

No. 1758

HANDBOOK OF THE COLT AUTOMATIC MACHINE GUN

CALIBER .30

WITH

PACK OUTFITS AND ACCESSORIES

(SIXTEEN PLATES)

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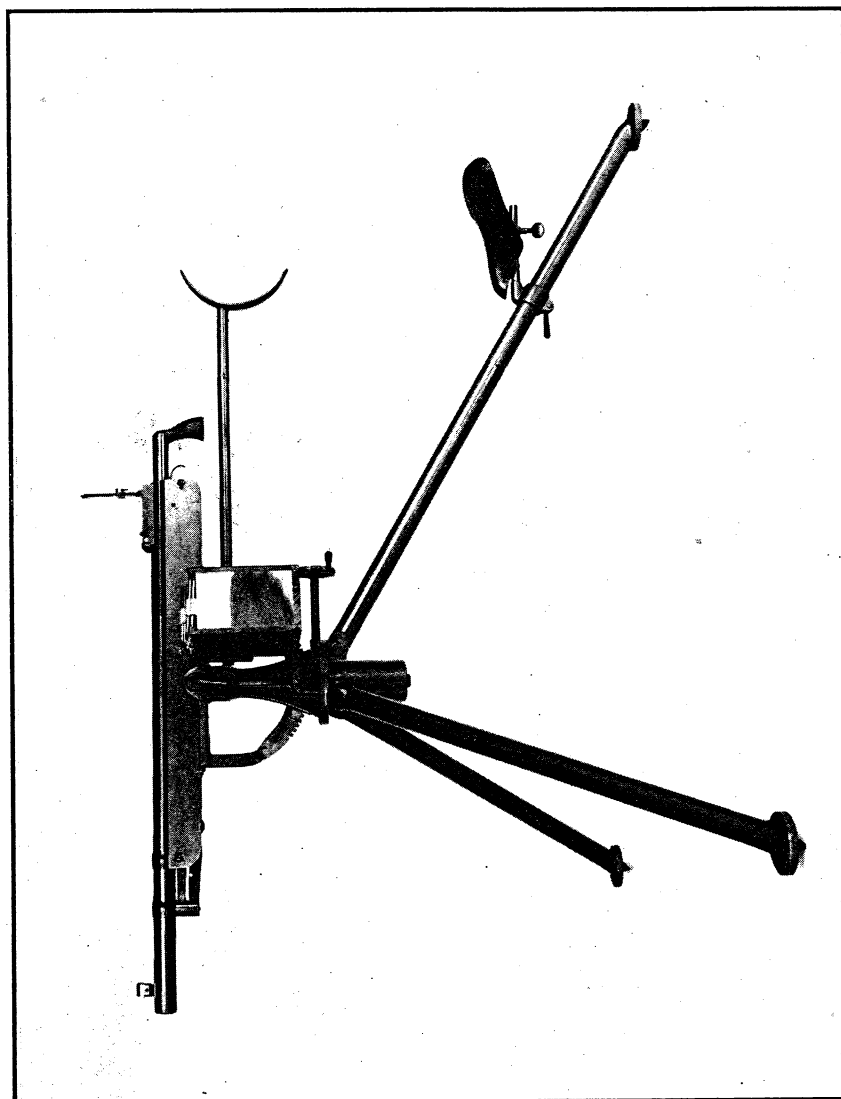
This manual is published for the information and government of the Regular
Army and National Guard of the United States.

By order of the Secretary of War:

WILLIAM CROZIER,
Brigadier General, Chief of Ordnance.

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COLT AUTOMATIC MACHINE GUN, CALIBER .30, MOUNTED ON TRIPOD.

HANDBOOK OF THE COLT AUTOMATIC MACHINE GUN, CALIBER .30.

EQUIPMENT OF MACHINE-GUN COMPANY OR TROOP.

Each machine-gun company or troop is provided with four guns, including tripods, ammunition, spare parts, tools, and accessories, together with the necessary packs.

The equipment of each organization is carried on 16 mules, constituting 4 sections of 4 mules each. The sections are essentially complete units, although certain articles are not carried in every section.

The equipment of each section consists of one gun, ammunition, and the necessary equipment for maneuvering the piece in the field. It is divided into the following parts:

Part I. The gun with its ammunition and accompanying parts.

Part II. The pack harness.

Part III. The special pack equipment.

Part IV. The pioneer tools.

A description of each of these parts, together with a statement of total equipment issued to one machine-gun company or troop, follows:

PART I. THE GUN WITH ITS AMMUNITION AND ACCOMPANYING PARTS.

DESCRIPTION OF COLT AUTOMATIC MACHINE GUN, CALIBER .30, AND PARTS—GENERAL.

[Plates I to IV.]

The Colt automatic machine gun, caliber .30, belongs to that class of automatic guns in which the power required to operate it is obtained from the powder gas and is self-operating after one shot has been fired as long as the trigger is held back and the ammunition supplied. Plate I shows the gun mounted on tripod with ammunition box attached.

The gun consists of a barrel attached to a breech casing which contains the mechanism for extracting and ejecting the empty case, moving the feed belt along the required distance, withdrawing a cartridge from the belt, placing it in the chamber, closing the bolt on it, and firing it. The force required to perform these different motions is derived from the powder gases, a portion of which after

each discharge passes through a small radial vent in the barrel somewhat in rear of the muzzle and operates a lever connected with the breech mechanism.

The cartridges are automatically fed to the gun by means of canvas belts, which are coiled in boxes readily attached to the breech casing.

The boxes will hold two belts of 120 cartridges each, and moving with the casing insure a continuous supply of cartridges undisturbed by the vertical or horizontal movement of the gun.

In operating the gun the feed belt is entered and the lever is thrown down and rearward (once by hand) as far as it will go; this opens the breech and feeds the first cartridge from the belt to the carrier; the lever is then released and the springs cause it to swing forward, close the vent in the barrel, and transfer the cartridge from the carrier to the barrel, also cocking the hammer and closing and locking the breech. On pulling the trigger the cartridge is fired, and after the bullet has passed the vent and before it leaves the muzzle the powder gases expand through the radial vent upon the piston on the end of the gas lever, which, forced downward and to the rear, opens the breech, ejects the empty case, and feeds to the carrier another cartridge. The gas lever, returning under the action of the springs, forces the cartridge into the chamber and closes and locks the breech. If, instead of releasing the trigger, it is held back, the cartridge is fired and the same operation will be repeated until the cartridges in the feed belt are exhausted, providing a continuous fire at the rate of about 400 shots per minute.

The following table gives a serial list of component parts of the gun, mount, and tripod:

SERIAL LIST OF COMPONENT PARTS.

THE GUN.

[The numbers before the components refer to numbers shown on Plates II, III, and IV.]

- | | |
|--|-------------------------------|
| 1. Handle. | 16. Shell-extractor spring. |
| 2. Handle lock. | 17. Shell-extractor pin. |
| 3. Handle-lock stop and safety stop. | 18. Firing pin. |
| 4. Handle-lock stop spring and safety stop spring. | 19. Firing-pin spring. |
| 5. Handle-lock stop screw and safety stop screw. | 20. Firing-pin lock. |
| 6. Hammer. | 21. Carrier. |
| 7. Mainspring. | 22. Carrier pin. |
| 8. Trigger. | 23. Carrier dog. |
| 9. Trigger spring. | 24. Carrier-dog pin. |
| 10. Sear. | 25. Carrier-dog spring. |
| 11. Sear spring. | 26. Carrier-dog plunger. |
| 12. Trigger and sear pin. | 27. Gas cylinder. |
| 13. Bolt. | 28. Gas-cylinder pin. |
| 14. Bolt pin. | 29. Gas lever. |
| 15. Shell extractor. | 30. Gas-lever pin. |
| | 31. Gas-lever connection. |
| | 32. Gas-lever connection pin. |

- | | |
|---|---------------------------------------|
| 33. Gas-lever bracket. | 78. Bullet guide. |
| 34. Gas-lever bracket pin. | 79. Bullet-guide screw. |
| 35. Gas-lever piston. | 80. Cartridge guide. |
| 36. Gas-lever piston pin. | 81. Rear side plate screw lock screw. |
| 37-38. Retracting springs. | 82. Cartridge extractor. |
| 39. Retracting-spring tube, right-hand. | 83. Cartridge-extractor pin. |
| 40. Retracting-spring tube, left-hand. | 84. Cartridge-extractor spring. |
| 41-42. Retracting-spring followers. | 85. Trip. |
| 43-44. Retracting-spring tube screws. | 86. Slide. |
| 45. Retracting connection. | 87. Slide pin. |
| 46. Retracting-connection link, long, rivet. | 88. Receiver. |
| 47. Retracting-connection link, long. | 89. Side plate, right-hand. |
| 48. Retracting-connection link, short, rivet. | 90. Side plate, left-hand. |
| 49-50. Retracting-connection links, short. | 91. Bottom plate. |
| 51. Retracting-connection pin. | 92. Barrel. |
| 52. Stock, right-hand, with escutcheon. | 93. Front sight, complete. |
| 53. Stock, left-hand, with escutcheon. | 94. Rear sight, complete. |
| 54. Stock screw. | 95. Front sight. |
| 55. Front-side plate screw. | 96. Front sight screw. |
| 56. Front-side plate screw lock screw. | 97. Cover screws. |
| 57. Rear-side plate screw. | 98. Front sight cover. |
| 58. Safety latch. | 99. Windage screw. |
| 59. Belt guide. | 100. Pivot spring. |
| 60. Belt-guide screw. | 101. Windage screw knob. |
| 61. Feed wheel and bushing. | 102. Half nut spring. |
| 62. Feed-wheel shaft. | 103. Half nut. |
| 63. Feed-wheel dog. | 104. Windage screw collar. |
| 64. Feed-wheel dog screw. | 105. Elevating screw head. |
| 65. Feed-wheel dog spring. | 106. Elevating screw. |
| 66. Feed lever. | 107. Slide cap screw, large. |
| 67. Feed-lever screw. | 108. Windage screw spring. |
| 68. Feed throw-off. | 109. Elevating screw pin. |
| 69. Feed throw-off spring. | 110. Pivot. |
| 70. Feed throw-off screw. | 111. Slide cap screw, small. |
| 71. Ratchet lever. | 112. Windage screw pin. |
| 72. Ratchet-lever screw. | 113. Drift slide. |
| 73. Ratchet-lever pawl. | 114. Leaf. |
| 74. Ratchet-lever pawl spring. | 115. Aperture disk. |
| 75. Ratchet-lever pawl pin. | 116. Leaf joint pin. |
| 76. Ejector. | 117. Slide cap. |
| 77. Chamber guide. | 118. Base spring. |
| | 119. Slide body. |
| | 120. Movable base. |
| | 121. Rear sight fixed base. |

THE MOUNT.

[Numbers before components refer to numbers on Plate V.]

- | | |
|-----------------------------|-------------------------------------|
| 1. Saddle, with arc. | 8. Handwheel screw. |
| 2. Yoke. | 9. Gun pin. |
| 3. Worm. | 10. Gun-pin lock screw (not shown). |
| 4. Worm shaft. | 11. Gun-pin chain. |
| 5. Worm-shaft screw. | 12. Gun-pin chain screw. |
| 6. Worm-shaft screw washer. | 13. Axis bolt. |
| 7. Handwheel. | 14. Axis-bolt nut. |

- | | |
|---------------------------------------|--------------------------|
| 15. Gun-adjusting screw. | 22. Spindle washer. |
| 16. Gun-adjusting screw nut. | 23. Spindle-washer bolt. |
| 17. Arc clamp. | 24. Shoulder rest. |
| 18. Arc-clamp stop screw (not shown). | 25. Shoulder-rest tube. |
| 19. Arc-clamp shoe (not shown). | 26. Shoulder-rest pin. |
| 20. Worm cover. | 27. Shoulder-rest clamp. |
| 21. Worm-cover screw. | |

THE TRIPOD.

[Numbers before components refer to numbers on Plate V.]

- | | |
|------------------------|---------------------------|
| 28. Socket. | 35. Leg, short (2). |
| 29. Mount clamp. | 36. Saddle. |
| 30. Mount-clamp screw. | 37. Saddle thumbscrew. |
| 31. Mount-clamp shoe. | 38. Saddle bracket. |
| 32. Leg bolts (3). | 39. Saddle-bracket clamp. |
| 33. Leg-bolt nuts (3). | 40. Saddle-bracket rod. |
| 34. Leg, long. | |

The following table gives an alphabetical list of component parts of the gun, mount, and tripod:

ALPHABETICAL LIST OF COMPONENT PARTS.

THE GUN.

[Numbers after components refer to numbers shown on Plates II, III, and IV.]

- | | |
|----------------------------------|---|
| Aperture disk (115). | Feed-lever screw (67). |
| Barrel (92). | Feed throw-off (68). |
| Base spring (118). | Feed throw-off screw (70). |
| Belt guide (59). | Feed throw-off spring (69). |
| Belt-guide screw (60). | Feed wheel and bushing (61). |
| Bolt (13). | Feed-wheel dog (63). |
| Bolt pin (14). | Feed-wheel dog screw (64). |
| Bottom plate (91). | Feed-wheel dog spring (65). |
| Bullet guide (78). | Feed-wheel shaft (62). |
| Bullet-guide screw (79). | Firing pin (18). |
| Carrier (21). | Firing-pin lock (20). |
| Carrier dog (23). | Firing-pin spring (19). |
| Carrier-dog pin (24). | Fixed-base screw (three) (not shown). |
| Carrier-dog plunger (26). | Front-side plate screw (55). |
| Carrier-dog spring (25). | Front-side plate screw lock screw (56). |
| Carrier pin (22). | Front sight (95). |
| Cartridge extractor (82). | Front sight, complete (93). |
| Cartridge-extractor pin (83). | Front-sight cover (98). |
| Cartridge-extractor spring (84). | Front-sight screw (96). |
| Cartridge guide (80). | Gas cylinder (27). |
| Chamber guide (77). | Gas-cylinder pin (28). |
| Cover screws (97). | Gas lever (29). |
| Drift slide (113). | Gas-lever bracket (33). |
| Ejector (76). | Gas-lever bracket pin (34). |
| Elevating-screw (106). | Gas-lever connection (31). |
| Elevating-screw head (105). | Gas-lever connection pin (32). |
| Elevating-screw pin (109). | Gas-lever pin (30). |
| Feed lever (66). | Gas-lever piston (35). |

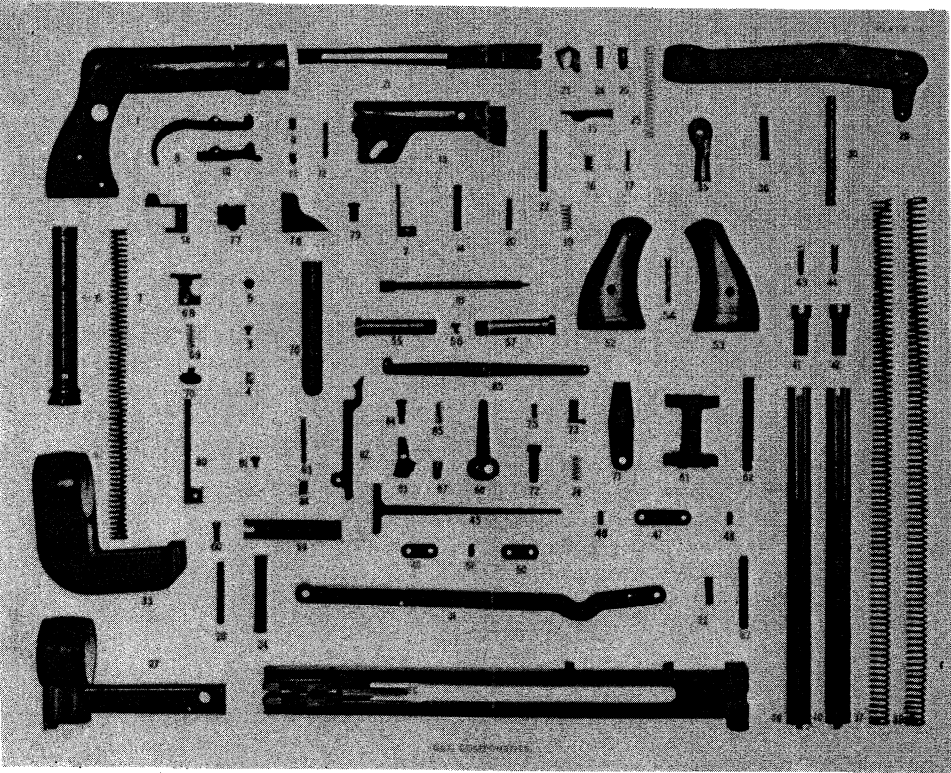


Plate III, Gun components.

Gas-lever pin (36).	Retracting-spring followers (41-42).
Half nut (103).	Retracting-spring tube, left hand (40).
Half-nut spring (102).	Retracting-spring tube, right hand (39).
Hammer (6).	Retracting-spring tube, screws (43-44).
Handle (1).	Safety latch (58).
Handle lock (2).	Safety stop (3).
Handle-lock stop (3).	Safety-stop screw (5).
Handle-lock stop spring (4).	Safety-stop spring (4).
Handle-lock stop screw (5).	Sear (10).
Leaf (114).	Sear spring (11).
Leaf-joint pin (116).	Shell extractor (15).
Mainspring (7).	Shell-extractor pin (17).
Movable base (120).	Shell-extractor spring (16).
Pivot (110).	Side plate, left hand (90).
Pivot spring (100).	Side plate, right hand (89).
Ratchet lever (71).	Slide (86).
Ratchet-lever pawl (73).	Slide body (119).
Ratchet-lever pawl pin (75).	Slide cap (117).
Ratchet-lever pawl spring (74).	Slide-cap screw, large (107).
Ratchet-lever screw (72).	Slide-cap screw, small (111).
Rear-side plate screw (57).	Slide pin (87).
Rear-side plate screw lock screw (81).	Stock, left hand, with escutcheon (53).
Receiver (88).	Stock, right hand, with escutcheon (52).
Rear sight, complete (94).	Stock screw (54).
Rear-sight fixed base (121).	Trigger (8).
Retracting connection (45).	Trigger spring (9).
Retracting-connection link, long (47).	Trigger and sear pin (12).
Retracting-connection link, long, rivet (46).	Trip (85).
Retracting-connection link, short (49-50).	Windage screw (99).
Retracting-connection link, short, rivet (48).	Windage-screw collar (104).
Retracting-connection pin (51).	Windage-screw knob (101).
Retracting spring (37-38).	Windage-screw pin (112).
	Windage-screw spring (108).

THE MOUNT.

[Numbers after components refer to numbers on Plate V.]

Arc clamp (17).	Saddle, with arc (1).
Arc-clamp screw (19) (not shown).	Shoulder rest (24).
Arc-clamp stop screw (18) (not shown).	Shoulder-rest clamp (27).
Axis bolt (13).	Shoulder-rest pin (26).
Axis-bolt nut (14).	Shoulder-rest tube (25).
Gun-adjusting screw (15).	Spindle washer (22).
Gun-adjusting screw nut (16).	Spindle-washer bolt (23).
Gun pin (9).	Worm (3).
Gun-pin chain (11).	Worm cover (20).
Gun-pin chain screw (12).	Worm-cover screw (21).
Gun-pin lock screw (10) (not shown).	Worm shaft (4).
Handwheel (7).	Worm-shaft screw (5).
Handwheel screw (8).	Worm-shaft screw washer (6).
	Yoke (2).

THE TRIPOD.

[Numbers after components refer to numbers on Plate V.]

Leg, long (34).	Saddle bracket (38).
Leg, short (two) (35).	Saddle-bracket clamp (39).
Leg bolts (three) (32).	Saddle-bracket rod (40).
Leg-bolt nuts (three) (33).	Saddle thumbscrew (37).
Mount clamp (29).	Socket (28).
Mount-clamp screw (30).	Tripod leg-fastening clip with bolt (not shown).
Mount-clamp shoe (31).	
Saddle (36).	

DETAILED DESCRIPTION OF THE GUN, MOUNT, AND TRIPOD.

THE GUN.

Plate II, figure 1, shows the gun partly in section and partly in elevation, with the parts in their normal position. Figure 2 of the same plate shows the position of the parts when the gas lever is in its extreme rear position. On Plate III are shown all the different parts of the gun except the front and rear sights, barrel, receiver, and side and bottom plates. Plate IV shows the front and rear sights.

The barrel, which is made very heavy in order to reduce vibration and to minimize the effect of heat generated by continuous firing, is screwed into a frame or receiver, in which the breech mechanism is contained. One extra barrel is issued with each gun, carefully fitted and marked with the number of the gun to which it pertains. The barrels for these guns are not interchangeable. A special vise and two wrenches are kept on hand at Springfield Armory and the several ordnance depots for replacing the barrels.

The side plates, only one of which is shown in Plate II, and the bottom plate, are secured to the receiver by means of the two side-plate screws and the side-plate lock screws. The two parts last mentioned are not shown in Plate II.

The gas cylinder and the gas-lever bracket both fit closely around the barrel and are connected together by the gas-cylinder pin and by the front side-plate screw, which passes through them both and through both side plates. They are not secured to the barrel, however, by any fixed connection, and the barrel slides through them when expanded by heat in firing.

The gas lever swings in a vertical plane about the gas-lever bracket pin, which secures it to the gas-lever bracket. The gas-lever piston, which fits in the gas cylinder, is attached to the forward end of the gas lever by means of the gas-lever piston pin and has a slight motion about this pin to enable it to move freely in and out of the cylinder as the lever swings about its pivot. The ends of the gas-lever pin, projecting on both sides of the gas lever, furnish a convenient hold for operating the gas lever by hand. If the gas-lever pin is hot from

continuous firing, the operating handle, one of the accessories, should be used.

The gas lever is held in its forward position, as shown in Plate II, figure 1, by the action of two retractor springs which lie side by side below the barrel and which are contained in the retracting-spring tubes, held by the retracting-spring tube screws. Only one set of these parts is shown in Plate II, as both sets lie in the same projection. The retracting springs act on the gas lever through the retracting connection, the two retracting-connection links, short, the retracting-connection link, long, the two retracting-connection link rivets, and the retracting-connection pin. Only one of the retracting-connection links, short, is shown in Plate II.

The retracting connection is a T-shaped piece, the two short arms of which bear on the followers and hold the springs under slight compression. (Only one follower is shown in the figure, as they both lie in the same projection.)

If the gas lever be swung downward and to the rear it compresses the retractor springs, as shown in Plate II, figure 2, and when it is released it flies back to its original position under the action of these springs. The backward movement of the gas lever is limited by the bottom plate, which it strikes as it swings to the rear.

As the gas lever swings backward and forward its motion is communicated to the slide by means of the gas-lever connection, which is attached to the gas lever by the gas-lever connection pin and to the slide by the slide pin.

The slide works in grooves in the walls of the receiver and is further guided by the slide pin, the rectangular ends of which move in slots in the side plates.

The cartridge extractor is pivoted to the slide by the cartridge-extractor pin and is acted upon by the cartridge-extractor spring. This pin also carries the cartridge guide, which is a spring-tempered steel piece that guides the cartridge into the receiver as it is being lifted by the carrier.

The belt guide, secured to the receiver by the belt-guide screw, assists in guiding the belt and serves also in preventing "bunching" of the belt into the channel between the two sides of the slide.

The carrier, which is pivoted to the receiver by the carrier pin, receives the cartridge when extracted from the belt by the backward movement of the slide.

The carrier dog is pivoted to the rear end of the carrier by the carrier-dog pin and is free to rotate backward and downward as the slide moves to the rear over it. When cleared by the slide it resumes its normal position under the force of the carrier-dog spring, operating the carrier-dog plunger.

As the slide moves forward it rides over the curved surface of the dog, depressing it and causing the front end of the carrier to rise and lift the cartridge in front of the bolt, which pushes it into the chamber.

On the right side of the slide are two lugs which operate the feed lever, which is pivoted on the feed-lever screw. A stud on the side of the feed lever works in a slot in the ratchet lever, which pivots on the ratchet-lever screw. When the slide moves to the rear the ratchet lever rises and the ratchet-lever pawl is forced back against the ratchet-lever pawl spring by the sloping surface of the face of the feed wheel. The feed wheel and bushing are free to turn on the feed-wheel shaft.

When the pawl reaches the upper flat side of the tooth of the feed wheel it is forced out and rests on top of the tooth.

As the slide moves forward the ratchet lever is forced down and the pawl moves the feed wheel forward one notch.

Backward motion of the feed wheel is prevented by the feed-wheel dog, which pivots on the feed-wheel dog screw, and is acted upon by the feed-wheel dog spring. A feed throw-off, with its spring, is provided, by means of which the feed wheel may be released and a partially fired belt of cartridges removed when desired. The throw-off is operated by means of a knurled head on the feed throw-off screw on the right side of the gun just below the belt exit. (The throw-off and spring and screw are not shown in Plate II.)

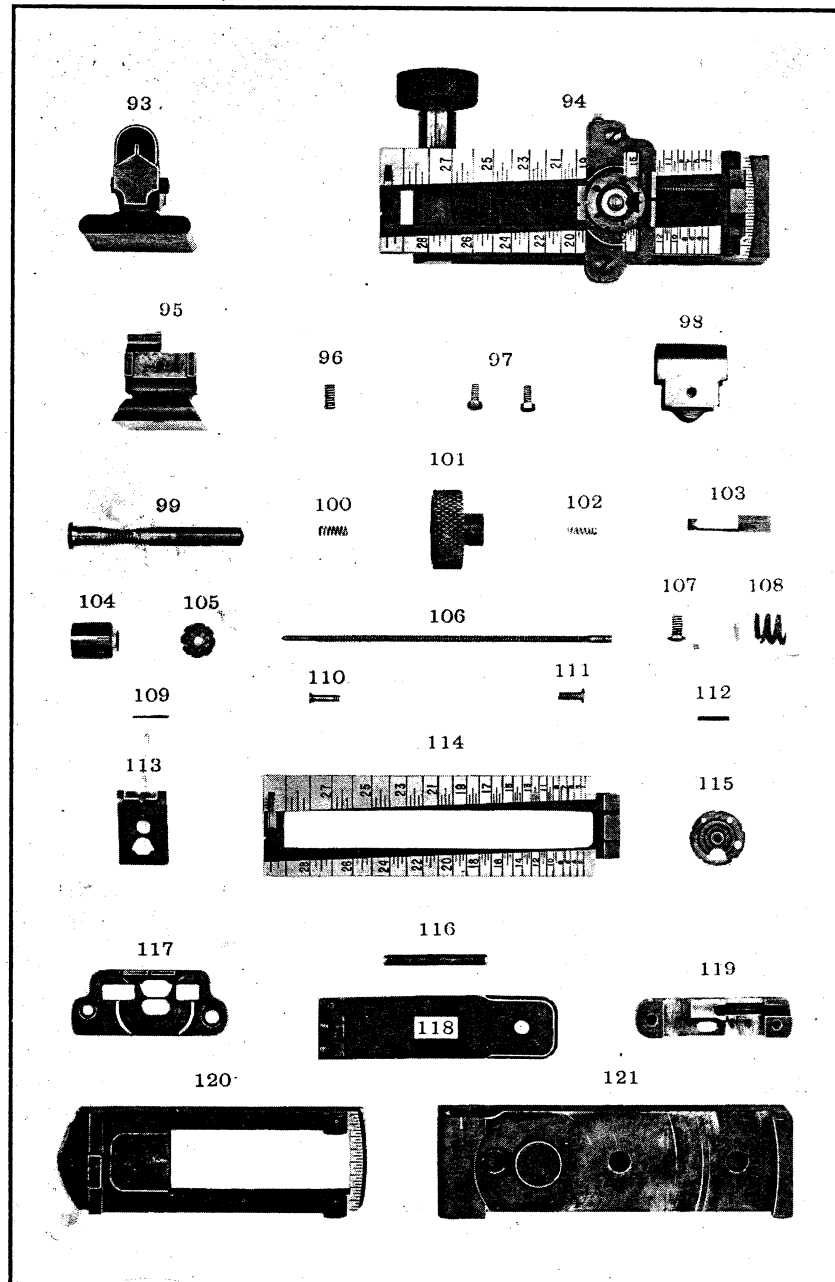
The bolt is cylindrical in shape, with the sides cut away somewhat to lighten it. It carries the shell extractor, the shell-extractor spring, the shell-extractor pin, the firing pin, the firing-pin spring, and the firing-pin lock. The shell-extractor spring and pin and the firing-pin spring are not shown in Plate II. A short guide rib on the under side of the bolt near the rear projects downward through a slot in the slide, to which it is secured by the bolt pin.

This pin passes through a cam-shaped slot in the guide rib and as the slide moves backward and forward it communicates a vertical as well as a backward and forward movement to the bolt.

When the gas lever is in its normal position, as shown in Plate II, figure 1, the rear of the bolt is locked against two recoil shoulders on the frame. As the slide moves to the rear the rear end of the bolt is first raised until it clears the recoil shoulders and is then carried to the rear by the slide.

The hammer, mainspring, trigger, trigger spring, sear, sear spring, and trigger and sear pin are all contained in the handle. The handle is provided with the stock, right hand, with escutcheon, and stock, left hand, with eschutcheon, held by the stock screw. These parts, with the exception of the handle, are not shown in Plate II. The handle lock, with its handle-lock stop, handle-lock stop spring, and handle-lock stop screw, are for the purpose of locking the handle to

PLATE IV.



SIGHTS.

the receiver. These parts are on the right side of the receiver and do not appear in Plate II.

In moving to the rear the bolt pushes the hammer backward against the mainspring, and when the hammer is in its extreme rear position the sear and the trigger both engage in the notch at its forward end, as shown in Plate II, figure 2.

It is necessary for both sear and trigger to engage the hammer, because in automatic firing the trigger is held back all the while, so that the sear must be depended upon to hold the hammer until the breech is closed and locked. In automatic firing the sear is released at the moment of firing by a trip. This trip is in the form of a lever and is pivoted at its middle point; when the slide is to the rear, its forward end rests in a groove cut in the slide. As the slide approaches its extreme forward position, the forward end of the trip rides up an inclined surface to the top of the slide and thus depresses the rear end of the trip, which in turn disengages the sear from the hammer.

The ejector, not shown on Plate II, is located in a groove in the left side of the receiver in such a position that a projecting lug on its inner side is struck by the head of the case when the latter is clear of the chamber.

The safety latch is operated by means of a thumb piece on the right of the receiver. When the thumb piece is pushed forward, the safety latch rises in front of the hammer and holds it in its backward position. In this position the thumb piece is held by the safety stop, the parts of which are the same as those of the handle-lock stop. The safety lock is to be used only when a loaded cartridge is left in the chamber.

Air pump: The hammer of this gun, working as it does in the cylindrical portion of the handle, serves as the piston of an air pump, and each backward motion of the hammer forces a jet of air through a tube extending along the top of the receiver to the mouth of the chamber of the piece. This jet of air has a slight cooling effect and serves to keep the chamber free from unburned grains of powder.

SIGHTS.

The front sight, shown on Plate IV, has on its upper portion a thin leaf slightly beveled to the front, and on each side is cut a circular groove to better define the sight proper. The lower portion consists of a dovetail base, which engages in a dovetail groove on the barrel. The front sight is secured in position by the front sight screw, which bears against the top surface of the dovetail cut in the barrel. Over the front sight is placed the front sight cover secured by the cover screws.

The rear sight complete, shown on Plate IV, is made up of the following principal parts: The movable base, the base spring, the leaf, the elevating screw, the slide, the half nut, the slide cap, the drift slide, the aperture disk, and the windage screw.

The movable base has on its upper surface two ears in which are the holes for the joint pin which serves as a hinge for the leaf. On the rear end of the movable base are the wind-gauge graduations, each point of which corresponds to a lateral deviation of 4 inches for each 100 yards. Both ends have lips which fit the undercuts of the fixed base, the front lip having also a worm gear for engaging the thread of the windage screw. The base spring fits in the spring seat of the movable base.

The leaf is graduated from 0 to 2,800 yards. On the right side of the sighting opening in the leaf is the groove and seat for the elevating screw, which is a long thin screw, extending from the bottom of the sighting opening to the top of the leaf, where it is secured in the elevating screw head by the elevating screw pin. This elevating screw allows minute corrections for elevation and also holds the slide in position on the leaf by means of a half nut which is seated in the slide and the half-nut spring, the latter forcing the half nut against the thread on the elevating screw. The outer end of this half nut is knurled and by pressing in on the knurled head the half nut can be released from the elevating screw and the slide quickly raised or lowered.

The rear face of the slide is cut out for the leaf and the drift slide and the right half is made with a seat for the half-nut spring and the half nut. The right and left ends are drilled and tapped for the small slide cap screw, and the large slide cap screw, which secure the slide cap to the slide. The front face of the slide is slotted and recessed for the pivot.

The slide cap has the seat for the aperture disk, and also aperture for sighting, and for reading the graduation on the leaf. The center is slotted for the pivot. On the right and left sides are drilled the holes for the small and large slide cap screws. On the rear face at the bottom of the slide cap is the open or battle sight.

The drift slide moves in the drift slots in the leaf. At the top is a small open sight, while just below are two openings, the upper for the pivot and circular lug on the aperture disk and the lower for a sighting aperture. The drift slide is held in place by a lug on its front face, which bears against the slide, and by the lug which contains the open sight. This latter lug extends to the rear and bears against the top of the slide cap. On the lower edge of the open sight lug is another small lug which engages in the notches in the perimeter of the aperture disk, locking the latter in the desired position.

The aperture disk is a circular piece containing five sight openings, viz, four peepholes, 0.04, 0.06, 0.08, and 0.10 inch in diameter, and one large aperture which contains an open sight. A circular lug on the front face engages in the central opening of the drift slide, thus causing the aperture disk to conform to the movement of the former. This lug is drilled and tapped for the pivot spring and the pivot. The purpose of the pivot spring is to force the aperture disk to the rear, so that one of the notches, which are cut on the perimeter of the latter, will engage in the small lug on the drift slide and prevent rotation. By pressing inward, the aperture disk can be released and rotated until the desired aperture is opposite the sighting opening in the drift slide.

The windage screw complete consists of the windage screw, the windage screw knob, the windage screw collar, the windage screw spring, and the windage screw pin. It is seated in the front part of the fixed base.

The rear sight is attached to the gun by the rear sight fixed base, the latter being secured to the barrel by three fixed base screws. The rear sight fixed base contains the pivot lug for the movable base and a lug on the rear end, which forms an undercut for the lip on the rear end of the movable base. Upon its rear upper surface are two zero marks and the wind gauge graduations.

THE MOUNT.

The mount consists of two principal parts—the saddle, with its toothed arc, and the yoke.

The saddle, in which the gun rests, is pivoted to the yoke by means of the axis bolt, so as to swing in a vertical plane.

The gun is held in place on the saddle by the gun pin, which is inserted with its handle vertical. In any other position of the handle, the gun pin is held secure by the gun-pin lock screw, not shown in figure.

Changes of elevation are made by means of the worm gear, which engages in the teeth of the arc and is operated by means of the handwheel. The gun may be secured at any desired elevation by the arc clamp.

The lower part of the yoke is in the form of a spindle, and fits in the socket of the tripod, to which it is secured by means of the spindle washer and the spindle-washer bolt. This washer and bolt have been pronounced unsatisfactory for service, and in future constructions will be replaced by a spring catch in the socket of the tripod engaging in a groove in the spindle of the yoke.

The gun is ordinarily left free to move in a horizontal plane, the direction being controlled by the firer using the shoulder rest, but

it may be clamped in any desired position by means of the mount clamp (part of tripod).

The shoulder rest is secured to the saddle by means of the shoulder-rest binder screw.

THE TRIPOD.

The tripod consists of a socket, to which are hinged three legs made of steel tubing. The two front legs are interchangeable and somewhat shorter than the rear leg. All three are provided with brass shoes to prevent their sinking into the ground during firing. A seat or saddle is attached to the rear leg by means of the saddle bracket, and may be clamped in any desired position by means of the saddle-bracket clamp. The rear leg also has attached to it the spare-parts case described below.

The tripod leg-fastening clip shown on Plate X attached to the rear leg of the tripod is used to secure the leg in its correct position when in pack.

DISMOUNTING AND ASSEMBLING THE GUN.

DISMOUNTING.

The gun should not be assembled or disassembled except under the direct supervision of an officer or a competent noncommissioned officer.

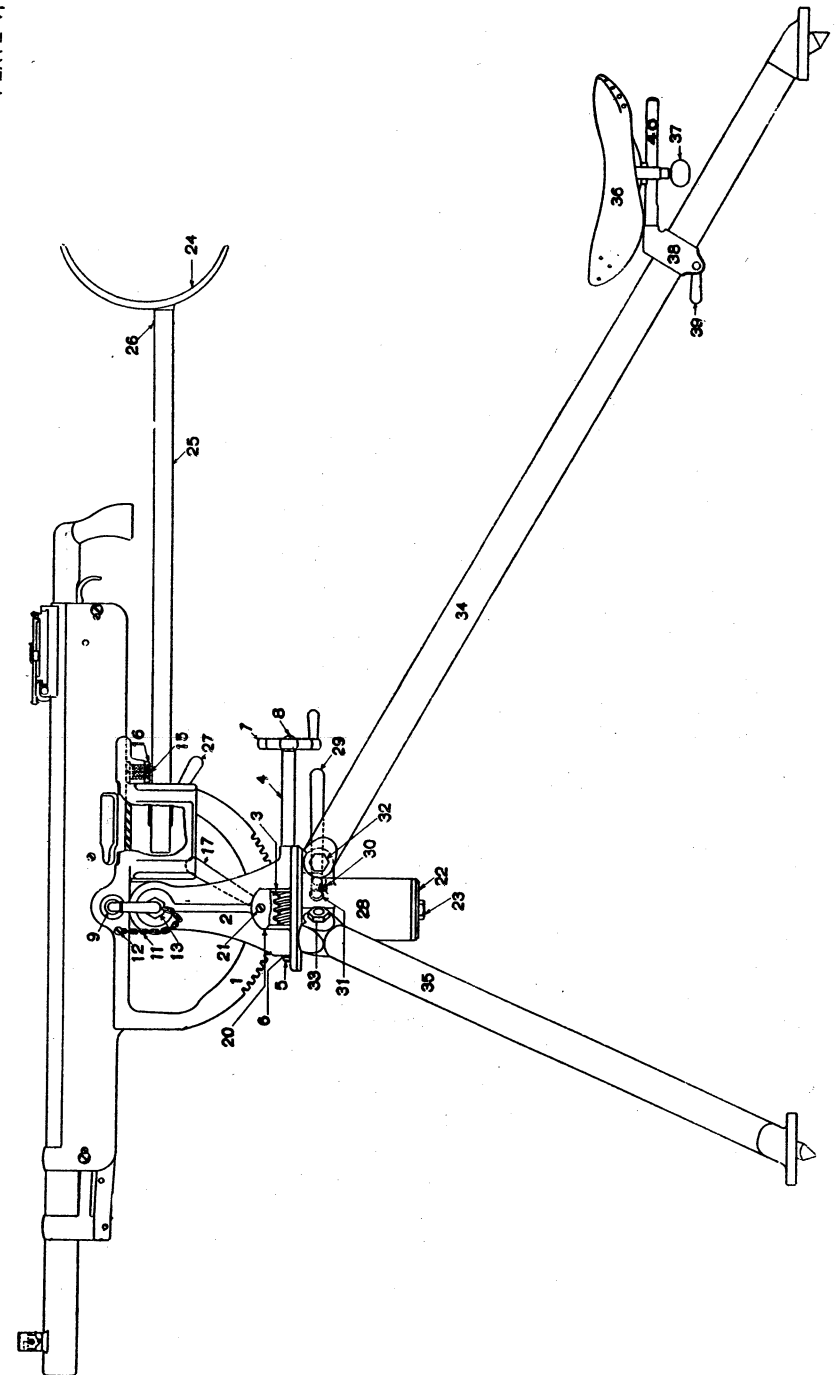
Metal parts should not be struck directly with a hammer. If necessary to strike any parts of the gun, interpose a buffer of wood or copper between the parts struck and the hammer.

First.—Take hold of the gas-lever pin and throw the gas lever rearward until it strikes the bottom plate. Then release the gas lever, when it will fly forward to its original position. This movement cocks the hammer so that it can be removed with the handle.

Second.—On the right-hand side of the gun, forward of the trigger, is the handle lock, which is a pin with a small projecting lever resting in a horizontal position. Turn this lever upward and backward as far as possible. Withdraw the handle lock out to the right. This releases the handle, which can then be moved rearward. The handle contains the mainspring, hammer, sear, sear spring, trigger, and trigger spring. To remove the hammer and mainspring from the handle, pull back the trigger, release the sear by pulling the nose down, when the hammer and mainspring will fly out, as the sear holds them in place.

Third.—To remove the bolt throw the gas lever rearward as far as possible, and while holding it in that position insert the small end of the handle lock in the hole on the right-hand side of the gun, pushing the handle lock in as far as it will go. This removes the bolt pin from the bolt. Withdraw the handle lock, but leave the bolt pin in the position in which it now is, i. e., projecting from the left side. The bolt is now free to be removed from the rear of the gun.

PLATE V.



TRIPOD AND MOUNT.

Fourth.—The extractor and firing pin can be removed from the bolt by pushing out the small pins that hold them in place.

ASSEMBLING.

First.—Insert the bolt and push forward as far as it will go.

Second.—Place hand on gas lever holding it up against bottom plate.

Third.—Push in bolt pin from left-hand side as far as it will go.

Fourth.—Then release the gas lever.

Fifth.—Replace handle, locking it in position with handle lock.

OPERATING THE GUN.

PREPARING THE GUN FOR FIRING.

- (1) Remove the gun and tripod from pack.
- (2) Place the gun in position on the erected tripod and secure it with the gun pin.
- (3) Raise the rear-sight leaf.
- (4) Place the ammunition box on the ribs on left side of the mount, in position for firing.

FIRING.

- (1) Set the rear sight for range and deflection.
- (2) Load by inserting the brass tip of the cartridge belt through the cartridge-shaped opening on the left of the gun and drawing it out on the other side of the gun as far as it will go. This brings the first cartridge on top of the feed wheel. *Let go of the belt.*
- (3) Swing the gas lever downward and to the rear until it strikes the bottom plate of the receiver. When released the lever resumes its normal position.
- (4) If desired to hold the gun ready for firing push the safety latch from "fire" to "safe"; otherwise fire the piece by pulling the trigger to the rear. If the trigger is held, firing will continue until the supply in cartridge belt is exhausted. Releasing the trigger stops the fire at any time.

PREPARING THE GUN FOR PACKING.

- (1) Remove the cartridge belt from gun if partially fired. This can be accomplished by pushing the knurled head on the feed throw-off screw forward and then drawing the belt out to the left.
- (2) Operate the lever once by hand, to eject the loaded cartridge that remains in the chamber.
- (3) Remove the ammunition box.
- (4) Lower the rear-sight leaf.
- (5) Remove the gun from tripod.

CLEANING AND CARE OF THE GUN.

In order that the gun may work smoothly it is necessary that it be thoroughly cleaned and oiled after firing. All tracing of fouling

from the powder gases should be removed from those parts exposed to them. This is especially true of an automatic gun of this type. Warm water, with bicarbonate of soda in solution, will aid considerably in removing the fouling. The small pieces of brass, due to the shearing of the cartridge cases, should be carefully removed from the mechanism.

It has been found that a deposit of metallic fouling is left in the bore of the gun when ball cartridges, caliber .30, model of 1906, of earlier manufacture, are used, and a solution for the removal of metallic fouling has therefore been issued by the Ordnance Department to all post ordnance officers for reissue to organizations in accordance with the following table of annual allowances:

For a machine-gun company or troop (4 guns) :	Ounces.
Ammonium persulphate -----	30
Ammonium carbonate -----	30
Ammonia, 28 per cent -----	120

One ounce of ammonium persulphate, 200 grains ammonium carbonate, 6 ounces ammonia (28 per cent), and 4 ounces water will make a sufficient quantity of clean 20 guns. If no scales are available for weighing the ingredients they may be measured, and the equivalents are as follows:

- 1 ounce of ammopium persulphate equals two medium heaping spoonfuls.
- 200 grains ammonium carbonate equals one medium heaping spoonful.
- 6 ounces ammonia, 28 per cent pure, equals three-eighths of a pint.
- 4 ounces water equals one-fourth of a pint.

The spoon referred to above is the spoon issued by the Ordnance Department for the mess outfit.

The solution is made as follows:

The carbonate and persulphate should first be pulverized and mixed together and the ammonia and water added, after which the mixture should be thoroughly stirred. The solution should stand for half an hour before using. The bore of the gun should be plugged with a cork or wooden plug at the breech end and just below the metallic fouling. The bore should then be filled with the solution and the muzzle corked or plugged. The solution should remain in the bore for about two hours, or long enough to cut the metallic fouling, after which it should be removed and canton flannel or other soft material run back and forth through the bore to remove the residue. Great care must be taken to remove the solution from all metallic parts, as it may start rusting in a very short time. Special care should be used in removing it from the breech mechanism. The solution may be used several times, but after it has been once used it should be placed in a bottle and not mixed with any unused solution. This solvent is expensive and should be used economically.

If the gun is not to be used for some time, it should be thoroughly cleaned and all the moving parts given a thin coat of cosmic. This

can be best accomplished by warming the latter and applying with a brush. Before attempting to fire the gun, *all this cosmic should be removed*. The moving parts of the mechanism should be lightly oiled before using. One wiping rod with three joints is furnished each gun.

If gas escapes at the base of the cartridge it will probably enter the well of the bolt through the striker hole. In this case the bolt mechanism must be dismantled and the parts and well of the bolt thoroughly cleaned.

Before assembling the bolt mechanism all bright parts, except springs, should be lightly oiled.

Many of the parts can generally be cleaned with dry rags. All parts, after cleaning, should be wiped with an oiled rag.

The best method of applying oil is to rub with a piece of cotton cloth, upon which a few drops of oil have been placed, thereby avoiding the use of an unnecessary amount of oil. This method will, even in the absence of the oiler, serve for the working parts, which should be kept continually oiled.

Any part that may appear to move hard can generally be freed by the use of a little oil.

Sperm oil only shall be used for lubricating metallic bearing and contact surfaces.

POSSIBLE TROUBLE AND THEIR REMEDIES.

With proper care and treatment, this automatic machine gun will cause but little trouble. Before firing, all traces of grease or cosmic should be carefully removed from the working parts, and a belt of cartridges (preferably dummies) should be placed in the gun and the lever operated by hand two or three times, as in loading. If these cartridges enter freely and are properly ejected, it will indicate at once that the mechanism has been properly reassembled and is in proper working order.

With the gun hot from rapid firing, a cartridge should not be allowed to remain in the chamber longer than six or seven seconds, as it may be discharged by the heat. In case it is not possible, from any cause, to withdraw the cartridge within this time, and the lever is in its normal position, no harm will be done; but if the lever is partially retracted the bolt is then withdrawn and a "blow back" may occur. *In either event, keep away from in front of the muzzle until satisfied that the danger from the explosion of the cartridge by heat is passed.*

Should a misfire occur, the unexploded cartridge should be thrown out immediately by swinging the lever down and to the rear by hand, as in loading; this will eject the unexploded cartridge and reload the piece, ready for continued firing. Before doing so, a

slight pause should be made in order to make sure that it is a misfire and not a hangfire.

Should a stoppage of the gun occur from *any* cause, whether on account of the jamming of a cartridge, misfire, or breakage of a part of the gun, the lever should be operated once by hand *before any other effort is made to free the mechanism*.

If the stoppage occurs when the lever is partially retracted, push it *backward* until it strikes the bottom plate. *Never push it forward*.

In case the lever does not go forward to its normal position after striking the bottom plate, the mechanism is not freed, and the cartridge belt should be at once withdrawn. Should this not free the mechanism, an examination must be made for breakages.

An infrequent case of jamming is when an empty shell is not ejected, so that a live cartridge may jam up against the shell in the chamber or in the receiver. Should the empty shell be in the chamber, draw back the lever until it strikes the bottom plate, which will let the live cartridge and carrier descend into the bottom position, insert the wiping rod (the wiping rod should be kept screwed together within easy reach), and force out the shell into the opening in rear of the chamber, still retaining control of the shell by the wiping rod. Now grip the shell, remove the wiping rod, and withdraw the shell. The lever is now free to resume its normal position. Should the empty shell be jammed in the receiver, insert the wiping rod in shell. The lever is now free to resume its normal position. Should the shell, and remove it. After a jamming of this character the extractor should be examined. If this is broken or chipped, or the spring does not work well, replace it by a new one.

For purposes of instruction it will be found unnecessary to fire more than a few rounds at a time at full speed, and a large number of rounds should not be fired continuously, as the erosion of the bore is many times greater when the barrel is hot than when it is cool.

ACCURACY OF FIRE.

In target practice it will be found that when a number of shots are fired, one shot at a time, with a pause between shots, the center of impact is lower than when the shots are fired rapidly, using the automatic action of the gun.

At 200 yards this difference amounts to about 12 inches.

When the gun is fired from the tripod, the first few shots tend to cause the trail to settle into the ground, thus increasing the elevation and causing the shots to go high.

In heavy, compact soil this settling is only slight and ceases after the first few rounds, but in light, sandy soil it continues sometimes until 30 or more shells have been fired. It is important, therefore,

in order to secure accuracy, that shots should be fired in groups of 10 or 20, and that the elevation be verified from time to time.

The service ammunition belt, holding 120 cartridges, is intended for use in actual service only. For target practice two service belts, holding 50 cartridges each, are issued with each gun. These service belts are designated as long and short belts, and the use of the short belt in target practice is necessary to avoid undue heating of the gun, which would result in rapid deterioration of the barrel.

AMMUNITION.

The ammunition for this gun is the same as that provided for the United States rifle, caliber .30, model of 1903. It is fed into the gun by means of cartridge belts holding 120 cartridges each. The cartridges are inserted in the belts by means of the belt-loading machine.

CARTRIDGE BELT.

With each gun are provided 46 cartridge belts made of canvas, by means of which the cartridges are fed into the gun. Each belt is designed to hold 120 cartridges, and two are placed in each ammunition box so as to feed freely into the gun, with the end of the belt having a brass tip on top.

THE AMMUNITION BOX.

The ammunition box is designed to hold two loaded cartridge belts (240 cartridges) and is made of ash. It is 13 inches long, $7\frac{1}{8}$ inches deep, and $4\frac{1}{8}$ inches wide, exterior dimensions; the ends and sides are dovetailed together, and the bottom and fixed portion of the top are secured to the former by screws. The lid is secured to the fixed portion of the top by a hinge and held in its closed position by a lid catch. The latter is a brass, S-shaped catch hook secured in a brass catchplate by a pin. This plate is attached to the lid by three rivets and a brass reinforce plate. On the interior is a spiral spring which supports one end of the catch hook and keeps the opposite end engaged in the brass catch socket, which is screwed to the body of the chest. By pressing down on the catch hook the lid can be unfastened. The lid is provided with a handle of brass wire attached to it by means of two brass handle sockets.

One end of the box is sloped to facilitate the egress of the ammunition belt, the end piece being thickened on the outside for a distance of about 3 inches from the top to present a surface parallel to the other end. About $\frac{1}{2}$ inch back from the vertical edges of the sloping end are cut the two narrow grooves which fit over correspondingly spaced flanged ribs of the saddle of the mount, supporting the box and belt in position for firing on the left side of the mount.

The interior of the box is given a coat of linseed oil and its exterior is painted olive drab.

THE BELT-LOADING MACHINE.

SERIAL LIST OF COMPONENT PARTS.

[Numbers before components refer to numbers on Plate VI.]

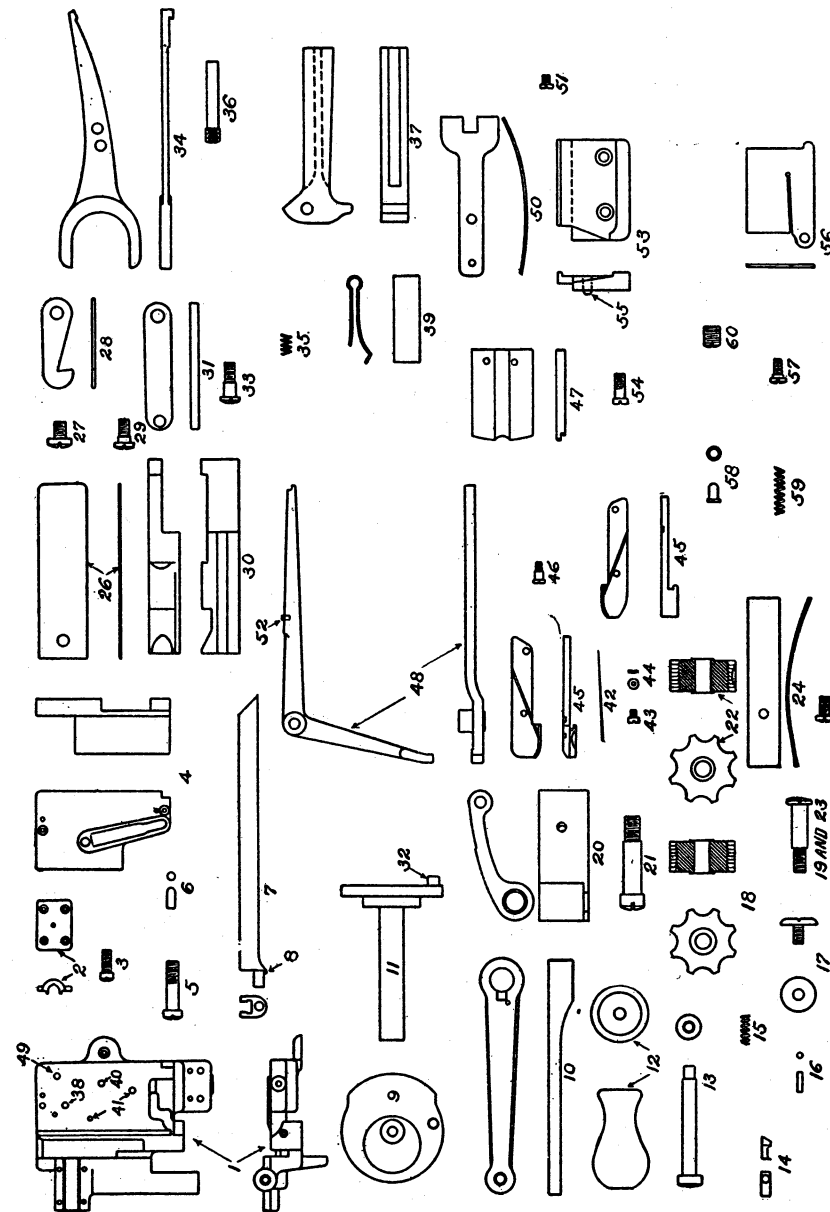
- | | |
|------------------------------------|--|
| 1. Frame. | 31. Slide connection. |
| 2. Frame cap. | 32. Slide-connection pin. |
| 3. Frame-cap screws (4). | 33. Slide-connection screw. |
| 4. Magazine. | 34. Feed lever. |
| 5. Magazine screws (2). | 35. Feed-lever spring. |
| 6. Magazine dowel pins (2). | 36. Feed-lever spring screw. |
| 7. Cartridge guide. | 37. Carrier. |
| 8. Cartridge-guide key. | 38. Carrier pin. |
| 9. Cam. | 39. Carrier spring. |
| 10. Crank. | 40. Carrier-spring pin. |
| 11. Crank shaft. | 41. Carrier-stop pins (2). |
| 12. Crank handle. | 42. Needles (2). |
| 13. Crank-handle pin. | 43. Needle screws (2). |
| 14. Crank-handle pawl. | 44. Needle-screw washers (2). |
| 15. Crank-handle pawl spring. | 45. Needle bars (2). |
| 16. Crank-handle pawl pin. | 46. Needle-bar screws (2). |
| 17. Crank screw. | 47. Needle-bar slide. |
| 18. Upper feed wheel. | 48. Needle-bar lever. |
| 19. Upper feed-wheel screw. | 49. Needle-bar lever pin. |
| 20. Upper feed-wheel arm. | 50. Needle-bar lever spring. |
| 21. Upper-feed wheel arm screw. | 51. Needle-bar lever spring screw. |
| 22. Lower feed wheel. | 52. Needle-bar lever spring dowel pin. |
| 23. Lower feed-wheel screw. | 53. Belt guide. |
| 24. Lower feed-wheel spring. | 54. Belt-guide screws (2). |
| 25. Lower feed-wheel spring screw. | 55. Belt-guide dowel pins (2). |
| 26. Tension spring. | 56. Belt-guide cover. |
| 27. Tension-spring screw. | 57. Belt-guide cover screw. |
| 28. Tension-spring hook. | 58. Cartridge stop. |
| 29. Tension-spring hook screw. | 59. Cartridge-stop spring. |
| 30. Slide. | 60. Cartridge-stop spring screw. |

ALPHABETICAL LIST OF COMPONENT PARTS.

[The numbers after the components refer to the numbers on Plate VI.]

- | | |
|-----------------------------------|--------------------------------|
| Belt guide (53). | Crank (10). |
| Belt-guide cover (56). | Crank handle (12). |
| Belt-guide cover screw (57). | Crank-handle pin (13). |
| Belt-guide dowel pins (two) (55). | Crank-handle pawl (14). |
| Belt-guide screws (two) (54). | Crank-handle pawl pin (16). |
| Cam (9). | Crank-handle pawl spring (15). |
| Carrier (37). | Crank screw (17). |
| Carrier pin (38). | Crank shaft (11). |
| Carrier spring (39). | Feed lever (34). |
| Carrier-spring pin (40). | Feed-lever spring (35). |
| Carrier-stop pins (two) (41). | Feed-lever spring screw (36). |
| Cartridge guide (7). | Frame (1). |
| Cartridge guide key (8). | Frame cap (2). |
| Cartridge stop (58). | Frame-cap screws (four) (3). |
| Cartridge-stop spring (59). | Lower feed wheel (22). |
| Cartridge-stop spring screw (60). | Lower feed-wheel screw (23). |

PLATE VI.



COMPONENT PARTS OF BELT-LOADING MACHINE.

Lower feed-wheel spring (24).	Needle screws (two) (43).
Lower feed-wheel spring screw (25).	Needle-screw washers (two) (44).
Magazine (4).	Slide (30).
Magazine dowel pins (two) (6).	Slide connection (31).
Magazine screw (two) (5).	Slide-connection pin (32).
Needles (two) (42).	Slide-connection screw (33).
Needle bars (two) (45).	Tension spring (26).
Needle-bar lever (48).	Tension-spring hook (28).
Needle-bar lever pin (49).	Tension-spring hook screw (29).
Needle-bar lever spring (50).	Tension-spring screw (27).
Needle-bar lever spring screw (51).	Upper feed wheel (18).
Needle-bar lever dowel pin (52).	Upper feed-wheel arm (20).
Needle-bar screws (two) (46).	Upper feed-wheel arm screw (21).
Needle-bar slide (47).	Upper feed-wheel screw (19).

DESCRIPTION OF THE BELT-LOADING MACHINE.

This machine is for the rapid charging of the canvas belts with ammunition, and is intended to be fastened to a table or bench while in use. One machine complete is issued with each gun. Plate VI shows the component parts, and together with the actual machine will enable the detailed description that follows to be readily understood.

The frame is of cast iron and serves as a support to all the other parts.

The magazine, through which the cartridges are fed from the cartridge guide, is of brass and is fastened to the top of the machine by the two magazine screws.

The crank is fastened to the crank shaft by the crank screw. The crank shaft is secured in its bearing in the frame by the frame cap and the four frame-cap screws. Within the crank is the crank-handle pawl, which engages the crank shaft when the crank is turned forward (to the right), but allows the crank to be turned backward without operating the machine.

On the end of the crank shaft opposite the crank is the cam which operates the feed lever and the needle-bar lever.

The feed lever engages in the teeth of the lower feed wheel and causes it to move forward one notch at each revolution of the crank.

The needle-bar lever is an L-shaped piece, one end of which bears against the cam and the other engages the needle-bar slide.

The two needle bars are fastened to the needle-bar slide by the needle-bar screws.

The needles are secured to the needle bars by the needle screws and the needle-screw washers.

The needle-bar lever spring is a broad flat piece of steel which bears against the rear ends of the two needle bars and serves to keep the two needles pressed against the cartridge belt.

The belt guide is fastened to the right of the frame by the two belt-guide screws.

The belt-guide cover is secured to the belt guide by the belt-guide cover screw, about which it is free to revolve.

The slide is connected to the crank shaft by the slide connection, which gives it a reciprocating motion and causes it to force the cartridges into the belt.

The cartridges are carried in front of the slide from the magazine by the carrier, which is pivoted to the frame by the carrier pin. The play of the carrier is limited by the two carrier-stop pins. As the cartridge passes from the magazine it presses down the cartridge stop, which rises behind the cartridge as soon as it has passed and steadies the cartridge as it is moved forward under the action of the slide.

The upper feed wheel is pivoted to the upper feed-wheel arm by the upper feed-wheel screw. The upper feed wheel is pressed down upon the cartridge belt by the tension spring, which engages with the tension-spring hook.

TO FILL A FEED BELT WITH CARTRIDGES.

Fasten the machine to a table or bench and turn the crank to the right until it is straight down.

Release the tension-spring hook and raise the upper feed wheel as far as it will go.

Turn the belt-guide cover to the right far enough to admit the belt into the belt guide and raise the upper needle bar as far as it will go.

Put two cartridges by hand into the two loops of the belt nearest the end with the brass tip and place the belt in the machine with the first cartridge resting in the top groove of the lower feed wheel, and the belt passing out at the back through the belt guide.

Return the belt-guide cover to place over the belt (being careful to see that the belt is free to pass under it) and lower the needle bar.

Turn the upper feed wheel down upon the belt and secure the tension spring under the hook.

Fill the feed guide with cartridges by stripping 10 at a time from the paper boxes in which they are packed.

Turn the crank to the right and the cartridges will be fed into the belt ready for use in the gun.

Place a feed box ready to receive the filled belt and at such a height that not more than 2 feet of filled belt will be suspended from the feed wheels of the machine.

PRECAUTIONS.

Before beginning to use the machine, see that it is well oiled and that the needles are properly set. The needles should be so placed as to have their points even (in same vertical line), and about one one-hundredth of an inch apart.

In case of a miss in charging the belt, stop and open up the machine and remove the belt. Turn the crank to the right until straight down, as in starting, and replace belt in machine with the next to the last cartridge in the top groove of the lower feed wheel. Close the machine and proceed as before.

THE BELT-LOADING MACHINE BOX.

The belt-loading machine box is designed to hold the belt-loading machine and is made of ash. It is 13 inches long, $7\frac{3}{8}$ inches deep, and $4\frac{3}{8}$ inches wide, exterior dimensions; the ends and sides are dovetailed together, and the bottom and fixed portion of the top are secured to the former by screws. The lid is secured to the fixed portion of the top by a hinge and held in its closed position by a lid catch similar to that used on the ammunition box. The lid is provided with a handle of brass wire attached to it by means of two brass-handle sockets.

The top attachment is a small plate of aluminum alloy containing a small cup-shaped recess, which fits over a hole in the lid and thus furnishes necessary additional space for a projecting part of the loading machine.

The bottom attachment, for a similar purpose, is of the same material. It is a rectangular plate containing a shallow rectangular recess and is fastened to the bottom over a similarly shaped hole therein.

The interior of the box is provided with suitable blocks and compartments for receiving the loading machine.

SPARE-PARTS CASE.

This case is a leather pouch used for carrying several small tools and the spare parts of the gun, tripod, mount, and belt-loading machine. It is made of russet harness leather fastened by three securing straps to the long tripod leg and closed by three billets and straps. Within the case is stitched an inner pocket, having a flap, which is secured to the inner pocket front by three fasteners.

PART II. PACK HARNESS.

The group of parts of the pack outfit used for leading the animal and carrying the load with its special holders is called the "pack harness." It consists of the blinder, halter, bridle, corona, saddle blanket, aparejo, sobrejalma, crupper, and aparejo cincha.

These parts are common to all aparejo outfits and may be used without special frames for packing bundles and boxes.

BLINDER, MODEL OF 1916.

A pack mule is ordinarily blinded during harnessing and unharnessing, loading and unloading. The blinder consists of an inner

and outer piece of harness leather stitched together around the outer edges and joined in the rear by leather thongs, the whole shaped to fit closely around the animal's eyes.

HALTER BRIDLE, MODEL OF 1910.

This article is designed to furnish a light, strong head harness for a mule. When leading the animal on the march the bit and its straps are removed from the headstall and fastened to any convenient place on the pack frame. The two snaps of the lead rein are then fastened to the floating ring, the body of the rein forming a loop convenient for holding in the hand.

In riding the animal the lead rein is used in combination with the bit, headstall, and bit straps as a bridle.

When a mule is picketed to a line the lead rein serves as a halter strap.

The bit is made of nickle steel to prevent rusting.

CORONA, MODEL OF 1910.

The corona is the first piece of harness placed on the mule's back. It is a saddle pad made of four thicknesses of good quality gray flannel, protected from sweat by a lining of cotton duck. The corona is made in three sizes, and each size is stenciled on the underside to correspond with the size of the aparejo it is intended to accompany. The width is 26 inches for all sizes. In placing the corona it is laid well forward on the mule's back, canvas side down, and then slid to the rear until its front edge is just behind the point of the withers, care being taken that the hair lies smooth beneath it.

When manufactured in quantity, 10 per cent are 58-inch, 15 per cent 60-inch, and 75 per cent 62-inch.

THE SADDLE BLANKET.

The saddle blanket forms additional padding under the aparejo. It is carried under the aparejo and over the corona.

The blanket is made of pure wool of olive-drab shade with an olive-brown border of two stripes. The blankets are rectangular, 72 by 84 inches. Each blanket has the letters "U. S." and the bursting shell located in the center.

APAREJO, MODEL OF 1911.

This article consists of an aparejo body and one aparejo frame. The aparejo body is made of two rectangular pieces of leather (back and belly pieces) sewed together along the edges and through the middle, forming two pouches. The edges, the middle seams, and particularly the ends are reinforced with heavy leather facings. Handholes for stuffing are left in the belly pieces, and holes and

PLATE VII.

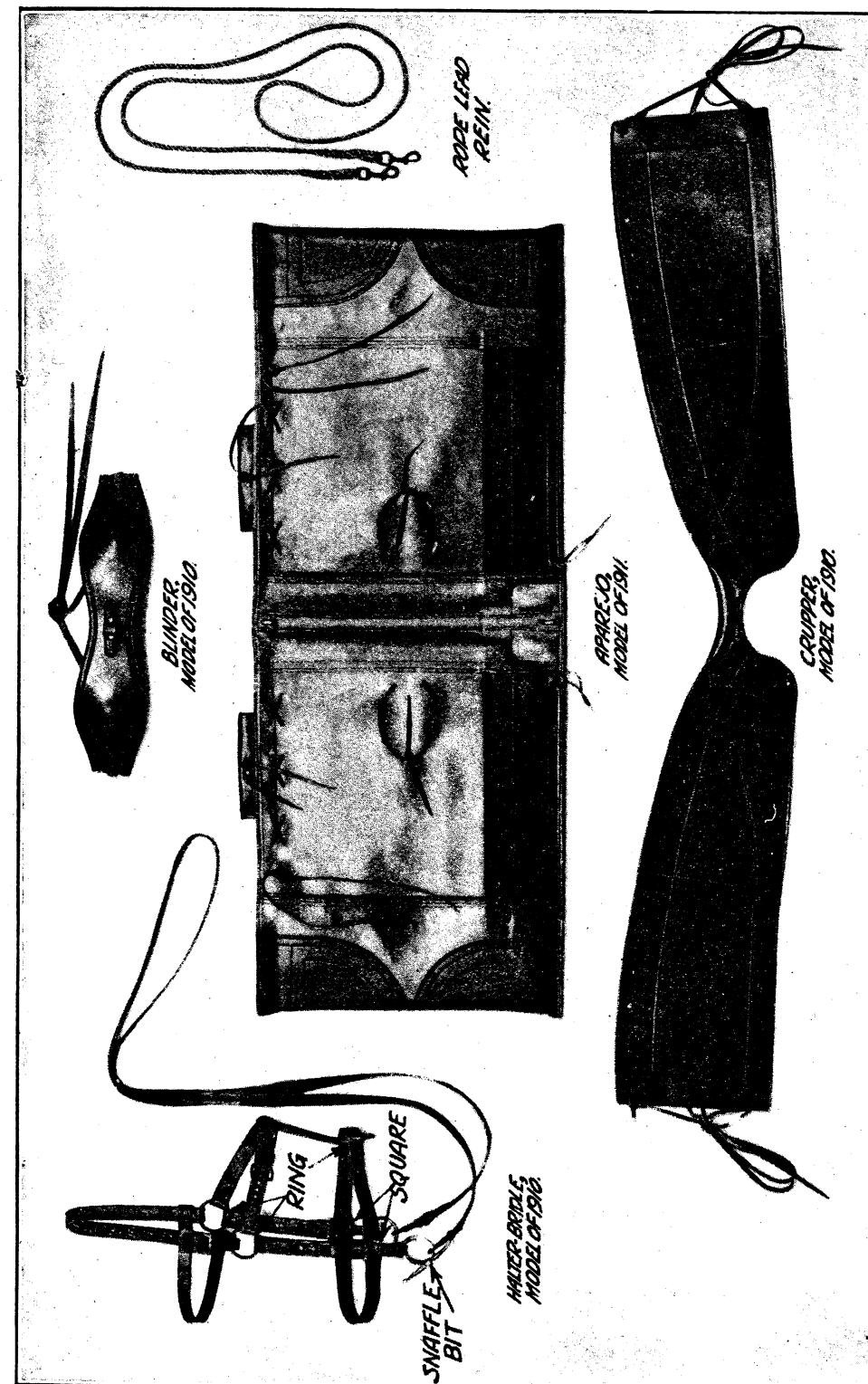
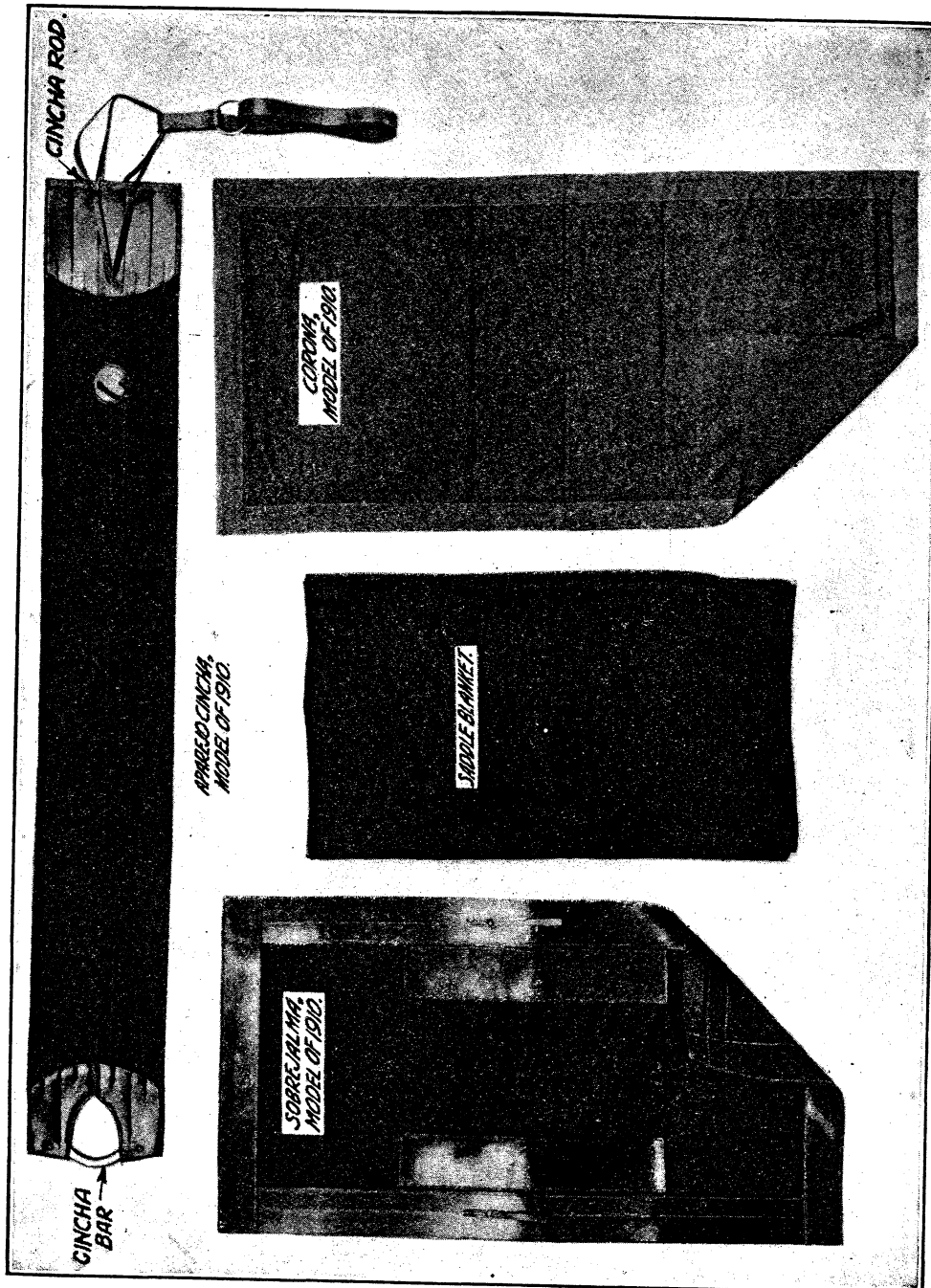


PLATE VIII.



slits laced with thongs are made in the back pieces so that the frame, or parts of it, may be inserted, removed, or replaced. The carrier pieces and front facing have lacing holes for the attachment and adjustment of the crupper. Two steel chock staples attach the sobrejalma and pack frame to the aparejo. The rib sticks are furnished longer than necessary and should be sawed off to the proper length after the boot and top sticks are firmly rammed home. The first three sticks (starting at the front) are of uniform thickness; the remainder are tapered to give the rear of the aparejo more flexibility than the front. The sticks are stamped and are intended to be arranged in a gradually diminishing thickness.

Cloth is tacked to the top stick to prevent the hay from slipping down.

NOTE.—Aparejos are issued to the service with ribs in place. They are furnished in 58, 60, and 62 inch sizes, as follows: 10 per cent 58-inch, 15 per cent 60-inch, and 75 per cent 62-inch. Should repairs or alterations make it necessary to rib up, the butt of the fifth rib is seated in its slot, the overlap at its slot in the top stick is marked and cut away, and the other ribs are cut to the exact resulting length.

SOBREALMA, MODEL OF 1910.

This article is a waterproof and wear-reducing covering for the aparejo. It is made of one thickness of heavy cotton duck, faced around the edges on the upper side with collar leather. Two leather reinforces are placed on the upper side to protect the duck from the wear of the load. Holes are provided through which the chock staples of the aparejo protrude; chock straps passing through these chock staples hold the sobrejalma and pack frame on the aparejo. Supporting caps at both ends of the end facings hold the supporting sticks in place. Sobrejalmas are made in three sizes, and when manufactured in quantity 10 per cent are 58-inch, 15 per cent 60-inch, and 75 per cent 62-inch. The size stamped on the sobrejalma is the size of the aparejo for which it is suited.

CRUPPER, MODEL OF 1912.

The crupper is made of russet collar leather, shaped (and padded in the middle) to fit the animal. The side pieces extend forward across the aparejo, and are laced to it in front and held up at rear by latigo-leather thongs. The depth of the side pieces affords a broad surface to bear against the animal and also prevents the crupper from sagging. The side pieces are reinforced around their edges with leather and those portions which come in contact with the animal's flanks are lined with duck. Cruppers are made in one size only, 78 inches long.

APAREJO CINCHA, MODEL OF 1910.

The aparejo cincha is 10 inches wide and is made of cotton duck, folded, and stitched along the middle. Both ends are faced with leather, and the end to which the cincha strap is fastened carries a five-sixteenths-inch steel rod in the fold of the lacing-end piece, while the other end has a curved piece of gas pipe (cincha bar). Fifteen inches from the strap end of the cincha a leather thong (finger loop) is attached, which is used to carry the slack of the cincha strap. The cincha strap is of harness leather and has a rendering ring at one end; this end is attached to the cincha body by a latigo-leather thong. The metal parts are either of bronze or are copper plated to prevent rotting of the leather. The cincha is made in three sizes and when manufactured in quantity 10 per cent are 58-inch, 15 per cent 60-inch, and 75 per cent 62-inch. The size stamped on the cincha is the size of the aparejo for which it is designed.

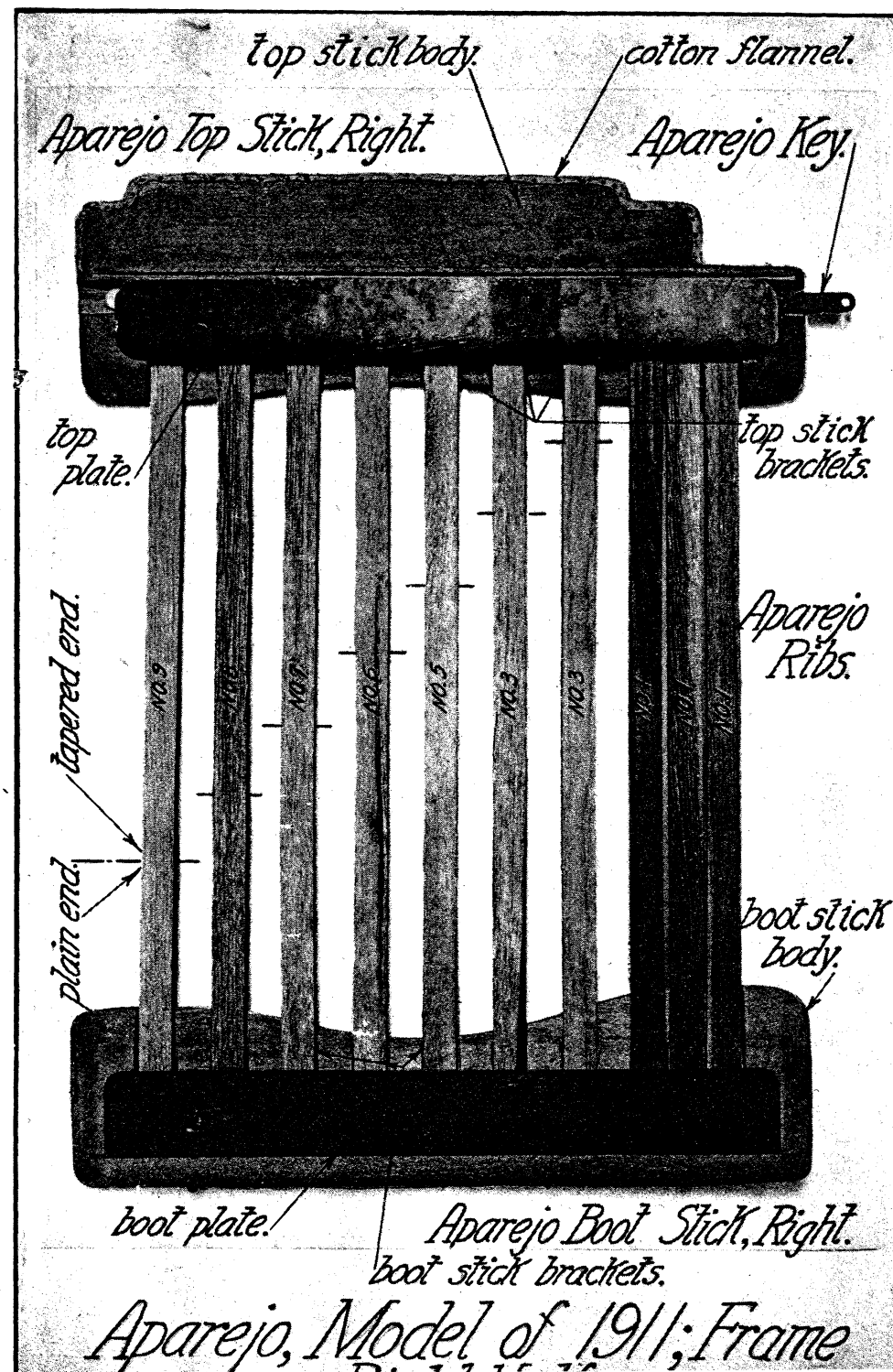
INSTRUCTIONS FOR SETTING UP THE APAREJO.

To rib up.—Unlace the slits and handholes; soak the aparejo in tepid water for about 15 minutes; drain it and lay flat, back pieces up; insert the boot stick and the top stick through the slit in rear, and press them to their places at the boot and the center stitch line, slotted sides up; insert the numbered set of nine ribs through the slit in rear in their numerical order and seat them in that order from collar to rear in the slots of the boot stick and top stick, butts at the boot; secure the top of each rib as it is seated by inserting the aparejo key at the front edge below the collar and passing it over to the rib in place; fasten the key bar to the collar by the thong.

NOTE.—The aparejo after being set up should under no circumstances be allowed to dry in the sun.

To fill or pad.—Turn the aparejo over, belly pieces up; procure about 6 pounds of long, fine, soft, elastic hay, taking a little at a time, tease or "mix" it carefully; insert it through the handhole and thus gradually fill the body of the aparejo with a smooth and even layer, not more than 2 inches thick.

NOTE.—Other filling may be used in necessity, such as moss, excelsior, curled hair, or sea grass; but these substitutes are difficult of manipulation in alterations necessary to accomodate the rigging to injuries of the mule. By teasing or "mixing" is meant the arrangement of the stalks of the hay so that they will cross one another. The body of the aparejo is that part which comes in contact with the body of the mule. As 3 inches of the lower portion of each boot stick and 3 inches of the upper portion of each top stick *must not* come into contact with the mule, no filling should be pressed under the boot



stick or within 3 inches of the center of the stitch line. The body course tapers, however, so as to overlap the boot stick and saddle bar, and also tapers toward front and rear.

To face or dress.—To adjust the aparejo more accurately to the shape of the mule, introduce filling and press it well into the corner of the front boot; working toward the handhole, continue the facing along the boot stick and front edge, gradually increasing its thickness to about 1 inch at 7 inches from the corner and forming its inner edge into the arc of a circle concentric with the handhole, the thickness tapering to the ends of the arc; continue this for 3 inches more toward the handhole, rapidly decreasing the thickness to nothing. Proceed in exactly the same way at the collar; under no circumstances should the collar facing reach within 7 inches of the center of the handhole. Connect the front boot and collar facing by a dressing along the front edge about 3 inches wide and 1 inch thick, decreasing in thickness toward the handhole and toward the middle of the edge.

NOTE.—In facing up, introduce the filling with the palm of the hand up, so as not to disturb the body course. In case the leather will not yield enough to permit the filling to be introduced well into the corners, a tamping stick may be used to raise it. This stick, used with the commercial aparejo, is 4 or 5 feet long, $1\frac{1}{4}$ inches in diameter, wedge-shaped for 4 inches from one end, the edge of the wedge being about $\frac{1}{4}$ inch thick and grooved. The object of the boot facing is to cause the boot stick to carry horizontally and parallel to the center of the mule and to give free action to the mule's elbow. Mules of large barrel will require a thicker facing than described. The object of the collar facing is to cause the saddle bar to carry horizontally and parallel with the center of the mule and to protect the mule's withers. Mules with high withers will require a thicker facing than that described. In setting to the shape of the mule, the aparejo bends at the middle of the front edge. It is important that the body course remain undisturbed during dressing, and that the instructions given be carefully followed to avoid sore withers or tails and body or belly bunches.

To attach the crupper.—Stand the aparejo on its boots in its normal position; secure a lace thong to the front hole on the upper facing of the crupper on each side and fasten the crupper with short thongs to the center holes of the carrier pieces on the rear of the aparejo; pass the crupper lace thong through the second hole from the top of the front facing of the aparejo, through the second hole of the crupper, through the third hole of the aparejo facing, through the fourth hole of the crupper, and so on, finishing through the bottom holes of the facing and crupper and tying to the crupper hole.

NOTE.—In lacing the crupper to the aparejo, the thong must be passed through the holes from the outside and must not be twisted,

the lacing must not cross, and it is important that the tie be made on the last hole of the crupper instead of the aparejo.

Guayaba, willow, dogwood, hickory, or any other wood combining the qualities of permanent elasticity and strength may be used to replace broken ribs. When the set-up aparejo is to be filled, no soaking is necessary; instead, the belly pieces are made pliable by rubbing with a sponge.

Mules weighing 850 to 900 pounds require a 58-inch aparejo; 1,000 pounds, 60-inch; 1,100 pounds, 62-inch.

When the mule is loaded, the cincha, in travel, should free the elbow by about 1 inch; more than this will prevent a proper grip on the belly.

If the boots ride high enough on the body of the mule, or if they reach under the belly, even though they ride horizontally and parallel to the center of the mule, the aparejo will be likely to turn easily. This fault encourages injuriously tight cinching.

If one or both boots flare out or turn in toward the mule, cinch sores, sore tails, or belly bunches are caused.

The width of the collar-arch clearance should be at least $5\frac{1}{2}$ inches. If it is too narrow or too wide, or if the saddle bars slopes downward toward the front, there will be sores on the withers; if they slope to the rear, there will be injuries over the loins called "kidney sores."

If the lacing of the crupper is drawn too tight at the bottom, the lower edge of the crupper will rub the buttocks and cause abrasions.

The object to be attained is the uniform distribution of the weight of a load over that portion of the mule's body which is anatomically suited to the carrying of a burden, so that the saddle will ride with little motion and without friction of the bearing surface on the body. The contact of the bearing surface of the saddle must be close at all points. As the mule's body swells from front to rear, the more or less cylindrically shaped aparejo, after the body course is laid, must be modified by facing up so as to provide a concave surface to fit over the convex surface. But, as the barrel of the properly conformed mule is nearly cylindrical through the rear half or more of the contact surface, no facing, as a rule, is necessary in the rear part of the aparejo, although conformation may require it occasionally. The above instructions were prescribed by H. W. Daly, chief packmaster, Quartermaster Corps.

CARE OF RUSSET LEATHER.

Leather equipments which have become wet should be dried in the shade. Wet leather exposed to the direct rays of the sun or to the heat of a stove or radiator becomes hard and brittle. *Only cool or lukewarm water should be used on leather; the use of hot water is prohibited.*

PLATE X.

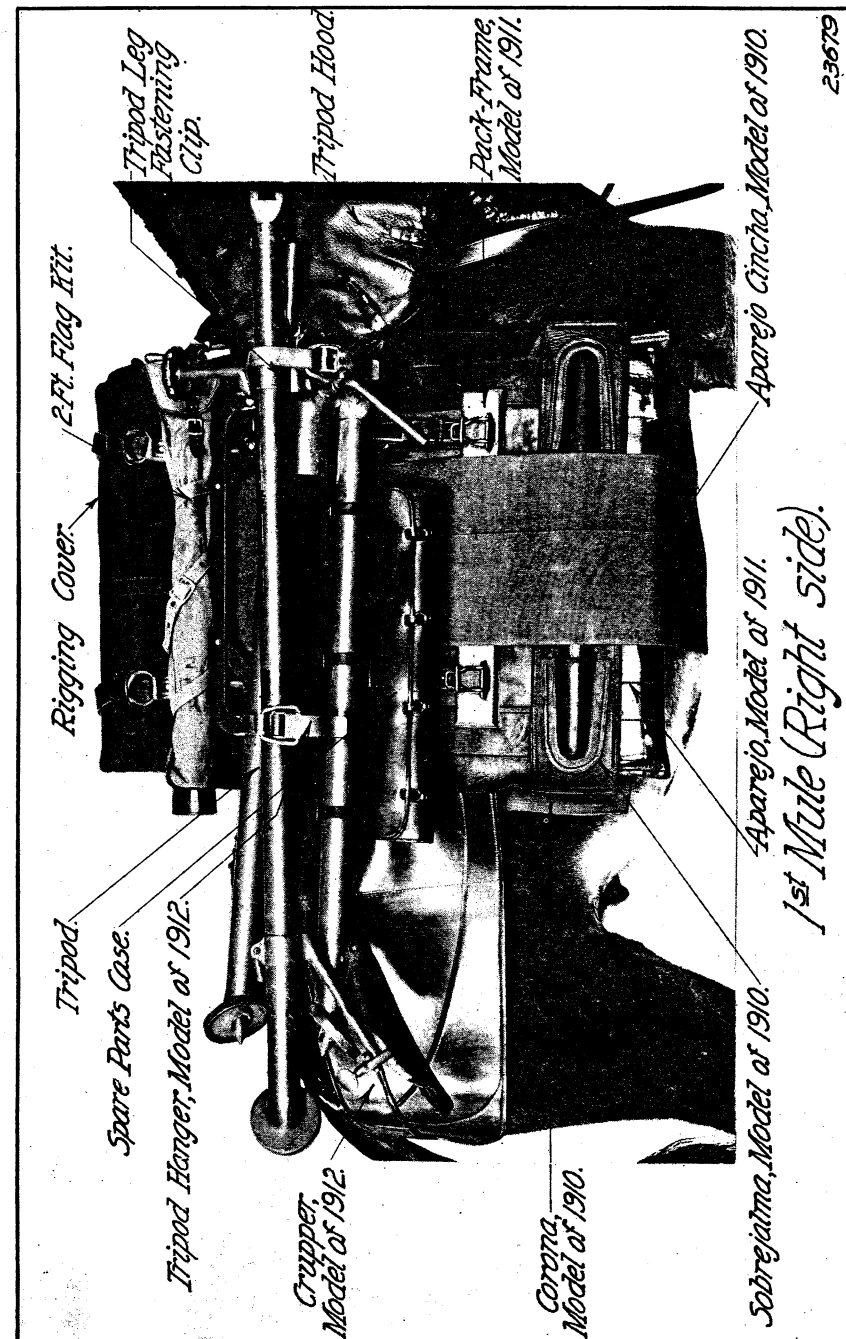
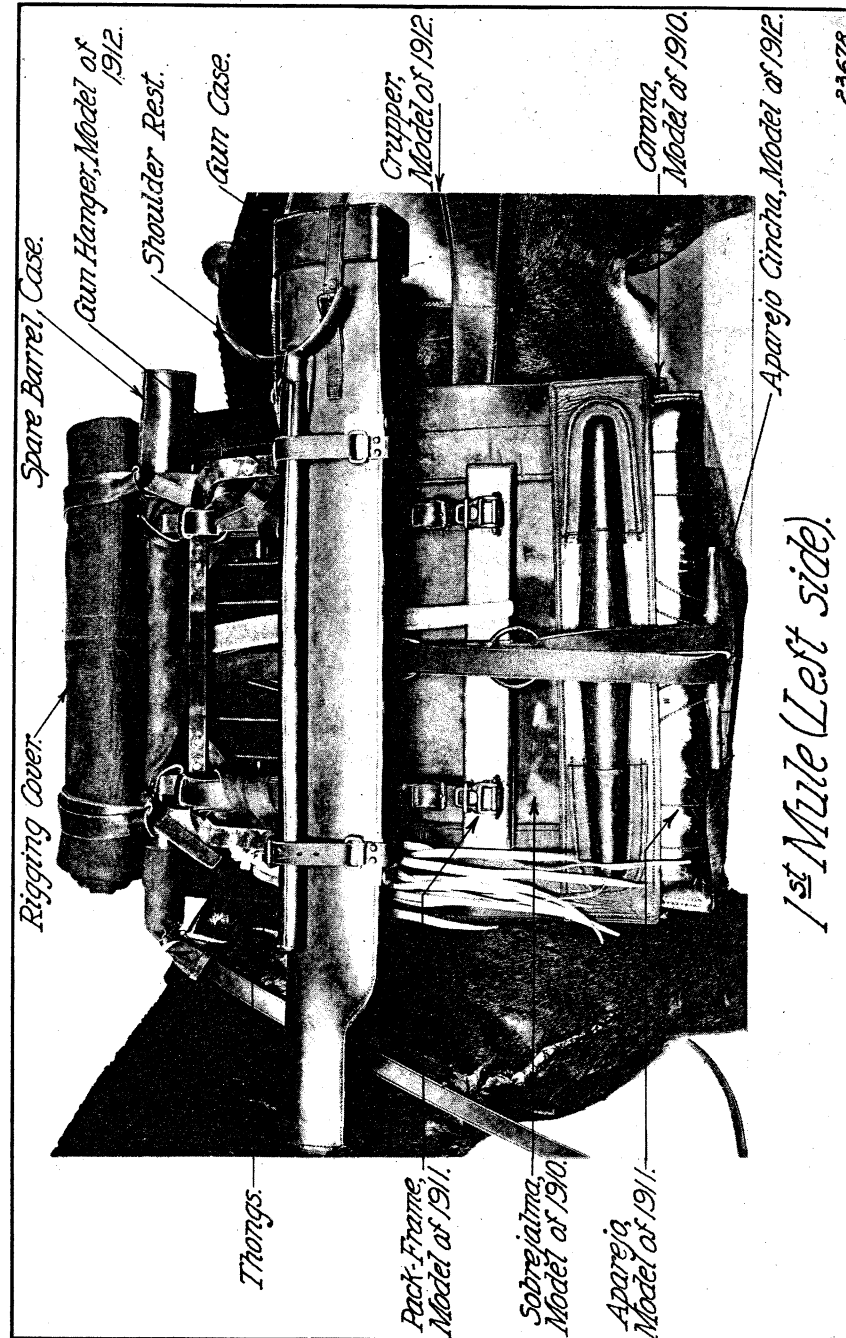


PLATE XI.



When russet-leather equipments become soiled in service they should be cleaned by carefully washing the leather with a sponge moistened with a heavy lather made of clean water and castile or Frank Miller's soap, and then rubbing vigorously with a dry cloth until the leather is completely dry.

If the leather becomes harsh, dry, and brittle from exposure to water or other causes, clean as above described, and while the leather is still slightly moist apply an exceedingly light coat of neat's-foot oil by rubbing with a soft cloth moistened (not *saturated*) with the oil. If it is found that too much oil has been used, the surplus can be readily removed by rubbing with a sponge moistened with naphtha or gasoline. But these oils are not issued for this purpose.

Where a polish is desired, the leather should first be thoroughly cleaned, and then the leather polish or dressing supplied by the Ordnance Department should be applied sparingly and thoroughly rubbed in with a soft, dry cloth. Scars, cuts, or abrasions of the leather may be improved in appearance, but not obliterated by similar use of the leather polish.

Russet leather may be cleaned, oiled, and polished as described above, but it should be noted that if more than a light coat of oil be given the leather will be greatly darkened and will quickly soil the clothing. No method of cleaning will restore the original light color of the leather or remove stains or discolorations.

PART III. THE SPECIAL PACK EQUIPMENT.

This equipment includes the following:

- Pack frame, model of 1911.
- Ammunition hanger, model of 1912.
- Gun hanger, model of 1912.
- Tripod hanger, model of 1912.
- Gun case.
- Tripod hood.
- Spare-barrel case.
- Broad hatchet head case.
- Picket-pin carrier.
- Pick-mattock fastening straps.
- Shovel-fastening straps.
- Picket rope, section.
- Picket pin and eye.
- Rigging cover.
- Thongs.

Plates X to XV, inclusive, show the special pack equipments, with their loads attached, placed on the pack harness for the first, second, third, and fourth mules. The loads for the fifth, sixth, seventh, and eighth mules are similar to these except as shown in the table of equipment.

PACK FRAME, MODEL OF 1911.

This article consists of a framework built up of wood and metal to carry the weight of the load and distribute it uniformly over the carrying surface of the aparejo. It is arranged to suit the load to be carried. To the top of the pack frame are attached four bronze castings, known as superframes, which, when folded up, form a flat surface for carrying boxes or packages which have flat sides, or, when folded down, form a convenient receptacle to hold picket pins, shovels, picket ropes, or other items of a similar nature. Four steel-loop clevises with straps are fastened to the top of the pack frame, furnishing means of lashing articles to the frame. The steel arches, with the bronze superframes, are interchangeable and may be removed by withdrawal of the steel pins. The sides of the pack frames are riveted together. The hook hinges are made of forged steel and are arranged for hanging boxes or hangers on the sides of the pack frame. Four pack-frame staples are fastened to the brace bar and are used for holding down side loads.

AMMUNITION HANGER, MODEL OF 1912.

This article consists of a light steel frame for carrying ammunition boxes. Hanger eyes are located on the upper part of the rear frame to facilitate attaching the hanger to the pack frame. The straps on top which lash the boxes in place are provided with quick-release devices. Straps with quick-release devices also are provided to fasten the hanger to the pack frame.

GUN HANGER, MODEL OF 1912.

This article consists of a steel frame for carrying the gun case. Hanger eyes on the rear of the gun hanger frame attach the hanger to the pack frame. Straps with quick-release devices secure the hanger to the pack-frame staples.

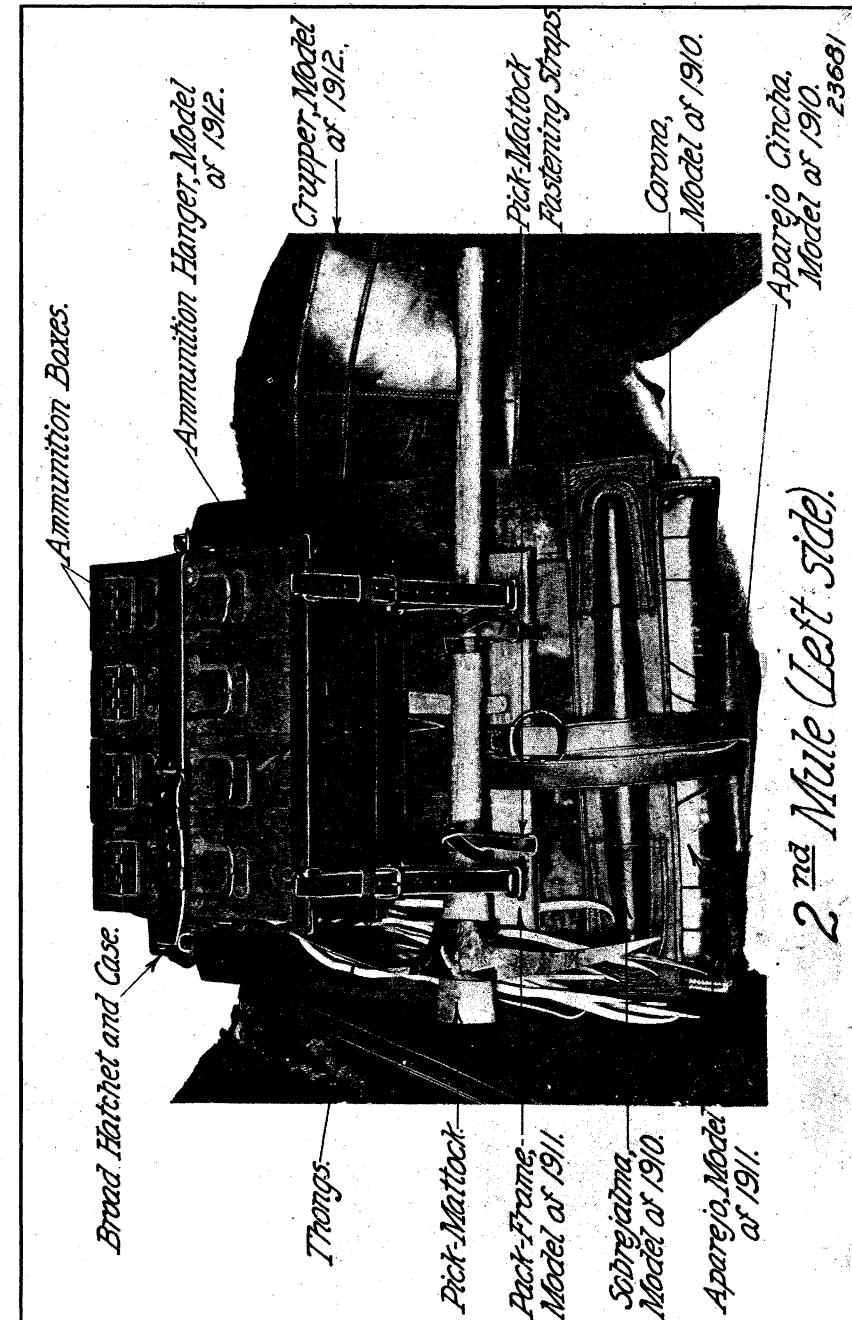
TRIPOD HANGER, MODEL OF 1912.

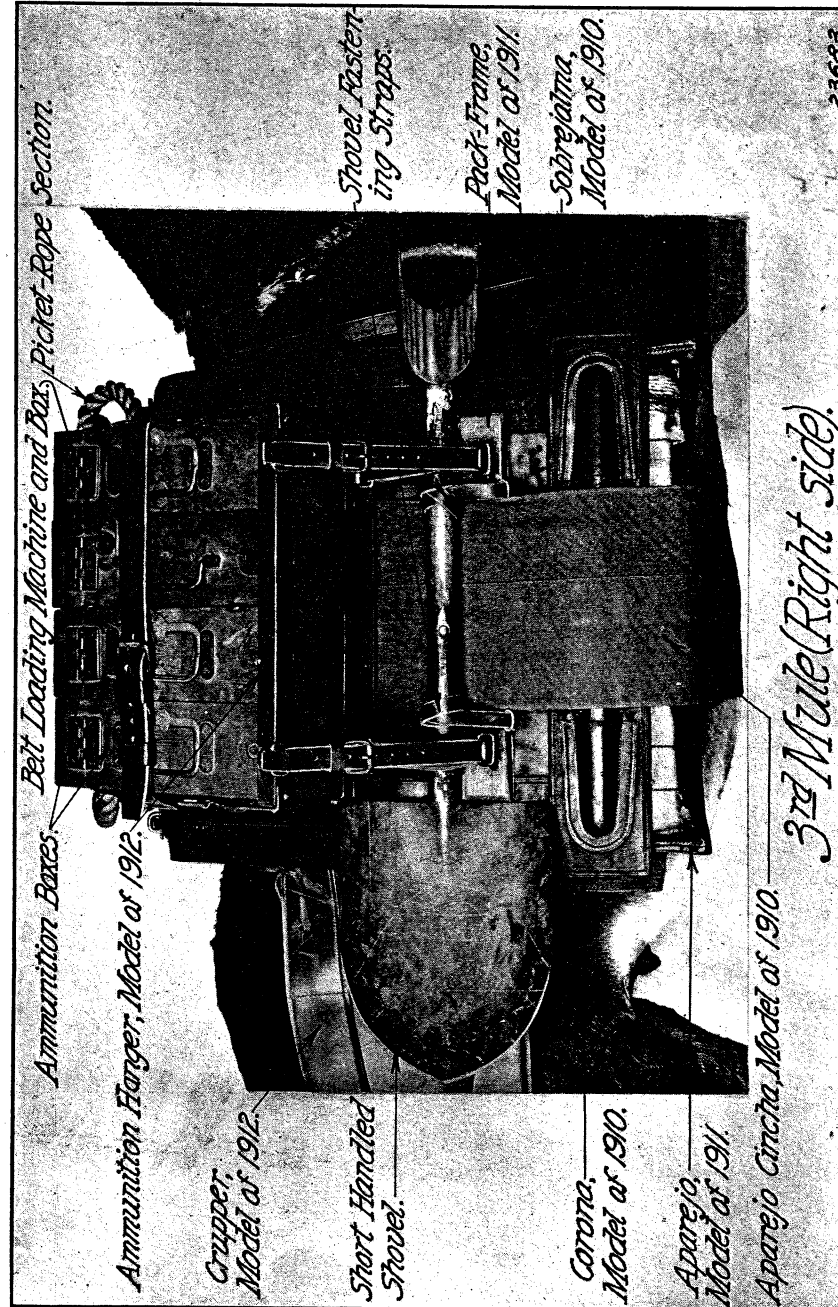
This article consists of a steel frame for carrying the tripod. Hanger eyes riveted to the hanger frame attach the hanger to the hook hinges on the pack frame. On the hanger frame are riveted the head end support and leg support which accommodate, respectively, the upper portion and the legs of the tripod. Straps with quick-release devices secure the hanger to the pack-frame staples.

GUN CASE.

This case is made of sole leather, and its purpose is to protect the gun from damage in transportation and from the weather. It is arranged in such a way that the gun may be removed with great ease

PLATE XII.





and rapidity. Two gun-case stops are riveted to the bottom piece to locate the case on the hanger and brass guards on the outside of the case prevent the leather from coming in contact with the metal gun hanger.

The arm rest is secured to the gun case. It is located in the arm-rest body piece attached to the body. A strap secures the arm rest in place.

TRIPOD HOOD.

This hood is used to protect the head of the tripod or mount in pack. It is made of russet bag leather and is closed by means of two straps and buckles. A gathering strap held by six loops is located at the top of the hood.

SPARE BARREL CASE.

This case is made of cotton duck and is closed by wrapping with a thong. Two fastening straps riveted to the case secure it to the gun hanger.

BROAD-HATCHET HEAD CASE.

This case, as its name implies, is designed to protect the head of the broad hatchet and to form a convenient means of carrying that tool. A strap with a ring is riveted to the flap of the case to form a convenient means of lashing the broad hatchet to some convenient part of the pack in transportation.

PICKET-PIN CARRIER.

This carrier is made of cotton duck and is designed to afford means of carrying the picket pin and eye in pack. End pieces of collar leather are stitched to each end and have fastened to them straps for securing the carrier to the pack frame. A flap and buckle hold the pin in its carrier.

PICK MATTOCK FASTENING STRAPS AND SHOVEL FASTENING STRAPS.

Two straps 25.25 inches long are provided for securing the pick mattock to the pack frame, and two of the same kind are provided for securing the shovel to the frame.

RIGGING COVER.

The rigging cover, made of olive-drab duck, is 43 inches wide and long enough to cover the eight packs of two sections when in park.

PICKET PIN AND EYE.

The picket pin and eye are made of steel. One picket pin and eye is furnished each section.

PICKET-ROPE SECTION.

This article consists of a 1-inch diameter manila rope, 25 feet long, with a loop spliced on each end. It is designed to be stretched along the ground and fastened at the ends with pins. The animals can then be fastened by means of their halter-bridle reins to this rope in the usual way. Three picket rope sections are provided for each company or troop. Two sections of rope can be fastened together by means of the loops and a pin driven at each end. If it is necessary to use the sections separately, a shovel or pick mattock could be used as a "dead man."

PART IV. PIONEER TOOLS.

Broad hatchet	2
Pick mattock	2
Short-handled shovel	6
Rule, 2-foot	1

These tools are commercial articles. They are carried as prescribed on Plates XII and XIII, and in the list of total equipment.

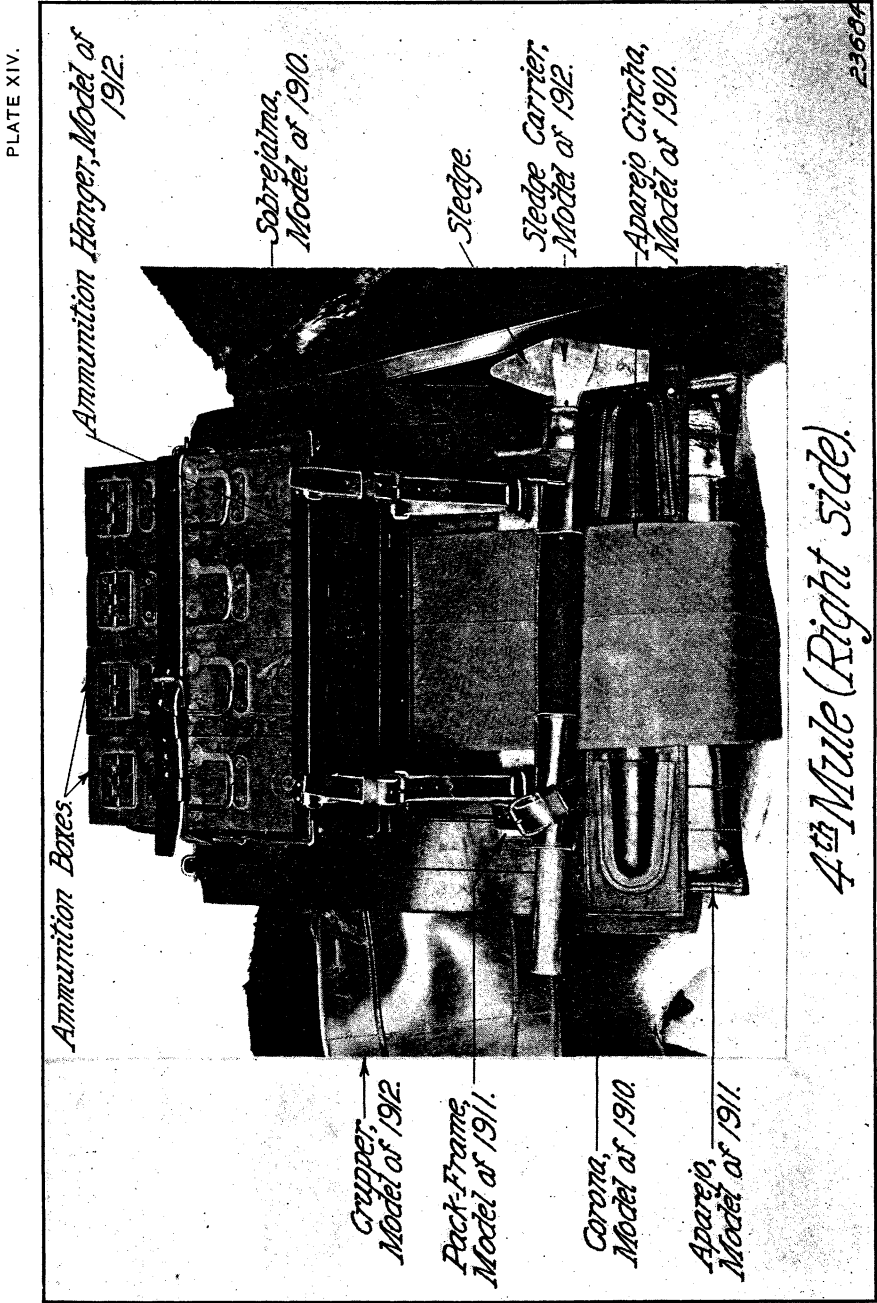
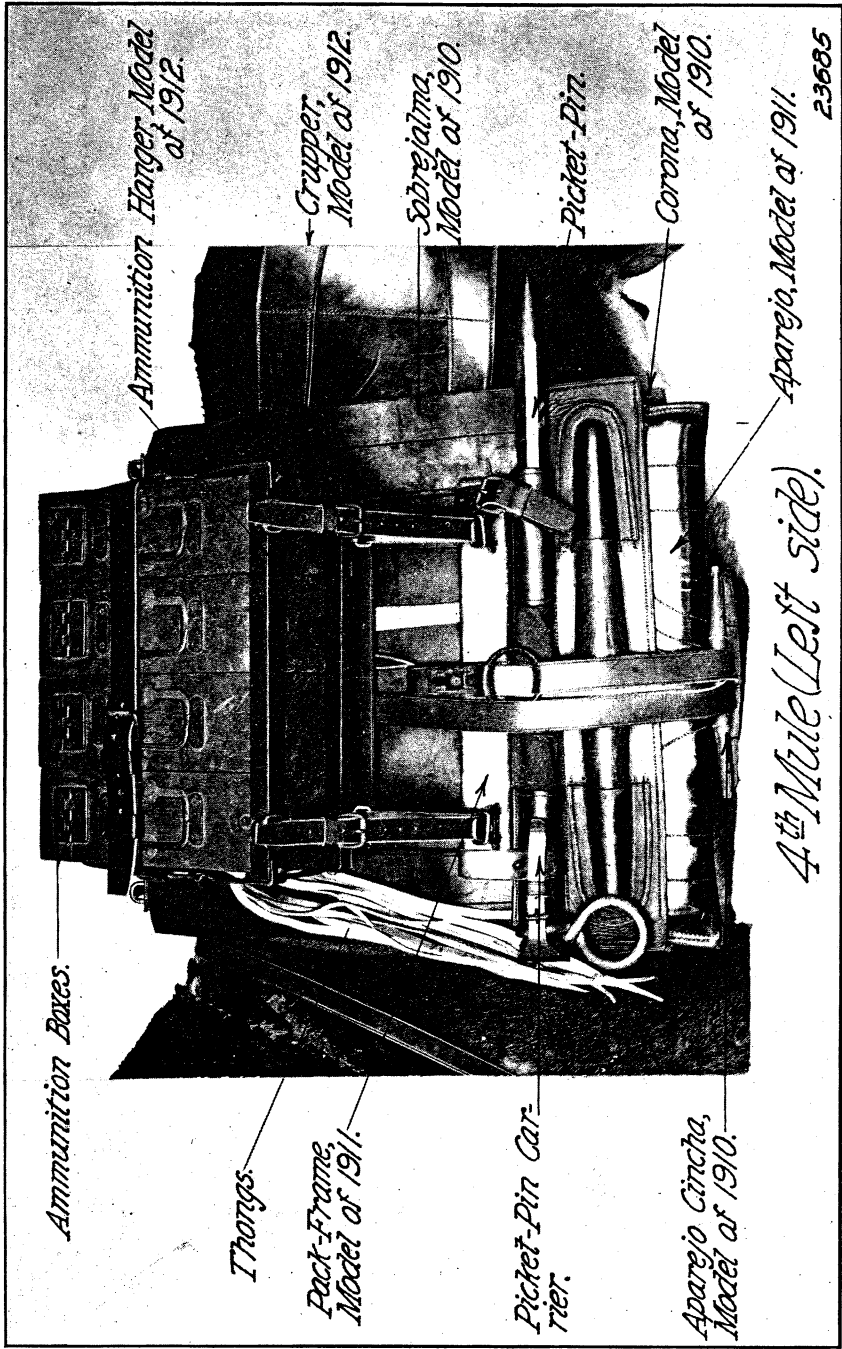


PLATE XV.



PART V. EQUIPMENT OF ONE MACHINE-GUN COMPANY OR TROOP.

The following table sets forth the total equipment of one machine-gun company or troop armed with the Colt automatic machine gun, caliber .30. It shows, in general, where each article should be carried, but the commander may use his discretion as to the disposition of articles for which no particular fitting or receptacle is provided.

In making requisitions for any of these parts the names used should be those used in this table, or on the plates, or in the descriptive matter of this handbook. If an article is wanted which is not shown as a whole but shown as made up of component parts, these component parts should be stated.

Statement of total equipment of one Colt automatic machine-gun company or troop.

Name of article.	Weight of each.	First section mules.				Second section mules.				Third section mules.				Fourth section mules.				Total.	Property classification.			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		Class.	Section.		
<i>The gun and tripods with ammunition and accompanying parts include:</i>																						
Gun.....	40	1				1				1				1				4	IV	1		
Ammunition, 240 rounds in box.....	15.4		1,920	1,680	1,920		1,920	1,680	1,920		1,920	1,680	1,920		1,920	1,680	1,920	22,080 rds. 92	V	1		
Ammunition box ¹	4.25		8	7	8		8	7	8		8	7	8		8	7	8					
Belt-loading machine.....	14			1				1				1				1		4	IV	1		
Belt-loading machine box ¹	5			1				1				1				1		4				
Shoulder rest.....	2.5	1				1				1				1				4				
Spare barrel.....	5	1				1				1				1				4				
Spare-parts case with contents ¹	6.06	1-set.				1-set.				1-set.				1-set.				4-set.				
Tripod and mount with seat.....	57	1				1				1				1				4				
Tripod leg fastening clip.....	.75	1				1				1				1				4				
<i>The packs for one company or troop:</i>																						
The pack harness—																		10	IV	1		
Blinder.....																						
Halter bridle, model of 1910 ²	4.33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16				
Corona, model of 1910.....	6.5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16				
Saddle blanket.....	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	IX	5		
Aparejo (including hay, 6 pounds) ³	47.09	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	IV	1		
Sobrejalma, model of 1910.....	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16				
Aparejo cincha.....	4.84	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16				
Crupper.....	5.55	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16				
<i>The special pack equipment:</i>																						
Pack frame, model of 1911 ⁴	20.30	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16	IV	1		
Gun hanger, model of 1912 ⁵	8.25	1				1				1				1				4				
Tripod hanger, model of 1912 ⁶	10.67	1				1				1				1				4				
Ammunition hanger, model of 1912 ⁷	11		2	2	2		2	2	2		2	2	2		2	2	2	24				
Gun case.....	5.5	1				1				1				1				4				
Tripod hood.....	.5	1				1				1				1				4				
Spare-barrel case.....	.92	1				1				1				1				4				
Broad hatchet-head case.....	.5		1								1							2				

Picket-pin carrier.....	.67				1				1				1				1	4		
Pick-mattock fastening strap.....	.10		2								2							4	IV	1
Shovel fastening strap.....	.10		2	4							2	4						12		
Picket rope section.....	7			1				1				1				1		4	IV	9
Picket pin and eye.....	12.38				1				1			1					1	4	IX	1
Rigging cover.....	16	1				1				1				1				2	IV	1
Thongs.....	.05	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	96	IV	1
<i>The pioneer tools:</i>																				
Broad hatchet.....	3		1								1							2		
Pick mattock.....	7		1								1							2	IV	9
Short-handled shovel.....	5		1	2							1	2						6		
Total weights.....		255	296	296	293	239	280	286	293	255	296	236	293	239	280	286	293			

¹ Contents included in tools and accessories and spare parts listed on p. 40.

² A halter bridle includes either 1 leather rein or 1 rope rein. Eight leather-rein and eight rope-rein bridles are issued to each company or troop.

³ The hay is not furnished with the aparejo.

⁴ 1 aparejo consists of—

- 1 aparejo body.
- 2 thongs $\frac{1}{2}$ by 64 inches.
- 2 thongs $\frac{1}{2}$ by 20 inches.
- 2 thongs $\frac{1}{2}$ by 16 inches.
- 2 thongs $\frac{1}{2}$ by 14 inches.
- 1 aparejo frame, consisting of—
 - 1 aparejo top-stick body, right.
 - 1 aparejo top-stick body, left.
 - 1 aparejo boot-stick body, right.
 - 1 aparejo boot-stick body, left.
 - 2 aparejo keys.
 - 2 aparejo top plates.
 - 2 aparejo boot plates.
 - 2 sets of aparejo ribs (10 to the set).

⁵ 1 pack frame consists of—

- 4 pack-frame top straps.
- 1 pack-frame body, consisting of—
 - 2 pack-frame sides.
 - 2 arches.
 - 4 superframes.
 - 4 strap-loop clevises.
 - 4 pack-frame pins.
 - 4 split pins.

⁶ 1 gun hanger consists of—

- 1 gun-hanger body, consisting of—
 - 1 gun-hanger frame.
 - 2 corner braces.
 - 1 rear brace.
 - 1 rear-brace pad.
 - 2 hanger eyes (right and left).
 - 6 1-inch strap fasteners.
 - 6 1 inch by 0.5-inch strap loops.
- 2 gun-case straps.
- 2 holding-down straps.
- 2 holding-down clips.
- 2 1 inch by 0.5-inch strap loops.
- ⁶ 1 tripod hanger consists of—
 - 1 tripod-hanger body, consisting of—
 - 1 hanger frame.
 - 1 rear support.
 - 2 hanger eyes (right and left).
 - 1 leg support.
 - 1 leg-support brace.
 - 1 clamp.
 - 2 clamp hooks.
 - 2 corner braces.
 - 1 clamp loop (1 roller).
 - 2 holding-down straps.
 - 2 1 inch by 0.5-inch strap loops.
 - 2 holding-down clips.
 - 1 head strap.
 - 1 clamp loop (2 rollers).

⁷ 1 ammunition hanger consists of—

- 1 ammunition-hanger body, consisting of—
 - 1 rear brace.
 - 2 corner braces (right and left).
 - 2 hanger eyes (right and left).
 - 2 side braces (right and left).
 - 1 support brace.
 - 1 rear frame.
 - 1 bottom frame.
 - 2 supports.
 - 1 support-brace pad.
 - 2 2-inch strap fasteners.
 - 1 2 inch by 1.25-inch strap loop.
 - 1 2-inch brass roller.
 - 1 5-sided strap loop.
 - 4 1-inch strap fasteners.
 - 4 1 inch by 0.5-inch strap loops.
 - 1 ammunition strap, clasp billet with quick-release device.
- 1 ammunition strap, buckle billet.
- 2 1 inch by 0.5-inch strap loops.
- 2 holding-down straps.
- 2 holding-down clips.
- 1 ammunition billet.

Statement of total equipment of one Colt automatic machine-gun company or troop—Continued.

Name.	Num-ber.	Where carried.	Property classification.	
			Class.	Section.
TOOLS AND ACCESSORIES FURNISHED EACH 4 GUNS.			IV	1
Ammunition boxes, with 2 cartridge belts each..	92	On mules Nos. 2, 3, 4, 6, 7, 8, 10, 11, 12, 14, 15, and 16.		
Belt-loading machine box, containing 1 belt-loading machine.	4	On mules Nos. 3, 7, 11, and 15.		
Spare-parts case, containing 1 oil can, 2 screw dri-ers, 1 wiping rod in 3 joints, 1 operating handle, 3 drifts, 2—0.05 wrenches, and small parts listed in next table.	4	On mules Nos. 1, 5, 9, and 13.		
Cartridge belts, 120 cartridges.....	184	On mules Nos. 2, 3, 4, 6, 7, 8, 10, 11, 12, 14, 15, and 16.		
TOOLS AND ACCESSORIES FOR PACK OUTFIT.			IV	1
Broad hatchet.....	2	On mules Nos. 2 and 10.....		
Pick mattock.....	2	do.....		
Picket pin and picket-pin eye.....	4	On mules Nos. 4, 8, 12, and 16.....		
Picket-rope section.....	4	On mules Nos. 3, 7, 11, and 15.....		
Rigging cover.....	2	On mules Nos. 1 and 9.....		
Rule, boxwood.....	1	On person.....		
Short-handled shovel.....	6	On mules Nos. 2, 3, 10, and 11.....		
Spare barrel case.....	4	On mules Nos. 1, 5, 9, and 13.....		
Tripod hood.....	4	do.....		
Supply bags.....	8	Kit wagon.....		
Other articles listed elsewhere.				
SPARE PARTS FURNISHED WITH EACH 4 GUNS.				
(For guns.)				
Bolt pins.....	8	In spare-parts cases.....		
Cartridge extractors.....	4			
Firing pins.....	8			
Firing-pin locks.....	8			
Firing-pin springs.....	8			
Hammers.....	4			
Handle locks.....	8			
Main springs.....	4			
Retracting springs.....	8			
Sear springs.....	8			
Shell extractors.....	8			
Shell-extractor pins.....	8			
Shell-extractor springs.....	8			
Trigger springs.....	8			
Barrels.....	4			
(For belt-loading machines.)				
Needles.....	96	In spare-parts cases.....		
Needle screws.....	8			
Lower feed-wheel springs.....	4			
Lower feed-wheel spring screws.....	4			
(For tripods.)				
Mount clamps.....	4	do.....		
Leg bolts.....	8			
Leg-bolt nuts.....	8			
Saddle screws.....	4			
Saddle-bracket clamps.....	4			
(For mounts.)				
Gun pins with chains.....	4	do.....		
Gun-pin lock screws.....	4			
Gun-pin chain screws.....	4			
Adjusting-screw nuts.....	4			
Arc clamps.....	4			
Arc-clamp stop screws.....	4			
SPARE PARTS FOR PACK HARNESS.				
Aparejo top sticks, right and left.....	2	In canvas sack in kit wagon.....		
Aparejo boot sticks, right and left.....	2			
Aparejo ribs (set of 10).....	2			

Statement of total equipment of one Colt automatic machine-gun company or troop—Continued.

Name.	Num-ber.	Where carried.	Property classi- fication.			
			Class.	Section.		
SPARE PARTS FOR SPECIAL PACK EQUIPMENT.						
(For pack frame.)						
Side braces.....	4	In chest for tools.....	IV	1		
Pack-frame pins.....	2					
Strap-loop clevises.....	2					
Superframes.....	2					
Hook hinge.....	1					
Arch.....	1					
Side bar.....	1					
Brace bar.....	1					
Side-bar board.....	1					
Brace-bar board.....	1					
Split pins, 0.156 ($\frac{1}{16}$) by 0.625.....	10					
(For gun hanger.)						
Corner braces.....	2	do.....	IV	1		
Hanger eyes.....	2					
(For tripod hanger.)						
Clamp, with loop and rollers.....	1	In chest for supplies.....			IV	1
Leg support.....	1					
Head end support.....	1					
Hanger eyes.....	2					
(For ammunition hanger.)						
Side braces, right and left.....	2	do.....	IV	1		
Quick-release device.....	1					
Five-sided strap loop, with strap fastener.....	1					
Folding-down clips.....	4					
1.5 inch by 1.5 inch strap loop, with rollers.....	1					
1 inch by 1.25 inch strap loop, with roller and strap fastener.....	1					
1 inch by 0.5 inch strap loop.....	4					
Rear brace.....	1					
Hanger eyes.....	2					
(Rivets.)						
0.187 inch ($\frac{3}{16}$) by 0.5 inch, round head.....	15	do.....	IV	1		
0.25 inch by 1.75 inch, round head.....	3					
0.187 ($\frac{3}{16}$) inch by 0.625 inch, countersunk head.....	15					
0.187 ($\frac{3}{16}$) inch by 0.75 inch, countersunk head.....	15					
0.187 ($\frac{3}{16}$) inch by 0.75 inch, round head.....	10					
0.25 inch by 1 inch, round head.....	10					

Statement of total equipment of one Colt automatic machine-gun company or troop—Continued.

Name.	Infantry.	Cavalry.	Where carried.	Property classification.			
				Class.	Section.		
INSTRUMENTS.							
Range finder, 80 c. m. base, with carrying case and tripod.	1	1	Where most convenient, unless otherwise prescribed by War Department orders.	V	1		
Glasses, field, type EE (furnished by Signal Corps).	2	2	do				
Glasses, field, type EE (or type A or B) (furnished by Signal Corps).	2	2	do				
Glasses, field, type C (furnished by Signal Corps).	2	2	do				
MISCELLANEOUS EQUIPMENT.							
Ammunition, rounds	22,080	22,080	In cartridge belts	VI	1		
Chest for supplies ¹	1	1	In kit wagon	IV	1		
Field picket line with 5 pins ²	1	1	On troop pack	IX	5		
Flag kits, combination standard	3	4	Where most convenient, unless otherwise specified by War Department orders.				
Manila rope, 0.5 inch, feet ¹	200	200	In kit wagon	X	10		
Marking outfit for metal	1	1	do	X	5		
Marking outfit for leather	1	1	do				
Pin and hammer chest ²	1	1	On troop pack				
Pistol-cleaning kit	1	1	In kit wagon	X	1		
Polo equipment, sets (see pamphlet No. 1879).		2	Not carried	IX	5		
Seal stamp	1	1	In kit wagon	X	5		
Stencil outfit	1	1	do				
Stencil, canteen ³	1	1	do				
Stencil, haversack ³	1	1	do				
Stencil, personal equipment ²	1	1	do				
Supply sack for leather and spare parts ¹	1	1	do	IV	1		
Supply sack for leather ¹		1	do	X	7		
Target equipment (see pamphlet No. 1992).			Not carried				
Troop pack ²	1	1	On pack mule			IX	5
Troop pannier ²	1	1	On troop pack			X	9
Water buckets, canvas, large ²	8	8	do			IX	5
Water tank ²	1	1	In kit wagon or on troop pack				
Furnished by the Quartermaster Corps.							
Kit wagon	1	1					
Harness for kit wagon	1	1					
Cooking utensils							
Company equipage							

¹ Pertains to tools and accessories for pack outfits.

² For new model equipment only.

³ For old model equipment only.

Statement of total equipment of one Colt automatic machine-gun company or troop—Continued.

Article.	Com- pany.	Troop.	Where carried.	Property classification.	
				Class.	Section.
PERSONAL EQUIPMENT.					
OLD MODEL EQUIPMENT.					
Bolo and scabbard.....	1	1	As prescribed in War Department orders.	VII	5
Bridle, cavalry or curb.....	1 1	1	do.....	IX	5
Bridle, watering (issued with curb bridle only).....	1 1	1	do.....		
Canteen, cavalry.....	1	1	do.....	IX	2
Canteen straps, cavalry.....	1 1	1	do.....		
Cartridges, ball, pistol, .45 caliber.....	21	21	do.....	VIII	2
Cartridge belt, cavalry.....	1	1	do.....	IX	2
Cartridge-belt suspenders.....	1	1	do.....	IX	1
Cup.....	1	1	do.....		
Currycomb.....	1 1	1	do.....	IX	5
Fork.....	1	1	do.....	IX	1
Halter headstall.....	1 1	1	do.....	IX	5
Halter tie rope.....	1 1	1	do.....		
Horse brush.....	1 1	1	do.....	IX	1
Knife.....	1	1	do.....		
Lariat.....	1 1	1	do.....	IX	5
Lariat strap.....	1 1	1	do.....		
Link.....	1 1	1	do.....	VII	2
Magazine, pistol, extra.....	2	2	do.....		
Magazine pocket, web, double.....	1	1	do.....	IX	2
Meat can.....	1	1	do.....	IX	1
Nose bag or feed bag with grain bag.....	1 1	1	do.....	IX	5
Pistol, .45 caliber.....	1	1	do.....	VII	2
Pistol holster, .45 caliber.....	1	1	do.....	IX	2
Picket pins.....	1 1	1	do.....	IX	5
Pouch for first-aid packet.....	1	1	do.....	IX	1
Saddle, cavalry.....	1 1	1	do.....	IX	5
Saddlebags, pair.....	1 1	1	do.....		
Saddle blanket.....	1	1	do.....	IX	1
Spoon.....	1	1	do.....		
Spurs (pair), with straps (set).....	1 1	1	do.....	IX	2
Surcingle.....	1 1	1	do.....	IX	5
Blanket-roll straps, set.....	2 1	1	do.....	IX	1
Canteen haversack straps.....	2 2	1	do.....		
Haversack.....	2 1	1	do.....	IX	3
Pistol belt without saber ring.....	1	1	do.....		
NEW MODEL EQUIPMENT. ³					
Bolo and scabbard.....	1	1	As prescribed in War Department orders.	VII	5
Bridle, cavalry.....	1 1	1	do.....	IX	5
Can, bacon.....	1	1	do.....	IX	1
Can, condiment.....	1	1	do.....		
Canteen.....	1	1	do.....	VIII	2
Canteen cover, dismounted.....	1	1	do.....		
Cartridge, ball, pistol, caliber .45.....	21	21	do.....	IX	5
Carrier strap.....	1	1	do.....	IX	1
Cooling strap.....	1	1	do.....	IX	5
Cup.....	1	1	do.....	IX	1
Currycomb.....	1 1	1	do.....	IX	5
Feed bag, with grain bag.....	1 1	1	do.....		
Fork.....	1	1	do.....	IX	1
Halter headstall.....	1 1	1	do.....	IX	5
Halter, tie rope.....	1 1	1	do.....		
Haversack.....	2 1	1	do.....	IX	1
Horse brush.....	1 1	1	do.....		
Knife.....	1	1	do.....	IX	1
Lariat.....	1 1	1	do.....	IX	5
Lariat strap.....	1 1	1	do.....		
Link.....	1 1	1	do.....	VII	2
Magazine, pistol, extra.....	2	2	do.....		
Meat can.....	1	1	do.....	IX	1
Pack carrier.....	2 1	1	do.....	IX	5
Picket pin.....	1 1	1	do.....	IX	5
Pistol, caliber .45.....	1	1	do.....	VII	2

¹ For mounted men only.

² For dismounted men only.

³ Model of 1910 equipment for infantry and model of 1912 equipment for cavalry.

Statement of total equipment of one Colt automatic machine-gun company or troop—Continued.

Article.	Com-pany.	Troop.	Where carried.	Property classification.	
				Class.	Section.
PERSONAL EQUIPMENT—Continued.					
NEW MODEL EQUIPMENT—contd.					
Picket-pin carrier, special.....		1	As prescribed in War Department orders.	IX	5
Pistol belt, without saber ring.....	1	1	do.	IX	3
Pistol holster.....	1	1	do.	IX	2
Pommel pockets.....		1	do.	IX	5
Pouch for first aid.....	1	1	do.	IX	1
Ration bags.....		1	do.	IX	2
Ration-bag retaining strap, special.....		1	do.		
Saddle, cavalry.....	1		do.	IX	5
Saddlebags, pair.....	1		do.		
Saddle, service.....		1	do.	IX	1
Saddle blanket.....	1	1	do.		
Spoon.....	1	1	do.	IX	2
Spurs (pair) with straps (set).....	1	1	do.	IX	5
Surcingle.....	1		do.	IX	3
Wire cutters.....	2	1	do.	X	
HORSE EQUIPMENT.					
Feed bags.....	20	20	As prescribed in War Department orders.	IX	5
Grain bags.....	20	20			
Horse brushes.....	20				
Currycombs.....	20				
SADDLER'S TOOLS. ³					
Awl blades, harness, assorted, Nos. 43 to 48, inclusive.....		12	In tool bag, saddler's.....	X	9
Awl, pegging.....		1	do.		
Awl, seat, handled.....		1	do.	X	9
Carriage, pricking, 3 wheels, Nos. 7, 8, and 10.....		1	do.		
Compass, 6-inch.....		1	do.	X	9
Creaser, double, lignum-vitæ.....		1	do.		
Edge tool, No. 1.....		1	do.	X	9
Edge tool, No. 2.....		1	do.		
Extra blades with followers, for draw gage.....		2	do.	X	9
Gage, draw, brass.....		1	do.		
Hammer, No. 3 riveting.....		1	do.	X	9
Hafts, patent, awl, rosewood, with wrench.....		2	do.		
Knife, round.....		1	do.	X	9
Knife, splitting.....		1	do.		
Needle case, leather.....		1	do.	X	9
Needles, Glover's No. 3, papers.....		1	do.		
Needles, harness No. 4, papers.....		2	do.	X	9
Needles, harness No. 5, papers.....		2	do.		
Needles, harness No. 6, papers.....		2	do.	X	9
Nippers, cutting, 10-inch.....		1	do.		
Oilstone, 1.25 by 2 by 8, Washita, unmounted.....		1	In chest for supplies.....	X	9
Peg awl, handled, with wrench.....		1	In tool bag, saddler's.....		
Pliers, 6-inch.....		1	do.	X	9
Punch, revolving, 4 tubes, Nos. 4, 5, 6, and 7.....		1	do.		
Rivet set.....		1	do.	X	9
Round hand punches, Nos. 5, 7, 8, and 10.....		4	do.		
Rule, boxwood, 2-foot, 4-fold.....		1	do.	X	9
Screw driver, 3-inch blade.....		1	do.		
Sewing palm, leather.....		1	do.	X	9
Shears, 10-inch, bent trimmers.....		1	do.		
Shoe knife, broad point.....		1	do.	X	9
Shoe knife, square point.....		1	do.		
Slicker, steel.....		1	do.	X	9
Stitching clamp.....		1	In chest for supplies.....		
Stitching horse.....		1	In garrison.....	X	9
Thimble, best aluminum-lined, steel.....		2	In tool bag, saddler's.....		
Tool bag, saddler's.....		1	In kit wagon.....	X	9
Tool claw.....		1	In tool bag, saddler's.....		

¹ For mounted men only.
² For certain designated members.
³ Pertains to tools and accessories for pack outfits.

Statement of total equipment of one Colt automatic machine-gun company or troop—Continued.

Article.	Com-pany.	Troop.	Where carried.	Property classification.			
				Class.	Section.		
SADDLER'S TOOLS—Contd.							
Awl blades, harness, assorted, Nos. 43, 45, and 48.	3	In chest for supplies.	X	9		
Awl, seat, handled.	1	.....	do.			
Compass 6-inch	1	.....	do.			
Edge tool No. 2	1	.....	do.			
Extra blades with followers for draw gauge.	2	.....	do.			
Gauge, draw, brass.	1	.....	do.			
Hammer No. 3, riveting.	1	.....	do.			
Hafts, patent, awl, rosewood, with wrench.	1	.....	do.			
Knife, round.	1	.....	do.			
Needle case, leather.	1	.....	do.			
Needles, harness, No. 4, papers.	1	.....	do.			
Needles, harness, No. 5, papers.	1	.....	do.			
Needles, harness, No. 6, papers.	1	.....	do.			
Nippers, cutting, 10-inch.	1	.....	do.			
Oilstone, 1.25 by 2 by 8 Washita, unmounted.	1	.....	do.			
Punches, hand, Nos. 5 and 7.	2	.....	do.			
Punch, revolving, 4 tubes, Nos. 4, 5, 6, and 7.	1	.....	do.			
Rivet set.	1	.....	do.			
Rule, boxwood, 2-foot, 4-fold.	1	.....	do.			
Shoe knife, square point.	1	.....	do.			
Stitching clamp.	1	.....	do.			
Thimble, best aluminum-lined, steel.	1	.....	do.			
Tool, claw.	1	.....	do.			
Tool kit, cotton duck.	1	.....	do.			
BLACKSMITH'S TOOLS. ¹							
Anvil, 34 pounds.	1	In Schaller forge tool chest.			X	9
Apron, blacksmith's.	1	.....	do.			
Box, shoeing leather.	1	.....	do.			
Chisel, handled, for cold iron, 1 pound 6 ounces.	1	.....	do.			
Clinch cutter.	1	.....	do.			
Clinching iron.	1	.....	do.			
Creaser, steel-handled.	1	.....	do.			
Cutting nipper, 14-inch.	1	.....	do.			
File, 12-inch, second cut.	1	.....	do.			
File, 8-inch, 3-square, taper.	1	.....	do.			
Fire rake.	1	.....	do.			
Fire shovel.	1	.....	do.			
Hammers:							
Rounding, 2-pound, 14-inch handle.	1	.....	do.			
Shoeing, 10-ounce.	1	.....	do.			
Handles, cold chisel, spare.	2	.....	do.			
Hardie, 7/8-inch shank, 1-inch bit.	1	.....	do.			
Pritchel, 7/8-inch flats, 9-inch.	1	.....	do.			
Schaller forge.	1	.....	In kit wagon.			
Schaller forge tool chest.	1	.....	do.			
Shoeing knife.	1	.....	In Schaller forge tool chest.			
Shoeing pinchers, 14-inch.	1	.....	do.			
Shoeing rasp, 16-inch.	1	.....	do.			
Tongs, horseshoer's, 18.5 ounces.	1	.....	do.			
Tool kit for Schaller forge.	1	.....	do.			
Vise, 2.5-inch jaws.	1	.....	In Schaller forge.			
Whetstone, 10-inch.	1	.....	In Schaller forge tool chest.			
Wrench, screw, 8-inch.	1	.....	do.			
BLACKSMITH'S TOOLS. ²							
Anvil, 17.5 pounds.	1	In chest for anvil and block.	X	9		
Apron, leather.	1	.....	In cavalry forge chest.			
Block, anvil.	1	.....	In chest for anvil and block.			
Box, shoeing, leather.	1	.....	In kit wagon.			
Bucket, iron.	1	.....	do.			

¹ Pertains to tools and accessories for pack outfits.
² The blacksmith's tools given in the following table are issued to cavalry troops when equipped with the Empire forge.

Statement of total equipment of one Colt automatic machine-gun company or troop—Continued.

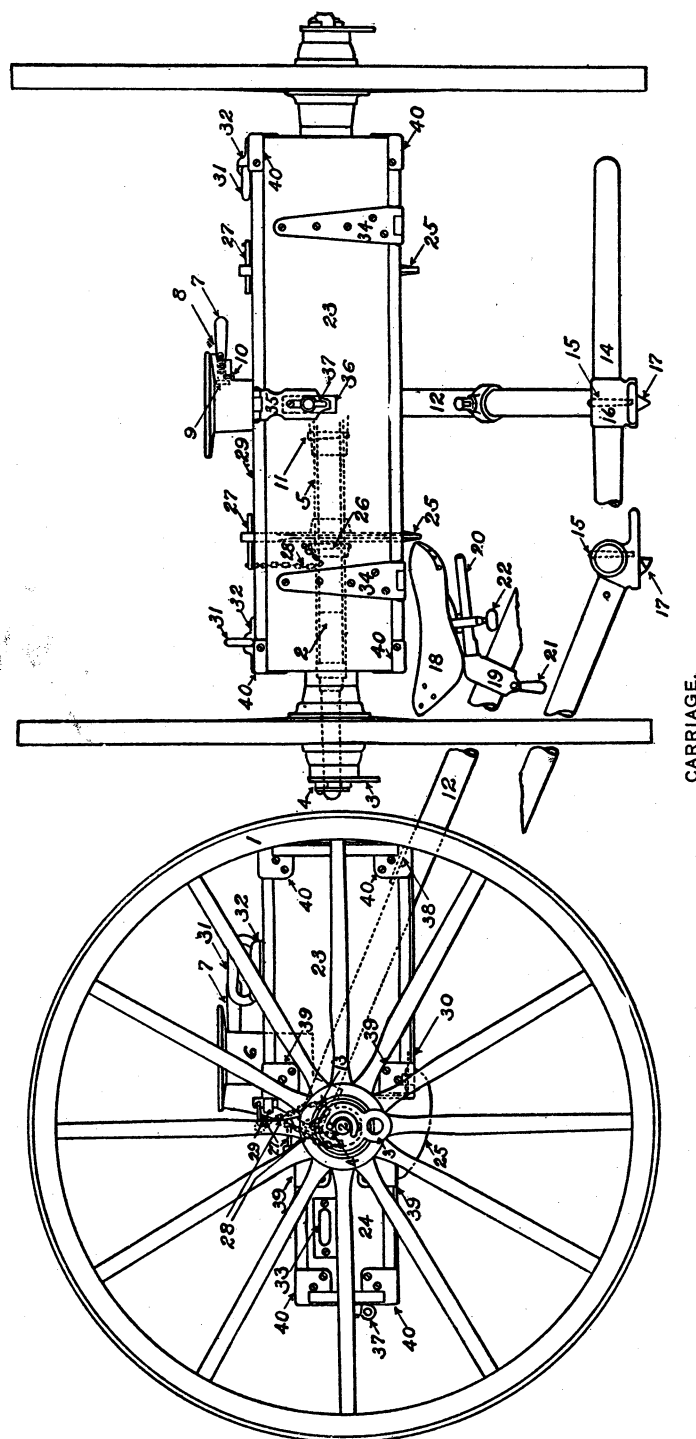
Article.	Com- pany.	Troop.	Where carried.	Property classification.			
				Class.	Section.		
BLACKSMITH'S TOOLS—Con.							
Chest, anvil and block		1	In kit wagon	X	9		
Chest, forge, cavalry		1	do.				
Chisel, handled, for cold iron, 2 pounds.		1	In cavalry forge chest				
File, flat, 12-inch, bastard		1	do.				
Fore punch and creaser, handled		1	do.				
Forge, Empire, portable, modified for Army use.		1	do.				
Hammer, hand, handled, 2 pounds		1	do.				
Hammer, shoeing, 17-ounce.		1	do.				
Hardie, 3-inch square shank, 1½-inch bit.		1	do.				
Iron, clinching		1	do.				
Knives, shoeing, bone handle		2	do.				
Knife, toe		1	do.				
Pincers, shoeing, 12-inch		1	do.				
Pritchel, 0.75-inch flats, 9-inch		1	do.				
Punch, nail		1	do.				
Rake, fire		1	do.				
Rasp, shoeing, 16-inch		1	do.				
Shovel, fire		1	do.				
Vise, 2½-inch jaws, 1½-inch opening		1	do.				
Wrench, forge		1	do.				
Wrench, screw, 12-inch, solid bar		1	do.				
Tongs, horseshoer's, 12-inch		1	do.				
MATERIALS FOR CLEAN- ING AND PRESERVATION (6 MONTHS' SUPPLY, ALL EXPENDABLE).							
Borax, pounds, lump		3	In chest for supplies	X	9		
Brush, sash, No. 3	1	1	do.				
Brush, varnish, No. 5-0	1	1	do.				
Cloth, emery, No. 3, quire	½	1	do.				
Cloth, emery, No. 0, quire	½	1	do.				
Cloth, emery, No. 00, quire	½	1	do.				
Cosmic, No. 89, soft, 1-quart cans	1	1	do.				
Chamois skins not smaller than 13 by 17	1	1	do.				
Dressing, russet-leather, boxes	1	2	do.				
Lye, powdered, cans, 1-pound, approximately	2	2	do.				
Naphthalene, pounds	5	10	do.				
Oil, linseed, boiled, gallons	½	½	do.				
Oil, linseed, raw, pints	1	1	do.				
Oil, neat's-foot, gallons	5	10	8 for troop in store				
Oil, sperm, gallons	1	1	In chest for supplies				
Paint, olive-drab, 3d coat, pounds	15	15	do.				
Primer, brown, enamel, quarts	1	1	do.				
Salt soda, pounds	3	3	do.				
Soap, castile, pounds	10	20	do.				
Soap, H. and H. cakes or paco	4	3	do.				
Soap, saddle, Frank Miller's, pounds	10	40	20 for troop in store				
Sponges, 5-inch	30	70	do.				
Waste, cotton, pounds	6	6	In canvas sack in kit wagon				
SADDLER'S MATERIAL.							
(6 months' supply, all expendable.)							
Awl blades, harness, assorted	3	6	In chest for tools	X	9		
Awl hafts, patent, with wrench	1	1	In chest for supplies				
Buckles:							
Bar—				X	10		
1-inch, center	1	30	do.				
1-inch, tongueless	1		do.				
1-inch, center	1	12	do.				
1-inch, center		6	do.				
1-inch, center		3	do.				
1-inch, Saalbach		3	do.				
1½-inch, center	1	6	do.				
1½-inch, center		6	do.				
1½-inch, tongueless		3	do.				

Statement of total equipment of one Colt automatic machine-gun company or troop—Continued.

Article.	Com- pany.	Troop.	Where carried.	Property classification.	
				Class.	Section.
SADDLER'S MATERIAL—Con.					
Buckles—Continued.					
Roller—					
1-inch		3	In chest for supplies.	X	10
1-inch	1	1	do.		
1½-inch	3	6	do.		
1½-inch	1		do.		
1-inch		6	do.		
Wire—					
1-inch		6	do.	IV	1
1-inch		3	do.		
1-inch	1	24	do.		
1-inch	1	1	do.		
1-inch tongueless, roller	2	2	do.		
Cincha straps, aparejo	2	2	do.	X	10
Cheek "D"		6	do.		
Chock plates, upper and lower	2	2	do.		
Chock staple	1	1	do.		
Duck, cotton, olive-drab:					
No. 8, yards	4	4	do.	X	10
No. 2, yards	4	4	do.		
No. 1, yards	3	17	In store.		
End buckle, 1-inch	1	9	In chest for supplies.		
End clip, 1½-inch		12	do.		
Foot staple:					
High	1	6	do.	IX	5
Low	1	12	do.		
Semi-irregular	1	6	do.		
Hook, double, brass wire	4		do.		
Hook, end, brass wire	4	4	do.		
Hook, wire, for link		3	do.	X	10
Hook, gun sling		3	do.		
Leather, bridle, backs	1	4	In supply sack for leather.		
Leather, collar, backs	1	4	do.		
Leather, harness, pounds	33	120	do.		
Leather, latigo, side		1	do.	X	10
Loop, gun sling		6	do.		
Nails, saddle		5	In chest for supplies.		
Needles, glover's, No. 3, paper		1	In chest for tools		
Needles, harness, No. 4, paper		1	do.		
Needles, harness, No. 5, paper		1	do.	X	9
Needles, harness, No. 6, paper		1	do.		
Ornaments, brow band		4	In chest for supplies.		
Ovals, saddle		5	do.		
Ovals, saddle bag		3	do.		
Pins, s'crew, brass, 1-inch, gross		1	do.	X	10
Rendering rings, 1½-inch	2	2	do.		
Rings, 1 inch diameter		6	do.		
Rings, 1 inch diameter, rifle scab- bard		3	do.		
Rings, 1½ inches diameter, saddle	1	12	do.		
Rings, 1½ inches diameter, throat strap		3	do.	IV	1
Rings, 2 inches diameter, halter	2	6	do.		
Rings, 4 inches diameter, cincha strap	1	6	do.		
Rings, 4 inches diameter, quarter strap		6	do.		
Ring, D, 1 inch diameter, feed bag		6	do.		
Rivets and burs, brass, 1-inch, No. 12, pounds		½	do.	X	10
Rivets and burs, brass, 1-inch, No. 10, pounds		1	do.		
Rivets and burs, brass, 1-inch, No. 10, oval head, pounds	½	½	do.		
Rivets and burs, brass, 1-inch, No. 8, oval head, pounds		½	do.		
Rope, 1-inch, halter bridle	50	50	30 in chest for supplies, rest in store.		
Rope, 1-inch, halter, feet	50	500	In store.	X	10
Screws, brass, 1-inch, No. 6, gross		1	In chest for supplies.		
Sheepskins, with wool on		8	3 in chest for supplies; rest in store.		
Shields, saddle, 11-inch		1	In chest for supplies.		
Shields, saddle, 11½-inch		2	do.		
Shields, saddle, 12-inch		1	do.	IX	5

Statement of total equipment of one Colt automatic machine-gun company or troop—Continued.

Article.	Com- pany.	Troop.	Where carried.	Property classification.	
				Class.	Section.
SADDLER'S MATERIAL—Con.					
Snap hooks, canteen, Cavalry.....		3	In chest for supplies.....	X	10
Snap, German, $\frac{1}{2}$ -inch.....		8	do.....		
Snap hook, haversack.....	2		do.....		
Snap, swivel, oval loop, $1\frac{1}{2}$ -inch.....	1	1	do.....		
Snap, swivel, 1-inch, No. 16.....		3	do.....		
Snap, German, 1-inch.....		5	do.....	IX	5
Square, halter.....	1	18	do.....		
Strap loop, feed bag.....		6	do.....		
Studs, saddlebag.....		3	do.....		
Tacks, copper, No. 12, paper.....		1	do.....		
Tacks, copper, No. 20, paper.....		1	do.....	X	10
Thimble, aluminum-lined, steel.....		1	In chest for tools.....		
Thread, shoe, No. 3, brown, pound.....	1	1	In chest for supplies.....		
Thread shoe, No. 10, brown, pound.....	1	1	do.....		
Wax, stitching, brown, pound.....	$\frac{1}{2}$	2	do.....		
Webbing, olive-drab, cotton, heavy, 1-inch, yards.....	1	11	do.....		
Webbing, olive-drab, halter, $1\frac{1}{2}$ - inch, yards.....	1	7	do.....		
Webbing, olive-drab, jute, $3\frac{1}{2}$ -inch, yards.....	2	9	do.....		
FOR POLO EQUIPMENT.					
Buckles, wire, $\frac{1}{2}$ -inch.....		2	Not carried.....	X	10
Buckles, wire, $\frac{1}{2}$ -inch.....		2	do.....		
Buckles, wire, $\frac{1}{2}$ -inch.....		12	do.....		
Buckles, wire, $\frac{1}{2}$ -inch.....		4	do.....		
Buckles, stirrup strap, $1\frac{1}{2}$ -inch.....		2	do.....		
Buckles, girth, 1-inch.....		6	do.....		
Ring, $\frac{1}{2}$ inch diameter.....		4	do.....		
Web, linen, straining, $3\frac{3}{4}$ -inch, yards.....		5	do.....		
Web, linen, straining, 5-inch, yards.....		7	do.....		



**PART VI. ADDITIONAL MATERIAL PERTAINING TO THE COLT
AUTOMATIC MACHINE GUN BUT NOT TO A MACHINE-GUN COM-
PANY OR TROOP.**

THE CARRIAGE.

CLASS IV, SECTION 1.

[Plate XVI.]

For use in seacoast fortification, a carriage is supplied on which the gun and mount may be attached.

SERIAL LIST OF COMPONENT PARTS.

[Numbers before components refer to numbers on Plate VIII.]

- | | |
|----------------------------------|--|
| 1. Wheel. | 21. Saddle-bracket clamp. |
| 2. Axle arm. | 22. Saddle thumbscrew. |
| 3. Axle washer. | 23. Large chest (1,440 cartridges). |
| 4. Axle linchpin. | 24. Small chest (480 cartridges). |
| 5. Axle body. | 25. Chest bracket (2). |
| 6. Socket. | 26. Chest-bracket pin (2). |
| 7. Mount clamp. | 27. Chest-bracket lock pins (4). |
| 8. Mount-clamp stop screw. | 28. Chest-bracket lock-pin chains (4). |
| 9. Mount-clamp shoe. | 29. Chest strap, upper. |
| 10. Mount-clamp shoe stop screw. | 30. Chest strap, lower. |
| 11. Socket pin. | 31. Chest handle (2). |
| 12. Trail. | 32. Chest-handle base (2). |
| 13. Trail pin. | 33. Chest flush handle (2). |
| 14. Trail handle. | 34. Chest hinge (2). |
| 15. Trail-handle pin. | 35. Chest hasp (2). |
| 16. Trail-handle bracket. | 36. Chest-hasp plate (2). |
| 17. Trail-handle bracket spur. | 37. Chest-hasp lock (2). |
| 18. Saddle. | 38. Chest steel plate. |
| 19. Saddle bracket. | 39. Chest corners, back (8). |
| 20. Saddle-bracket rod. | 40. Chest corners, front (8). |

ALPHABETICAL LIST OF COMPONENT PARTS.

[Numbers after components refer to numbers on Plate VIII.]

- | | |
|--|--------------------------------------|
| Axle arm (2). | Chest-handle base (two) (32). |
| Axle body (5). | Chest hasp (two) (35). |
| Axle linchpin (4). | Chest-hasp lock (two) (37). |
| Axle washer (3). | Chest-hasp plate (two) (36). |
| Chest bracket (two) (25). | Chest hinge (two) (34). |
| Chest-bracket pin (two) (26). | Chest steel plate (38). |
| Chest-bracket lock pin (four) (27). | Chest strap, lower (30). |
| Chest-bracket lock-pin chains (four) (28). | Chest strap, upper (29). |
| Chest corner, back (eight) (39). | Large chest (1,440 cartridges) (23). |
| Chest corner, front (eight) (40). | Mount clamp (7). |
| Chest flush handle (two) (33). | Mount-clamp shoe (9). |
| Chest handle (two) (31). | Mount-clamp shoe stop screw (10). |
| | Mount-clamp stop screw (8). |

Saddle (18).
Saddle bracket (19).
Saddle-bracket clamp (21).
Saddle-bracket rod (20).
Saddle thumbscrew (22).
Small chest (480 cartridges) (24).
Socket (6).
Socket pin (11).

Trail (12).
Trail handle (14).
Trail-handle bracket (16).
Trail-handle bracket spur (17).
Trail-handle pin (15).
Trail pin (13).
Wheel (1).

DESCRIPTION OF THE CARRIAGE.

The two wheels are of wood and are held on the axle by the axle washers and the axle linchpins. The axle washers each have eyes into which dragropes may be fastened if desired.

The two axle arms are connected together by the axle body to the middle of which is secured the socket. The trail, which is made of steel tubing, is secured to the socket by the trail pin.

The rear end of the trail is provided with a wooden crossbar or handle for use in moving the carriage about, and also a ring or lunette for the attachment of a dragrope in case of necessity.

The two ammunition chests, which are removable, hold 2 and 6 ammunition boxes, respectively, each containing 2 feed belts of 120 rounds each.

Statement of equipment issued when a gun and carriage is issued to a seacoast fortification.

Article.	Number.	Property classification.	
		Class.	Section.
Colt automatic machine gun.....	1		
Tripod.....	1		
Mount.....	1		
Carriage.....	1		
TOOLS AND ACCESSORIES.			
Belt-loading machine in box.....	1	IV	
Feed belts, 50 cartridge.....	2		
Ammunition boxes with 2 feet belts, 120-cartridge, each.....	10		
Gun cover, russet leather.....	1		
Tool bags, leather, 1 large, 1 small.....	2		
Oil can.....	1		
Screw drivers.....	2		
Wiping rod, in 3 joints.....	1		
Drifts.....	3		
Operating handle.....	1		
SPARE PARTS.			
(For guns, belt-loading machines, tripods, and mounts.)			
In proportion to those listed on page 40.			
(For carriage.)			
Axle washers.....	2	IV	
Axle linchpins.....	2		
Base binder screw.....	1		
Chest bracket lock pins.....	2		

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FIG. 1

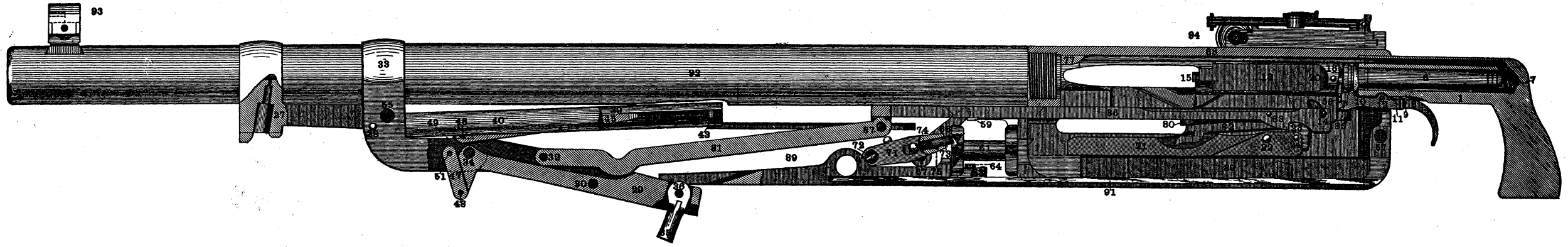
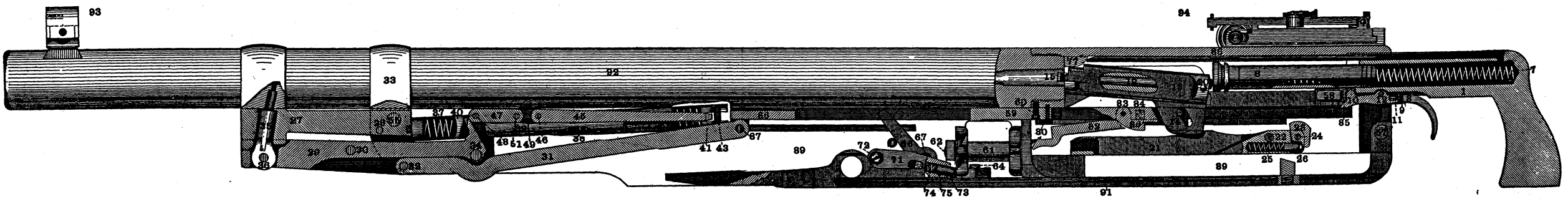


FIG. 2



GUN, SECTIONAL VIEWS.