

movement cartridge catch will automatically be disengaged, so that magazine spring can expand to feed up first round.

Pull back and release cocking handle.

#### Cessation of fire

On ceasing fire with a hot barrel, pull back cocking handle, secure it by means of its catch and make safe. The reason for doing this is that the gun stops with the breech closed on a live round and, if the breech is not promptly opened again, the round in the chamber may "cook off," i.e. be fired by transfer of heat from the barrel.

## Unloading

Pull back cocking handle, secure it by means of its catch and make safe. Rotate magazine forward, depress cartridge catch below magazine and unload remaining rounds. Remove four rounds left in feed opening of magazine mouthpiece.

## Stripping

### i. *Barrel changing*

After about 150 rounds, change barrel as follows:—

Pull back cocking handle, secure it by means of its catch and make safe. Pull out and lower barrel catch. Rotate barrel to the left by means of cocking handle until handle almost touches barrel casing and push barrel forward until clear of locking nut. Raise rear end of barrel and remove to the rear.

Insert new barrel, reversing above procedure. Make sure barrel catch engages properly so new barrel cannot rotate.

### ii. *Stripping sequence*

(a) Unload and make certain no live round remains in chamber, magazine mouthpiece or magazine.

(b) Squeeze and push forward body end cap catch. Rotate butt 60 degs. and remove butt, return spring, return spring guide and buff r spring.

(c) Pull back cocking handle and remove breech block, firing pin and firing pin spring (if not already out). Pull cocking handle fully back and then outwards and remove it.

(d) Shift body cover catch to A. Remove body cover hinge pin and body cover.

(e) Swing out magazine until at 45 degs. to gun. Depress magazine hinge catch (in front of magazine) and pull magazine outwards to remove it.

(f) Raise and remove magazine mouthpiece retainer (located right rear of body). Insert finger in breech block way and push out ejector holder. Shift magazine mouthpiece back until its teeth are opposite gaps in body and remove it.

(g) Remove barrel as described above under "Barrel changing."

(h) Further stripping will not normally be required, though it is possible to remove the locking nut and locking cam as follows:—

Raise locking cam catch horizontally front or rear and remove it. Depress locking nut catch and rotate locking nut clockwise. Pull back and remove locking cam (some difficulty may be experienced in doing this without the use of suitable tools). Insert finger in locking nut and lift it out.

To reassemble the gun, proceed in the reverse order.

# TALPO.IT

15. 6.5 mm. (.256 in.) L.M.G., Mod. C—Breda

*Fucile Mitragliatore Breda, Mod. C.*

The 6.5 mm. L.M.G. Mod. C (or 5 C) is basically the same weapon as the Model 30. The Model C, however, has a rear crosspiece with traversing handles instead of a butt and pistol grip. It is also provided with a tripod mounting instead of a bipod and weighs about 4 lb. more than the Model 30.

16. 7.35 mm. (.289 in.) L.M.G., Mod. 38—Breda

*Fucile Mitragliatore Breda, Mod. 38*

This L.M.G. is similar to the Model 30 in all respects except calibre. As already stated, it fires the same ammunition as the Model 38 rifle.

## PART V.—ITALIAN MEDIUM MACHINE GUNS

## 17. Introductory note

Medium machine guns of various different types and calibres are in service in the Italian Army. The commonest of these at present is the 8 mm. (.315 in.) model 35 Fiat, which is, in effect, a modernised version of the last war 6.5 mm. (.256 in.) model 14 Fiat. The model 14 Fiat is now obsolescent, though it is still used for training.

The 8 mm. Breda model 37, which fires the same ammunition as the Fiat model 35, is not yet very widely used, but is probably intended to replace the Fiat in due course.

Certain units are supplied with the 8 mm. Austro-Schwarzlose (Fig. 9), although the rimmed case ammunition of this M.G. will not fire Italian-made M.Gs.

The 7.7 mm. (.303 in.) Vickers-Saunders M.G. is of interest because it will fire British .303 in. Mark VII ammunition, and can easily be adapted for land service, e.g. on an A.A. mounting.

## 18. 6.5 mm. Medium M.G., Mod. 14—Fiat (Revelli). (Fig. 10)

*Mitragliatrice Fiat, Mod. 14*

A water-cooled machine gun with box magazine feed. The magazine is in the form of a rectangular box divided into ten compartments, each of which holds five rounds.

## General particulars

Calibre : 6.5 mm. (.256 in.).

Weight of gun (without water) :  $37\frac{1}{2}$  lb.

Weight of mounting : 50 lb. (approx.).

Length overall :  $46\frac{1}{2}$  in.

Maximum (cyclic) rate of fire : 500 rounds per minute.

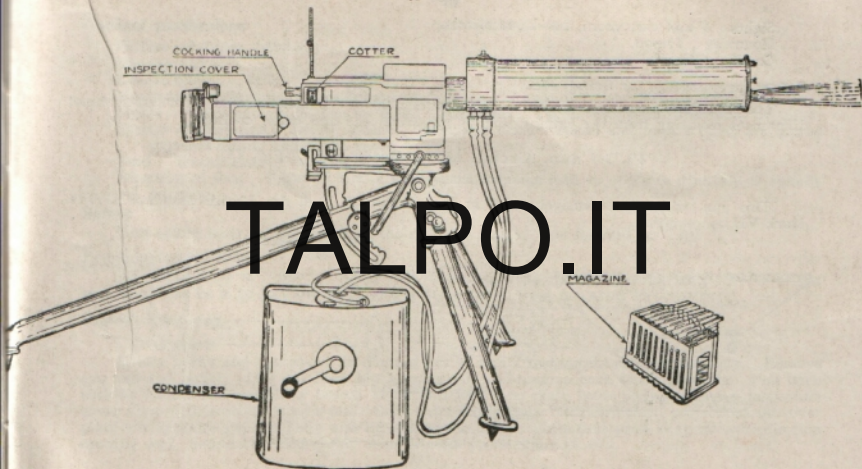


FIG. 10.—6.5 MM. M.M.G. MOD. 14—FIAT (REVELLI)

Sights : V and barleycorn, 200-2,000 metres.  
 Mounting : Tripod.  
 Cooling : Water.

### Safety, preparation for firing, etc.

The procedure is similar to that given below at Sec. 20 for the model 35 Fiat, with certain minor differences resulting from the employment of magazine feed and water cooling.

### 19. 7.7 mm. Aircraft M.G.—Breda-Safat. (Fig. 11)

*Mitragliatrice Breda-Safat Cal. 7.7*

This gun, which is extensively used in Italian aircraft, will fire British standard .303 in. Mark VII ammunition.

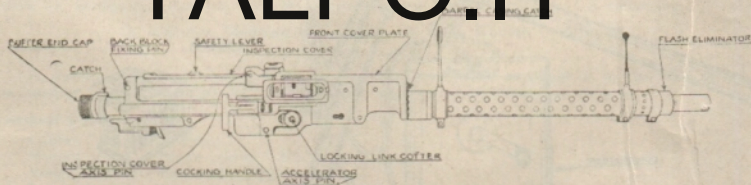


FIG. 11.—7.7 MM. AIRCRAFT M.G.—BREDASAFAT.



## General particulars

Calibre : 7.7 mm. (.303 in.)

Weight : 27 lb.

Length overall : 44 in.

Maximum (cyclic) rate of fire (firing British Mark VII ammunition) : 800 rounds per minute.

Sights : Foresight :  $\frac{3}{16}$  in. ball on pillar. Backsight :  $1\frac{1}{16}$  in. ring with cross-wires on pillar.

System of operation : Recoil, assisted by muzzle blast. Barrel and breech block are locked together during first  $\frac{3}{16}$  in. recoil.

Feed : Disintegrating metallic link belt.

Direction of feed : Right to left in gun illustrated, but feed in opposite direction is equally common.

## Safety

Shift safety lever on feed cover to the right for "safe" and forward for "fire".

## Preparation for firing

Set safety lever to "fire". Insert belt in feed opening. Draw cocking handle twice to the rear, and then let it go forward again to transfer a round from magazine to chamber.

## Partial stripping

### i. Body group

Rotate buffer end cap about 45 degrees left or right, keeping its catch disengaged. Remove end cap and buffer. Pull out back block fixing pin and remove back block upwards. Pull back cocking handle and withdraw breech block and feed cam plate from body. Remove inspection cover after withdrawing its axis pin. Slide front cover plate backward until projections on cover plate are opposite gaps in body and lift out cover plate. Shift feed pawl slide towards ejection opening and, depressing feed pawl, remove feed pawl slide.

## II. Barrel group

Press in barrel casing catch in front end of body. Unscrew barrel casing clockwise and remove. The barrel can only be removed after dismantling the locking and accelerator mechanism. This necessitates the removal of the locking link cotter and the accelerator axis pin, and it is not, therefore, an easy or rapid proceeding.

To reassemble the gun, reverse the procedure for stripping.

### 20. 8 mm. Medium M.G., Mod. 35—Fiat (Revelli). (Fig. 12)

#### *Mitragliatrice Fiat, Mod. 35*

This M.G. is a modification of the model 14 M.G. of 8 mm. air-cooled barrel and belt feed being substituted for the 6.5 mm. water-cooled barrel and multiple box magazine of the older model. Some, though not all, model 35 M.Gs. are actually converted model 14's.

The barrel and breech block are temporarily interlocked by a spring-loaded locking wedge, which is pivoted in the body. On firing the barrel and breech block recoil together, rotating the locking wedge until it frees the breech block. The breech block is then forced to the rear by the thrust of the spent case.

There is no automatic lubrication of cartridge or chamber.

#### General particulars

Calibre : 8 mm. (.315 in.).

Weight of gun : 39 lb. 12 oz.

Weight of mounting : 50 lb. (approx.)

Length overall : 49½ in.

Maximum (cyclic) rate of fire : 600 rounds per minute.

Sights : Open "V" leaf backsight graduated 200-2,400 metres ; barleycorn foresight.

Mounting : Tripod.



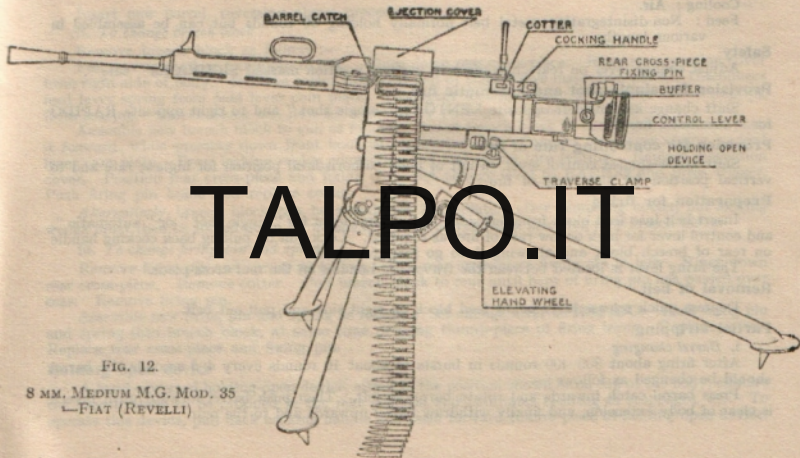


FIG. 12.

8 MM. MEDIUM M.G. MOD. 35  
—FIAT (REVELLI)

Cooling : Air.

Feed : Non-disintegrating metal belt normally holding 50 rounds but can be assembled in various lengths.

#### **Safety**

Adjust change lever on rear cross-piece to vertical position marked SICURA for " safe ".

#### **Provision for single shot and automatic fire**

Shift change lever to left opposite LENTO for " single shot " and to right opposite RAPIDO for " automatic fire ".

#### **Provision for controlling rate of fire**

Shift arrow-shaped control lever on left of body to horizontal position for highest rate and to vertical position for slow rate of fire.

#### **Preparation for firing**

Insert belt into feed block from left side. Set change lever for " single shot " or " automatic ", and control lever for high or low rate of fire, as required. Cock gun by pulling back cocking handle on rear of breech block and allowing it to go forward again.

The firing lever is located between the traversing handles on the rear cross-piece.

#### **Removal of belt**

Depress quick release lever below feed block on right side and pull out belt.

#### **Partial stripping**

##### *i. Barrel changing*

After firing about 300-400 rounds in bursts of about 10 rounds every 4-5 seconds the barrel should be changed as follows :—

Press barrel catch inwards and rotate barrel to left. Then push barrel forward until breech is clear of body extension, and finally withdraw barrel upwards and to the rear.

Insert new barrel, reversing above procedure.

ii. *To change breech block*

Remove breech block as follows :—

Pull rear cross-piece fixing pin to left. Hinge down rear cross-piece. Remove inspection cover from right side of body. Remove cotter from rear end of body above inspection plate. Disconnect feed lever spring from feed lever cam plate. Disengage locking wedge connecting rod and spring from seating. Breech block can now be removed by pulling back cocking handle.

Assemble new breech block to gun as follows : Insert breech block in barrel extension and push it forward, while pressing down front hook of connecting rod. Connect feed lever spring to feed lever cam plate. Press locking wedge connecting rod and spring into seating. Replace inspection cover. Position rear cross-piece and fixing pin. Set change lever to RAPIDO and press trigger. Push firing pin home and replace cotter.

*Alternatively*, breech block can be withdrawn immediately after removing cotter, but locking wedge must then be forced down by means of a screw driver when inserting new breech block.

iii. *To change firing pin and spring*

Remove firing pin and spring as follows : Pull rear cross-piece fixing pin to left. Hinge down rear cross-piece. Remove cotter. Pull breech block to rear until bent of firing pin has passed over sear. Remove firing pin.

Assemble new firing pin and spring as follows : Set change lever to RAPIDO. Push firing pin and spring into breech block, at same time pressing thumb-piece of firing lever. Replace cotter. Replace rear cross-piece and fixing pin.

**Holding-open device**

A hand-operated holding-open device, either in the position shown or on top of the body, enables the breech block to be retained in the rear position and facilitates clearing of stoppages, etc. To operate this device, pull back cocking handle and push forward thumb-piece of holding-open device.

### Cleaning and oiling

It is essential that the chamber and cartridges should be clean and well lubricated. The same applies to a lesser extent to the mechanism of the gun.

The oil should be freely applied and larger supplies of oil are necessary than with most other medium M.Gs.

### Laying

The gun can be laid "direct" by means of the open sights, or "indirect" using the elevation and traversing scales on the tripod mounting.

The traversing scale is graduated from 600-1,000 mils (34-56 degrees), the central position being the 800 mil graduation (45 degrees) and the elevation scale from 621 mils (35 degrees) depression to 444 mils (25 degrees) elevation. For particulars of the mil system of angular measurement, see Sec. 42.

### Range table

A range table is attached at Appendix A.

## 21. 8 mm. Medium M.G., Mod. 37—Breda. (Fig. 13)

### *Mitragliatrice Breda, Mod. 37*

This M.G. has a fixed barrel and is gas operated.

The breech is positively locked at the moment of firing, the breech block being forced up (without tilting) by the action of inclined surfaces on the piston extension, so that a projection on its upper surface engages in an opening in the top of the body.

The cartridges are fed from plate chargers holding 20 rounds, each round being housed in a separate compartment. After firing, the empty cases, instead of being ejected, are replaced in the compartments of the plate charger.