#### \*TM 9-1295

ORDNANCE MAINTENANCE
PISTOLS AND REVOLVERS

December 29, 1941.

proposed and

TECHNICAL MANUAL)
No. 9-1295

WAR DEPARTMENT, Washington, December 29, 1941.

#### ORDNANCE MAINTENANCE

### PISTOLS AND REVOLVERS

## Prepared under direction of the Chief of Ordnance

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<sup>\*</sup>This pamphlet supersedes TR 1400-45A, Ordnance Maintenance Infantry and Aircraft Armament, December 13, 1927.



FIGURE 1 — AUTOMATIC PISTOL. CAL. .45. M1911. ASSEMBLED



FIGURE 2 - AUTOMATIC PISTOL, CAL. .45, M1911A1, ASSEMBLED



FIGURE 3 — COLT REVOLVER, CAL. .45, M1917 - LEFT SIDE VIEW

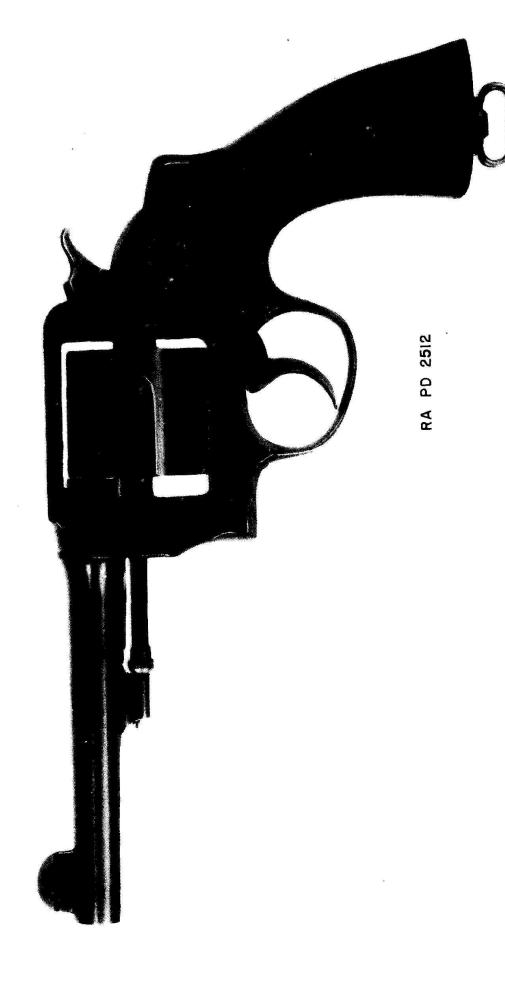


FIGURE 4 - SMITH & WESSON REVOLVER, CAL. .45, M1917 - LEFT SIDE VIEW

#### ORDNANCE MAINTENANCE

- 1. INTRODUCTION. This manual is published for the information and guidance of ordnance maintenance personnel. It contains instructions for inspection, disassembly, assembly, maintenance and repair of the automatic pistol, cal..45, M1911 and M1911A1; Colt revolver, cal..45, M1917; and Smith and Wesson revolver, cal..45, M1917, supplementary to the information contained in the references of paragraph 9. Additional descriptive matter and illustrations are included to aid in providing a complete working knowledge of the material.
- 2. DISTINGUISHING CHARACTERISTICS. The differences between the M1911 and M1911Al automatic pistols do not affect the maintenance of the weapons. Organizations called upon to repair M1911Al pistols will make reference to the automatic pistol, cal..45, M1911.
- 3. INSPECTION OF THE PISTOL. Parts to be inspected, Poin
  in order of inspection

Points to be observed

- $\underline{a}$ . The pistol as a unit.
- a. General appearance, action of slide, smoothness of operation, function of safety lock, grip safety, slide stop, and magagine catch. Alinement of sights, split stocks, missing stock screws. Trigger pull.
- b. Barrel bushing.
- c. Recoil spring.
- $\underline{d}$ . Main-spring housing.
  - e. Sear spring.
  - f. Sear.
  - g. Hammer.
  - h. Disconnector.
  - i. Trigger.
  - j. Receiver.
  - k. Slide.
  - 1. Firing pin.

- b. Burrs.
- c. Tension.
- $\underline{d}$ . Burrs, tension of main spring.
- $\underline{e}$ . Tension and broken leafs.
  - f. Worn nose.
- g. Worn sear notch, broken hammer strut.
  - h. Burred or worn.
  - 1. Burred or bent.
- j. Burrs, loose ejector.Defaced markings.
- $\underline{k}$ . Burrs on recoil guideways and locking recesses.
  - 1. Short or worn.

Parts to be inspected, in order of inspection

- m. Firing-pin spring.
- Extractor. n.
- Barrel. 0.

Points to be observed

- m. Tension.
- Broken claw, weak. n.
- If the barrel is free 0. from pits and bulges, and lands are sharp and distinct, it is serviceable. If the barrel is pitted but free from bulges and has sharp lands, it is still serviceable and will be sufficiently accurate. This condition, however, implies that the barrel has not been given proper care. If the lands are pitted and have lost their sharpness, the barrel will be inaccurate and should be replaced. This condition is always due to neglect. If the lands are worn down, due to extensive firing, and therefore are no longer sharp, pits are to be expected as they are characteristic of a worn-out barrel which should be replaced. If the barrel has a bulge discernible to the eye when sighted through at a string held 2 or 3 feet in front of the barrel, even though otherwise in good condition, it Burrs on should be replaced. muzzle.
- The magazine as р. a unit.
  - Magazine spring. q.

  - Magazine follower. r.
  - INSPECTION OF THE SMITH AND WESSON REVOLVER, M1917. -4.

Parts to be inspected, in order of inspection

The Smith & Wesson revolver as a unit.

Burrs and dents. р.

- Kinks and tension. q.
- r. Burrs.

Points to be observed

General appearance, a. smoothness of operation. Func-

#### ORDNANCE MAINTENANCE

Parts to be inspected, in order of inspection

Points to be observed tion by snapping hammer. Missing side plate screws. Examine frame carefully for cracks where barrel is screwed into frame. Defaced, markings.

- b. Thumb piece.
- Function, missing nut, **b** . burrs.

Crane. C.

- Burrs, alinement. Number on crane should correspond with number on frame.
- Cylinder. d.
- Burrs, rust, powder d. fouling, and pits.
- Ejector. е.

- Burrs and alinement. e.
- ſ. Ejector spring.
- ſ. Tension.

- Center rod. g.
- Function and tension g. of spring.

h. Hammer.

- Smoothness of operation. Broken firing pin. Loose firing pin, rivet.
- <u>i</u>. Cylinder bolt.
- i. Function, tension of (Cylinder bolt should spring. hold cylinder firmly in place when hammer is down, also when hammer is cocked.)

j. Stocks.

- Cracks, loose stock j. screw.
- k. Front sight.

Burrs and alinement. k.

Barrel. l.

Looseness in frame.

(see par. 3 o.)

5. INSPECTION OF THE COLT REVOLVER, M1917. -Parts to be inspected, in order of inspection

The Colt revolver a. as a unit.

Points to be observed

General appearance. smoothness of operation, missing side plate screws. Look carefully for cracks in frame where barrel is screwed in. Missing or burred crane lock and screw. Defaced markings.

| Parts to   | be inspected,   |   |
|------------|-----------------|---|
| in order   | of inspection   | Points to be observed                             |
| <u>b</u> . | Latch           | $\underline{b}$ . Smoothness of opera-            |
|            |                 | tion. Tension of latch spring.                    |
| <u>c</u> . | Crane.          | $\underline{\mathbf{c}}$ . Burrs, alinement. Num- |
|            |                 | ber of crane should correspond                    |
|            |                 | with number on frame.                             |
| <u>d</u> . | Cylinder.       | <u>d</u> . Burrs, rust, powder                    |
|            |                 | fouling, and pits.                                |
| <u>e</u> . | Ejector.        | $\underline{e}$ . Burrs and alinement.            |
| <u>f</u> . | Ejector spring. | f. Tension.                                       |
| g.         | Hammer.         | g. Smoothness of opera-                           |
| _          |                 | tion. Broken firing pin.                          |
| <u>h</u> . | Cylinder bolt.  | $\underline{\mathbf{h}}$ . Function. Tension of   |
|            |                 | spring. (Cylinder bolt should                     |
|            |                 | hold cylinder firmly in place                     |
|            |                 | when hammer is down, also when                    |
|            |                 | hammer is cocked.)                                |
| <u>i</u> . | Stocks.         | 1. Cracks, loose stock                            |
|            |                 | screw.  |
| 1.         | Front sight.    | <ol> <li>Burrs and alinement.</li> </ol>          |
| <u>k</u> . | Barrel.         | $\underline{\mathbf{k}}$ . Looseness in frame.    |
|            |                 | (see par. 3 <u>o</u> .)                           |

- 6. INSPECTION REPORT. The procedure to be followed relating to inspection and maintenance is contained in TM 9-1100, "Ordnance Maintenance Procedure -- Materiel Inspection and Repair."
- $\underline{a}$ . In the absence of a prescribed inspection form covering pistols and revolvers, reports of inspection may be submitted on an improvised form showing a heading and form approximately as follows:

#### ORDNANCE MAINTENANCE

Report of Inspection of Ordnance Materiel

| (0     | rganization) | (Station)               |
|--------|--------------|-------------------------|
| (      | Name of arm) | (Date)                  |
| Serial |              | Corrective action to    |
| No.    | Condition    | be taken                |
| 6784   | O.K          |                         |
| 26763  | Worn barrel  | Exchange with Post 0.0. |
| 11212  | Rusty barrel | Clean locally.          |

(Inspector)

- <u>b</u>. This form is used by the corps area or division small-arms inspector in submitting reports upon the completion of inspections, and by organization commanders in reporting upon the completion of the "Corrective action" noted by the inspector. Four copies are made and distributed as follows: One copy to the corps area, division, or other ordnance officer under whose supervision the inspection is made, two copies to the organization commander responsible for the firearms inspected, and one copy retained for the inspector's files.
- The inspector will fill in the name of the firearm c. inspected, its serial number, condition, and corrective action to be taken. Where necessary corrections can be made within the organization, the inspector will consult with and advise the organization commander as to the proper methods to be followed. Where the corrections to be made are extensive, complicated, or of a technical nature, the inspector will so indicate in column under heading "Corrective action to be taken" and note that the firearm be sent to the post, camp, station, or field depot for replacement. The inspector's report will be quoted as authority for making the exchange. Should the inspection disclose that the firearm has been damaged or rendered unserviceable through causes other than fair wear and tear, the inspector will so state in the inspection report in order that necessary action may be instituted to place responsibility should his opinion be

sustained. After the corrections, as indicated by the inspector in column under heading "Corrective action to be taken" have been completed, the organization commander will forward one copy of the inspection report to the corps area, division, or other ordnance officer under whose supervision the inspection was made. One copy will be retained for the organization files.

- 7. GENERAL INSTRUCTIONS FOR MAINTENANCE.  $\underline{a}$ . Maintenance of the pistol and revolver consists primarily of replacement of worn or broken parts. Detailed instructions for disassembly and assembly are not given here, as the instructions contained in the references are applicable and should be referred to.
- $\underline{b}$ . Where parts or assemblies, or parts of assemblies, are broken or worn so as to render them unserviceable, they must be replaced from stock. Often only parts of the assembly will be worn or broken. Should it take more time to remove serviceable parts from the assembly than the parts are worth, the assembly should be scrapped.
- $\underline{c}$ . In quantity overhauling of pistols and revolvers, care should be taken in disassembling that the parts of each be kept separate. Certain parts of the revolver, such as the crane, side plate, etc., are not interchangeable.
- $\underline{d}$ . Where there are burrs on cams and smooth surfaces, the part can be made serviceable by removing the burrs. In removing burrs a very fine file is used, care being taken to remove as small amount of metal as possible. Where roughened surfaces are present on moving parts, an oil stone should be used.

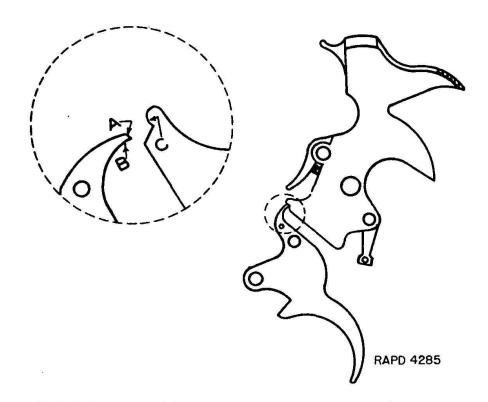


FIGURE 5 - HAMMER AND TRIGGER MECHANISM, COLT REVOLVER, CAL. .45, M1917

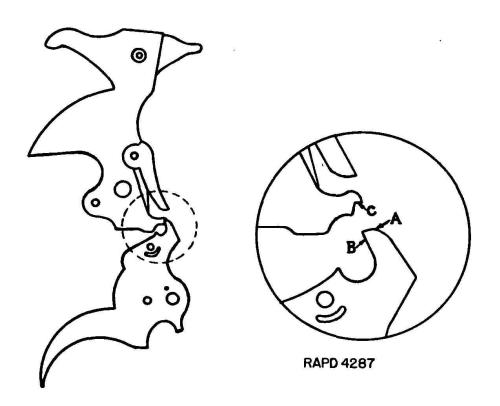


FIGURE 6 - HAMMER AND TRIGGER MECHANISM, SMITH & WESSON REVOLVER, CAL. .45, M1917

- 8. INSTRUCTIONS FOR REPAIR OF PARTS. a. Trigger pull. The trigger pull in single action should be between 5 and 6-1/2 pounds. A weak trigger pull is one which requires less than 5 pounds pressure on the trigger to release the hammer. A heavy trigger pull is one which requires more than 6-1/2 pounds on the trigger to release the hammer (single action).
- (1) To correct weak trigger pull (Colt). Weak trigger pull may be caused by a weak main spring, worn trigger, worn cock notch on the handle, or a combination of all three. To correct this condition, first stone the rear of the trigger and cock notch on the handle to correct relation. Polish surfaces "A" and "B" on the trigger and "C" on the hammer as shown in figure 5. Should this fail to produce the desired result, replacement of the main spring is necessary.
- To correct weak trigger pull (Smith & Wesson). First check the condition of the springs. Loosen the main spring strain screw until the main spring becomes loose in its seat in the frame. If serviceable, the main spring should become almost perfectly straight when all strain is relieved. If the main spring remains curved, considerably, a new spring should be installed. This will increase the trigger pull slightly. The rebound slide spring may be considered serviceable if it snaps the trigger forward smartly when pressed to the rear and released. Wear of the surface on the rear of the trigger and cock notch on the lower front projection of the hammer may cause a weak trigger pull. Such surfaces can be restored to their original shape by careful use of a fine file and polishing with a fine stone, provided the wear is not excessive. As shown in figure 6, polish surfaces "A" and "B" on the trigger and surface "C" on the hammer with a fine stone, being careful to remove as small amount of metal as necessary.
- (3) To correct heavy trigger pull. Heavy trigger pull is usually caused by dry, roughened surfaces or binding of the parts due to burrs or fouling. Polish the various surfaces with a fine stone and correctly lubricate the parts to remedy this condition.

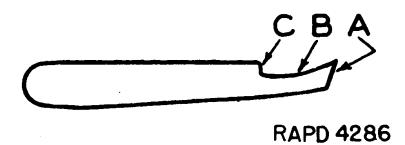


FIGURE 7 — HAND, COLT REVOLVER, CAL. .45, M1917

- <u>b.</u> <u>Hand (Colt).</u> To fit a new hand, it is sometimes necessary to stone the top surface "A" (fig. 7). Install the hand, and slowly cock the hammer, observing surfaces "B" and "C" (fig. 7). If surface "B" (fig. 7), does not clear the ratchet, the necessary clearance should be obtained by filing or stoning the surface. Surface "C" (fig. 7), if necessary, can be lowered by filing and stoning so that it will engage the lower side of its respective flange of the ratchet and continue the rotation of the cylinder. When the cylinder is stopped by the cylinder bolt, surface "C" (fig. 7), should be resting firmly underneath its flange of the ratchet.
- c. Ejector. To assemble a new ejector (with ratchet), first unscrew the old one from the ejector rod. Screw the new ejector on the rod until the end of the rod is approximately flush with the surface in the bored end of the latch pin seat in the ratchet. Aline the ejector so it will seat properly in the cylinder. Upset the rear end of the ejector rod with a punch sufficiently to prevent the unscrewing of the ejector.
- $\underline{d}$ . Barrel. The barrel should be removed from the frame only for the purpose of tightening or replacement.
- (1) To tighten a loose barrel. First unscrew the barrel (in Smith & Wesson revolver, first remove the barrel pin before attempting to unscrew the barrel.) Clean the threads in the frame and on the barrel. Lightly peen the shoulder of the barrel which fits against the frame enough to tighten the barrel when it is screwed into its original position.
- (2) To replace the barrel. The replacement barrel should be selected so that a minimum amount of fitting is required to

obtain proper alinement. If necessary, a small amount of metal may be removed from the shoulder of the barrel with a fine file or by lathe to draw it up to alinement. When replacing the barrel, if necessary the rear end should be stoned to obtain the proper clearance between the rear end of the barrel and the front end of the cylinder. This clearance should be between .002 in. and .006 in.

- e. Rotational play in the cylinder (Smith & Wesson). The slight rotational play in the cylinder which develops after considerable firing is caused by wear of the cylinder bolt, and wear or increase in width of the latching notches around the rear of the cylinder. Replacement of the cylinder bolt will reduce this play. The latching notches may be reshaped by lightly peening the contact side. This peening must be limited to replacement of the metal pushed out to the side.
- f. Crane (Smith & Wesson). Replacement of the crane is seldom necessary. Burrs which might interfere with the latching of the cylinders in the firing position should be removed from the edges of the crane and the frame by stoning. If a new crane is to be fitted, considerable stoning is usually necessary on the surface of the crane which fits against the frame, to line up the cylinder with the bore.

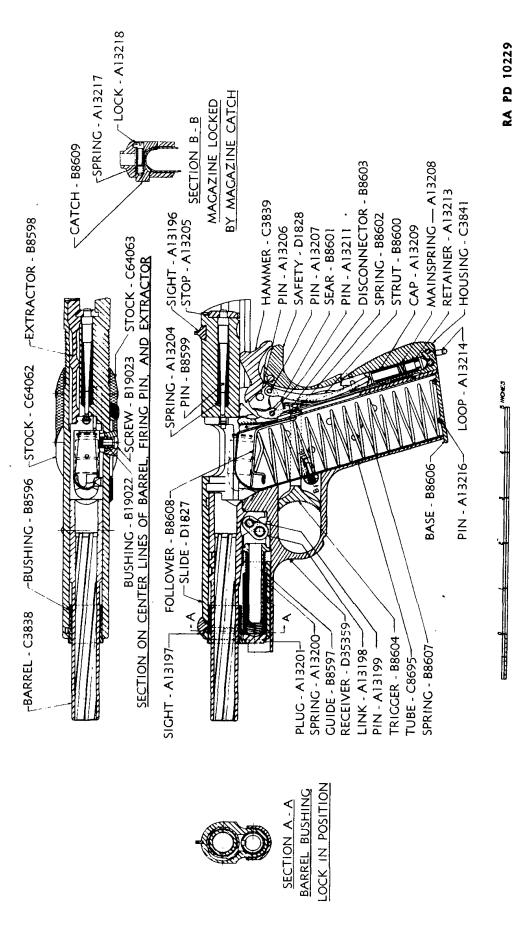
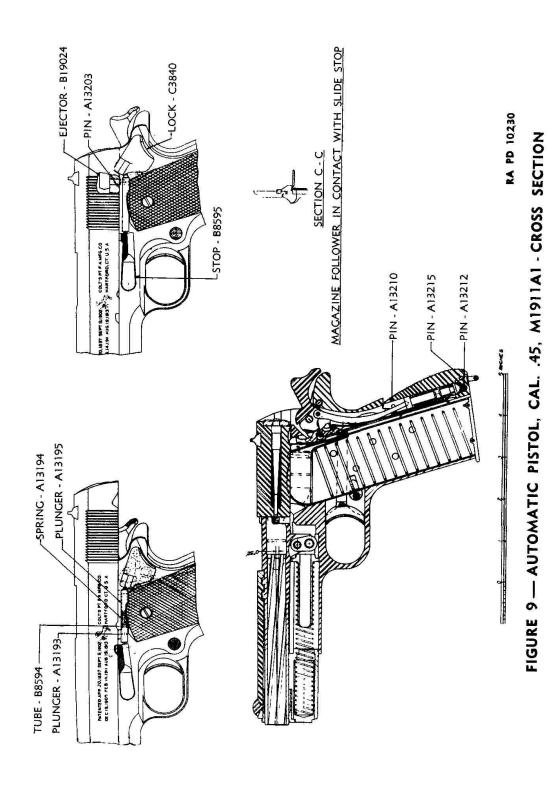


FIGURE 8 — AUTOMATIC PISTOL, CAL. .45, M1911A1 - CROSS SECTION



- 17 - (TM 9-1295)

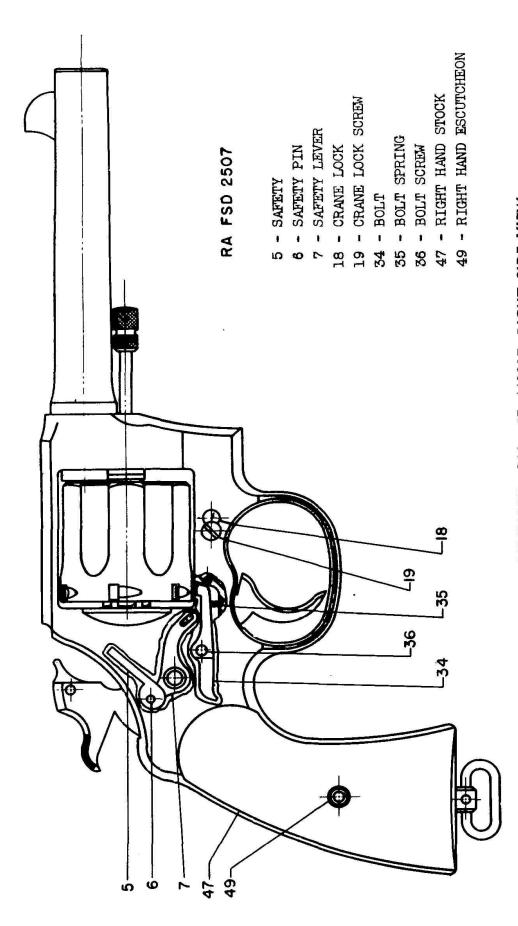
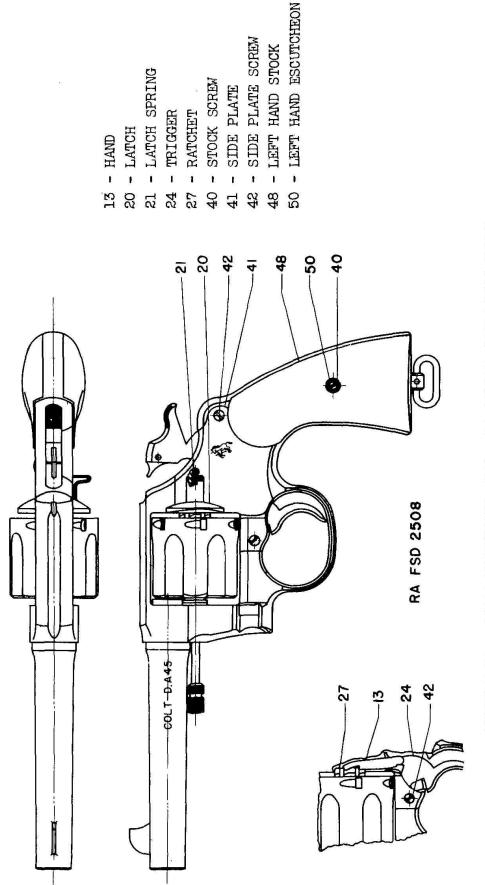


FIGURE 10 - COLT, REVOLVER, CAL. .45, M1917 - RIGHT SIDE VIEW



SIDE PLATE SCREW

- SIDE PLATE

FIGURE 11 - COLT, REVOLVER, CAL. .45, M1917 - LEFT SIDE VIEW

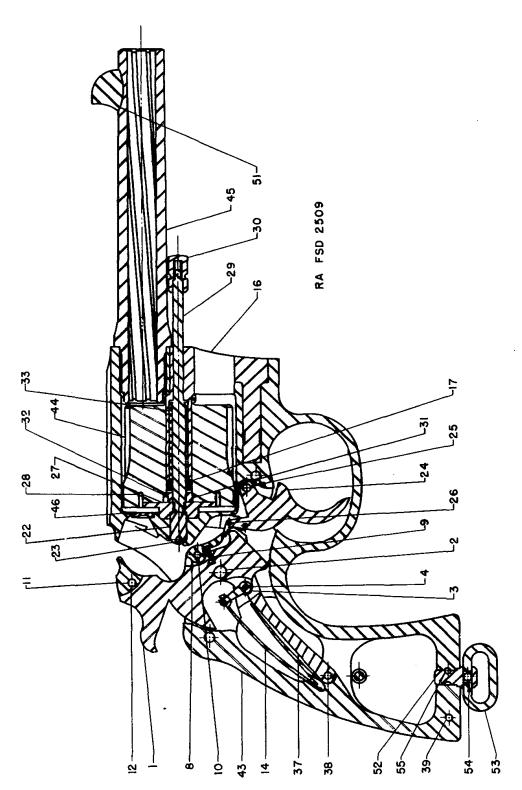


FIGURE 12 -- COLT, REVOLVER, CAL. .45, M1917 - SECTIONAL VIEW

# FIGURE 12

| 43 - FRAME       | 44 - CYLINDER    | 45 - BARREL           | 46 - RECOIL PLATE              | 51 - FRONT SIGHT BLOCK             | 52 - SWIVEL STUD    | 53 - SWIVEL RING   | 54 - SWIVEL RIVET           | 55 - STUD RIVET       |
|------------------|------------------|-----------------------|--------------------------------|------------------------------------|---------------------|--------------------|-----------------------------|-----------------------|
| 43               | 44               | 45                    | 46                             | 21                                 | 52                  | 22                 | 52                          | 52                    |
| 28 - RATCHET PIN | 29 - EJECTOR ROD | 30 - EJECTOR ROD HEAD | 31 - EJECTOR ROD GUIDE BUSHING | 32 - EJECTOR ROD GUIDE BUSHING PIN | 33 - EJECTOR SPRING | 37 - REBOUND LEVER | 38 - REBOUND LEVER PIN      | 39 - STOCK PIN        |
| 14 - MAINSPRING  | 16 - CRANE       | 17 - CRANE BUSHING    | 22 - LATCH PIN                 | 23 - LATCH PIN STUD                | 24 - TRIGGER        | 25 - TRIGGER PIN   | 26 - TRIGGER AND SAFETY PIN | 27 - RAICHET          |
| 1 - HAMMER       | 2 - HAMMER PIN   | 3 - HAMMER STIRRUP    | 4 - HAMMER STIRRUP PIN         | 8 - STRUT                          | 9 - STRUT SPRING    | 10 - STRUT PIN     | 11 - FIRING PIN             | 12 - FIRING PIN RIVET |



FIGURE 13 - COLT, REVOLVER, CAL. .45, M1917 - PARTS

FIGURE 14 -- COLT, REVOLVER, CAL. .45, M1917 - PARTS

RA PD 2511

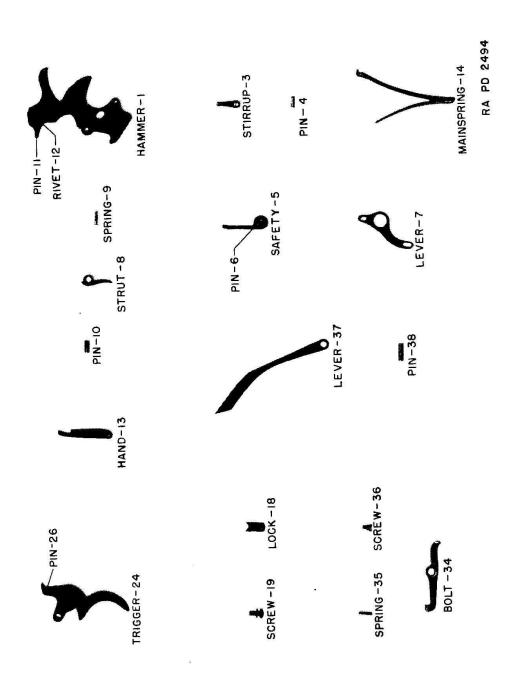
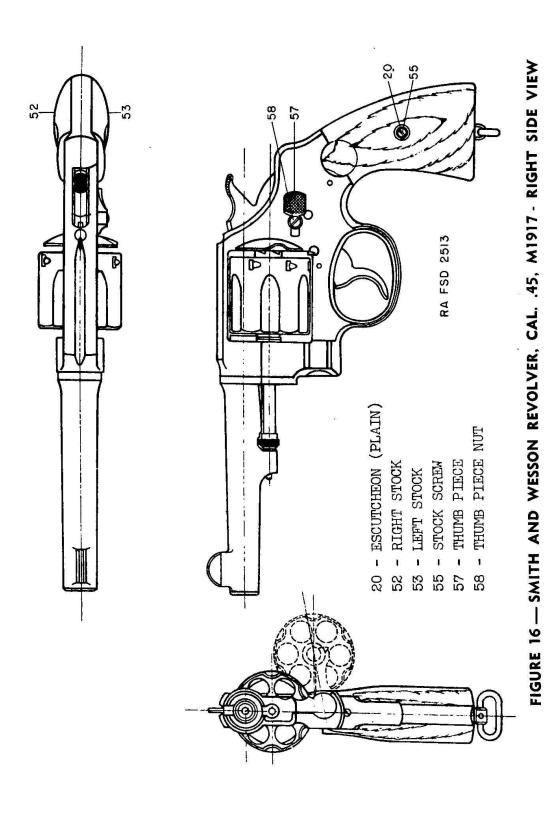
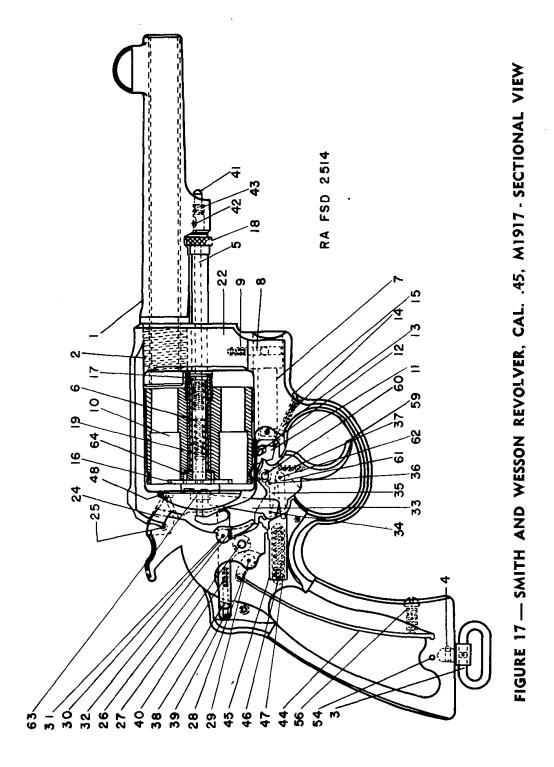


FIGURE 15 -- COLT, REVOLVER, CAL. .45, M1917 - PARTS



- 25 - (TM 9-1295)



- 26 -

|     | 1 - BARREL                        | 15 - CYLINDER BOLT PLUNGER SCREW 31 - HAMMER STRUT PIN | 31 - HAMMER STRUT PIN                        | 44 - MAINSPRING              |
|-----|-----------------------------------|--|--|------------------------------|
|     | 2 - BARREL PIN                    | 16 - EJECTOR   | 32 - HAMMER STRUT SPRING                     | 45 - REBOUND SLIDE           |
|     | 3 - BUTT SWIVEL ASSEMBLY          | 17 - EJECTOR COLLAR                                    | 33 - HAND                                    | 46 - REBOUND SLIDE PIN       |
|     | 4 - Butt Swivel Pin               | 18 - EJECTOR PLUNGER                                   | 34 - HAND PIN                                | 47 - REBOUND SLIDE SPRING    |
|     | 5 - Center Rod                    | 19 - EJECTOR SPRING                                    | 35 - HAND LEVER                              | 48 - RECOIL PLATE            |
| . 2 | 6 - CENTER ROD SPRING             | 22 - FRAME   | 36 - HAND LEVER PIN                          | 54 - STOCK PIN               |
| 7   | 7 - CRANE                         | 24 - FIRING PIN  | 37 - HAND LEVER SPRING                       | 56 - STRAIN SCREW            |
| _   | 8 - CRANE STOP PIN                | 25 - FIRING PIN RIVET                                  | 38 - LATCH                                   | 59 - TRIGGER                 |
| (   | 9 - CRANE STOP SPRING             | 26 - HAMMER  | 39 - LATCH PLUNGER                           | 60 - TRIGGER PIN             |
| (TM | 10 - CYLINDER                     | 27 - HAMMER PIN  | 40 - LATCH PLUNGER SPRING 61 - TRIGGER LEVER | 61 - TRIGGER LEVER           |
| 19  | 11 - CYLINDER BOLT                | 28 - HAMMER STIRRUP                                    | 41 - LOCKING BOLT                            | 62 - TRIGGER LEVER PIN       |
| -1. | 12 - CYLINDER BOLT PIN            | 29 - HAMMER STIRRUP PIN                                | 42 - LOCKING BOLT PIN                        | 63 - CENTER ROD BUSHING      |
| 298 | 13 - CYLINDER BOLT PLUNGER        | 30 - Hammer Strut                                      | 47 - LUCKING BOLT SPRING                     | 64 - EJECTOR POSITIONING PIN |
| 5)  | 14 - CYLINDER BOLT PLUNGER SPRING |  |  |                              |

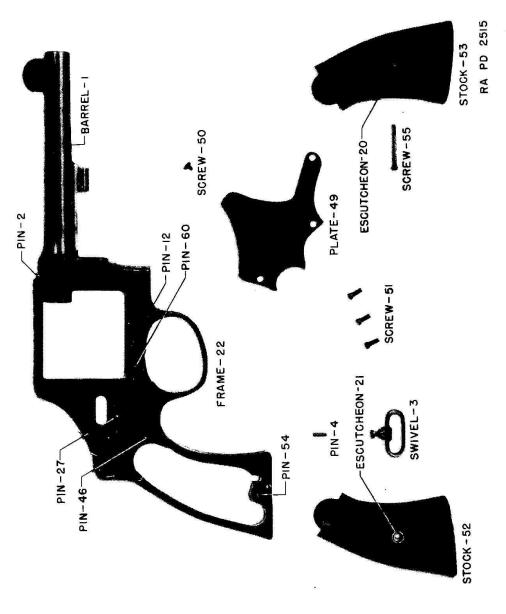


FIGURE 18 — SMITH AND WESSON REVOLVER, CAL. .45, M1917 - PARTS

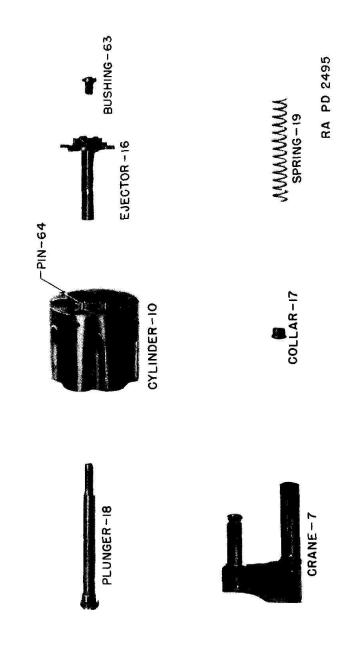


FIGURE 19 - SMITH AND WESSON REVOLVER, CAL. .45, M1917 - PARTS

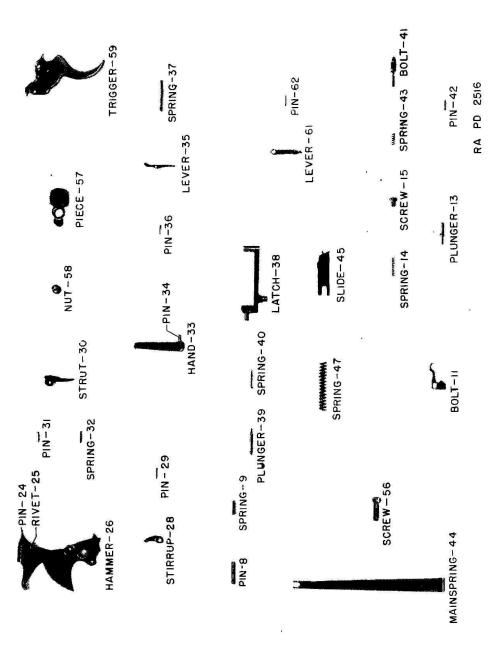


FIGURE 20 - SMITH AND WESSON REVOLVER, CAL. .45, M1917 - PARTS

| 9. LIST OF REFERENCES a. Standard Nomencla           | ture Lists |
|--|------------|
| Pistol, automatic, cal45, M1911 and M1911Al          | SNL B-6    |
| Revolver, Colt, cal45, M1917; Revolver,              |            |
| Smith and Wesson, M1917                              | SNL B-7    |
| Tools, special repair, small and hand arms, and      |            |
| pyrotechnic projectors                               | SNL B-20   |
| Truck, small arms, repair, Ml                        | SNL G-72   |
| Cleaning, preserving and lubricating materials,      |            |
| recoil fluids, special oils, and similar items       |            |
| of issue   | SNL K-1    |
| Soldering, brazing and welding materials, gases      |            |
| and related items                                    | SNL K-2    |
| Current Standard Nomenclature Lists are as tabulated |            |
| here. An up-to-date list of SNL's is maintained as   |            |
| the "Ordnance Publications for Supply Index"         | OPSI       |
| <u>b. Field Manuals</u>                              |            |
| Automatic pistol, cal45, M1911 and M1911Al           | FM 23-35   |
| Revolver, Colt, cal45, M1917, and revolver,          |            |
| Smith and Wesson, cal45, M1917                       | FM 23-36   |
| c. <u>Technical Manuals</u>                          |            |
| Cleaning and preserving materials                    | TM 9-850   |
| Materiel inspection and repair                       | TM 9-1100  |
| (AG 062.11 TM 9-1295 (12-8-41)PC-C)                  |            |
|  |            |

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Chief of Staff.

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