DEPARTMENT OF THE ARMY
TECHNICAL MANUAL

DEPARTMENT OF THE AIR
FORCE TECHNICAL ORDER

TM 9-2951-1
TO 11W3-3-3-42

FIELD MAINTENANCE
CAL. .45
AUTOMATIC PISTOLS
M1911 AND M1911A1

DEPARTMENTS OF THE ARMY AND THE AIR FORCE
JULY 1957

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DEPARTMENTS OF THE ARMY
AND THE AIR FORCE
WASHINGTON 25, D. C., *19 July 1957*

CAL. .45 AUTOMATIC PISTOLS M1911 AND M1911A1

***This manual supersedes so much of TM 9–1295, 8 September 1947, as pertains to ordnance field maintenance.**

CHAPTER 1
INTRODUCTION

Section I. GENERAL

1. Scope

a. This manual is published for the use of personnel responsible for field maintenance of this materiel (figs. 1 through 4). It contains information on maintenance which is beyond the scope of the tools, equipment, or supplies normally available to using organizations. This manual does not contain information which is intended primarily for the using organization, since such information is available to ordnance maintenance personnel in the pertinent operator's technical manuals or field manuals.

b. This manual contains a description of and procedures for removal, disassembly, inspection, repair, and assembly of the cal. .45 automatic pistols M1911 and M1911A1. The appendix contains a list of current references, including supply and technical manuals, and other available publications applicable to the materiel.

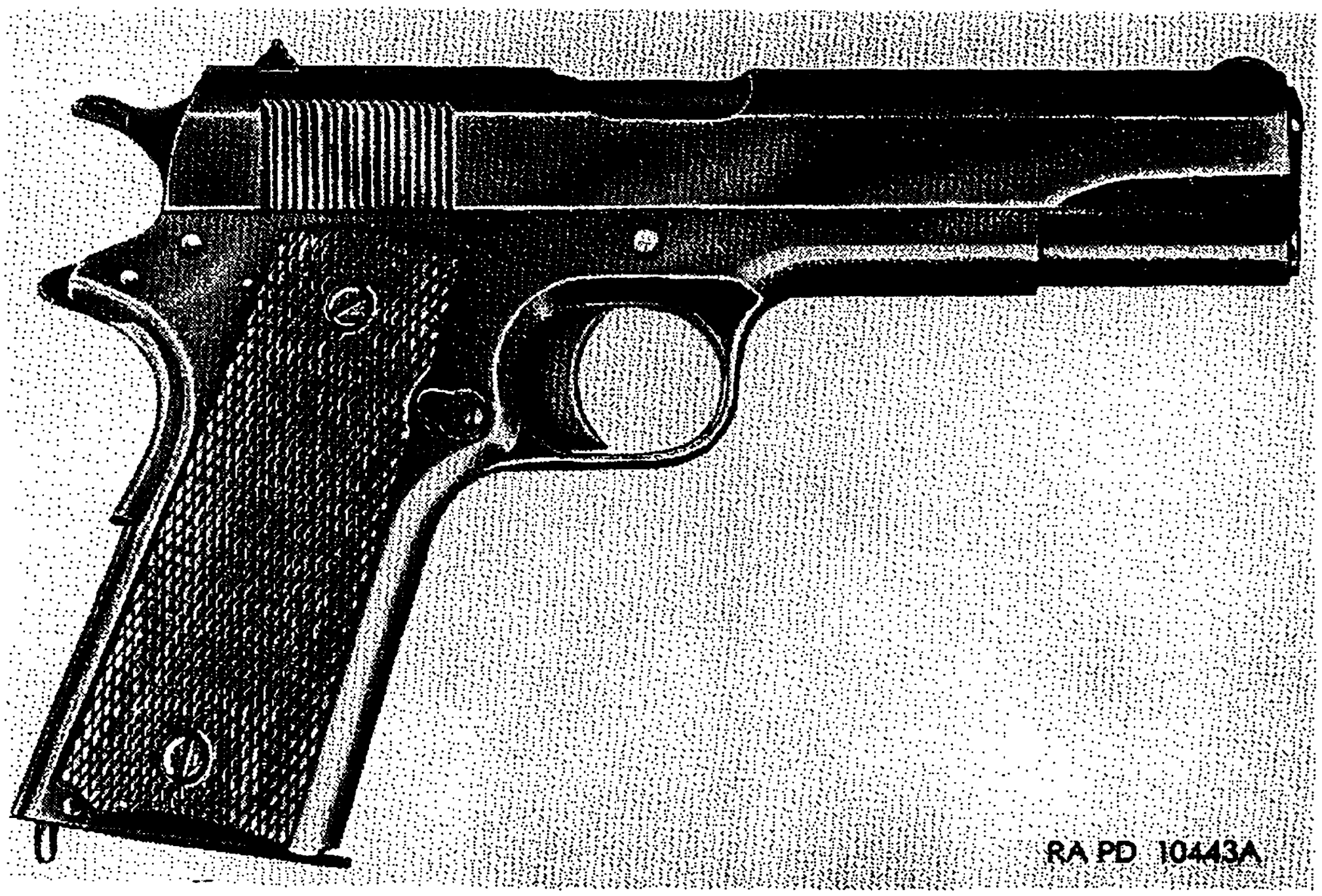


Figure 1. Cal. .45 automatic pistol M1911—right side view.

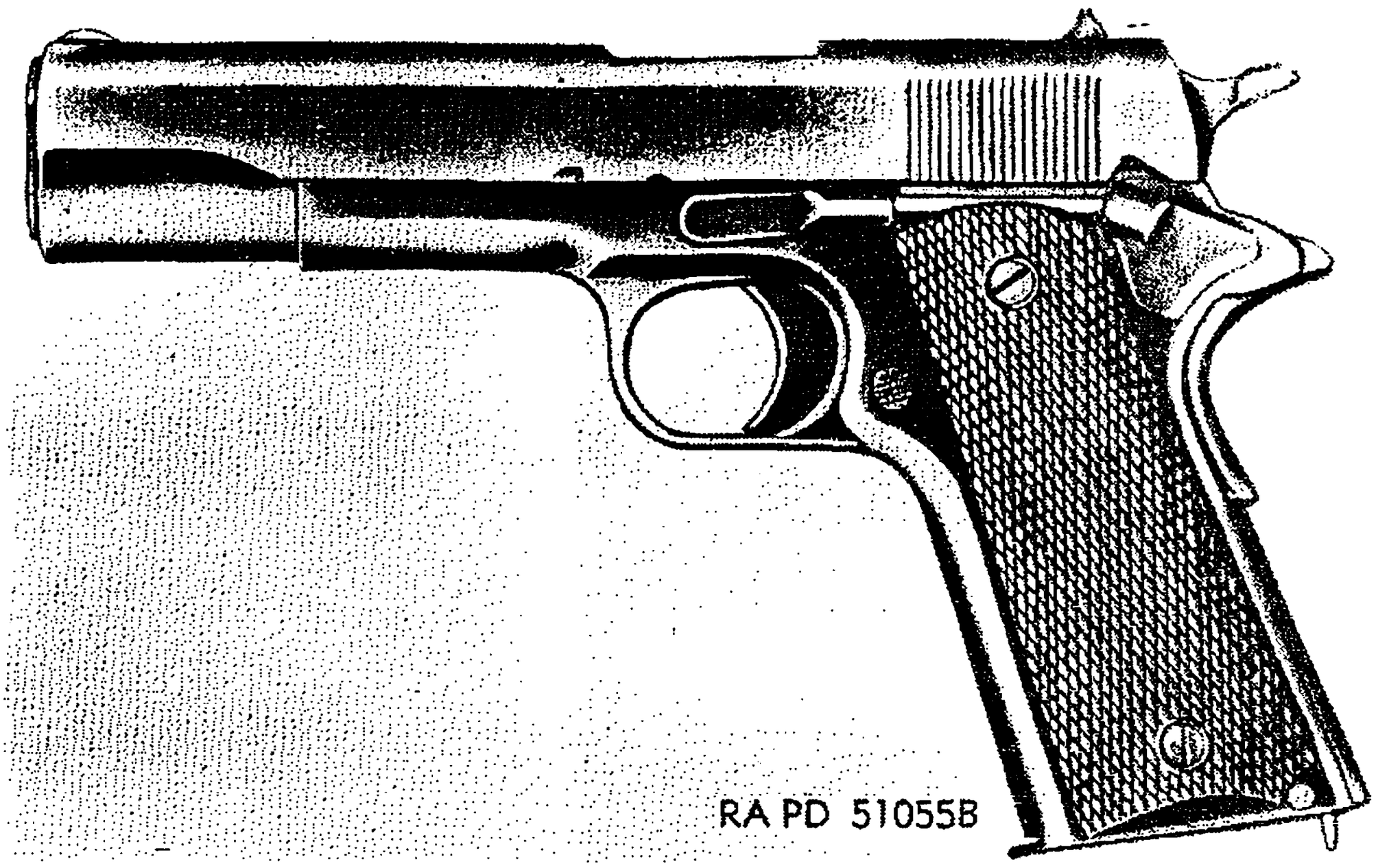


Figure 2. Cal. .45 automatic pistol M1911—left side view.

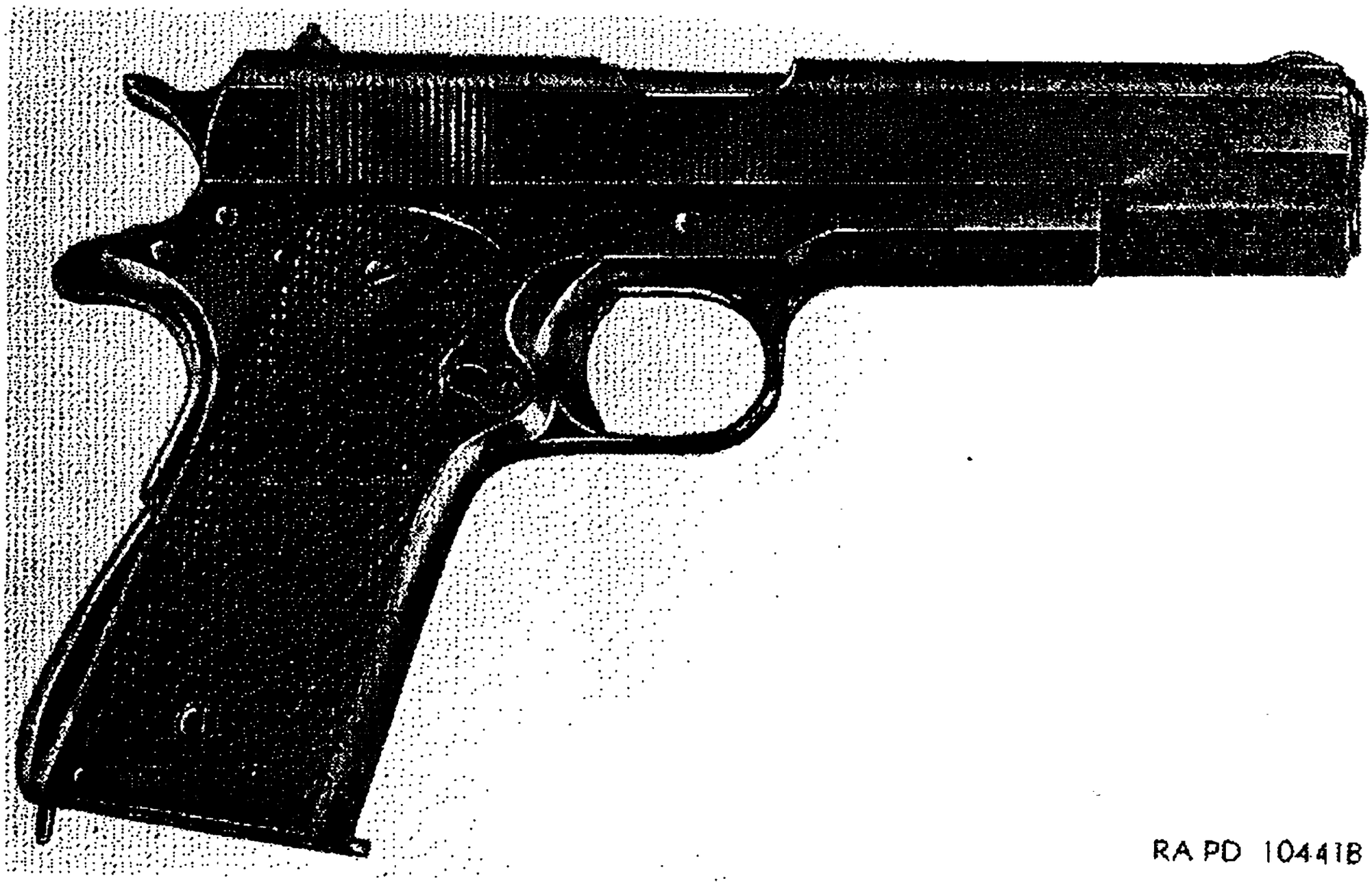


Figure 3. Cal. .45 automatic pistol M1911A1—right side view.

Figure 4. Cal. .45 automatic pistol M1911A1—left side view.

c. FM 23–35 contains operating and lubricating instructions for the materiel and contains all maintenance operations allocated to using organizations in performing maintenance work within their scope.

d. This manual differs from TM 9–1295, 8 September 1947, as follows:

(1) Adds information on—

(*a*) Inspections.

(*b*) Repair standards.

(2) Revises information on—

(*a*) Field maintenance allocations.

(*b*) Forms, records, and reports.

(*c*) Parts, special tools, and equipment for field maintenance.

(*d*) Repair of the weapon.

(3) Deletes information on depot maintenance.

2. Field Maintenance Allocation

In general, the prescribed maintenance responsibilities will apply as reflected in the allocation of maintenance parts listed in the appropriate columns of the current ORD 8 supply manuals pertaining to this weapon. Provisions of parts listed in the depot maintenance guide column of ORD 8 supply manuals will be made to field maintenance only when the maintenance to be performed has been certified by a responsible officer of the requisitioning organization.

3. Forms, Records, and Reports

a. General. Responsibility for the proper execution of forms, records, and reports rests upon the officers of all units maintaining this equip-

ment. However, the value of accurate records must be fully appreciated by all persons responsible for their compilation, maintenance, and use. Records, reports, and authorized forms are normally utilized to indicate the type, quantity, and condition of materiel to be inspected, repaired, or used in repair. Properly executed forms convey authorization and serve as records for repair or replacement of materiel in the hands of troops and for delivery of materiel requiring further repair to ordnance shops in arsenals, depots, etc. The forms, records, and reports establish the work required, the progress of the work within the shops, and the status of the materiel upon completion of its repair.

b. Authorized Forms. The forms generally applicable to units operating this materiel are listed in the appendix. For a listing of all forms, refer to DA Pam 310–2. For instructions on use of these forms, refer to FM 9–10.

c. Field Reports of Accidents.

(1) *Injury to personnel or damage to materiel.* The reports necessary to comply with the requirements of the Army safety program are prescribed in detail in SR 385–10–40. These reports are required whenever accidents involving injury to personnel or damage to materiel occur.

(2) *Ammunition.* Whenever an accident or malfunction involving the use of ammunition occurs, firing of the lot which malfunctions will be immediately discontinued. In addition to any applicable reports required in (1) above, details of the accident or malfunction will be reported as prescribed in SR 700–45–6.

d. Report of Unsatisfactory Equipment and Materials. Any deficiencies detected in the equipment covered herein which occur under the circumstances indicated in AR 700–38 should be reported immediately in accordance with the applicable instructions in those regulations.

Section II. DESCRIPTION AND DATA

4. Description

The cal. .45 automatic pistols M1911 and M1911A1 (figs. 1 through 4) are recoil-operated, magazine-fed, self-loading hand weapons. The barrel, firing pin, and recoil spring are located in the slide group which reciprocates in a groove along the upper portion of the receiver. The receiver acts as a housing for the hammer, hammer strut, safety tang, mainspring and mainspring housing, trigger, and other miscellaneous parts. The firing pin is of the inertia type and it is impossible for the firing pin to discharge or even touch the primer, except on receiving a blow from the hammer.

5. Differences Between Models

The pistol M1911A1 is a modification of the pistol M1911 but its operation is exactly the same; the differences do not affect maintenance. The modifications of the pistol M1911 which comprise the differences between the M1911 and the M1911A1 are described in *a* through *e* below.

a. The tang (fig. 5) of the grip safety is extended to provide better protection for the hand.

b. A clearance cut (fig. 5) is made on the receiver for the trigger finger.

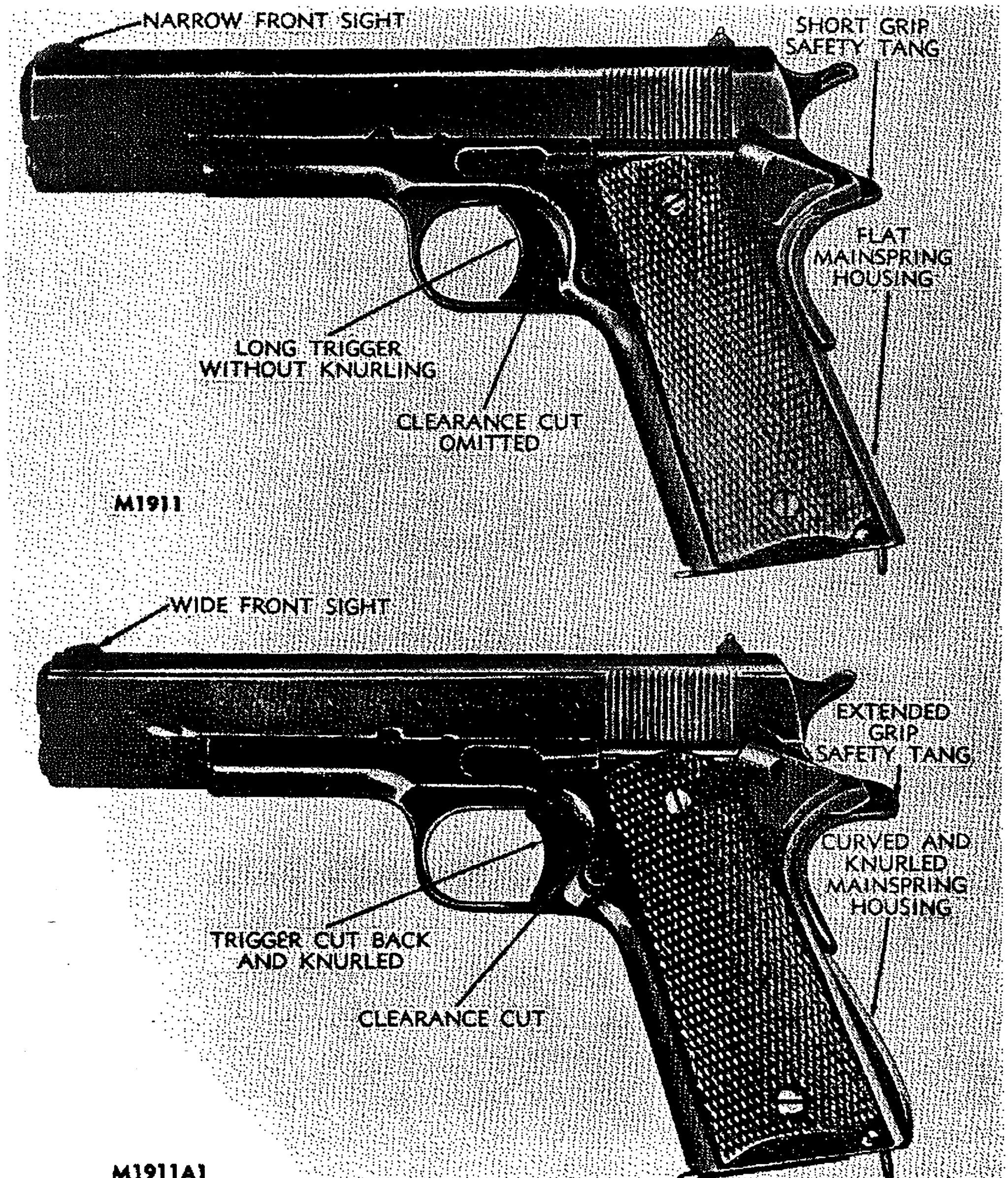


Figure 5. Pistols M1911 and M1911A1 showing exterior differences between models—left side view.

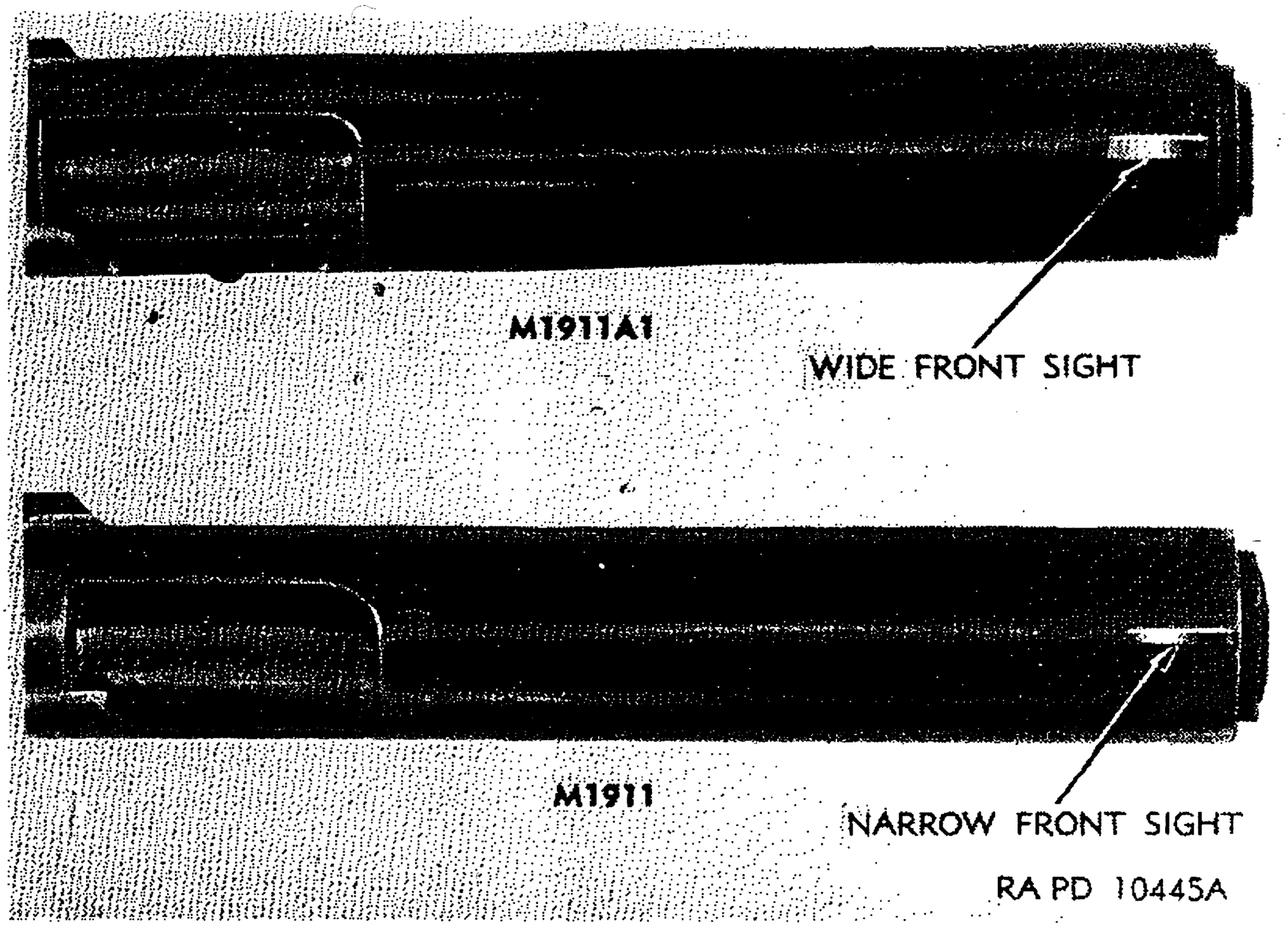


Figure 6. Pistols M1911 and M1911A1 showing differences in width of front sights—top view.

c. The face of the trigger is cut back and knurled (fig. 5).

d. The mainspring housing (fig. 5) is raised in the form of a curve to fit the palm of the hand and is knurled; it may or may not be fitted with a lanyard loop.

e. The top of the front sight is widened (fig. 6).

6. Tabulated Data

a. Weights.

Weight of pistol with magazine (empty)	2.437 lb
Weight of loaded magazine, with 7 rounds (aprx)	0.481 lb
Weight of empty magazine	0.156 lb

b. Trigger Pull.

Pistols, new or repaired	5½ to 6½ lb
Pistols, in the hands of using arm	5 to 6½ lb

c. Barrels.

Caliber of bore	0.45 in.
Number of grooves	6
Length of barrel	5.03 in.
Length of rifling	(min) 4.118 in.
Rifling, LH, one turn in	16 in.
Depth of grooves	0.003 in

d. Pistol, General.

Length (overall)	8⅝ in.
Cooling system	air
Height of front sight above axis of bore	0.5597 in.
Sight radius	6.481 in.
Muzzle velocity	830 fps
Maximum range	1,640 yd

e. Ballistics. For information concerning exterior ballistics, including accuracy, drift, velocity with striking energy, penetration, and trajectory flight of projectile, see FM 23–35.

CHAPTER 2

PARTS, SPECIAL TOOLS, AND EQUIPMENT FOR FIELD MAINTENANCE

7. General

Tools and equipment and maintenance parts over and above those available to the using organization are supplied to ordnance field maintenance units for maintaining and repairing the materiel.

8. Parts

Maintenance parts are listed in Department of the Army Supply Manual ORD 8 SNL B–6, which is the authority for requisitioning replacements.

9. Common Tools and Equipment

Standard and commonly used tools and equipment having general application to this materiel are listed in Department of the Army Supply Manuals 9–4–5180–J8–6 and ORD 6 SNL J–10, section 2, and are authorized for issue by TA and TOE.

10. Special Tools and Equipment

The special tools and equipment tabulated in table I are listed in Department of the Army Supply Manual ORD 6 SNL J–12. This tabulation contains only those special tools and equipment necessary to perform the operations described in this manual, is included for information only, and is not to be used as a basis for requisitions.

Table I. Special Tools and Equipment for Field Maintenance

Item	Identifying No.	References		Use
		Fig.	Par.	
BRUSH, cleaning, cal. .45, M5 (part of KIT, cleaning).	5504036	7	-------	Used to clean barrel.
CAN, br, diam 3 in., depth ⅞ in. (part of KIT, cleaning).	5564158	7	------	
KIT, cleaning, pistol, cal. .45, M1912, w/o contents.	7132889	8	-----	

Table I—Continued

Item	Identifying No.	References		Use
		Fig.	Par.	
OILER, flat, circular, br, w/ cap and chain, 2½-in. spout, 3-oz cap. (part of KIT, cleaning).	5564151	7	-------	
ROD, cleaning, cal. .45, M4 (part of KIT, cleaning).	5564102	7	-------	Used to hold cleaning brush when cleaning.
SCREWDRIVER, comb, pistol, lgh overall 3 in. (part of KIT, cleaning).	5564149	7, 27, 28.	39*c*, *d*	Used to disassemble and assemble the pistol.

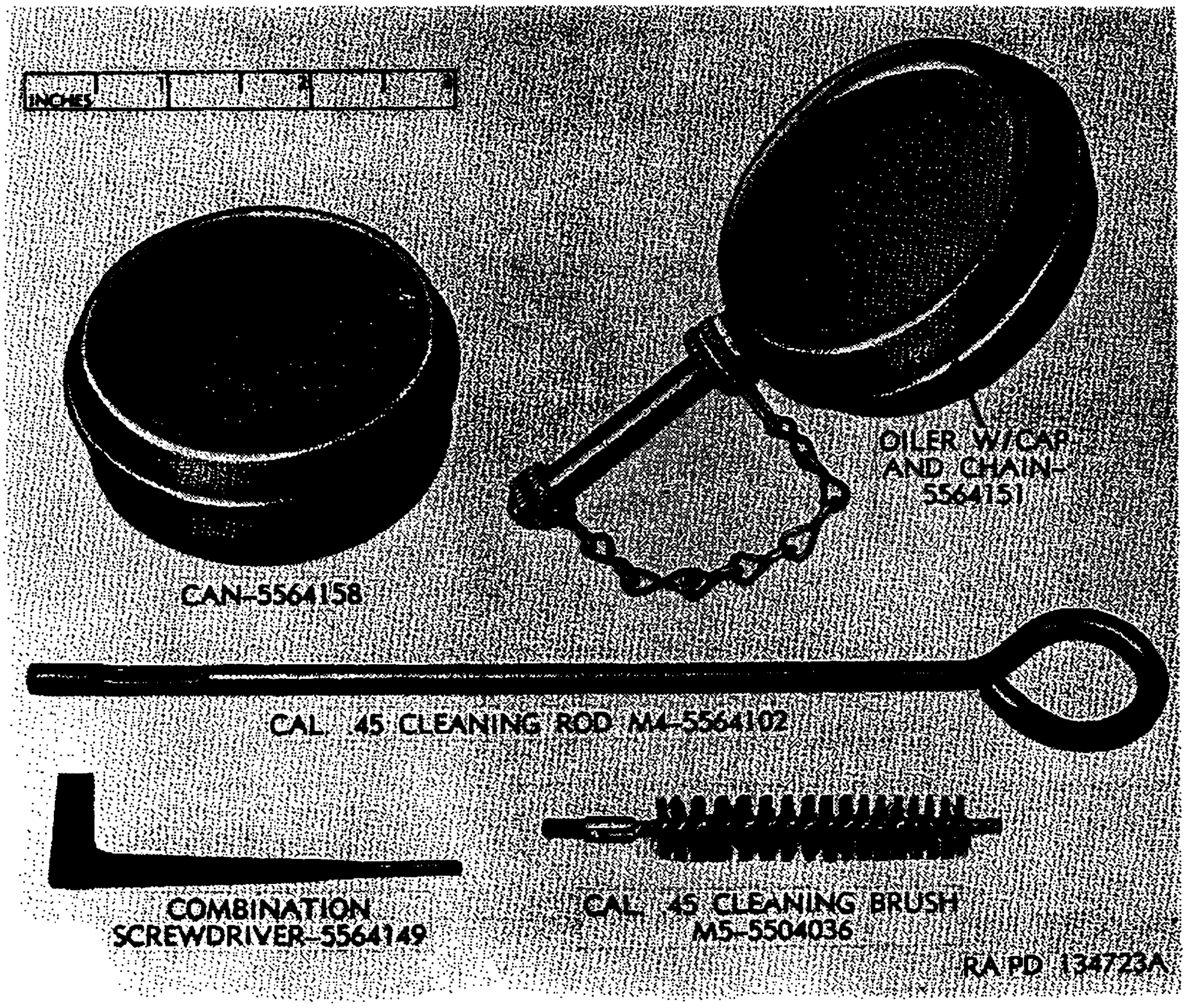


Figure 7. Special tools and equipment for field maintenance.

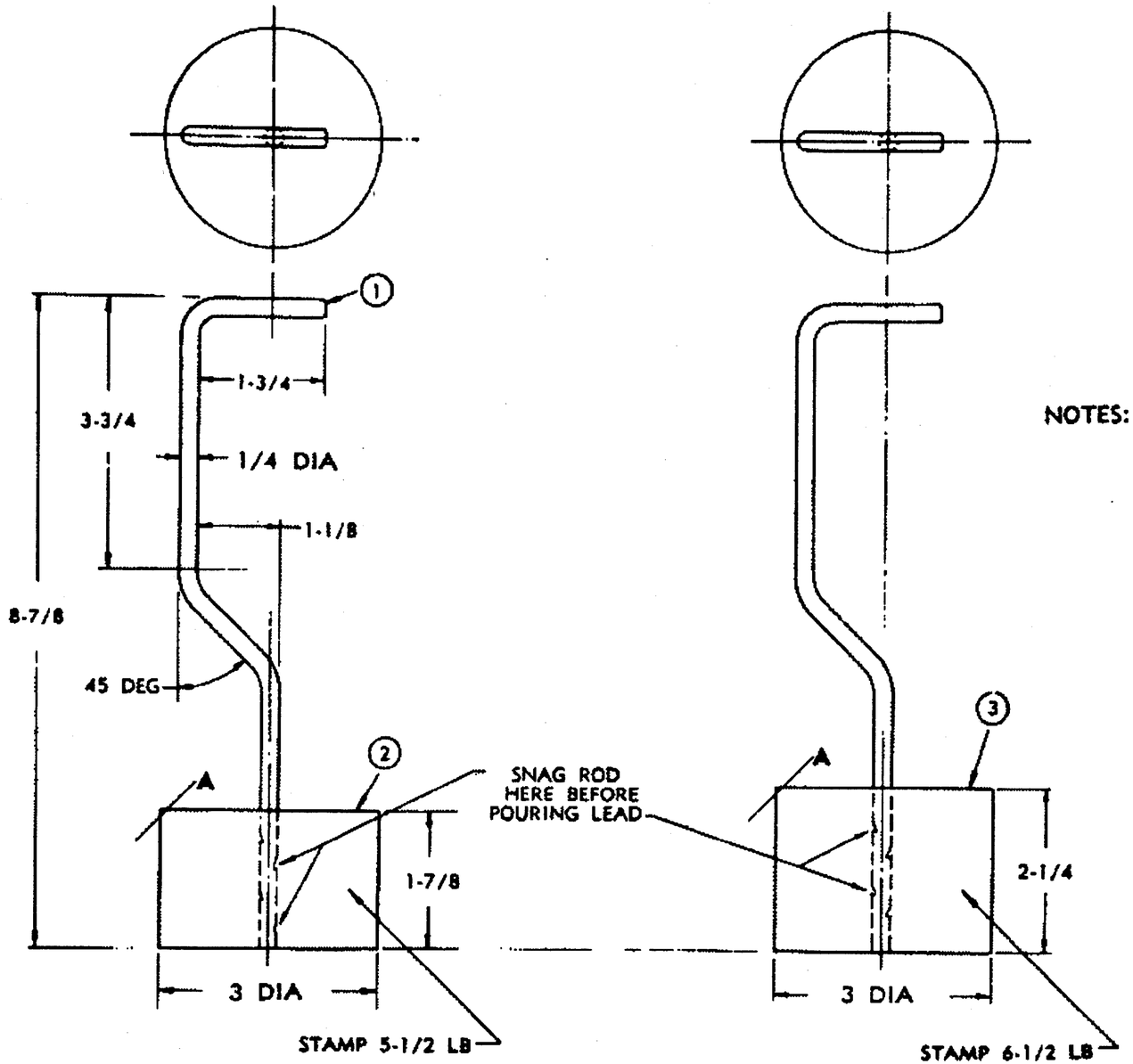
Figure 8. Cal. .45 pistol cleaning kit M1912 without contents—7132880.

11. Improvised Tools

The list of improvised tools in table II applies to field organizations performing major repair work on the cal. .45 automatic pistols M1911 and M1911A1. Illustrations giving dimensioned details are included to enable these maintenance organizations to fabricate these tools locally, if desired. The chief value of these tools is to maintenance organizations engaged in repairing a large number of weapons. These tools are not essential for repair operations and are not available for issue. The following data are furnished for information only.

Table II. Improvised Tools for Field Maintenance

Item	References		Use
	Fig.	Par.	
WEIGHTS, trigger pull	9, 12	16c	Used to check trigger pull.
FIXTURE, riveting, front sight	10, 31	41b	Used to rivet the front sight in place on the slide.
TOOL, staking, stock screw bushing.	11, 41	45c	Used for staking the stock screw bushings in the receiver.



① TWO—MILD S ROD 1/4 DIA X 11 DEV-LG

② ONE—LEAD (CAST AROUND DETAIL 1)

③ ONE—LEAD (CAST AROUND DETAIL 1)

NOTES: 1. WEIGH AFTER ASSEMBLY AND REDUCE WEIGHT BY FILING POINT "A"
2. ALL DIMENSIONS SHOWN ARE IN INCHES

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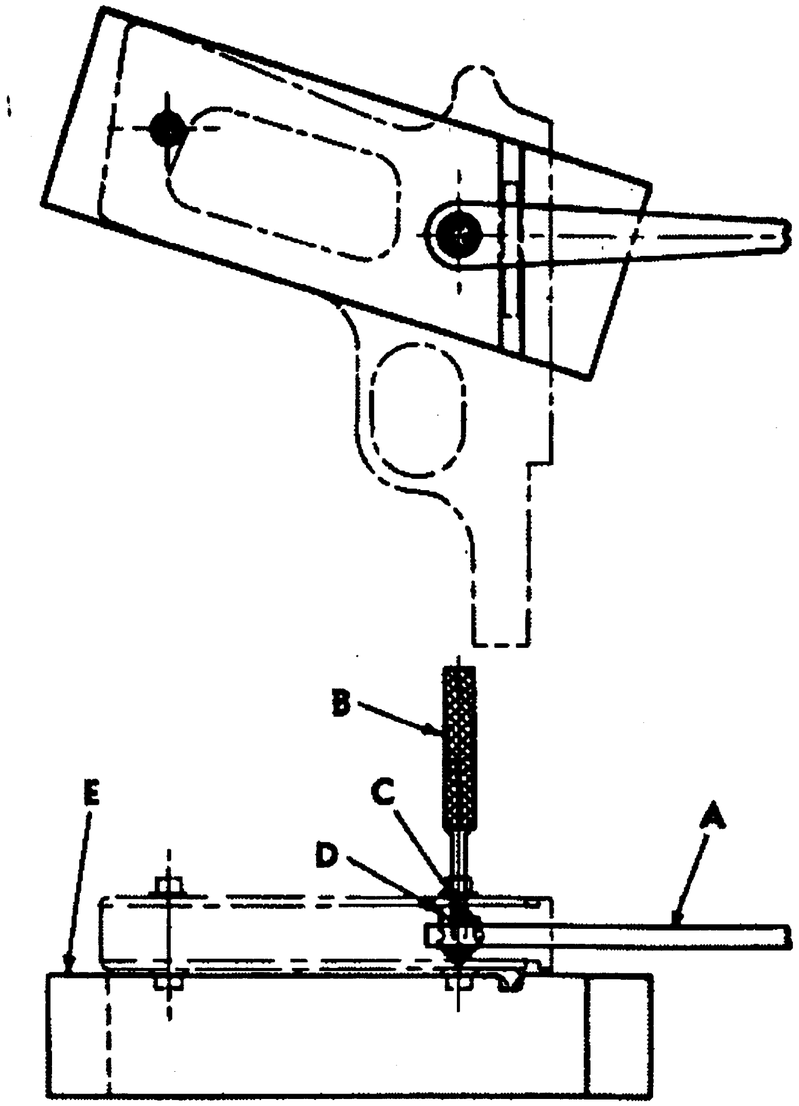
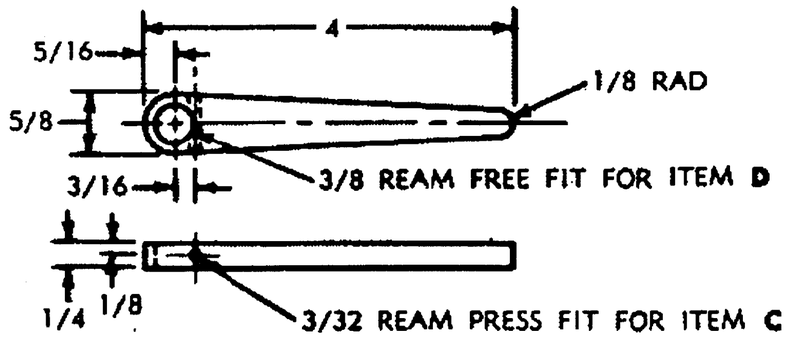
Figure 9. Improvised trigger-pull weights.



ASSEMBLED VIEW (FIGURE 41 SHOWS TOOL IN USE)

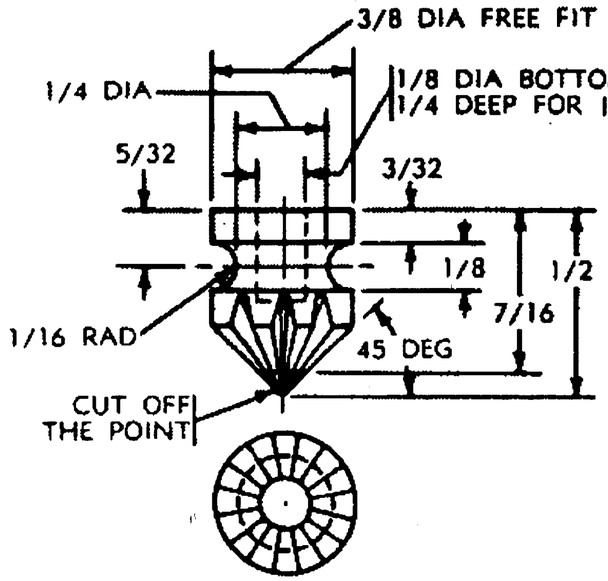
MATERIAL REQUIRED

DESCRIPTION OF MATERIAL	ITEM	NO. REQD	LENGTH
STEEL BAR, CARBON, COLD FINISHED: (WD 1020) FLAT, 1/4 X 3/4	A	1	4
STEEL BAR, CARBON, COLD FINISHED: (WD 1020) FLAT, 1-1/4 X 1-7/8	E	1	5-11/16
TOOL STEEL, ALLOY: DRILL ROD, ROUND, POLISHED, 1/4	B	1	3
TOOL STEEL, ALLOY: DRILL ROD, ROUND, POLISHED, 3/32	C	1	5/8
TOOL STEEL, ALLOY: DRILL ROD, ROUND, POLISHED, 3/8	D	1	1/2

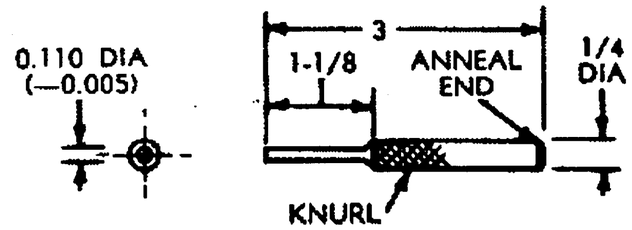


A— STAKING POINT HANDLE—1 REQD (WD 1020), COLD FINISHED CARBON STEEL BAR

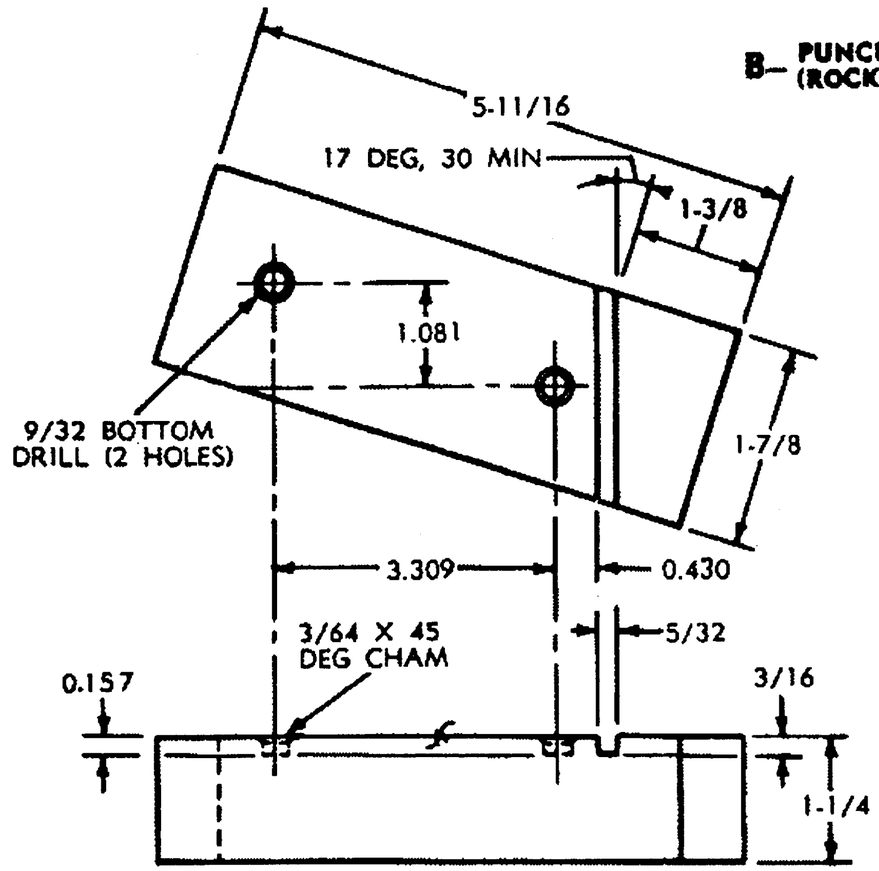
C— HANDLE PIN—3/32 DIA X 5/8 LONG



D— STAKING POINT—1 REQD, ALLOY TOOL STEEL (ROCKWELL "C" 57-60)



B— PUNCH—1 REQD, ALLOY STEEL (ROCKWELL "C" 57-60)



E— BASE PLATE—1 REQD (WD 1020), COLD FINISHED CARBON STEEL BAR, FIN S, CASE HARDEN

NOTE: ALL DIMENSIONS SHOWN ARE IN INCHES

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Figure 11. Improvised stock screw bushing staking tool

CHAPTER 3
INSPECTIONS

Section I. GENERAL

12. Scope

This chapter provides specific instructions for the inspection, by Ordnance maintenance personnel, of materiel in the hands of troops and in Ordnance shops. Troubleshooting information is incorporated wherever applicable as a normal phase of inspection.

13. Purposes of Inspections

Inspections are made for the purpose of determining the condition of an item as to serviceability, recognizing conditions that would cause failure, assuring proper application of maintenance policies at prescribed levels, and determining the ability of a unit to accomplish its maintenance and supply missions.

14. Categories of Inspection

In general, three categories of inspection are performed by Ordnance maintenance personnel.

a. Inspection of Materiel in Hands of Troops.

(1) *Command inspection.* This is a periodic inspection conducted by the commanders of all units to insure the correct utilization of equipment, supply economy, and compliance with organizational maintenance principles.

(2) *Spot-check inspection.* This is an inspection performed on a percentage of materiel in order to ascertain the adequacy and effectiveness of organizational maintenance and supply. Included within the scope of spot-check inspections is inspection of equipment to detect incipient failures before unserviceability occurs; inspection to ascertain the availability and use of technical and supply manuals and lubrication orders; inspection to determine the accuracy of records, authorized levels of equipment and supplies, practice of supply economy, preservation and safekeeping of tools, availability of repair parts and supplies, and knowledge of the proper procedures for requisitioning supplies and equipment and followup thereon.

(3) *Technical inspection.* Technical inspection is performed on all major items at least once annually. The purpose of the inspection is to ascertain the serviceability of equipment, to predict maintenance and supply requirements, and to determine the adequacy of facilities and effectiveness of procedures. Information obtained during technical inspection should indicate future requirements for field maintenance and for replacement, as well as disclose immediate needs for maintenance and application of modification work orders. During technical inspection, corrections or deficiencies will be made on the spot when practical.

b. Field Maintenance Shop Inspection.

(1) *Initial inspection.* This is an inspection of materiel received in ordnance shops for the purpose of determining the degree of repair and parts requirement. This includes determination of modification work orders to be applied.

(2) *In-process inspections.* These are inspections performed in the process of repairing (field maintenance) the materiel. This is to insure that all parts conform to the prescribed repair standards, that the workmanship is in accordance with approved methods and procedures, and that deficiencies not disclosed by the initial inspection are found and corrected.

(3) *Final inspection.* This is an acceptance inspection performed by a final inspector, after repair has been completed, to insure that the materiel is acceptable for return to user or for return to replacement stock according to the standards obtained.

c. Preembarkation Inspection. This inspection is conducted on materiel in alerted units scheduled for oversea duty to insure that such materiel will not become unserviceable or worn out in a relatively short time. It prescribes a higher percentage of remaining usable life in serviceable materiel, to meet a specific need beyond minimum serviceability.

Section II. INSPECTION PROCEDURES

15. General

Warning: Before starting a technical inspection, be sure to clear the weapon. Do not touch the trigger until the weapon has been cleared. Inspect the chamber to insure that it is empty and check to see that no ammunition is in position to be introduced. Avoid having live ammunition in the vicinity of the work.

a. Preparatory Procedures.

(1) Check to see that the weapon has been cleaned of all corrosion-preventive compound, grease, excessive oil, dirt, or foreign

matter which might interfere with proper functioning or obscure the true condition of the parts.

(2) Make an overall inspection of the weapon for general appearance, condition, operation, and manual functioning. Use dummy or drill cartridges.

b. Inspection Guide. Table III is provided as a check list to be used as a guide for the inspection of the materiel.

Table III. Inspection Guide for Cal. .45 Automatic Pistols M1911 and M1911A1

Point to be inspected	Inspection of materiel in the hands of troops	Preembarkation inspection	Final inspection—field maintenance shop
FINISH	Exposed surfaces should be intact enough to prevent glare.	Intact enough to prevent glare.	Intact enough to prevent glare.
TRIGGER PULL	Min 5 lb Max 6½ lb	Min 5½ lb Max 6½ lb	Min 5½ lb Max 6½ lb
BORE	Pitting less than width of land or groove and less than three-eighths of an inch long is acceptable.	Fine uniform pitting but with sharp lands is acceptable.	Fine uniform pitting but with sharp lands is acceptable.

Note. For detailed descriptions, see paragraphs 40, 44, 47, 49, and 55.

16. Inspection of Materiel in the Hands of Troops

a. General. Refer to TM 9–1100 for responsibilities and fundamental duties of inspecting personnel, the necessary notice and preparations to be made, forms to be used, and general procedures and methods to be followed by inspectors. Materiel to be inspected includes organizational spare parts and equipment and the stocks of cleaning and preserving materials. In the course of this technical inspection, the inspector will accomplish the following:

(1) Determine serviceability, i.e., the degree of serviceability, completeness, and readiness for immediate use, with special reference to safe and proper functioning of the materiel. If the materiel is found serviceable, it will be continued in service. In the event it is found unserviceable or incipient failures are disclosed, the deficiencies will be corrected on the spot or advice given as to corrective measures when applicable or, if necessary, the materiel will be tagged for delivery to, and repair by, Ordnance maintenance personnel.

(2) Determine causes of mechanical and functional difficulties that troops may be experiencing and check for apparent results of lack of knowledge, misinformation, neglect, improper handling and storage, security, and preservation.

(3) Check to see that all authorized modifications have been applied, that no unauthorized alterations have been made, and that no work beyond the authorized scope of the unit is being attempted. Check the index in DA Pam 310–4 and the current MWO files for any additional MWO's printed subsequent to time of preparation of this manual.

(4) Instruct the using personnel in proper preventive maintenance procedures where found inadequate.

(5) Check on completeness of the organizational maintenance allowances and procedures for obtaining replenishments.

(6) Check storage conditions of general supplies and ammunition.

(7) Initiate a thorough report on materiel on "deadline," with reasons therefor, for further appropriate action.

(8) Report to the responsible officer any evidence of carelessness, negligence, unauthorized modifications, or tampering. This report should be accompanied by recommendations for correcting the unsatisfactory conditions.

(9) Inspectors will determine the deficiencies most common to materiel being inspected and they will make an extensive search of the materiel for any symptoms designating these failures.

Note. Classification of ordnance materiel is not within the scope of this publication. Ordnance materiel is classified in accordance with AR 711–50.

(10) The inspector's first responsibility is to clear each weapon to be inspected as follows: Point weapon in a safe direction and determine if live rounds are present. Then check bore and chamber for obstructions, i.e., bullet in bore or ruptured case in chamber.

(11) Before inspection, the materiel is to be thoroughly cleaned to remove any grease, dirt, or other foreign matter that might interfere with its proper functioning or with the use of tools for inspection.

(12) Newly manufactured and issued materiel, which has been inspected and accepted in accordance with Department of the Army specifications, will not be rejected by the Army inspector except for well-grounded reasons. All such rejections will be reported immediately to higher authority.

(13) Satisfactory metal finishes for weapons range from dense black to medium light gray. Certain small arms weapons are manu-

factured with an unusual shade of neutral gray finish. Since this finish (gray zinc phosphate) is an accepted Department of the Army standard, these weapons will not be rejected by inspectors or troops for this condition. Rigid restrictions on shiny metal surfaces will not be carried to an extreme. A worn surface is objectionable from the standpoint of visibility when it is capable of reflecting light, somewhat as a mirror does. Check to see that all rear sights have a dull black or gray finish on all surfaces.

(14) Wooden components must not be cracked in such a way as to interfere with the structural strength. Surface cracks, bruises, or dents which do not affect their strength should not cause rejection.

(15) Light pitting of the barrel, even though plainly visible, is not cause for rejecting a weapon. It does not affect the accuracy materially, but is a disadvantage because it interferes with subsequent cleanings. A barrel that is uniformly pitted but with the edges of the lands sharp is acceptable. Only those barrels showing developed pits, or pits cutting into the lands, are unsatisfactory. Pits in the chamber, large enough to cause extraction difficulties, will be cause for rejection: Ringed bores or bores ringed sufficiently to bulge the outside surface are cause for rejection.

(16) Looseness and play in some components may be cause for rejection. In many cases, however, the importance of such defects is exaggerated. Looseness and play must be considerable to affect the accuracy of a weapon beyond its natural dispersion. All weapons, especially automatic guns, must have play between working components to permit them to operate in localities where sand and dust are prevalent. A weapon may be completely useless if its working parts are fitted with insufficient clearance.

(17) Minor defects in metal components do not normally affect their being acceptable. Scratches and tool marks on barrels are ordinarily of no importance.

b. Pistols. Inspect the weapon, first as a unit, for general appearance and condition, smoothness of operation and functioning of the slide, extractor, ejector, and the magazine. Inspect for burs, dents, or rough spots on sights, slide, and receiver. Check the alinement of sights. Examine the weapon for split stocks and burred or missing stock screws. The bore, chamber, top of magazine, side walls of slide, and surfaces of receiver, which are exposed to action of gases, should be examined for evidence of corrosion.

c. Trigger Pull Test (fig. 12). Perform trigger pull test with magazine in weapon to determine the number of pounds trigger pull required to move the trigger causing the hammer to fall.

(1) Cock the hammer, holding the pistol in the hand in a vertical position, and depress the grip safety.

(2) Place the improvised 5-pound weight in position on the trigger with the weight resting on the bench. Lift the pistol carefully. The weight should not cause the hammer to fall. If the hammer falls, the trigger pull is too light and correction must be made (par. 45*b*).

(3) Place the improvised 6½-pound weight on the trigger with the weight resting on the bench. Lift the pistol carefully. The weight should cause the hammer to fall. If the hammer does not fall, correction must be made (par. 45*b*).

(4) Pull the trigger several times to determine whether there is any creep.

d. Safety Test. Perform the safety tests described in (1) through (4) below on each pistol.

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Figure 12. Trigger pull test.

(1) *Safety lock test* (fig. 13). With the pistol unloaded, cock the hammer and press the safety lock upward into the safe position. Grasp the stock so that the grip safety is depressed and squeeze the trigger tightly three or four times. If the hammer falls, the safety lock is not safe and must be replaced.

(2) *Grip safety test* (fig. 14). With the pistol unloaded, cock the hammer and, without depressing the grip safety, point the pistol downward and squeeze the trigger three or four times. If the hammer falls or the grip safety is depressed by its own weight, the grip safety or the sear spring is not safe and must be replaced.

(3) *Half-cock position test* (fig. 15). With the pistol unloaded, draw back the hammer until the sear engages the half-cock position notch. Then squeeze the trigger and grip safety. If the hammer falls, the hammer or sear must be replaced or repaired. Draw the hammer back nearly to full-cock position (fig. 16) and then let it slip. The hammer should fall only to the half-cock position, otherwise hammer or sear must be replaced.

(4) *Disconnector test* (fig. 17). With the pistol unloaded, cock the hammer. Push the slide one-quarter of an inch to the rear and holding it in that position, squeeze the trigger. Let the slide go forward, maintaining pressure on the trigger. If the hammer falls, the disconnector is worn on top and must be replaced. Pull the slide all the way to the rear and engage the slide

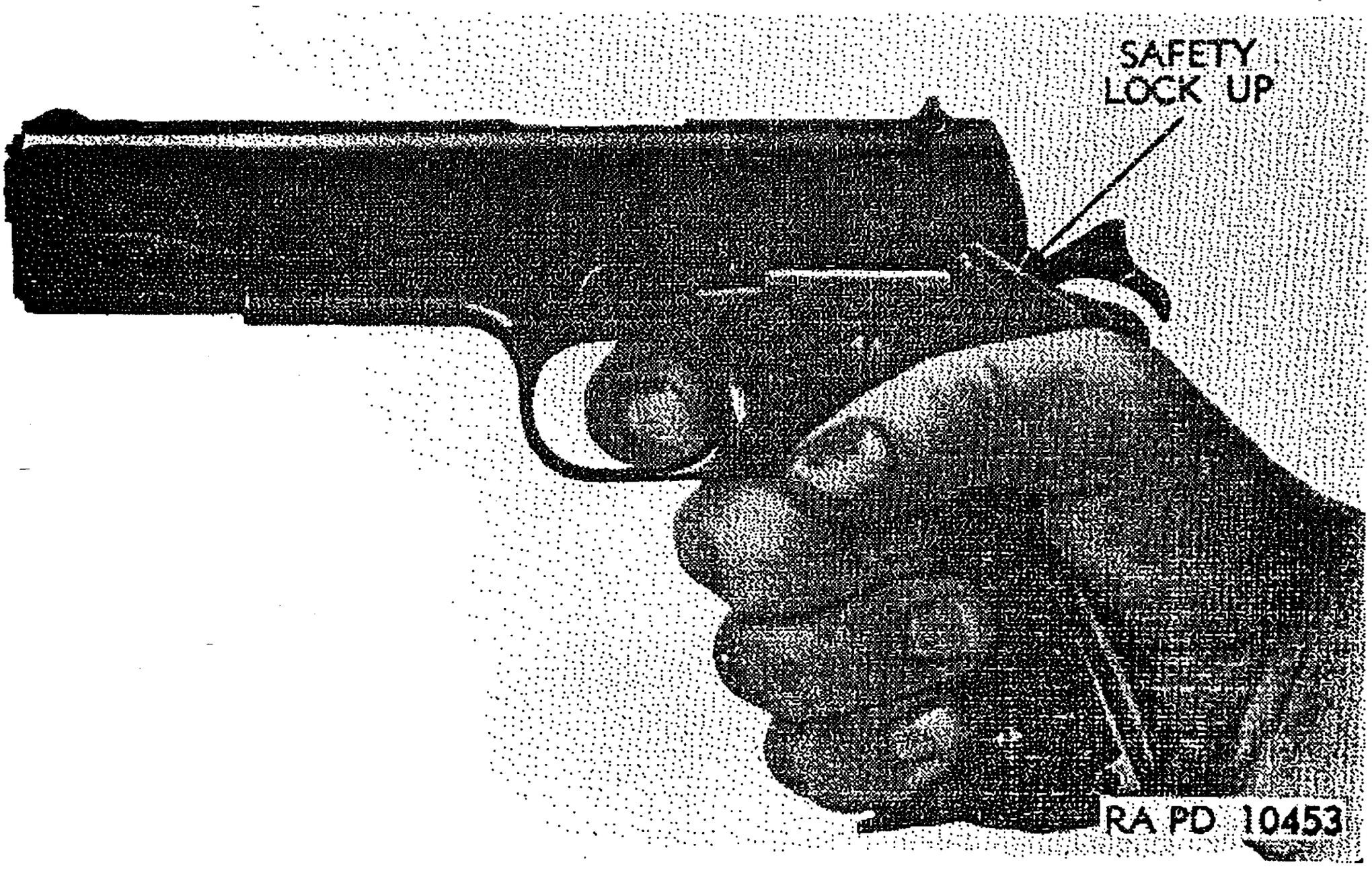

Figure 13. Pistol M1911A1, hammer back, safety lock upward in safe position, hand grasping stock so grip safety is depressed, finger squeezing trigger.

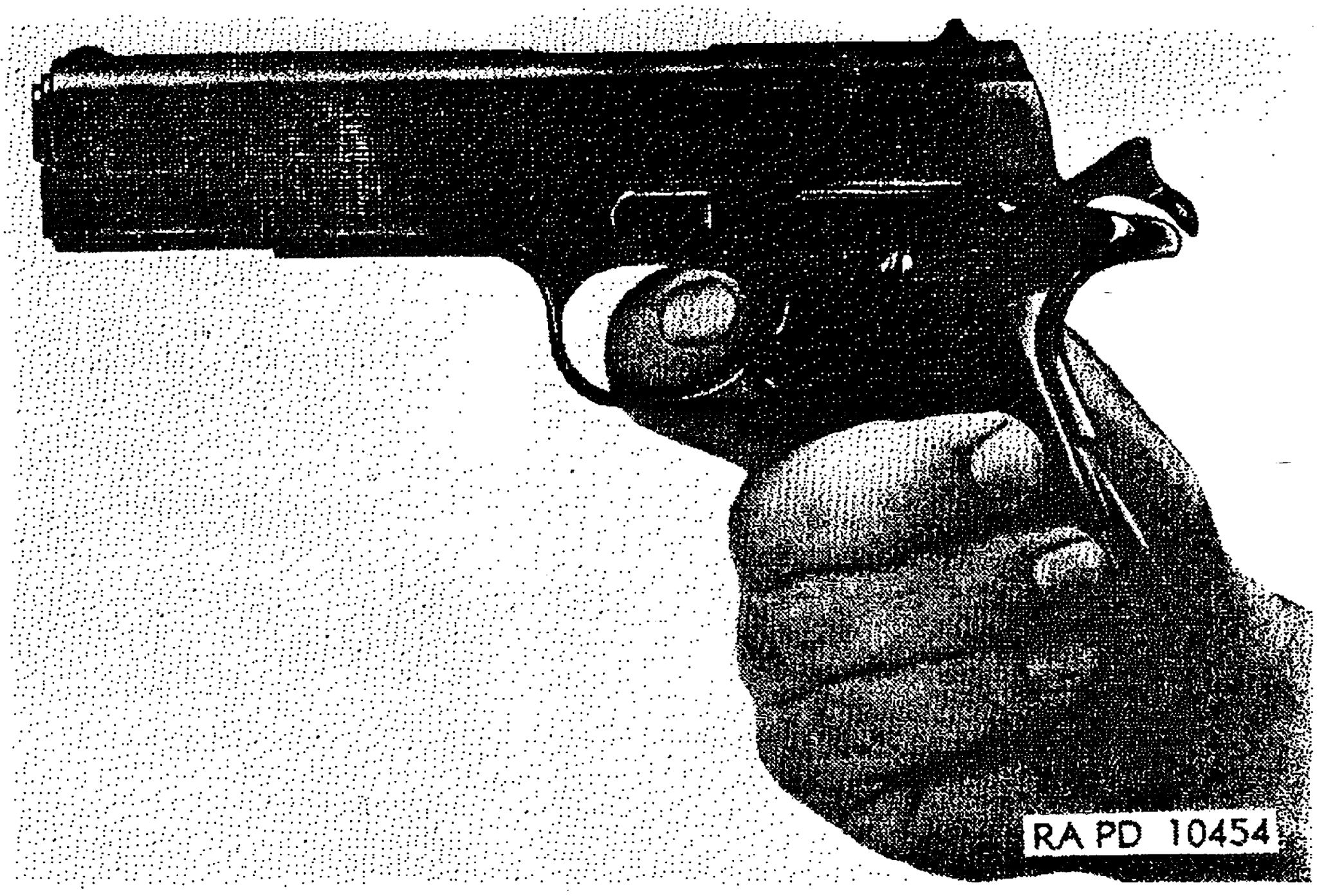

Figure 14. Pistol M1911A1, hammer cocked, grip safety not depressed, finger squeezing trigger.

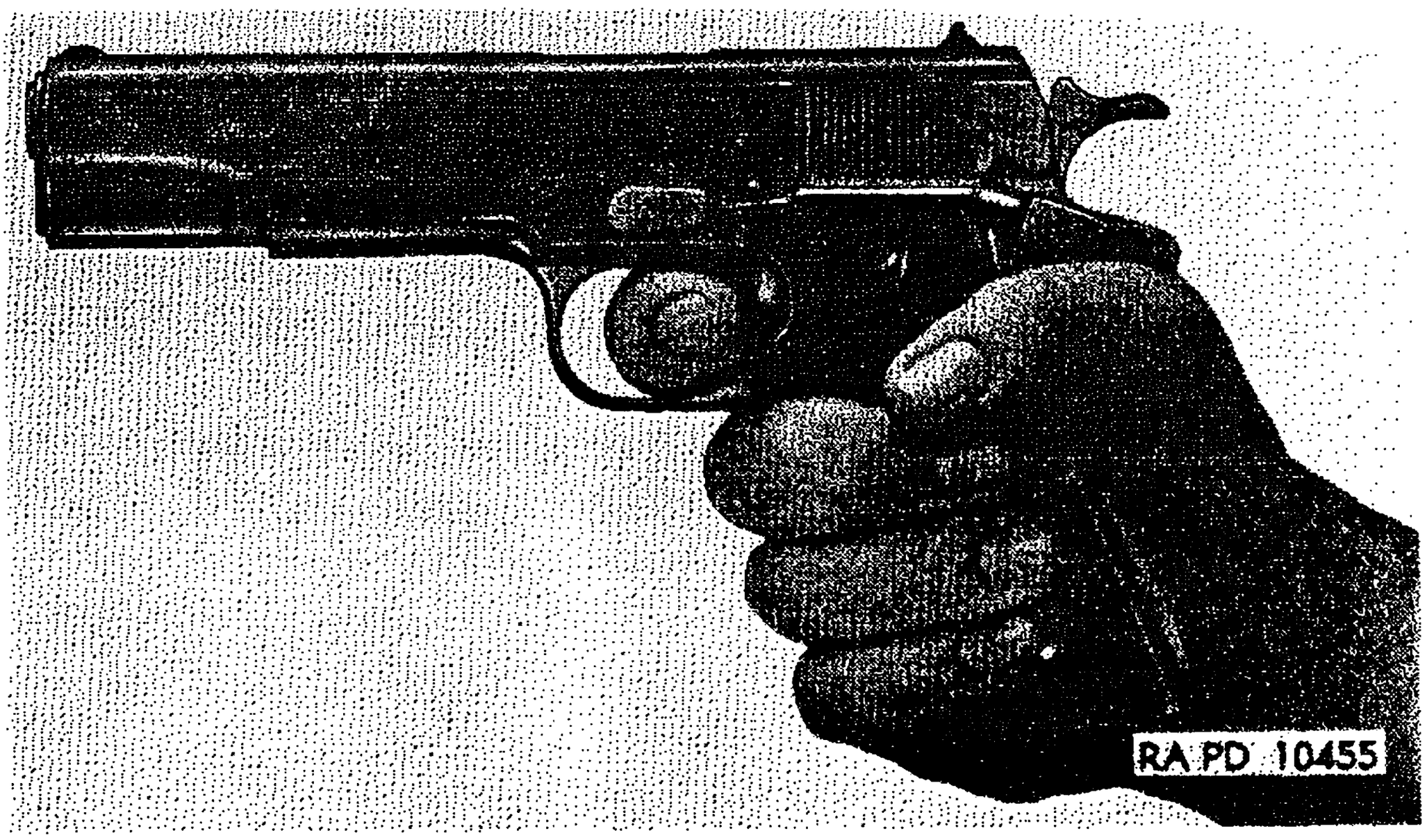

Figure 15. Pistol M1911A1, hammer at half-cock position notch, while squeezing trigger and grip safety.

Figure 16. Pistol M1911A1, hammer back nearly to full-cock position, thumb slipping off hammer.

stop. Squeeze the trigger and at the same time release the slide. The hammer should not fall. If it does, the disconnector is faulty (fig. 18). Release the pressure on the trigger and then squeeze it. The hammer should then fall. If it does not, check the sear spring for weakness; if not weak, the disconnector is faulty. The disconnector normally prevents the release of the hammer unless the slide and barrel are in forward position, safely interlocked. This also prevents the firing of more than one shot at each squeeze of the trigger.

e. Slide Group.

(1) Inspect the barrel for exterior and interior burs at the muzzle. Inspect the barrel for pitting, bulges, and sharpness of the lands.

(2) Inspect the barrel bushing for burs and excessive wear.

(3) Inspect slide for breaks or cracks, especially around the ejector port. Inspect the interior grooves and ejector port of slide for excessive wear and burs. Check for loose front or rear sights.

(4) Inspect the firing pin for excessive wear or shortness. Inspect the firing pin spring for weakness or breakage.

(5) Inspect the recoil spring for weakness or breakage.

(6) Examine the extractor for excessive wear, weakness, broken lips, or deformation.

(7) Inspect the recoil spring plug, recoil spring guide, and firing pin stop for burs or damage.

Figure 17. Disconnector test pistol M1911A1, hammer cocked, slide held partly back, while squeezing trigger and grip safety.

Figure 18. Disconnector test pistol M1911A1, slide fully back, slide stop engaged, thumb releasing slide, hammer back.

f. Receiver Group.

(1) Inspect the receiver for excessive wear or burs in slide mating grooves. Inspect the receiver for deformation. Check to see that the plunger tube, ejector, and stock screw bushings are not loose, burred, or excessively worn. Check the mainspring housing mating grooves in the receiver for burs. Inspect the trigger groove for burs or excessive wear. Check the slide stop notch for oversize or excessive wear.

(2) Inspect the half-cock position notch and the firing notch on the hammer for cracks, chips, or excessive wear. Be certain that the hammer strut is not bent or cracked.

(3) Inspect the sear for worn or chipped tip or excessively worn lugs.

(4) Inspect the sear spring for broken leaves and tension.

(5) Inspect the disconnector for burs or excessive wear.

(6) Inspect the trigger for burs and deformation.

(7) Inspect the grip safety for burs and excessive wear or cracks on the tip that engages the trigger.

(8) Inspect the mainspring for weakness or breakage.

(9) Inspect the mainspring cap, housing pin retainer, and housing pin for excessive wear.

(10) Inspect mainspring housing for burs on mating surfaces.

(11) Inspect the stocks for cracks.

g. Magazine Assembly. Magazine assembly is inspected as described in (1) through (4) below.

(1) Inspect the magazine tube for deformation or burs. Finish of the magazine should be serviceable. Reject magazines with only lower half finished.

(2) Inspect the spring for kinks and weakness.

(3) Inspect the follower for burs.

(4) Check to see that the empty magazine will drop out of the pistol when the magazine catch is depressed.

h. Equipment. Make sure all spare parts and equipment are on hand and in good condition.

17. Field Maintenance Shop Inspections

a. Initial Inspection.

(1) Inspection procedures outlined in paragraph 16 apply also to initial shop inspection.

(2) If materiel received in ordnance shops is not tagged to indicate the nature of the repair, steps should be taken to determine

the cause of the unserviceability, the extent of required repairs, and the estimate of parts required.

(3) Table IV lists some of the more common malfunctions, probable causes, and corrective action to be taken.

Table IV. Troubleshooting

Malfunction	Probable causes	Corrective action
Failure to feed	Dented magazine	Replace magazine assembly.
	Weak or malformed magazine spring.	Replace magazine assembly.
	Battered or malformed magazine spring follower.	Replace magazine assembly.
	Worn, broken, or malformed magazine catch.	Replace magazine catch (pars. 43*g* and 46*b*).
Failure to load	Weak or malformed recoil spring.	Replace recoil spring (pars. 39*a* and 42*c*).
	Lips of magazine deformed	Replace magazine assembly (pars. 48 and 51).
Failure to fire	Broken firing pin	Replace firing pin (pars. 39*c* and 42*a*).
	Weak or bent firing pin spring	Replace firing-pin spring (pars. 39*c* and 42*a*).
	Weak or broken mainspring	Replace mainspring (pars. 43*j* and 46*a*).
	Weak or broken sear spring	Replace sear spring (pars. 43*d* and 46*e*).
	Defective sear or hammer	Replace sear or hammer (pars. 43*e* and *f*, and 46*c* and *d*).
	Broken hammer strut	Replace hammer strut (pars. 43*e* and 46*d*).
	Bent trigger yoke	Replace trigger (pars. 43*h* and 46*b*).
Failure of slide stop to retain slide.	Weak or broken plunger spring.	Replace plunger spring (pars. 43*i* and 46*g*).
Failure of safety lock to remain in safe position.	Weak or broken plunger spring.	Replace plunger spring (pars. 43*i* and 46*g*).

b. In-Process Inspection. Detailed instructions for in-process inspection of the materiel are contained in chapter 4, together with the applicable repair instructions.

c. Final Inspection. Detailed instructions for final inspection of materiel repaired in field maintenance shops are contained in chapter 5.

18. Preembarkation Inspection of Materiel in Units Alerted for Oversea Movement

Inspectors will determine the deficiencies most common to materiel being inspected and will make an extensive search of the materiel for

any symptoms designating those failures. Those weapons classified as serviceable will be checked as "satisfactory for oversea shipment" or "unsatisfactory for oversea shipment" in accordance with specifications listed in this section.

Note. Classification of ordnance materiel is not within the scope of this section. Ordnance materiel is classified in accordance with AR 711–50.

a. Materiel will not be considered unsuitable for oversea use because of lack of modification unless such modification affects the safety of personnel, is essential to functioning of the materiel, or is prescribed by an URGENT Department of the Army modification work order (MWO). RED-BORDERED War Department modification work orders that are still in effect will be considered as urgent modification work orders.

b. The specific inspections for materiel in units alerted for oversea movement are the same as those inspections of materiel in the hands of troops which are described in paragraph 16*a*(10) through (17) and 16*b* through *h* with the inclusion and change described in (1) and (2) below.

(1) In addition to the standards set up in paragraph 16*a*(13) for satisfactory metal finishes, no weapon will be rejected for oversea use unless exterior parts have a distinct shine.

(2) In testing minimum trigger pull (par. 16*c*(2)) for weapons for oversea use, use a 5½-pound weight instead of a 5-pound weight.

CHAPTER 4
REPAIR

Section I. GENERAL

19. General

a. Information and instructions contained herein are supplementary to instructions for the using organization contained in FM 23–35 and pertain to ordnance maintenance units engaged in repair for return to user.

b. In this manual, the main groups of the weapon are disassembled, inspected, replaced or repaired, and assembled. For information on disassembly of the weapon permitted by organizational maintenance personnel, refer to FM 23–35.

c. The maintenance procedures for both pistols M1911 and M1911A1 are identical. The illustrations depict the M1911A1 with the M1911 included when it is necessary to point out differences in design.

20. Cleaning

a. General. Refer to FM 23–35 for using arms information on cleaning, cleaning agents, and precautions to be observed in cleaning. Information for ordnance personnel is given in *b* through *d* below.

b. Cleaning of Materiel Received From Storage.

(1) Materiel received in ordnance shops from storage will be cleaned by one of the methods described in (*a*) through (*c*) below, whichever is applicable or available.

(*a*) *Dip-tank method.* Disassemble as required, place parts in a perforated metal basket, and submerge and agitate in a tank containing mineral spirits paint thinner. Repeat, using a second tank with clean thinner. Extent of treatment in each tank will depend on ease with which the preservatives are dissolved.

(*b*) *Vapor-degreaser method.* Tanks containing a heated solution of trichlorethylene or perchlorethylene (type II) are used mostly for degreasing items that are very greasy or oily and are not readily cleaned by the dip-tank method. Place parts in a perforated metal basket and submerge just

below the vapors in the tank and keep it submerged until all the grease or oil melts and runs off the parts in the basket.

Warning: Personnel operating vapor degreasers are cautioned not to breathe the vapor fumes.

(c) *Steam method.* Place parts in a perforated metal basket and steam-treat until clean. This method is less efficient than the vapor-degreaser method and may require additional cleaning of parts to remove all traces of grease or oil, particularly from recesses.

(2) If some time is to elapse before the start of repair operations, apply a light grade of preservative oil to all polished metal surfaces to prevent rusting.

c. Cleaning After Repair.

(1) After repair operations and prior to assembly, remove shop dirt and other foreign matter from all metal surfaces. This can be done by the dip-tank method (*b*(1)(*a*) above), the vapor-degreaser method (*b*(1)(*b*) above), or by cleaning with cloths soaked in mineral spirits paint thinner.

(2) In the dip-tank method, agitation for approximately 1 minute in each tank is sufficient; in the vapor-degreaser method, treatment for about 2 to 3 minutes is sufficient.

d. Cleaning After Shop Inspection. After in-process shop inspections, dip parts in a tank containing fingerprint remover oil (type A), remove (use rubber gloves), and dry thoroughly with dry, compressed air (provided with moisture filter traps) or by wiping with clean, lint-free, dry rags. Apply preservatives as soon as possible after cleaning.

21. Lubrication

Oil and lubricate the pistols in accordance with instructions in FM 23–35. General instructions on lubrication are covered in TM 9–2835. Lubricating materials are listed in Department of the Army Supply Manual 10–5–9100 and their uses explained in TM 9–1007.

22. General Repair Methods

a. Disassembly and Assembly Procedures.

(1) In disassembling a unit, remove the major subassemblies and assemblies whenever possible. Subassemblies may then be disassembled, as necessary, into individual parts.

(2) During assembly, subassemblies should be assembled first and then installed to form a complete unit.

(3) Complete disassembly of a unit is not always necessary in order to make a required repair or replacement. Good judgment should be exercised to keep disassembly and assembly operations to a minimum.

b. Replacement of Parts.

(1) Unserviceable and unrepairable assemblies will be broken down into items of issue and serviceable parts will be returned to stock. Parts or assemblies which cannot be repaired or reclaimed to the standards set forth in this manual will be replaced as indicated.

(2) When assembling a unit, replace it with a new unit, if possible. If screws are damaged, they should be replaced.

(3) All springs should be replaced if they are broken, kinked, cracked, or fail to function properly.

(4) If a required new part is not available, reconditioning of the old part is required. Such parts should be examined carefully after reconditioning to determine their serviceability.

c. Use of Tools.

(1) Care must be exercised to use tools that are suitable for the task to be performed in order to avoid mutilation of parts and/or damage to tools.

(2) Special tools (ch. 2) are provided for maintenance of the pistols. These tools should be used only for the purpose for which they are intended.

d. Welding and Riveting. For welding instructions and welding materials, refer to TM 9–2852 and Department of the Army Supply Manual ORD 3 SNL K–2.

23. Removal of Carbon and Rust

Light rust and carbon may generally be removed with a rag moistened with light oil or rifle bore cleaner. If this does not suffice, crocus cloth or fine abrasive cloth may be used. Care should be observed to remove all dirt and abrasive but not to scratch or alter surfaces cleaned. Oil surfaces before assembling the parts. When using any abrasive, exercise caution to avoid removal of phosphate coating, zinc plating, or cadmium plating to the extent of exposing bare metal which will quickly be subject to corrosion.

24. Removal of Burs from Threads, Screwheads, and Working Surfaces

During the entire life of the weapon, polishing and stoning are necessary to relieve friction and to remove burs set up by firing. Burs on screwheads, threads, and like surfaces should be removed with a fine file. Burs or roughness on working surfaces should be removed with a fine sharpening stone.

Caution: Care should be observed to stone and file evenly and lightly and not to remove more metal than is absolutely necessary and to

maintain correct contour of surfaces worked on. Parts or assemblies should never be altered in any way that would affect interchangeability of parts.

25. Phosphate Finish

a. TM 9–1861 will be used as a guide. Type II, class B phosphate finish will be used unless otherwise specified.

b. Barrels will be protected from acids, alkali, and phosphating solutions by plugging the muzzle and breech with corks.

26. Serviceable Finish

a. It will not be necessary to finish parts which already have a good quality finish and which will definitely not be improved by finishing.

b. All metal parts will be free of corrosion.

27. Repair of Damaged Machined and Polished Surfaces

Rough spots, scores, burs, galling, and gouges will be smoothed so that the part will efficiently perform its normal function. The finish of the repaired part will approximate that of the original finish. In performing any of these operations, critical dimensions will not be altered.

28. Serviceability of Barrels by Appearance

a. Barrels will be free of corrosion, powder fouling, bulges, and rings. Muzzles will be free of burs.

b. Fine pits are allowed if they do not affect the sharpness of lands materially. Barrels will be replaced if pits are as wide as the lands and grooves, or are more than three-eighths of an inch long.

29. Functional Serviceability of Barrels

a. Pits are allowed in the chamber if they are not large enough to cause extraction difficulties.

b. Barrels will be replaced if lands are worn to the extent that accuracy is affected.

c. Powder burns, exterior irregularities, and deformations not affecting the functioning or destroying the finish are acceptable.

30. Springs

Replace all springs that are corroded, weak, or distorted as determined by comparison with a new spring.

31. Repair of Bushings

Minor scratches or abrasions on bushing surfaces may be removed.

32. Functioning of Safeties

All manually operated safety features will be tested for satisfactory operation and repaired as required to achieve satisfactory functioning.

33. Function-Firing

Following repair, fire 6 rounds of standard service ammunition from each pistol. If weapons do not function satisfactorily, additional rounds are authorized. Weapons which fail to meet the test are to be corrected by replacement of defective component or by performing such repair as authorized.

34. Scheduling Cleaning After Function-Firing

All weapons will be cleaned as soon as possible after all firing tests have been completed and each day thereafter for 3 days, making a total of 4 consecutive days. An alternate method of scheduling cleaning operations is to clean all weapons immediately after function-firing and two successive times following the first cleaning; cleaning intervals should be at least 16 hours with not more than 72 hours between any two successive cleanings.

35. Special Cleaning of Powder Burned Parts

Special care should be taken to insure that parts subjected to burned powder residues are thoroughly cleaned. These parts should be scrubbed with a bristle brush moistened with rifle bore cleaner.

36. Cleaning with Steam or Hot Water

A single cleaning of the bore and chamber of function-fired weapons with steam of hot water (not less than 200° F.) is acceptable in lieu of the cleaning described in paragraph 34. The steam or hot water may be applied by hand or machine and the bore and chamber air dried. The bore and chamber will then be scrubbed with a snug-fitting wire brush dipped in rifle bore cleaner. Three dry patches will then be passed through the bore and chamber, followed by one patch saturated with rifle bore cleaner.

Section II. DISASSEMBLY OF PISTOL INTO GROUPS

37. General

Although figure references used refer to the pistol M1911A1, the procedure for disassembly into groups is identical for the pistol M1911.

38. Disassembly

a. Press the magazine catch and remove the magazine assembly (fig. 19).

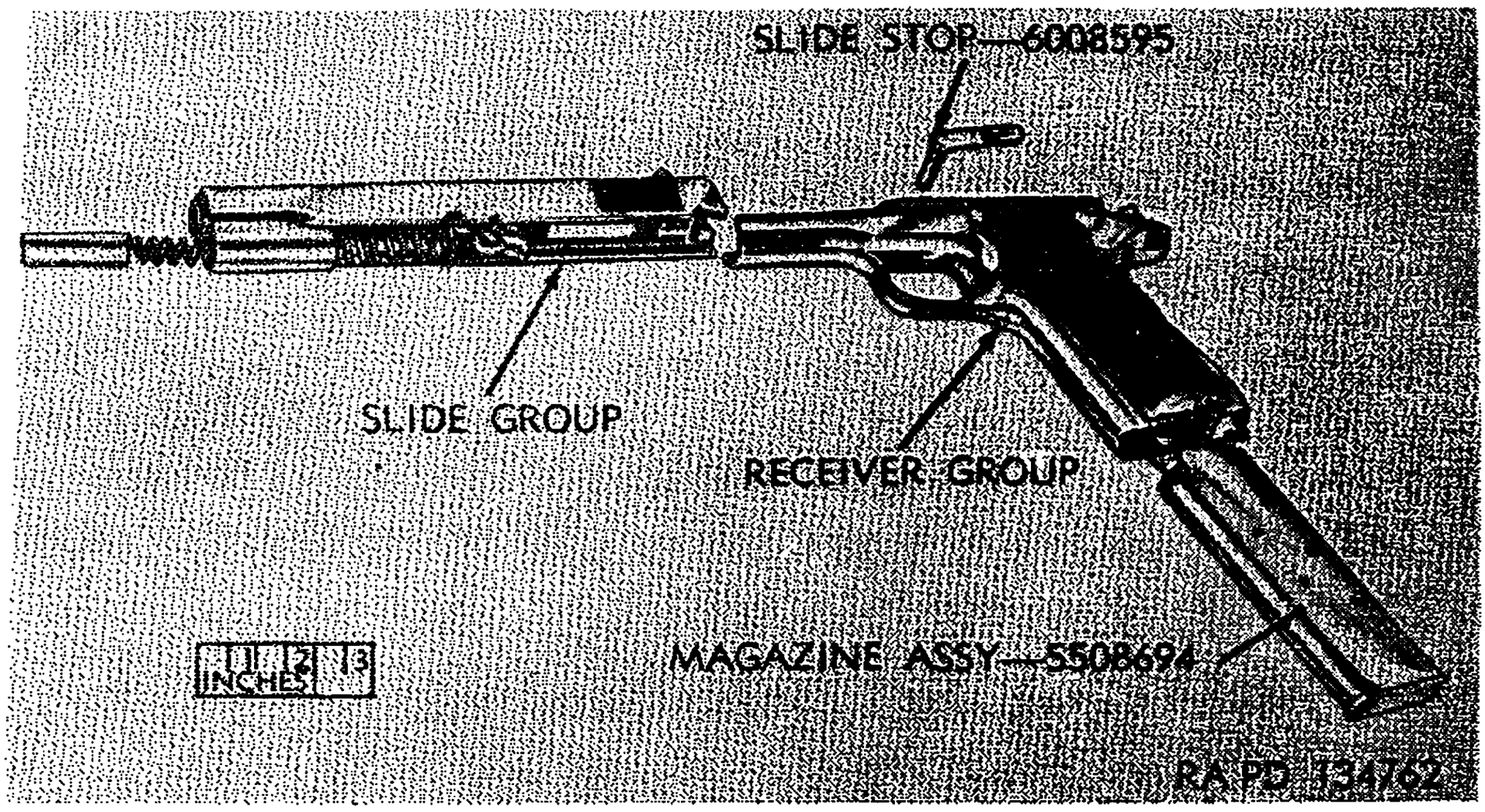

Figure 19. Cal. .45 automatic pistol M1911A1—exploded view.

b. With the right thumb, withdraw the hammer fully to the rear position and place the safety lock in the locked position. The mainspring is now fully compressed.

c. Grasp the pistol with the right hand with the barrel in a vertical position, the little finger hooked inside the trigger guard, the thumb placed on the lower half of the recoil spring plug, and three fingers gripping the slide (fig. 20).

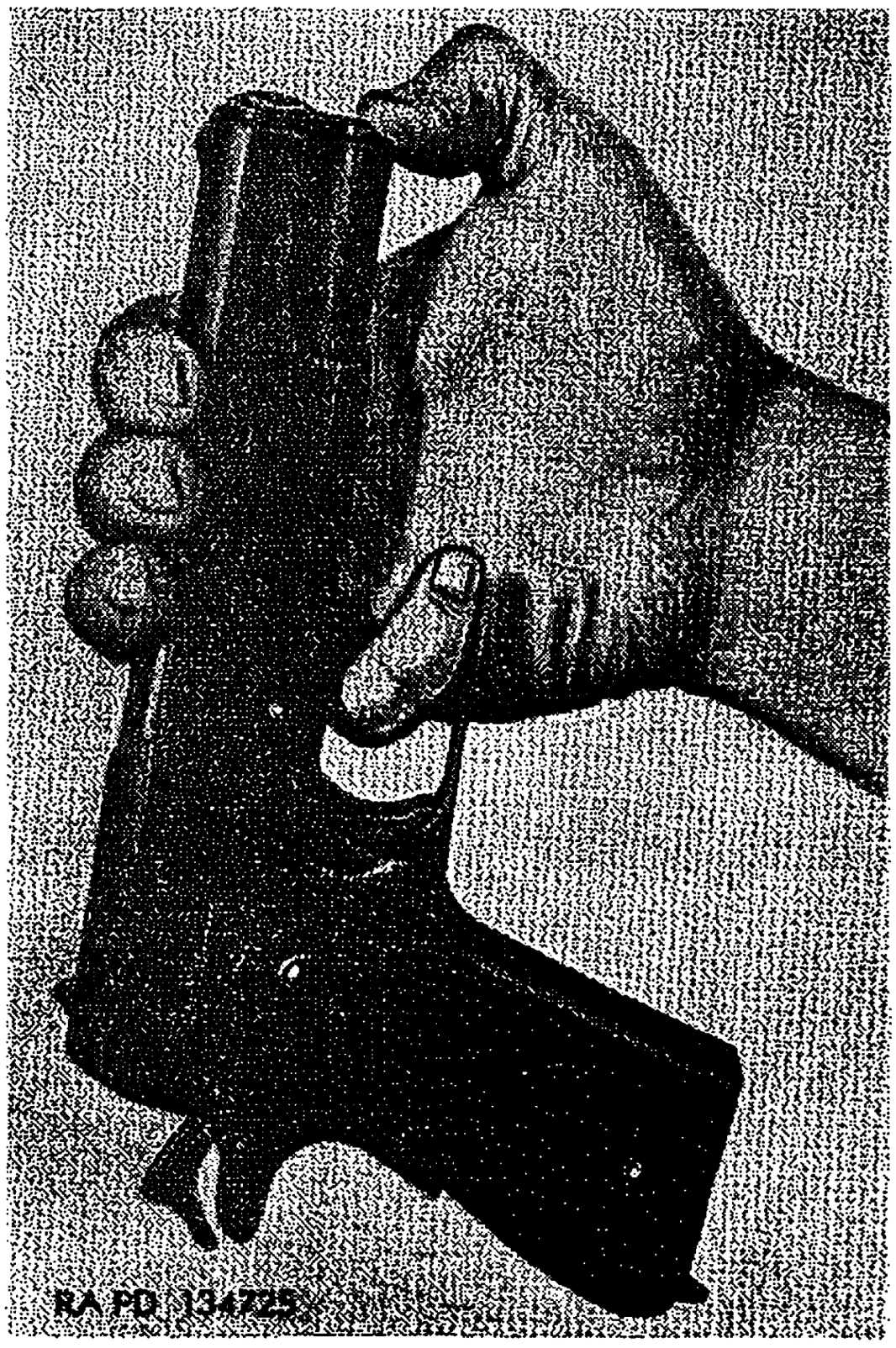

Figure 20. Disengaging recoil spring plug from barrel bushing—step 1.

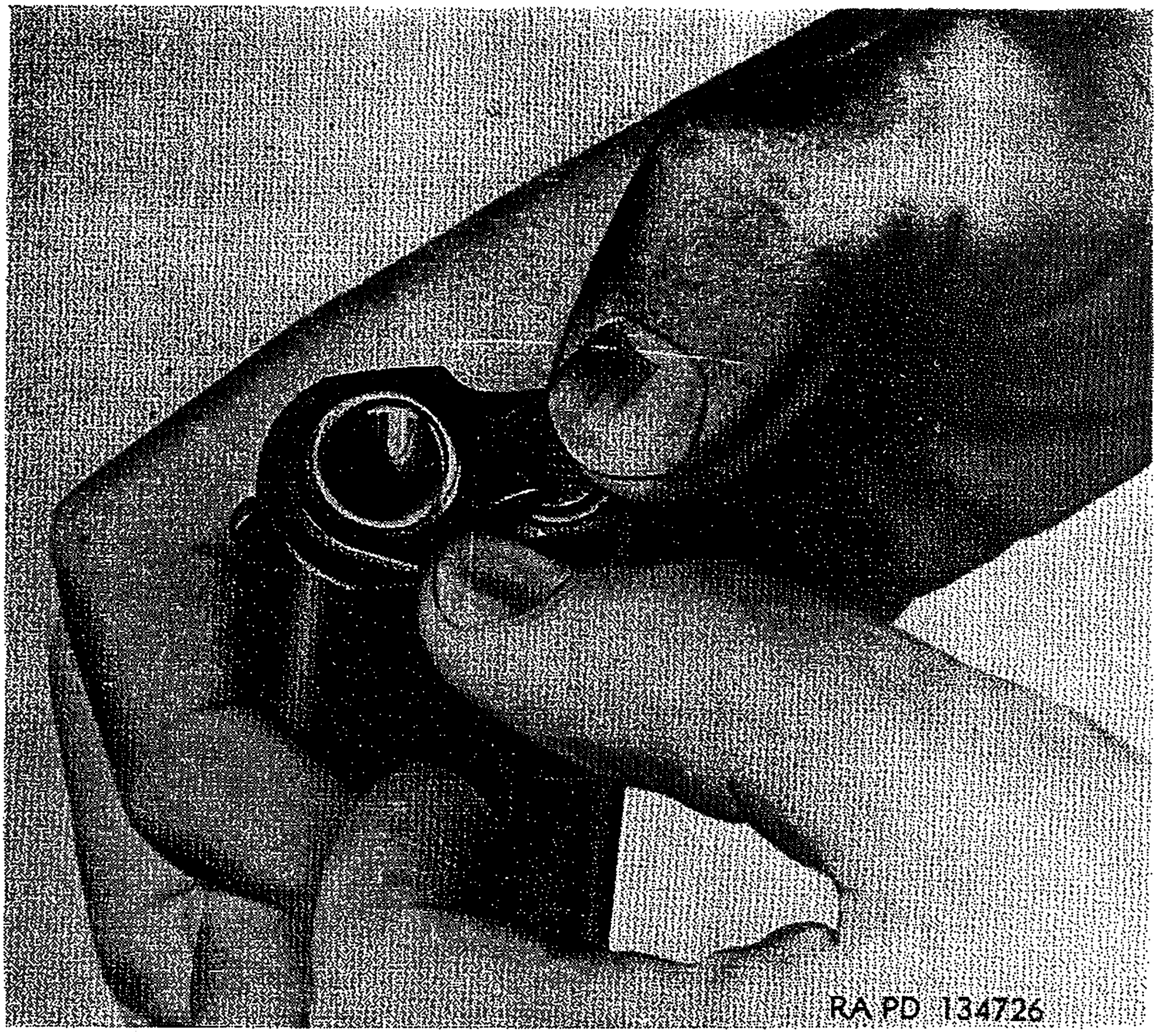

Figure 21. Disengaging recoil spring plug from barrel bushing—step 2.

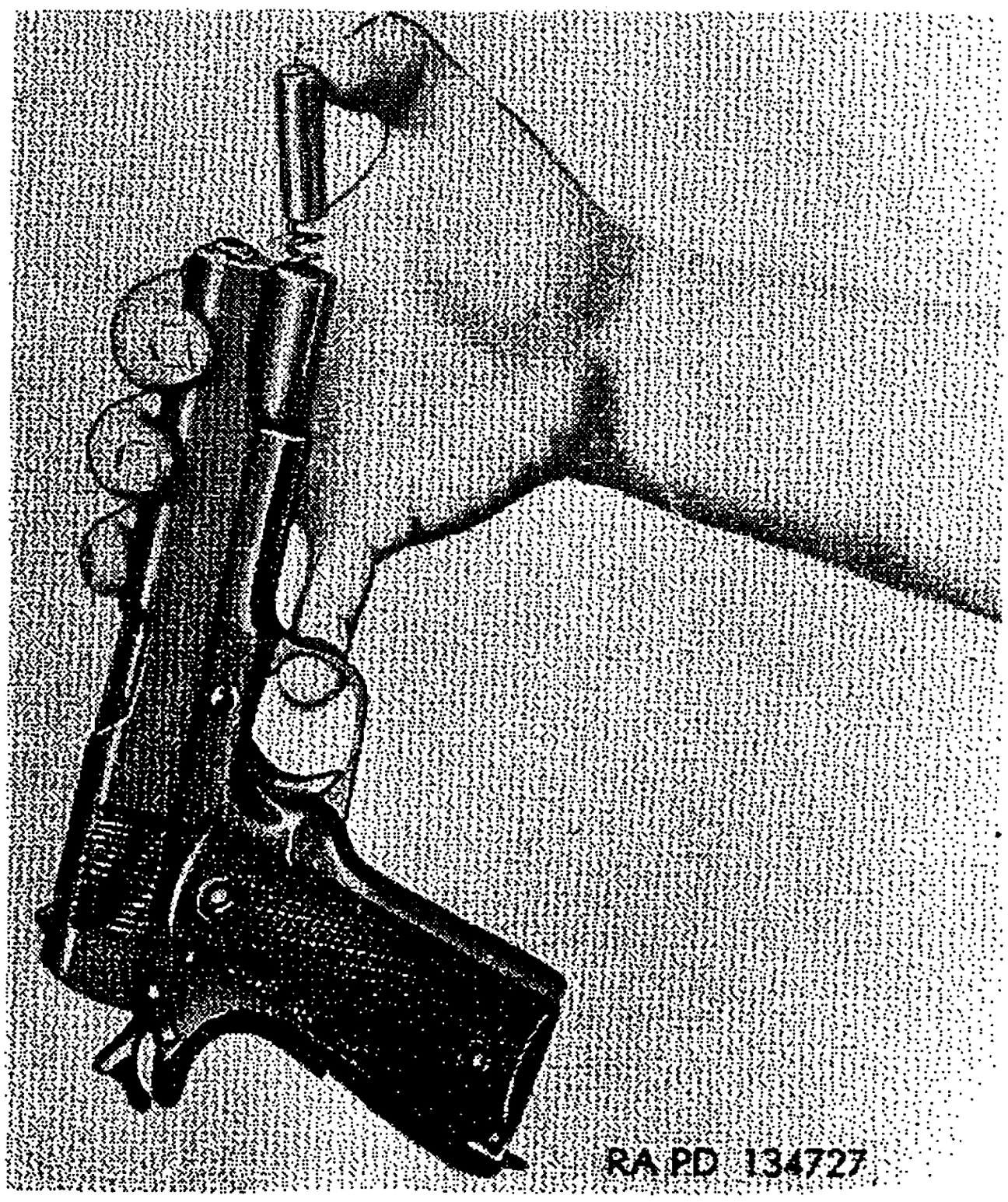

Figure 22. Disengaging recoil spring from barrel bushing—step 3.

d. Hold the pistol well away from the body and exert pressure between the little finger and thumb of the right hand, thereby depressing the recoil spring plug.

e. Rotate the barrel bushing clockwise, using the thumb or forefinger of the left hand (fig. 21).

f. Retaining the original grip with the right hand, release the pressure sufficiently to permit the recoil spring plug and the recoil spring to partially protrude from the pistol at which time they can be gripped firmly with the left hand (fig. 22).

g. Grasp the pistol with the right hand, placing the tip of the index finger on the protruding point of the slide stop pin. Place the safety lock in the downward or unlocked position and move the slide slowly to the rear, exerting pressure on the slide stop pin (fig. 23). (The slide

Figure 23. Disengaging slide stop pin.

Figure 24. Alining slide stop with rear recess.

will move freely as the hammer has been placed in the most rearward position and the mainspring compressed.)

h. When the rear recess in the slide is in the proper position (fig. 24), the pin of the slide stop may be started out by the pressure of the right index finger. Pull out slide stop. At this time, the relative positions of the knob of the slide stop and the rear recess in the lower edge of the slide should be observed; knowledge of this relationship is required when assembling the pistol.

i. Draw the slide forward and disengage from grooves in receiver.

Note. Make certain that the magazine has been removed.

Section III. SLIDE GROUP

Note. The key letters shown in parentheses in paragraphs 39 through 42 refer to figure 29.

39. Disassembly

a. Holding the slide group in the left hand, rotate the recoil spring plug slightly counterclockwise (as viewed from muzzle), and withdraw the plug. Withdraw the recoil spring and recoil spring guide (fig. 25).

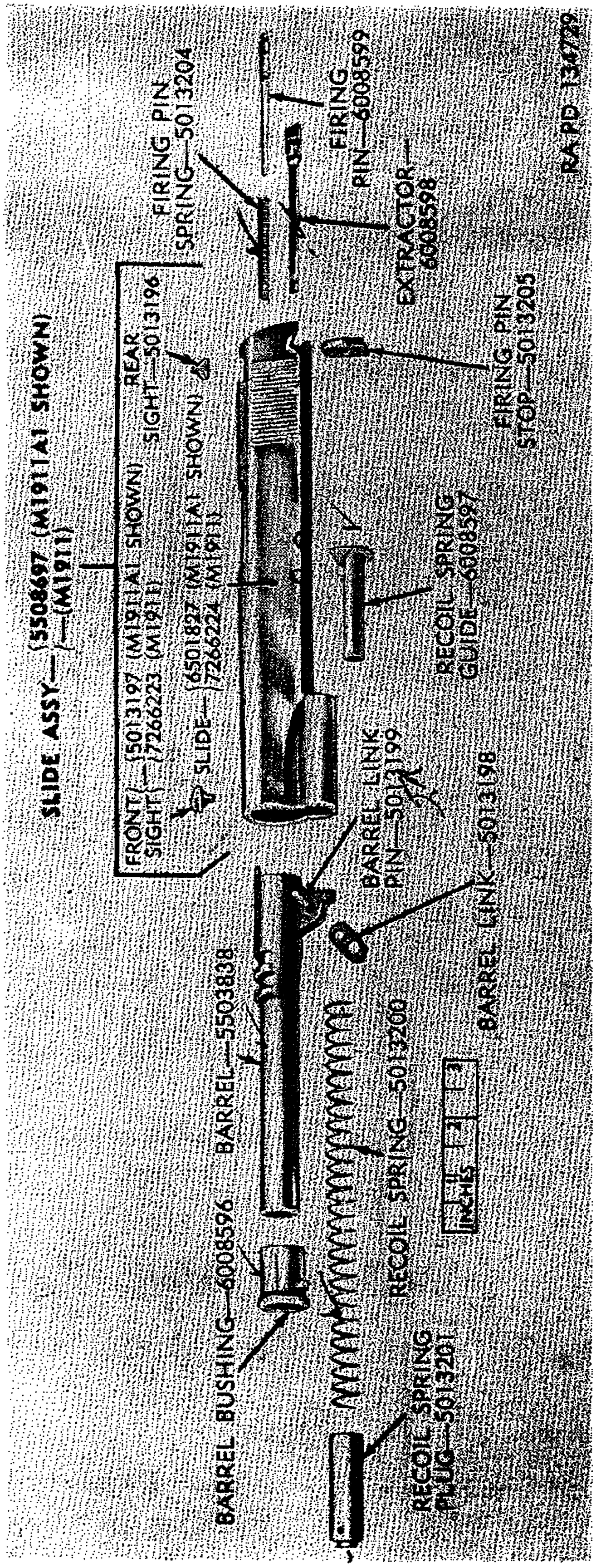

Figure 25. Pistols M1911 and M1911A1 slide group—exploded view.

Figure 26. Removing barrel bushing.

b. Turn the barrel bushing (fig. 26) counterclockwise (as viewed from muzzle) and remove from slide. Raise the barrel slightly to disengage ribs of barrel from the grooves in the receiver. Remove barrel from slide. Push out the barrel link pin and separate barrel and barrel link.

c. Using the punch on the end of the combination screwdriver—5564149 (fig. 27), push the rear end of the firing pin forward until it clears the firing pin stop. Slide the stop out of its seat in the slide. Remove the firing pin and its spring (fig. 25).

Note. Keep a finger over the firing pin so that it will not fly out when withdrawing the stop.

d. Pry the extractor out of the rear of the slide with the combination screwdriver—5564149 (fig. 28).

40. Inspection

a. Inspect the barrel for exterior and interior burs at the muzzle (fig. 29). Inspect the barrel for pittings, bulges, and sharpness of the lands (fig. 30).

b. Inspect the barrel bushing for burs, excessive wear, and out-of-round.

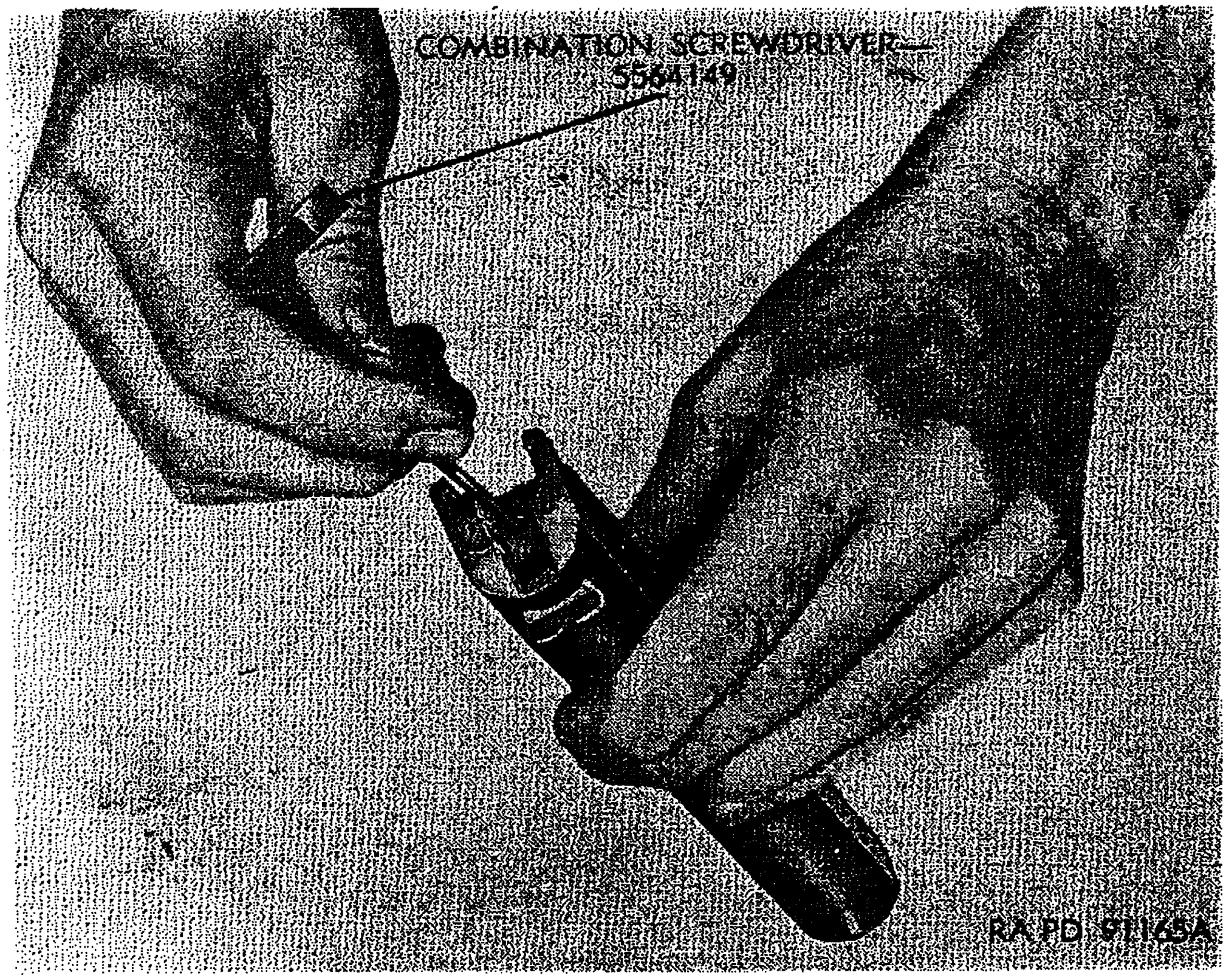

Figure 27. Removing firing pin stop.

Figure 28. Removing extractor from slide.

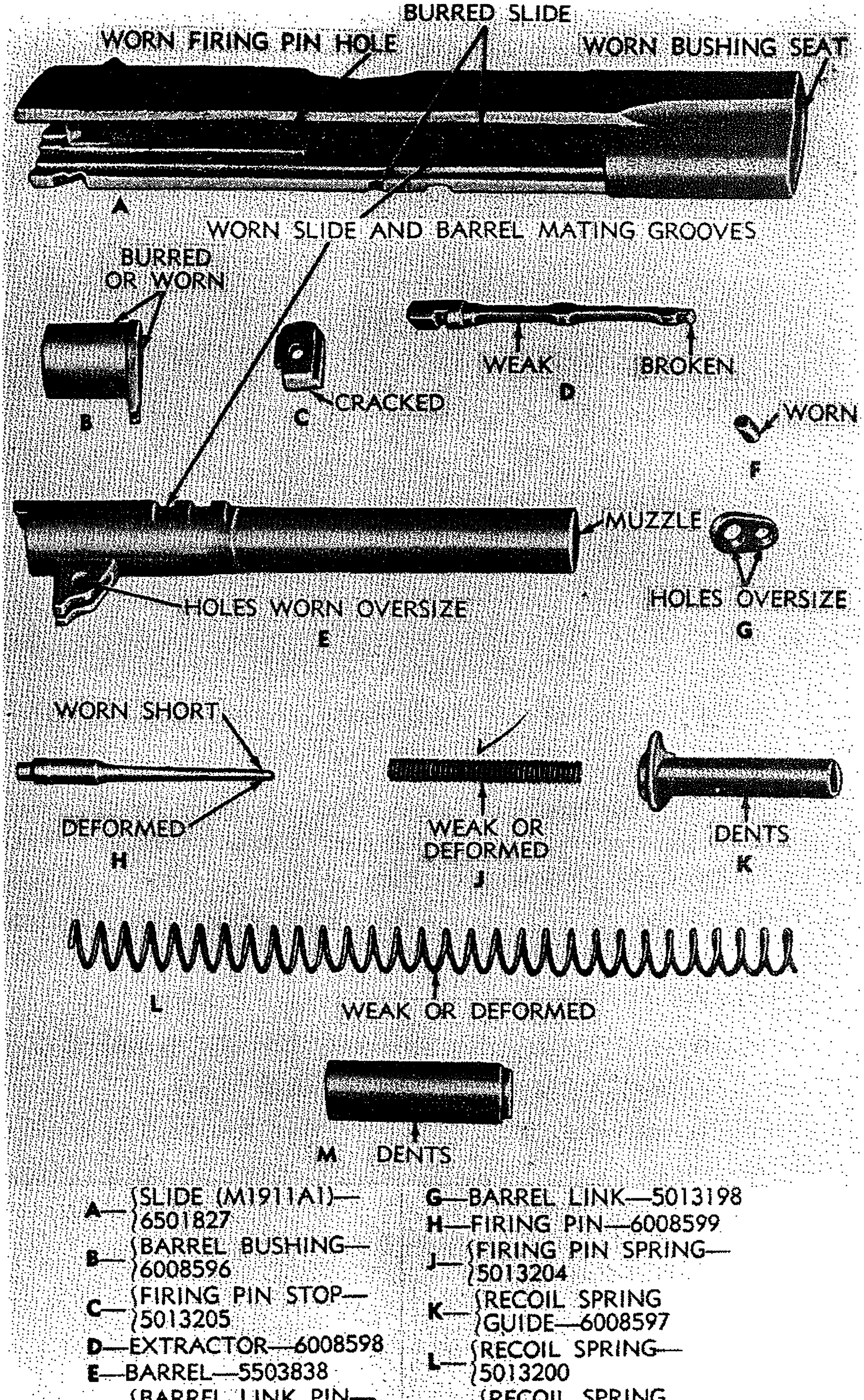

Figure 29. Inspection points on slide group parts.

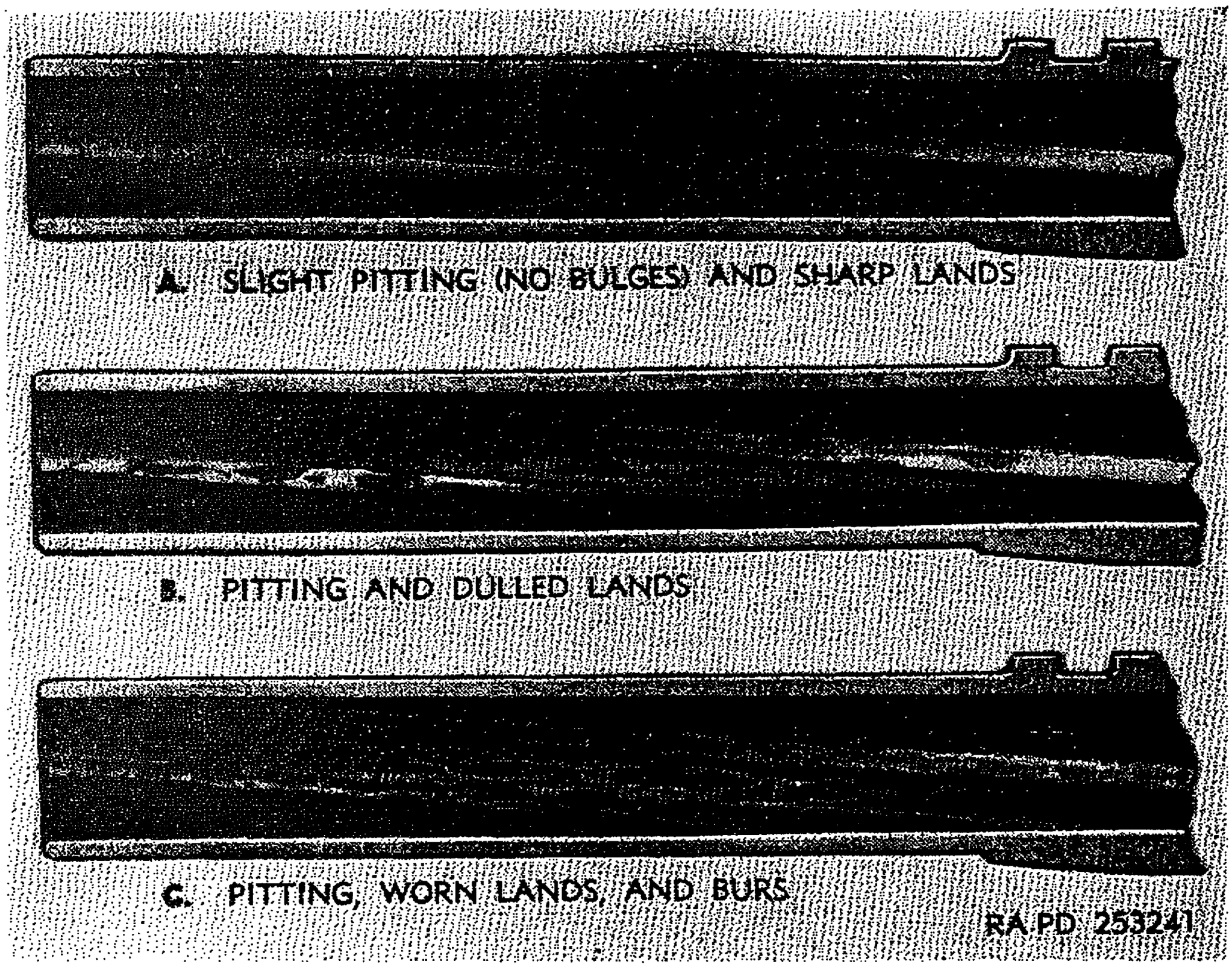

Figure 30. Interior of barrel illustrating serviceable and unserviceable conditions.

c. Inspect slide for breaks or cracks, especially around ejector port. Inspect the interior grooves and ejector port of slide for excessive wear and burs. Check slide stop notch for burs.

d. Inspect firing pin (H) for excessive wear or shortness. The pin, as manufactured, has an overall length of 2.290 to 2.296 inches.

e. Inspect firing pin spring (J) for weakness or breakage.

f. Check sights for deformation, burs, and looseness on slide (A).

g. Check the recoil spring (L) for weakness or breakage.

h. Check the extractor (D) for excessive wear, weakness, broken lip, or deformations.

i. Check the recoil spring plug (M), recoil spring guide (K), and firing pin stop (C) for burs or damage.

41. Repair

a. Repair or replace all parts which are found to be unserviceable.

b. If front or rear sights are unserviceable, remove from slide and replace. If front sight is loose, rivet (fig. 31). To adjust rear sight for accurate alinement (determined by proof firing (par. 55*a*)), place a punch against sight and tap rear sight to right or left as required to

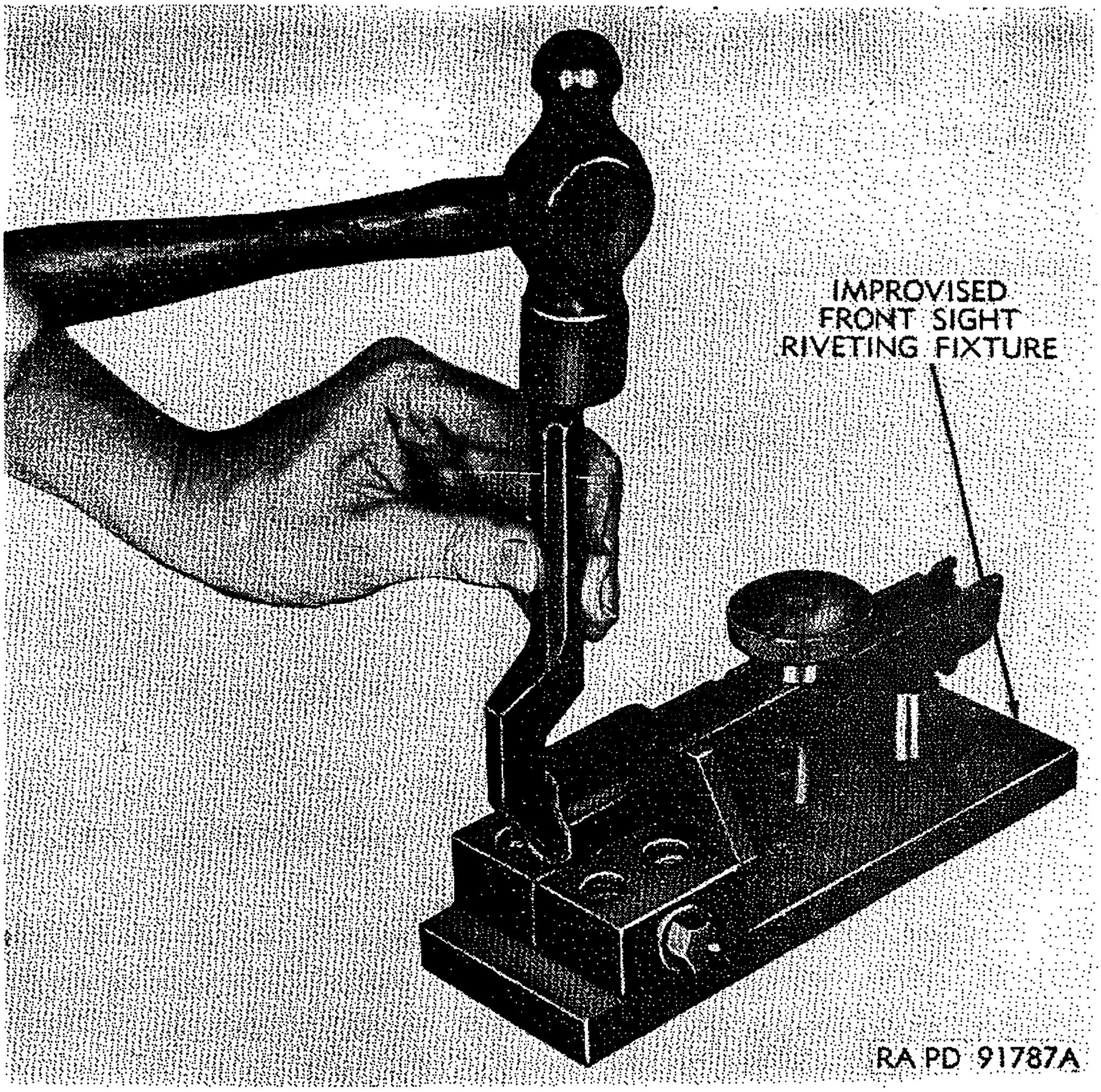

Figure 31. Riveting front sight on slide, using improvised front sight riveting fixture.

obtain accurate alinement. The mark line on the rear sight may not be in register with the mark line on the slide when accurate alinement is attained. If rear sight is loose, replace.

c. Remove all burs (par. 24) and refinish (pars. 25 through 27), as required.

42. Assembly

a. Insert the firing pin spring (J), firing pin (H), and extractor (D) into the rear of the slide (A). Push the firing pin forward until it clears the firing pin stop position and insert the firing pin stop (C). Be certain the extractor is alined correctly to allow the firing pin stop to enter its recess. The rounded top edge of the rear of extractor matches the curve on the rear surface of the slide.

b. Place the barrel link (G) in position in the barrel lugs and insert the barrel link pin (F). Insert the barrel (E) in the slide from the

forward end. Place the barrel bushing (B) on the barrel, then insert it into the slide and turn clockwise until it locks the barrel into the slide.

c. Assemble small end of recoil spring (L) on recoil spring guide (K). Insert recoil spring through opening in slide and lower spring and guide into position on barrel. To complete assembly of the group, attach recoil spring plug (M) to outer end of recoil spring, being sure that end of spring is caught by lug on inside of plug.

Section IV. RECEIVER GROUP

Note. The key letters shown in parentheses in paragraphs 43 through 47 refer to figure 32 except where otherwise indicated.

43. Disassembly

a. Remove the stock screws (J) and stocks (H and GG) from the receiver (A).

b. Cock the hammer (N). Move the safety lock (Z) to a point midway between upper and lower positions and withdraw the lock from the receiver (fig. 33).

c. Squeeze the trigger (K) allowing the hammer (N) to fall to fired position. Drive out the mainspring housing pin (Y) by tapping on the recessed end of the pin (fig. 34). Slide the mainspring housing assembly (T) from the lower end of the receiver. The grip safety (Q) is now released and removed.

d. Lift the sear spring (R) from the receiver.

e. Push the hammer pin (FF) from the hammer and receiver from the right side, releasing the hammer (N) and hammer strut (P). Separate the hammer and hammer strut by removing the hammer strut pin (S).

f. Push the sear pin (AA) from the right side, releasing the sear (M) and disconnector (L). Remove the sear and disconnector.

g. Remove the new design magazine catch by pushing the catch inward and turning the magazine catch lock one-quarter turn counterclockwise with a screwdriver (fig. 35). Remove the old design magazine catch by pushing the catch inward and turning the lock counterclockwise one-half turn with a small wrench (fig. 36). The magazine catch and lock are removed as a unit. The new design magazine catch is recognized by the screwdriver slot in the catch lock. Separate the magazine catch, magazine catch lock, and magazine catch spring by turning the magazine catch lock one-quarter (or one-half for the old design) turn clockwise, and slowly release the spring.

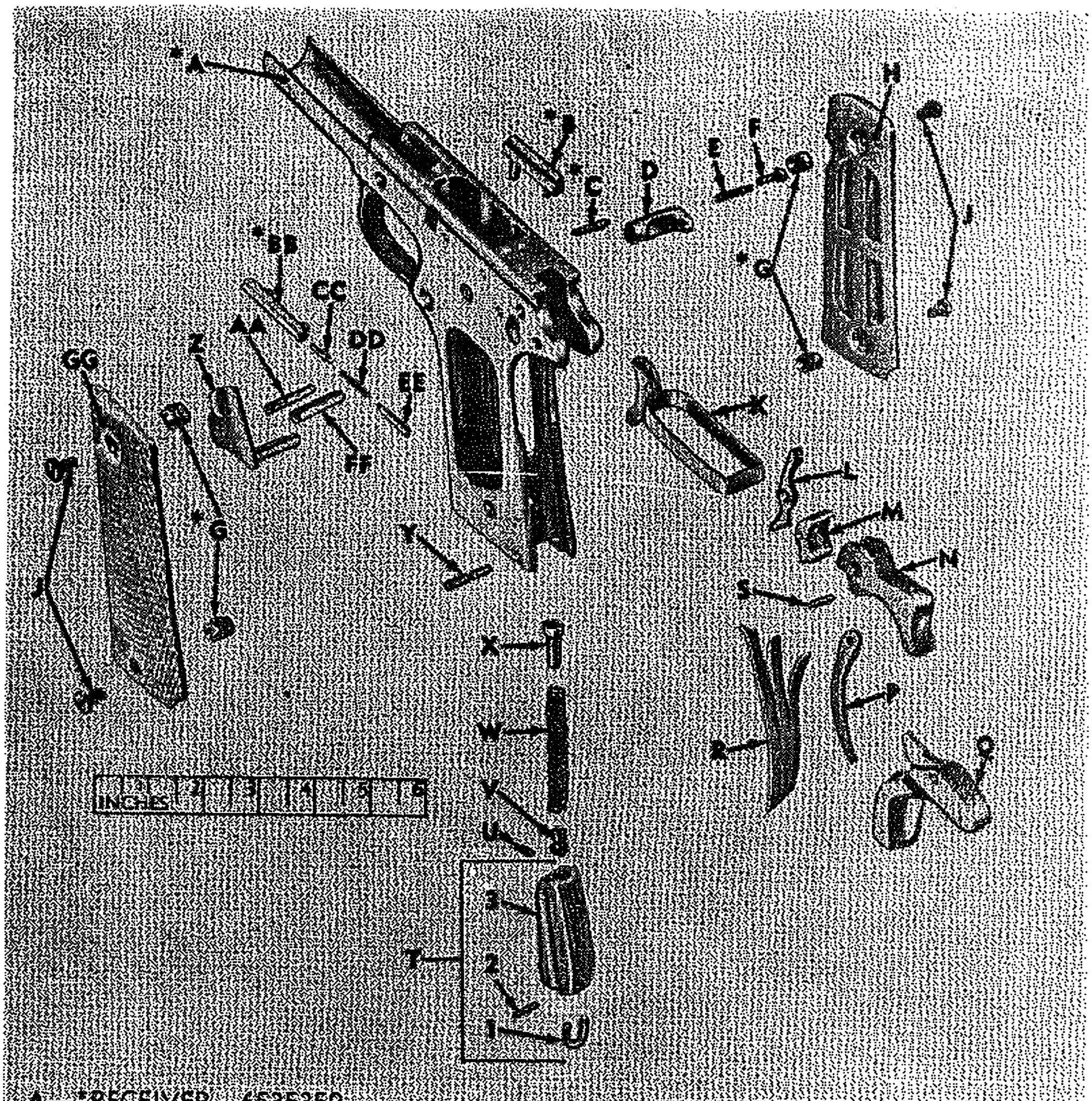

Figure 32. Receiver group of pistol M1911A1—exploded view.

Figure 33. Removing safety lock.

h. Remove the trigger (K) by sliding it through the receiver to the rear.

i. Remove the slide stop plunger (CC), spring (DD), and safety lock plunger (EE) by pushing them to the rear, out of the tube (fig. 37).

j. Remove the mainspring (W), mainspring cap (X), and mainspring housing pin retainer (V) from the mainspring housing (T–3) by tapping the mainspring cap pin (U) from the housing with a drift.

Caution: Hold the thumb over the mainspring cap while removing the pin to prevent the assembly from flying out, thereby causing injury or loss of parts.

k. Drive the lanyard loop pin (T–2) out of the mainspring housing (T–3) with a drift of the proper size. Pull the lanyard loop (T–1) from the housing.

l. If replacement is necessary, remove the stock screw bushings (G) from the receiver.

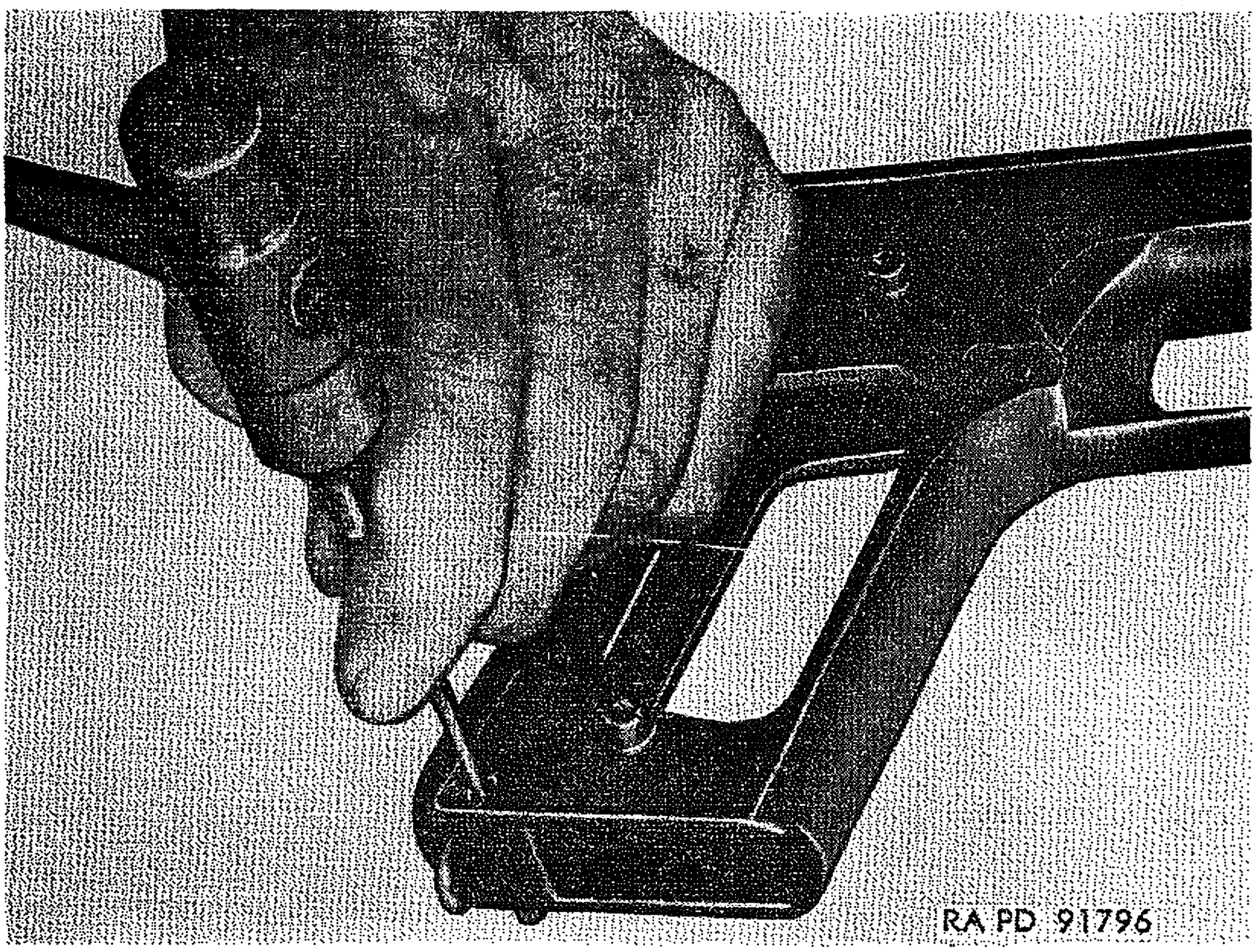

Figure 34. Removing mainspring housing pin.

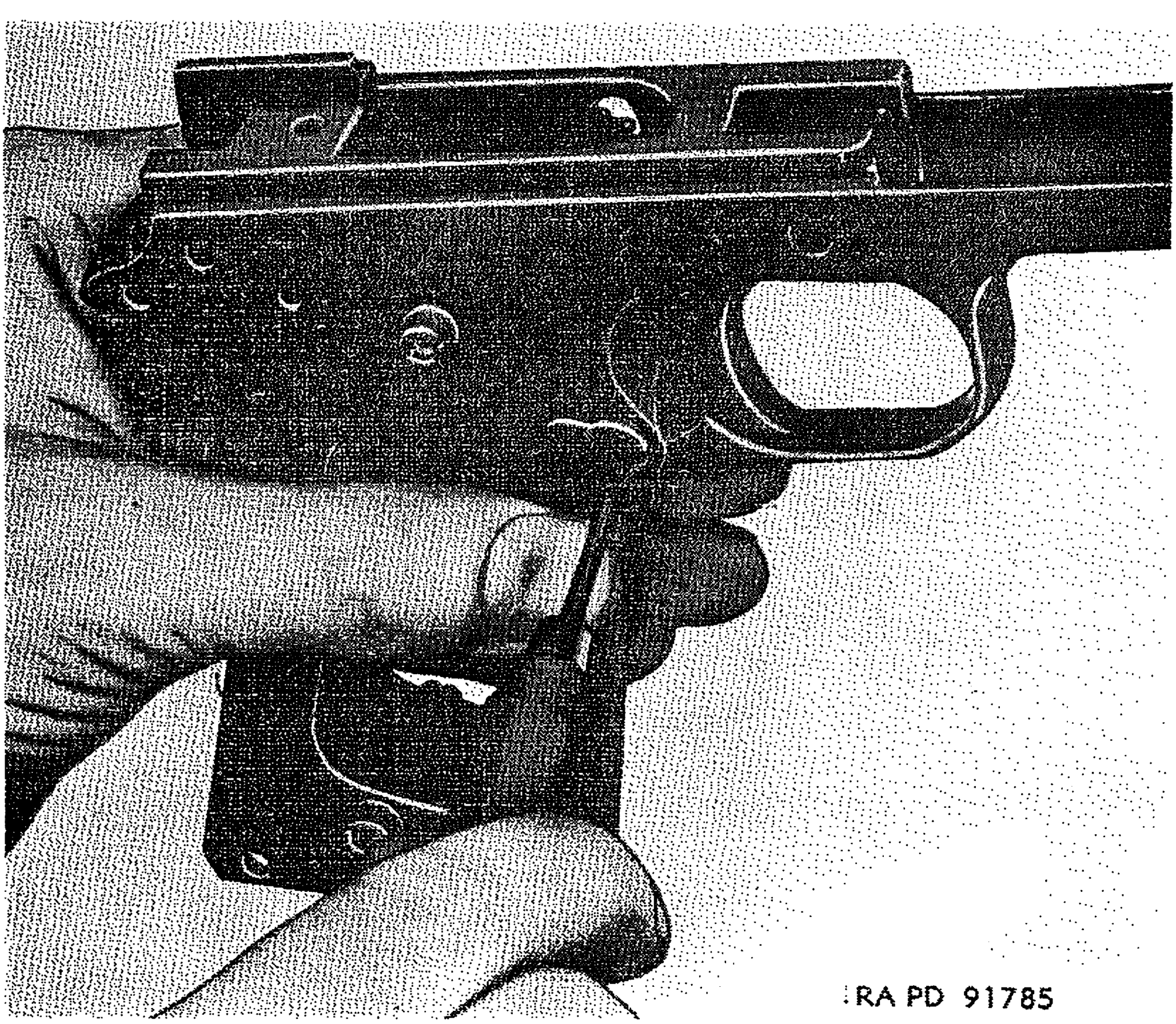

Figure 35. Removing new design magazine catch from receiver.

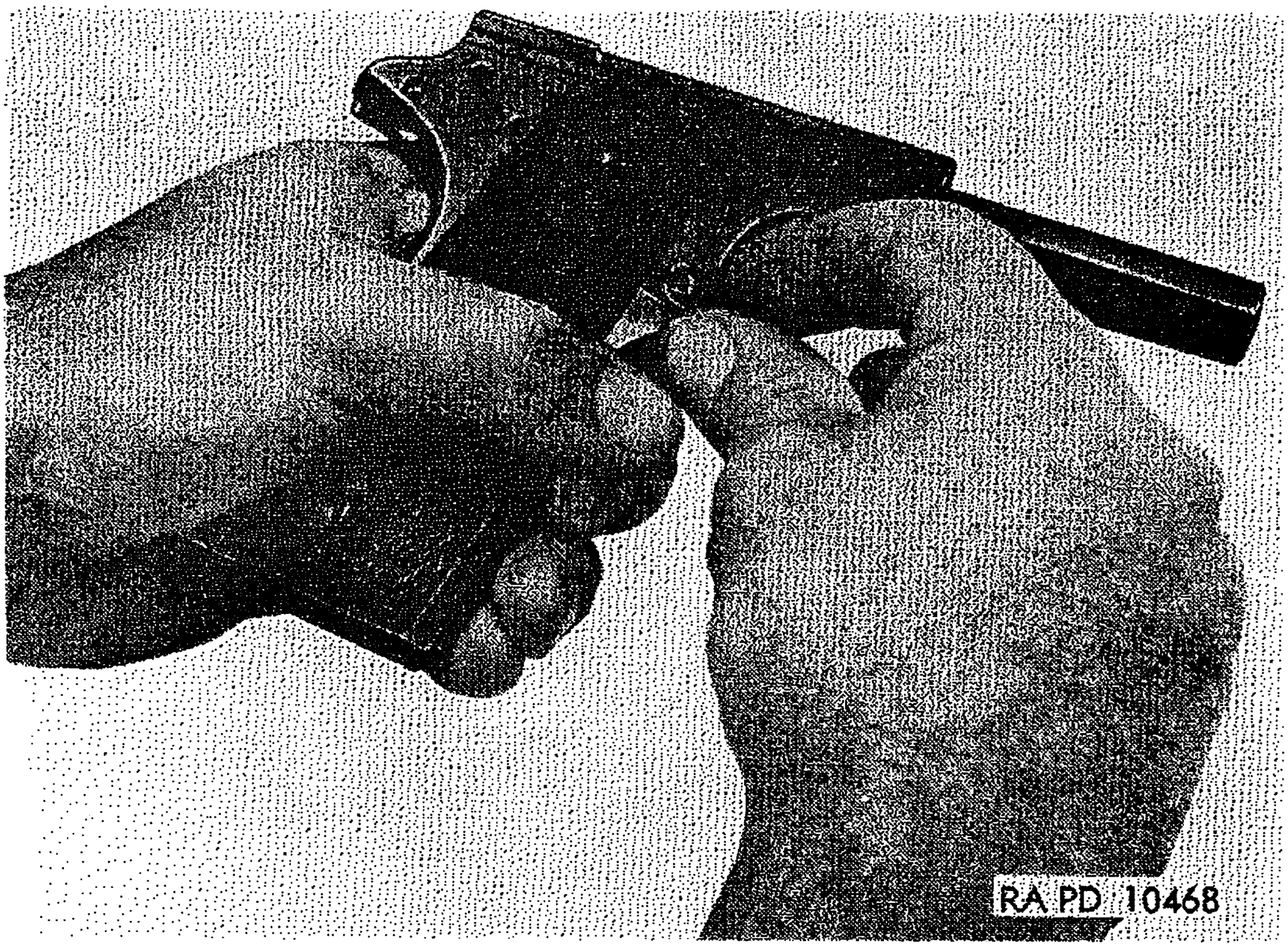

Figure 36. Removing old design magazine catch from receiver.

Figure 37. Removing slide stop plunger, spring, and safety lock plunger.

44. Inspection

a. Inspect the receiver housing (fig. 38) for excessive wear or burs in slide mating grooves. Inspect the receiver for deformation. Check to see that the plunger tube, ejector, and stock screw bushings are not loose, burred, or excessively worn. Check the mainspring housing mating grooves in the receiver for burs. Inspect the trigger groove for burs or excessive wear. Check the slide stop notch for oversize or excessive wear (fig. 38). Receivers having cracks located in front of the slide grooves which are not over five-sixteenths of an inch in length do not make the weapon unserviceable. Approximately one-fourth of an inch below the top of the receiver, the cross section area between the clearance cut for the recoil spring plug housing and the outside surface increases, due to the radial cut, and a crack in this location will not progress sufficiently to materially affect the strength of the receiver.

b. Inspect the half-cock position notch and the firing notch on the hammer for cracks, chips, or excessive wear. Be sure that the hammer strut (G, fig. 39) is not bent or cracked.

c. Inspect the sear (B, fig. 39) for worn or chipped tip or excessively worn lugs.

d. Inspect the sear spring (C, fig. 39) for weak, untempered, broken, or chipped leaves.

e. Inspect the disconnector (A, fig. 39) for burs or excessive wear.

f. Inspect the trigger (H, fig. 39) for burs and deformation.

g. Inspect the grip safety (K, fig. 39) for burs and excessive wear or cracks on the tip which engages the trigger (H, fig. 39).

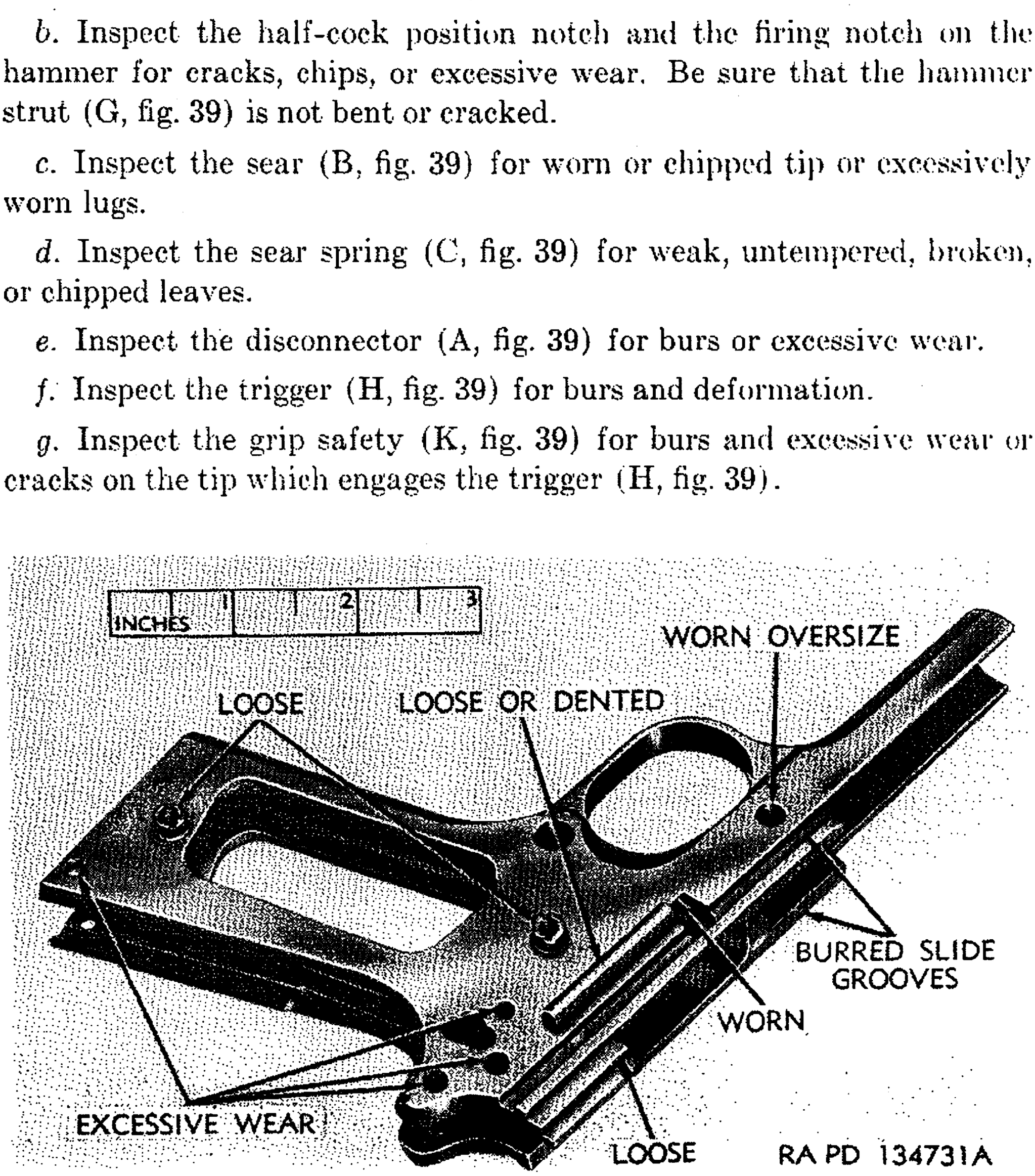

Figure 38. Receiver housing showing points to be inspected.

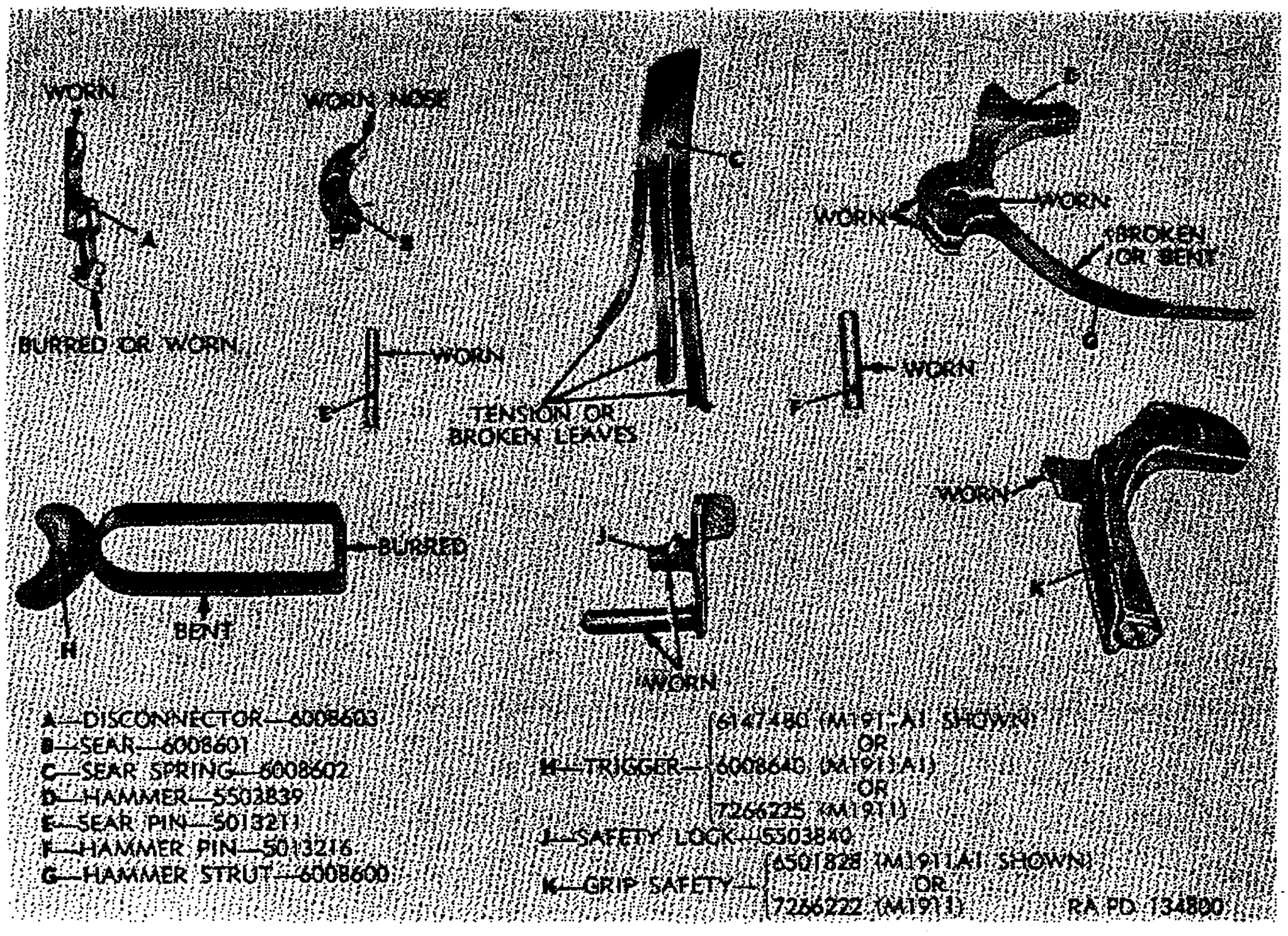

Figure 39. Inspection points on receiver group parts.

h. Inspect the mainspring (J, fig. 40) for weakness or breakage.

i. Inspect the mainspring cap (H, fig. 40), housing pin retainer (K, fig. 40), and housing pin (M, fig. 40) for excessive wear.

j. Inspect mainspring housing assembly (L, fig. 40) for burs on mating surfaces.

k. Inspect the stocks for cracks and loose stock screw bushings.

45. Repair

a. Replace excessively worn parts within scope of authorized field maintenance operations.

b. A too heavy or too light trigger pull may be corrected by selective assembly of sear and hammer. In some instances, the mating surfaces of the sear and hammer may be stoned until they meet squarely.

Caution: Extreme care should be used as stoning the hammer at an angle may decrease the safety of the weapon.

c. Replace and/or tighten the stock screw bushings (fig. 41).

d. Remove burs and refinish, as required (pars. 24 through 27).

46. Assembly

a. Install the lanyard loop (T–1) in the mainspring housing (T–3) and secure with the lanyard loop pin (T–2). Place the mainspring

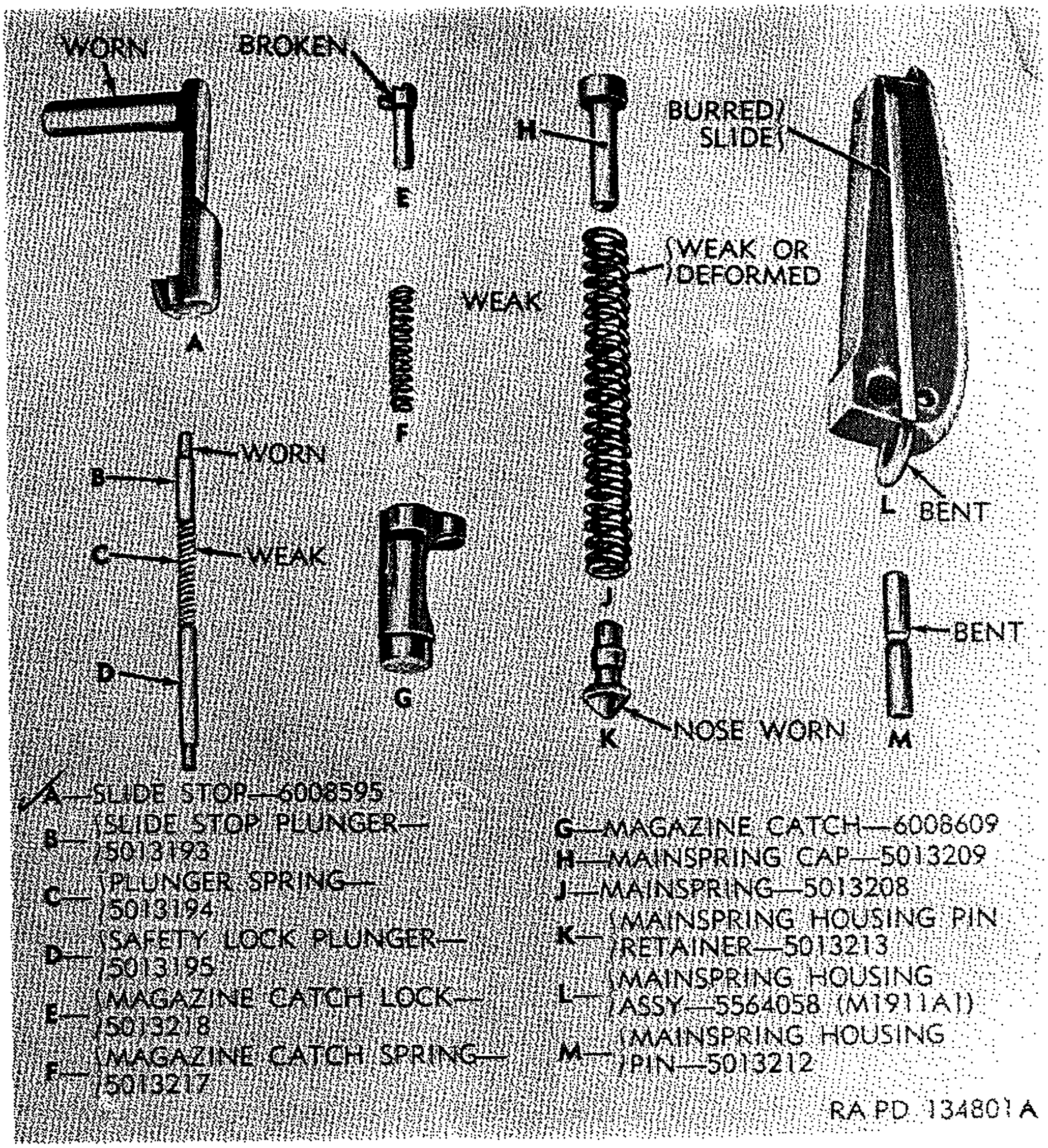

Figure 40. Inspection points on receiver group parts.

housing in a vise with copper jaws. Install the mainspring housing pin retainer (V), mainspring (W), and mainspring cap (X) into the housing in the order named. Compress the spring and install the mainspring cap pin (U).

Note. Do not install the assembly into the receiver at this time.

b. Slide the trigger (K) into receiver from the rear. Install the new design magazine catch from the right side of the receiver and turn the catch lock one-quarter turn clockwise with a screwdriver. If the old design is installed in pistol M1911, install the catch, press inward, and turn the lock one-half turn clockwise with a wrench.

c. Place the cylindrical part of disconnector (L) up through its opening in the receiver, with the flat face of the lower part against the trigger yoke (fig. 42). Place the sear, lugs downward, so that it

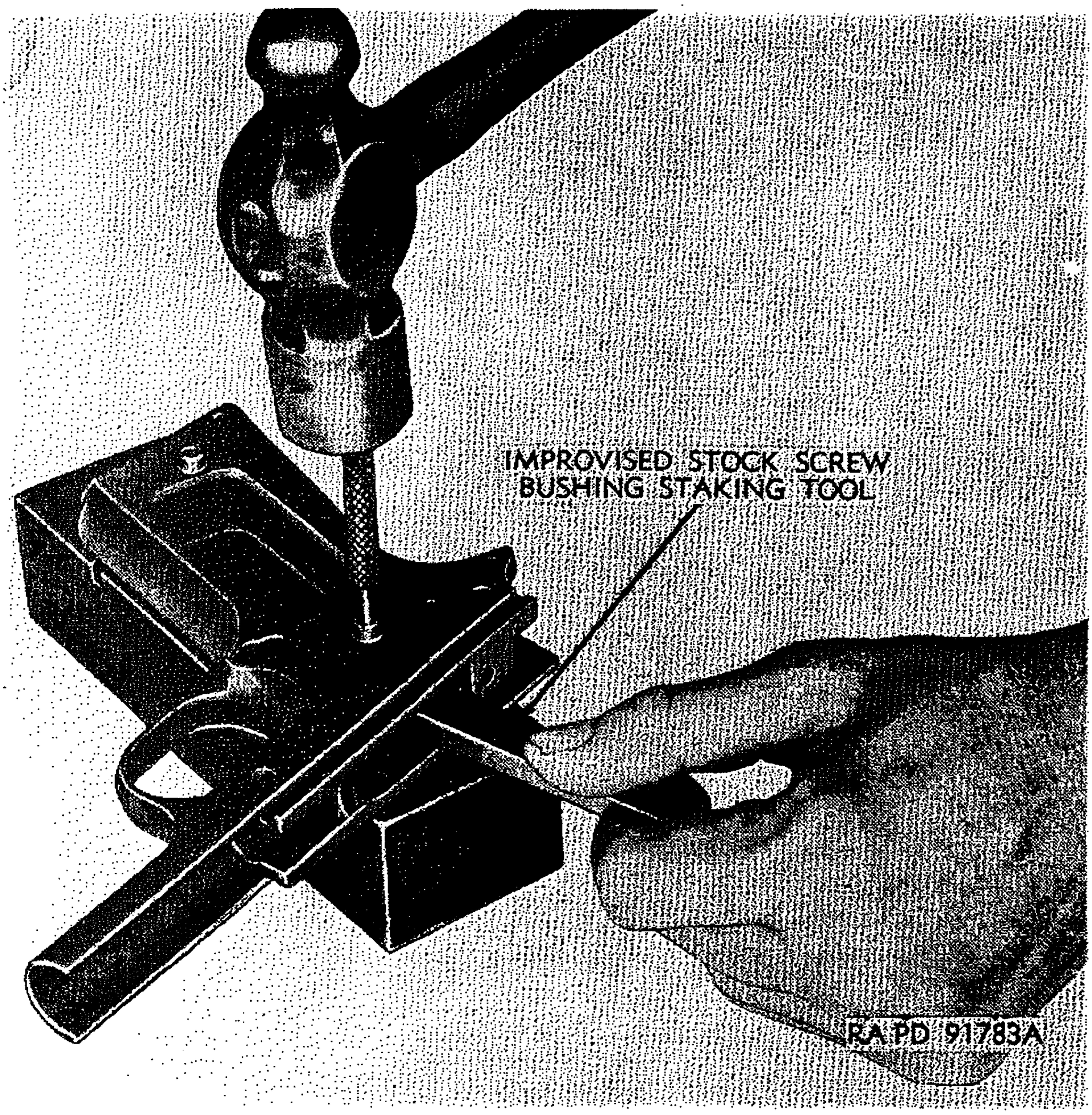

Figure 41. Staking stock screw bushings.

straddles the disconnector. Squeeze the trigger slightly to aline the holes and insert the sear pin (AA) from the left side so that it passes through both the sear and disconnector.

d. Position the hammer (with the strut installed) and secure with the hammer pin (FF) installed from the left side.

e. Place the hammer in fired position and rotate the strut upward. Install the sear spring (R) with the lower end in the slot in the receiver and the end of the long leaf resting on the sear (fig. 43). Rotate the hammer strut (P) downward over the sear spring.

f. Slide the mainspring housing assembly (T) into the receiver and over the sear spring until it is within one-eighth of an inch of being fully installed (fig. 44).

g. Slide the slide stop plunger (CC), plunger spring (DD), and safety lock plunger (EE) in the plunger tube from the rear of the receiver.

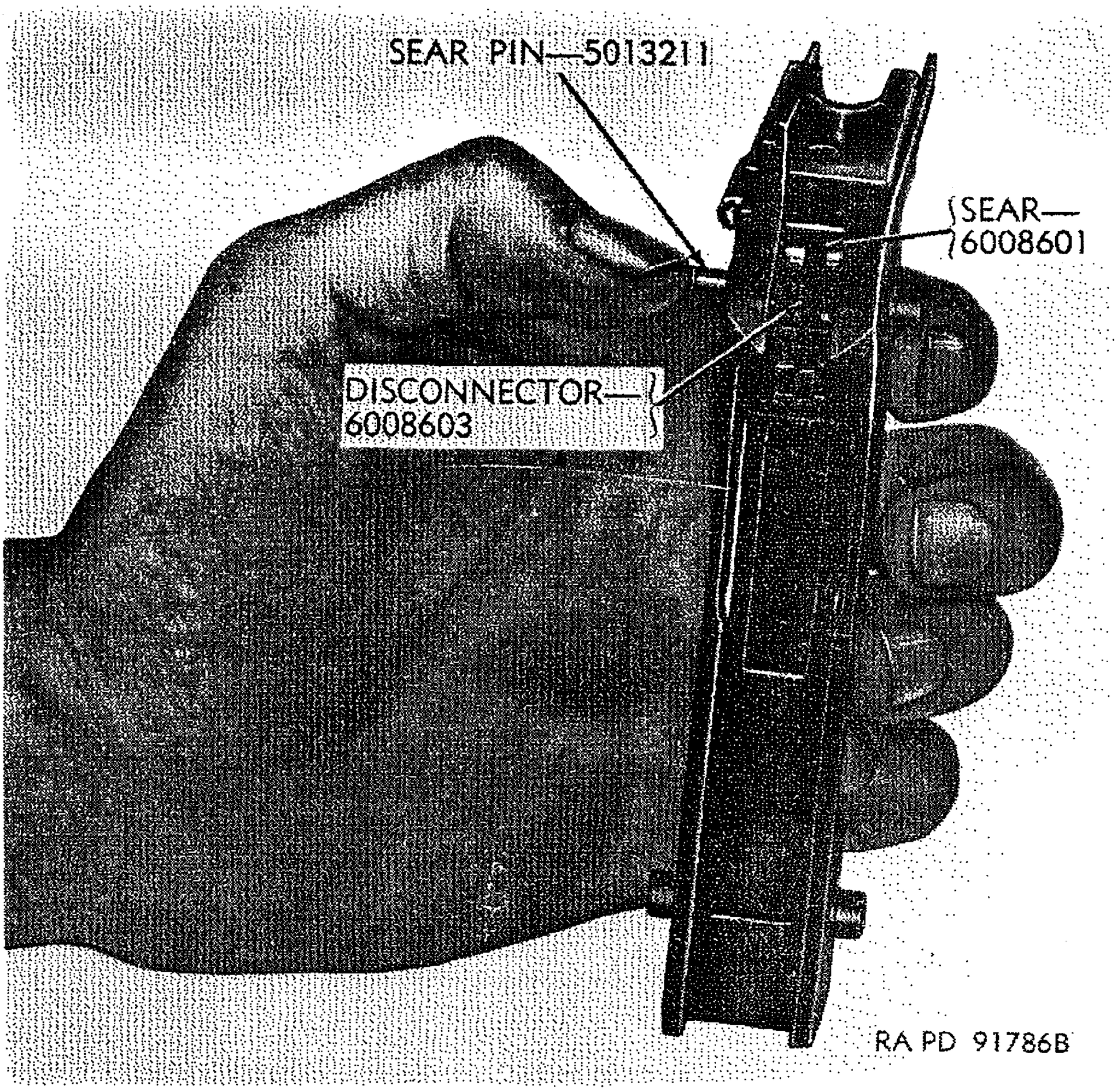

Figure 42. Installing sear and disconnector.

h. Be certain that the hammer is still in the fired position and that the strut will be positioned in the recess of the mainspring cap (X). Place the grip safety (Q) in position (fig. 44); then slide the mainspring housing (T–3) up into the receiver and install the mainspring housing pin (Y). Cock the hammer and, holding the safety lock (thumb safety) midway between upper and lower positions, push into place.

i. Install the stocks (H and GG) and secure with stock screws (J).

47. Functional Check

a. Pull the hammer back to the half-cock position to determine whether it will remain there when the trigger is pulled.

b. Pull the hammer to almost full-cock position and let it slip. The hammer should not fall past the half-cock position.

c. Cock the hammer to full-cock position. Push the safety lock upward and squeeze the trigger several times. The hammer must not fall. Push the safety lock downward.

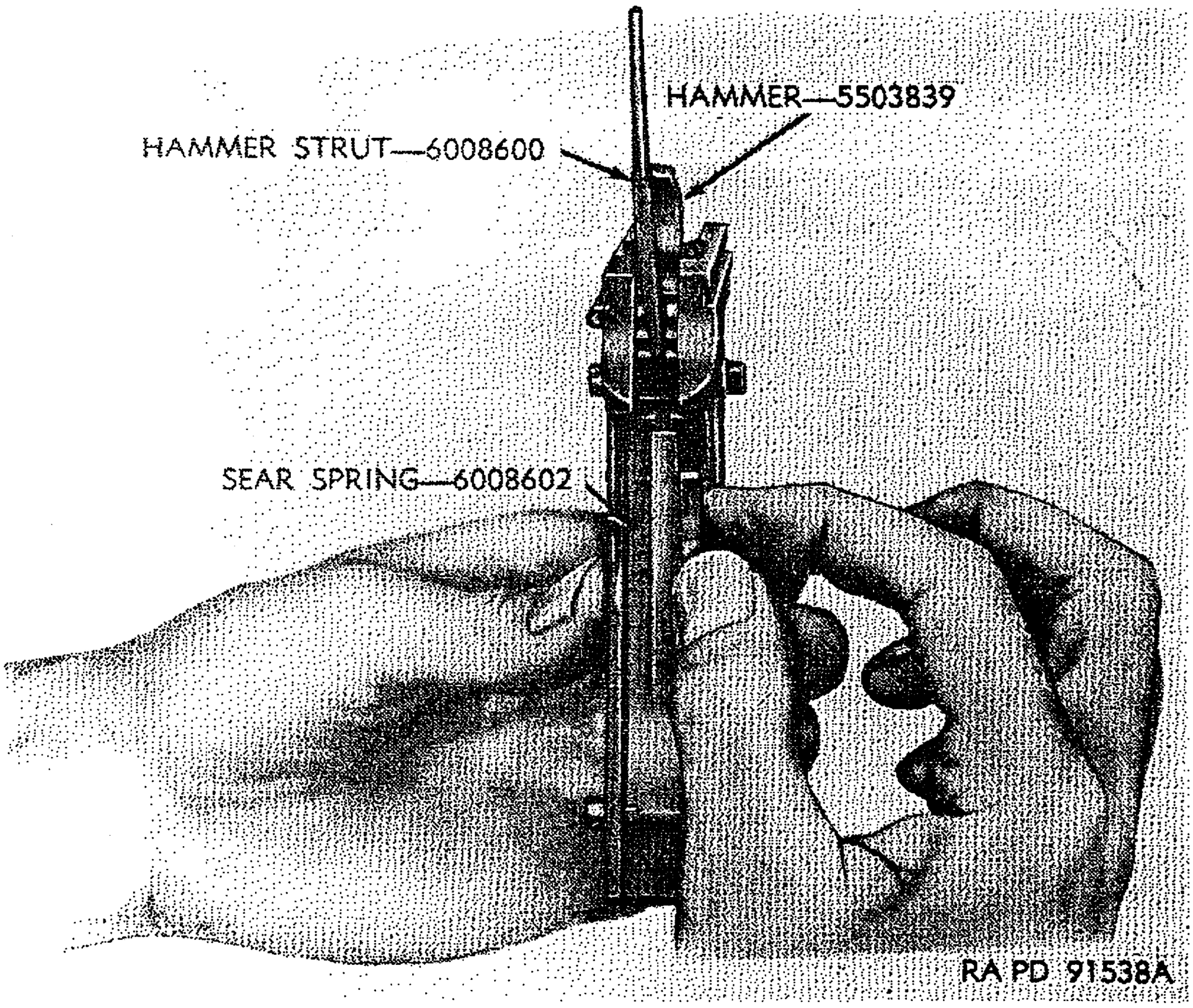

Figure 43. Installing sear spring.

d. Without depressing the grip safety, pull the trigger several times. The hammer must not fall.

e. Depress the grip safety and squeeze the trigger. The hammer should fall. The grip safety should move at least one thirty-second of an inch before the hammer is released.

Section V. MAGAZINE ASSEMBLY

48. Disassembly

a. Push the follower downward in the magazine to compress the spring at least 1 inch. Place a pin through one of the holes in the magazine to hold the spring compressed. Remove the follower. Pull the pin, holding the hand over the spring to prevent it from possibly flying out and causing an injury.

b. The base can be removed from the pinned tube assembly (fig. 45) by driving out the two pins from the base and tube.

49. Inspection

a. Inspect the magazine tube (fig. 45) for deformations or burs. Blue finish must be complete. Reject tubes with only lower half finished.

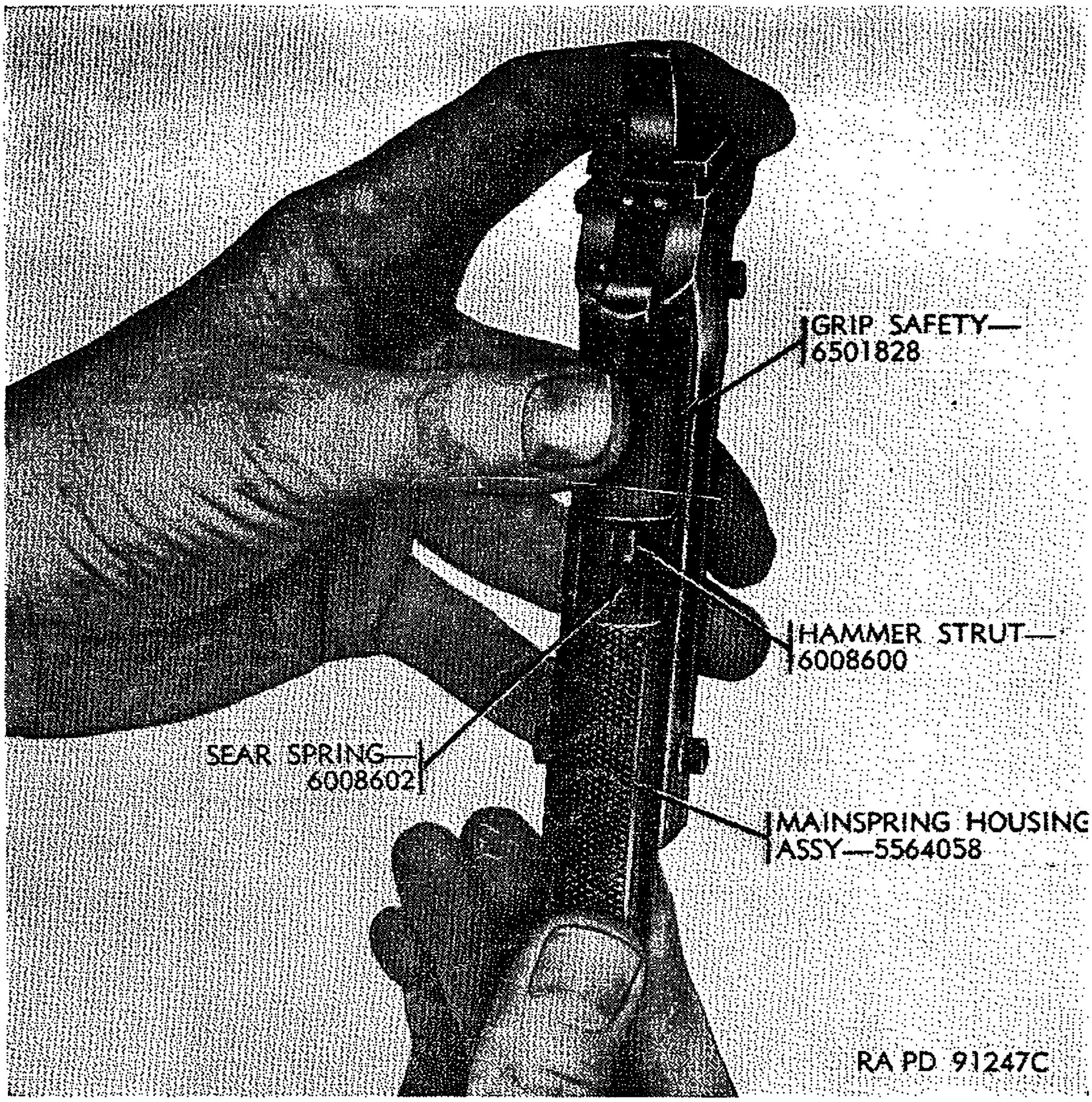

Figure 44. Installing mainspring housing assembly.

b. Inspect the spring for kinks and weakness.

c. Inspect the follower for burs.

50. Repair

Remove burs and refinish, as required.

51. Assembly

a. If base of tube has been removed, install base and install two base pins (fig. 45). Install the spring into the magazine tube assembly (fig. 45) and compress at least 1 inch. Hold the spring compressed by placing a pin or punch through a hole in the tube. Slide the follower in position in the tube. Remove the punch or pin carefully, allowing the follower to be pushed up against the lips of the tube.

Note. Ends of spring are different. Refer to figure 45 for correct assembly.

b. If any part is unserviceable, replace magazine assembly.

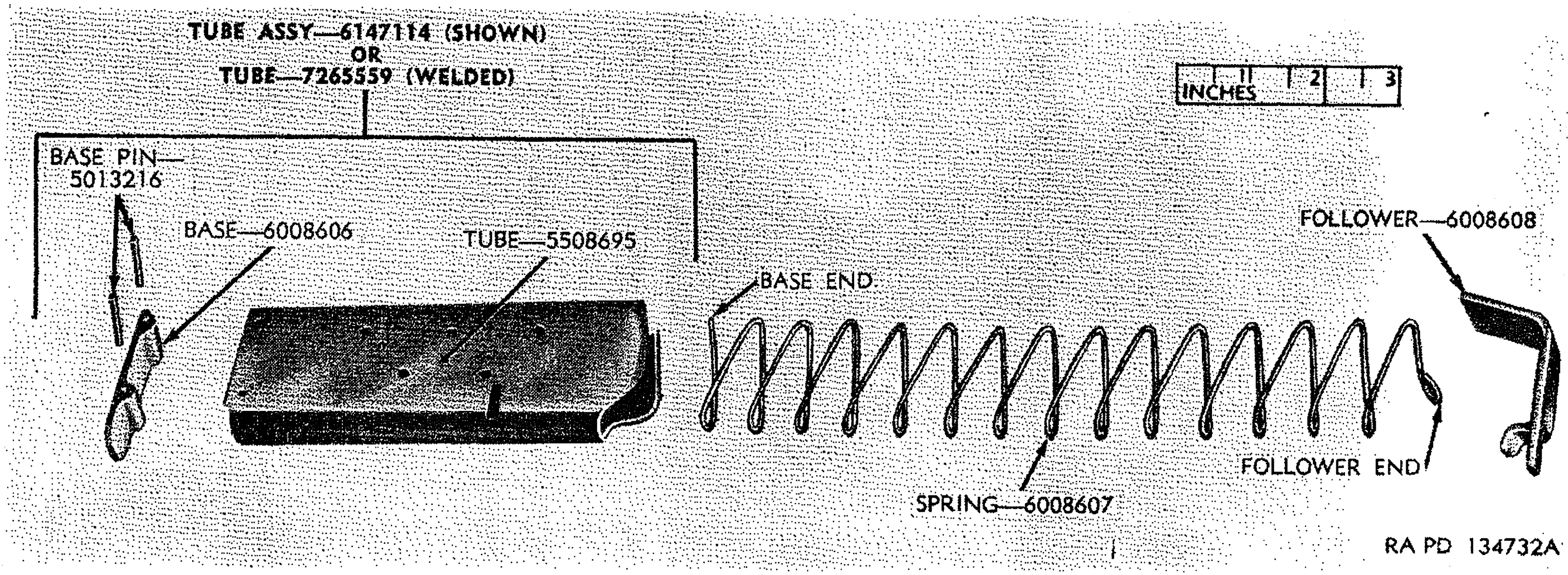

Figure 45. Magazine assembly—exploded view.

Section VI. ASSEMBLY OF GROUPS

52. General

Although figure references used are of the pistol M1911A1, the procedure for assembly of groups is identical for the pistol M1911.

53. Assembly

a. Hold the slide group upside down with the barrel outward and push the barrel and recoil spring guide as far forward as possible. Cock the hammer and, with the receiver upside down, engage the grooves and slide the two together as shown in figure 46. Be certain that the barrel link is tilted forward when assembling the receiver to the slide.

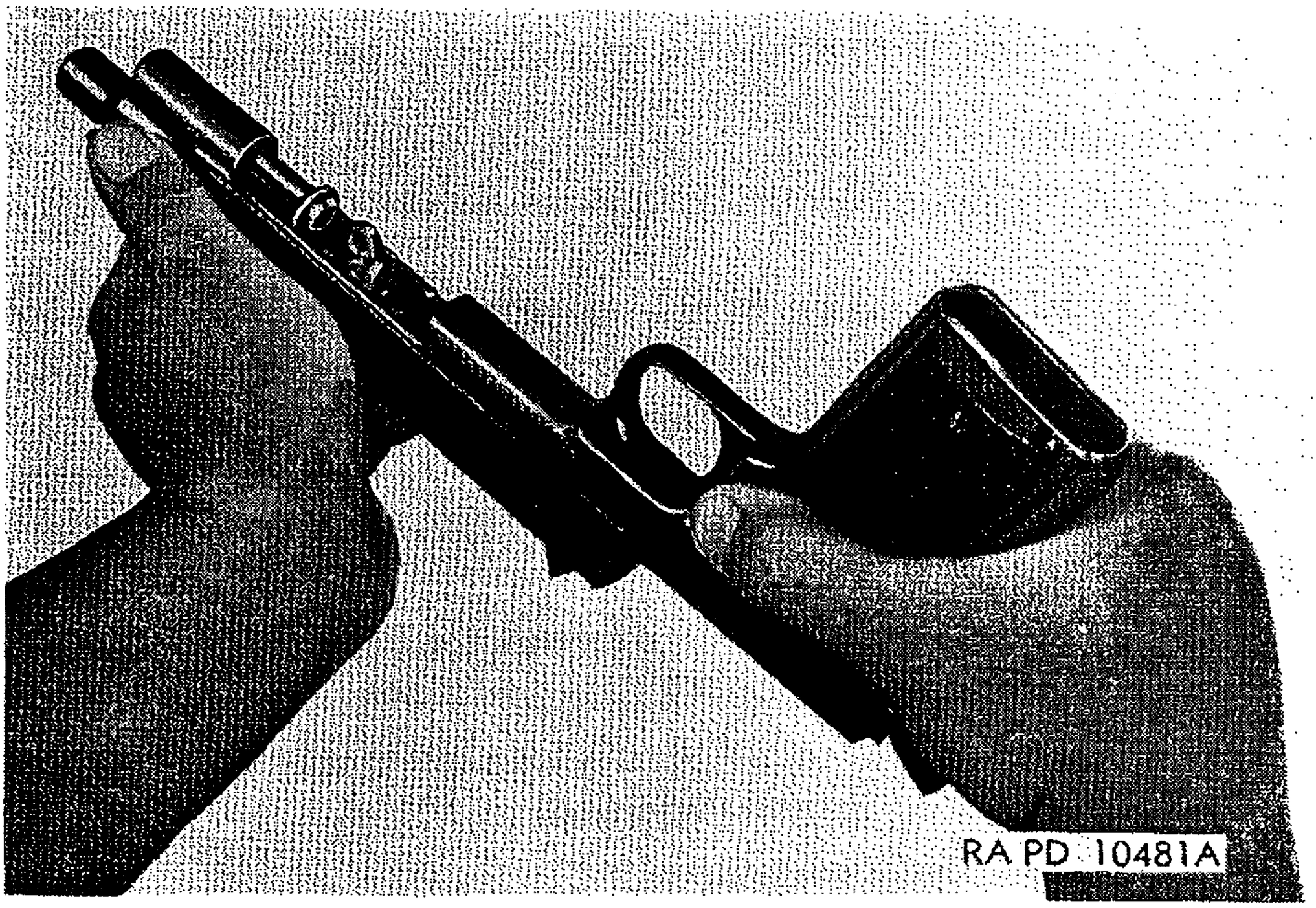

Figure 46. Installing slide group on receiver group, barrel link tilted forward.

b. Turn the pistol right side up and aline the hole in the barrel link with the hole in the receiver. Insert the pin end of the slide stop from the left side of the pistol. Move the slide forward until the rear recess is in the proper position (par. 38*h*); then the stop can be pushed into place. Move the slide to its forward position.

c. Engage the safety lock. Grasp the pistol with the barrel in a vertical position, the little finger hooked inside the trigger guard, and the three middle fingers gripping the slide. With the left hand, guide the recoil spring and plug into position. Compress the spring with the right thumb and turn the barrel bushing counterclockwise into place.

d. Insert the magazine assembly by pushing smoothly and firmly into position until it is engaged by the magazine catch.

CHAPTER 5
FINAL INSPECTION

54. General

Materiel to be returned to user must meet the serviceability standards and tolerances prescribed in chapter 4 and must pass the ordnance shop inspection (par. 17). Instructions for final acceptance of repaired materiel intended for return to user are given in paragraph 55.

55. Weapon

a. Check overall appearance of weapon as described in (1) and (2) below.

(1) Satisfactory metal finishes range from black to medium light gray. A worn surface is objectional from the standpoint of visibility when it is capable of reflecting light.

(2) Check alinement of sights. Proof fire the weapon from a bench rest. Adjust the rear sight (par. 41*b*) to center the dispersion of hits on the target.

b. Light pitting of the barrel is not cause for rejection. A barrel that is uniformly pitted throughout, with edges of lands sharp, is acceptable.

c. Looseness and play must be considerable to affect the accuracy of a weapon beyond its natural dispersion.

d. Check operation of weapon.

APPENDIX
REFERENCES

1. Publication Indexes

DA pamphlets of the 310-series and DA Pam 108–1 should be consulted frequently for latest changes or revisions of references given in this appendix and for new publications relating to materiel covered in this manual.

2. Supply Manuals

The following manuals of the Department of the Army supply manual pertain to this materiel:

a. Destruction to Prevent Enemy Use.

Fuzes and Primers.....SM 9–5–1390
Land Mines and Components.....SM 9–5–1345
Pyrotechnics, Military, All Types.....SM 9–5–1370

b. General.

Introduction .....ORD 1

c. Repair.

Abrasives, Adhesives, Cleaners, Preservatives, Recoil Fluids, Special Oils, and Related Items.....ORD 3 SNL K–1
Miscellaneous Hardware.....ORD 5 SNL H–2
Fuels, Lubricants, Oils, and Waxes.....SM 10–5–9100
Shop Set; Field Maintenance, Small Arms.....SM 9–4–5180–J8–6
Soldering, Metallizing, Brazing and Welding Materials; Gases and Related Items.....ORD 3 SNL K–2
Special Tool Sets for Small Arms and Automatic Weapons (SNL Groups A and B).....ORD 6 SNL J–12
Standard Hardware.....ORD 5 SNL H–1
Tool Set, Small Arms Repairman (Ordnance) (MOS 0903).....ORD 6 SNL J–10, Sec 2

d. Weapon.

Pistol, Automatic, Cal. .45, M1911 and M1911A1.....ORD (*) SNL B–6

(*) See DA Pam 310–29, Index of Supply Manuals—Ordnance Corps, for published types of manuals of the Ordnance section of the Department of the Army supply manual.

3. Forms

The following forms pertain to this materiel:

DA Form 9–71, Locator and Inventory Control Card.
DA Form 9–77, Job Order Register.
DA Form 9–78, Job Order.
DA Form 9–79, Parts Requisition.
DA Form 9–80, Job Order File.
DA Form 9–81, Exchange Part or Unit Identification Tag.
DA Form 421, Stock Record Card.
DA Form 446, Issue Slip.
DA Form 447, Turn-in Slip.
DA Form 468, Unsatisfactory Equipment Report.
DA Form 811, Work Request and Job Order.
DA Form 828, Job Time Ticket—Individual.
DA Form 829, Rejection Memorandum.
DA Form 865, Work Order.
DA Form 866, Consolidation of Parts.
DA Form 867, Status of Modification Work Order.
DD Form 6, Report of Damaged or Improper Shipment.

4. Other Publications

The following explanatory publications contain information pertinent to this materiel and associated equipment:

a. Camouflage.

Camouflage, Basic Principles.....FM 5–20
Camouflage of Individuals and Infantry Weapons.....FM 5–20A

b. Decontamination.

Decontamination .....TM 3–220
Defense Against CBR Attack.....FM 21–40

c. Destruction to Prevent Enemy Use.

Explosives and Demolitions.....FM 5–25
Ordnance Service in the Field.....FM 9–5

d. General.

Common Classification Code.....AR 711–50
Inspection of Ordnance Materiel in Hands of Troops.....TM 9–1100
Report of Malfunctions and Accidents Involving.....SR 700–45–6
Ammunition and Explosives (During Training or Combat).
Unsatisfactory Equipment Report.....AR 700–38
Accident Reporting.....SR 385–10–40
Safety: Regulations for Firing Ammunition for.....AR 385–63
Training, Target Practice, and Combat. AFR 50–13

e. Maintenance.

Cleaning and Black Finishing of Ferrous Metals.....TM 9–1861
Welding Theory and Application.....TM 9–2852
Lubrication .....TM 9–2835
Maintenance and Care of Hand Tools.....TM 9–867
Maintenance Responsibilities and Shop Operation.....AR 750–5
Materials used for Cleaning, Preserving, Abrading,.....TM 9–1007
and Cementing Ordnance Materiel and Related
Materials including Chemicals, Lubricants,
Indicators, and Hydraulic Fluids.
Ordnance Maintenance and General Supply in the Field.....FM 9–10
Pistols and Revolvers.....FM 23–35

f. Operation.

Fundamentals of Small Arms.....TM 9–2205
Small Arms Materiel and Associated Equipment.....TM 9–2200

g. Preservation, Packaging, and Packing.

Army Shipping Document.....TM 38–705
Field Inspection and Serviceability Standards.....TB ORD 587
for Small Arms Materiel.
Ordnance Preservation, Packaging, Packing,.....TM 9–1005
Storage and Shipping.
Report of Damaged or Improper Shipment.....AR 700–58
Marking of Oversea Supply.....SR 746–30–5
Ordnance Storage and Shipment Chart, Group B,.....TB 9–OSSC–B
Major Items and Major Combinations of
Group B.
Packaging of Small Arms Materiel with.....TB ORD 623
Volatile Corrosion Inhibitor (VCI).
Preparation of Ordnance Materiel for.....TM 9–2853
Deep-Water Fording.
Preservation, Packaging, and Packing of.....TM 38–230
Military Supplies and Equipment.
Protection of Ordnance General Supplies in.....TB ORD 379
Open Storage.
Standards for Oversea Shipment and Domestic Issue.....TB ORD 385
of Ordnance Materiel Other Than Ammunition and
Army Aircraft.

INDEX

[AG 474.6 (14 May 57)]

BY ORDER OF THE SECRETARIES OF THE ARMY AND THE AIR FORCE:

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Armies	Ord PG
Corps	Ord Arsenals
Div	Mil Dist
Ord Gp	Ord Proc Dist
Ord Bn	MAAG
Ord Co	Mil Mis
Ft & Camp	JBUSMC
QM Tng Comd	JUSMAG (Greece)
Svc Colleges	Fld Comd, AFSWP

NG: State AG; units—same as Active Army.

USAR: None.

For explanation of abbreviations used, see AR 320–50.

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