

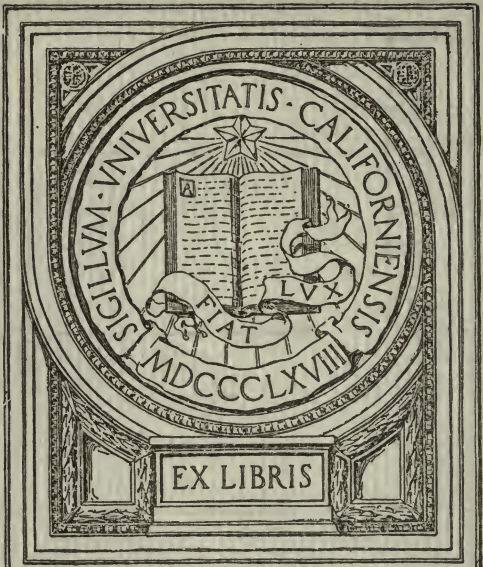
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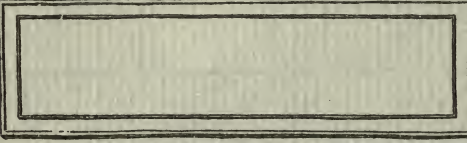


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COMBINED
INFANTRY AND CAVALRY
DRILL REGULATIONS

FOR

AUTOMATIC MACHINE RIFLE
CALIBER .30

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CORRECTED TO APRIL 19, 1917

(Changes No. 1)



WASHINGTON
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1917

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WAR DEPARTMENT : : OFFICE OF THE CHIEF OF STAFF

U. S. General Staff

COMBINED
INFANTRY AND CAVALRY
DRILL REGULATIONS

FOR

AUTOMATIC MACHINE RIFLE
CALIBER .30

MODEL OF 1909

CORRECTED TO APRIL 15, 1917
(Changes No. 1)



WASHINGTON
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WAR DEPARTMENT,

Document No. 488.

Office of the Chief of Staff.

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WAR DEPARTMENT,
OFFICE OF THE CHIEF OF STAFF,
Washington, March 29, 1915.

The following combined system of Infantry and Cavalry Drill Regulations for Automatic Machine Rifle, Caliber .30, Model of 1909, prepared by a board of officers appointed by paragraph 14, Special Orders, No. 120, War Department, 1914, is approved and herewith issued for the information and government of the Regular Army and the Organized Militia of the United States.

By order of the Secretary of War:

TASKER H. BLISS,
Brigadier General, Acting Chief of Staff.

MACHINE-GUN DRILL REGULATIONS, 1914.

1. It is presumed that members of a machine-gun organization are primarily cavalrymen and infantrymen and have been instructed as such. Subjects covered by the drill regulations of the particular arm or by authorized manuals have been omitted from the text, except in cases where the importance of the subject renders repetition advisable.

2. All members of a machine-gun organization will receive instruction in all that pertains to the machine gun and its equipment.

3. These regulations refer to the automatic machine rifle, caliber .30, model of 1909.

4. The term "machine-gun organization" refers to both mounted and dismounted units. Where the regulations are applicable to Cavalry only or to Infantry only, it will be indicated as Machine-Gun Troop; Machine-Gun Company; Machine-Gun Platoon, Cavalry; or Machine-Gun Platoon, Infantry.

SIGNALS.

5. Signals used by machine-gun organizations will be those prescribed in the drill regulations of the particular arm, field service regulations and other manuals of instruction governing the arm.

Prescribed signals are limited to such as are essential as a substitute for the voice under conditions which render the voice inadequate.

Signals described in these regulations as peculiar to the employment of machine guns are prescribed for use only under the conditions described above.

(C. C. I. and C. D. R. A. M. R. No. 1.)

6. ACTION FRONT (RIGHT, LEFT OR REAR).—Strike three or four blows with the clenched fist in the direction in which action is desired.

7. Rescinded.

(*C. C. I. and C. D. R. A. M. R. No. 1.*)

8. Rescinded.

(*C. C. I. and C. D. R. A. M. R. No. 1.*)

9. CLOSE.—Extend the arm horizontally to the right and bring the hand repeatedly to the point of the shoulder.

10. EXTEND.—Sweep the arm, fully extended, slowly and horizontally across the body.

11. Rescinded.

(*C. C. I. and C. D. R. A. M. R. No. 1.*)

12. Rescinded.

(*C. C. I. and C. D. R. A. M. R. No. 1.*)

13. Rescinded.

(*C. C. I. and C. D. R. A. M. R. No. 1.*)

14. Rescinded.

(*C. C. I. and C. D. R. A. M. R. No. 1.*)

THE SQUAD.

15. Soldiers are grouped into squads for the purpose of making units for the operation and service of machine guns in battle and to facilitate their control and movement.

16. Men must be taught the necessity not only of remaining with the squad to which they belong, but, what is of greater importance, of keeping the gun sufficiently manned to do efficient work at all times.

17. The squad dismounted is formed and maneuvered as prescribed for the squad in the drill regulations of the arm to which it belongs. Four members of the squad constitute the gun squad; one is designated as gunner, who carries the rifle and gunner's pouch; one as loader, who carries ammunition; and one as tripod carrier. The fourth member of the squad assists in the operation of the rifle, keeps it supplied with ammunition, and performs such other duties as may be assigned to him.

18. The rifle is operated by the gunner and the loader, the former being preferably a noncommissioned officer or experienced private.

19. When not assembled, the rifle and tripod are handled in the most convenient manner.

TO PREPARE TO FIRE.

20. Being in any formation: 1. ACTION FRONT (RIGHT, LEFT OR REAR).

The rifle is set up in the position designated by the squad leader by the gunner and tripod carrier. With the tripod at its maximum height, the gunner sits on the trail seat; at other elevations he takes the most suitable position. The loader places his ammunition boxes within convenient reach and takes such position on the right of the gun as will enable him to readily perform his duties. The disposition of the loads carried by the other members of the squad, the duties to be performed and the position to be occupied by each will be as directed by the squad leader, who takes position so as to best direct the fire of his gun. Sights are set by the gunner and the gun loaded at command LOAD, or at first designation of the target. In order to reduce exposure to hostile fire, no more men than are absolutely necessary should be kept at the gun.

21. This formation of the squad, with the gun in readiness to fire, is termed the "firing formation."

TO LOAD.

22. LOAD.—The gunner cocks the rifle; the loader raises the feed piece high enough to release the actuator and inserts a feed strip, being careful to depress the outer end so that the feed strip will properly enter the feed guides. He also steadies the piece by placing the left hand over the rear sight movable base.

23. THE COCKING HANDLE WILL ALWAYS BE SET AT "SAFE" EXCEPT WHEN ACTUALLY FIRING.

24. After the first command for loading, the loader, unless otherwise directed, will keep the rifle loaded.

TO UNLOAD.

25. UNLOAD.—In order to remove a partially exhausted feed strip, the gunner sees that the rifle is cocked and steadies it if necessary. The loader raises the feed piece as in loading, and when the pawls are disengaged withdraws the strip and replaces it in the ammunition box.

When the feed strip is clear of the guides, the gunner, holding the cocking handle, pulls the trigger and allows the actuator to move

slowly forward in order to release the tension on the actuator spring. The actuator should not be allowed to snap forward by the action of the spring alone.

26. When operating the rifle alone, the gunner performs the operations prescribed for the loader.

TO CHANGE THE BARREL.

27. The gunner unscrews the barrel-locking screw and rotates the locking nut. The loader removes the barrel, the gunner assisting, if necessary, by inserting the screw-driver end of the dismantling wrench between the barrel and receiver. The loader mounts the new barrel, pushing it home; the gunner locks the locking nut and screws up the locking screw.

28. The command CHANGE BARREL (feed piece, firing pin or any other part) should be frequently given during drill.

TO SUSPEND FIRING.

29. SUSPEND FIRING.—The gunner removes his finger from the trigger, and sets the cocking handle at "Safe." If the feed strip is nearly exhausted, the loader inserts a full one. All remain in position.

TO CEASE FIRING.

30. CEASE FIRING.—The gunner sets the cocking handle at "Safe" and the piece is unloaded. The gunner lowers the sight leaf and replaces tools in the gunner's pouch. The loader replaces the feed strips in the box; other members of the squad assist when so directed.

31. At any preparatory command for movement, CEASE FIRING is executed, the gun is dismantled from tripod, and all loads are prepared for carrying.

FIRINGS.

CLASSIFICATION OF FIRE.

32. Machine-gun fire is classified and subdivided as follows:

- | | | |
|--|----|------------------|
| 1. According to the manner in which a target is covered with fire, | { | a. Fixed. |
| | b. | Distributed. |
| | c. | Searching. |
| | d. | Combined sights. |
| 2. According to its use..... | { | a. Ranging. |
| | b. | For effect. |

DEFINITIONS AND USE.

33. *Fixed fire* is that in which the gun is directed and fire delivered at a small target, or at a single aiming point on a large target.

Distributed fire is that in which the fire is distributed along a line, a number of different aiming points being used. These points must be selected close enough together to insure the target being covered with fire.

Searching fire is that in which the fire of the gun is distributed in the direction of depth.

Combined sights are used for the same purpose as searching fire, i. e., to secure distribution in the direction of depth. For this fire two or more guns must be employed, and such differences made in the elevation of the guns or each pair of guns that their beaten zones will overlap and a greater total depth of beaten zone be thus secured.

Ranging fire has for its object the determination or verification of the firing data when no range-finding instrument is available.

Fire for effect has for its object the infliction of losses upon the enemy.

APPLICATION OF FIRE.

34. In battle the question as to whether or not a certain target is to be taken under fire is a tactical one, and must be decided according to the conditions of the combat and the particular mission assigned to the machine-gun organization.

35. The tactical employment of the guns and selection of targets are discussed in these regulations. The decision having been made to take a certain objective or target under fire, it remains for the machine-gun commander to determine how best to apply the fire power of his guns to accomplish the desired result.

36. To secure the greatest moral and material effects, the burst of fire from the guns must be sudden and unexpected and continued without interruption until the desired effect is produced.

37. "Ranging fire," therefore, must not be employed unless it is certain that the ultimate results of the fire will be materially increased by the opportunity thus afforded for a more perfect adjustment of the fire.

This implies that ranging fire should not be attempted against targets which, by moving, could disappear from view in the interval between ranging fire and fire for effect nor should it be attempted when the guns themselves are under fire.

In these cases fire for effect should be opened at once and any adjustment, during the natural pauses in the fire, left to the platoon leaders and those directly concerned with the control of fire.

FIRE DIRECTION AND FIRE CONTROL.

38. The captain, through his officers and noncommissioned officers, directs and controls the fire of the organization.

The following paragraphs set forth, in a general way, the functions and duties of the officers, noncommissioned officers and gunners.

39. The captain—

1. Selects and designates the target, allotting to each platoon its sector.

2. Causes the range to be measured, or, if instrumental range finders are not available, calls upon the platoon commanders for an estimate of the range, and takes a mean of the estimates furnished him.

3. Decides what kind of fire is to be employed and how many guns are to be used. He also decides whether separate aiming points are to be used for each gun or platoon or whether a single aiming point is to be used for all guns.

40. The platoon commander—

1. If called upon for an estimate of the range, causes the range to be estimated by two or more members of his platoon best qualified in the estimation of distances and announces the mean of their estimates to the captain.

2. Allots to each gun its sector and puts into execution the commands or directions of the captain, having first taken such precautions to insure correct sight setting and clear description of the target as the situation permits or requires; thereafter gives such additional commands or directions as are necessary to exact compliance with the captain's will; he corrects the sight setting when necessary; he designates an aiming point when the target can not be seen; he keeps on the alert for signals from the captain; replaces casualties at the guns; keeps a careful check on ammunition so that he can report at any time the amount available for immediate use.

41. If a platoon be detached and acting alone, the platoon commander exercises the functions outlined above for the captain.

42. Supernumerary enlisted men assist the captain in the observation of fire and perform such other duties as he may direct.

43. In the platoon organization the sergeant assists the platoon commander.

44. The squad leader—

1. Repeats to the gunner such firing data, orders and commands as may be given and sees that they are properly executed.

2. Observes the effect of fire of his gun and makes such corrections in the sight setting and in the number of shots fired at each aiming point as are necessary to make the fire more effective. He constantly endeavors to carry out the will of his superior officers and keeps on the alert for commands and signals.

3. Keeps the gun properly manned by details from his own squad; keeps check on the ammunition, so as to be prepared at all times to report the amount remaining on hand available for immediate use; and sees that the immediate supply of ammunition is so placed that the action of the gun will not be delayed for lack of ammunition.

45. The gunner—

1. Keeps his gun in proper working order and obeys implicitly the orders of the squad leader.

METHOD OF INSTRUCTION.

46. The importance of maintaining fire discipline and securing implicit obedience to the commands of the captain or other officer directing or controlling the fire of machine guns in battle is so great that a portion of each day's drill or training will be devoted to instruction in the firings.

47. Firing instruction in the squad must have for its object the attainment of proficiency in the mechanical operation and manipulation of the piece and the development of fire discipline.

48. Firing instruction with the gun squads combined must follow this instruction in the squad, and has for its object the instruction of officers and noncommissioned officers in fire control and in the application of fire, as well as in the development of fire discipline.

49. Feed strips loaded with dummy cartridges should always be used for drill and instruction, loading being simulated only when such cartridges are not available.

When ammunition is available, instruction should frequently be held with ball cartridges.

50. In battle, targets ordinarily will remain exposed to view in the open but a short time; therefore great skill in the service of the piece and a high order of fire discipline are required to deliver quickly an effective fire upon such targets.

51. The squad is practiced in directing the gun quickly upon a suddenly appearing target, in following its movements and in keeping up an effective fire upon it.

52. Targets moving at various angles to the front and at different rates of speed should be frequently selected; mounted detachments or vehicles appearing on the terrain may be utilized for targets.

53. Every means should be utilized in the arrangement of targets to secure different ranges and different degrees of visibility in order that the maximum amount of instruction may be imparted in picking up and describing them, in range finding, and, in fact, in all that goes with the actual operation and service of the guns in action.

54. Silhouettes arranged in lines of different lengths should be placed in positions that will be at different angles to the front of the position selected for the gun or guns used in this instruction.

55. For indoor practice the ingenuity of the instructor must be called upon for the preparation and arrangement of various miniature targets to represent those ordinarily met with in battle.

THE GUN SQUAD.

56. The squad leader should have—

1. Such perfect knowledge of his gun that he can determine at once the cause of the failure of any part to function.

2. A sufficient knowledge of the ballistic properties of the machine gun to enable him to obtain the greatest effect from its fire.

3. A knowledge of the influence of ground—

(a). With reference to the position of his gun.

(b). With reference to the position of the objective.

4. A quick apprehension of his target and of opportunities to inflict heavy losses.

57. The gunner occupies the most important position in the gun squad in so far as accurate delivery of fire is concerned. All men of the organization will be instructed in the duties of this position. The gunner should be selected from the men showing the greatest

aptitude and attaining the greatest proficiency at machine-gun target practice.

Firing alone will not determine the qualifications for this post. He should be able—

1. To know instinctively when his gun is not correctly adjusted.
2. To load the piece in any position, without the assistance of the loader.
3. To manipulate the rear and telescopic sights rapidly and accurately.

4. To aim quickly and accurately.

Before firing, the gunner must—

1. Make sure that the barrel is clear.
2. See that the regulator is properly set.
3. Oil the mechanism.
4. Test the mechanism by rapidly opening and closing the breech several times to insure that it works freely and smoothly.

58. All members of the gun squad must be so instructed that each is qualified to perform the duties of each position.

COMMUNICATION AND EXECUTION OF FIRING DATA.

59. The term "firing data" is used to designate the complete information that the gunner must have before opening fire. Firing data is communicated in the following manner:

1. The target, and, if necessary, the particular aiming point on the target.
2. Elevation and deflection.
3. Kind of fire to be used.
4. Number of cartridges or strips to be used.

In action the precision with which firing data must be announced will depend upon the proficiency of the personnel.

60. In order to insure uniformity of instruction throughout the organization, it may be advisable to form the noncommissioned officers into a squad, with the captain or one of the lieutenants as squad leader, and conduct the exercises until the idea and purpose of the instruction are so thoroughly understood that each noncommissioned officer can impart instruction in an intelligent, proper and uniform manner to the members of his squad.

61. Examples of the communication of firing data by the squad leader to the gunner are as follows:

1. TARGET.—That machine gun at 12 o'clock, or such and such portion of that infantry line, at 2 o'clock, or aiming point (such an object).

2. Battle sight, or 800 (900, 1,000).

3. Right (left) one (or so many).

4. Fix, or distribute, or search.

5. One (or so many) strips.

6. Commence firing.

62. The squad leader, in his description of the target or aiming point and in his designation of the portion to be covered by the gunner in firing, while being as concise as possible, must assure himself that the gunner understands his directions thoroughly.

63. The squad leader should be equipped with field glasses to aid him in his definition of the target, and the gunner has the telescopic sight, which he should use, if necessary, to follow the leader's description and pick out his aiming point.

64. The following commands or appropriate signals given during pauses in the firing may be used to communicate changes in the firing data:

To increase or decrease the elevation 100 (or such number of) yards: UP: 100 (or such number). DOWN: 100 (or such number).

If the command UP or DOWN be given without any number added, the gunner raises or lowers the *point of strike of the bullets* by use of the elevating gear and does not change the sight setting, but selects his point or points of aim above or below the target.

To change the deflection to the right or left any number of points:

RIGHT: One (or such number).

LEFT: One (or such number).

If the command RIGHT or LEFT be given without any number added, the gunner moves the point of strike of the bullets to the right or left by traversing and does *not* change the sight setting, but selects his point of aim farther to the right or left.

To change the kind of fire, the appropriate command, FIX, DISTRIBUTE or SEARCH, is given.

If a complete change of targets be desired, the command SUSPEND FIRING should be given and appropriate data for the new target announced.

THE GUN SQUADS COMBINED.

65. Previous to taking the firing formation, firing data may be communicated to the platoon leaders, and when practicable to squad leaders, they having preceded the guns for this purpose.

66. The firing data announced by the captain will designate the target for each platoon and the range and deflection, the kind of fire and the number of rounds being left to the discretion of the platoon commanders.

67. The command COMMENCE FIRING is given by the captain when all guns are ready unless he has previously commanded FIRE WHEN READY.

68. To facilitate observation of the effect of fire, the right gun only of each group with the same aiming point, should fire at command. The fire of each other gun of the group should be delayed for a few seconds after the opening of fire by the gun on its right.

THE PACKER.

69. The object of this instruction is detailed training in—

(a) Setting up and fitting the aparejo, as prescribed in the handbook of the Automatic Machine Rifle, Caliber 30, Model of 1909.

(b) Care of equipment.

(c) Care of pack animal.

(d) Harnessing and unharnessing.

CARE OF EQUIPMENT.

70. The leather parts of the equipment should be exposed to the sun as little as possible and when wet should be dried in the shade.

71. Immediately after the equipment is removed from the animal, canvas parts should be scraped free from all adhering substances, with a dull but smooth-edged knife. Especially must constant attention be given to the cleanliness and pliability of the canvas of the corona, crupper and cincha, and of the dock piece. The canvas side of the corona and crupper should not be exposed to the sun for the purpose of drying.

72. Woolen parts should be rubbed between the hands or hung up and beaten with switches or wands to remove dust, mud and hair, and to make them soft and pliable. They should be exposed fre-

quently to the sun, completely unfolded. Blankets should be washed in tepid water at least once a month.

73. Metal parts must be kept free from dust, dirt, sweat and hair. Those issued with coats of paint or lacquer are to be maintained in that condition. Bright parts should be polished. The tongues, rollers and keepers of buckles must work freely, to which end the straps must be unbuckled in cleaning.

DISPOSITION OF THE EQUIPMENT.

74. The aparejo with crupper, sobrejalma and pack frame attached rests on its boots; crupper doubled forward; the cincha passed over the frame as in unharnessing; the blanket is folded and placed on the cincha, folded edge to the front; the corona, folded, canvas side in, is placed on the blanket, folded edge to the front. When exposed to the weather, the aparejos must be covered with the rigging cover. The bridle and blinder are hung on pegs or laid across the corona. Loads should be kept with the pack harness to which they pertain. All articles should be plainly marked with the number of the animal to which they are fitted.

75. In camp the aparejos of each platoon should be in line parallel to and in rear of the line of tents, the center of the aparejos being in the center of the space allotted to the platoon. Aparejos may be similarly kept at the picket line.

The aparejos should be raised from the ground. If suitable material can not be obtained, they may be placed on ammunition boxes. Bridles and blinders should be placed on the corona before the packs are covered with the rigging cover.

The rifle should be kept in the case and when practicable under cover.

76. It is important that the men be trained to place the equipment as prescribed, for in field service, mules must frequently be saddled in the darkness and it is imperative that an unvarying uniform method of placing the equipment be adopted in order to avoid confusion and delay.

CARE OF THE PACK ANIMAL.

77. In order that injuries and sickness may be avoided or promptly discovered and cured, the animals are carefully inspected by their

drivers immediately after they are unharnessed, and the results are reported to squad leaders, who will inspect to see that this duty is efficiently performed. Such correction or treatment as is practicable is applied at once, and difficult or serious cases are reported to the stable sergeant.

78. Report should be made of abrasions, lumps, bunches, swellings, rope burns, discharges from eyes, nose and mouth, loss of shoes, failure to feed properly, cases of fatigue—in short everything indicating the existence of disease or injury in need of correction.

79. Bunches under the aparejo are caused by the sudden relief of excessive pressure on that part of the body. To determine the location of the fault in the aparejo, the face of the bunch is wet with water, the aparejo is placed in its correct seat without corona or blanket and with the crupper turned forward, is gently rocked from side to side. Upon removal, a damp spot on its surface will indicate where a portion of the filling should be carefully removed without disturbing the remainder. The bunch will disappear on the next day's travel; if not traveling, a bunched animal should be loaded and exercised; one or two hours is sufficient.


80. Sores and abrasions may be caused by the presence of foreign substances, such as burs or gravel, and by inequalities or wrinkles in corona, blanket or cincha. Sores under the crupper and dock piece result from the aparejo riding too far forward or because the boots are too close to the animal's body or do not carry horizontal or parallel to the axis of the animal. Abrasions of the withers or loins indicate that the saddle bars are not horizontal or that they are not parallel to the axis of the animal or that the arches are too broad or too narrow.

Abrasions are treated by the temporary removal of the surfaces in contact and by the application of antiseptic, cooling and healing powders and lotions.

81. In general, swellings are caused by pressure and sores by friction. They can be avoided only by correct setting up of the aparejo, its proper fitting, and its modification to conform to changes in the condition of the animal. Very tight cinching instead of correcting bad adjustment causes swellings, pain, fatigue and excessive sweating, and makes the animal unruly and hard to manage in its effort to get rid of the load.

HARNESSING AND UNHARNESSING.

82. The blanket, after being well shaken, will be folded into six thicknesses, as follows: Hold it well up by the two corners the *short* way up and down; double it lengthwise (so the fold will come *across* the "U" and "S"), the folded corner (middle of blanket) in the left hand; take the folded corner between the thumb and second finger of the right hand, thumb pointing to the left; slip the left hand down the folded edge two-thirds its length and seize it with the thumb and second finger; raise the hands to the height of the shoulders, the blanket between them extended; bring the hands together, the double fold falling outward; keeping the folded corner between the thumb and second finger of the right hand, slip the first finger of the right hand between the folds and seize the double folded corner; turn the left (disengaged) corner to the left and seize it and the other double fold with the left hand and stretch and even the folds; raise the blanket and place it between the chin and breast; slip the hands down halfway, the first two fingers of each hand outside (in front), the other fingers and thumb inside (behind), seize the blanket with the thumbs and first two fingers, let the part under the chin fall forward; hold the blanket, arms extended, even the lower edges, seize the middle points between the thumbs and forefingers and flirt the outside part over the right arm; the blanket is thus held before placing it on the pack animal.

The blanket when folded is like a flattened S instead of like a flattened spiral  and wrinkles can be more easily detected.

TO HARNESS.

83. All men are instructed in the duties of both near and off packers. In harnessing and unharnessing they work in pairs, one on each side of the pack animal.

A quiet, well-trained animal is assigned to two recruits, each of whom should be supervised at first by a thoroughly instructed man. The instructor causes an animal to be harnessed and packed and points out the names of the different parts of the pack outfit and explains their use. He then has the pack and harness taken off and placed in rear of the animal.

84. The pack outfit being in position, the instructor causes the recruits to stand to heel, and commands:

1. *By detail, harness.*

Upon the completion of each detail the recruits remain in place.

2. BRIDLE. The near packer seizes the blinder and bridle, placing the former over his arm; with the reins in the right hand and the bit in the left, he approaches the mule from the near side, slips the reins over the head, letting them rest on the neck, reaches under and engages the snap in the right cheek-piece ring, inserts the bit in the mule's mouth, and engages the snap in the left cheek-piece ring.

The bit should hang so as to touch but not draw up the corners of the mouth.

3. BLINDER. The near packer takes hold of the halter with the left hand, grasps the edge of the blinder near one end with the right hand; carries it well over the animal's neck to the off side, tail down; brings the blinder well to the front over the ears and places it over the eyes, the tail on top of the neck. The blinder should not be raised too high in passing it over the neck as the animal may duck from it.

A pack mule is blinded during harnessing and packing and until trained during unpacking and unharnessing. To teach it not to move when blinded the blinder must always be removed before requiring it to change position.

4. CORONA. The off packer seizes the corona at the ends of its center seam and throwing the half over his arm, as explained for the blanket in paragraph 82, places it on the mule, still keeping hold of the middle points; slides it once or twice from front to rear to smooth the hair, being careful to raise it in bringing it forward.

5. BLANKET. The off packer on the near side places the folded blanket on the corona, upper folded edge to the rear, in a manner similar to that prescribed for putting on the corona. He then passes to the off side and with the assistance of the near packer on the near side smooths and evens the blanket.

6. SADDLE. Both packers, each working on his own side, grasp the aparejo by the lower corners, raising it high enough to clear the rump and set it on the back a little in rear of its proper position.

7. CRUPPER. The near packer takes hold of the crupper with both hands; the left hand on lower edge, fingers under; the right hand on upper edge, palm down; the off packer takes hold similarly, hands reversed; both raise crupper well up, reverse it, and turn it down over the croup. The quicker the action the more easily the crupper is turned. The near packer raises the animal's tail and places the dock piece well under it, taking care that no hairs are caught. Both then place the breast against crupper to hold it in

place and set the aparejo forward into position, taking care to keep it straight, the near packer with the right hand on the center of the aparejo and his left on rear corner, and the off packer with left hand on the center of aparejo and his right hand on the rear corner. The off packer goes to the side of the mule, pulls the gas pipe end of the cincha toward him, and guiding it down the middle passes it under the belly to the near packer. He then steps to the shoulder, faces to the rear, and places his right hand between the corona and withers and his left hand on the rear corner of the aparejo. The near packer seizes the end of the cincha at its corner and passes the cincha strap through the cincha eye from above, brings it up, and passes it through the rendering ring from above and again through the cincha eye to the right of the other part of the strap. He then grasps the cincha strap near the cincha eye in his left hand and places the right hand on the rear corner of the aparejo.

8. CINCHA. Both packers hold the aparejo forward in place, taking care not to raise the front of the aparejo. The near packer pulls the cincha strap taut with his left hand, and calls *Set*. At this the off packer passes in rear and observes whether the aparejo is straight; if not, it is correctly adjusted. He then takes hold of the cincha strap on the right side of the near packer and places his right knee against the boot. The near packer raises his left foot to the boot and both pull together until the cincha eye is at the edge of the boot, with the cincha in the center of the aparejo, after which the off packer returns to the off side. The near packer passes the cincha strap through the finger loop from above, assisted by the off packer if necessary, and secures it. He then removes the blinder and passes it over his left shoulder with the tail under the right arm.

85. To harness without detail: HARNESS.

TO UNHARNESS.

86. 1. *By detail, unharness.*

2. BLINDER. (Par. 84-3.)

3. UNSADDLE. The near packer loosens the cincha strap and folds his end of the cincha over the pack frame. Both then push the aparejo slightly to the rear. The near packer places his left hand on the upper edge of the crupper, his right on the lower edge; the off packer takes a corresponding position, hands reversed; both together raise the crupper and turn it forward over the cincha; take

hold of the aparejo as in saddling, pass it backward over the rump and lower it carefully to its place in rear.

4. **BLANKET AND CORONA.** The off packer on the near side, grasping the front and rear edges of the blanket at the middle points, removes it; allows it to fall into a fold between his hands and places it along the near side of the corona; grasps the corona at the middle points of its front and rear edges, removes blanket and corona, and places both on the aparejo, corona on top.

5. **UNBRIDLE.** The near packer removes the blinder and unbridles, and places blinder and bridle on the corona.

87. To unharness without detail: **UNHARNESS.**

PACKING AND UNPACKING.

88. The mule being harnessed and in front of his load, the instructor commands: 1. **PACK.** At this command each packer procures a hanger containing the side loads and hangs it on the hanger hooks of the frame. The load-holding-down clip is adjusted so that when the clasp is passed through the staple on the lower side bar of the frame the clip will be drawn taut and held so by the keeper.

The weight of both hangers should come upon the aparejo at the same time in order to avoid a possible turning of the aparejo. The top load, if any, is then put in place and fastened with the straps provided.

89. **UNPACK.**—The top and side loads are removed in reverse order from that in which they were placed in position.

TO PREPARE THE RIFLE FOR ACTION.

90. In active service the guns will rarely be unpacked at the actual firing position. The necessity of approaching a position under cover will seldom permit taking the animals to the selected position, and ordinarily they will be taken only as far forward as cover can be found for them. This must, however, be as close to the position as possible. From this point to the firing position the gun, its accessories and ammunition must be moved by hand.

91. In the following instruction, designed to teach the mechanism of preparing the gun for action and moving it into the firing position, full advantage must be taken of whatever cover the terrain affords for unpacking the gun and moving it forward. Varied ground must

be sought for this instruction and the position of the enemy must always be assumed.

The animals to be unpacked, the amount of ammunition, etc., to be moved to the firing position should always be designated.

92. At command (pars. 114 and 159) the squad halts. The gunner withdraws the rifle from the case. The loader removes ammunition boxes and case with spare barrel; the tripod carrier removes the tripod, with such assistance as may be necessary. The remaining members of the squad remove ammunition and such of the loads of the other animals as may have been indicated by the squad leader. The squad leader assembles the squad in front of the led animals.

93. No exact method can be prescribed for the advance to the firing position, as the method to be adopted will be governed by the conditions surrounding each problem.

The squad leader should always lead his squad and be the first to arrive at the firing position.

94. Having selected the position in which the gun is to be set up, the squad leader commands: ACTION FRONT.

95. If while mules are loaded, the command ACTION FRONT be given, the gun, in the absence of instructions, is placed in the firing formation 5 yards to the front and slightly to the right of the gun animal.

96. ACTION RIGHT (left or rear) are similarly executed.

CAVALRY UNITS.

THE SQUAD.

97. The composition of the squad is as follows:

Squad leader.

The gun squad—the gunner, Nos. 1 (loader), 2 (tripod carrier) and 3.

The drivers—Nos. 4, 5, 6 and 7.

The ammunition squad—Nos. 8, 9 and 10.

The habitual formation is in column.

The squad leader is the leader of his squad; he is followed at one horse length by No. 4. The gunner, Nos. 1, 2 and 3 ride in the order named from front to rear. Nos. 4, 5, 6 and 7 ride on their right, respectively. Nos. 8, 9 and 10 ride in rear in the order named from left to right, No. 8 in rear of No. 3. If there be additional men they

ride in rear, in numerical order from left to right. Pack animals are led on the right. The habitual formation is referred to as "column." (See Pl. I.)

98. Should additional pack animals be assigned to the squad, members of the ammunition squad become drivers in numerical order.

99. Pack animals should occasionally be led on the other side.

TO FORM THE SQUAD.

100. SADDLE.—All horses are saddled by their drivers and linked together, or turned over to a designated number of the squad.

101. LINE UP.—The gun crew and supernumeraries place aparejos and packs in rear of where the pack animals are to be harnessed. Loads are placed in rear of aparejos, ammunition boxes in the hangers. Each driver secures his pack animal and leads him to a point 1 yard in front of his own aparejo, facing away from same.

102. HARNESS, OR BY DETAIL, HARNESS.—The members of the gun squad acting as off packers work with the drivers with whom they ride as near packers.

103. PACK.—Loads are placed on the animals by the numbers harnessing, with such assistance from the ammunition squad as may be directed by the chief of squad.

104. FORM SQUAD.—All but the drivers go to the horses and form "Column"; the gunner, Nos. 1, 2 and 3 leading the horses of Nos. 4, 5, 6 and 7, respectively. Drivers lead pack animals to their proper places; each takes his own horse and all stand to horse.

TO MOUNT THE SQUAD.

105. 1. Prepare to mount, 2. MOUNT. The gun squad and No. 8 open out to the left, No. 10 to the right, and all mount.

106. If the formation is to be in line, the command is: **FORM SQUAD IN LINE.** The gunner, No. 1, No. 2 and No. 3 (each with his two horses), Nos. 10, 9 and 8 form in the order named from right to left, intervals of 1 yard being left for the pack animals, which the drivers lead into place. The squad is then mounted; the gunner, Nos. 1, 2, 3 and 9 moving forward.

107. To form column from line or line from column: 1. *Fours right (left)*, 2. **MARCH.**

This movement is exceptional and used for short distances only.

TO MARCH TO THE REAR.

108. 1. *To the rear*, 2. MARCH.

The squad executes a left about, the head of the squad inclining to the right, if necessary, before beginning the about.

The squad may be moved to the rear by the command: 1. *Fours left about*, 2. MARCH.

These movements are habitually executed to the left only.

COLUMNS OF HALF SQUADS.

109. 1. *Column of twos*, 2. MARCH. No. 4 with his led animal follows the squad leader; the gunner and No. 1 form behind No. 5 and the gun animal, respectively; the remainder of the squad form in column of twos in the following order: No. 5, No. 6, No. 7 (each with his mule); Nos. 2 and 3, Nos. 8 and 9; No. 10, Nos. 2 and 8 being on the left.

110. COLUMN OF FILES may be formed from column or column of twos, the order in the column then being: Squad leader, No. 4, gun animal, gunner, No. 1, No. 5, second pack animal, No. 6, third pack animal, No. 7, fourth pack animal, No. 2, No. 3, No. 8, No. 9, No. 10. Sufficient space must be left in the column for each pack animal to follow his driver. (Pl. II).

111. Column is formed from column of twos or files by the command: 1. *Column*, 2. MARCH; and column of twos from column of files by the command: 1. *Column of twos*, 2. MARCH.

112. In the platoon or troop, from any column formation, column of squads, twos and files are formed *successively* by rear elements, so as to preserve distances.

TO DISMISS THE SQUAD.

113. The squad is dismounted from column or line by commands and means similar to those prescribed in paragraphs 105 and 106.

The commands UNPACK and UNHARNESS are then given.

The packs and equipment are placed in their proper places and the animals are inspected by the squad leader for injuries, after which they are led to the picket line by the drivers, or by such of them as may be designated.

TO PREPARE FOR ACTION.

114. Being in column—To FIGHT ON FOOT—

All halt; the gun squad dismount, throwing reins over horses' heads to drivers. The ammunition squad follow such instructions as may be given—to remain with the led animals, act as patrols or scouts, or to dismount and assist in unpacking and carrying forward ammunition. Ordinarily Nos. 8 and 10 will dismount, throwing reins over horses' heads to No. 9. The squad leader dismounts and links his horse to that of No. 1.

The rifle, tripod and ammunition are unpacked and the squad is assembled. The led animals are left under cover in charge of No. 4.

115. If while the squad is mounted the command ACTION FRONT be given, the squad dismounts and unpacks as in paragraphs 114 and 92.

As soon as the packs are removed, the animals execute to the rear, and when straightened out move at the trot 20 yards to the rear, again execute to the rear and halt 15 yards directly in rear of the gun. They may be taken to suitable cover after straightening out in the rear.

116. Action right (left or rear) is similarly executed, except that the led animals execute column left (right or move straight forward) instead of executing the first to the rear.

If so directed, the animals may be left in position after the gun is unpacked.

TO PACK.

117. PACK.—The gun is prepared as in paragraph 31.

118. The led animals are brought to the firing position at the trot at the command PACK.

119. When the animals arrive at the firing position, they are packed. All then mount.

If the led animals are not to be brought to the firing position, the squad is first moved to their position, or to a position to which they can be brought, and the squad then packs.

THE TROOP.

120. The troop consists normally of two platoons of two squads each, the platoon and squad leaders being permanently assigned.

121. The captain is 15 yards in advance of the leader of the directing platoon, which in line is normally the first platoon. Each

platoon leader is one horse length in front of the leader of his directing squad, which in line is habitually his left squad. The file closer is two horse lengths in rear of the center of the troop, in line or column. The captain's orderlies, boot to boot, ride one horse length in rear of the captain. Scouts and other additional men may be assigned to squads or ride where directed by the captain.

122. In line the squads are side by side, each squad being in column at 5 yards (normal interval).

123. In any column the distance between platoons or squads is 5 yards.

124. In firing formation the captain is 12 yards in rear of the center of the line occupied by the guns.

Platoon leaders are 2 yards in rear of the guns, opposite the center of their platoons.

Squad leaders are at the guns.

125. During actual firing and when executing *to fight on foot*, the captain and platoon leaders are dismounted. The horses of the captain and one orderly are held by the other orderly, those of the platoon leaders are linked to some animal in the platoon or are held by some available mounted men. These horses are led to the troop animals. One orderly accompanies the captain dismounted.

126. During actual firing, officers and noncommissioned officers take such positions as will best enable them to maintain efficiency of fire.

TO FORM THE TROOP.

127. The platoons are first formed by their leaders and at the command FORM TROOP are conducted mounted to their positions.

128. In maneuvering the troop, the squads of a platoon are never separated.

TO OBLIQUE.

129. 1. *Right oblique*, 2. MARCH.

Each squad executes a half change of direction. The oblique by trooper may be used for short distances by the command, 1. *Troopers*, 2. *Right oblique*, 3. MARCH.

TO MARCH TO THE REAR.

130. Being in any formation: 1. *To the rear*, 2. MARCH.

Each squad executes a left about. If in line at closed intervals, squads open from the directing squad at the preparatory command

and close upon the completion of the movement. The intervals may be extended before giving the command.

COLUMN OF PLATOONS.

131. Being in line: 1. *Column of platoons*, 2. MARCH.

The right platoon moves forward followed by the second platoon. To form the column on the second platoon, "On second platoon" is added to the first command.

132. The column is formed to a flank by the command: 1. *Column of platoons to the right*, 2. MARCH.

Column of squads.

133. Column of squads from line or from column of platoons is formed in a manner similar to that of forming column of platoons by the commands: 1. *Column of squads*, or 1. *Column of squads on second platoon*, or 1. *Column of squads to the right*, 2. MARCH. The right squad of each platoon always leads its platoon.

TO FORM LINE.

134. 1. *Line*, 2. MARCH.

If from column of platoons, the second platoon forms on the left of the first. If from column of squads, each squad forms on the left of the preceding squad, the first squad inclining to the right, so as to allow the second squad to move to the front.

135. Line to a flank from any column is formed by the command: 1. *Line to the right*, 2. MARCH.

If from column of platoons, each platoon executes Column Right, the second platoon then closing on the leading platoon. If from column of squads, the squads execute Column Right and close on what was the second squad.

136. The normal interval (5 yards) may be reduced to zero (closed interval) or extended to 10 yards (double interval) by the commands CLOSE or EXTEND. Similarly the extended double interval of 20 yards may be taken from the double interval.

137. Ground scouts reconnoitering scouts and security patrols when sent out are ordinarily taken from the ammunition squads or supernumeraries; scouts to locate firing positions are ordinarily

taken from the squad leaders or gun squads, unless special men are trained for the purpose.

138. When with the regiment, the machine gun unit must be so maneuvered that it will in no way interfere with the movements of the regiment and yet will be constantly in hand in such position as will enable the efficient accomplishment of the wishes of the regimental commander.

POSITION OF THE MACHINE GUN UNIT.

139. When the machine gun unit is with the regiment, its position in line, line of columns or line in extended order is in rear of the center, subject to the provisions of paragraph 138.

For ceremonies it forms on the left at squadron interval.

In column it is in rear, at squadron distance.

CEREMONIES.

140. When the machine gun troop is formed for review, each squad leader places himself on the left of his gunner and each platoon leader drops back to horse length distance in front of the No. 4 of his left squad, so as to be on the line of the platoon leaders of other squadrons. In moving out to pass in review normal positions are taken. In the march past in review the machine gun unit is in line, with intervals such that its front will not exceed that of the subdivision immediately preceding it.

MARCHING AND CAMPING.

141. On the march at all halts packs should be inspected and during long halts animals should be unpacked, and when necessary, aparejos adjusted.

142. In making camp the platoon is always in line.

143. To encamp, the squads in line (par. 107) are dismounted, and when *Form rank* is executed, drivers lead their horses into line, allowing the pack animals to remain at the full length of the lead strap in rear of the rank. Horses are linked together and the animals are unpacked and unharnessed, packs and aparejos, being placed 2 yards in rear of the mules, which are then turned over to a designated

member of the squad. The squad leader, with an odd man, pitches his tent on the gun flank of his squad unless it be necessary for the squad leaders to pitch together, in which case their tent is placed in the center of the platoon.

144. Exceptionally the squads may be in column.

145. The troop encamps in a similar manner, in line when possible. The formation taken by the troop preparatory to making camp will depend upon the character and extent of the ground assigned and the formation of the accompanying troops. The file closer and guidon pitch on the right, leaving an interval on their left for the tent of the orderlies.

INFANTRY UNITS.

THE SQUAD.

FORMATION OF SQUAD.

146. The composition of the squad is as follows:

Squad leader.

The gun squad—the gunner, Nos. 1 (loader), 2 (tripod carrier) and 3.

The drivers—Nos. 4, 5 and 6.

The ammunition squad—Nos. 7 and 8.

The habitual formation is in column.

The squad leader is the leader of his squad; he is 3 paces in front of its center. Nos. 1, 2 and 3 and the gunner in line from right to left follow the squad leader at 3 paces distance. Nos. 7 and 8 are each 40 inches, respectively, in rear of the gunner and No. 1. No. 4 follows No. 7 at one horse length distance. No. 5 follows No. 4 and No. 6 follows No. 5 one horse length in rear of the gun mule in front.

The mules carrying the equipment of the gun squad are formed in column, one horse length in rear of the squad, the distance between mules being about 1 pace. Each mule is led by one of the drivers. In case there are more mules than drivers, the necessary men are detailed to lead them. (See Pl. III.)

Whatever the number of men left in the squad, after the details of men to lead the mules have been made, they retain the formation of, and maneuver as an infantry squad of reduced numbers.

147. The mules of the gun squad are numbered from front to rear 1, 2 and 3 and are led by numbers 4, 5 and 6, respectively.

LEADING THE MULE.

148. The mule when packed is led and maneuvered by means of the bridle. When leading the mule, the soldier takes position on his near side holding the reins near the bit in the right hand and the loop of the reins in the left hand.

To gather the mule, the right hand is raised slightly until it touches his lower jaw. The mule must always be gathered before moving, before halting, and before changing gait or direction.

The mule must never be faced or threatened by the man leading him. He must be taught by quiet and gentle treatment to effect all changes of gait and direction evenly. He should not be turned short but on the arc of a circle of 1 yard radius. He should be led with a loose rein and urged on, if he lags, from the rear.

TO HARNESS AND PACK BY SQUAD.

149. The squad is marched by the squad leader to the stables. After designating the men who are to lead mules, the squad leader commands: 1. HARNESS AND PACK.

At this command the aparejos are brought from the saddle room and lined up at about 4 paces interval in numerical order, the gun pack on the right.

Each aparejo, its accessories and packs are arranged as prescribed in paragraph 74.

The squad leader inspects the rigging and packs and sees that all articles are properly arranged and directs the men detailed to lead mules to bring the mules to the packs.

The mules are lined up about 4 paces in front of their proper packs and are saddled and packed by the members of the squad, working in pairs, as described in paragraphs 84 and 88.

The squad leader superintends the harnessing and packing and, after tasks are completed, inspects each animal to see that its aparejo and packs are properly adjusted and secured.

TO FORM THE SQUAD.

150. The animals being packed, the squad leader places himself 3 paces in front of the place in which he desires the squad to form and commands: FALL IN.

The squad takes the formation prescribed in paragraph 146.

MOVEMENTS AND FORMATIONS.

151. The squad with piece packed is marched to the front, to the flank, to the right or left oblique, is halted and turns on a moving pivot by the commands prescribed in the Schools of the Soldier and Squad, Infantry Drill Regulations.

The squad executes the movement as therein prescribed, the mules being led so as to conform to the movement and preserve their distances and proper order. (Pls. IV and V.)

TO TURN ON A FIXED PIVOT.

152. 1. *Squad right.* 2. MARCH. The squad executes the movement as prescribed for the front rank of an infantry squad (par. 119, I. D. R.).

The mules are led so as to conform to the movement, each following the one in lead at its prescribed distance. (Pl. VI.)

TO TURN AND HALT.

153. 1. *Squad right (left).* 2. MARCH. 3. *Squad.* 4. HALT. The squad executes the movement as prescribed in paragraph 120, Infantry Drill Regulations.

The gun mule is led by the left flank, about the length of the mule, and then to the "right about" to its position in rear of the squad. The other mules are led so as to conform to the movement of the gun mule. (Pl. VII.)

TO MARCH TO THE REAR.

154. 1. *To the rear,* 2. MARCH.

Each mule is turned to the *right about* and moved straight to the rear.

The squad executes *To the rear, March*, as explained in paragraph 72, Infantry Drill Regulations, and by shortening the step gradually gains a distance of 2 paces from the rear mule. If executed from a halt, the command 1. *About face,* 2. *Forward,* 3. MARCH, is given.

The squad faces about and steps off in time to follow at a distance of 2 paces from the rear mule.

155. This movement is used only for moving short distances to the rear.

TO TURN ABOUT.

156. 1. *Squad right (or left) about*, 2. MARCH.

The squad executes *Squad right (left) about*, followed by the mules.

157. For route marches, and whenever possible, the mules may be linked.

TO LINK MULES.

1.—LINK.—The gun mules are always led. The rear mules are linked by means of the reins as follows:

No. 2 mule is linked to the rear hook on the *off side* of the gun mule frame.

No. 3 mule is linked to the rear hook of frame on the *near side* of No. 2 mule, etc.

After linking the mules, their leaders "fall in" with the squad or may be required to march in rear of the mules to better observe the riding of the packs.

TO UNLINK.

158. UNLINK.—The mules are unlinked by their leaders and normal distances are gradually regained.

TO PREPARE FOR ACTION.

159. 1. PREPARE FOR ACTION.

At this command the squad halts, if not already halted, and the guns and accessories are removed as prescribed in paragraph 92.

The mules having been linked as described in paragraph 157 are left under cover in charge of the leader of No. 1 mule. The squad leader, carrying the spare-parts case, or loading tool, assembles the squad and moves it forward to the firing position by the commands and in such formation as are best suited to conditions. (I. D. R., par. 212.)

160. As the members of the squad become familiar with their duties, the commands "Prepare for action," "Squad column," or "As skirmishers" (so many paces), "Follow me," may follow one another in rapid succession.

161. Having selected the position in which the gun is to be set up, the squad leader commands ACTION FRONT (right, left).

The gun is set up and the squad takes the firing formation as described in paragraph 20.

TO PACK.

162. Being in the firing formation, to pack, the squad leader commands: 1. PACK.

The rifle is prepared as in paragraph 31.

163. If the mules are close at hand, they are brought to the firing position by the man in charge at the command PACK, or signal to come forward.

164. When the mules arrive at the firing position, the gunner, tripod carrier and loader repack the gun mule.

The other mules are repacked by the remaining members of the squad working in pairs.

165. If the mules are not to be brought to the firing position, the squad is first moved to the position of the mules or to a position to which the mules can be brought, and the rifle and equipment repacked as above described.

TO UNPACK AND UNHARNESS.

166. The squad is marched to the place of unpacking and unharnessing and upon arrival thereat the squad leader commands: 1. UNPACK AND UNHARNESS.

The squad halts. The mules are formed in line on the gun mule at 4-pace intervals, gun mule on the right.

The packs are removed and placed in their proper place of storage.

The mules are unsaddled and the rigging is put in its place. The squad leader inspects the animals for abrasions or other injuries; sees that the corona and crupper are scraped, if necessary, or gives such other instructions as may be needed with reference to the equipment.

The squad is then formed and marched to the barracks.

THE COMPANY.

167. The machine gun company is divided into platoons of two gun squads each.

168. The number of squads organized depends upon the number of machine guns assigned to the company.

169. The captain is 15 yards in advance of the leader of the directing platoon, which in line is normally the first platoon. Each

platoon leader is one horse length in front of the leader of his directing squad, which in line is habitually his left squad.

The agents of communication and range finder sergeant, boot to boot, ride one horse length in rear of the captain. Scouts, cooks and other additional men may be assigned to squads or go where directed by the captain.

In line the squads are side by side without interval, each squad being formed in column.

170. In firing formation the captain is 12 yards in rear of the center of the line occupied by the guns. Platoon leaders are 2 yards in rear of the guns, opposite the center of their platoons.

Squad leaders are at the guns. During actual firing all are dismounted, and officers and noncommissioned officers take such positions as will best enable them to maintain efficiency of fire.

171. The company, without packs, is formed as prescribed in Infantry Drill Regulations.

172. In active service, both on the march and in action, the necessary security for the guns and animals is provided and all service of communication usually performed by members of the machine gun company.

173. In case the number of men available is in excess of the number needed for the gun squads, these men are assigned to the squads as extra men.

174. In case the company becomes reduced in numbers, squads are equalized by transfers from squad to squad.

175. No squad will contain less than four men.

176. When the company is so reduced in numbers as to make it impossible to assign at least four men to a squad, one or more squads are broken up and the men are assigned to the remaining squads.

177. The platoon and squad leaders are permanently assigned by the captain.

178. At the formation of the company the gun platoons and their squads are numbered consecutively from right to left, and these designations do not change.

179. In case the number of machine guns assigned to a company or detachment is not more than two, the company or detachment is organized, as above prescribed, into one gun platoon of two gun squads and is led and maneuvered as prescribed herein for a company.

180. The lieutenants and noncommissioned officers, in order of rank, are assigned as platoon leaders as follows:

1. Gun platoon, No. 1.
2. Gun platoon, No. 2.
3. Gun platoon, No. 3.

181. Noncommissioned officers next in rank are assigned as squad leaders. If sergeants still remain unassigned, they are assigned to the gun platoons.

During battle these assignments are not changed except that, when a platoon leader is disabled, his duties will be assumed by the senior noncommissioned officer remaining on duty with said platoon who will continue to exercise these functions until the captain makes a permanent assignment of a leader. Other casualties are replaced under the supervision of the platoon leader.

182. The first sergeant, when not commanding a platoon, is posted on the right of the range finder sergeant. In action, if not commanding a platoon, he accompanies the captain.

The quartermaster sergeant, when present, is assigned according to his rank as sergeant.

The artificer, cooks and extra men are assigned to squads.

Orderlies accompany the captain or are posted at his discretion.

183. The company, without its special equipment, is maneuvered and drilled as an infantry company.

The company must be drilled and exercised in the movements prescribed in Infantry Drill Regulations up to and including the School of the Company.

184. The platoons are first formed by their leaders and at the command FORM COMPANY are conducted to their positions.

In maneuvering a company the squads of a platoon are never separated.

The posts of officers and noncommissioned officers are shown in Plate VIII.

In case the squads are depleted in strength or the number of mules assigned to each squad is such that the detail of men to lead them reduces the front of the squad to less than four files, each squad occupies the same front and maneuvers in the same manner as though it had a front of four files.

TO DISMISS THE COMPANY.

185. The captain directs the platoon leaders: DISMISS YOUR PLATOONS.

The gun platoons are conducted to the stables by the platoon leaders. The mules are unpacked and unharnessed by squad.

MOVEMENTS AND FORMATIONS.

186. The alignments are executed as prescribed in Infantry Drill Regulations. The men leading the mules dress toward the designated flank, keep the mules straight and correct their intervals and distances.

187. The company harnesses, unharnesses, packs, unpacks, advances, marches by the flank, to the rear and obliquely by the same commands and means prescribed for the squad, prefixing the word "company" to the command where necessary.

188. In the execution of all movements platoon or squad leaders repeat the commands of the captain or give the necessary commands applicable to their respective platoons or squads.

189. Marching in column, or obliquely, the guide of the leading element is, without indication, the guide of the movement.

The guide is responsible that the direction and rate of march is maintained.

Unless otherwise announced, the guide of the company or platoon in line is right.

190. The rests are executed, and attention resumed, according to the principles laid down in the School of the Soldier, Infantry Drill Regulations. The men leading mules remain on the left of and close to their mules so as to keep them in place.

MOVEMENTS ON THE FIXED PIVOT.

191. The company being in line, to turn the company: 1. *Company right (left)*, 2. MARCH, 3. *Company*, 4. HALT, or 3. *Forward*, 4. MARCH, executed as prescribed in paragraph 176, Infantry Drill Regulations. The mules are led so as to conform to the movement.

192. Being in line, to form column of squads: 1. *Squads right (left)*, 2. MARCH, executed as prescribed in paragraph 178, Infantry Drill Regulations. The squads execute Squads Right at the command and follow successively in their proper places in column.

MOVEMENTS ON THE MOVING PIVOT.

193. Being in line, to change directions: 1. *Right (left) turn*, 2. MARCH, 3. *Forward*, 4. MARCH, executed as prescribed in paragraph 179, Infantry Drill Regulations. The mules are led so as to conform to the movement.

194. Being in line, to form column of platoons: 1. *Platoons right turn*, 2. MARCH, executed by each platoon as prescribed above for the company. The gun platoons execute the movement at the command of their leaders and follow successively in column at a distance of 2 paces from the rear mules of the preceding platoon.

195. Being in column of platoons or squads, to change direction: 1. *Column right (left)*, 2. MARCH, executed as prescribed in paragraphs 180 and 181, Infantry Drill Regulations.

196. Being in line, to form column of squads and change direction: 1. *Squads right (left), Column right (left)*, 2. MARCH, or, 1. *Right (left) by squads*, 2. MARCH, executed as prescribed in paragraph 183, Infantry Drill Regulations. The mules are led so as to conform to the movement.

197. Being in column of platoons, to form column of squads: 1. *Right (left) by squad*, 2. MARCH.

The leading platoon executes the movement as above described for the company. The rear platoons execute the movement successively at the command of their leaders in time to follow in their proper places in column.

ON RIGHT (LEFT) INTO LINE.

198. Being in column of squads or platoons, to form line on right (or left): 1. *On right (left) into line*, 2. MARCH, 3. *Company*, 4. HALT, 5. FRONT, executed as prescribed in paragraph 187 Infantry Drill Regulations.

FRONT INTO LINE.

199. Being in column of squads or platoons, to form line to the front: 1. *Right (left) front into line*, 2. MARCH, 3. *Company*, 4. HALT, 5. FRONT, executed as prescribed in paragraph 188, Infantry Drill Regulations.

200. Being in column of squads, to form column of platoons: 1. *Platoons right (left) front into line*, 2. MARCH, 3. *Company*, 4. HALT, 5. FRONT, executed as prescribed in paragraph 189, Infan-

try Drill Regulations, except that the rear gun platoons continue the march and are halted at the command of their platoon leaders when they have closed to their proper distance from the preceding platoon.

RIGHT (LEFT) INTO LINE.

201. Being in column of platoons or squads, to form line to the right or left: 1. *Line to the right (left)*, 2. MARCH, 3. *Company*, 4. HALT, 5. FRONT.

If in column of platoons, the commander of the leading platoon commands: RIGHT TURN. The other platoon leaders command: FORWARD, if at a halt. At the second command the leading platoon turns to the right on a moving pivot. The command HALT is given when it has advanced the desired distance in the new direction; it halts; its commander then commands: LEFT DRESS. The leaders of the rear platoons command: 1. *Right turn*, in time to add, 2. MARCH, when at a distance equal to the front of the platoon from the right flank of the preceding platoon. Each platoon is halted on the line by its leader, who then commands *Left dress*. All dress on the platoon first in line.

FACING OR MARCHING TO THE REAR.

202. The company in any formation may be faced and marched to the rear for a short distance by the commands: 1. *Squads right (left) about*, 2. MARCH, or, 1. *About*, 2. FACE, 3. *Forward*, 4. MARCH.

The squads execute the movement as prescribed in paragraphs 154 and 155.

Before any further movement is executed the company must be again faced to its original front.

MOVEMENTS WITH INFANTRY.

203. The foregoing movements and formations are used when maneuvering with infantry and whenever compact formations are desired.

In the various formations of the regiment the company is posted as shown in Plate IV, Infantry Drill Regulations, or as directed by the colonel. (See par. 329, I. D. R.) When marching in review, the habitual formation of the company is a column of platoons.

EXTENDED INTERVALS.

204. Being in column of squads, to form line with extended intervals to the right or left: 1. *Squads right (left)*, 2. MARCH, executed simultaneously by each squad.

205. Being in column of squads, to form line of platoons with extended intervals: 1. *Platoons column right (left)*, 2. MARCH, executed simultaneously by each platoon.

206. Line with extended intervals or line of platoons with extended intervals may be formed to the front or on right or left from column of squads or column of platoons by similar commands and according to the principles for forming line to the front or on right or left as follows: 1. *Right (left) front into line with extended intervals*, or, 1. *Right into line with extended intervals*, 2. MARCH.

207. Being in line with extended intervals, to march in column of squads to the right or left: 1. *Squads right (left)*, 2. MARCH, or, if in line of platoons with extended intervals, 1. *Platoons column right (left)*, 2. MARCH.

ROUTE STEP AND AT EASE.

208. The company is marched at route step and at ease and resumes attention by the commands and in the manner prescribed in paragraphs 190 to 193, Infantry Drill Regulations.

ROUTE COLUMN.

209. The habitual column of route is with the mules in double column and the men of each platoon in column of squads.

Being in column of platoons, to form route column: 1. *Route column*, 2. MARCH.

The mules are retained in double column by their leaders. The men of each gun platoon execute right by squad in time to follow in their proper place in the column.

210. Being in route column, to form column of platoons: 1. *Column of platoons*, 2. MARCH. The men of each platoon execute left front into line in double time.

211. Being in route column, to form column of squads: 1. *Column of squads*, 2. MARCH. The men of the gun platoons execute left

front into line in double time. The gun platoons then execute successively, at the commands of their leaders, Right by Squad as prescribed in paragraph 199.

212. When economy of road space is not material, the column of squads may be employed in route marches.

TO PREPARE FOR ACTION.

213. In leading the company to the place selected for unpacking the mules, such formation is adopted as will admit of the most advantageous use of natural cover.

At a point where the mules are unpacked the captain determines the necessity for, and strength of the detail to remain with the mules and where they are to be located; the number and strength of the patrols to be sent to the front and flanks, if any, the amount of ammunition and number of heavy intrenching tools to be taken forward; and the manner in which the ammunition supply is to be renewed; and gives his instructions accordingly, assigning additional men to special tasks or as additional members to other squads. He then commands, **PREPARE FOR ACTION.**

At this command each squad prepares for action and assembles as prescribed in paragraph 159. The company is then moved forward in a formation suitable to conditions. (I. D. R., par. 212.)

TO MAKE CAMP.

214. Upon arriving at the camp site, the picket line, picket pins and sledges are unpacked and the picket line put down in the position designated by the captain. He designates the place for the line of rigging and loads and commands: **UNPACK AND UNHARNESS.**

As the mules are unharnessed they are led to and tied on the picket line. Each squad leader supervises the unpacking and unharnessing of his squad and upon its completion assembles his squad.

The company is then assembled and tents are pitched by the commands and in the manner prescribed in Infantry Drill Regulations (par. 792 et seq.).

Details are then made to complete the camp.

TO BREAK CAMP.

215. The animals are watered, fed, groomed, harnessed, and the individual packs of the men made up and deposited at such place as may be designated for the formation of the company.

216. The ordinary duties incident to the breaking of camp, such as loading the wagon, policing, etc., are performed by men not needed to care for the animals.

217. The animals are packed at the last minute which will insure the company being in its proper place at the hour appointed for marching.

218. The regulations regarding camp sanitation, prescribed in Infantry Drill Regulations (pars. 661 to 677) and other manuals treating of this subject, are to be strictly observed in the camp of the machine-gun company.

CEREMONIES.

COMPANY INSPECTION.

219. Being in line at a halt, all officers and men dismounted:
1. *Open ranks*, 2. MARCH.

At the command MARCH the front rank executes Right Dress; the rear rank of each squad marches backward four steps, halts, and executes Right Dress. The mules are reined back until the gun mules are four steps in rear of the line of the rear rank, the other mules having the same distance from the preceding mule of its squad. All *leaders* of mules dress to the right.

The captain aligns the front rank, rear rank and mules, takes post 3 paces in front of the right guide, facing to the left, and commands:
1. FRONT, 2. PREPARE FOR INSPECTION.

Each gun, tripod, spare parts and loading case is removed from the packs. Each gun is mounted on its tripod, pointing straight to the front, two paces immediately in front of the center of the squad to which it belongs. The cases and pouches pertaining to each gun are placed on the ground to the left of it and opened so that all contents are visible. The leaders of the gun platoons supervise the arrangement of the equipment in their platoons. All resume the attention. The platoon leaders carry saber.

The captain returns saber and inspects the platoon leaders, after which they face about, order *saber*, and stand at ease. Upon the

completion of the inspection they carry saber, face about, and order saber. The captain may direct the platoon leaders to accompany or assist him, in which case they return saber and, at the close of the inspection, resume their posts in front of the company, draw and carry sabers.

The inspection of the company proceeds as prescribed in paragraph 745, Infantry Drill Regulations.

When inspecting the gun platoons, the gun is inspected first in its position.

As soon as the piece and spare parts of each squad are inspected, they are repacked.

Men armed with pistol execute inspection arms as the inspector approaches.

220. If the inspection is to include an examination of the equipment, the captain causes the mules to stand fast, closes ranks and takes intervals (par. 109, I. D. R.).

The mules are led to the flank so as to maintain their proper relative positions with their squads.

The captain then commands: 1. UNSLING EQUIPMENT, 2. OPEN PACKS, executed by the men as prescribed in paragraph 747, Infantry Drill Regulations.

Squad leaders of the squads designate men to relieve those holding the mules a sufficient length of time to allow the latter to unsling and arrange their equipment in the places that would be occupied by them if in ranks.

After the men have arranged their packs as prescribed, the mules are unpacked and their packs arranged as follows:

The hangers are removed and arranged in line to the right and left of each mule and opposite its head. The top loads are removed and arranged in an orderly manner to the right of the hangers. Ammunition boxes are removed from the hangers and opened, unless otherwise directed. If desired the mules may be unsaddled, the aparejo being placed in rear of the mules to which they pertain.

The captain passes along the ranks and then inspects the mules' equipment. The inspection completed, he returns to the right of the company and commands CLOSE PACKS.

The men close their packs as prescribed in paragraph 747, Infantry Drill Regulations, and then repack the mules. The mules being packed, the men form in rear of their own packs. The captain commands SLING EQUIPMENT.

The equipments are slung and belts fastened.

The captain then causes the company to assemble.

The mules are led to the flank and take their proper positions in rear of their squads.

221. Should the inspector be other than the captain, the latter, after the company has completed its preparation for inspection, commands: REST, and takes post in front of the right guide of the company on the same line as the platoon leaders.

222. When the inspector approaches, the captain faces to the left, brings the company to attention, faces to the front, and salutes. The salute acknowledged, the captain carries saber.

The inspection proceeds as before; the captain returns saber and accompanies the inspector as soon as the latter passes him.

223. Should the company be inspected with the regiment, the captain carries saber, but does not salute upon the approach of the inspector.

MUSTER.

224. The inspection preceding muster is conducted as above prescribed for the company. The company is then mustered as prescribed in paragraph 756, Infantry Drill Regulations.

TACTICAL EMPLOYMENT OF MACHINE GUNS.

INTRODUCTION.

225. Machine guns are not a fourth arm. Their proper rôle on the field of battle is supplementary and auxiliary to rifle fire.

226. The maneuvering and handling of machine guns on the field of battle must have for its one and only object the utilization of their fire power to its full effect.

227. Proper and commensurate results from the employment of machine guns can not be looked for except when the training and instruction in the working and manipulation of the guns have been thorough and complete. Neither can commensurate results be expected unless these weapons receive proper tactical employment.

228. All officers should familiarize themselves with their uses, for it is only by proper coordination and the utilization of their full fire power, in conjunction with the fighting power of his main command, that a commander can obtain the maximum results. A true

knowledge of their capabilities and limitations is therefore essential to all commanders.

229. The difficulties of control in action will require that great latitude be given to machine-gun commanders. A thorough understanding of the commander's plan of action and an intimate knowledge of the principles of combat of all arms, is essential to the machine-gun commander in order that in any given situation he will be able to contribute to the general success.

230. Careful study, participation in combat exercises and maneuvers with the regiment and other units, and the execution of combat exercises, in which the presence of other arms is assumed, must form a great part of the training of machine-gun organizations.

231. Any officer or intelligent enlisted man who has been properly instructed can master the details of drill, mechanism and firing, but it is only by proper study and from experience gained in combat, either real or assumed, that a machine-gun commander can hope to learn how to handle his guns correctly in the field.

232. The essential characteristics of machine-gun fire as compared with collective rifle fire are: Its volume, due to the mechanical action of the guns; its density, due to the compactness and small dimensions of the cone of dispersion; the facility with which fire can be opened, directed and controlled; and its nerve-racking rattle which gives to it a moral effect greater than that of collective rifle fire.

233. The machine gun is light in weight, easily handled and can be carried into action by hand. Extra men are required to supply it with ammunition and to observe the effects of its fire.

The machine gun represents a concentrated mass of rifle fire that can be used from a contracted front in a short time, against a given target to produce a desired result.

234. The machine gun does not require a larger target than the rifleman, but annihilating effects are produced better and more quickly upon dense and compact targets. The amount of ammunition required to produce a particular result will increase very rapidly as the density of the target decreases.

235. The compactness of the cone of dispersion makes it profitable to employ their fire in preference to rifle fire at long and distant ranges when artillery is not available and when the situation demands that targets at these ranges be taken under fire.

236. Machine guns can not, on account of their limited ammunition supply, keep up an uninterrupted fire action.

237. *The decisive moments of an action are the times of all others for their use. Their great fire power must be economized for these moments.*

238. Being weapons of "emergency" or "opportunity," their use is determined by the opportunities that arise during the progress of an engagement in which full advantage may be taken of the special characteristics of their fire power.

239. The task to be assigned to the machine-gun organization in any particular engagement is governed by the opportunities that are likely to arise in which the fire power of the guns may be most effectively employed. The character of the battle or pending engagement, whether offensive or defensive; the general tactical principles applicable thereto; the part to be played therein by the regiment or force to which attached; the terrain and its adaptability for the use of the guns; and the state of the ammunition supply, are the principal factors that determine the proper employment of the machine-gun organization.

240. The machine-gun organization should generally be employed as a whole. If necessity demands, it may be divided into platoons, but guns should never be employed singly except under exceptional circumstances.

241. In general, when the results desired can be obtained without the fire of machine guns, this fire should be reserved.

242. When guns are available, it may be advantageous to attach them to convoys; to troops detailed to guard and protect lines of communication; to defend bridgeheads, blockhouses, etc.

243. Supports will be provided for machine guns when necessary. Their flank protection is ordinarily secured by combat patrols. (Pars. 396, 397, 398 and 399, I. D. R., and par. 609, Cavalry Service Regulations.) Communication between the combat patrols and the machine guns will be maintained by scouts specially assigned to this duty from the machine-gun personnel.

244. In irregular operations, special care and precaution must be taken for their protection on the march. They are particularly vulnerable on the march in close country.

245. Their use must be governed by the object of the expedition and the character and weapons of the enemy. When in position their fire is well adapted to stop fanatical rushes and is terrifying and paralyzing in effect against semicivilized people.

246. Machine guns are also of great use in street fighting, in quelling riots and in dispersing mobs.

247. Because of the extended front of modern battle lines it will often be the case that only mounted troops can reach decisive points quickly enough to seize favorable opportunities, in which the machine guns attached to the cavalry will play an important rôle.

Machine guns with cavalry must, therefore, have the mobility of cavalry.

248. Their action, particularly with the independent cavalry, is fire action with the aim of increasing the offensive and defensive power of mounted troops and of facilitating the execution of their tactical mission. Normally, their fire will be used to augment the fire of dismounted troops, but occasions will frequently arise when their fire will take the place of the dismounted fire action of the cavalry, thereby leaving the latter free to utilize its mounted action.

249. Promptness in grasping the situation, good judgment in placing the guns, and accuracy in determining ranges must be developed in officers and enlisted men.

250. With the cavalry, machine guns take an important part in pursuing the retreating enemy or in covering a withdrawal. In supporting artillery they should operate on its exposed flank. Their use against artillery is exceptional and only when artillery is limbering or unlimbering, or when a position can be reached at close range against the flank.

251. In the approach march of cavalry against cavalry, the machine-gun detachment must take up positions as quickly as possible to support the deployment.

252. During the cavalry battle, machine-gun fire on the portion of the enemy's cavalry against which the decisive charge is to be delivered may throw it into confusion.

253. During mounted attacks against the flank of dismounted troops or artillery, well-chosen opportunities for machine-gun fire from the front may hold the enemy in place and prevent his changing position to face the attacking cavalry.

254. In the execution of the important missions intrusted to the cavalry, there will be great opportunities for the machine guns not only in the frontal attack but in operations against the flank or in rear of the hostile lines.

255. After a successful assault, the machine guns should be advanced as rapidly as possible to assist in repelling counter attacks

or to join in the pursuit. The fire of the guns at this time is particularly effective and should be utilized up to extreme ranges in order to prevent the reorganization of the enemy's forces and to create further confusion in his ranks.

256. If the assault be not successful, the machine guns must be in position to cover the withdrawal.

257. To open the way for independent cavalry, to assist the cavalry of the advance guard to seize important points, to be held by the chief as a fire reserve, ready to support threatened points and to aid dismounted troops in gaining superiority of fire, are the principal missions of machine guns.

258. No definite position in the regiment for the machine guns on other than ordinary marches can be prescribed, as this will depend upon the possible use to be made of them. Their position must, however, be such that, without interfering with the maneuvering of the regiment, the guns will be ready to carry out tasks assigned to them.

MACHINE GUNS WITH THE ADVANCE GUARD.

259. The machine guns attached to the advance guard may be utilized most effectively to force the enemy to deploy at a distance, thus delaying his advance long enough to allow the infantry to come up, to gain and hold important ground, to cover the deployment of the main body, and in general, to carry out the aggressive mission usually assigned to an advance guard.

260. As a rule, therefore, the machine guns of the advance guard should be ordered into action early and later withdrawn, to be held in readiness for further employment as soon as sufficient troops are deployed to make their use during the early stages of the action unprofitable.

261. At long ranges observation of the effect of fire and the target will ordinarily not be such as to warrant the use of machine guns to combat the defender's long-range rifle or machine-gun fire. The machine-gun organization, therefore, will seldom be justified in going into action or opening fire at ranges greater than 1,500 yards.

DEFENSE.

262. In defense it will often be necessary to strengthen the firing line at threatened points, to support a counter attack, to prevent

flanking movements, to resist the final charge, or to cover a withdrawal. This demands the development at certain points of a highly concentrated volume of fire in the shortest possible time.

The development of this kind of fire is the function of machine guns. Positions in the line of defense should be prepared and cover constructed whenever the time permits, in order that the attack, in whatever direction it may develop, may be met with the maximum fire power of the guns. Ranges to prominent points should be measured.

263. The area to be covered by fire should be determined and such positions selected as will enable the guns to command narrow approaches, cover dead spaces, and bring cross fire to bear on ground in front of trenches and other important defensive works. This is particularly the case when night attacks are expected. Concealment and cover from rifle and shrapnel fire should be constructed when possible. Secondary positions should also be selected and prepared for use in case the original positions become untenable.

While the guns should be in position at the beginning of an action, their fire should be reserved until stages when the targets are most vulnerable.

264. It must be remembered that, while in attack an intense fire distributed along the enemy's front, irrespective of hits, will generally prevent him from rising to take aim and fire, and thus permit the advance of our firing line, it is only by means of hits and casualties produced that an attack can be stopped. *To paralyze the attack by large losses in a minimum time by sudden overwhelming and unexpected fire is the principal function of machine guns in the defense.* Such losses and such effect can be produced only when the targets are large and vulnerable, as in the last stages of the attack.

DELAYING AND REAR-GUARD ACTIONS.

265. In a "delaying action" the machine-gun organization should be assigned a position where it will be able to concentrate its long-range fire on the closed bodies of the enemy, force his early deployment, and cover the withdrawal. Machine guns attached to the rear guard should be employed in the same general manner.

In these actions, owing to the volume of fire which they are capable of developing from a narrow front and the ease with which they can be withdrawn from action, machine guns should find one of their most valuable employments.

WITHDRAWAL FROM ACTION.

266. In a "withdrawal from action" the machine-gun organization should be employed in the same general manner as in delaying and rear-guard actions.

RECONNOISSANCE.

267. The machine gun being a weapon of opportunity, the occasions for its fire will arise quickly and pass as quickly; its effect therefore must be immediate and decisive. Time occupied in the search for technical and tactical advantages must not delay the action.

A good eye for ground and skill in making use of cover is all-important and every position should be reconnoitered previous to its selection and occupation.

268. The duty of locating the enemy and securing information concerning him devolves in general upon other troops. A machine-gun commander must, however, obtain for himself such special information as is needed to insure the proper posting and the effective employment of the guns to carry out the task assigned to them.

He must know what and where the targets are, where there are suitable fire positions, and the best means offered by the terrain for approach thereto.

269. From knowledge gained through his preliminary reconnoissance with the detachment commander, the machine-gun commander may be able to at once select positions for his guns and conduct them into position. If not, additional reconnoissance must be made by him and his subordinates, assisted by enlisted men specially trained as scouts, who should be well mounted and equipped with field glasses.

270. When an action is imminent, the scouts may be from 700 to 1,000 yards in advance of the command, with which they retain communication by signal or otherwise. They will discover and report:

- (a) The position of the enemy.
- (b) The position of friendly troops.
- (c) Good firing positions.
- (d) Routes for the advance of the guns under cover.

271. As soon as the position is selected, the scouts should fall back on the flanks, keeping in constant communication with the "com-

bat patrols" and giving timely warning of the approach of hostile patrols or of movements of the enemy threatening the flanks.

272. Scouts should always operate in pairs or greater numbers.

273. If assigned to the reserve or on defense, reconnoissance must also be made and firing data obtained for use in case the guns are put into action.

274. Patrols preceding the guns should never go into the proposed positions unless ordered to do so, as they are likely to expose themselves and thus betray the position. They should approach the position close enough to assure themselves that it is not occupied by the enemy.

275. The time and place for preparing for action and moving the guns forward by hand will depend upon the terrain and the state of the engagement. As a general rule the guns should remain in pack and be transported as close to the contemplated position as cover from view and fire of the enemy will permit.

SELECTION OF A POSITION.

276. Before a position is selected and occupied by the guns it must be reconnoitered by the machine-gun commander in person.

277. It is only when moving to the rear in delaying or rear-guard actions, when the machine-gun commander's position is with the guns, that a subordinate may be sent to select a position.

278. In selecting a position the attainment of the greatest fire effect and the tactical requirements of the task assigned must govern.

279. The following are, in general, the features to be sought in the selection of a position:

In attack, when supporting the advance of the attacking line, effective range (1,500 yards or less); a clear view of the enemy's position; sufficient height above or distance from the flank of the firing line so as not to endanger or obstruct its advance; facility for moving forward to within close range (600 yards) of the enemy's position.

In defense, an extended clear field of fire on which a good fire effect is possible up to within the shortest range; a firing line at right angles to the line of fire; cover obstructing the enemy's view; good communications laterally and to the rear.

In delaying or rear-guard actions, short ranges will not be used ordinarily, and the position selected should allow for the development of the greatest fire effect at ranges from 600 to 1,500 yards or more.

280. Positions close to objects, the range of which is known to the enemy, are to be avoided. Those near prominent objects, as they aid the enemy to find the range, are to be avoided. A position in front of a dark background, or ground covered with suitable growth, will make it difficult for the enemy to find the range. Every kind of mask to hinder observation by the enemy should be used.

281. In delaying or rear-guard actions positions covering the exit of defiles, bridges, fords or any obstacle which causes the enemy to assume a narrow, deep formation, should be selected.

One carefully planned ambush will often do more to delay an enemy than the most stubborn stand.

OCCUPATION OF A POSITION.

282. The requirements of the situation will demand that frequently the gun detachments, and at times the guns, be kept under cover and in readiness in rear of or near the actual firing positions until the opportune moment for opening fire arrives. This will usually be the case in the attack and also in defense when time does not permit of the deliberate preparation of firing positions.

283. For this purpose the squads should be held in line of squad columns or line of skirmishers covering the front to be occupied by the guns.

284. Whenever time is available, artificial cover for the guns should be constructed.

285. The machine-gun commander will give such necessary instructions or commands for taking the firing formation, occupying the position and opening fire as the situation demands.

Particular effort must be made to take position under cover and to surprise the enemy by a sudden opening of fire.

If the guns must go into action without delay, the commander must endeavor to surprise the enemy by the rapidity with which he takes the firing formation and opens fire.

286. The position of each gun is selected by the squad leader with due regard to fire effect and cover. The interval between the guns will depend upon the available front and the kind of fire, artillery or infantry, to which the guns are to be subjected. If liable to come under artillery fire, the interval should, in general, be such as to insure that no two guns are included in the burst of a single shrapnel. This interval can be taken to be not less than 20 yards. The greater

the interval the more difficult the central control. On the other hand, the closer together the guns are placed the greater their vulnerability.

COMMUNICATION.

287. During the action communication is maintained between the machine-gun commander and the detachment commander by messengers or signals. Communication must be maintained also with the noncommissioned officer in charge of the led animals. Signals are used whenever practicable.

MANEUVER OF THE GUNS DURING ACTION.

288. In attack, no opportunity should be lost for advancing the guns from one position to another, in order to reach a position within close range of the enemy by the time the attacking line is ready to deliver the assault.

The final position selected for the guns should be such that in case the assault is successful the guns may be advanced rapidly to assist in holding it or to join the troops sent in pursuit; or, in case of repulse or counter attack, that the guns can cover the reorganization of the firing line.

289. The advance of the guns should be subsequent to that of the attacking line which they are supporting.

Constant endeavor should be made to maintain close relation with the advancing firing line, and opportune moments seized for the advance of the guns under cover of its fire.

290. The advance should preferably be made on the flank, and successive positions for the gun selected with the one object of aiding the advancing line.

291. Whatever cover is afforded by the natural features of the terrain must be taken advantage of in advancing the guns. Exposed places must be crossed at a run and in a sufficiently extended formation to minimize losses.

292. In the defense, after occupying a position once assigned, the further maneuver of the guns will generally be determined and prescribed by the commander of the force to which attached.

293. In rear guard or delaying actions, the movement of the guns must conform to that of the troops to which attached.

A subordinate officer and men with the necessary engineering tools should be sent to the rear for the purpose of selecting and preparing successive positions for the guns.

The amount of resistance that is to be made at each of the successive positions is determined by the orders of the rear guard or other commander.

Care should be exercised that the guns do not become so involved in any position as to prevent their withdrawal.

OPENING AND CONDUCTING THE FIRE.

294. The decision to open fire must not be made hastily. In advance guard, rear guard and delaying actions, when the object sought is to delay the advance of the enemy, fire should generally be opened as early as possible.

295. In all cases it must be remembered that the effectiveness of machine-gun fire, like that of rifle fire, is dependent mainly upon the range.

296. Firing over the heads of our own troops is an admissible procedure, *but should be resorted to only when the terrain is such as to give the guns sufficient height above them and the conditions and circumstances of the action demand it.*

297. When machine guns are employed to support a Cavalry charge, the concealment of the guns in the fire position is of minor importance. The chief object to aim at is to keep the guns hidden until such moment as they can be brought into action suddenly from a position whence the fire of every gun can be concentrated on the enemy just before the moment of impact.

To effect this the machine-gun commander must act with promptitude and decision and clearly understand the cavalry commander's plan of action.

When this fire becomes masked by the advance the machine-gun commander must be on the alert for opportunities to fire on the enemy's supports and reserves.

298. Tactical importance must govern in the choice of a target. In the attack that part of the enemy's line against which the attacking line is advancing will usually be the proper target. The opening and duration of the fire, in this case, must be governed entirely by the opportunities offered for helping the attacking line. As long as the line is able to advance by means of its own force or fire

power, the fire of the guns should be withheld. As the advance of the line becomes more difficult, opportunities for the use of the guns will present themselves. The proper moment for opening fire can be determined only by close observation of the advancing line. Active preparations in the attacking line to move forward or the beginning of the advance by rushes will generally indicate the proper moment for opening fire.

299. The decision to open fire *must not be made dependent upon the possibility of securing hits*, the suppression of the enemy's fire being equally important. The enemy's firing line, whatever its vulnerability, must be covered with as great a volume of fire as possible and firing continued until the attacking line has established itself in its advanced position. Fire should then be suspended until another favorable opportunity presents itself.

300. When the attacking line has reached the position from which the assault is to be delivered the maximum fire power of the guns must be joined to that of the attacking line in the preparation for the assault. Here again close observation of the attacking line is necessary to determine the proper moment for opening fire.

301. During the assault, if the position of the guns is such that fire can be delivered without endangering the attacking troops, this should be done, the elevation being increased as the assaulting line advances so as to cover the ground in rear of the enemy's position.

302. When the guns are assigned a task in the defense, the time for opening fire must be governed entirely by the possibility of making hits and definitely stopping the advance.

303. The advance of the enemy to the assault must *always* be the signal for opening fire with the maximum fire power of the guns. Previous to this time when deciding upon opening fire the probable losses that will be inflicted upon the enemy must be weighed against the probability of the guns being disabled by the enemy's artillery before the assault is attempted, in case the position of the guns is disclosed.

304. When the tactical requirements of the situation do not define a target consideration will be given to those targets which promise a large percentage of hits. Large, deep, broad and dense targets should then be selected, if visible.

305. It must be borne constantly in mind that the ammunition supply is limited. When, however, it is decided to open fire upon a

target for the purpose of obtaining a particular result, the necessary ammunition must be expended without hesitation.

"Fire of insufficient effect weakens the moral element of one's own troops while strengthening that of the enemy."

306. Losses inflicted upon the enemy are all the more demoralizing in effect if produced in a brief period. In most cases, therefore, it will be advisable to open fire from all the guns simultaneously.

307. A change of targets is made only when the guns have been successful in their firing at the former target. Frequent changes of target weaken the fire effect and are therefore to be avoided.

308. It will not be possible to avoid on all occasions the distribution of fire over several objectives; but the distribution of the fire must not degenerate into a useless, ineffective division.

THE LED ANIMALS.

309. When the organization is engaged the led animals are left under cover. They are held in any suitable formation, provided they are enabled to leave their position quickly.

310. The noncommissioned officer in charge must remain in constant communication with the organization and follow its movements as closely as possible, even though he has received no orders to that effect, and he must keep in constant readiness to move forward and transport the guns and ammunition.

311. Whenever necessary the security of the led animals must be provided for by the posting of small combat patrols or covering detachments.

AMMUNITION SUPPLY.

312. Before going into action such additional ammunition as the pack animals can carry is added to their loads.

313. The ammunition carried with the guns and in the combat train will ordinarily be sufficient for one day's fighting. After the animals are unloaded and the organization prepares for action the necessary men and animals may be sent back to the combat train to secure ammunition.

314. Immediately after an engagement or as soon as possible after the arrival of the refilled combat wagons of the regiment steps must be taken to replace the ammunition expended in action.

CONSTRUCTION OF COVER.

315. When using natural cover or constructing artificial cover it should be borne in mind that the angle of fall of rifle fire distant 900 yards is about *1 degree* and that the angle of fall of shrapnel is about *7 degrees*. To secure defilade these angles should be exceeded. The trenches described in paragraphs 484 et seq., Infantry Drill Regulations, are appropriate and adaptable for the use of the gun squads.

316. When the regiment intrenches, positions in the line of defense are assigned to the guns by the regimental commander. The members of the machine-gun organization construct and develop trenches according to the time available and the amount of protection deemed necessary.

317. Special care must be taken in the selection of profile and in the construction of loopholes that the foreground can be swept by the fire of the guns and that the field of fire conforms to that contemplated in the instructions of the regimental commander.

318. It is most important that the location of the machine guns in the line of defense be concealed. For this reason all possible means should be taken for the concealment of their trenches, and profiles that, in the general line of defense, would be distinguished readily by the enemy should be avoided.

It may be necessary to construct hasty cover for the guns in the attack or when the machine-gun organization has been assigned some special mission.

319. If natural cover is available for the other men, only such cover is constructed as is necessary for the guns and the men connected with their service.

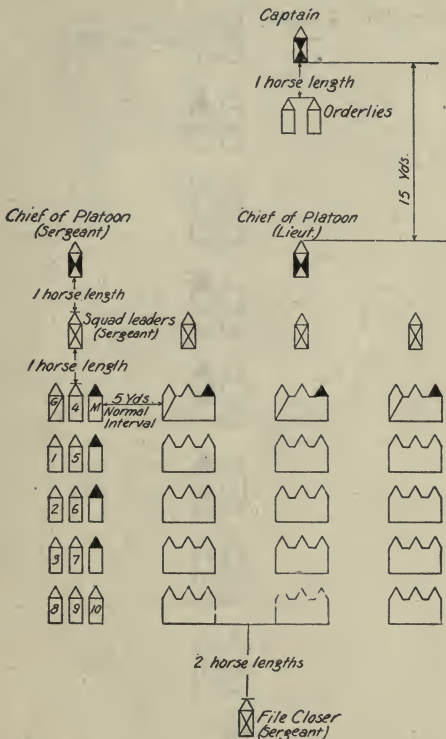
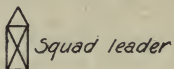


PLATE I

The Squad in Column Normal Formation - Par. 97

The Squadron (or Platoon) in Line with Normal Intervals - 5 Yds. - Pars. 120, 121, 122.

**PLATE II**

The Squad in Column of Two's

Par. 109

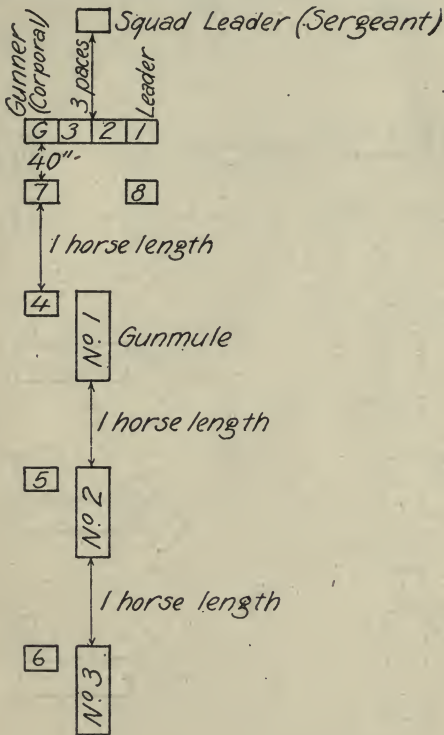


PLATE III

The Gun-squad with packs
Par. 146

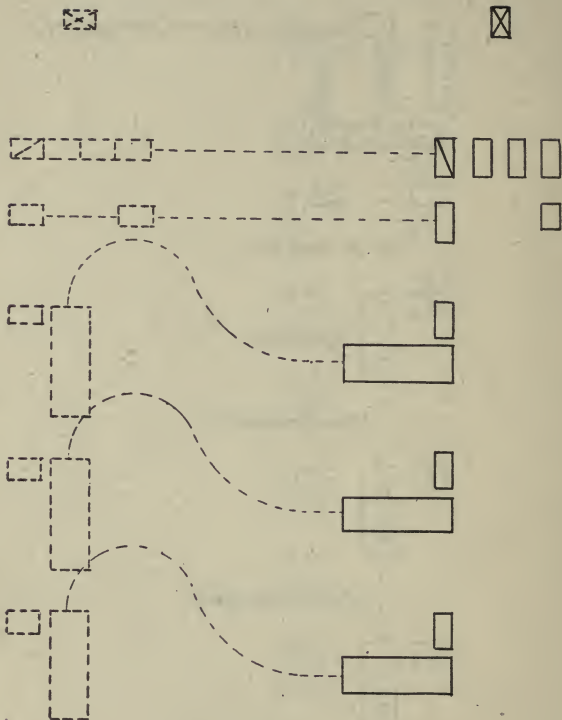


PLATE IV
By the right flank
Par. 151



PLATE V

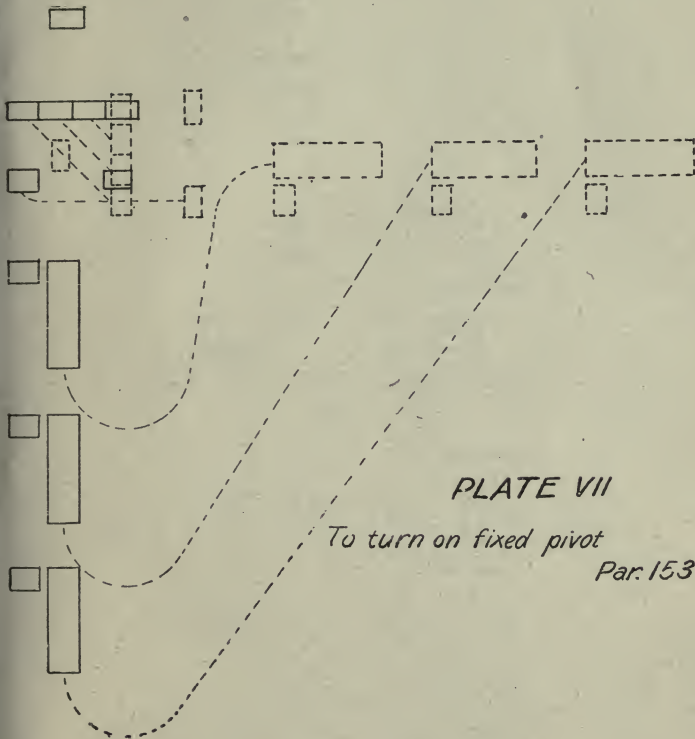
Right oblique

Par. 151

**PLATE VI**

To turn on moving pivot

Par. 152



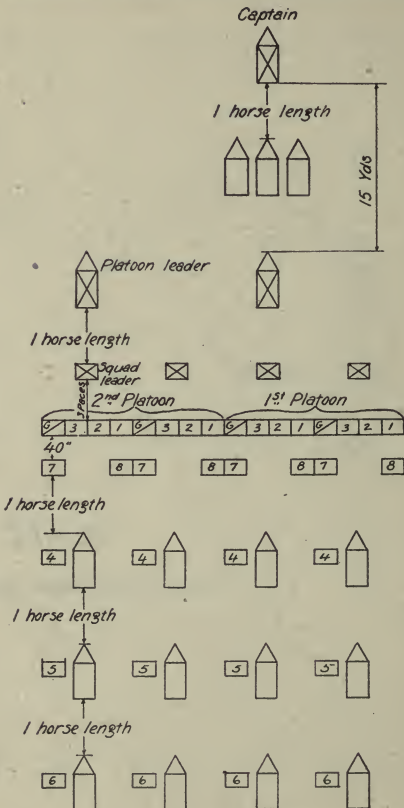


PLATE VIII
Company in Line
Par 184





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