

AIR FORCE HEAD-QUARTERS.

INSTRUMENT INSTRUCTION NO. 8/3

TECHNICAL ORDER.

VOLUME I.

GUN SIGHTS - TYPES N-2, N-2A, N-3, N-3A and N-3B - INSTALLATION, INSPECTION AND USE.General.

1. The following gun sights have been provided for sighting guns and gun cameras installed in fixed positions in aircraft:-

<u>TYPE.</u>	<u>PART NO.</u>
N-2	35G2952
N-2A	38G1606
N-3	39G3372
N-3A	41G6436
N-3B	42G2092

2. The principle of operation of these sights is the same. The sights differ in that types N-2 and N-3B have electrical connectors for two-wire systems, while types N-2A, N-3 and N-3A have connectors for single-wire grounded systems. Also, types N-2A, N-3, N-3A and N-3B have certain improvements, among which is the use of a split type lamp housing which permits easier lamp replacement. In types N-3A and N-3B, a larger opening in the reticle holder is provided to permit the use of a 70-mil circular reticle. Between the side edges of the reflector and the reflector supports in types N-2A, N-3, N-3A and N-3B sights there are cork strips which hold the glass firmly in the support and act as cushions to reduce breakage of the reflector due to expansion caused by severe temperature changes.

Description.

3. The sight assembly consists of a main housing containing a lamp and socket, a reticle and mount, a flat mirror and a two component lens assembly. Reflected light is turned from the reticle by the mirror. In the majority of the sights the clear glass image reflector is retained by a support attached to the main housing. (See Figures 1 and 2).
4. For the installations where the sight housing is located some distance below the windshield, the reflector support, furnished by the aeroplane contractor, is attached to the windshield or to the aeroplane structure. In certain other installations, where it is not advisable to use the standard reflector support because of restricted space, a special support is attached to the main sight housing. The mount provides a means for aligning the sight with the flight line of the aeroplane.
5. The type N-2 sight is connected to the electrical circuit of the aeroplane by means of connector assembly (Part No. 37A2323). Similarly, type N-3B sight uses connector assembly (Part No. AN3102-123-3P) and sights N-2A, N-3 and N-3A use connector assembly (Part No. 39A2390). These connector assemblies are fitted with a coupling nut (Part No. 36A2212-2) which screws on to the terminal receptacle on the upper front side of the sight main housing. The connector assembly is a part of the conduit assembly, which shields the wires against electrostatic interference. A stowing plug is also provided in each aeroplane to retain the conduit assembly when the gun sight is removed.

Operation.

6. The principle of operation of these sights is the apparent projection of the reticle image in space due to the action of a lens and reflector. In the old style ring and bead sight the

eye position must be carefully fixed in relation to these parts, since these parts lie between the gunner and the target. Movement of the eye from one side to the other of the ring and bead sight causes inaccurate aiming, since the eye may actually look around the sighting members. If, however, the sight is moved closer and closer to the target, head movement has progressively less effect on the accuracy of aiming. Therefore, the reticle in the subject sights is made to coincide optically with the target by means of a lens and reflector. This is essentially the same as having the circle or cross lines superimposed on the target.

Dismantling.

7. Reflector Parts.

- (a) Remove the set screw located on the reflector housing barrel.
- (b) Remove the reflector housing from the sight.

Note.- Some reflector supports have two ears which are clamped together by a bolt and nut. (See Figure 1.). To remove this type housing, the nut must first be loosened. Some type N-3A and N-3B sights having this housing must also be unscrewed from the main housing.

- (c) Remove the four (4) bolts and nuts holding the reflector. (See Figure 2.)
- (d) Remove the reflector.

8. Lamp.

- (a) Remove the lamp house cover.
 - (i) On the type N-2 sight remove the two (2) screws located in the lamp house cover base.
 - (ii) On types N-2A, N-3, N-3A and N-3B, remove the four (4) large screws in the lamp house cover. (See Figure 3.)
- (b) Remove the lamp.
 - (i) In types N-2A, N-3, N-3A and N-3B sights this may be readily done by hand.
 - (ii) In the type N-2 sight the following procedure is required:- First turn the lamp in its socket to the left so as to line up the pins with the slots in the base. (This may be done with the fingers placed on the top of the lamp.) Next make a slip noose at one end of a piece of strong, thin cord. (See Figure 4.) Place the loop over the lamp and draw it tight over the lower end near the base. Draw the lamp out by pulling slowly and firmly on the cord. (See Figure 5.).

Note.- The lamp pins must line up with the slots in the base, otherwise it will be impossible to remove the lamp.

- (iii) Reticle.- Remove types N-2A, N-3, N-3A and N-3B sight reticles by taking out the two small retaining plates and attaching screws. (See Figure 6.). Tilt the sight until the reticle slips out.

CAUTION.- Hold the reticle by its edges.

(iv) Removal of Reticle Carriage and Electrical Assembly.

- (a) Unscrew the nut on the reticle slide and remove the slide. (See Figure 7).

- (b) Knock out the 1/16 inch the deflected long screw
- (c) Remove the tor plug and sights. connector base, but
- (d) Remove the housing of the two () and pull socket as

Note.- The pins which are removed from the cone sleeve which is attached. (See Figure 1)

- (e) Remove the pushing sleeve.
- (f) Remove the which part hold the Figure 1

- (v) Mirror.- Remove assembly to gently away (See Figure

Note.- The care should not scratch

Remove the mirror in

(vi) Lens.

- (a) Insert the opposite unscrew
- (b) Remove the the barr
- (c) Warm the ing comp two slot turning direction

Adjustment.

9. Normally manufacturer so that the reticle or the elements become necessary

- (a) The reticle the reticle
- (b) Adjust the

- (b) Knock out the pin holding the deflection knob, using a 1/16 inch drill rod punch. (See Figure 3). Unscrew the deflection knob lock, then unscrew the knob and the long screw which passes through the reticle mount.
- (c) Remove the four (4) screws holding the electrical connector plug housing on types N-2A, N-3, N-3A and N-3B sights. (See Figure 9.). Detach the electrical connector socket pin mounted in the moulded-phenolic base, but do not break the cable connection.
- (d) Remove the screws holding the electrical connector housing on type N-2 sight. (See Figure 10). Remove the two (2) bolts and nuts on the connector assembly and pull the reticle mount, lamp socket sleeve and socket assembly from the housing. (See Figure 11).

Note.- The electrical connector assembly has two socket pins which are soldered to two terminals and are mounted in a base. One of two cables attached to the two removed bolts, which pass through the terminal ears on the connector assembly, is soldered to the lamp socket sleeve while the other is split, the halves being attached by screws to the double pole socket assembly. (See Figure 11.).

- (e) Remove the socket assembly from the socket sleeve by pushing in the small locator button projecting from the sleeve.
- (f) Remove the reticle mount by unscrewing the two (2) screws which pass through the metal reticle slide spacer and hold the reticle carriage to the sleeve spacer. (See Figure 12).
- (v) Mirror.- Remove the four (4) screws which hold the mirror assembly to the sight housing and then pry the assembly gently away from the housing by breaking the shellac seal. (See Figure 13).

Note.- The shellac seal may give away suddenly, therefore, care should be taken that the prying instrument does not scratch the front surfaced mirror.

Remove the two (2) crimped retaining lugs which hold the mirror in its well and remove the mirror.

(vi) Lens.

- (a) Insert the prongs of a spanner wrench into the two opposite holes on the glass dust shield assembly and unscrew the shield. (See Figure 14).
- (b) Remove the lens cell set screw located on the front of the barrel holding the lens assembly.
- (c) Warm the sight to overcome the sluggishness of the sealing compound and then insert the sight wrench in the two slots in the lens barrel and remove the lens by turning the lens assembly firmly in a counter-clockwise direction. (See Figure 15).

Adjustment.

9. Normally the gun sights are adjusted properly by the manufacturer so that it should not be necessary to readjust either the reticle or the main lens assembly. If, however, such adjustments become necessary, they may be made as follows:-

- (a) The reticle may be adjusted approximately by centering the reticle carriage on its slide.
- (b) Adjust the main lens assembly as follows:-

Note.- Unless movement exists between the reticle image and a target at least 500 yards distant, it should not be necessary during the life of the sight to adjust the main lens assembly.

- (i) Remove the reflector support.
- (ii) Unscrew the dust shield.
- (iii) Unscrew the lens set screw.
- (iv) Turn the lens assembly with the wrench until the reticle image, as viewed in the reflector glass and superimposed upon a target approximately 500 yards distant, does not change in relation to the target as the head is moved from side to side over the field of view of the sight. In the type N-2 sight, turn the lens barrel until the nearest notch lines up with the hole for the set screw and tighten screw. In types N-2A, N-3, N-3A and N-3B sights the set screw is simply tightened.
- (v) Insert the lens shield.
- (vi) Attach the image reflector support.

Note.- In installations which do not make use of the reflector support, it will be necessary to accomplish the above operation with the sight and reflector installed in the aeroplane, unless one of the following optional methods for lens adjustment is used:-

1. Use a collimating telescope with which the lens is set for the sharpest image in the viewing screen.
2. Use of a C-5 ground camera, set for infinity focus, (marked as ∞ on the distance scale of the camera). Set lens for the sharpest image on ground glass screen.

Inspection and Maintenance.

10. Note.- Work done in dismantling the sight housing should be conducted in a location as dry and as free of dust as possible, commensurate with field conditions. Care should be taken in the reassembly of the sight to insure that all parts are free from grease, oil and foreign matter and that all screw threads have a light application of sealing compound. Inspection of gun sights installed in aircraft will be made as prescribed herein, by personnel familiar with the operation of the gun and sight (Armourer). During such inspection all necessary adjustments, repairs and replacements will be made.

- (a) Preflight.- Before each flight during which the guns are expected to be fired, the following inspection and maintenance operations will be performed:-
 - (i) Clean reflector glass.
 - (ii) Clean dust shield assembly over main lens.
 - (iii) Determine that the reflector is held securely in its support.
 - (iv) See that gun sight body is held firmly in its mount and no shake or wobble is present.
 - (v) Check electrical connections for contact and determine whether both lamp filaments will burn. Loss of one filament is shown by a reduction in reticle brilliance. If the lamp is burned out, replace it with an RP 11, 21-21CP double contact candelabra base, inside frosted lamp of voltage corresponding to that of the aeroplane power supply. The lamp may be checked in the sight without removing it. This may be accomplished by using an ohmmeter to measure the resistance of a filament when cold. The resistances are measured at the sight connections.

- (vi) Determine control
- (vii) See the the sig
- (viii) Check
- (ix) Check zation
- (b) At 40-hour will be
 - (i) Check
 - (ii) Determine good
 - (iii) Check
 - (iv) Clean the s

CAUTION.
aluminum lens to give pr in scre

Interchangeability

1. The with types N-2A, in the electrical changeable as far individual assembly in the following

- Lens
- Reticle
- Ladder
- Circle and D (70 mils)
- Lamp socket
- Lens cover gla
- Reflector glas
- Reticle slide
- Reticle adjust knob and screw
- RP 11 lamp
- 12-16 Volts
- 24-28 Volts
- Lamp house cov
- Sight mounting
- Mirror

References:-

Drawings:-

Date of Issue:-

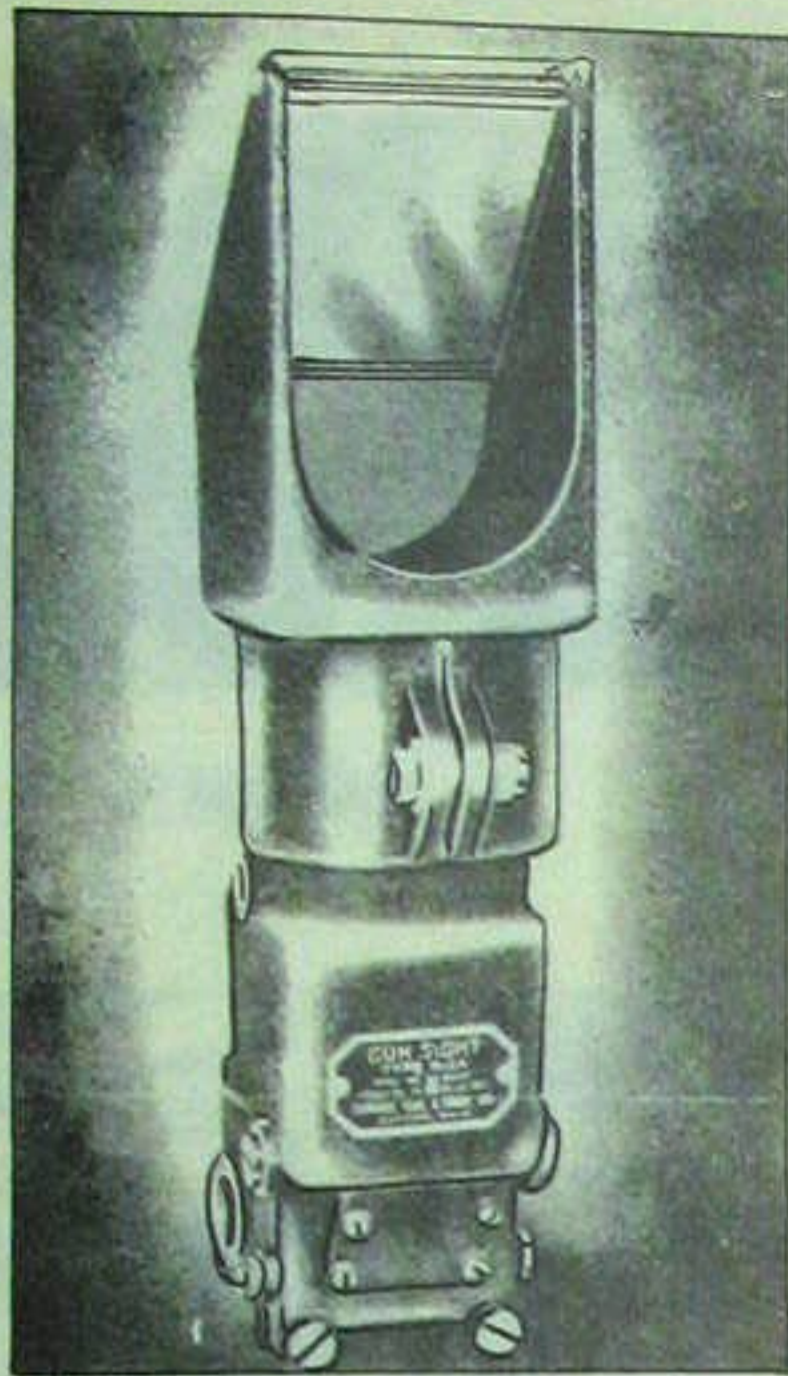


FIGURE 1.

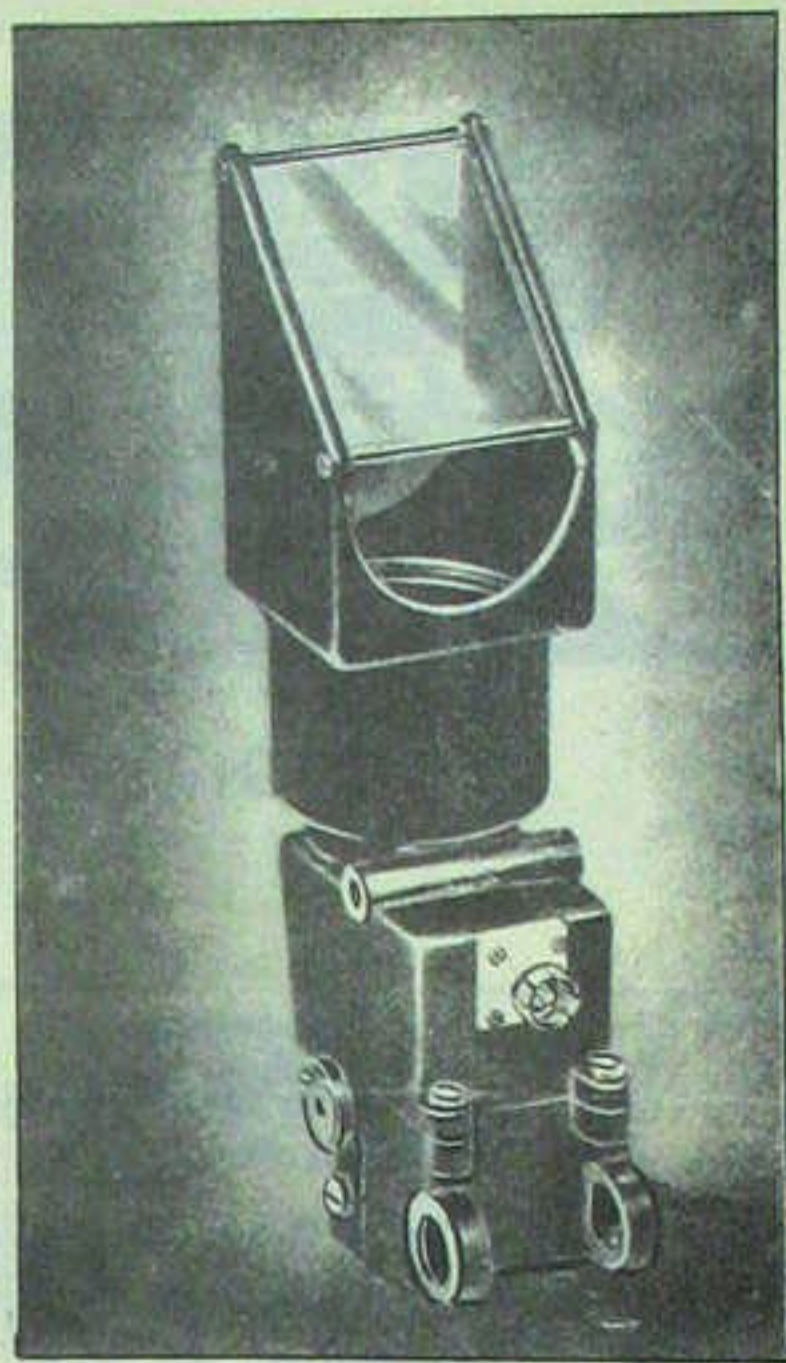


FIGURE 2.

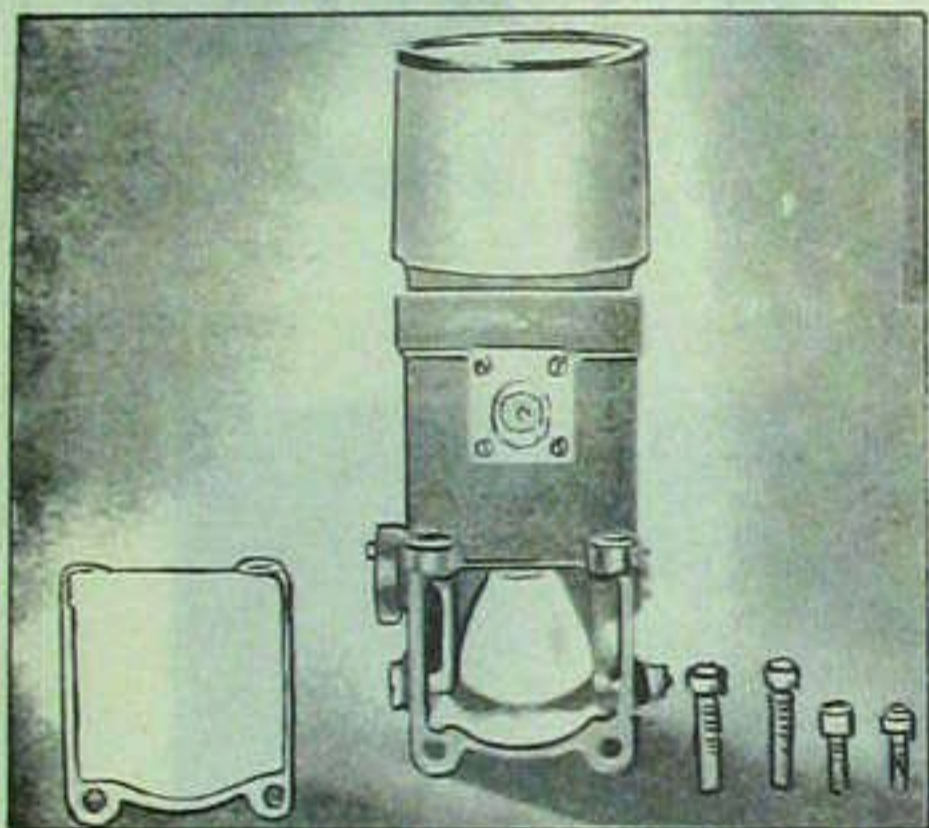


FIGURE 3.

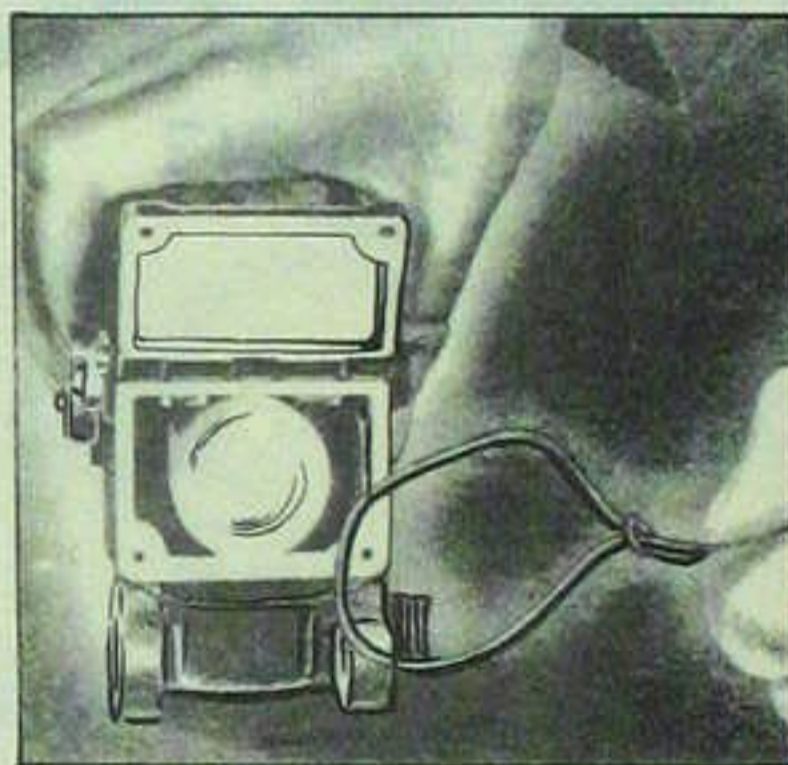


FIGURE 4.



FIGURE 5.

GUN SIGHTS - INSTALLATION AND USE.

R.A.A.F. NO. G 5403.

SHEET NO. 1.

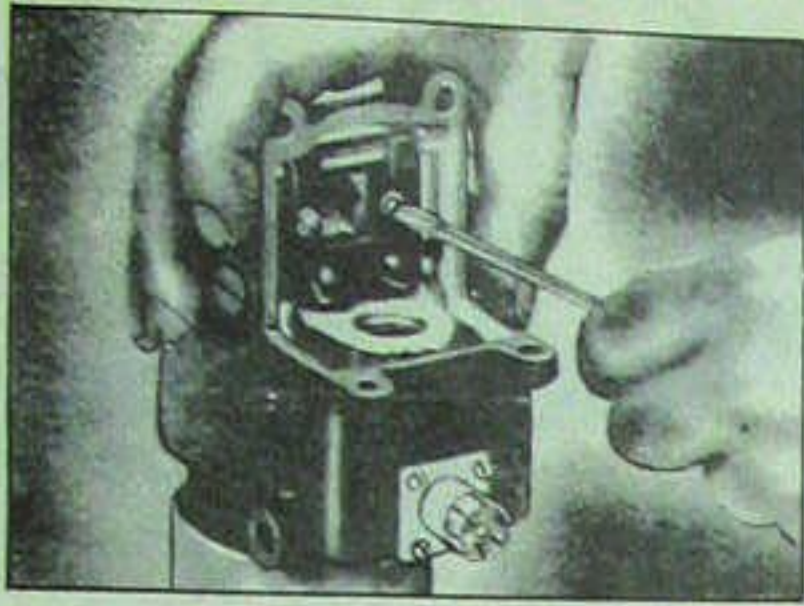


FIGURE 6.

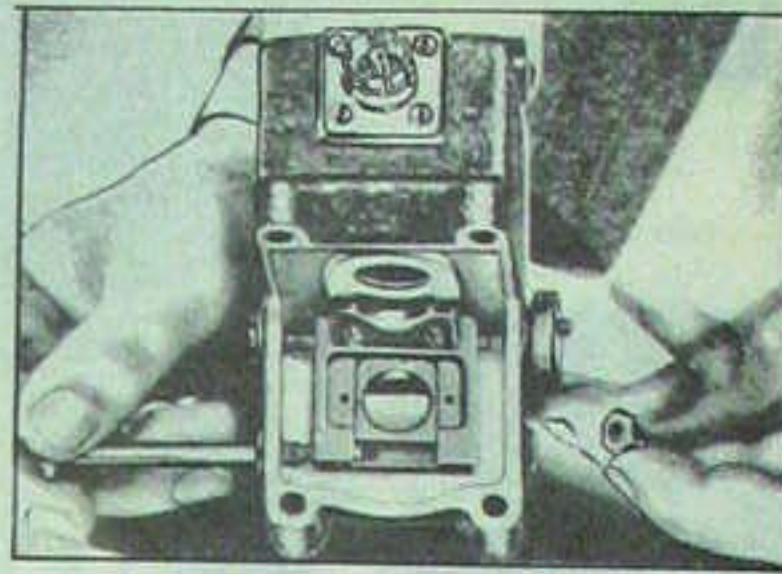


FIGURE 7.

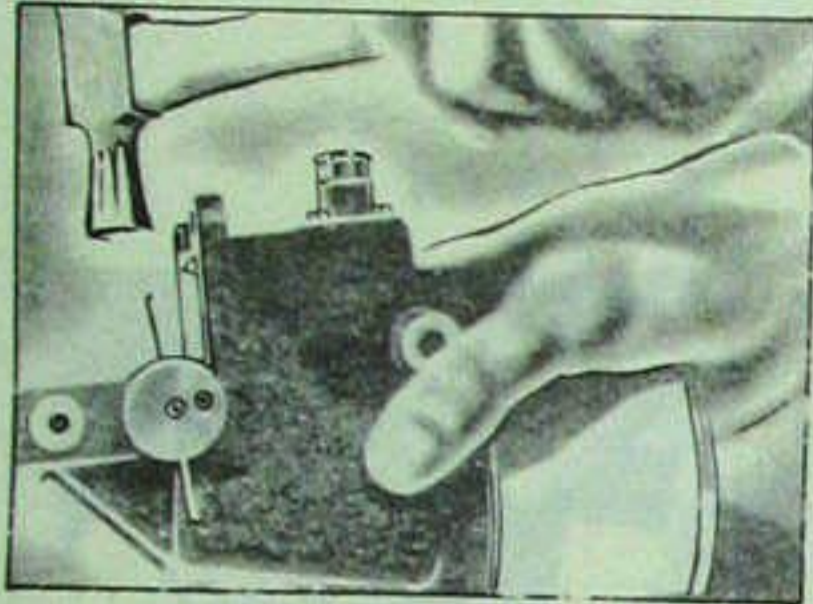


FIGURE 8.

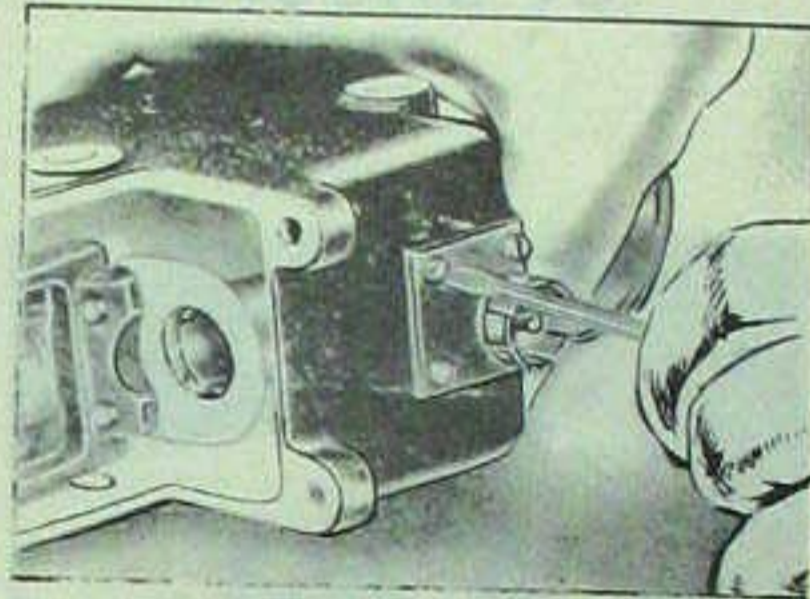


FIGURE 9.

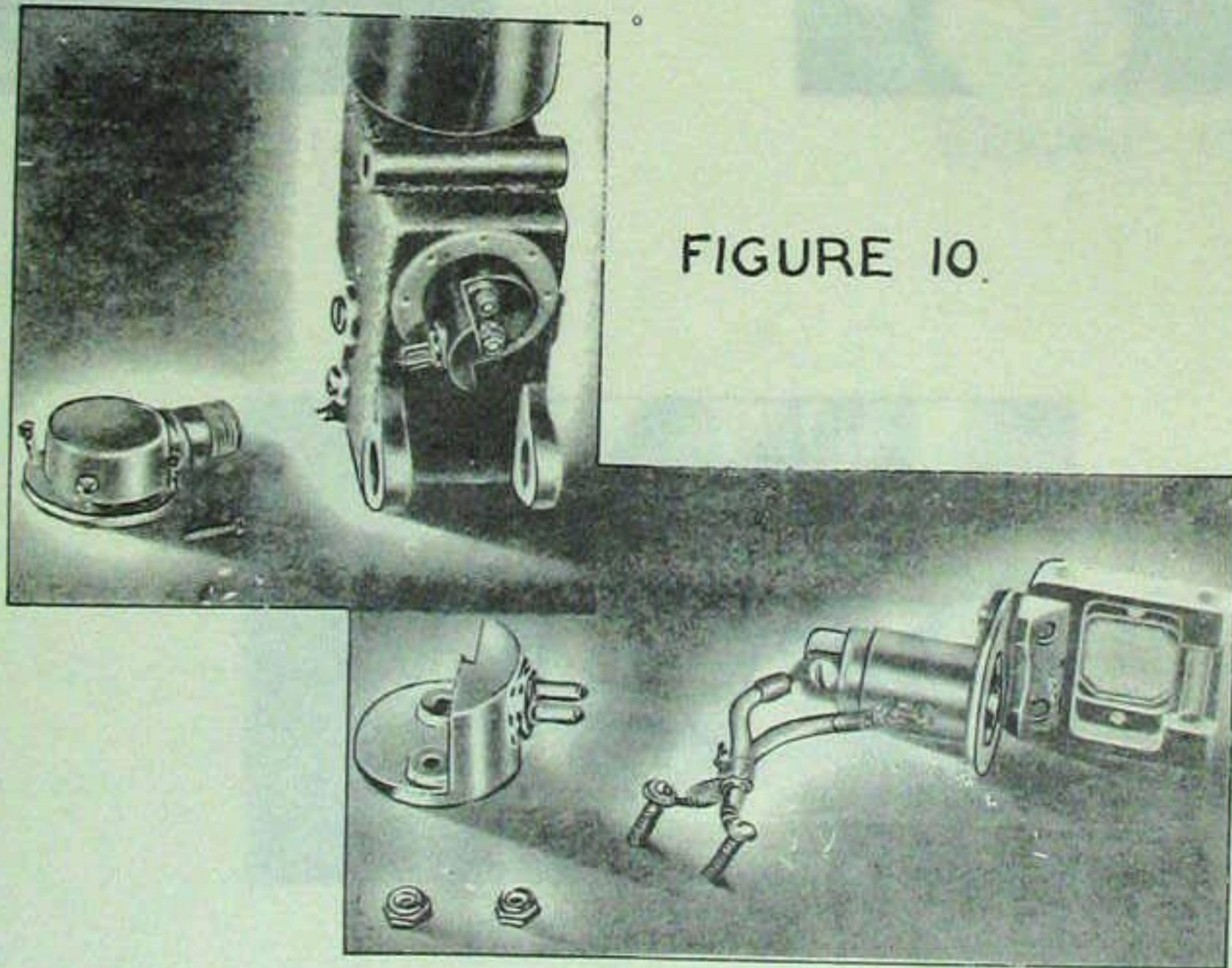


FIGURE 10.

FIGURE 11.

GUN SIGHTS—INSTALLATION AND USE

R.A.A.F NO G 5403.

SHEET NO 2.

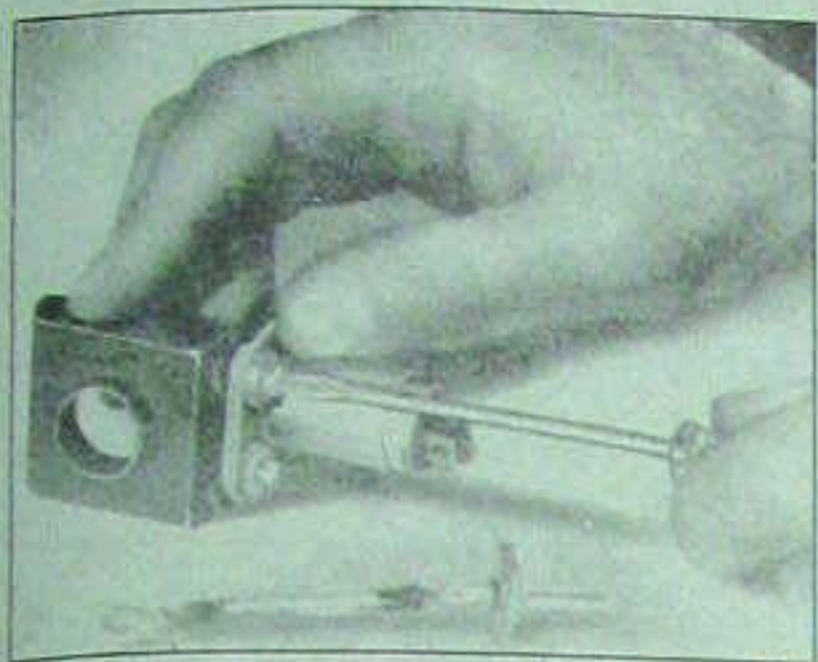


FIGURE 12

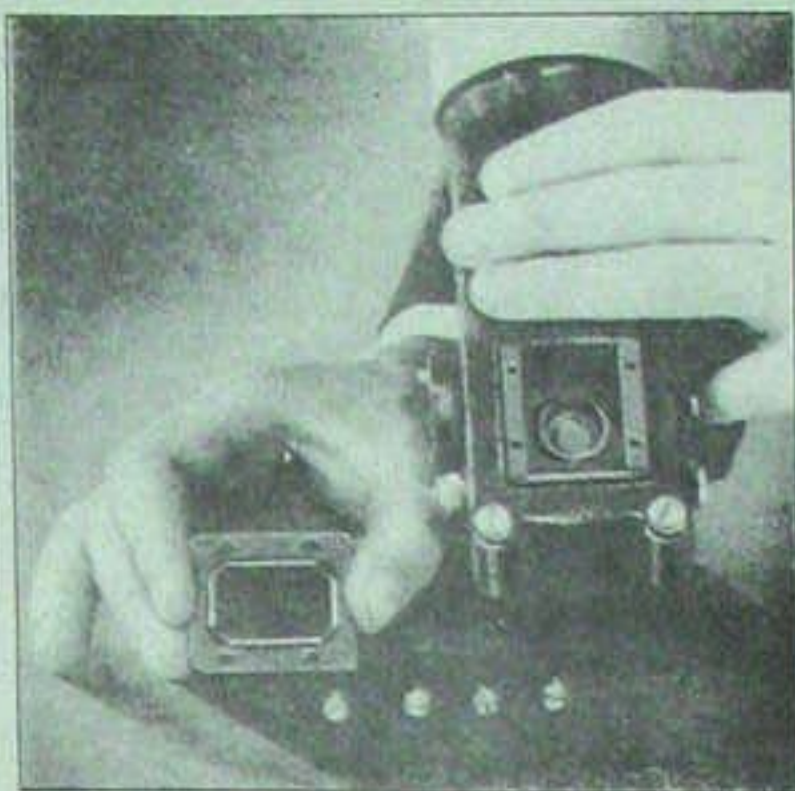


FIGURE 13.



FIGURE 14.



FIGURE 15.

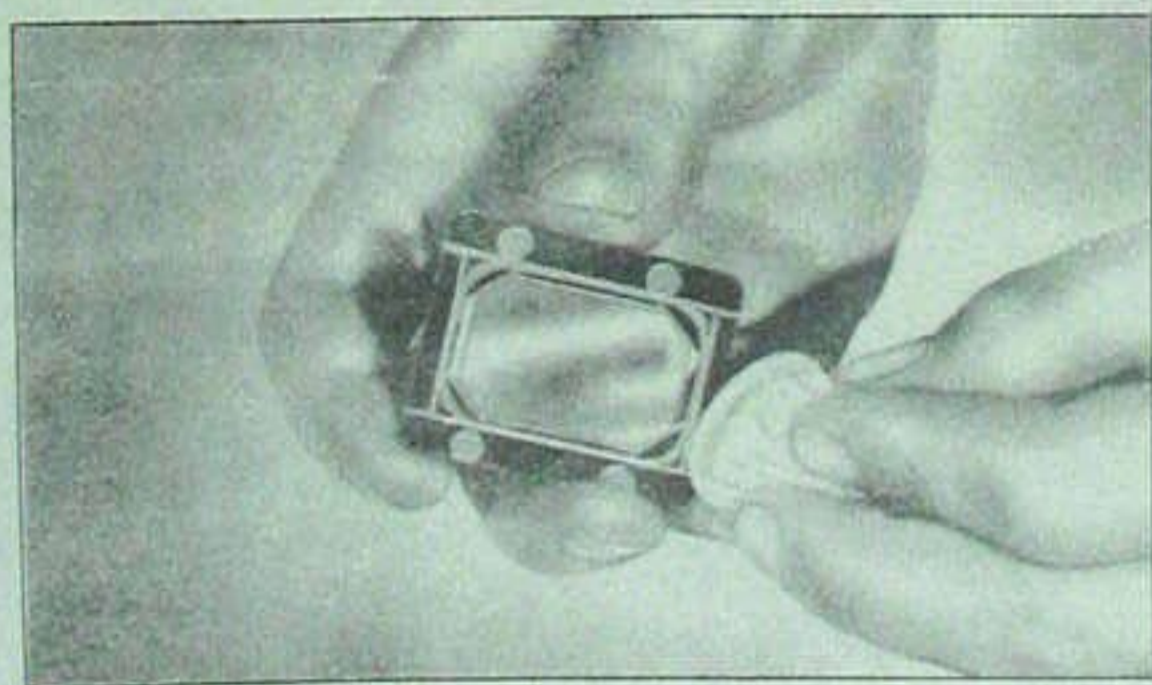


FIGURE 16.

GUN SIGHTS — INSTALLATION AND USE.

R.A.A.F NO. G 5403

SHEET NO. 3.

AIR FORCE HEAD-QUARTERS.

INSTRUMENT INSTRUCTIONS NO. 8/3.

TECHNICAL ORDER.

VOLUME I.

GUN SIGHTS - INSTALLATION, INSPECTION, AND USE - N-2, N-2A, N-3, N-3A, N-3B.1. GENERAL.

1. (a) The following gun sights have been provided for sighting guns and gun cameras installed in fixed positions in aircraft:-

<u>TYPE.</u>	<u>PART NO.</u>
N-2	35G2952
N-2A	38G1606
N-3	39G3372
N-3A	41G6436
N-3B	42G2092

2. (b) The principle of operation of these sights is the same. The sights differ in that types N-2 and N-3B have electrical connectors for two-wire systems, while types N-2A, N-3, and N-3A have connectors for single-wire grounded systems. Also, types N-2A, N-3, N-3A, and N-3B have certain improvements, among which is the use of a split type lamp housing which permits easier lamp replacement. In types N-3A and N-3B, a larger opening in the reticle holder is provided to permit the use of a 70-mil circular reticle. Between the side edges of the reflector and the reflector supports in types N-2A, N-3, N-3A, and N-3B sights there are cork strips which hold the glass firmly in the support and act as cushions to reduce breakage of the reflector due to expansion caused by severe temperature changes.

2. DESCRIPTION.

3. (a) The sight assembly consists of a main housing containing a lamp and socket, a reticle and mount, a flat mirror, and a two component lens assembly. Reflected light is turned from the reticle by the mirror. In the majority of the sights the clear glass image reflector is retained by a support attached to the main housing. (See Figures 1 and 2.)

4. (b) For the installations where the sight housing is located some distance below the windshield, the reflector support, furnished by the airplane contractor, is attached to the windshield or to the airplane structure. In certain other installations, where it is not advisable to use the standard reflector support because of restricted space, a special support is attached to the main sight housing. The mount provides a means for aligning the sight with the flight line of the aeroplane.

5. (c) Type N-2 sight is connected to the electrical circuit of the aeroplane by means of connector assembly, part No. 37A2323. Similarly, type N-3B sight uses connector assembly, part No. AN3102-12S-3P, and sights N-2A, N-3, and N-3A use connector assembly, part No. 39A2390. These connector assemblies are fitted with a coupling nut, part No. 36A2212-2, which screws on to the terminal receptacle on the upper front side of the sight main housing. The connector assembly is a part of the conduit assembly, which shields the wires against electrostatic interference. A stowing plug is also provided in each aeroplane to retain the conduit assembly when the gun sight is removed.

3. OPERATION.

6. The principle of operation of these sights is the apparent projection of the reticle image in space due to the action of a lens and reflector. In the old style ring and bead sight the eye position must be carefully fixed in relation to these parts, since these parts lie between the gunner and the target. Movement of the eye from one side to the other of the ring and bead sight causes inaccurate aiming, since the eye may actually look around the sighting members. If, however, the sight is moved

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closer and closer to the target, head movement has progressively less effect on the accuracy of aiming. Therefore, the reticle in the subject sights is made to coincide optically with the target by means of a lens and reflector. This is essentially the same as having the circle or cross lines superimposed on the target.

DISASSEMBLY.

7. (a) Reflector Parts.

- (1) Remove the set screw located on the reflector housing barrel.
- (2) Remove the reflector housing from the sight.

NOTE - Some reflector supports have two ears which are clamped together by a bolt and nut. (See Figure 1). To remove this type housing, the nut must be loosened before the housing can be removed. Some type N-3A and N-3B sights having this housing must also be unscrewed from the main housing.

- (3) Remove the four (4) bolts and nuts holding the reflector. (See Figure 2.)
- (4) Remove the reflector.

8. (a) Lamp.

- (1) Remove the lamp house cover.

(a) On the type N-2 sight remove the two (2) screws located in the lamp house cover base.

(b) On the type N-2A, N-3, N-3A, and N-3B, remove the four (4) large screws in the lamp house cover. (See Figure 3.)

- (2) Remove the lamp.

(a) In the types N-2A, N-3, N-3A, and N-3B sights this may be readily done by hand.

(b) In the type N-2 sight the following procedure is required: First turn the lamp in its socket to the left so as to line up the pins with the slots in the base. (This may be done with the fingers placed on the top of the lamp.) Next make a slip noose at one end of a piece of strong, thin cord. (See Figure 4.) Place the loop over the lamp and draw it tight over the lower end near the base. Draw the lamp out by pulling slowly and firmly on the cord. (See Figure 5.).

NOTE - The lamp pins must line up with the slots in the base, otherwise it will be impossible to remove the lamp.

(c) Reticle. - Remove type N-2A, N-3, N-3A, and N-3B sight reticles by taking out the two small retaining plates and attaching screws. (See Figure 6.) Tilt the sight until the reticle slips out.

CAUTION - Hold the reticle by its edges.

(d) Removal of Reticle Carriage and Electrical Assembly.

- (2) Unscrew the nut on the reticle slide and remove the slide. (See Figure 7.).

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(2) Knock out the pin holding the deflection knob, using a 1/16-inch drill rod punch. (See Figure 8.). Unscrew the deflection knob lock, then unscrew the knob and the long screw which passes through the reticle mount.

(3) Remove the four (4) screws holding the electrical connector plug housing on type N-2A, N-3, N-3A, and N-3B sights. (See Figure 9.) Detach the electrical connector socket pin mounted in the moulded-phenolic base, but do not break the cable connection.

(4) Remove the screws holding the electrical connector housing on type N-2 sight. (See Figure 10). Remove the two (2) bolts and nuts on the connector assembly and pull the reticle mount, lamp socket sleeve, and socket assembly from the housing. (See Figure 11).

Ac. NOTE:- The electrical connector assembly has two socket pins which are soldered to two terminals and are mounted in a base. One of two cables attached to the two removed bolts, which pass through the terminal ears on the connector assembly, is soldered to the lamp socket sleeve while the other is split, the halves being attached by screws to the double pole socket assembly. (See Figure 11).

(5) Remove the socket assembly from the socket sleeve by pushing in the small locator button projecting from the sleeve.

(6) Remove the reticle mount by unscrewing the two (2) screws which pass through the metal reticle slide spacer and hold the reticle carriage to the sleeve spacer. (See Figure 12).

(7) Mirror. - Remove the four (4) screws which hold the mirror assembly to the sight housing. Then pry the assembly gently away from the housing by breaking the shellac seal. (See Figure 13).

Ac. NOTE:- The shellac seal may give away suddenly, therefore, care should be taken that the prying instrument does not scratch the front surfaced mirror.

Remove the two (2) crimped retaining lugs which hold the mirror in its well and remove the mirror.

(8) Lens.

(1) Insert the prongs of a spanner wrench into the two opposite holes on the glass dust shield assembly and unscrew the shield. (See Figure 14).

(2) Remove the lens cell set screw located on the front of the barrel holding the lens assembly.

(3) Warm the sight to overcome the sluggishness of the sealing compound. Then insert the sight wrench in the two slots in the lens barrel and remove the lens by turning the lens assembly firmly in a counter-clockwise direction. (See Figure 15).

5. ADJUSTMENT.

9. Normally the gun sights are adjusted properly by the manufacturer so that it should not be necessary to readjust either the reticle or the main lens assembly. If, however, such adjustments become necessary, they may be made as follows: -

- (a) The reticle may be adjusted approximately by centering the reticle carriage on its slide.

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(b) Adjust the main lens assembly as follows:-

10. NOTE:- Unless movement exists between the reticle image and a target at least 500 yards distant, it should not be necessary during the life of the sight to adjust the main lens assembly.

(1) Remove the reflector support.

(2) Unscrew the dust shield.

(3) Unscrew the lens set screw.

(4) Turn the lens assembly with the wrench until the reticle image, as viewed in the reflector glass and superimposed upon a target approximately 500 yards distant, does not change in relation to the target as the head is moved from side to side over the field of view of the sight. In the type N-2 sight, turn the lens barrel until the nearest notch lines up with the hole for the set screw and tighten screw. In the type N-2A, N-3, N-3A, and N-3B sights the set screw is simply tightened.

(5) Insert the lens shield.

(6) Attach the image reflector support.

10. NOTE:- In installations which do not make use of the reflector support, it will be necessary to accomplish the above operation with the sight and reflector installed in the aeroplane, unless one of the following optional methods for lens adjustment is used:-

1. Use a collimating telescope with which the lens is set for the sharpest image in the viewing screen.

2. Use of a C-3 ground camera, set for infinity focus, (marked as ∞ on the distance scale of the camera). Set lens for the sharpest image on ground glass screen.

6. INSPECTION AND MAINTENANCE.

10. NOTE:- Work done in disassembling the sight housing should be conducted in a location as dry and as free of dust as possible, commensurate with field conditions. Care should be taken in the reassembly of the sight to insure that all parts are free from grease, oil, and foreign matter and that all screw threads have a light application of sealing compound. Inspection of gun sights installed in aircraft will be made as prescribed herein, by personnel familiar with the operation of the gun and sight (Armourer). During such inspection all necessary adjustments, repairs, and replacements will be made.

(a) Preflight.- Before each flight, during which the guns are expected to be fired, the following inspection and maintenance operations will be performed:-

(1) Clean reflector glass.

(2) Clean dust shield assembly over main lens.

(3) Determine that the reflector is held securely in its support.

(4) See that gun sight body is held firmly in its mount and no shake or wobble is present.

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- (5) Check electrical connections for contact and determine whether both lamp filaments will burn. Loss of one filament is shown by a reduction in reticle brilliance. If the lamp is burned out, replace it with an RP 11, 21-21CP double contact candelabra base, inside frosted lamp of voltage corresponding to that of the aeroplane power supply. The lamp may be checked in the sight without removing it. This may be accomplished by using an ohmmeter to measure the resistance of a filament when cold. The resistances are measured at the sight connections.

<u>Lamp Voltage Rating</u>	<u>One Filament</u>	<u>Two Filaments</u>
24-28 Volts	.4 ohm x 10	.2 ohm x 10
12-16 Volts	.1 ohm x 10	.05 ohm x 10

- (6) Determine whether the rheostat functions smoothly to control the intensity of light satisfactorily.
- (7) See that the reticle pattern is reflected properly by the sight reflector.
- (8) Check reflector for cracks and/or chips.
- (9) Check alignment of sight to flight line and harmonization of guns to sight line.

(b) At 40-hour intervals, types N-2, N-3, N-3A, and N-3B sights will be inspected as follows:

- (1) Check general condition of sight assembly and sight mount.
- (2) Determine that all electrical parts of the sight are in good working order.
- (3) Check sights for condensation on glass surface.
- (4) Clean the mirror, which is located in the lower part of the sight, only when necessary.

Caps **CAUTION:** The surface of the mirror is a thin coating of aluminium. Cleaning is to be done only with a cotton swab or lens tissue saturated with carbon tetrachloride. Excessive pressure in the application of the swab will result in scratching the surface. (See Figure 16).

INTERCHANGEABILITY.

11. The type N-2 sight is not interchangeable as a whole with type N-2A, N-3, N-3A, or N-3B sights because of the difference in the electrical connections. Type N-2A, N-3, N-3A are interchangeable as far as electrical connections are concerned, but the individual assemblies and parts are interchangeable only as noted in the following tables: —

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	<u>N-2</u>	<u>N-2A</u>	<u>N-3A</u>	<u>N-3</u>	<u>N-3B</u>
Lens	x	x	x	x	x
Reticle					
Ladder	x	x		x	
Circle and Dot (70 mils)			y		y
Lamp socket	x	x	x	x	x
Lens cover glass	x	x	x	x	x
Reflector glass		x	x	x	x
Reticle slide		x	y	x	y
Reticle adjusting knob and screw.	x	x	x	x	x
RP 11 lamp					
12-16 Volts	x	x			
24-28 Volts		x	x	x	x
Lamp house cover		x	x	x	x
Sight mountings	x	x	x	x	x
Mirror	x	x	x	x	x

REFERENCES: - American T.O. 11-35-5 File R.A.A.F. 150/4/5003.

DRAWINGS: - 5403, Shs 1, 2, and 3 attached.

DATE OF ISSUE: - June 10 1945

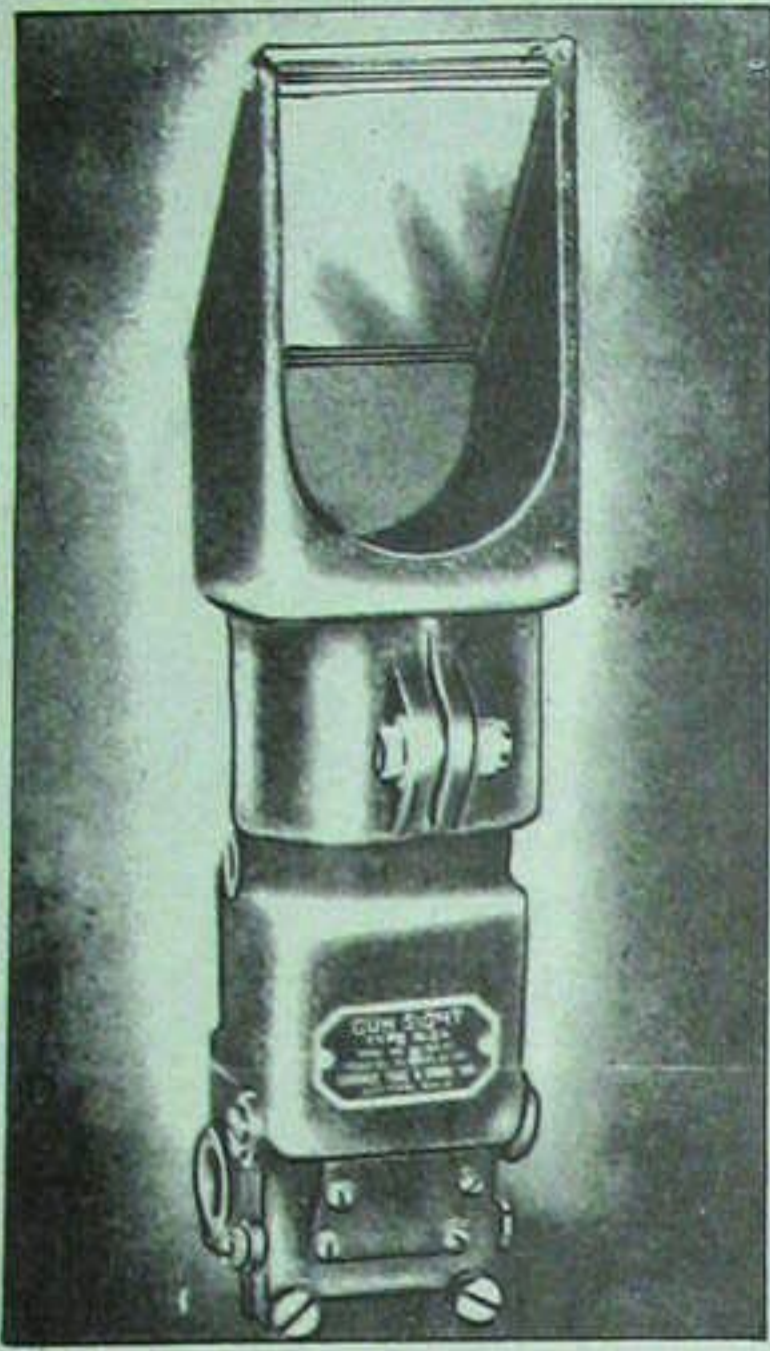


FIGURE 1.

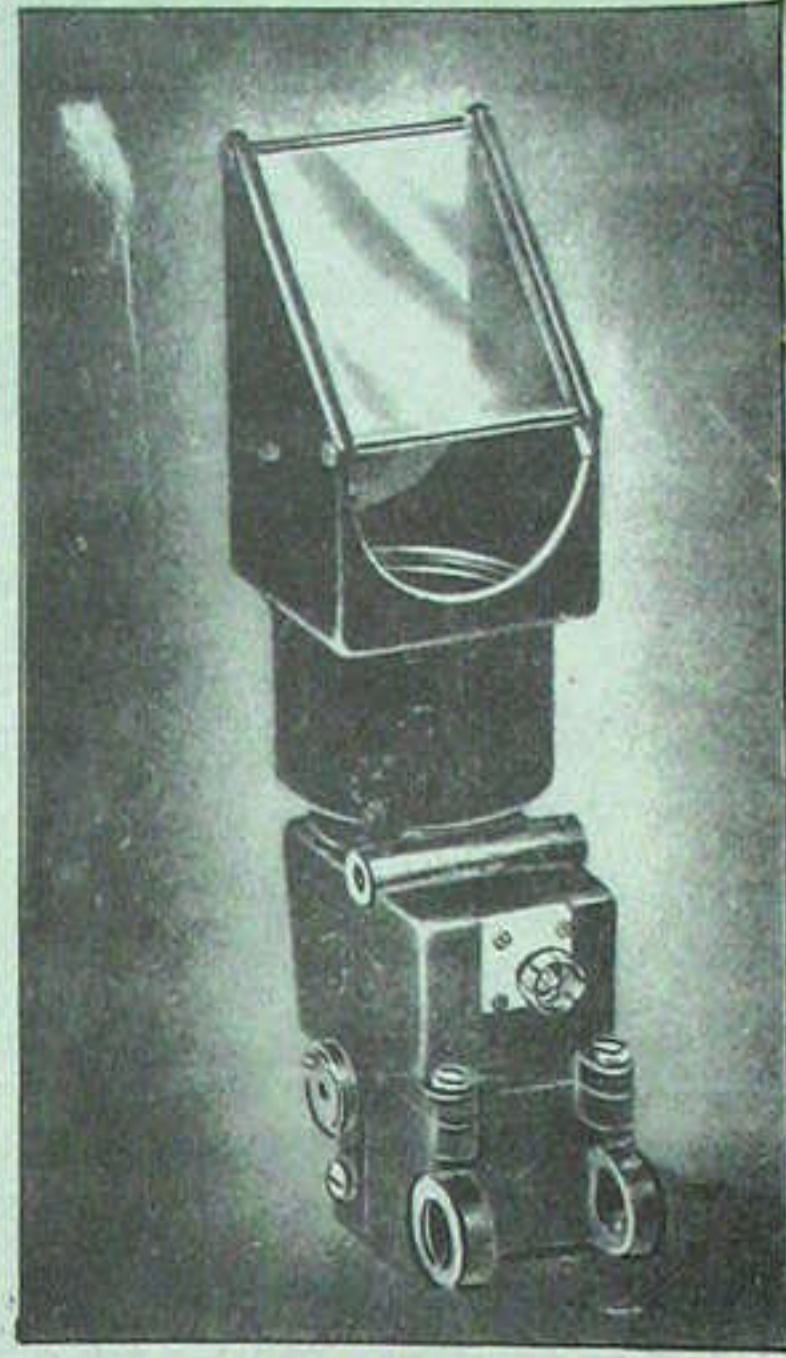


FIGURE 2.

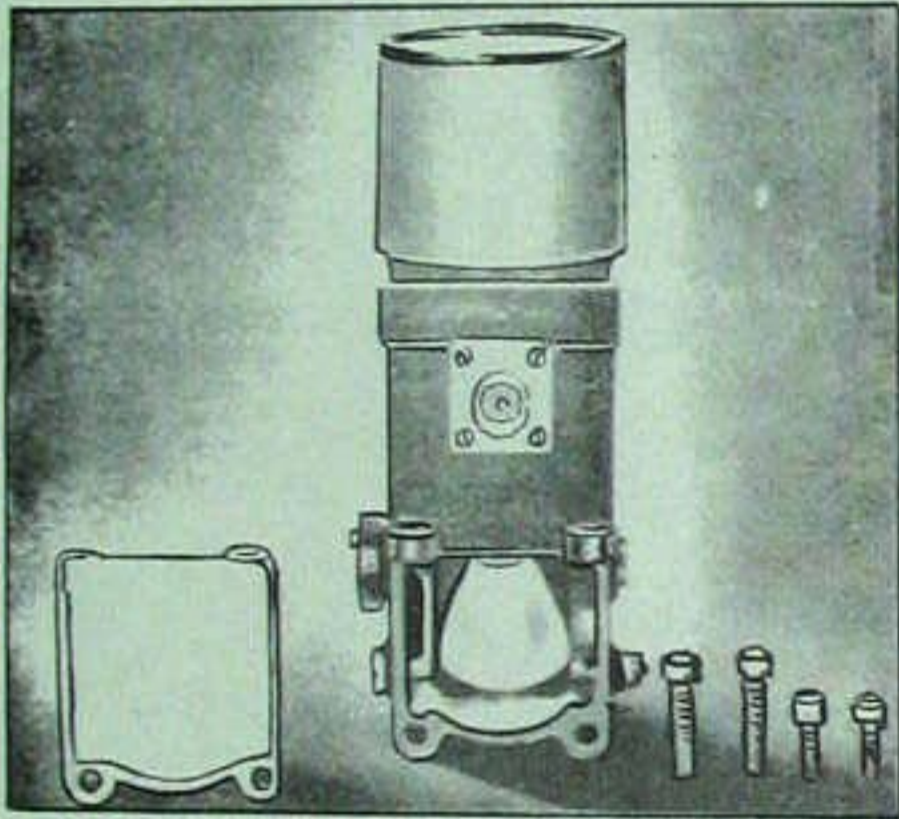


FIGURE 3.

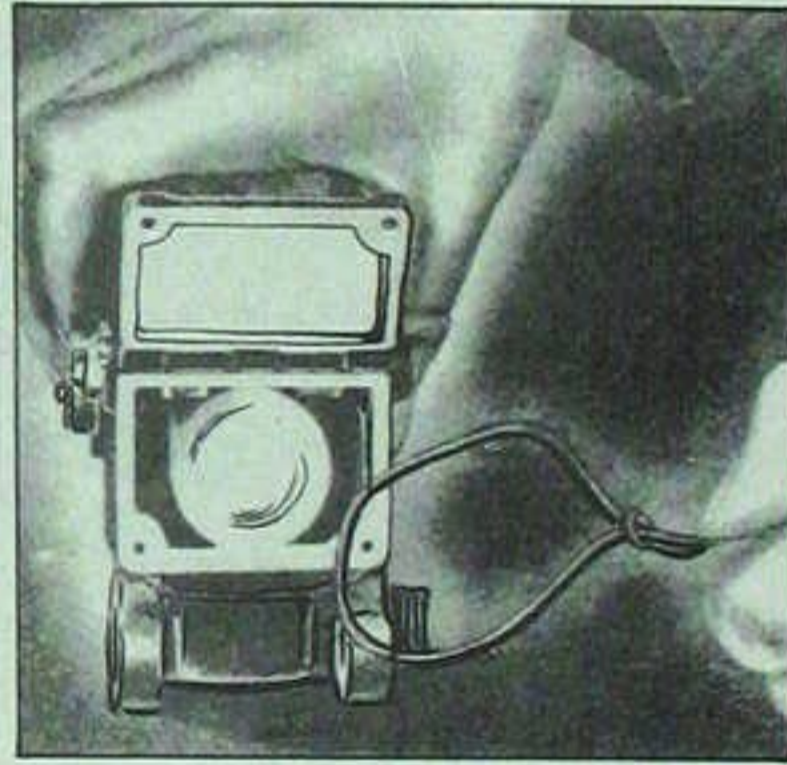


FIGURE 4.

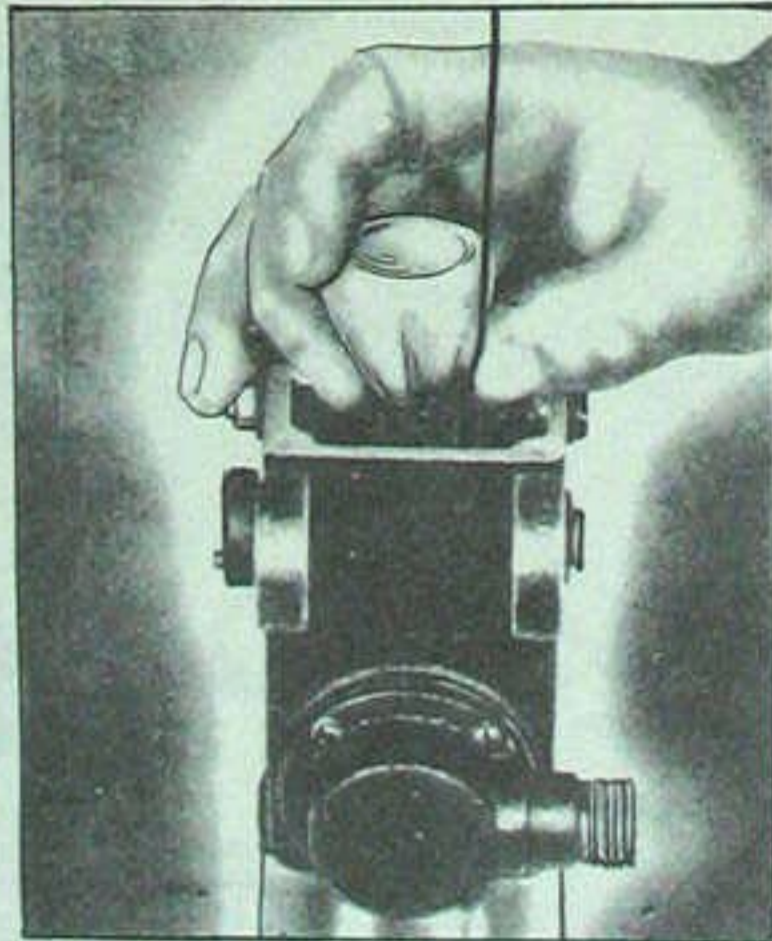


FIGURE 5.

*Typical
Shore drawing
with no in
bullet*
[Signature]

GUN SIGHTS - INSTALLATION AND USE.

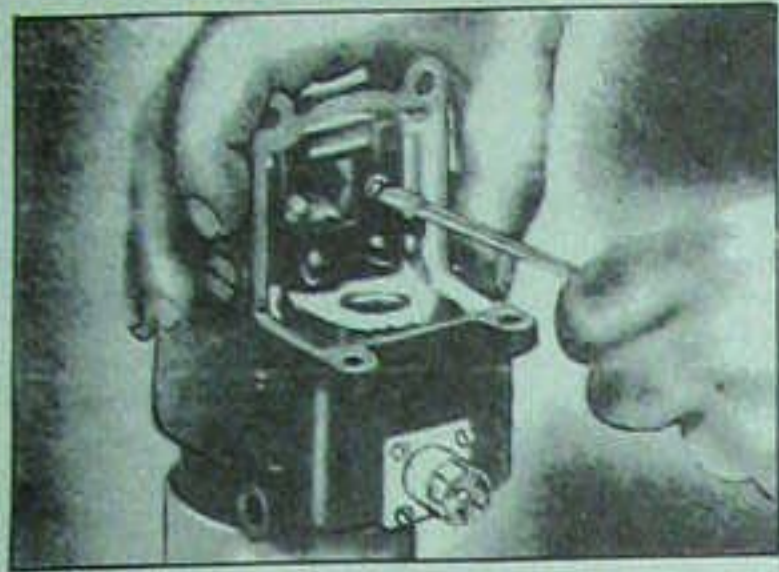


FIGURE 6.

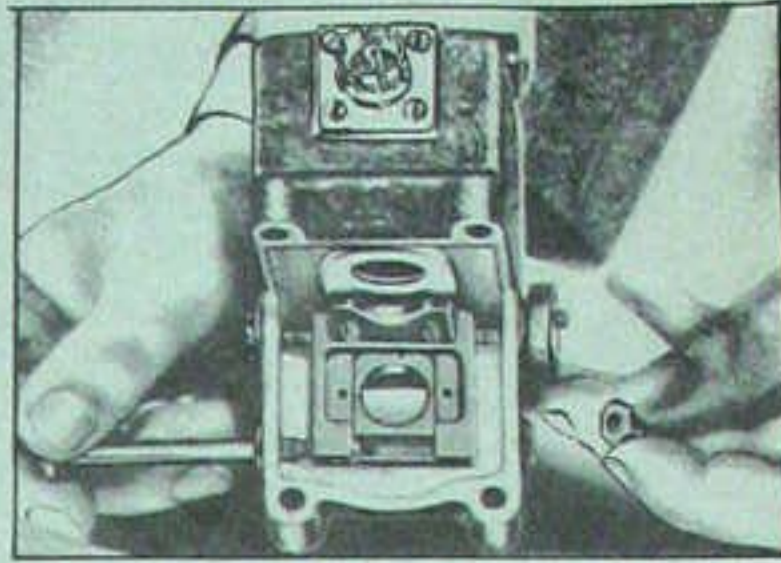


FIGURE 7.

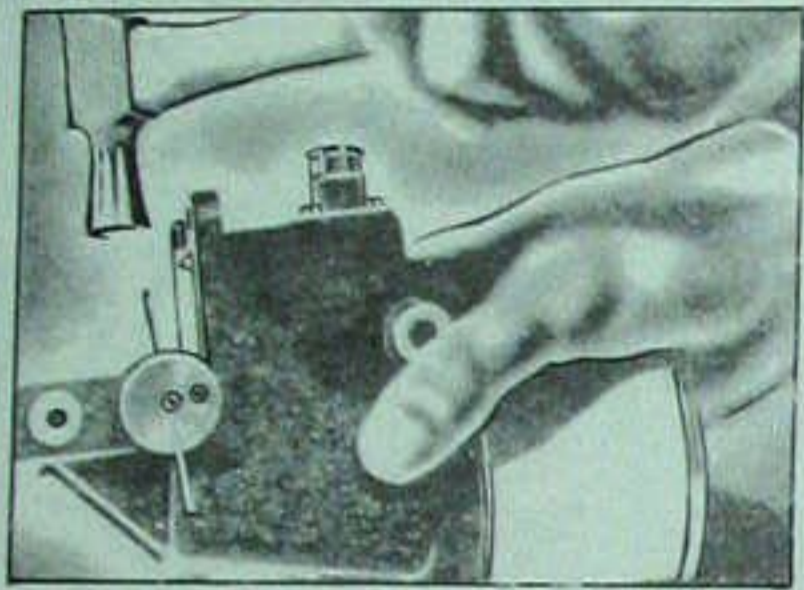


FIGURE 8.

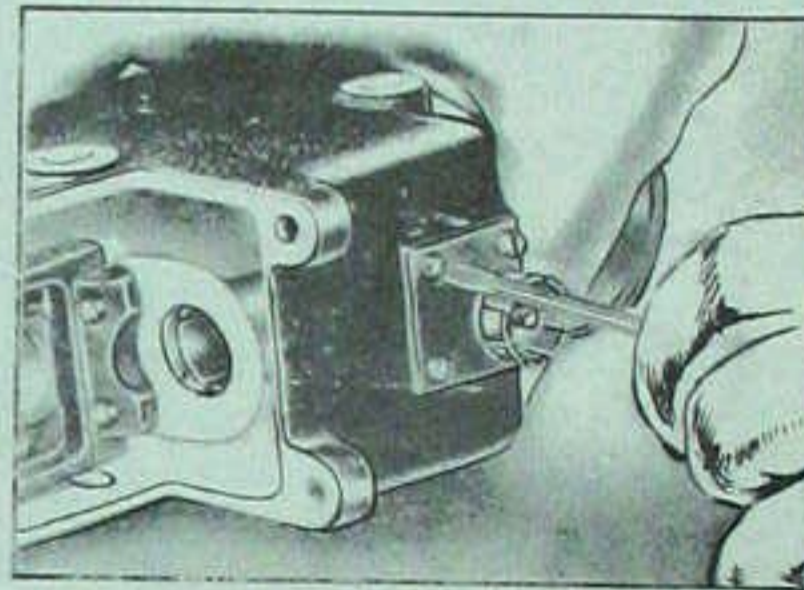


FIGURE 9.

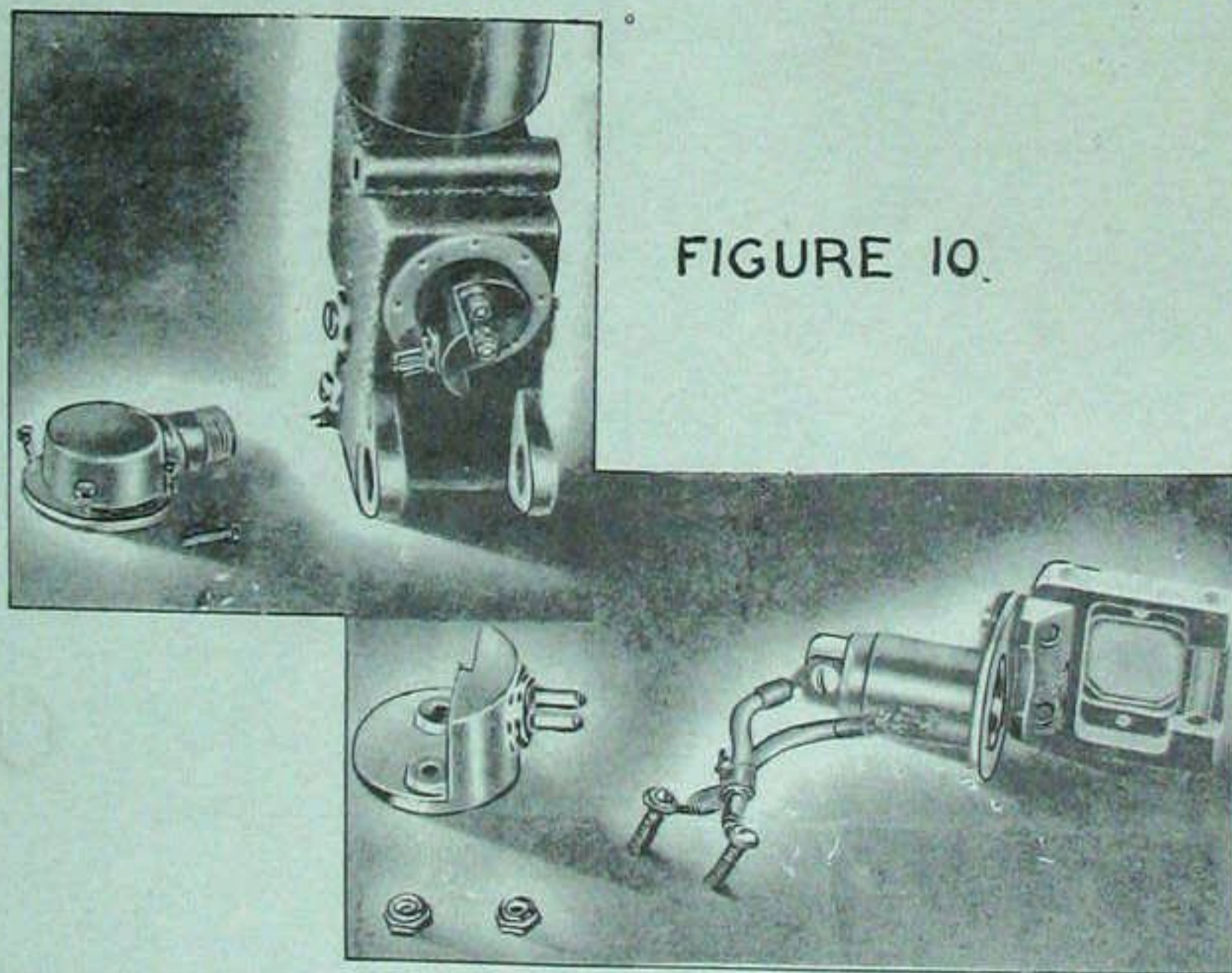


FIGURE 10.

FIGURE 11.

GUN SIGHTS—INSTALLATION AND USE.

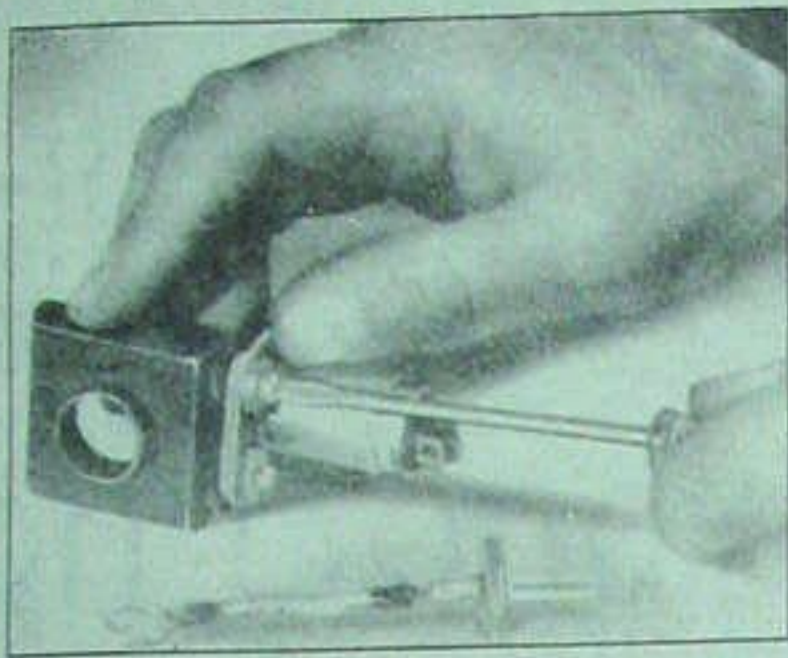


FIGURE 12



FIGURE 13.



FIGURE 14.



FIGURE 15.

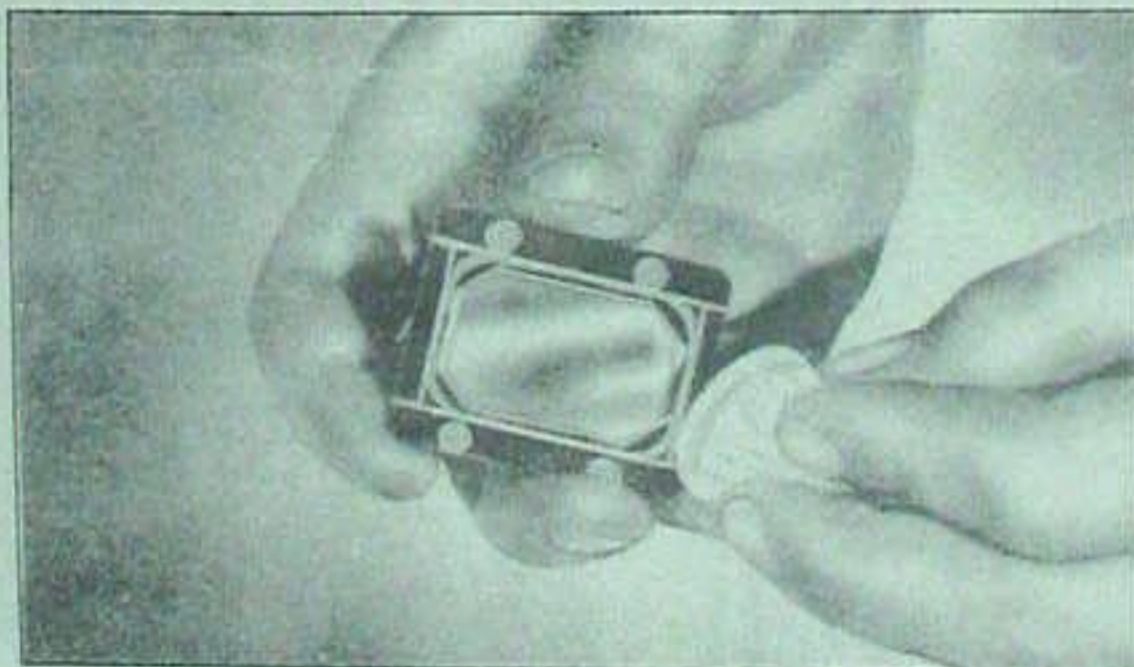


FIGURE 16.

GUN SIGHTS — INSTALLATION AND USE .

R.A.A.F NO. G 5403.

INSTRUMENT INSTRUCTION 8/3 VOL. 1.

SHEET NO. 3.