3



1 Leg Tripod right.
2 Leg Tripod left.
3 Hammer.
4 Punches.
5 Charger Magazine.
6 Tool Combination.
7 Tool Hand Extractor.
8 Tool Plug clearing.

9 Cylindrical Tin Box. For spare recoil springs, spring pin firing, and pin firing.
10 Top View of Maintenance Box Showing Clips for spare barrels.
11 Maintenance Box.
12 Pouch Magazine.
13 Box spare parts.
13a Shelves of Box spare parts.
13b Shelves of Box spare parts.

SKETCH No. S. 2/3

BREDA MACHINE GUN MODEL 30

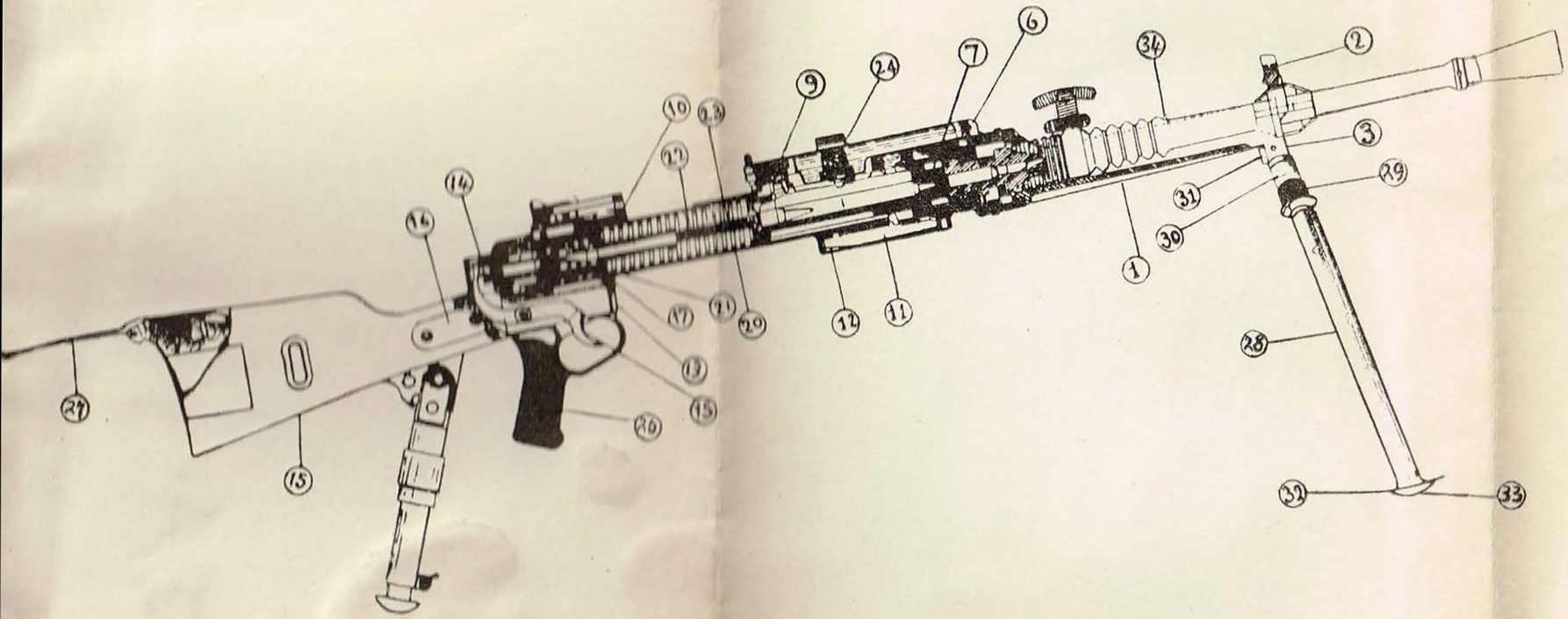


TABLE OF COMPONENTS

1 Protecting Jacket (Body Extension).
2 Foresight.
3 Bracket For Attachment Of Legs Bipod.
4
5
6 Arms For Fixing Body Cover.
7 Fermeture Nut.
8
9 Safety Piston.
10 Bed Backsight.
11 Lever Retaining Fermeture Nut.
12 Spring Lever Retaining Fermeture Nut.
13 Guard Trigger.
14 Catch Safety (Hand).
15 Trigger.
16 Wings Securing Guard Trigger To Butt.
17 Guide Spring Recoil.
18
19 Block Breech.
20 Spring Recoil.
21 Spring Buffer.
22 Spring Pin Firing.
23 Pin Firing.
24 Pump Lubricating Cartridges.
25 Butt.
26 Grip Guard Trigger.
27 Strap Butt.
28 Legs Bipod.
29 Tubular Catch Fixing Bipod Legs.
30 Recess For Leg Plunger. Open Position.
31 Recess For Leg Plunger. Closed Position.
32 Shoes.
33 Rib Of Shoes.
34 Barrel.

SKETCH No. S. 2