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DRILL REGULATIONS AND
SERVICE MANUAL

FOR

SANITARY TROOPS

UNITED STATES ARMY

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1914

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E. H. Coolidge ⁹² 75

**E. H. COOLIDGE,
1ST. LT. SAN. CORPS
ASST. PERSONNEL OFFICER**

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DRILL REGULATIONS AND
SERVICE MANUAL

FOR

SANITARY TROOPS

UNITED STATES ARMY

—
1914

CORRECTED TO APRIL 15, 1917
(Changes, Nos. 1 to 4)

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WAR DEPARTMENT,
OFFICE OF THE CHIEF OF STAFF,
Washington, April 4, 1914.

The following system of Drill Regulations and Service Manual for Sanitary Troops, United States Army, prepared by a board of officers consisting of Col. Henry P. Birmingham, Lieut. Col. Paul F. Straub, and Maj. Carl R. Darnall, Medical Corps, under the direction of the Surgeon General, is approved and herewith published for the information and government of the Regular Army and the Organized Militia of the United States.

With a view to insure uniformity throughout the Army, all sanitary troop exercises and maneuvers not embraced in this system are prohibited, and those herein prescribed will be strictly observed.

By order of the Secretary of War:

LEONARD WOOD,
Major General, Chief of Staff.

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PART I.

DRILL REGULATIONS AND OUTLINES OF FIRST AID.¹

DEFINITIONS.

Alignment.—A straight line upon which several men or bodies of troops are formed or are to be formed.

Base.—The element on which a movement is regulated.

Center.—The middle point or element of a command.

Column.—A formation in which the elements are placed one behind another.

Deploy.—To extend the front.

Depth.—The space from head to rear of any formation, including the leading and rear elements.

Disposition.—The distribution of the fractions of a body of troops, and the formations and duties assigned to each, for the accomplishment of a desired end.

Distance.—Space in the direction of depth.

Drill.—The exercises and evolutions taught on the drill ground.

Echelon.—A formation in which the subdivisions are placed one behind another, extending beyond and unmasking one another, either wholly or in part. In battle formation this term is also employed to designate the different lines. Example: The *first echelon*, the firing line; the *second echelon*, the support.

Element.—A file, squad, platoon, detachment, company, or larger body.

Evolution.—A movement executed by several battalions or larger units for the purpose of passing from one formation to another.

Facing distance.—Fourteen inches—i. e., the difference between the front of a man in ranks, including his interval, and his depth.

¹ Unless otherwise stated the word "privates" as used in this book applies indifferently to privates, first class, and privates.

File.—This term is applied to individual men in single-rank formation.

File closers.—Officers and noncommissioned officers posted in rear of the line.

Flank.—The right or left of a command in line or columns; also, the element on the right or left of a line.

Formation.—Arrangement of the elements of a command. The placing of all fractions in their order in line, in column, or for battle.

Front.—The space, in width, occupied by a command, either in line or column.

Guide.—An officer, noncommissioned officer, or private upon whom the command or fraction thereof regulates its march.

Head.—The leading element of a column.

Interval.—Space between elements of the same line.

Left.—The left extremity or element of a body of troops.

Line.—A formation in which the different elements are abreast of each other.

Maneuver.—A movement made according to the nature of the ground with reference to the position and movements of the enemy.

Order, close.—The normal formation in which soldiers are regularly arranged in line or column.

Order, extended.—The formation in which the soldiers or the subdivisions, or both, are separated by intervals greater than in close order.

Pace.—Thirty inches; the length of the full step in quick time.

Point of rest.—The point at which a formation begins.

Rank.—A line of men placed side by side.

Right.—The right extremity or element of a body of troops.

GENERAL PRINCIPLES.

1. The interval between men in a rank is 4 inches.

The allowance for the front of a man is taken at about 26 inches, including the interval; the depth, about 12 inches.

To secure uniformity of interval between files, when falling in and in alignments, each man places the palm of the left hand upon the hip, fingers pointing downward. In the first case the hand is dropped by the side when the man next on the left has his interval; in the second case, at the command *front*.

2. Distance is measured from the back of the man in front to the breast of the man in rear.

The distance between subdivisions in column is measured from guide to guide.

The distance between commands in column is measured from the rear guide of the preceding to the leading guide of the following command.

3. The interval between men is measured from elbow to elbow; between companies, detachments, squads, etc., from the left elbow of the left man, or guide, of the group on the right to the right elbow of the right man, or guide, of the group on the left.

4. There are two kinds of commands:

The *preparatory* command, such as *forward*, indicates the movement that is to be executed.

The command of *execution*, such as **MARCH**, or **HALT**, causes the execution.

Preparatory commands are distinguished by **small black type**, those of *execution* by **CAPITALS**.

Where it is not mentioned in the text who gives the commands prescribed, they are to be given by the instructor.

The *preparatory* command should be given at such an interval of time before the command of *execution* as to admit of its being properly understood; the command of *execution* should be given at the instant the movement is to commence.

The tone of command is animated, distinct, and of a loudness proportioned to the number of men under instruction.

Each *preparatory* command is enunciated distinctly and pronounced in an ascending tone of voice, but always in such a manner that the command of *execution* may be more energetic and elevated.

The command of *execution* is firm in tone and brief.

When giving commands to troops it is usually best to face toward them.

Indifference in giving commands must be avoided, as it leads to laxity in execution. Commands should be given with spirit at all times.

5. To secure uniformity, officers and noncommissioned officers should be practiced in giving commands.

6. When the *preparatory* command consists of more than one part, its elements are arranged as follows:

(1) For movements to be executed successively by the subdivisions or elements of an organization: (a) Description of the movement; (b) how executed, or on what element executed.

(2) For movements to be executed simultaneously by the subdivisions of an organization: (a) The designation of the subdivisions; (b) the movement to be executed.

7. Movements that may be executed toward either flank are explained as toward but one flank, it being necessary to substitute the word "left" for "right" and the reverse, to have the explanation of the corresponding movement toward the other flank. The commands are given for the execution of the movements toward either flank. The substitute word of the command is placed within parentheses.

8. Any movement may be executed either from the halt or when marching, unless otherwise prescribed. If at a halt, the command for movements involving marching need not be prefaced by *forward*, as, 1. **Column right (left)**, 2. **MARCH**.

9. Any movement not specially excepted may be executed in double time.

If at a halt, or if marching in quick time, the command *double time* precedes the command of execution.

10. In successive movements executed in double time the leading or base unit marches in *quick time* when not otherwise prescribed; the other units march in *double time* to their places in the formation ordered and then conform to the gait of the leading or base unit. If marching in double time, the command *double time* is omitted. The leading or base unit marches in *quick time*; the other units continue at double time to their places in the formation ordered and then conform to the gait of the leading or base unit.

11. To hasten the execution of a movement begun in quick time, the command: 1. **Double time**, 2. **MARCH**, is given. The leading or base unit continues to march in quick time, or remains at halt if already halted; the other units complete the execution of the movement in double time and then conform to the gait of the leading or base unit.

12. To stay the execution of a movement when marching, for the correction of errors, the command, 1. **In place**, 2. **HALT**, is given. All halt and stand fast. To resume the movement the command, 1. **Resume**, 2. **MARCH**, is given.

13. To revoke a preparatory command, or, being at a halt, to begin anew a movement begun, the command, **AS YOU WERE**, is given, at which the movement ceases and the former position is resumed.

14. Unless otherwise announced, the guide of a detachment or company, or of a subdivision of either, in line, is *right*. The guide of a rank in column of fours is the file of the rank farthest from the file closers.

To march with guide other than as prescribed above, or to change the guide: *Guide (right, left, or center)*.

In successive formations into line, the guide is toward the point of rest; in platoons or larger subdivisions it is so announced.

The announcement of the guide, when given in connection with a movement, follows the command of execution for that movement.

15. *The turn on the fixed pivot* by subdivisions is used in all formations from line into column and the reverse.

The turn on the moving pivot is used by subdivisions of a column in executing changes of direction.

16. Partial changes of direction may be executed:

By interpolating in the preparatory command the word *half*, as **Column half right (left)**, or **Right (left) half turn**, a change of direction of 45° is executed.

By command, **INCLINE TO THE RIGHT (LEFT)**, the guide, or guiding element, moves in the indicated direction and the remainder of the command conforms. This movement effects slight changes of direction.

17. The designation *line of platoons* refers to the formation in which the platoons, each in column of fours, are in line.

18. Full distance in column of subdivisions is such that in forming line to the right or left the subdivisions will have their proper intervals.

In column of subdivisions the guide of the leading subdivision is charged with the step and direction; the guides in rear preserve the trace, step, and distance.

19. In close order, all details, detachments, and other bodies of troops are habitually formed in single rank.

20. In all changes from one formation to another involving a change of post on the part of any of these, posts are promptly taken by the most convenient route as soon as practicable after the command of execution for the movement; officers and noncommissioned officers who have prescribed duties in connection with the movement ordered, take their new posts when such duties are completed.

21. In making the *about*, an officer, mounted, habitually turns to the left.

22. At all military formations an officer salutes before making a report; the officer to whom the report is made acknowledges, by saluting, that he has received and understood the report. The salute is made with the saber if drawn; otherwise with the hand.

23. In the different schools the posts of the officers and noncommissioned officers are specified, but as instructors they go wherever their presence is necessary. As file closers it is their duty to rectify mistakes and insure steadiness and promptness in the ranks.

The instructor always maintains a military bearing, and by a quiet, firm demeanor sets a proper example to the men.

24. Short and frequent drills are preferable to long ones, which exhaust the attention.

ARM SIGNALS.

25. **Forward, MARCH:** Carry the hand to the shoulder; straighten and hold the arm horizontally, thrusting it in direction of march.

Right oblique: Raise the arm until horizontally extended obliquely to the right; at the same time move in that direction.

Left oblique: Same to the left.

By the right flank: Raise the arm until horizontally extended to the right, at the same time move to the right.

By the left flank: Same to the left.

Double time: Carry the hand to the shoulder; rapidly thrust the hand upward the full extent of the arm several times.

Fours right, MARCH: Raise the arm laterally until horizontal; carry it to a vertical position above the head and swing it several times between the downward and horizontal positions.

Fours left, MARCH: Raise the arm laterally until horizontal; carry it downward to the side and swing it several times between the downward and horizontal positions.

Fours right about, MARCH: Extend the arm vertically above the head; carry it laterally downward to the side and swing it several times between the vertical and downward positions.

Column right (left), MARCH: Put the hand on the side toward which the change of direction is to be made, carry it across the body to the opposite shoulder, forearm horizontal, then swing in a horizontal plane, arm extended, pointing in the new direction.

Assemble, MARCH: Raise the arm vertically to its full extent and describe horizontal circles.

HALT: Carry the arm to the shoulder; thrust the hand upward and hold the arm vertically.

26. A list of the articles included in the field equipment of the sanitary soldier is given in the Appendix, Section I.

SCHOOL OF THE SOLDIER.

27. The instructor briefly explains each movement, at first executing it himself, if practicable.

He requires the recruits to take by themselves the proper positions and does not touch them for the purpose of correcting them, except when they are unable to correct themselves; he avoids keeping them too long at the same movement, although each should be understood before passing to another. He exacts by degrees the desired position and uniformity.

28. As the instruction progresses the recruits are grouped according to proficiency in order that all may advance as rapidly as their abilities permit. Those who lack aptitude and quickness are separated from the others and placed under experienced drill masters.

29. A few recruits, usually not exceeding four, are placed in a single rank, facing to the front and about 4 inches apart, arranged according to height, the tallest man on the right.

30. To teach the recruits to assemble, the instructor requires them to place the palm of the left hand upon the hip, below the belt when worn; he then places them on the same line, so that the right arm of each man rests lightly against the left elbow of the man next on his right, and then directs the left hands to be replaced by the side.

31. When the recruits have learned how to take their places, the instructor commands: **FALL IN.**

They assemble rapidly, as above prescribed, at attention, each man dropping the left hand as soon as the man next on his left has his interval.

POSITION OF THE SOLDIER, OR ATTENTION.

32. Heels on the same line and as near each other as the conformation of the man permits.

Feet turned out equally and forming an angle of about 45 degrees.

Knees straight without stiffness.

Hips level and drawn back slightly; body erect and resting equally on hips; chest lifted and arched; shoulders square and falling equally.

Arms and hands hanging naturally, thumb along seam of the trousers.

Head erect and squarely to the front, chin drawn in so that the axis of the head and neck is vertical; eyes straight to the front.

Weight of the body resting equally upon the heels and balls of the feet.

THE RESTS.

33. Being at a halt, the commands are: **FALL OUT; REST; AT EASE;** and 1. **Parade**, 2. **REST**.

At the command **FALL OUT**, the men may leave the ranks, but remain in the immediate vicinity. They resume their former places at attention at the command **FALL IN**.

At the command *rest*, each man keeps one foot in place, but is not required to preserve silence or immobility.

At the command **AT EASE**, each man keeps one foot in place and preserves silence, but not immobility.

1. **Parade**, 2. **REST**. Carry the right foot 6 inches straight to the rear, left knee slightly bent; clasp the hands without constraint in front of the center of the body, fingers joined, left hand uppermost, left thumb clasped by thumb and forefinger of right hand; preserve silence and steadiness of position.

34. To resume the attention: 1. **Squad**, 2. **ATTENTION**.

The men take the position of the soldier.

TO DISMISS THE SQUAD.

35. Being at halt: **DISMISSED**.

TO TURN HEAD AND EYES TO THE RIGHT OR LEFT.

36. 1. **Eyes**, 2. **RIGHT (LEFT)**, 3. **FRONT**.

At the command **RIGHT**, turn the head to the right oblique, eyes fixed on the line of eyes of the men in, or supposed to be in, the same rank. At the command **FRONT**, turn the head and eyes to the front.

FACINGS.

37. To the flank: 1. Right (Left), 2. FACE.

Raise slightly the left heel and right toe; face to the right, turning on the right heel, assisted by a slight pressure on the ball of the left foot; place the left foot by the side of the right. Left face is executed



Pl. 1, Par. 38.

on the left heel in the corresponding manner. **Right (Left) HALF FACE** is executed similarly, facing 45 degrees.

“To face in marching” and advance, turn on the ball of either foot and step off with the other foot in the new line of direction; to face in marching without gaining ground in the new direction, turn on the ball of either foot and mark time.

To the rear: 1. About, 2. FACE.

Carry the toe of the right foot about a half foot-length to the rear and slightly to the left of the left heel without changing the position of the left foot; face to the rear, turning to the right on the left heel and right toe; place the right heel by the side of the left.

SALUTE WITH THE HAND.

38. 1. Hand, 2. SALUTE.

(1) Raise the right hand smartly till the forefinger touches the lower part of the headdress above the right eye, thumb and fingers extended and joined, palm to the left, forearm inclined at about 45°, hand and wrist straight; at the same time look toward the person saluted. (2) Drop the arm smartly by the side.

The salute for officers is the same.

For rules governing salutes, see “Honors.”

SETTING-UP EXERCISES.

39. All soldiers are regularly practiced in the following exercises, which may be supplemented by those in authorized calisthenic manuals.

Intervals are taken as in par. 63.

In these exercises it is advisable to remove blouses and caps.

As soon as the exercises are well understood, they may be continued without repeating the commands. For this purpose the instructor gives the commands as prescribed, then adds: **Continue the exercise**, upon which the motions to be repeated are continuously executed until the command **HALT**.

At the command **HALT**, given at any time, the position of the soldier is resumed.



Pl. 2, Par. 39, 1 Ex.



Pl. 3, Par. 39, 1 Ex.



Pl. 4, Par. 39,
1 Ex.

First exercise.

1. **Arm**, 2. **EXERCISE**, 3. **HEAD**, 4. **UP**, 5. **DOWN**, 6. **RAISE**.

At the command **EXERCISE**, raise the arms laterally until horizontal, palms upward. **HEAD**: Raise the arms in a circular direc-

tion over the head, tips of fingers touching top of the head, backs of fingers in contact their full length, thumbs pointing to the rear, elbows pressed back. **UP:** Extend the arms upward their full length, palms touching. **DOWN:** Force the arms obliquely back and gradually let them fall by the sides. **RAISE:** Raise the arms laterally as prescribed for the second command. Continue by repeating **HEAD, UP, DOWN, RAISE.**



Pl. 5, Par. 39, 2 Ex.



Pl. 6, Par. 39, 2 Ex.

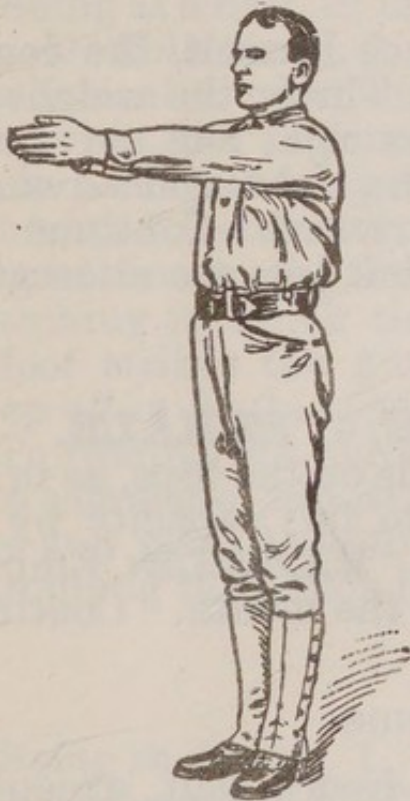
Second exercise.

1. Arms vertical, palms to the front, 2. **RAISE**, 3. **DOWN**, 4. **UP**.

At the command **RAISE**, raise the arms laterally from the sides, extended to their full length, till the hands meet above the head, palms to the front, fingers pointing upward, thumbs locked, right thumb in front, shoulders pressed back. **DOWN:** Bend over till the hands, if possible, touch the ground, keeping the arms and knees straight. **UP:** Straighten the body and swing the extended arms (thumbs locked) to the vertical position. Continue by repeating **DOWN, UP**.

*Third exercise.*1. **Arm**, 2. **EXERCISE**, 3. **FRONT**, 4. **REAR**.

At the command **EXERCISE**, raise the arms laterally until horizontal, palms upward. **FRONT**: Swing the extended arms horizontally to the front, palms touching. **REAR**: Swing the extended arms well to the rear, inclining them slightly downward, raising the body upon the toes. Continue by repeating **FRONT**, **REAR**, till the men, if possible, are able to touch the backs of the hands behind the back.



Pl. 7, Par. 39, 3 Ex.



Pl. 8, Par. 39, 4 Ex.

*Fourth exercise.*1. **Leg**, 2. **EXERCISE**, 3. **UP**:

At the command **EXERCISE**, place the palms of the hands on the hips, fingers to the front, thumbs to the rear, elbows pressed back. **UP**: Raise the left leg to the front, bending and elevating the knee as much as possible, leg from knee to instep vertical, toe depressed. **UP**: Replace the left foot and raise the right leg as prescribed for the left.

Execute slowly at first, then gradually increase to the cadence of double time. Continue by repeating **UP** when the right and left legs are alternately in position.

Fifth exercise.

1. **Leg**, 2. **EXERCISE**, 3. **Left (Right)**, 4. **FORWARD**, 5. **REAR**; or, 5. **GROUND**.

At the command **EXERCISE**, place the hands on the hips, as in fourth exercise. **FORWARD**: Move the left leg to the front, knee straight, so as to advance the foot about 15 inches, toe turned out, sole nearly horizontal, body balanced on right foot. **REAR**: Move the leg to the rear, knee straight, toe on a line with the right heel, sole nearly horizontal. Continue by repeating **FORWARD**, **REAR**.

When the recruit has learned to balance himself, the command **FORWARD** is followed by **GROUND**: Throw the weight of the body forward by rising on the ball of the right foot, advance and plant the left, left heel 30 inches from the right, and advance the right leg quickly to the position of **forward**. Continue by repeating **GROUND** when the right and left legs are alternately in the position of **forward**.

Sixth exercise.

1. **Lung**, 2. **EXERCISE**, 3. **INHALE**, 4. **EXHALE**.

At the command *exercise*, place the hands on the hips, as in fourth exercise. **INHALE**: Inflate the lungs to full capacity by short, successive inhalations through the nose. **EXHALE**: Empty the lungs by a continuous exhalation through the mouth. Continue by repeating **INHALE**, **EXHALE**.

STEPS AND MARCHINGS.

40. All steps and marchings executed from a halt, except right step, begin with the left foot.

41. The length of the full step in quick time is 30 inches, measured from heel to heel, and the cadence is at the rate of 120 steps per minute.

The length of the full step in double time is 36 inches; the cadence is at the rate of 180 steps per minute.

The instructor, when necessary, indicates the cadence of the step by calling **one, two, three, four**, or **left, right**, the instant the left and right foot, respectively, should be planted.

42. All steps and marchings and movements involving march are executed in **quick time** unless the squad be marching in **double time** or **double time** be added to the command; in the latter case **double time** is added to the preparatory command. Example: 1. **Fours, right, double time**, 2. **MARCH**.

Quick time.

43. Being at a halt, to march forward in quick time: 1. **Forward**, 2. **MARCH**.

At the command **forward**, shift the weight of the body to the right leg, left knee straight.

At the command **MARCH**, move the left foot smartly straight forward 30 inches from the right, sole near the ground, and plant it without shock; next, in like manner, advance the right foot and plant it as above; continue the march. The arms swing naturally.

44. Being at a halt, or in march in quick time, to march in double time: 1. **Double time**, 2. **MARCH**.

If at a halt, at the first command shift the weight of the body to the right leg. At the command **MARCH**, raise the forearms, fingers closed, to a horizontal position along the waist line; take up an easy run with the step and cadence of double time, allowing a natural swinging motion to the arms.

If marching in quick time, at the command **MARCH**, given as either foot strikes the ground, take one step in quick time, and then step off in double time.

45. To resume the quick time: 1. **Quick time**, 2. **MARCH**.

At the command **MARCH**, given as either foot strikes the ground, advance and plant the other foot in double time; resume the quick time, dropping the hands by the sides.

To mark time.

46. Being in march: 1. **Mark time**, 2. **MARCH**.

At the command **MARCH**, given as either foot strikes the ground, advance and plant the other foot; bring up the foot in rear and continue the cadence by alternately raising each foot about 2 inches and planting it on line with the other.

Being at a halt, at the command **MARCH**, raise and plant the feet as described above.

The half step.

47. 1. **Half step**, 2. **MARCH**.

Take steps of 15 inches in quick time, 18 inches in double time.

48. **Forward, half step, halt, and mark time**, may be executed one from the other in quick or double time.

To resume the full step from half step or mark time: 1. **Forward**, 2. **MARCH**.

Side step.

49. Being at a halt or mark time: 1. **Right (left) step**, 2. **MARCH**.

Carry and plant the right foot 15 inches to the right; bring the left foot beside it and continue the movement in the cadence of quick time.

The side step is used for short distances only and is not executed in double time.

Back step.

50. Being at a halt or mark time: 1. **Backward**, 2. **MARCH**.

Take steps of 15 inches straight to the rear.

The back step is used for short distances only and is not executed in double time.

To halt.

51. To arrest the march in quick or double time: 1. **Squad**, 2. **HALT**.

At the command **HALT**, given as either foot strikes the ground, plant the other foot as in marching; raise and place the first foot by the side of the other. If in double time, drop the hands by the sides.

To march by the flank.

52. Being in march: 1. **By the right (left) flank**, 2. **MARCH**.

At the command **MARCH**, given as the right foot strikes the ground, advance and plant the left foot, then face to the right in marching and step off in the new direction with the right foot.

To march to the rear.

53. Being in march: 1. **To the rear**, 2. **MARCH**.

At the command **MARCH**, given as the right foot strikes the ground, advance and plant the left foot; turn to the right about on the balls of both feet and immediately step off with the left foot.

If marching in double time, turn to the right about, taking four steps in place, keeping the cadence, and then step off with the left foot.

Change step.

54. Being in march: 1. **Change step**, 2. **MARCH**.

At the command **MARCH**, given as the right foot strikes the ground, advance and plant the left foot; plant the toe of the right foot near the heel of the left and step off with the left foot.

The change on the right foot is similarly executed, the command **MARCH** being given as the left foot strikes the ground.

SCHOOL OF THE DETACHMENT.

55. The senior medical officer of the detachment is held responsible for the theoretical and practical instruction of the officers, non-commissioned officers, privates first class, and privates when their instruction is not otherwise provided for by Army Regulations and General Orders. He requires the officers and noncommissioned officers to study and recite these regulations so that they can explain thoroughly every movement.

The detachment is formed in single rank, graduated according to size, the tallest man on the right.

At the formation of the detachment, the sets of fours are numbered consecutively from right to left and these designations do not change.

For convenience of giving commands and for reference, the designations, **right, center, left**, when in line; and **leading, center, rear**, when in column, are applied to platoons and to sets of fours. These designations apply to the actual right, left, center, lead or rear, in whatever direction the detachment may be facing.

The *center* set of fours is the middle or right middle set of fours of the detachment.

56. The detachment executes the **rests, facings, steps, and marchings**, and **halt**, as explained in the School of the Soldier, substituting the word "**detachment**" for "**squad**" in the commands.

POSTS OF OFFICERS AND NONCOMMISSIONED OFFICERS.

57. The medical officer commanding is three paces in front of the center of the detachment; the junior medical officers, according to rank from right to left, are two paces in rear of the rank, in the line of file closers, and at equal intervals; if only one, he is opposite the center; if two, one is opposite the center of each half of the detachment; if three, one is opposite the center, the others as with two.

The senior noncommissioned officer is two paces in rear of the second file from the right, on the right of the line of file closers.

The second noncommissioned officer is on the right of the rank and is right guide of the detachment.

The third noncommissioned officer is on the left of the rank and is the left guide.

The remaining noncommissioned officers are distributed along the line of file closers from right to left, according to rank.

If necessary, a suitable private may be designated to act as right or left guide.

A sergeant first class or the senior noncommissioned officer of a detachment is never assigned as a guide. When not commanding a platoon, the senior is posted as a file closer opposite the third file from the outer flank of the first platoon; other sergeants first class, as file closers, are posted opposite the third file from the original right flank of the platoon to which assigned.

The guides of a column of fours place themselves on the flank opposite the file closers. To change the guides and file closers to the other flank, the officer commands:

1. **File closers on left (right) flank, 2. MARCH.**

The file closers dart through the column; the officer and guides change. In column of fours, each four preserves the alignment toward the the side of the guide.

58. In taking *intervals* and *distances*, unless otherwise specified, the right and left guides, at the first command, place themselves in the line of file closers, and, with them, take a distance of 4 paces from the rank.

In taking intervals, at the command *march* the file closers face to the flank and each steps off with the file nearest him. In *assembling*, the guides and file closers resume their positions in line.

TO FORM THE DETACHMENT.

59. At the sounding of the assembly, the senior noncommissioned officer takes position 6 paces in front of where the center of the detachment is to be, and facing it, commands: **FALL IN.**

The right guide of the detachment places himself, facing to the front, where the right of the detachment is to rest, and at such point that the center of the detachment will be 6 paces from and opposite the senior sergeant; the men fall in in their proper places on the left of the right guide, superintended by the other sergeants, who then take their posts.

The senior sergeant calls the roll, each man answering "*Here,*" as his name is called.

60. The senior sergeant then commands:

1. Count, 2. **FOURS**.

At the command **FOURS**, all except the right file execute **eyes right**, and beginning on the right the men count *one, two, three, four*; and so on to the left. Each man turns his head and eyes to the front as he counts. The guides do not count. Odd men are ordinarily placed in the line of file closers.

The senior sergeant then faces about, salutes the officer commanding, and reports: "*Sir, all present or accounted for,*" or the names of the unauthorized absentees, and without command takes his post, passing around the right flank. The officer commanding places himself 12 paces in front of the center of and facing the detachment in time to receive the report of the senior sergeant, whose salute he returns, and then draws saber. The junior medical officers take their posts when the senior sergeant has reported.

TO DISMISS THE DETACHMENT.

61. Being in line at a halt, the officer commanding directs the senior sergeant: **DISMISS THE DETACHMENT**.

The officers fall out; the senior sergeant steps 3 paces to the front and 2 paces to the right of the detachment, faces to the left, and commands: **DISMISSED**.

ALIGNMENTS.

62. The officer commanding having received the detachment, commands:

1. **Right (left)**, 2. **DRESS**, 3. **FRONT**.

At the command **DRESS**, the men place the palm of the left hand upon the hip (whether dressing to the right or left); each man, except the base file, when on or near the new line, executes **eyes right**, and, taking steps of 2 or 3 inches, places himself so that his right arm rests lightly against the arm of the man on his right, and so that his eyes and shoulders are in line with those of the men on his right. The instructor verifies the alignment of the rank and of the file closers from the right flank and orders up or back such men as may be in rear, or in advance, of the line; only the men designated move.

At the command, **FRONT**, given when the alignment is completed, each man turns his head and eyes to the front and the men in the rank drop the left hand to the side.

At each alignment the officer commanding places himself in prolongation of the line, 2 paces from and facing the flank toward which the dress is made, verifies the alignment and commands: **FRONT**.

To preserve the alignment when marching: **GUIDE RIGHT (LEFT)**.

The men preserve their intervals from the side of the guide, yielding to pressure from the opposite direction; they recover intervals, if lost, by gradually opening out or closing in; they recover alignment by slightly lengthening or shortening the step.

To take intervals, and to assemble.

63. Being in line at a halt.

1. **Take interval**, 2. **To the right (left)**, 3. **MARCH**, 4. **Detachment**, 5. **HALT**. At the second command the file closers step back to four paces distance from the rank; at the command **MARCH**, all face to the right and the leading man steps off; the other men step off in succession, each following the preceding man at three paces.

At the command **HALT**, given when all have their intervals, all halt and face to the front.

To make the interval greater or less than three paces, the instructor adds to the first command a designation of the interval to be taken, e. g., 1. **Take interval, at four paces**, 2. **To the right (left)**, 3. **MARCH**, 4. **Detachment**, 5. **HALT**.

Intervals having been taken, to assemble:

1. **Assemble to the right (left)**, 2. **MARCH**.

At the command **MARCH**, the man on the right stands fast, the file closer on the right closes to two paces. The other men face to the right, close by the shortest line, and face to the front.

MARCHINGS.

The oblique march.

64. For the instruction of recruits, the detachment being in column of fours or correctly aligned, the instructor causes the detachment to face half right or half left, points out to the men their relative positions, and explains that these are to be maintained in the oblique march.

1. **Right (left) oblique**, 2. **MARCH**.

Each man steps off in a direction of 45 degrees to the right of his original front. He preserves his relative position, keeping his shoulders parallel to those of the guide (the man on the right front of the line or column), and so regulates his steps that the rank remains parallel to its original front.

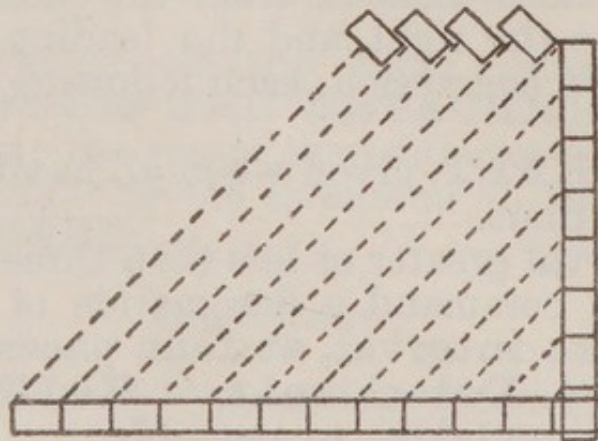
At the command **HALT**, the men halt, face to the front.

To resume the original direction: 1. **Forward**, 2. **MARCH**.

The men half face to the left in marching and then move straight to the front.

If at the **half step or mark time** while obliquing, the oblique march is resumed by the commands: 1. **Oblique**, 2. **MARCH**.

TURNINGS.

Movements on the fixed pivot.

Pl. 9, Par. 65.

65. Being in line, to turn the detachment:

1. **Detachment right (left)**, 2. **MARCH**, 3. **Detachment**, 4. **HALT**; or 3. **Forward**, 4. **MARCH**.

At the second command the right flank man faces to the right in marching and marks time; the other men oblique to the right, place themselves abreast of the pivot, and mark time; the right guide steps back, takes post on the flank, and marks time.

The fourth command is given when the last man is one pace in rear of the new line.

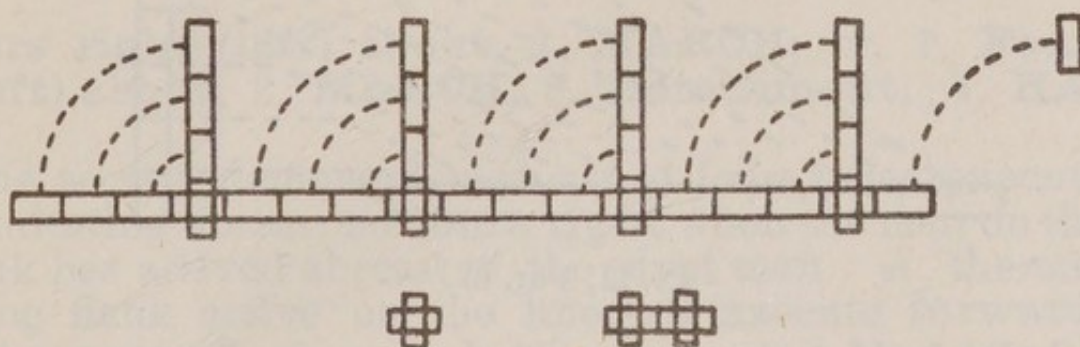
The command **HALT** may be given at any time after the movement begins; only those halt who are in the new position. The others halt upon arriving on the line, align themselves to the right and execute front without command.

66. Being in line, to form column of fours, or the reverse:

1. **Fours right (left)**, 2. **MARCH**; or 1. **Fours right (left)**, 2. **MARCH**, 3. **Detachment**, 4. **HALT**.

At the second command the right flank man of each set of fours faces to the right in marching and marks time; the other men oblique to the right, place themselves abreast of the pivot and mark time. Men on the new line glance toward the marching flank while marking time and, as the last man arrives on the line, all execute **forward march** without command.

If it is desired to form columns of fours and halt, the third command is given immediately after the second. The turn is executed as prescribed above, except that all men on arriving on the new line, mark time until the fourth command is given, when all halt. The fourth command should be given as the last man arrives on the line.



Pl. 10, Par. 66.

If the detachment be formed in line toward the side of the file closers, they close in to the flank of the column at the first command and dart through the column and take posts in rear of the detachment at the second command.

If the column of fours be formed from line, the file closers take posts on the pivot flank, abreast of, and 4 inches from, the nearest rank.

The distance between sets of fours is 92 inches. The right and left guides place themselves 40 inches in front and rear, respectively, of the left file of the leading and rear fours, opposite the file closers.

The commanding officer in column of fours, twos, or files is by the side of the leading guide, on the flank opposite the file closers.

In column of fours the dress is on the side of the guide.

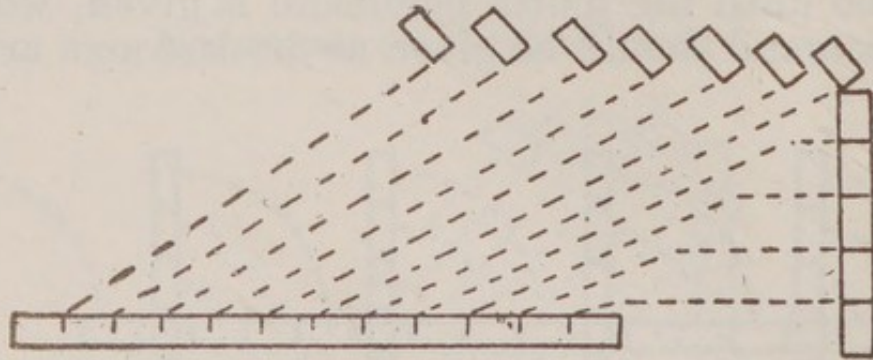
Movements on the moving pivot.

67. Being in line to change direction:

1. **Right (left) turn**, 2. **MARCH**, 3. **Forward**, 4. **MARCH**.

At the second command the right guide faces to the right in marching and takes the half step; the other men oblique to the right until opposite their places in line, execute a second right oblique, and take the half step when abreast of the right guide. All take the full step at the fourth command.

Being at a halt, the movement is executed by the same commands and in the same manner.



Pl. 11, Par. 67.

Right (left) half turn is executed in a similar manner. The right guide makes a half change of direction to the right and the other men make quarter changes in obliquing.

68. Being in column of fours, to change direction:

1. **Column right (left)**, 2. **MARCH**.

At the second command the leading set of fours turn to the right on moving pivot; the other ranks, without command, turn successively on the same ground and in a similar manner. In each four all glance toward the marching flanks while at half step and take the full step without command when the last man arrives on the line of his four.

Column half right (left) is executed in a similar manner. The pivot man makes a half change of direction to the right and the other men make quarter changes in obliquing.

69. Being in line, to form column of fours and change direction:

1. **Fours right (left), column right (left), 2. MARCH;** or, 1. **Right (left) by fours, 2. MARCH.**

In the first case the right set of fours initiates the **column right** as soon as it has completed the **fours right**.

In the second case, at the command **MARCH**, the right set of fours marches forward; the remainder of the detachment executes **fours right, column left**, and follows the right set of fours. The right guide, when he has posted himself in front of the right set of fours, takes four short steps, then resumes the full step; the right set of fours conforms.

Facing or marching to the rear.

70. Being in line or in column of fours, to face or march to the rear:

1. **Fours right (left) about, 2. MARCH;** or, 1. **Fours right (left) about, 2. MARCH, 3. Detachment, 4. HALT.**

At the second command, each set of fours twice executes **fours right** initiating the second **fours right** when the man on the marching flank has arrived abreast of the pivot man. As the men on the marching flank arrive on the line, all execute **forward march** without command.

If the detachment is in column of fours, the file closers turn about toward the column and take their posts; if in line, each darts through the nearest interval between fours.

If it is desired to turn and halt, the third command is given immediately after the second. The turn is executed as prescribed above, except that all men on arriving on the new line mark time until the fourth command is given, when all halt. The fourth command should be given as the last man arrives on the new line.

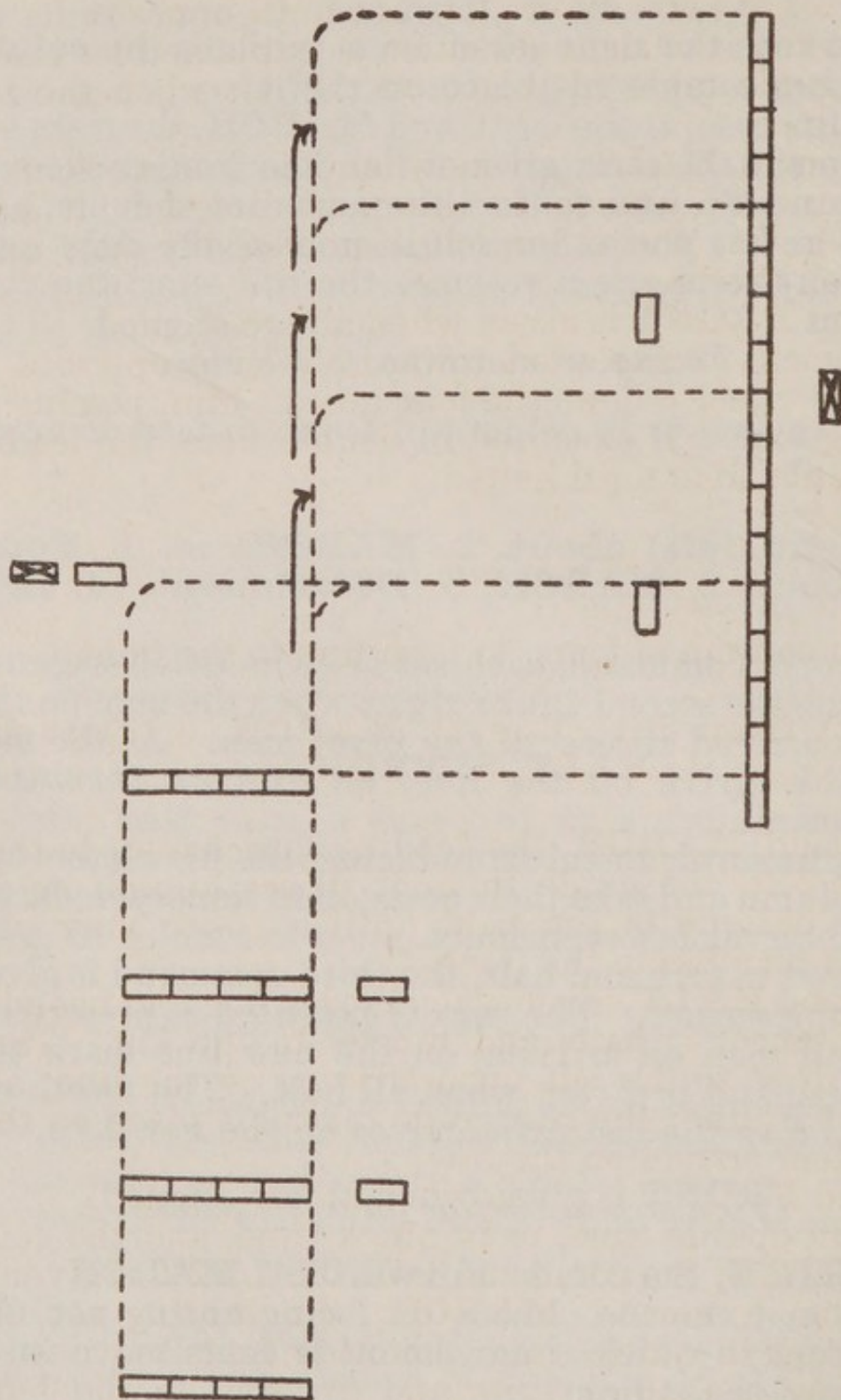
To march to the rear for a few paces.

71. 1. **About, 2. FACE, 3. Forward, 4. MARCH.**

The guides and the file closers, on facing about, maintain their relative positions. No other movement is executed until the line is faced to the original front.

72. Being in column of fours, to form line on right or left:

1. On right (left) into line, 2. MARCH, 3. Detachment, 4. HALT, 5. FRONT.



At the command **MARCH**, the leading set of fours executes right turn on moving pivot and takes the full step without command when the man on the marching flank is abreast of the pivot; the leading guide places himself on the right of this set of fours.

Each of the other fours moves forward until opposite its place in the new line, when it changes direction as explained for the leading four; the rear guide takes his place on the left when the rear four arrives on the line.

At the command **HALT**, given when the leading four has advanced the desired distance in the new direction, it halts and dresses to the right; the other fours successively halt and dress upon arriving on the line.

The command **FRONT** is given when all are aligned.

If the movement is executed toward the side opposite the file closers, each file closer follows the four nearest him, passing in front of the following four. If executed in double time, the leading four marches in double time until halted.

Front into line.

73. Being in column of fours, to form line to the front:

1. Right (left) front into line, 2. **MARCH**, 3. Detachment,
4. **HALT**, 5. **FRONT**.

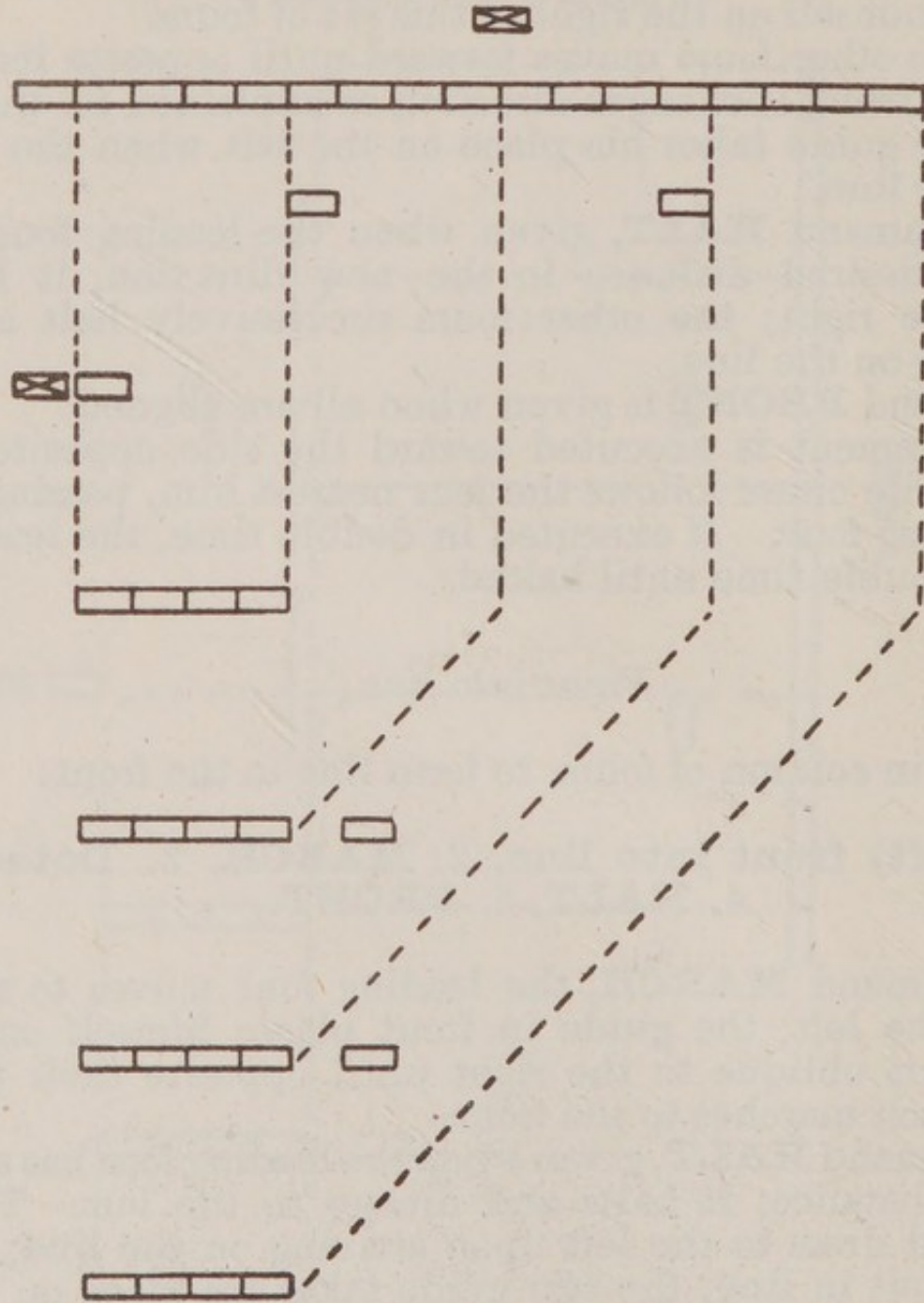
At the command **MARCH**, the leading four moves to the front, dressing to the left; the guide in front places himself on its left; the other fours oblique to the right until opposite their places in line, when each marches to the front.

At the command **HALT**, given when the leading four has advanced the desired distance, it halts and dresses to the left. The other fours halt and dress to the left upon arriving on the line; all dress on the first unit in line; the rear guide takes his place on the right when the rear four arrives on the line.

The command **FRONT** is given when all are aligned.

If marching in double time, or in quick time, and the command be **DOUBLE TIME**, the command **GUIDE LEFT** is given immediately after the command **MARCH**; the leading set of fours moves to the front in quick time, the other fours move in double time, each taking the quick time and dressing to the left upon arriving in line.

If the movement is toward the side of the file closers, they pass through the column as the oblique commences.



Pl. 13, Par. 72.

At ease and route step.

74. The column of fours is the habitual column of route, but **route step** and **at ease** are applicable to any marching formation.

To march at route step:

1. **Route step, 2. MARCH.**

Sabers are carried at will or in scabbard. The men are not required to preserve silence, nor to keep step. The ranks cover and preserve their distance. If halted from **route step**, the men stand **at rest**.

75. To march at ease:

1. **At ease, 2. MARCH.**

The detachment marches as in route step, except that silence is preserved; when halted, the men remain **at ease**.

76. Marching at route step or at ease:

1. **Detachment, 2. ATTENTION.**

At the last command the cadenced step in quick time is resumed.

To diminish the front of a column of fours.

77. Being in column of fours:

1. **Right (left) by twos, 2. MARCH.**

At the command **MARCH**, all files except the two right files of the leading four execute **in place halt**; the two left files of the leading four oblique to the right when disengaged and follow the right files at the shortest practicable distance. The remaining four follow successively in like manner.

78. Being in column of fours or twos:

1. **Right (left) by file, 2. MARCH.**

At the command **MARCH**, all files execute **in place halt** except the right file of the leading two or four. The left file or files of the leading two or four oblique successively to the right when disengaged and each follows the file on its right at the shortest practicable distance. The remaining twos or fours follow successively in like manner.

79. Being in column of files or twos, to form column of fours, being in column of files, to form column of twos:

1. **Fours (two), left (right) front into line, 2. MARCH.**

At the command **MARCH**, the leading file or files halt. The remainder of the four, or two, obliques to the left and halts on the line with the leading file or files. The remaining fours or twos successively form in rear of the first in like manner.

The movement prescribed in this paragraph will be ordered right or left, so as to restore the files to their normal relative positions in the two or four.

The movements prescribed in the two preceding paragraphs are difficult of execution at attention and have no value as disciplinary exercises.

MOVEMENTS BY PLATOONS.

80. Movements by platoons may be used by large detachments. This formation is often required for hospital corps detachments appearing in parades and reviews, and on the march. If the rank is composed of less than twenty files, the division into platoons is usually not necessary.

When platoon movements are to be executed, the senior noncommissioned officer makes the division into platoons immediately after the fours and squads are counted.

81. Platoons are assigned to the lieutenants and noncommissioned officers as follows: 1, right; 2, left; 3, center (right center); 4, left center.

82. Except sergeants first class, the noncommissioned officers next in rank are assigned as guides; if any still remain, they are put in the line of file closers.

The guides are assigned as follows: The second noncommissioned officer is the right guide of the first platoon, the third noncommissioned officer is the left guide of the second platoon, the fourth noncommissioned officer is the left guide of the first platoon, and the fifth noncommissioned officer is the right guide of the second platoon.

If more than two platoons are formed, the third noncommissioned officer is the left guide of the platoon on the extreme left of the detachment, and the necessary number of noncommissioned officers are posted as guides, according to scheme given above.

The division is so made that the platoons may be of nearly equal strength. At the formation of the detachment the platoons are numbered

bered consecutively from right to left; these designations are permanent and do not change when, by any movement, the right becomes the left of the line, or the head becomes the rear of the column.

In movements by platoons, each chief repeats such preparatory commands as are to be immediately executed by his platoon; the men execute the commands, **MARCH** and **HALT**, if applying to their platoons, when given by the commanding officer. Each chief repeats the commands prescribed for him so as to insure execution of the movement by his command at the proper time.

At each alignment the officer commanding places himself in prolongation of the line, 2 paces from and facing the flank toward which the dress is made, verifies the alignment, and commands: **FRONT**. Platoon leaders take a like position when required to verify alignments.

The platoon executes the halts, rests, facings, steps, and marchings; takes intervals and distances and assembles, increases and diminishes intervals, resumes attention, obliques; resumes direct march, preserves alignments, as explained in the School of the Soldier and the Detachment; substituting the word "platoon" for "detachment" in the commands.

Movements on the fixed pivot.

83. Being in line to form column of platoons, or the reverse:

1. **Platoons right (left), 2. MARCH, 3. Detachment, 4. HALT;**
or, 3. **Forward, 4. MARCH.**

Execute by each platoon as prescribed for the detachment.

Before forming line the officer commanding sees that the guides on the flank toward which the movement is to be executed are covering. This is effected by previously announcing the guide to that flank.

84. Being in line of platoons, to form column of platoons, or the reverse:

1. **Fours right (left), 2. MARCH;** or, 1. **Fours right (left), 2. MARCH, 3. Detachment, 4. HALT.**

Executed by each set of fours as prescribed in the School of the Detachment.

If the platoons be formed in line toward the side of the file closers, they dart through the column and take posts in rear of the detach-

ment at the second command. If the column of fours be formed from line, the file closers take posts on the pivot flank abreast of and 4 inches from the nearest rank.

Movements on the moving pivot.

85. Being in column of platoons, to change direction:

1. **Column right (left), 2. MARCH.**

At the first command the leader of the leading platoon commands: **RIGHT TURN.** At the command **MARCH,** the leading platoon turns to the right on moving pivot; its leader commands: 1. **Forward,** 2. **MARCH,** on completion of the turn. Rear platoons march squarely up to the turning point of the leading platoon and turn at command of their leaders.

86. In changing direction in column of subdivisions, each chief, on completion of the movement by his subdivision, announces the guide on the side it was previous to the turn.

87. Being in column of fours, to form line of platoons, or the reverse:

1. **Platoons, column right (left), 2. MARCH.**

Executed by each platoon as prescribed for the detachment.

88. Being in line to form line of platoons:

1. **Fours right (left), platoons, column right (left), 2. MARCH;**
or, 1. **Platoons right (left) by fours, 2. MARCH.**

Executed by each platoon as prescribed for the detachment.

Facing or marching to the rear.

89. Being in line of platoons, or in column of platoons, to face or march to the rear:

1. **Fours right (left) about, 2. MARCH;** or, 1. **Fours right (left) about, 2. MARCH, 3. Detachment, 4. HALT.**

Executed by each set of fours as prescribed in the School of the Detachment.

If the detachment or platoons are in column of fours, the file closers turn about toward the column and take their posts; if in line, each darts through the nearest interval between fours.

On right (left) into line.

90. Being in column of platoons to form line on right or left:

1. On right (left) into line, 2. **MARCH**, 3. Detachment, 4. **HALT**, 5. **FRONT**.

At the first command the leader of the leading platoon commands: **RIGHT TURN**. The leaders of the other platoons 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 the leading platoon has advanced the desired distance in the new direction; it halts; its leader then commands: **RIGHT DRESS**.

The platoons in rear continue to march straight to the front; each, when opposite the right of its place in line, executes **right turn** at the command of its leader; each is halted on the line at the command of its leader, who then commands: **RIGHT DRESS**. All dress on the first platoon in line.

If executed in double time the leading platoon marches in double time until halted.

Before forming line to the right or left, or on right or left, the officer commanding requires the guide of the rear platoon on the flank toward which the movement is to be executed, to cover; if marching, he announces the guide on that flank, if not already there.

Front into line.

91. Being in column of platoons, to form line to the front:

1. Left (right) front into line, 2. **MARCH**, 3. Detachment, 4. **HALT**, 5. **FRONT**.

At the first command the leaders of platoons in rear of the leading one command: **LEFT OBLIQUE**. If at a halt, the leader of the leading platoon commands: **FORWARD**. At the second command the leading unit moves straight forward, the rear units oblique as indicated. The command **HALT** is given when the leading unit has advanced the desired distance; it halts; its leader then commands: **RIGHT DRESS**.

Each of the rear platoons, when opposite its place in line, resumes the original direction at the command of its leader; each is halted on

the line at the command of its leader, who then commands: **RIGHT DRESS**. All dress on the first platoon in line.

92. Being in column of fours to form column of platoons, or being in line of platoons to form the detachment in line:

1. **Platoons left (right) front into line**, 2. **MARCH**, 3. **Detachment**, 4. **HALT**, 5. **FRONT**.

Executed by each platoon as prescribed for the detachment. In forming the company in line, the dress is on the right squad of the right platoon. If forming column of platoons, platoon leaders verify the alignment before taking their posts; the captain commands **FRONT** when the alignments have been verified.

When **front into line** is executed in double time the commands for halting and aligning are omitted and the guide is toward the side of the first unit in line.

LITTER DRILL.

93. The purpose of this drill is to teach the most useful methods of handling sick and wounded, to secure concerted action, and for the disciplining effect which follows drill in prompt obedience to the word of command. When the men have thoroughly mastered it, litter squads should work independently as in actual service.

94. The regulation hand litter consists of a canvas bed 6 feet long and 22 inches wide, made fast to two poles $7\frac{1}{2}$ feet long, and stretched by two jointed braces. The ends of the poles form the handles, 9 inches long, by which the litter is carried. The fixed iron legs are stirrup-shaped, 4 inches high and $1\frac{3}{4}$ inches wide. On the left front and right rear handles a half-round iron ring is fixed, $4\frac{1}{2}$ inches from the end; between this and the canvas plays the movable ring of the sling.

One pair of slings is permanently attached to each litter. They are made of khaki-colored webbing, $2\frac{1}{2}$ inches wide, with a leather-lined loop at each end and a slide to regulate the length. One loop of the sling passes through a metal swivel, itself attached to the movable ring of the handle.

95. When the detachment is formed for drill or instruction, officers and enlisted men wear the prescribed uniform. The instructor will require that the clothing of the men be clean and neatly adjusted, and that the privates fall in equipped with pouch, belt, and knife. Noncommissioned officers wear the belt and knife.

96. The litter is said to be *strapped* when folded, the canvas doubled smoothly on top, the slings placed parallel to each other thereon, and all secured by the cross straps. It is said to be *closed* when unstrapped, the loop of the front sling upon the left handle, and of the rear sling upon the right, the bight of each sling embracing the opposite handle.

MANUAL OF THE LITTER.

97. For the purposes of litter drill, each set of fours operates as two litter squads, Nos. 3 and 4 becoming, respectively, Nos. 1 and 2 of the second litter squad of each four. The litter squad is marched by the same commands applicable to a set of four, substituting the word "litter" for "four." No. 2 is the leader of each squad, and when practicable, shall be a private, first class.

98. To form the detachment for litter drill, the men fall in and count fours (paragraph 60); the senior sergeant then commands:

1. Count, 2. **LITTER SQUADS.**

At **LITTER SQUADS**, the Nos. 2 of each litter squad execute **eyes right**, and beginning on the right, count in consecutive order 1, 2, 3, 4, 5, etc., until all have counted. Each No. 2 turns his head and eyes to the front as he counts.

The senior sergeant then reports the detachment, and the junior officers take their places. The officer commanding commands:

1. Procure litter, 2. **Right (left) face**, 3. **MARCH.**

At **litter**, the Nos. 2 step one pace to the front, at **face** they face as required, and at **MARCH** proceed in column of files, by the nearest route, to the strapped (or closed) litters. They each take one, place it on the right shoulder at an angle of 45 degrees, canvas down, and promptly return in the reverse order, each man resuming his place in the rank by passing through his interval one pace to the rear, facing about, and stepping forward with the left foot into line. If the litters are in front of the detachment, the Nos. 2 may be marched directly forward, converging toward them, and then back, diverging to their intervals.

This march should be supervised by a noncommissioned officer. It may be executed in double time.

With but one squad the commands are simply **Procure (return) litter, MARCH**; when the bearer proceeds and returns by the shortest practicable route.

99. At the **shoulder** the litter is held canvas down upon the shoulder, the right hand grasping the right stirrup; the left hand is dropped to the side.

100. In all motions from the **shoulder**, or to the **shoulder**, the litter should invariably be brought to the vertical position against the right shoulder, canvas to the rear, right hand grasping the right stirrup, the left forearm horizontal, and the left hand steadying the litter against the shoulder.



Pl. 14, Par. 99.



Pl. 15, Par. 100.

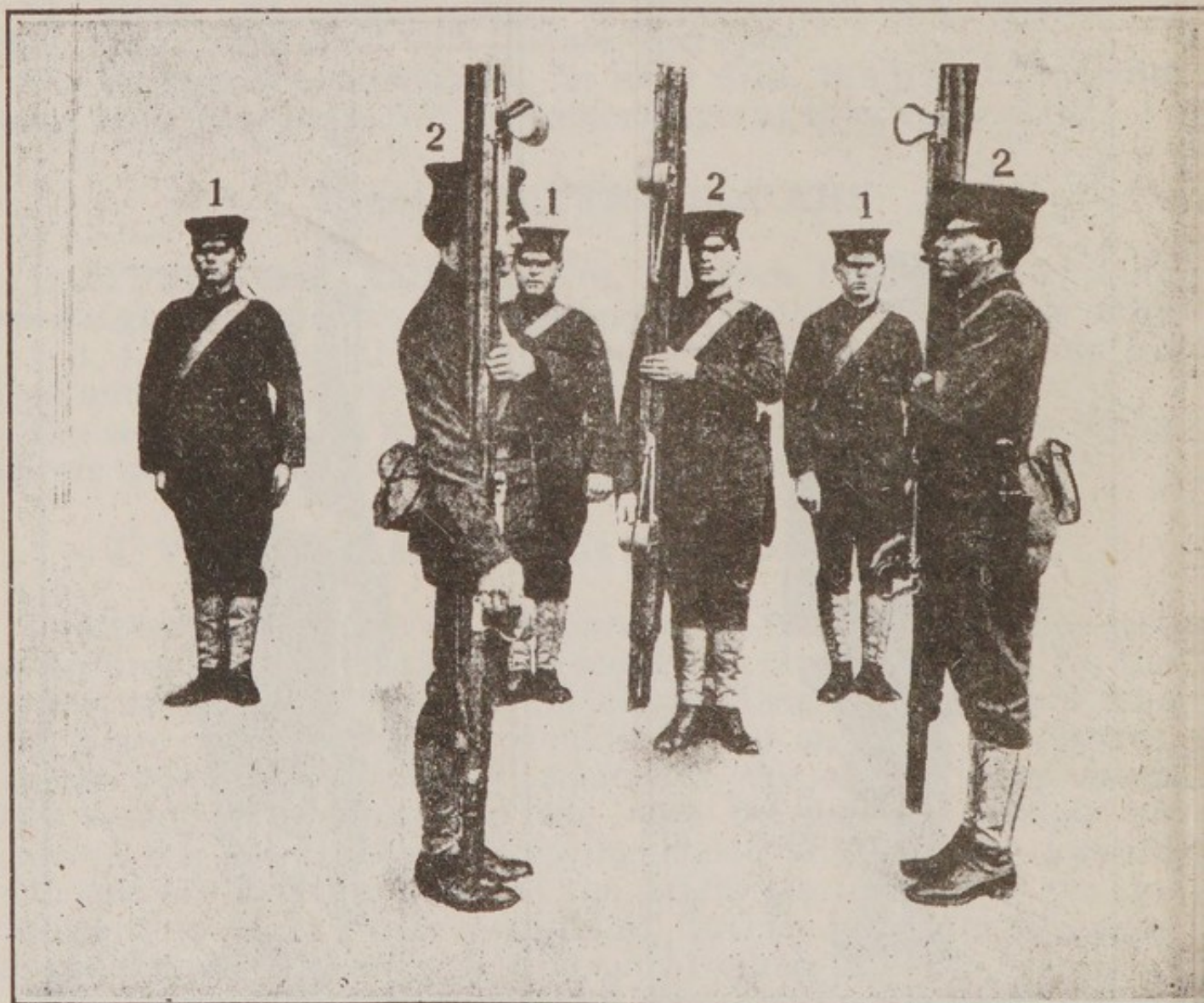
This position should be taken by the bearer when passing through his interval to resume his place in the line (par. 98), and in any formation or movement in which there may be danger of the lower or upper handles of the litter striking neighboring men; after which the **shoulder** is resumed without command.

101. A stack consists of three litters, to which more may be added.

Being in line at the shoulder, the instructor designates by number the center squads (squad), as follows:

Center squads (squad) 2, 5, 8, etc., and then commands:

1. Stack, 2. LITTERS.

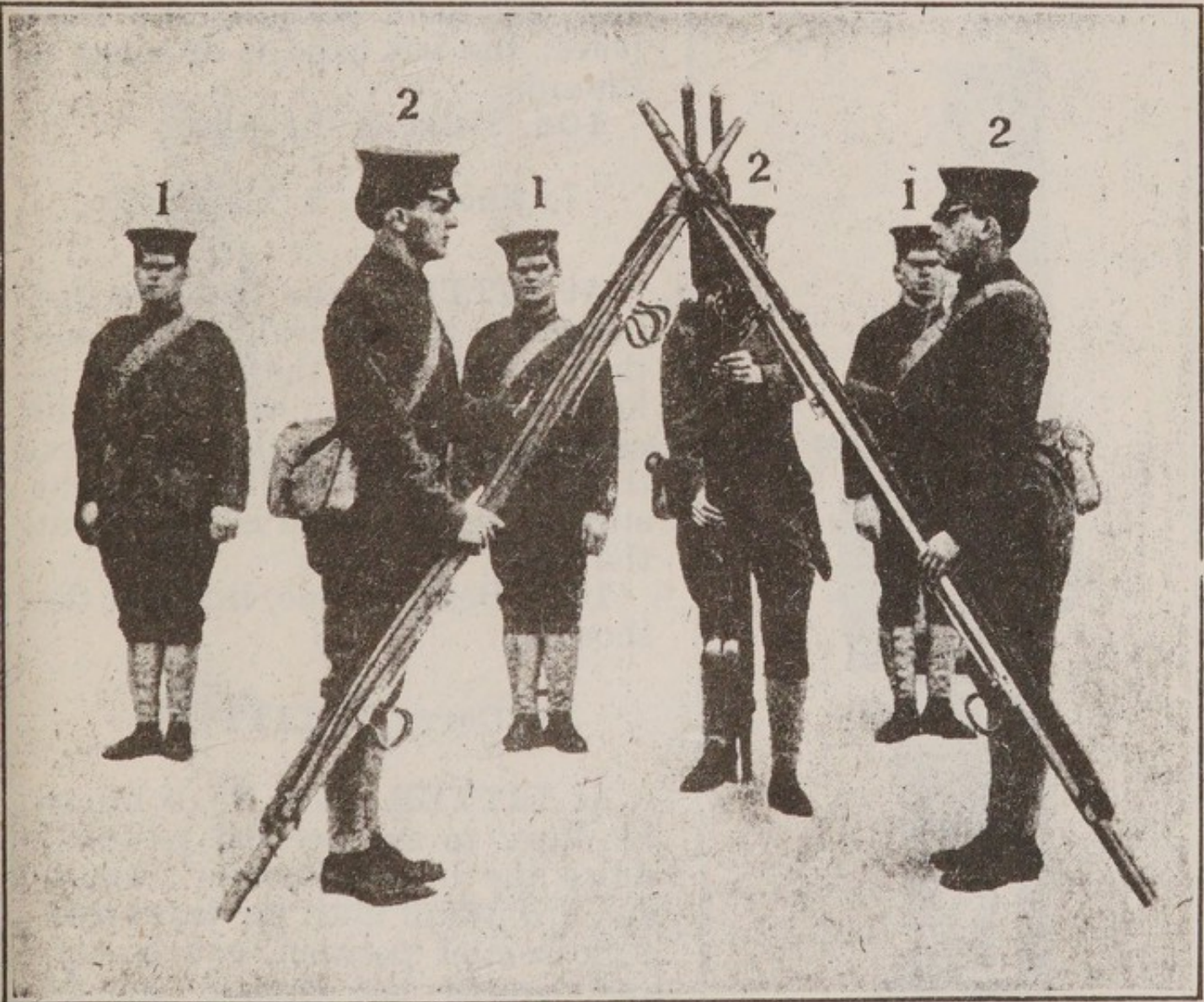


Pl. 16, Par. 101.

At **litters**, each No. 2 brings his litter to the vertical position. No. 2 of the center squad steps one pace to the front and stands fast; the Nos. 2 next on the right and left step three paces to the front, halt, face each other, close in half a pace, and, placing the lower handles of the litter upon the ground, 12 inches behind and the same distance to the outer side of the heel farthest from the

detachment, lock the upper handles together; No. 2 of the center squad at the same time places the lower handles of his litter between his feet and then locks the upper handles with one of those of the other two squads, advancing the left foot. The canvas of litters will be on the outer face of the stack.

As soon as the stacks are formed any additional litters are laid on and the bearers take their posts in the rank.



Pl. 17, Par. 101.

102. Being at the stack:

1. Take, 2. LITTERS.

At **LITTERS**, the Nos. 2 close in on the center as in the previous paragraph, advancing to the stack, and grasping their respective litters, break the stack, and resume their position in line as in par. 98.

103. Being at the shoulder:

1. Order, 2. **LITTER.**

At the second command the litter is first brought to the vertical position, and the lower handles then dropped to the ground outside the right foot, canvas to the rear, the right arm naturally extended, and the hand grasping the front poles; the left hand is dropped to the side.



Pl. 18, Par. 103.

The guides step forward and place themselves in line with the front bearers.

104. Being at the order:

1. Shoulder, 2. **LITTER.**

At **LITTER**, the litter is first brought to the vertical position and then raised until the left wrist is level with the chin when it is laid canvas down upon the shoulder the right hand grasping the right stirrup; the left hand is dropped at the side.

105. Being in line, litters at the shoulder:

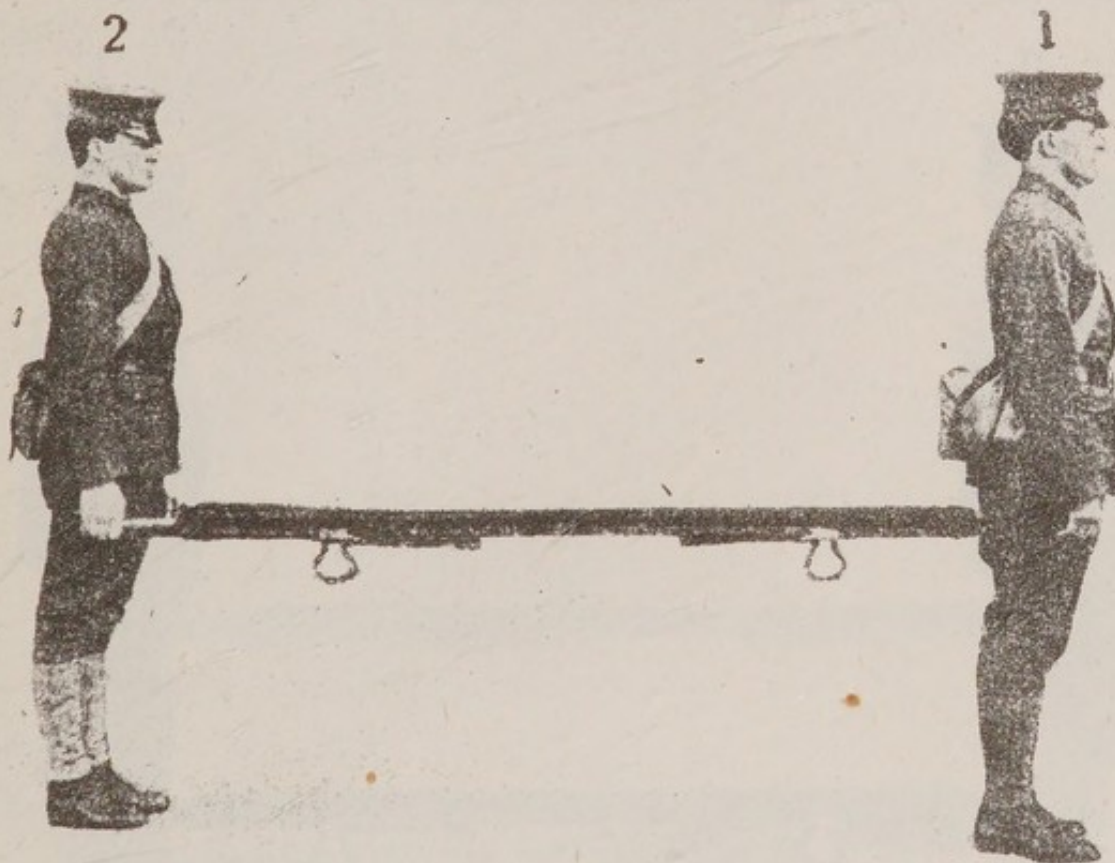
1. Carry, 2. **LITTER.**

At **LITTER**, each No. 2 brings his litter to the vertical position, drops the upper handles forward and downward until the litter is in a horizontal position, canvas up, and grasps the outside handle with his right hand; meanwhile No. 1 steps directly to the front until he is opposite the front handles when he grasps his outside handle with his left hand.

106. Being at the carry:

1. Ground, 2. **LITTER.**

At **LITTER**, the bearers stoop and lower the litter to the ground, canvas up, and stand erect, facing the front.



Pl. 19, Par. 105.

107. Being at the ground:

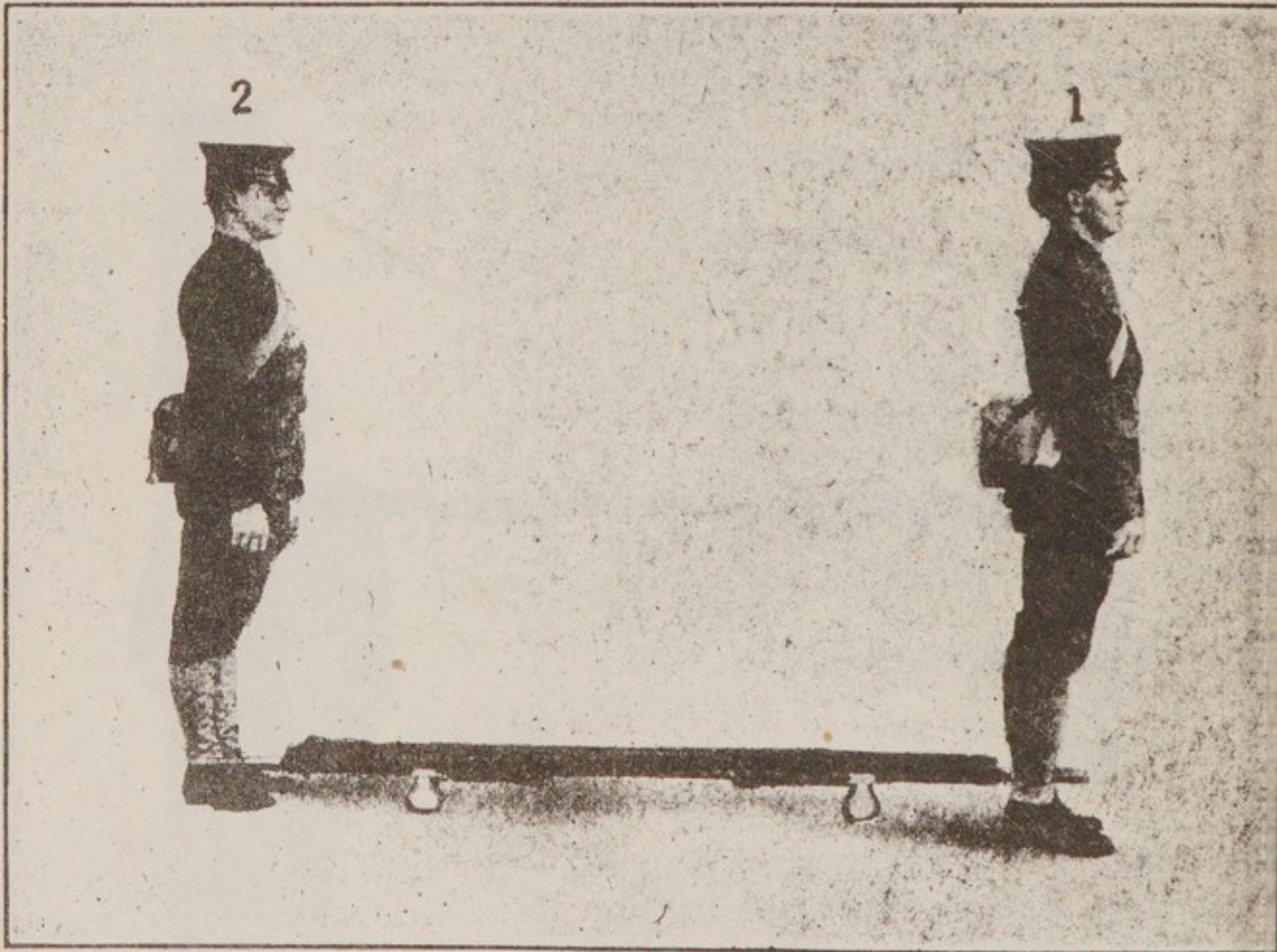
1. Carry, 2. **LITTER.**

At **LITTER**, the bearers stoop, grasp the handles and raise the litter from the ground to the carry.

108. To rest the carrying hand:

1. Change, 2. **HANDS.**

At **HANDS**, each bearer shifts the litter to his free hand, at the same time taking position on the opposite side of the litter. Original positions are recovered by the same commands.



Pl. 20, Par. 106.

109. Being at carry:

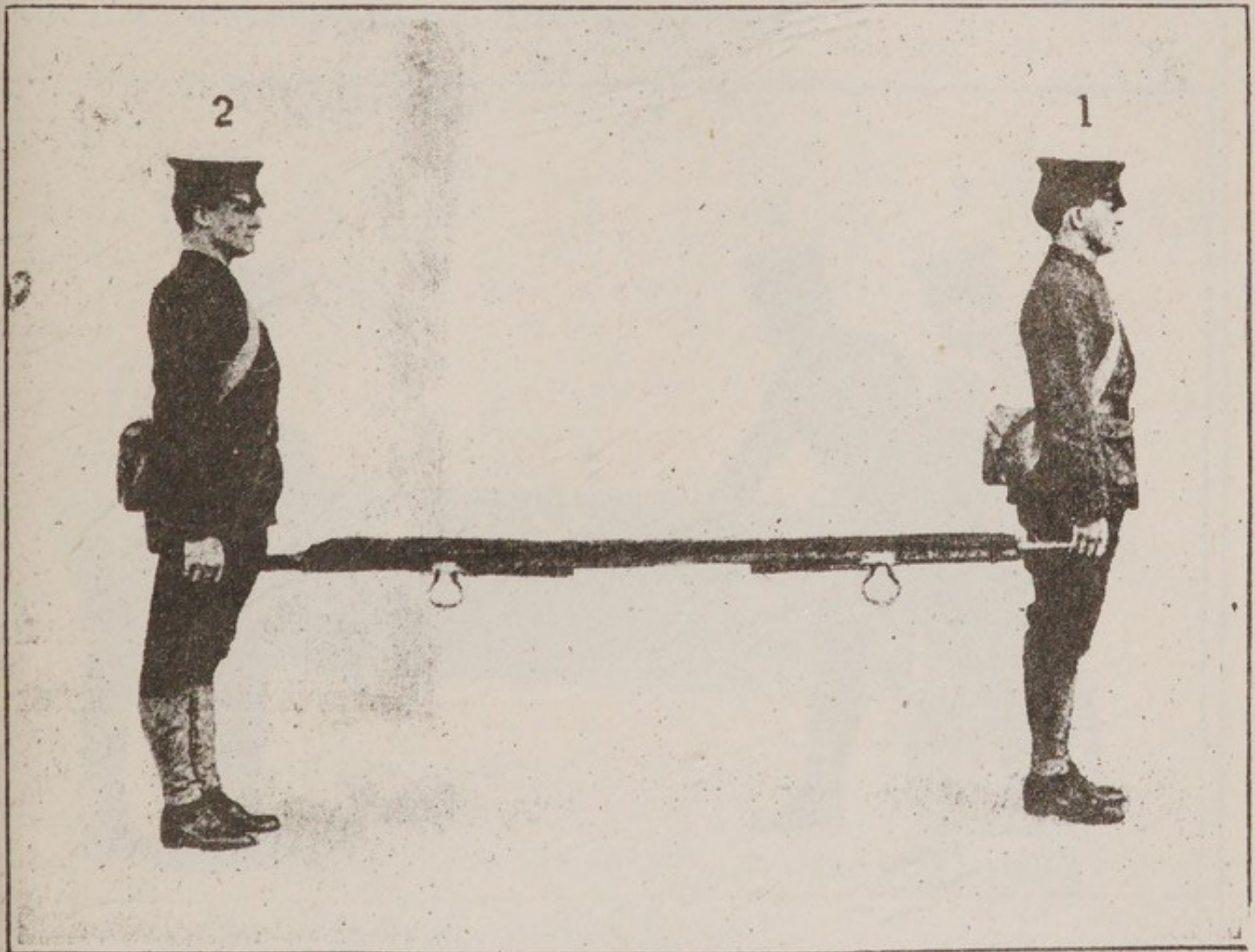
1. Shoulder, 2. **LITTER.**

At **LITTER**, No. 2 advances and plants the left foot, reaches forward with the left hand and grasps the litter near its center, grasps the right stirrup with the right hand, and brings the litter to the vertical position and then to the shoulder, at the same time replacing the left foot by the right; meanwhile No. 1 steps backward and aligns himself upon No. 2.

110. Being at the carry, litter strapped:

1. Open, 2. **LITTER.**

At **LITTER**, both bearers face the litter, unbutton the straps, button them to the studs on their respective poles, and slip the free loop of each sling upon the ring handle, the bight embracing the



Pl. 21, Par. 108.

opposite handle; they then grasp the left handles with their left hands and drop the other handles, the litter thus being suspended by the left pole, canvas to the right. They then fully extend the braces, lower the litter to the ground, canvas up, and resume the attention, standing between the handles and facing the front.

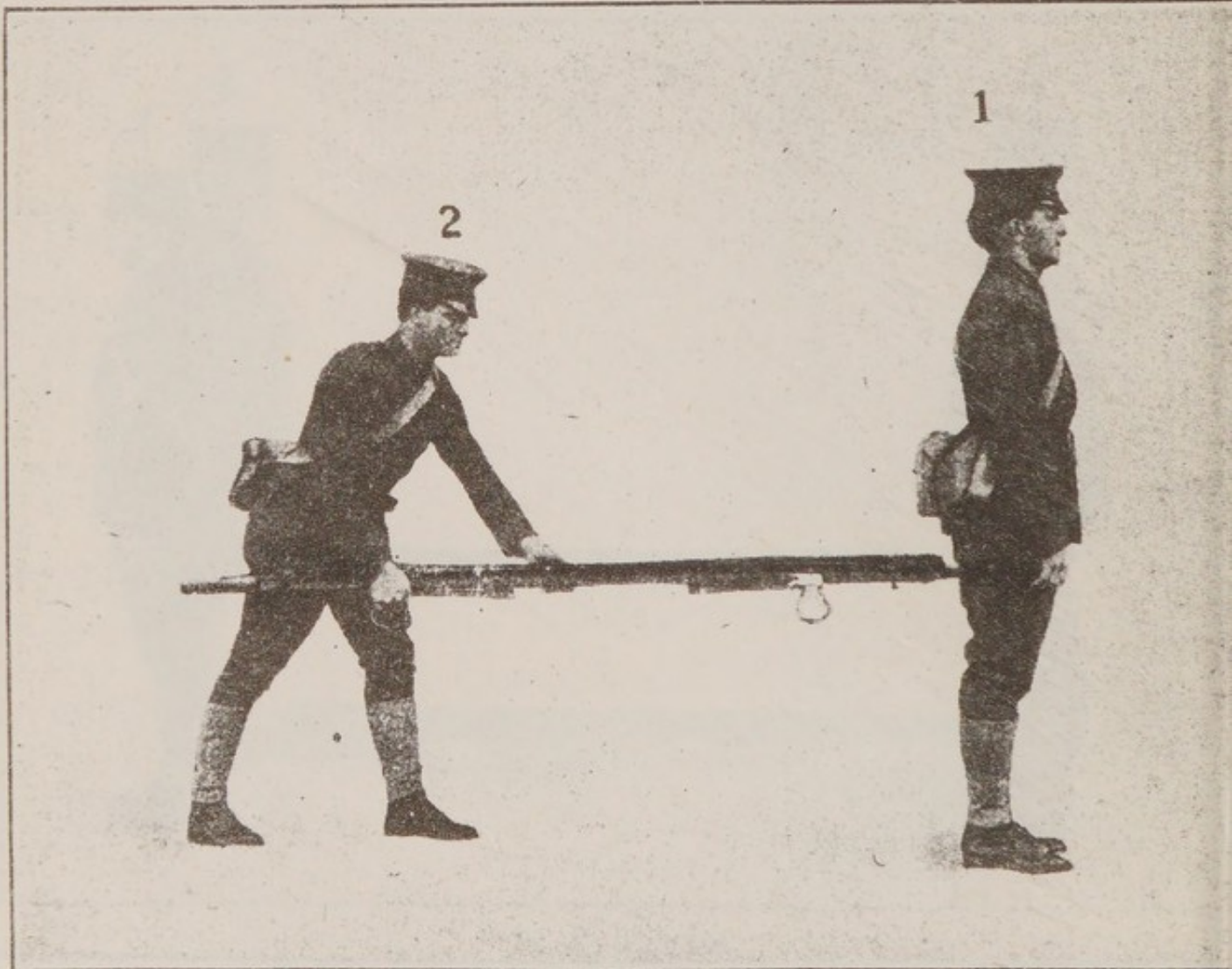
If the litter is closed but not strapped, so much of this paragraph as relates to the disposition of the straps does not apply.

LITTER DRILL.

111. To secure slings, the litter being lowered:

1. Secure, 2. **SLINGS.**

At **SLINGS**, each bearer slips off the bight of his sling, drops the doubled end over the free handle and brings it up around the handle



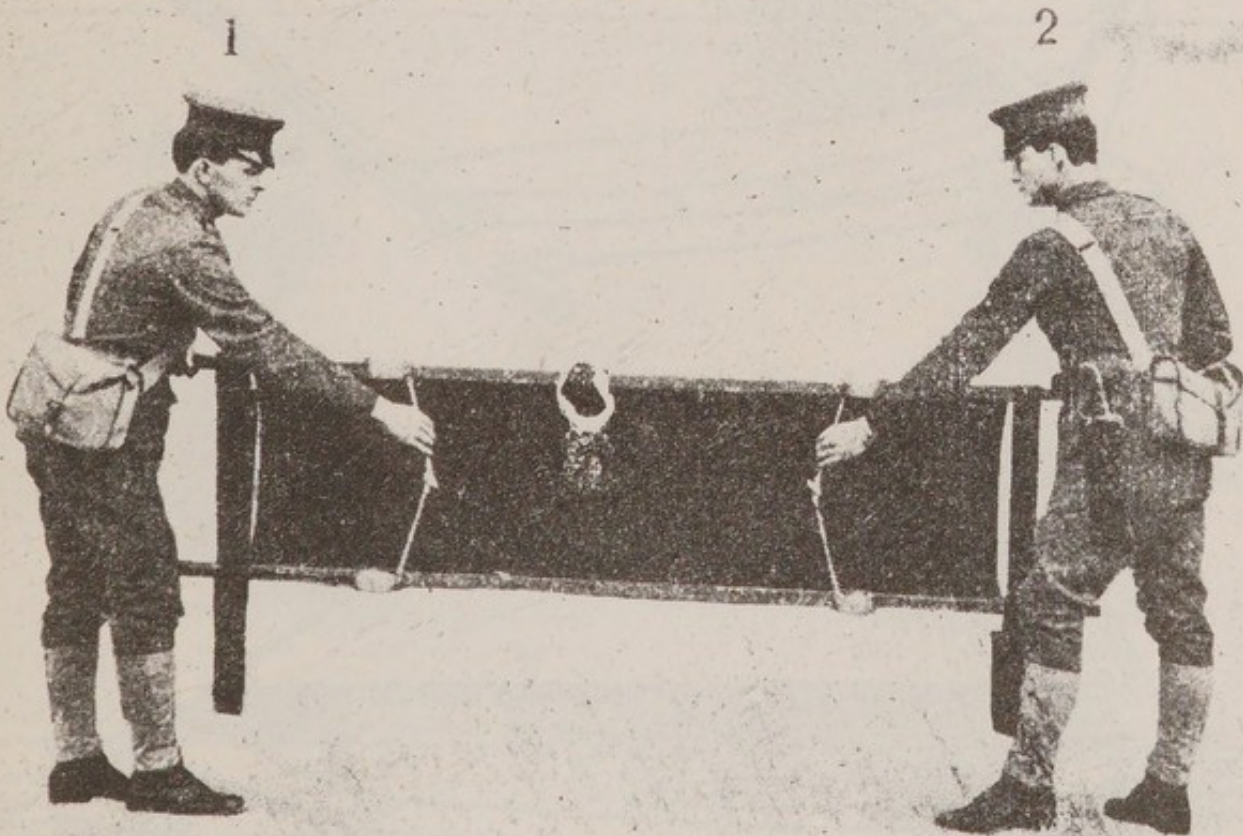
Pl. 22, Par. 109.

slipping the double end through the sling and over the end of the handle. The slings will be secured before the litter is closed and whenever it is desired to prevent them from dragging on the ground or from being in the way when passing obstacles, loading ambulances, etc.

112. The litter being open and lowered, and slings secured:

1. Close, 2. **LITTER.**

At **LITTER**, Nos. 1 and 2, respectively, step outside the right front and left rear handles, and face inward; they stoop and with their hands raise the litter by the handle of the left pole; they then fold the braces, and bringing the lower pole against the upper, face to the front and support the litter at the carry.



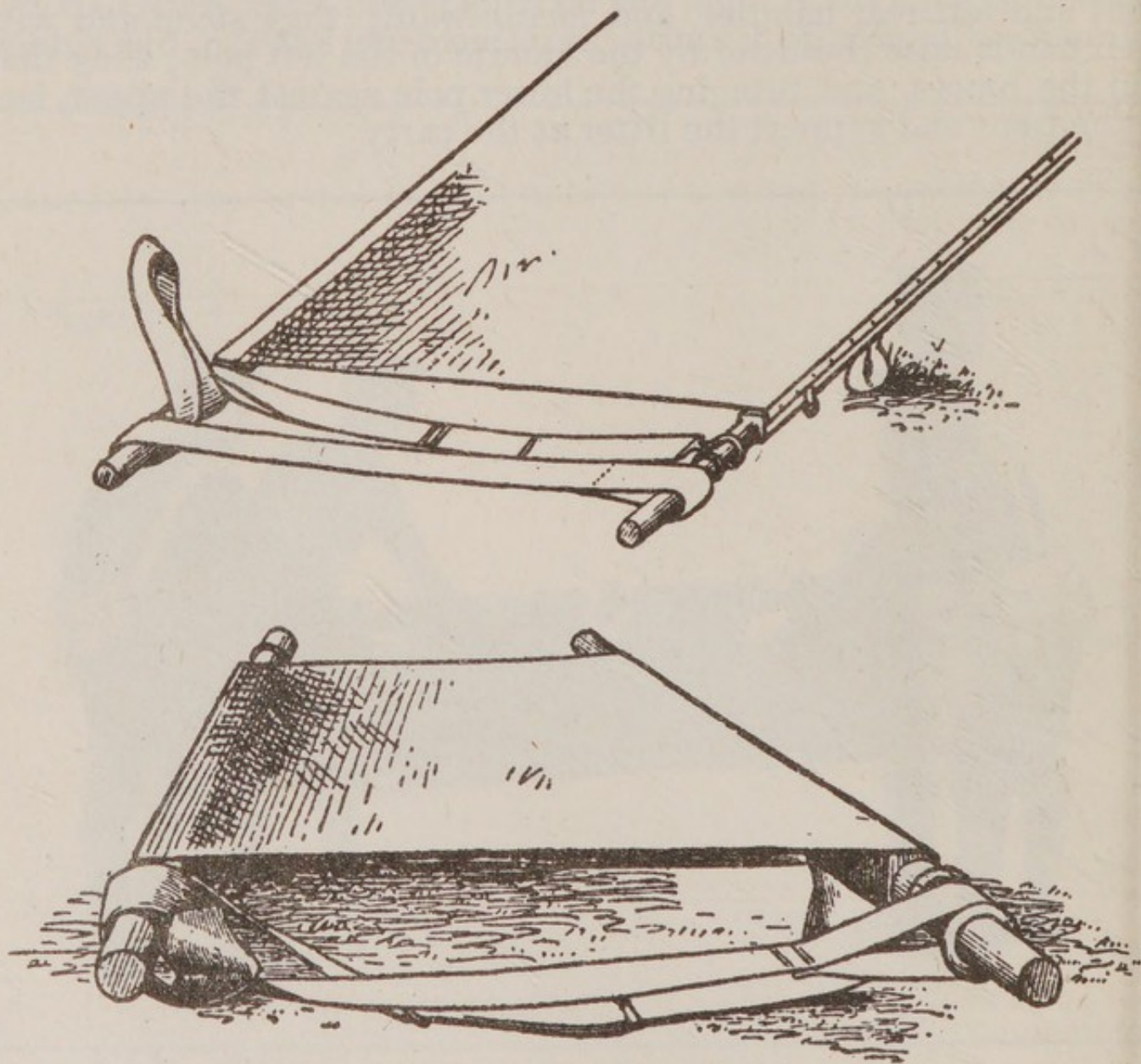
Pl. 23, Par. 110.

113. The litter being closed and at the carry:

1. Strap, 2. **LITTER.**

At **LITTER**, the bearers place the litter on the ground, fold the canvas smoothly, free edge of fold to the left, place the slings

lengthwise of the litter on the canvas, slides up, and neatly secured all by the cross strap at each end, passed around poles and through free loops of slings, when all take posts at the **carry** without command



Pl. 24, Par. 111.

In the field the litter should habitually be carried **strapped closed**, and only opened on reaching the patient.

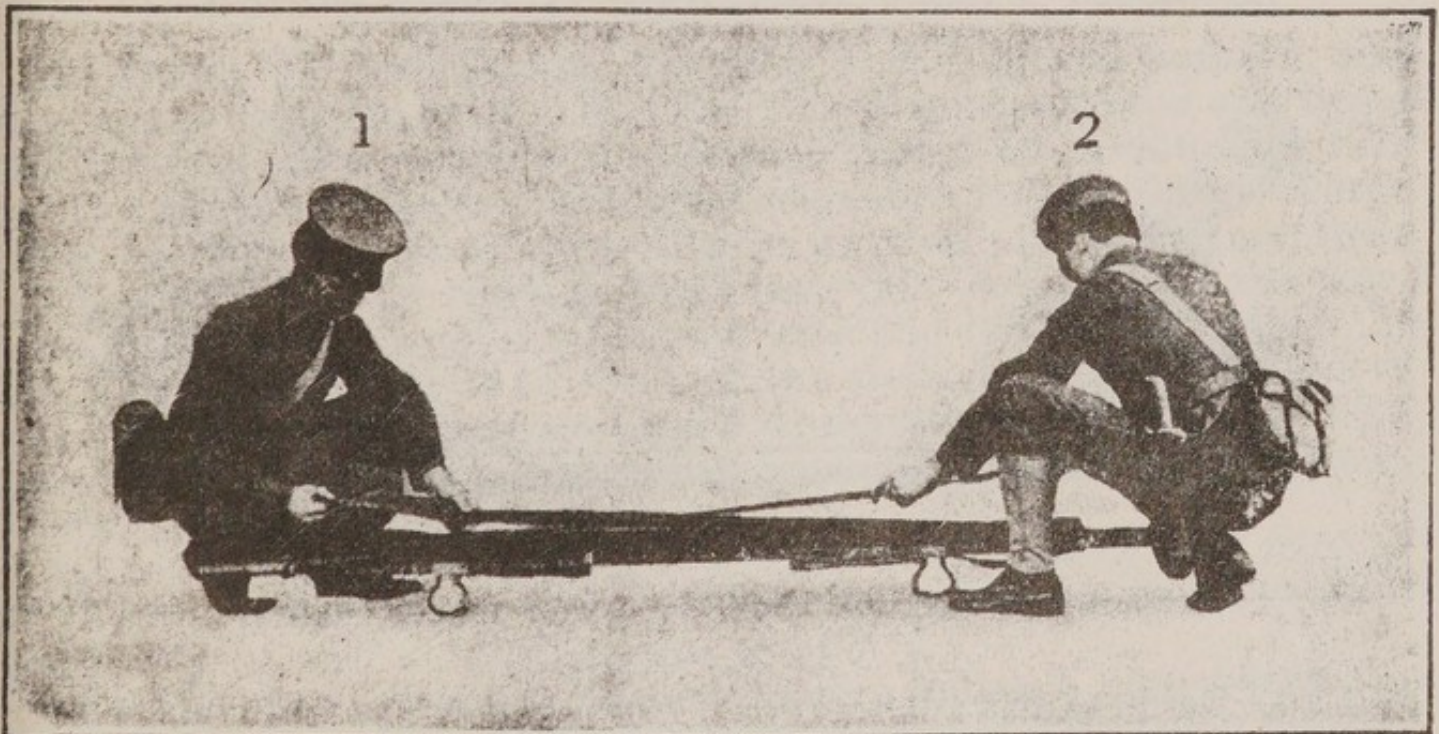
The litter may in like manner be **closed** and then **strapped** being at the **open**, at the command **strap litter**, when the motions begin with those described under **close litter**.

114. To bring the squad into line, the litter being at the ground, or the open, with the men at litter posts:

1. Form, 2. RANK.

At **RANK**, No. 1 advances one pace and No. 2 aligns himself upon No. 1. Original positions at the litter are resumed at the command **litter posts** (par. 115), all executing an about face, proceeding to their posts at the litter, and facing to the front together.

This movement permits the marching of the squad, without litter, to any desired point.



Pl. 25, Par. 113.

115. Posts at the litter may at any time be recovered by the commands:

1. Litter, 2. POSTS.

If at the **ground**, the numbers take posts, No. 1 on the right of the front handles, No. 2 on the left of the rear handles and close to them, facing the front (Pl. 20). If at the **open**, Nos. 1 and 2 take posts between the front and rear handles, respectively, facing the front.

116. The foot, or front, of a grounded or opened (unloaded) litter is the end farthest from the approaching squad, unless otherwise designated. The foot of a loaded litter is always the end corresponding to the feet of the patient.

117. Being at the open:

1. prepare to lift, 2. **LIFT**.

At the first command the bearers without facing about, stoop, slide the slings off the handles, and place them over their shoulders; they then replace the free loop upon its handle, adjust the length of the slings if necessary, and firmly grasp the handles of the litter; at **LIFT** they slowly rise erect.



Pl. 26, Par. 117.

118. Being at the lift:

1. Forward, 2. **MARCH**.

The bearers step off, No. 1 with the left and No. 2 with the right foot, taking short, sliding steps of about 20 inches, to avoid jolting and to secure a uniform motion to the litter. The cadence is at the rate of about 100 steps per minute.

119. Being at the lift:

1. Lower, 2. **LITTER**.

At **LITTER** the bearers slowly lower the litter to the ground. Each number then seizes the free loop and bight of his sling, removes the sling from his shoulders, and places the loop upon the ring handle, the bight embracing the opposite handle.

120. When the litter is to be moved but a few paces, it may be lifted and marched without slings by prefixing **without slings** to the commands: **Prepare to lift, LIFT.**

121. The open litter should be lifted and lowered slowly and without jerk, both ends simultaneously, the rear bearer moving in accord with the front bearer, so as to maintain the canvas horizontal. In fact, the open litter should be handled for purposes of drill as if it were a loaded litter, and as soon as the men are familiar with its manual the drill should, whenever practicable, be with loaded litter.

122. Being in line at the shoulder:

1. **Return litter, 2. Right (left) face, 3. MARCH.**

At **litter**, the Nos. 2 bring the litter to the vertical position, and step one pace to the front. At **face**, they face as required and bring the litter to the shoulder, and at **MARCH** proceed in column of files by the nearest route to the place designated for the litters, where they leave them, and, returning in reverse order, resume their positions by passing through their intervals, one pace to the rear, facing about, and stepping forward with the left foot into line. If the place designated is in front of the detachment (or if there is but one squad), the Nos. 2 proceed as described in par. 102. This movement should be supervised by a commissioned officer. It may be executed in double time.

123. In marching the litter is usually at the **carry**, but may be at the **shoulder** when space permits or squads are working independently.

124. In close order the interval in line between closed litters is about 45 inches, which is insufficient to permit of their being brought into column; in extended order the interval in line is about four paces and the distance in column about one pace.

The manual of the litter may be executed in either close or extended order; all marchings with the litter, excepting in line, are executed in extended order.

MARCHINGS WITH LITTER.

125. To take intervals, being in line, litters at the shoulder:

1. **Take litter interval, 2. To the right (left), 3. MARCH, 4. Detachment, 5. HALT.**

At the command **MARCH**, Nos. 2 bring their litters to the vertical position, all face to the right, and the leading squad steps off, Nos. 1

and 2 of each squad preserving facing distance with relation to each other. When the leading squad has advanced three paces the squad next in order steps off following it in column, and so on until all squads are marching in the indicated direction, three paces apart.

At **HALT**, all halt and face to the original front and Nos. 2 return to the shoulder.

This formation is designated **line of litters**, regardless of the position of the litter.

126. To assemble, being in line of litters, at the shoulder:

1. Assemble to the right (left), 2. **MARCH**.

At **MARCH**, the squad on the flank indicated stands fast in position. The other squads face to the right (left), close in as commanded, face to the front.

127. To align a line of litters at a halt, litters at the carry or lift:

1. Right (left), 2. **DRESS**, 3. **FRONT**.

At **DRESS**, all execute **eyes right**, the Nos. 1 aligning themselves on the right guide, or on No. 1 of the first squad; all promptly recover their intervals, if lost. At **FRONT**, all turn head and eyes to the front.

128. The line of litters and the column of litters are marched by the same commands as already given (paragraphs 64-73), substituting *litters* for *fours*.

The following movements require special notice and description.

129. Being in line of litters, to turn on fixed pivot:

1. Detachment right (left), 2. **MARCH**, 3. Detachment, 4. **HALT**; or, 3. Forward, 4. **MARCH**.

At the second command the first litter on the right (left) halts taking the short step, wheels to the right (left) on its own ground the other litters half wheel to the right and place themselves successively upon the alignment established by the right (left) litter; the rest of the movement is executed as prescribed in paragraph 65.

130. Being in line of litters, at the carry or lift, to march by the flank in column of litters:

1. Litters right (left), 2. **MARCH**; or 1. Litters right (left) 2. **MARCH**, 3. Detachment, 4. **HALT**.

At the command **MARCH**, Nos. 1 step off to the right and Nos. 2 to the left, each describing a quarter of a circle, so as to make the

litter revolve horizontally on its center until both face to the right. The right guide places himself one pace in front of the first litter, and the rear guide one pace in rear of the last litter.

The rest of the movement in either case is as prescribed in paragraph 66.

To turn on moving pivot.

131. Being in line of litters, to change direction:

1. **Right (left) turn**, 2. **MARCH**, 3. **Forward**, 4. **MARCH**.

At the second command the first litter on the right, if at the **shoulder**, turns to the right on a moving pivot as explained for a detachment in paragraph 67; if at the **carry or lift**, the turn is made as described in paragraph 130, after which the half step in the new direction is taken; in either case the other litters by twice obliquing to the right successively place themselves on the new line with their proper intervals and take the half step.

All resume the full step at the fourth command.

132. Being in line of litters or column, at the **carry or lift**, to march to the rear:

1. **Litter right (left) about**, 2. **MARCH**; or 1. **Litter right (left) about**, 2. **MARCH**, 3. **Detachment**, 4. **HALT**.

At the command **MARCH**, Nos. 1 and 2 step off as prescribed in paragraph 130, but continue the movement until both are faced to the rear.

The rest of the movement is executed as prescribed in Paragraph 70.

133. A litter section consists of two litter squads in line with intervals taken. The distance between sections in column is equal to the front of a section.

Sections are maneuvered in the same manner and by the same commands as platoons, substituting the word "section" for "platoon" in the commands.

134. A platoon of litters consists of four litter squads in line with intervals taken. The distance between platoons of litters in column is equal to the front of a platoon.

135. The line or column of platoons is marched by the commands already given (par. 64 and following), substituting **litters** for **fours**, wherever it occurs in the command.

136. The advantage of the platoon formation is that it permits the shortening of the column at the carry without increasing its front by the commands: 1. **Platoons**, 2. **Close**, 3. **MARCH**, when the platoons close up to one pace, and the litters oblique toward each other until there is an interval of one and one-half paces between litters. In this formation each chief of platoon takes position on the left of his left guide.

137. The normal formation is resumed by the commands:

1. **Platoons**, 2. **Extend**, 3. **MARCH**.

Line is re-formed by the same commands used to form column.

ROUTE STEP.

138. The column of strapped litters at the carry is the habitual column of route. The litter may, however, be carried at the shoulder when practicable. The rate is 3 to 3½ miles per hour.

Marching in quick time, or from a halt:

1. **Route step**, 2. **MARCH**.

The men are not required to preserve silence, nor keep the step. The litter-squads preserve their distance.

139. To resume the cadence step:

1. **Detachment**, 2. **ATTENTION**.

At the command **ATTENTION**, the cadence step in quick time is resumed.

Upon halting while marching in route step, the men come to the rest; the litter may be brought to the order, or ground if so directed.

140. To march at ease:

1. **At ease**, 2. **MARCH**.

The detachment marches as in route step, except that silence is preserved.

THE LOADED LITTER.

GENERAL DIRECTIONS.

141. For drill in loading the litter, the "patients" are directed to lie down at suitable intervals near the line of litters first with head and later with feet toward it, and lastly in any position. Each squad may be separately exercised under its leader, or an instructor, or several squads simultaneously.

142. In moving the patient either with or without the litter, every movement should be made deliberately and as gently as possible, having special care not to jar the injured part. The command **STEADY** will be used to prevent undue haste or other irregular movements.

143. *The loaded litter should never be lifted or lowered without orders.*

144. The rear bearer should watch the movements of the front bearer and time his own by them, so as to insure ease and steadiness of action.

145. The number of steps per minute will depend on the weight carried and other conditions affecting each individual case.

146. The handles of the litter should be held in the hands at arm's length and supported by the slings. Only under most exceptional conditions should the handles be supported on the shoulders.

147. The bearer should keep the litter level notwithstanding any unevenness of the ground.

148. As a rule, the patient should be carried on the litter feet foremost, but in going uphill his head should be in front. In case of fracture of the lower extremities, he is carried uphill feet foremost and downhill head foremost to prevent the weight of the body from pressing down on the injured part.

THE LOADED LITTER.

TO LOAD AND UNLOAD THE LITTER.

149. The litter being at the **open**, the patient, with two bearers, must always be carried to it. This may be done in either of two ways.

150. The litter being at the open, the instructor commands:

1. **Right** (left) side, 2. **POSTS**.

If the command is **right side**, **POSTS**, the bearers go to right side of patient and take positions, No. 1 at the right thigh and No. 2 at the right shoulder, facing the patient. If the command is **left**, they take similar positions on the left side.

151. 1. Prepare to lift, 2. **LIFT**.

At the first command the bearers kneel on the knee nearest the patient's feet. No. 1 passes one arm under the hips and the other beneath the knees; No. 2 passes one hand under the patient's shoulders to the further armpit, and the other arm beneath the small of the back.

At **LIFT**, they lift together, slowly and carefully, raising the patient upon their knees, then readjusting their hold, rise to their feet and carry the patient by the shortest route to the side of the litter, when the squad is halted.

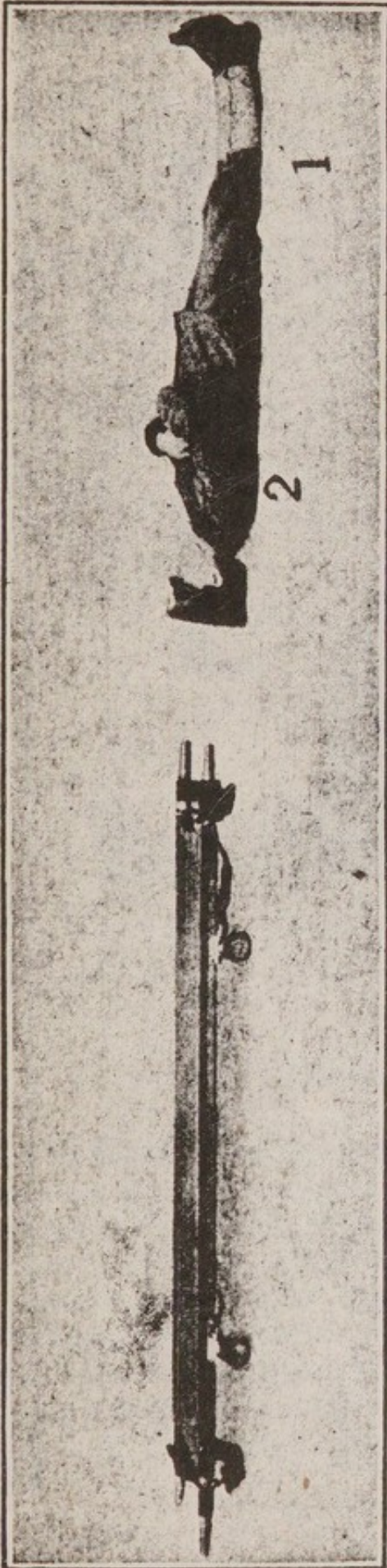
152. 1. Lower, 2. **PATIENT**.

At **PATIENT**, the bearers kneel and place the patient on their knees; they stoop forward and lower him gently upon the litter; they then rise, and at once resume their positions at litter posts, without command.

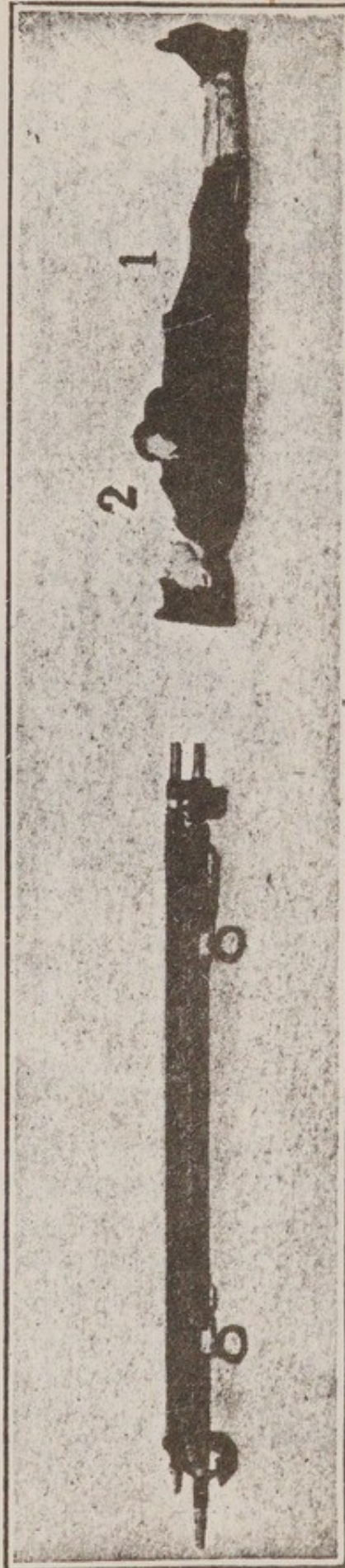
Should it be necessary in emergencies to use three bearers, this may be done with similar commands, by having the third bearer placed at the patient in such a way that he may support the knees and legs.

153. 1. **Hips**, 2. **POSTS**.

At **POSTS**, No. 1 proceeds to the patient's right hip and No. 2 to the left hip, facing the patient.

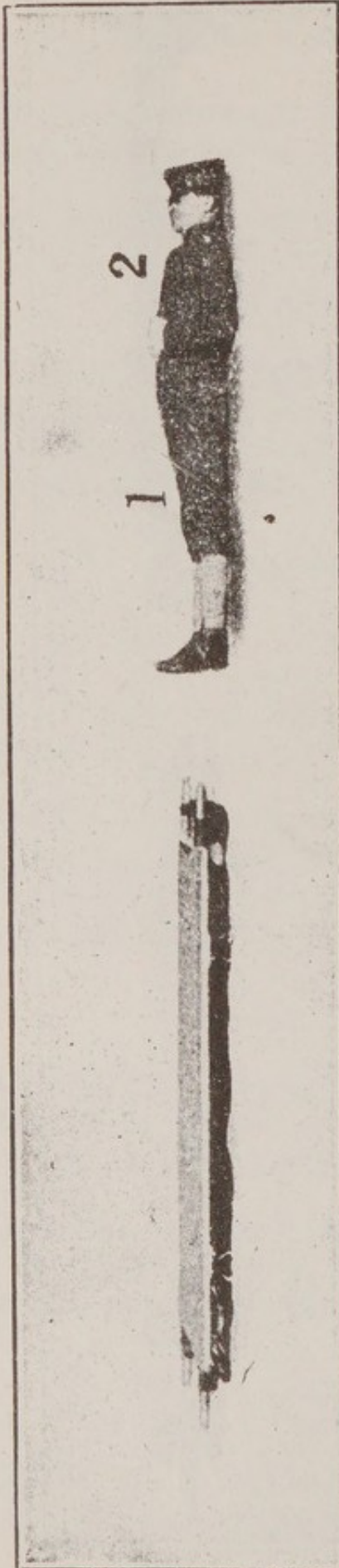


Pl. 27, Par. 150.

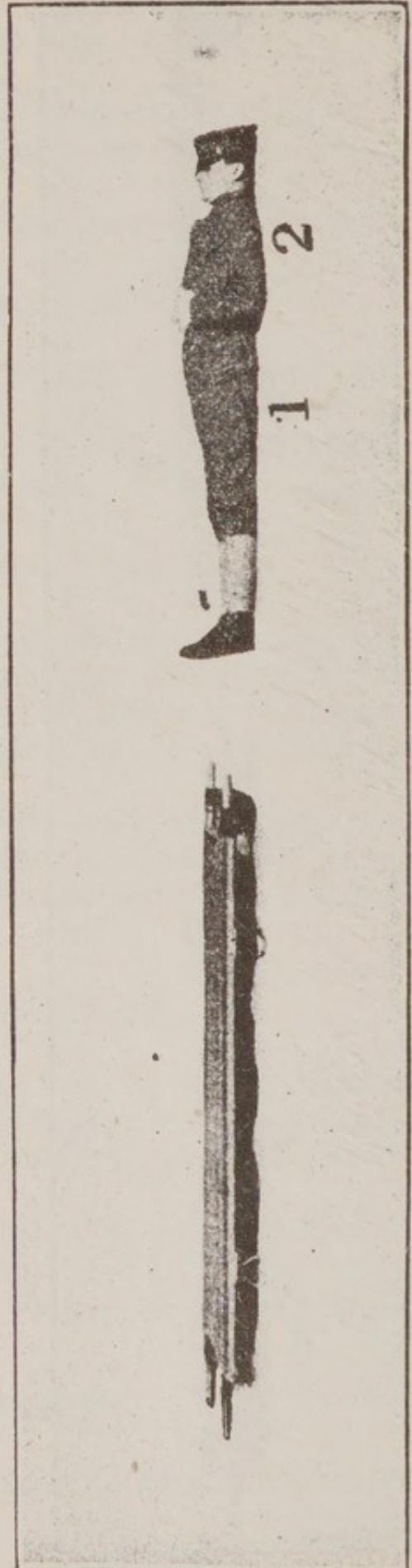


Pl. 28, Par. 150.

THE LOADED LITTER.



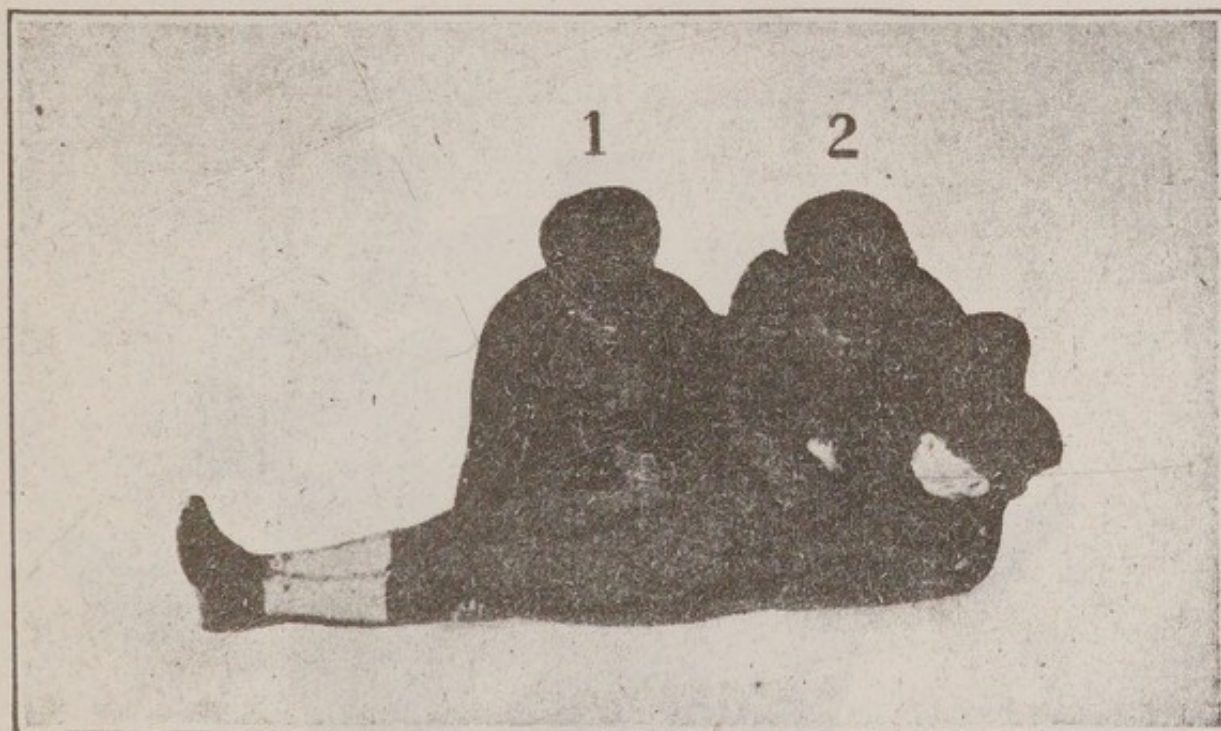
Pl. 29, Par. 150.



Pl. 30, Par. 150.

154. 1. Prepare to lift, 2. **LIFT**.

At the first command, the bearers kneel on the knee nearest the patient's feet; they then raise him to a sitting position, and pass each one hand and arm around his back, while the other hands are passed under the thighs, grasping each other. The patient, if able, clasps his arms around the bearers' necks. At **LIFT**, they lift the patient, both rising together, and carry him to the center of the side of the litter where the squad is halted.



Pl. 31, Par. 151.

155. 1. Lower, 2. **PATIENT**.

At **PATIENT**, the bearers stoop and lower the patient upon the litter to a sitting position, the patient releasing his hold around the bearers' necks. No. 2 then passes his left hand across the front of the patient's chest to the opposite armpit and grasps the patient. No. 1 releases his hold at the right side of patient, steps astride of patient's lower extremities and grasps the patient's right and left thighs just above the knee with his left and right hands, respectively. Both bearers then turn and lower the patient upon the litter, head toward No. 2, and take their positions at **litter posts** without command.

156. To *unload*, posts are taken and the patient lifted in the same way and by the same commands. At **Hips, POSTS**, the bearers take their posts at the sides of the litter and at **prepare to lift** they lift the patient to a sitting position on the side of the litter by reversing the movements heretofore described and then take the position to **prepare to lift**.

The bearers move backward if at **Side, POSTS**, and forward if at **Hips, POSTS**, until clear of the litter, when they **halt** and **lower** patient.

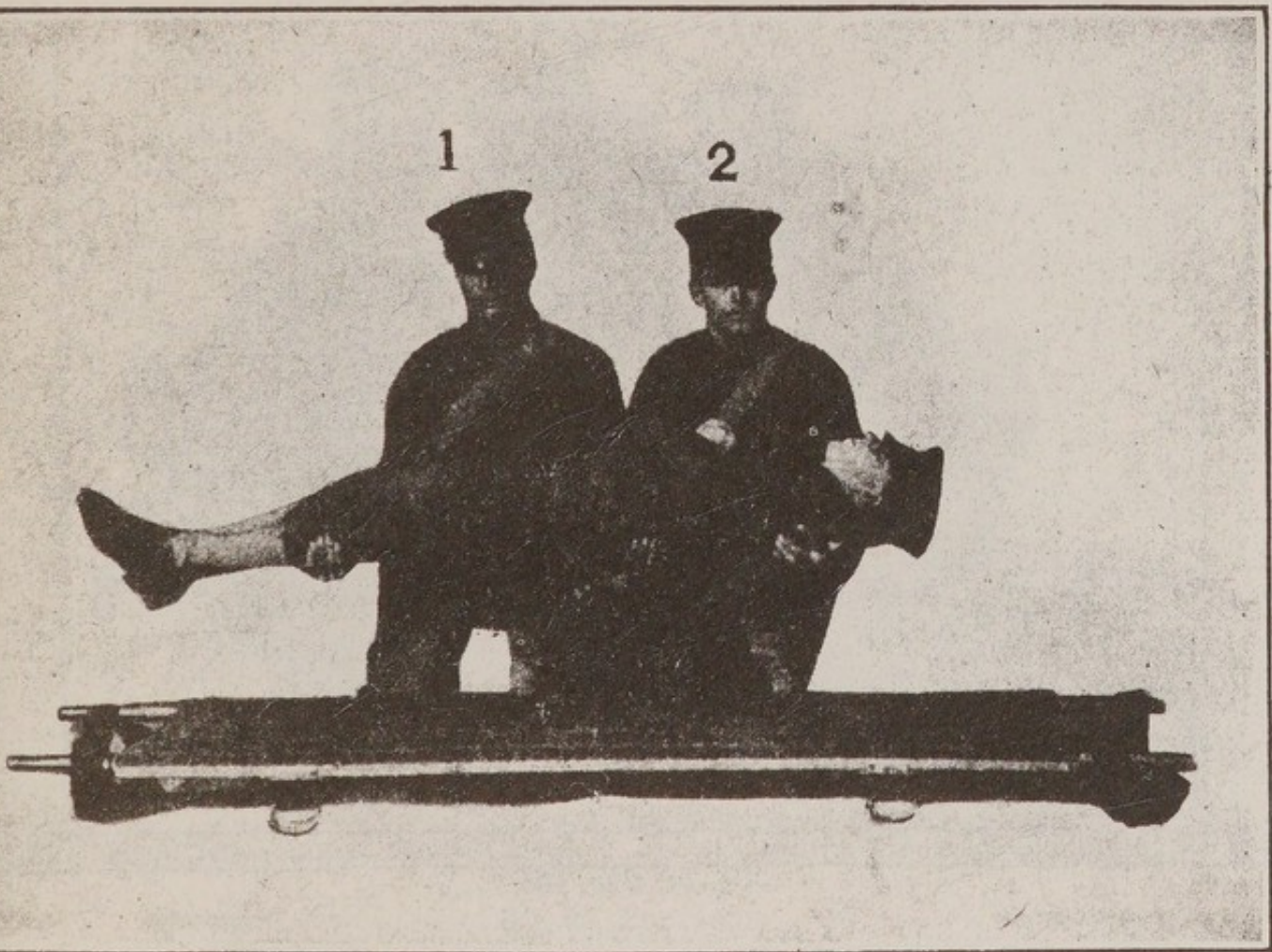


Pl. 32, Par. 151.

157. In the field, the squad having reached the patient and taken their proper positions, secure his arms and accouterments, loosen his clothing, and examine him to determine the site and nature of the injury, applying such first-aid treatment as may be necessary.

No. 2 will care for the property, and in case a rifle or pistol is taken in charge he will see that all ammunition is removed from the piece. (*C. D. R. and S. M. S. T. No. 2.*)

The drill should be made as nearly as possible like service in actual warfare. For this purpose a diagnosis tag having been attached to the clothing of the "wounded" indicating the site and character of the injury to be dressed before loading, they are directed to take positions at variable distances, in or out of sight, such as they would occupy on the battlefield.



Pl. 33, Par. 152.

The litter being at the carry, at the command **squad leaders take charge of squads**, each No. 2 assumes charge of his squad; which proceeds independently. When a patient is discovered the litter is halted and opened (by No. 2's commands) in the most convenient position, near the patient. The injury having been dressed, No. 2 commands: 1. **Right (left) side**, 2. **POSTS**: or, 1. **Hips**, 2. **POSTS**, as may be most convenient, and the patient is lifted and lowered upon the litter, as described in pars. 150-153. The arms

and accouterments of the patient are carried on the litter when practicable.

At the signal or order for assembly, the squads re-form in line lower litters and come to rest, when the patients, if still upon the litters (the dressings, if any, having been removed), are directed to rise and resume their posts, after which the litters are strapped.



Pl. 34, Par. 154.

POSITION OF PATIENT ON THE LITTER.

158. The position of a patient on the litter depends on the character of his injury. An overcoat, blanket, or other suitable and convenient article should be used as a pillow to give support and slightly raised position to the head. If the patient is faint the head should be kept low. Difficulty of breathing in wounds of the chest is relieved by a sufficient padding underneath. In wounds of the abdomen the best position is on the injured side, or on the back if the front of the abdomen is injured, the legs in either case being drawn

up, and a pillow or other available object placed under the knees to keep them bent.

In an injury of the upper extremity calling for litter transportation, the best position is on the back with the injured arm laid over the body or suitably placed by its side, or on the uninjured side with the wounded arm laid over the body. In injuries of the lower



Pl. 35, Par. 155.

extremity the patient should be on his back, or inclining toward the wounded side; in case of fracture of either lower extremity, if a splint can not be applied, it is always well to bind both limbs together.

TO PASS OBSTACLES.

159. A breach should be made in a fence or wall for the passage of the litter. If there is no gate or other opening, or should it be necessary to surmount the obstacle, the latter being not over 3 feet

high, the litter is halted and lowered and slings secured, when the commands are given:

1. At sides of litter, 2. **POSTS**.

At **POSTS**, Nos. 1 and 2 take posts on the right and left of the litter, respectively, at the center and facing it.

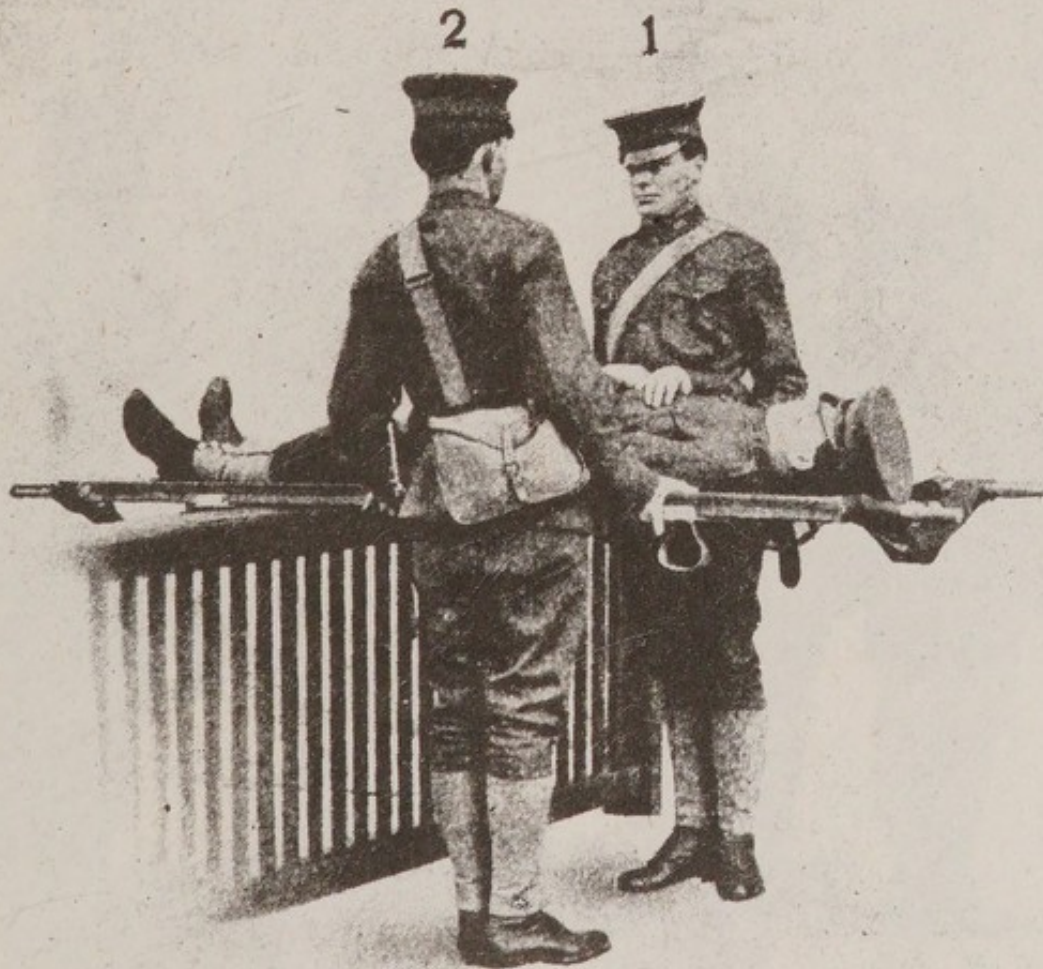


Pl. 36, Par. 155.

160. 1. Prepare to lift, 2. **LIFT**, 3. **MARCH**.

At the first command the bearers stoop and seize their respective poles with both hands; at **LIFT**, the litter is lifted, and at **MARCH**, it is advanced to the obstacle and passed over until the front stirrups have cleared it. The litter is there rested, while No. 2 steps around between the rear handles which he supports, No. 1 getting over the obstacle; No. 1 takes the front handles facing the litter and together the bearers pass the litter over until the rear

handles rest on the obstacle, when No. 2 gets over, taking left front handle, and both resuming **At sides of litter, POSTS**, move the litter forward until free of the obstacle, when they **halt** and **lower litter**, and resume **litter posts** without command.

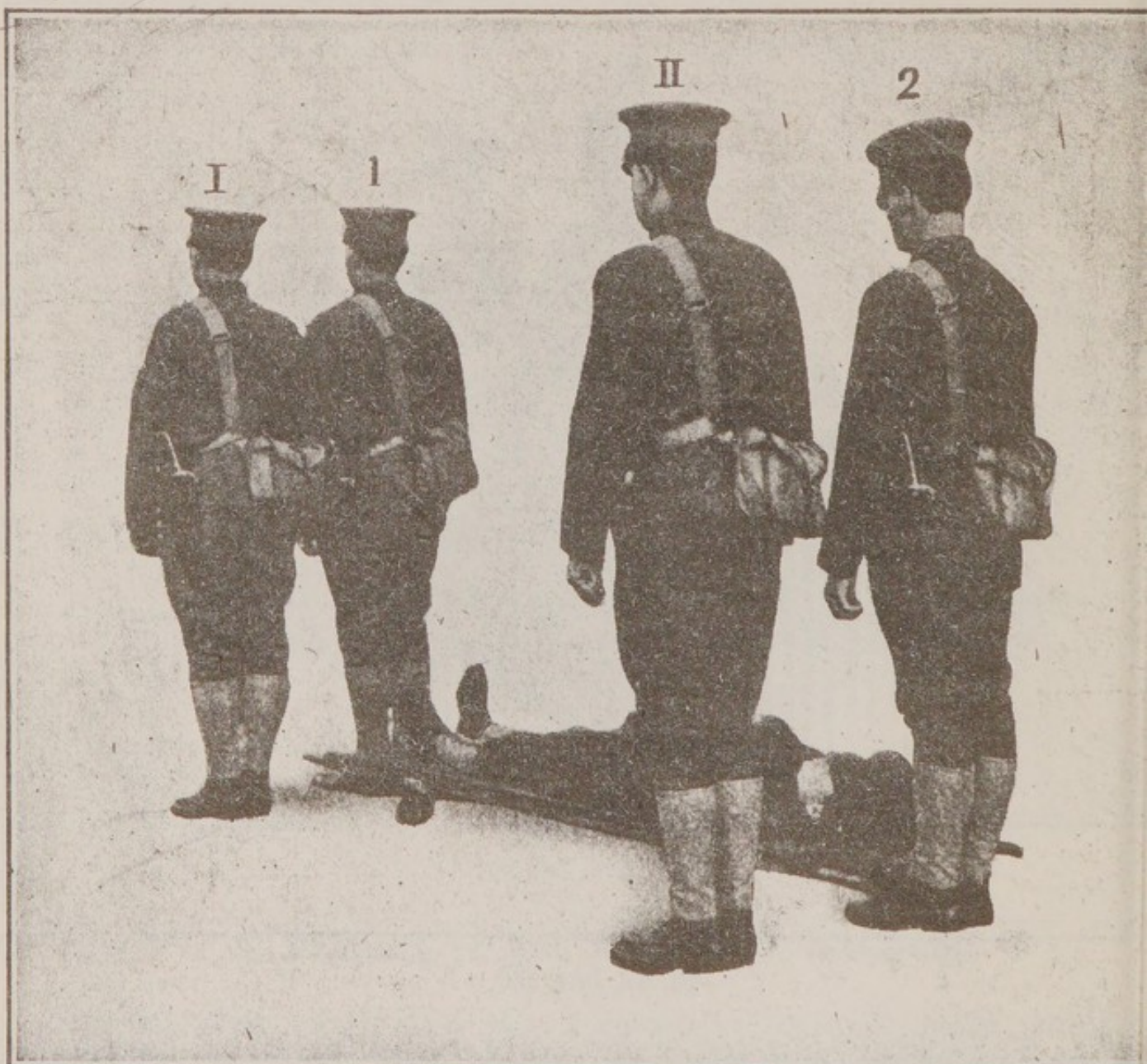


Pl. 37, Par. 160.

161. The passage of a cut or ditch not over 3 feet deep is effected in a similar manner, but without special command. The litter being *halted* and *lowered* at its edge, No. 1 descends into the ditch and takes hold of the front handles, facing the litter. Both bearers then support and advance the litter until only the rear stirrups or handles rest upon the edge, when No. 2 descends and the litter is carried across. *These directions are general.*

BEARER WORK WITH INCREASED NUMBERS.¹

162. Under exceptional circumstances, as in ascending or descending stairs, when the patient is very heavy, the ground difficult, or an obstacle over 3 feet high has to be surmounted, it may be necessary to use additional bearers.



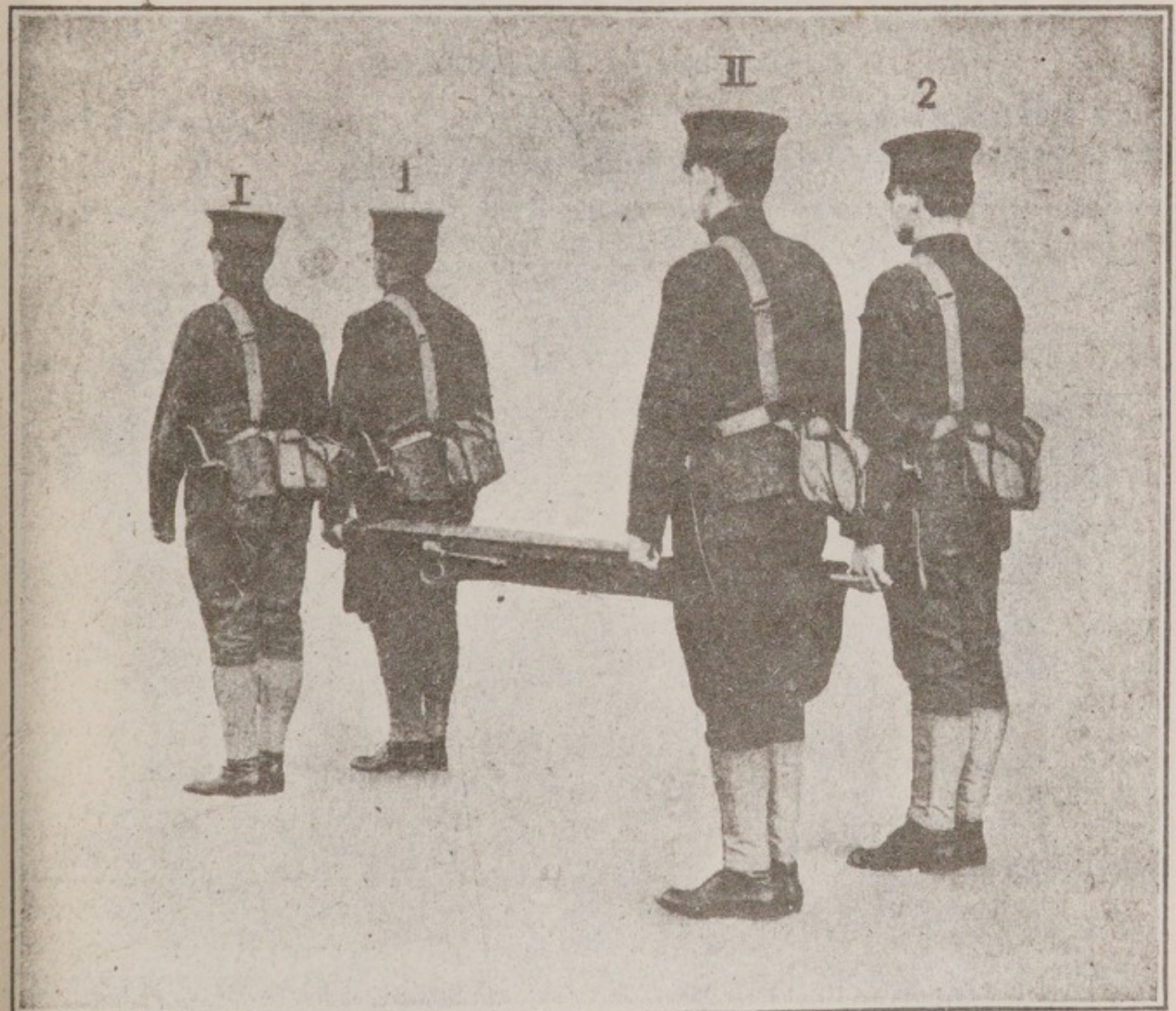
Pl. 38, Par. 164.

163. When three bearers are available, the third bearer gives aid where most needed; in loading and unloading he usually places the litter under the patient or removes it, but he may assist

¹ The positions of the numbers of the additional squads are shown in the plate by Roman numerals.

supporting a fractured limb. In litter bearing he acts as a relay, or assists in supporting either end of the litter as directed.

164. When necessary to use an additional squad, the first squad being at litter posts the commands are given:



Pl. 39, Par. 164.

1. Additional squad, 2. Litter, 3. POSTS.

The post of the additional squad is on the left of the litter close to it and facing the front, No. 1 by the front handle and No. 2 by the rear handle; No. 2 of the first squad is in command. If the first squad is at the **carry** or **ground** its No. 2 steps to the right side of the litter when the second squad takes posts, and if at the **carry** shifts the litter from his right to his left hand.

165. To change posts, the litter being at the lower or ground:

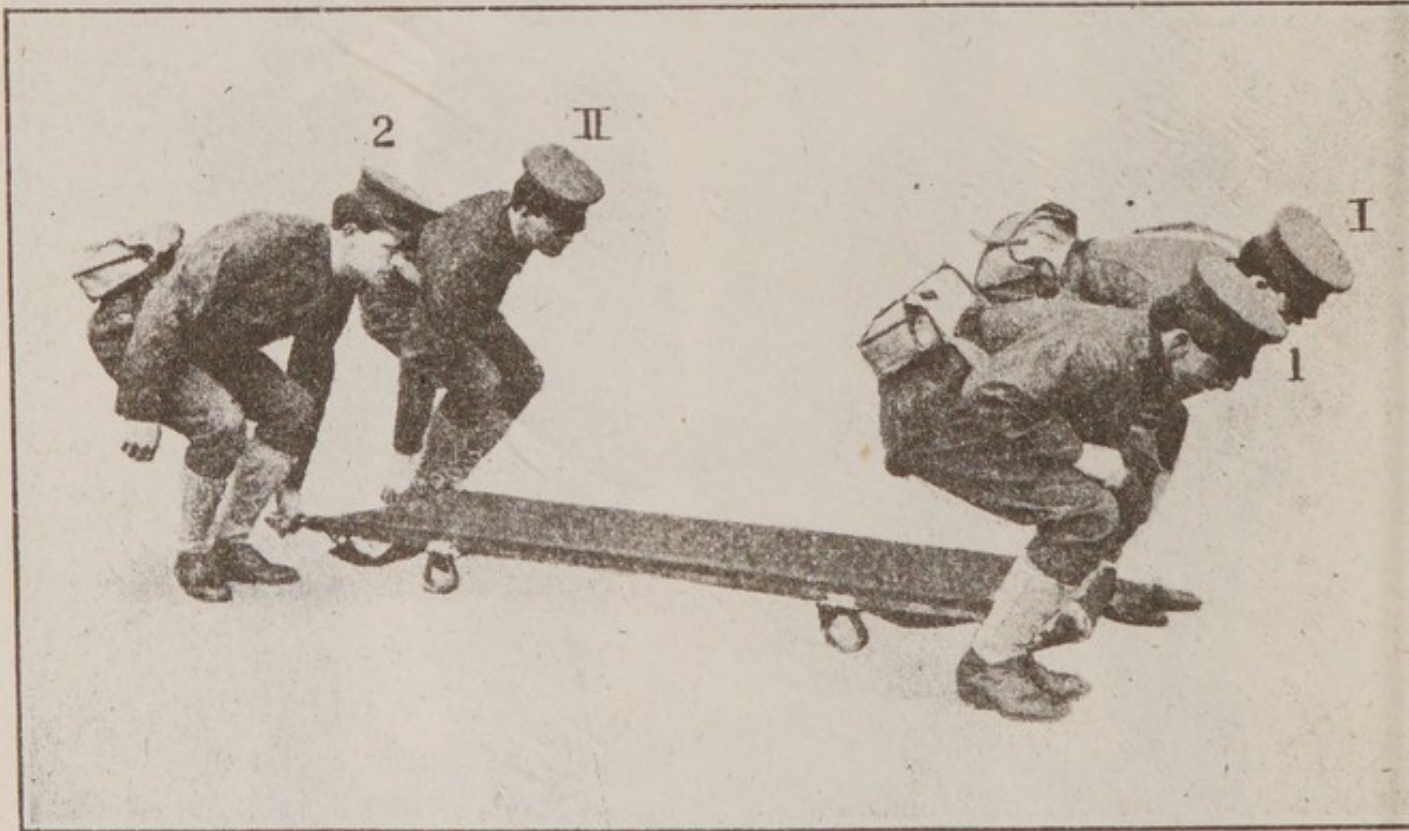
1. Change, 2. **POSTS.**

At **POSTS**, the squads change places, retaining their relative positions in the squad.

166. To change bearers, litter at the carry:

1. Change, 2. **BEARERS.**

At **BEARERS**, the litter is shifted from one squad to the other, the position of the squads remaining unchanged.



Pl. 40, Par. 168.

167. To carry the litter by four bearers, the litter being lowered and the squads at litter posts:

1. Four bearers, 2. Litter, 3. **POSTS.**

At **POSTS**, the first squad steps outside the right handles of the litter, facing the front and opposite the additional squad.

168. 1. Prepare to lift, 2. **LIFT.**

At the first command all stoop and grasp with one hand the handle nearest them and at **LIFT**, rise erect.

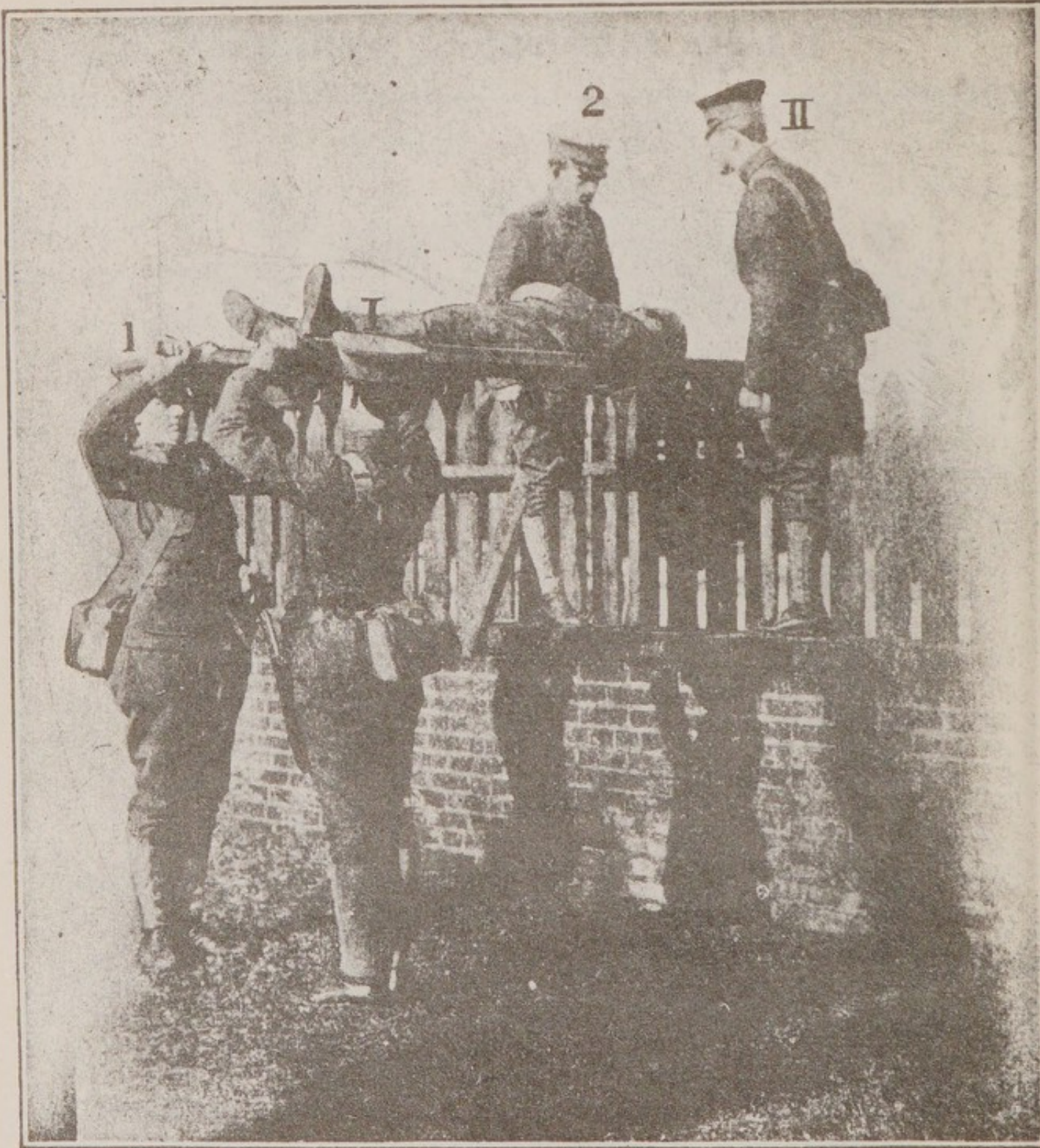
169. To surmount an obstacle over 3 feet high, the litter being lifted by *four bearers* (two squads) the commands are given:

1. Raise, 2. **LITTER**, 3. **MARCH**.



Pl. 41, Par. 169.

At the second command the bearers face the litter, grasp the handles with both hands, and carefully raise it to the level of the obstacle; at **MARCH** they carry it over until the front stirrups have cleared, where it is rested. The front bearers cross the obstacle and



Pl. 42, Par. 169.

resume hold of the handles on the other side; the litter is then advanced until only the rear handles rest on the obstacle, when the rear bearers get over and resume hold of their handles; the litter is then halted and lowered.

170. When it is necessary to use four bearers to load, the commands are:

1. **Four bearers**, 2. **Right (left) side**, 3. **POSTS**.

At **POSTS**, the first squad take their usual posts; No. 1 of the additional squad takes post opposite No. 1 of the first squad, and No. 2 at the right (left) ankle. (Plates 43-46.)

171. 1. **Prepare to lift**, 2. **LIFT**.

At the first command all the bearers kneel on the knee nearest the patient's feet (right knee if on the right of the patient, and on the left knee if on his left); No. 2, second squad, passes both forearms under the patient's legs, carefully supporting the fracture, if there be one; the Nos. 1 pass their arms under the small of his back and thighs, not locking hands; No. 2, first squad, passes one hand under his neck to the farther armpit, with the other supporting the nearer shoulder.

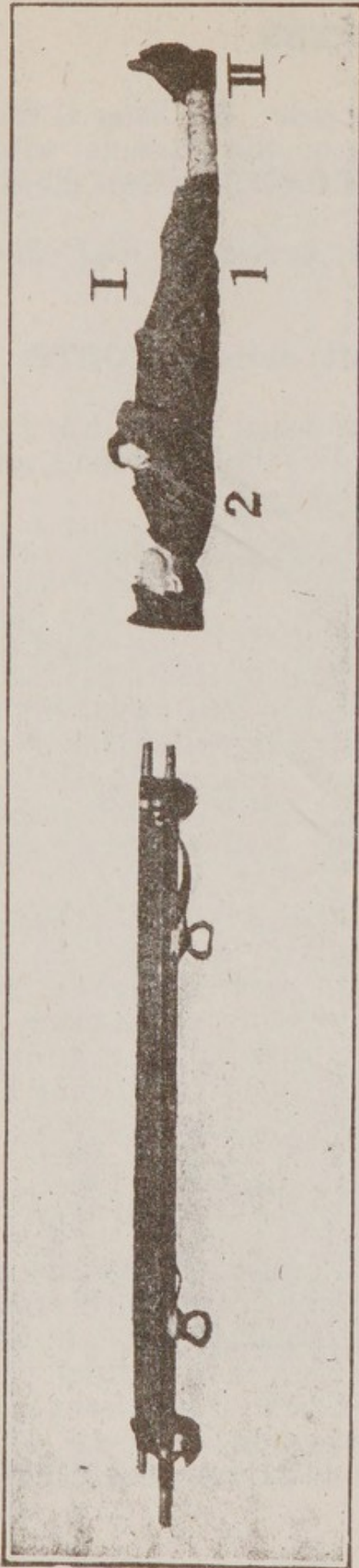
At the second command all lift together slowly and carefully and place the patient upon the knees of the three bearers. As soon as he is firmly supported there, the bearer on the free side relinquishes his hold, passes quickly and by the shortest line to the litter, which he takes up by the middle, one pole in each hand, and returning rapidly, places it under the patient and against the bearers' ankles. (Plates 47-48.)

172. 1. **Lower**, 2. **PATIENT**.

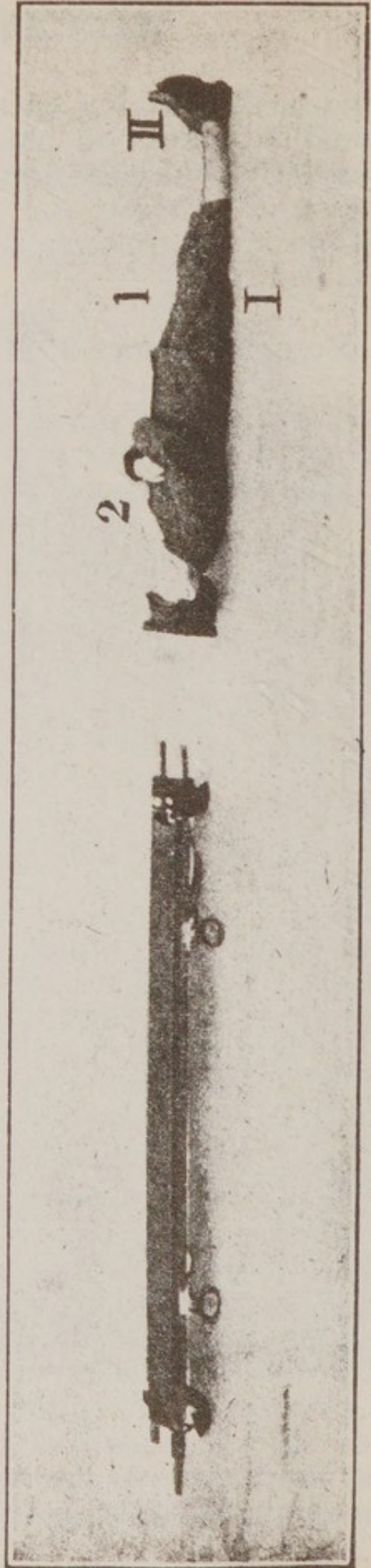
The free bearer stoops and assists the other numbers in gently and carefully lowering the patient upon the litter. The bearers then rise and at once resume their positions at **litter posts** (par. 167).

173. To unload, posts are taken at patient as in loading.

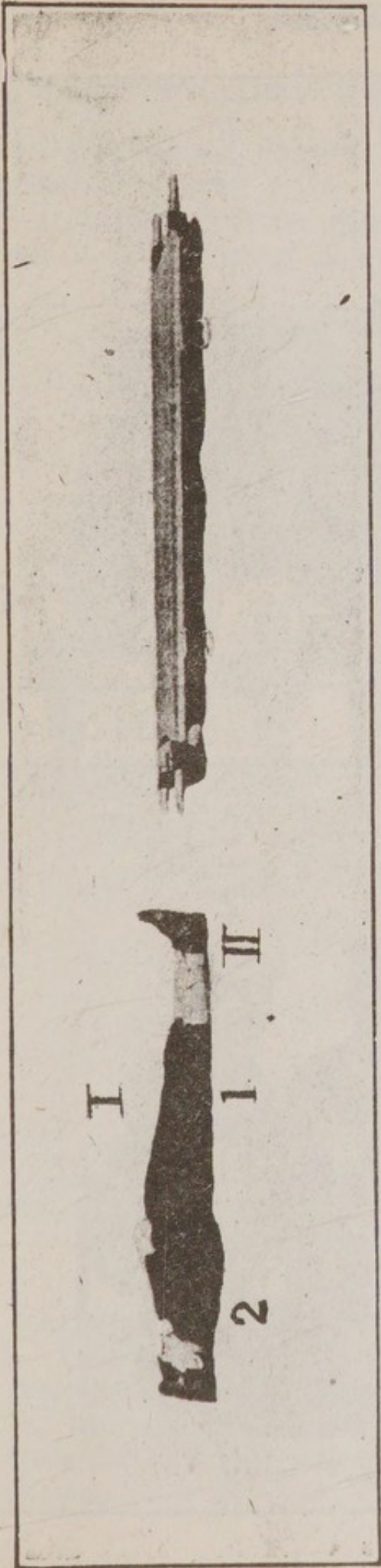
At the commands, **Prepare to lift**, **LIFT**, the patient is lifted and placed upon the knees of the three bearers, as in par. 171; the free bearer then removes the litter, and at **Lower**, **PATIENT**, all lower him carefully to the ground.



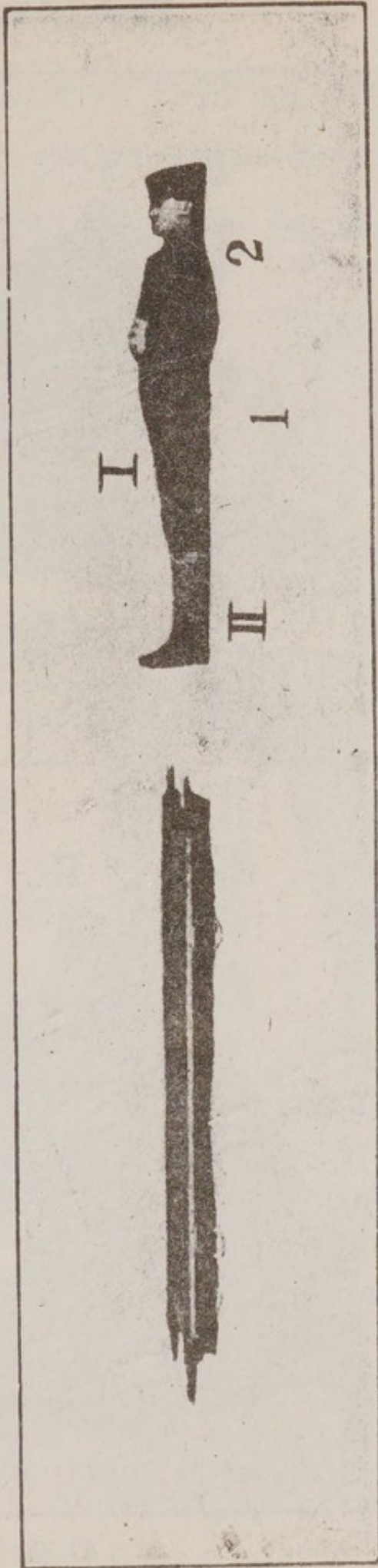
Pl. 43, Par. 170.



Pl. 44, Par. 170.

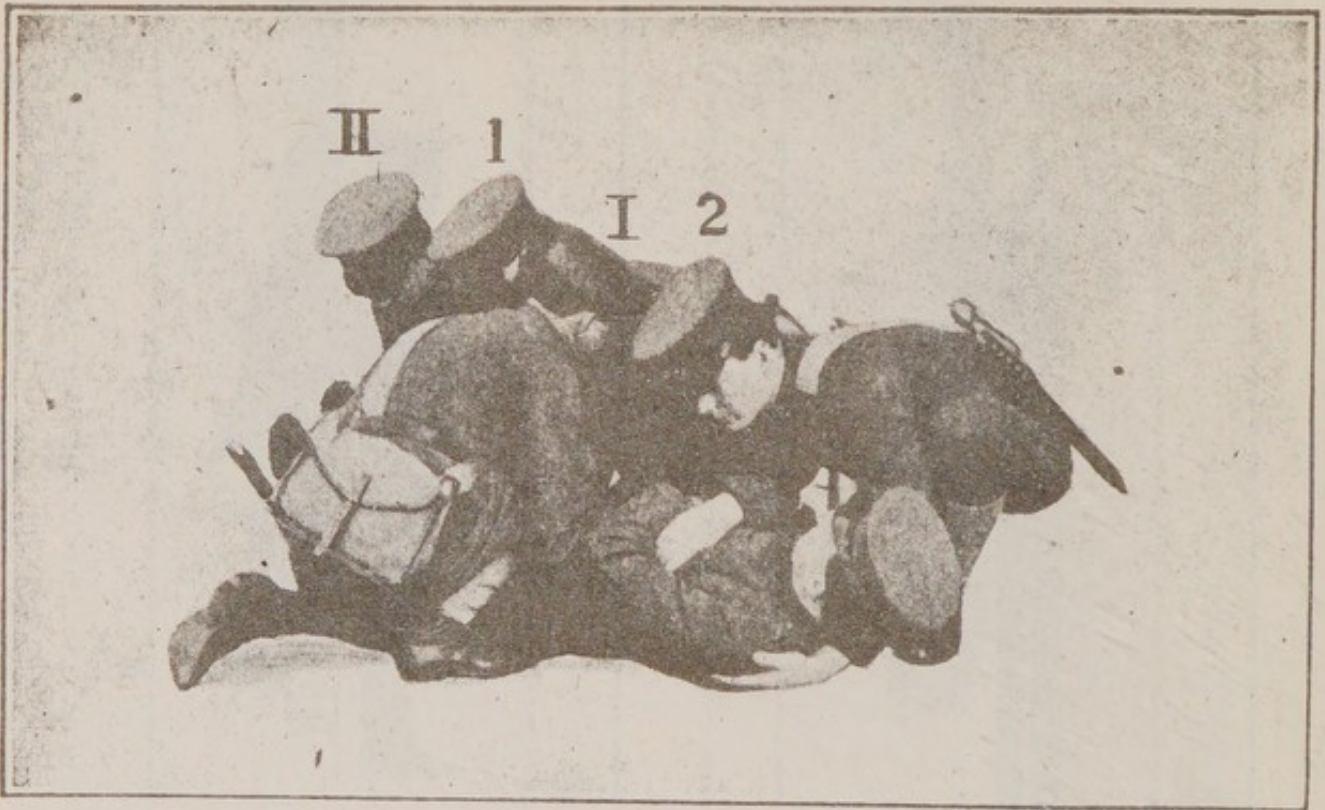


Pl. 45, Par. 170.

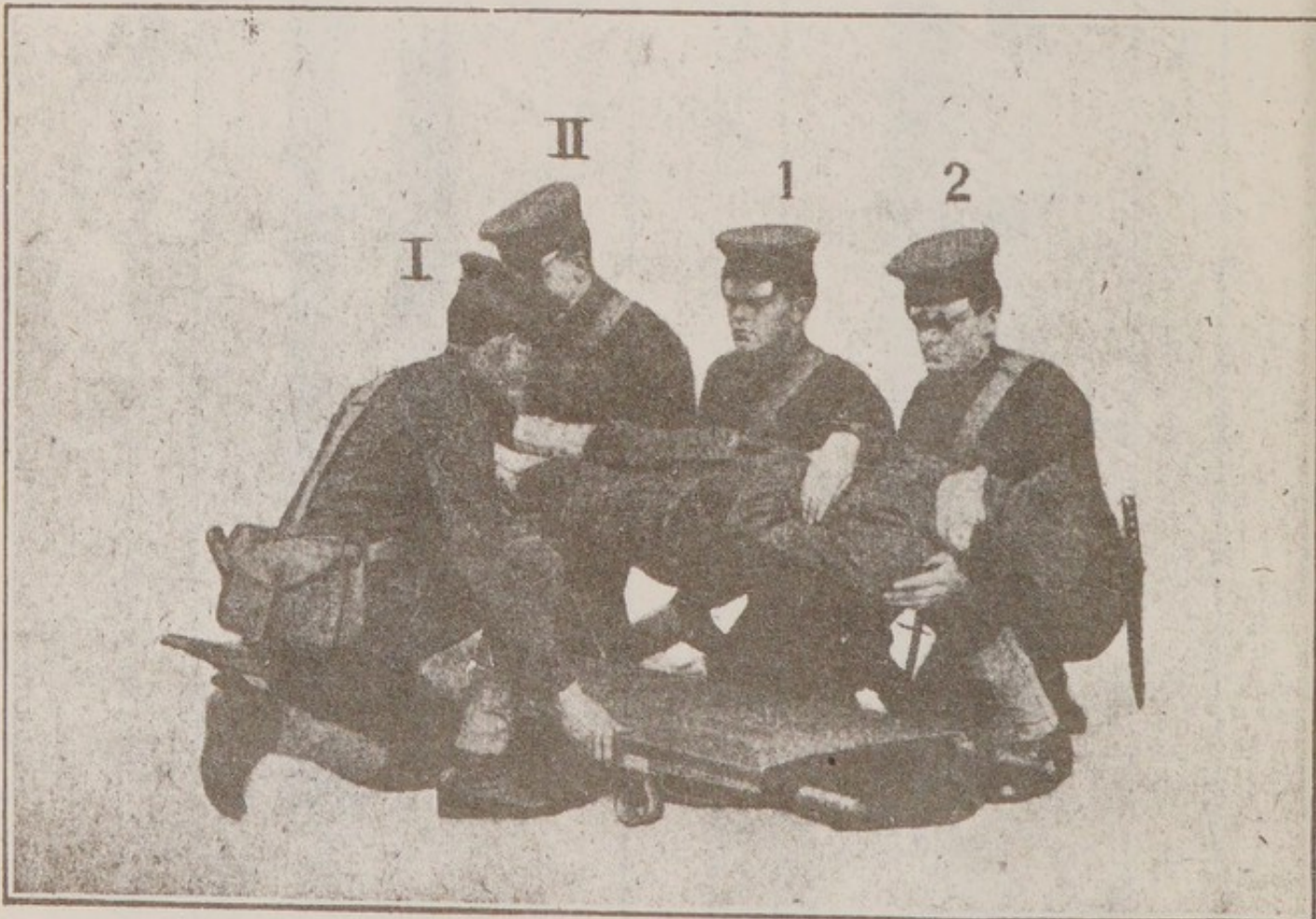


Pl. 46, Par. 170.

THE LOADED LITTER.



Pl. 47, Par. 171.

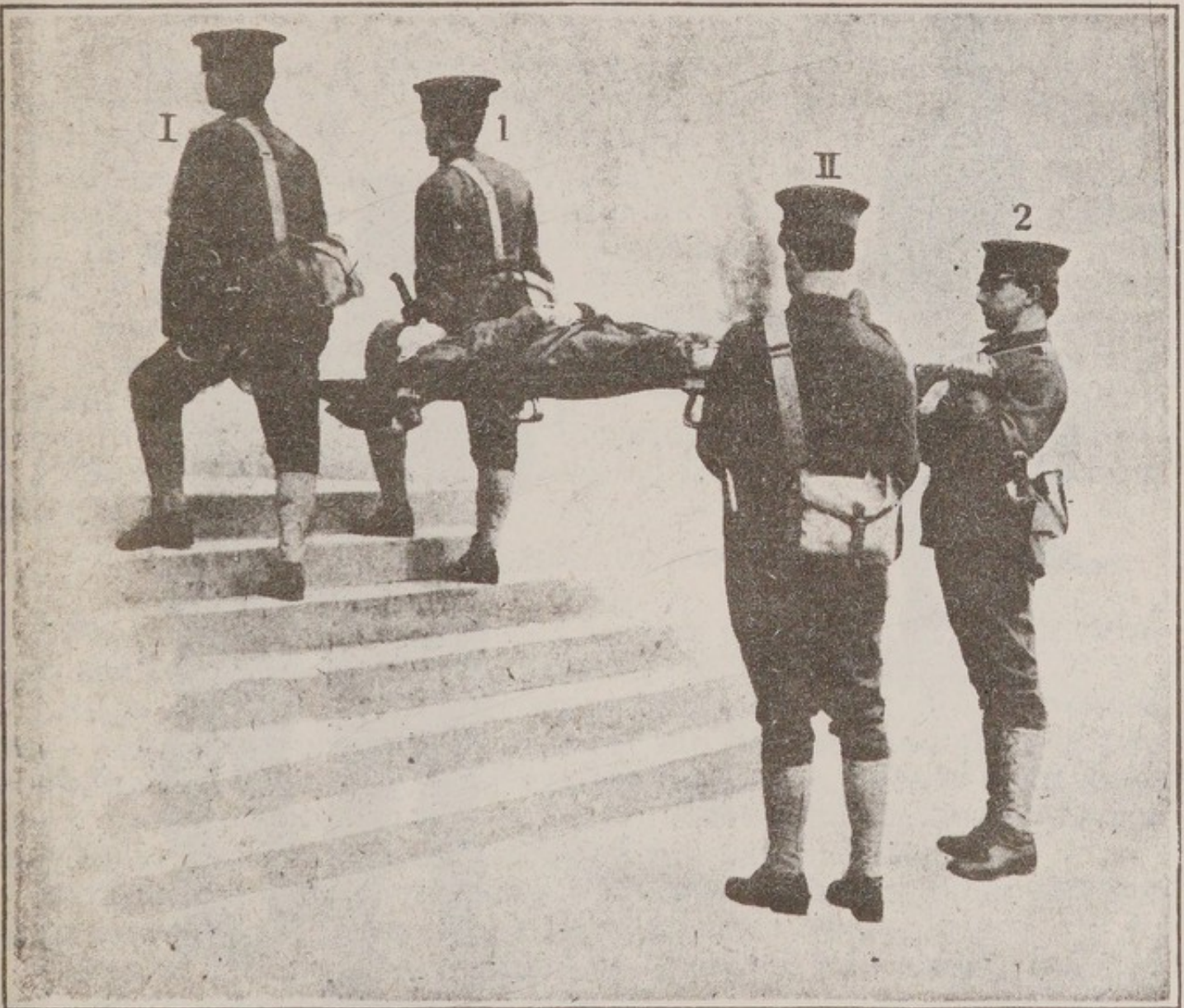


Pl. 48, Par. 171.

TO CARRY A LOADED LITTER UPSTAIRS.

174. The loaded litter is usually carried upstairs head first, and downstairs feet first.

To carry loaded litter upstairs: Two squads are required for this movement. The litter is marched to the foot of the stairs in the



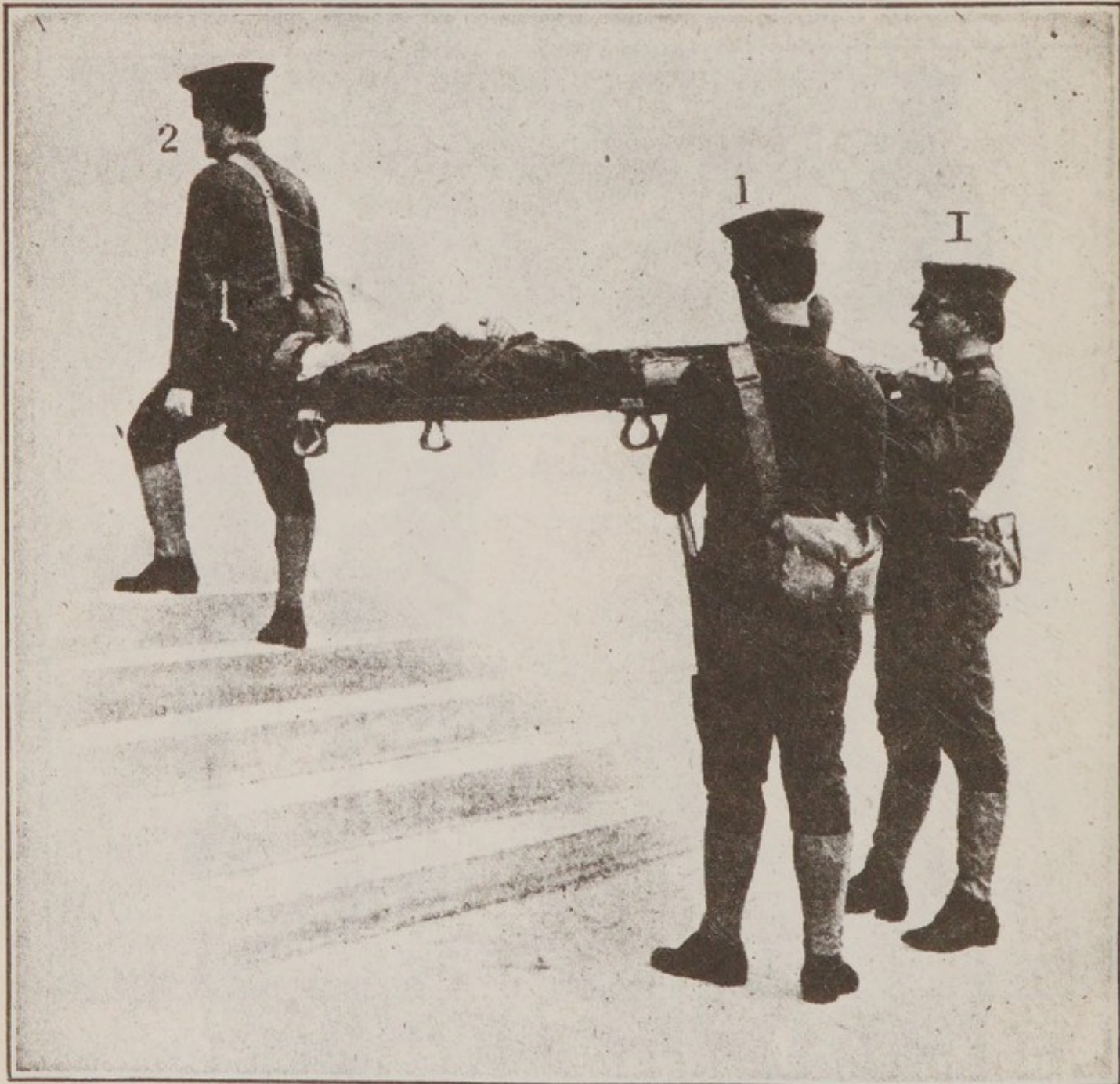
Pl. 49, Par. 174.

usual manner, wheeled about, halted, lowered, and slings secured. It is then lifted by four bearers (par. 169), using both hands when necessary, and carried up. The litter must be kept as level as possible, the upper bearers lowering and the lower bearers raising their ends for this purpose and being careful to see that the litter is not tilted.

THE LOADED LITTER.

TO CARRY A LOADED LITTER DOWNSTAIRS.

175. The litter is carried downstairs in the same manner as it is carried upstairs, except that it is not wheeled about.



Pl. 50, Par. 176.

176. When for any reason it is necessary to use three bearers the commands 1. **Three bearers, prepare to lift**, 2. **LIFT**, are used. At the first command the additional bearer takes post outside the left

handle at the foot of the litter, opposite No. 1, who steps outside the right handle. Both face the litter, stoop, and grasp their respective poles. No. 2 faces about, stoops, and grasps his handles. At lift, the litter is lifted and carried up (or down) the stairs. If the litter is to be carried downstairs by three bearers, No. 2 does not face about.

FROM LITTER TO BED.

177. The litter is placed at the foot of the bed, as nearly as possible in line with it, and the patient is transferred to the bed, as described in par. 149. Often it is simpler, after the patient is lifted, to roll the bed in front of the bearers, who then lower the patient upon it. If there is no fracture or other contraindication the litter may be brought to the side of the bed and level with it and held there, while the patient is directed to roll over onto the bed. If a third man is available, as he usually is in hospitals, the litter may be halted and lowered at the side of the bed when, after the patient is lifted, the litter is drawn out by the third bearer, the other two stepping forward and lowering the patient upon the bed.

178. From litter to litter is executed in the same manner as from litter to bed.

IMPROVISATION OF LITTERS.

179. Many things can be used for this purpose: Camp cots, window shutters, doors, benches, ladders, etc., properly padded.

Litters may be made with sacks or bags of any description, if large and strong enough, by ripping the bottoms and passing two poles through them and tying crosspieces to the poles to keep them apart; two, or even three, sacks placed end to end on the same poles may be necessary to make a safe and comfortable litter.

Bedticks are used in the same way by slipping the poles through holes made by snipping off the four corners.

Pieces of matting, rug, or carpet trimmed into shape, may be fastened to poles by tacks or twine.

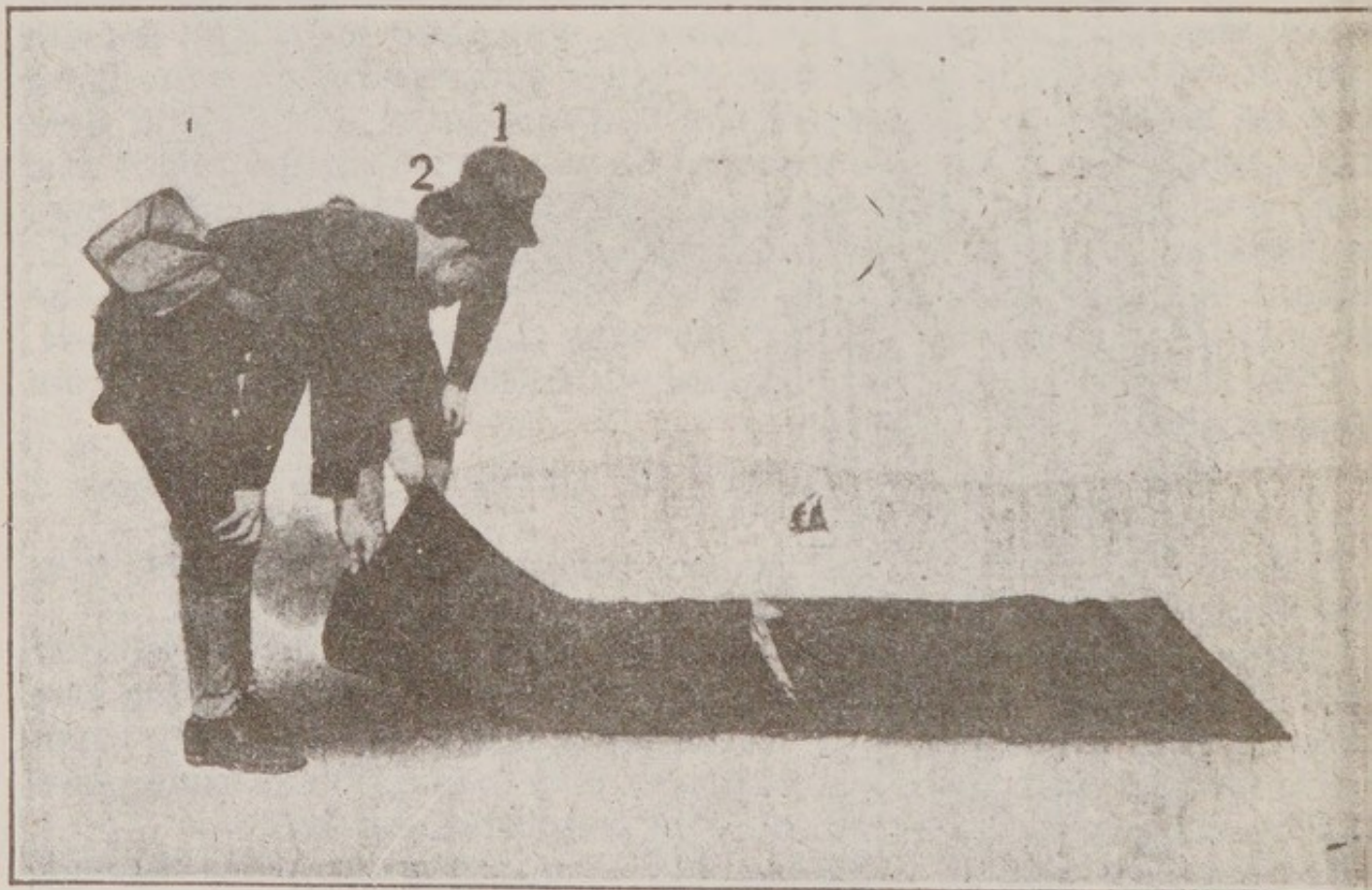
Straw mats, leafy twigs, weeds, hay, straw, etc., covered or not with a blanket, will make a good bottom over a framework of poles and cross sticks.

Better still is a litter with bottom of ropes or rawhide strips, whose turns cross each other at close intervals.

180. The usual military improvisation is by means of rifles¹ and blankets. Each bearer should be supplied with a rifle carried at the order. They assure themselves that the rifles are unloaded. The blanket rolled up is carried by No. 2 over the right shoulder.

1. Prepare, 2. **BLANKET LITTER.**

At the second command the bearers lay their rifles on the ground and face each other; No. 2 slipping off his blanket roll, gives one



Pl. 51, Par. 180.

end of the blanket to No. 1, and together they spread it out lengthwise on the ground. No 1 then places his rifle across the center of the blanket, the butt toward the original front of the squad and trigger guard in. Both bearers (No. 1 at the left front, No. 2 at the left rear corner) fold the blanket over the rifle. No. 2 then places his rifle over the center of the new fold and the blanket is folded

¹ Owing to the shortness of the present rifle it is of little use in this improvisation but the method may be used with poles, instead of rifles.

over the second rifle, as over the first. The bearers then take position at **litter posts**, without command. When available, four bearers should be used for carrying this litter.



Pl. 52, Par. 180.

181. When no longer required, the commands are given:

1. Take apart, 2. **BLANKET LITTER.**

At the second command the litter is taken apart, the blanket rolled up and placed over the right shoulder of No. 2, after which the bearers take their rifles and resume their original position in line.

182. Should it be desirable, the following method may be used. One-half of the blanket is rolled lengthwise into a cylinder, which is placed along the back of the patient, who has been turned carefully on his side. The patient is then turned over upon the blanket and the cylinder unrolled on the other side. The rifles are then laid down and rolled tightly in the blanket, each a like number of turns until the side of the body of the patient is reached, when they are turned trigger guards up.

183. A litter may also be prepared with two rifles and two or three blouses, by turning the blouses lining out, and buttoning them up, sleeves in, when the rifles are passed through the sleeves the backs of the blouses forming the bed.

METHODS OF REMOVING WOUNDED WITHOUT LITTER.

By the rifle seat.

184. A good seat may be made by running the barrels of two rifles through the sleeves of an overcoat, turned inside out and buttoned up, sleeves in, so that the coat lies back up, collar to the rear. The front bearer rolls the tail tightly around the barrels and takes his grasp over them; the rear bearer holds by the butts, trigger guards up.

185. A stronger seat is secured in the following manner: A blanket being folded once from side to side, a rifle is laid transversely upon it across its center, so that the butt and muzzle project beyond the edges; one end of the blanket is folded upon the other end and a second rifle laid upon the new center, in the same manner as before. The free end of the blanket is folded upon the end containing the first rifle, so as to project a couple of inches beyond the first rifle. The litter is raised from the ground with trigger guards up.

By one bearer.

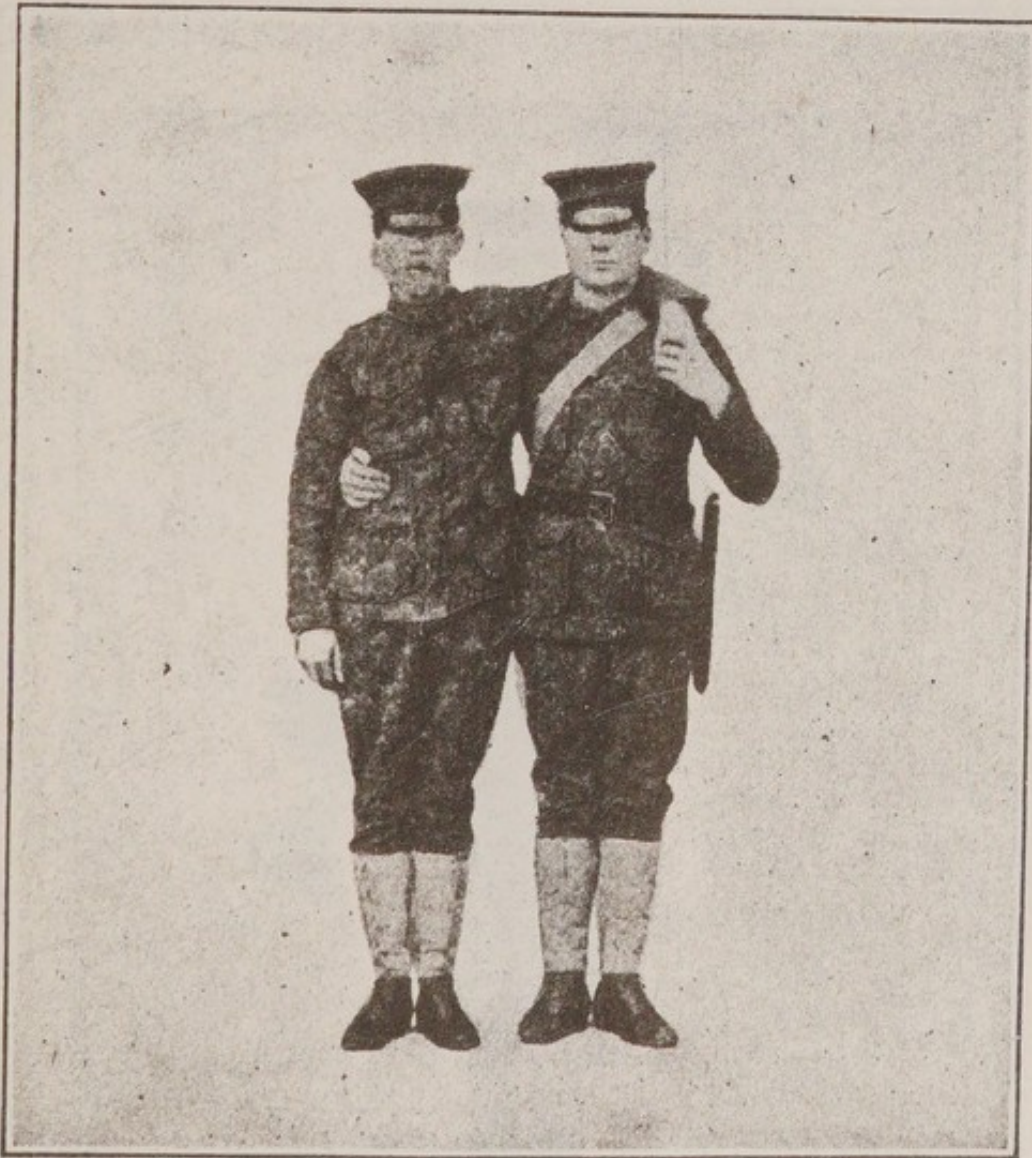
186. A single bearer may carry a patient in his arms or on his back.

In instructing a detachment in these movements, the detachment being in line, the patients are directed to lie down in front of the bearers.

187.

1. In arms, 2. LIFT.

At **LIFT**, each bearer, turning patient on his face, steps astride his body, facing toward the patient's head, and with hands under his armpits lifts him to his knees; then clasping hands over abdomen, lifts him to his feet; he then with his left hand seizes the patient by



Pl. 53, Par. 187.

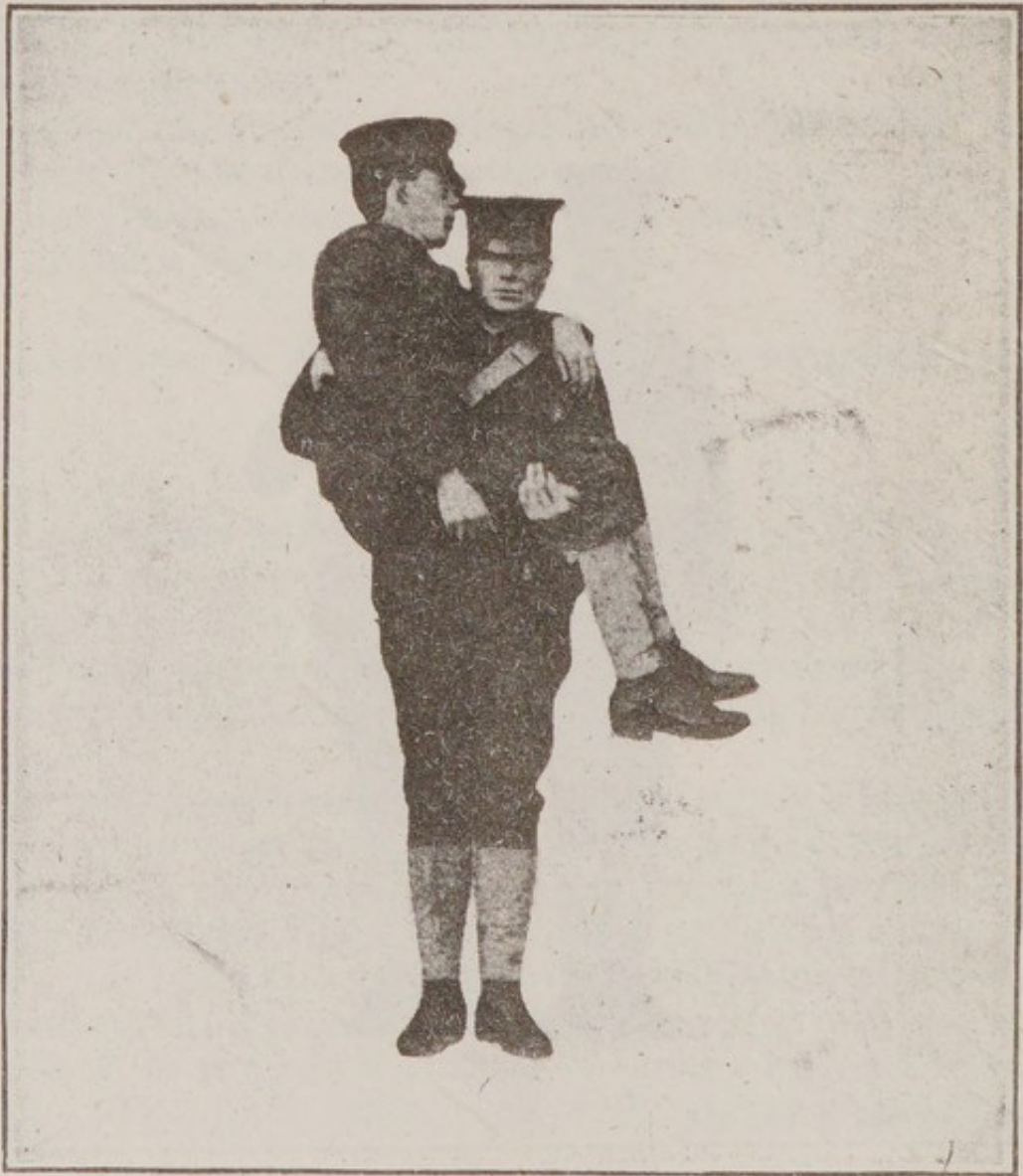
the left wrist and draws left arm around his (the bearer's) neck and holds it against his left chest, the patient's left side resting against his body, and supports him, with his right arm about the waist.

From this position the bearer with his right arm upon the patient's back, passes his left under thighs and lifts him into position, carrying him well up.

188.

1. Across back, 2. LIFT.

At **LIFT**, the patient is first lifted erect as described in previous paragraph, when the bearer with his left hand seizes the right wrist of the patient and draws the arm over his head and down upon his



Pl. 54, Par. 187.

left shoulder, then shifting himself in front, stoops and clasps the right thigh with his right arm passed between the legs, his right hand seizing the patient's right wrist; lastly the bearer with his left hand grasps the patient's left and steadies it against his side, when he rises.

189.

1. Astride of back, 2. LIFT.

At **LIFT**, the patient is lifted erect (as described), when the bearer shifts himself to the front of the patient, back to patient, stoops and grasping his thighs, brings him well upon his back.

As the patient must help himself by placing his arms around the bearer's neck, this method is impracticable with an unconscious man.



Pl. 55, Par. 188.

190. In lowering the patient from these positions the motions are reversed. Should the patient be wounded in such a manner as to require these motions to be conducted from the right side instead

THE LOADED LITTER.

of left, as laid down, the change is simply one of hands—the motions proceed as directed, substituting right for left and *vice versa*.



Pl. 56, Par. 189.

By two bearers.

191. Besides the methods (already described) for carrying patients to litter.

By the extremities:

1. **Head and feet,** 2. **POSTS.**

At **POSTS**, bearers take position at patient, No. 1 between the patient's legs and No. 2 at his head, both facing toward his feet.

1. Prepare to lift, 2. LIFT.

At the first command, the rear bearer having raised the patient to a sitting posture, clasps him from behind around the body under



Pl. 57, Par. 191.

the arms, while the front bearer, standing between the legs, passes his hands from the outside under the flexed knees. At **LIFT**, both rise together.

This method requires no effort on the part of the patient, but is not applicable to severe injuries of the extremities.

THE LOADED LITTER.

To place a patient on horseback.

192. The help required to mount a disabled man will depend upon the site and nature of his injury; in many cases he is able to help himself materially. The horse, blindfolded if necessary, to be held by an attendant.



Pl. 58, Par. 192.

To load from the near side, the commands are:

1. **Left side**, 2. **POSTS**. 1. Prepare to lift, 2. **LIFT**, 3. **MOUNT**.

The patient having been lifted, at **MOUNT**, is carried to the horse, patient's body parallel to that of the horse and close to its side,

his head toward the horse's tail. He is then carefully raised and carried over the horse until his seat reaches the saddle, when he is lifted into position. No. 1 goes to the offside and puts the patient's right foot into the stirrup. No. 2 puts the left foot in the stirrup.



Pl. 59, Par. 192.

When necessary to load from the offside, the bearers take posts **right side**. When a patient is entirely helpless two squads may be used, three bearers on one side, while the fourth goes to the offside of the horse.

193. To dismount the commands are:

1. Left side, 2. **POSTS.** 1. Prepare to dismount, 2. **DISMOUNT.**

At **Prepare to dismount**, the patient's feet are disengaged from the stirrups and his right leg swung over the pommel, No. 1 going to the offside for the purpose and then resuming his post at the left side. At **DISMOUNT**, the patient is brought to a horizontal position, gently lifted over the saddle, and carried backward until free of the horse, when the squad halts and lowers patient.

194. The patient once mounted should be made as safe and comfortable as possible. A comrade may be mounted behind him and guide the horse; otherside a lean-back may be provided, made of a blanket roll, a pillow, or a bag filled with leaves or grass. If the patient be very weak, the lean-back may be made of a sapling bent into an arch over the cantle of the saddle, its ends securely fastened, or of some other framework, to which the patient is bound.

THE TRAVOIS.

195. The travois is a vehicle intended for transporting the sick or wounded when the use of wheeled vehicles or other means of transportation is impracticable. It consists of two long poles, one end of each of which is attached to the side of a horse, like a shaft, while the other end drags on the ground. Behind the horse, crossbars extend between these poles, holding them parallel and affording support for a patient.

A travois may be improvised by cutting poles about 16 feet long and 2 inches in diameter at the small end. These poles are laid parallel to each other, large ends to the front, and $2\frac{1}{2}$ feet apart; the small ends about 3 feet apart, and one of them projecting about 8 or 10 inches beyond the other. The poles are connected by a crossbar about 6 feet from the front ends and another about 6 feet back of the first, each notched at its ends and securely lashed at the notches to the poles. Between the crosspieces the litter bed, 6 feet long, is filled in with canvas, blanket, etc., securely fastened to the poles and crossbars, or with rope, lariat, rawhide strips, etc., stretching obliquely from pole to pole in many turns, crossing each other to form the basis for a light mattress or an improvised bed; or a litter may be made fast between the poles to answer the same purpose. The front ends of the poles are then securely fastened to the saddle of the animal. A breast strap and traces should, if possible, be improvised and fitted to the horse. On the march the bearers should be ready to lift the rear end of the travois when passing over obstacles, crossing streams, or going up hill.

THE AMBULANCE, MODEL, 1909.

196. The ambulance is a four-wheeled vehicle, ordinarily drawn by two animals in garrison and four in the field. It provides transportation for eight men sitting or four recumbent on litters, or four sitting and two recumbent. It is fitted with two hinged seats which, when not used as such, are folded one against each side. The arrangements for supporting the litters consist of two center posts and eight straps. Fastened to each of the center posts is a hanger for the inside handles of the litter, and opposite each hanger and attached to the side of the ambulance is a strap to hold the outside handles. The floor is $7\frac{1}{2}$ feet long and 4 feet wide.

Spare parts and additional articles are carried by each ambulance. In the field there should be an orderly with each ambulance, who rides on the seat beside the driver. When the orderly is present it is his duty to open and close the tail gate, raise and lower the curtain (when necessary), and, as far as practicable, to prepare the interior of the ambulance before the patients arrive. He may also assist in loading and unloading.

197. The litters are said to be **packed** when they are strapped and placed upon the brackets. The seats are said to be **prepared** when they are horizontal, supported by the legs; and **packed** when they are hooked against the sides of the wagon.

TO TAKE POSTS AT AMBULANCE.

198. The squad being in the vicinity of the ambulance:

1. Ambulance, 2. **POSTS.**

At **POSTS**, No. 1 takes position one pace behind the left rear wheel, and No. 2 one pace behind the right rear wheel, both facing the ambulance.

In case of a litter lowered in rear of an ambulance preparatory to loading, head of patient toward it, at the command **posts** each bearer faces about and proceeds directly to his post.

THE AMBULANCE.

This is the invariable position of the squad at **Ambulance POSTS**; it may be taken from any position (the litter, if used, being



Pl. 60, Par. 198.

grounded or lowered, and when disarranged from whatever cause the squad may be reassembled by these commands for service at the ambulance.

199. The ambulance having seats packed and the squad being at ambulance posts:

1. Prepare, 2. **SEATS.**

At **SEATS**, Nos. 2 and 1 open the tail gate, raise the curtain, if necessary, and enter the ambulance, No. 2 going to the front, and No. 1 to the rear; both face the right seat. Each man seizes the lower edge of the seat and lifts it. They then lower the legs and adjust them to the floor, and try the seat before leaving it. They then in like manner prepare the opposite seat.

Nos. 1 and 2 then resume their positions at ambulance posts and close the tail gate.

200. The ambulance having seats prepared, the squad being at ambulance posts:

1. Pack, 2. **SEATS.**

At **SEATS**, Nos. 2 and 1 open the tail gate and raise the curtain, if necessary, and enter the ambulance, No. 2 going to the front, No. 1 to the rear; both face the right seat; each man releases the legs and secures them against the seat; the seat is then lowered to the side of the ambulance. They then in like manner pack the opposite seat.

Nos. 1 and 2 now resume their positions at ambulance posts and close the tail gate, unless a litter is to be loaded.

201. Seats may be prepared or packed on one side only (leaving room on the packed side for two recumbent patients) by the commands:

1. **Right (left), prepare, 2. SEATS.**

202. The right side of the ambulance is always loaded or unloaded first, unless otherwise ordered. With but two recumbent patients, the lower berths only are loaded.

TO LOAD THE AMBULANCE.

203. The litter being lifted, is marched to the rear of the ambulance, wheeled about so that the head of the patient is toward the step and one pace from it, and then halted and lowered. If it be necessary to prepare the ambulance before loading, the squad by command takes positions at ambulance posts.

1. At sides of litter, 2. **POSTS.**

The tail gate having been opened, at posts Nos. 1 and 2 take positions on the right and left, mid-length of the litter, facing it.

204. 1. Lower (upper) berth, prepare to load, 2. **LOAD.**

At the first command the bearers stoop and each grasps a pole firmly with both hands.



Pl. 61, Par. 204.

At **LOAD**, the litter is lifted until the stirrups rest upon the floor of the ambulance and is then pushed in; No. 1 goes around the left side of the ambulance to the front, climbs in, steps over the seat, faces the litter, and grasps the head handles. No. 2 mounts the rear step and grasps the foot handles. The litter is then lifted, the inside handles being placed in the receiving sockets first, the outside handles then being secured by the straps. No. 1 then steps over the front seat,



Pl. 62, Par. 204.

jumps to the ground, going around the left side of the ambulance, and the squad takes positions **ambulance posts**, and closes the tail gate, unless the ambulance is to be unloaded at once. No. 2 places the arms and accouterments of the patient in the ambulance.

If the patient is heavy and the bearers light, the litter is only raised high enough to rest the handles on the floor of the ambulance; No. 2 shifts his hands along his pole until he reaches the foot handles, which

he supports, while No. 1 gets into the ambulance, lifts the head of the litter until the stirrups rest on the floor, and together they pull and push the litter into the ambulance. (*C. D. R. and S. M. S. T. No. 1.*)

205. The upper berth is loaded in the same manner as described in paragraph 204, excepting the litter is lifted to the upper sockets and straps.

206. The squad being at ambulance posts:

1. Lower (upper) berth, prepare to unload, 2. **UNLOAD.**

The tail gate having been opened, at the first command No. 1 goes around the left side of the ambulance to the front, climbs in, stepping over the front seat, stands between the handles of the litter, facing the rear; No. 2 mounts the rear step, facing the front. Each bearer grasps the handles. At **UNLOAD**, the handles are lifted and freed from their fastenings, first from the straps and then from the sockets. The litter is then lowered to the floor of the ambulance. No. 1 then steps over the front seat, jumps to the ground, going around the left side of the ambulance; the squad takes position at **ambulance posts**, and each bearer grasps the handle of the litter nearest him. They withdraw the litter, at the same time shifting their hands to their respective poles, facing each other, until the rear stirrups reach the tail gate, when they lift the litter out, halt and lower it to the ground a few paces in rear of the tail gate.

If the patient is very heavy, the rear handles should be carefully lowered to the floor of the ambulance before the litter is lifted out.

The bearers having closed the tail gate, take positions at **ambulance posts**, without command.

207. The upper berth is unloaded the same as described in paragraph 206, except that it is lowered from the top straps and sockets.

208. When for any reason it is necessary to use three bearers in loading or unloading, the commands **At sides of litter, POSTS** are not given. At the commands **Three bearers, upper (lower) berth, prepare to load**, the additional bearer takes post outside the left handle, at the head of the litter opposite No. 2, who steps outside the right handle. Both face the litter, stoop and grasp their respective poles. No. 1 faces about, stoops and grasps his handles. At **LOAD** the litter is lifted and pushed into the ambulance. If the upper berth is to be loaded the additional bearer now mounts the step with No. 2 and assists in lifting the litter into position. In unloading, these movements are reversed.

209. When necessary to load feet first, the litter is *not* wheeled about when it reaches the rear of the ambulance but is halted and lowered with feet toward the tail gate, when the movements proceed as in previous paragraphs.



Pl. 63, Par. 208.

210. At the conclusion of the drill with ambulances the detachment is re-formed in line.

TO PREPARE AND LOAD ORDINARY WAGONS TO TRANSPORT WOUNDED.

211. In active service the use of ordinary Army or other wagon for transporting the sick and wounded is of everyday occurrence and it is important that bearers should be practiced in preparing, loading, and unloading such vehicles. Patients may be laid on straw or other like material spread thickly over the bottom of the wagon, or on hand litters placed on the bottom, or suspended by ropes or straps. The movements heretofore fully described, to load and unload, will, if thoroughly understood, meet the requirements of any emergency of this character. It must, however, always be remembered that such work demands a far greater amount of care on the part of the bearers for the safety and comfort of their patients than when the proper appliances are at hand.

CEREMONIES.

(See also paragraph 521.)

212. On occasions of ceremony companies or detachments of the Hospital Corps are assigned to places according to the nature of the ceremony; they are formed and marched in the order prescribed by the commanding officer.

At the **assembly** for a ceremony, companies or detachments are formed on their own parades and informally inspected.

REVIEWS.

213. While riding around the troops, the reviewing officer may direct his staff, flag, and orderlies to remain at the post of the reviewing officer, or that only his personal staff and flag shall accompany him; in either case the commanding officer alone accompanies the reviewing officer. If the reviewing officer is accompanied by his entire staff, the staff officers of the commander place themselves on the right of the staff of the reviewing officer.

The reviewing officer and others at the reviewing stand salute the color as it passes; when passing around the troops, the reviewing officer and those accompanying him salute the color when passing in front of it.

The reviewing officer returns the salute of the commanding officer of the troops only. Those who accompany the reviewing officer do not salute.

In passing in review, each staff salutes with its commander.

214. After saluting the reviewing officer, the commanding officer of the troops turns out of the column and takes his post on the right of the reviewing officer, his staff on the right of the reviewing officer's staff. When the rear element of his command has passed, without changing his position, he salutes the reviewing officer and then rejoins his command. The commanding officer of the troops and his staff are the only ones who turn out of column.

215. If the person reviewing the command is not mounted, the commanding officer and his staff on turning out of the column after

passing the reviewing officer dismount preparatory to taking post. In such case, the salute of the commanding officer, prior to rejoining his command, is made with the hand before remounting.

216. Without facing about each captain or special unit commander commands: **Eyes**, in time to add, 2, **RIGHT** when 6 paces from the reviewing officer, and commands **FRONT** when 6 paces beyond him. At the command **Eyes** the officers execute the first motion of present saber, at the command **RIGHT** all turn head and eyes to the right and the officers complete **present saber**. At the command **FRONT** all turn head and eyes to the front and resume the carry saber.

All officers, and such noncommissioned officers as are in command of subdivisions, salute, turn the head as in **Eyes RIGHT (LEFT)**, and look toward the reviewing officer when 6 paces from him; they return to the **carry saber** or drop the hand, as the case may be, and turn the head and eyes to the front when they have passed 6 paces beyond him.

217. If the post of the reviewing officer is on the left of the column, the troops march in review with the guide left. In saluting the officer commanding gives the command:

1. **Eyes**, 2. **LEFT**.

218. Except in the review of a single battalion, the troops pass in review in quick time only.

219. In reviews of brigades or larger commands, each battalion, after the rear has passed the reviewing officer 50 paces, takes double time for 100 yards in order not to interfere with the march of the column in rear; if necessary, it then turns out of the column and returns to camp by the nearest practicable route.

In a brigade or larger review the commander of an organization may cause it to stand at ease, rest, fall out or resume attention, so as not to interfere with the ceremony.

INSPECTIONS.

220. Inspection is in such uniform as may be prescribed. The detachment should frequently be inspected in field equipment.

221. The detachment being formed, the senior noncommissioned officer salutes, reports, and takes his place on the right of the line of file closers. The junior officers take their posts and draw sabers as soon as the noncommissioned officer has reported.

The officer commanding then draws saber and commands:

1. Prepare for inspection, 2. **MARCH**, 3. **FRONT**.

At the first command the junior officers place themselves on the right and left of the rank; the officer commanding then places himself facing to the left, three paces in front of and two paces to the right of the detachment, and commands: **MARCH**. At this command the junior officers move forward three paces, face to the center in marching, and upon arriving opposite their posts, halt, face to the front, and order saber; the rank (the left hand upon the hip) dresses to the right; the file closers dress to the right.

The officer commanding aligns the rank and file closers; he then takes post three paces in front of the right guide, facing to the left, and commands **FRONT**, which is executed by the rank and file closers; at this command the junior officers carry saber. The officer commanding then returns saber and inspects the junior officers, rank and file closers in the order named. He may direct the junior officers to accompany or assist him, in which case they return saber; otherwise, after being inspected, they face about, order saber and stand **at ease**. At the close of the inspection they resume their posts in front of the detachment at attention without command, sabers at the order.

222. To inspect the equipment, the officer commanding, facing to the left of the detachment, commands:

1. **Inspection**, 2. **EQUIPMENT**.

At the second command each soldier opens his pouch and drawing his knife places it across and resting on the open pouch, edge of blade to the front; noncommissioned officers place the knife across the open emergency case. Each soldier in turn as the inspector approaches raises and carries the knife to the front, base of the hilt as high as the chin and 6 inches in front of the neck, edge to the left, point 2 inches farther to the front than the hilt, thumb extended on left of grip, all fingers clasping the grip.

The edge is then turned toward the front, then to the right to show the other side. Unless the inspector takes hold of the knife the soldier places it across his chest, edge to the left and the blade extending obliquely across the left shoulder. After the pouch has been examined and the inspector has passed on to the the next man, the knife is returned and the pouch closed.

When not equipped with an emergency case, each noncommissioned officer, as the inspector approaches him, grasps the handle of

his knife with the right hand and the scabbard with the left, draws the knife, presents it, and turns it for inspection as described above, and after it is inspected, returns it to the scabbard.

INSPECTION; HEAVY MARCHING ORDER.

223. If the inspection is to include an examination of the blanket rolls, the detachment is formed as prescribed in paragraph 221 and intervals are taken as prescribed in paragraph 63; the officer com-



Pl. 64, Par. 220.

manding places himself three paces in front and two paces to the right of the right file and commands:

1. UNSLING PACKS, 2. OPEN PACKS.

At the first command each man unslings his roll and places it on the ground in front of him, the ends of the roll toward him and the square end to the right.

At the second command the rolls are opened and extended with the triangular end of the shelter half to the front and the contents are arranged for inspection. The soldier then resumes his place in the rank and stands at attention. The officer commanding then returns



Pl. 65, Par. 220.

saber, passes along the rank and file closers as before, inspects the rolls, returns to the right, draws saber, and commands:

1. CLOSE PACKS, 2. SLING PACKS.

At the first command blanket rolls are packed as prescribed on page —. At the second command, given when all blanket rolls are packed, the rolls are slung, the end containing the pole to the rear. The detachment is assembled as prescribed in paragraph 63.

224. Should the inspector be other than the officer commanding, the latter, after commanding **FRONT** (par. 221), adds **REST**, and takes post, facing to the front, three paces in front of the right guide. When the inspector approaches, the officer commanding faces to the left, brings the detachment to attention, faces to the front, and salutes. The salute acknowledged, the officer commanding carries saber, faces to the left, commands **INSPECTION EQUIPMENT**, and again faces to the front. The inspection proceeds as before; the officer commanding returns saber and accompanies the inspector as soon as latter passes him.

225. Upon completion of the inspection, the officer commanding takes post facing to the left in front of the right guide and on line with the junior officers and commands:

1. **Officers**, 2. **Posts**, 3. **MARCH**.

At the command **MARCH**, the junior officers carry saber, face each toward the nearest flank and, passing behind the file closers, resume their posts in the line of file closers.

INSPECTION OF LITTERS AND AMBULANCES.

226. The detachment being in line with strapped litters at the **carry**, litter intervals having been taken, the officer commanding brings the detachment into column of litters and halts it, as prescribed in paragraph 130, and commands:

1. **Inspection**, 2. **LITTERS**.

At **LITTERS**, the bearers open the litter and, standing at the position of **carry litter**, hold it suspended, canvas to the right, until both sides are inspected. They then lower the litter and take positions at **litter posts** without command.

227. The ambulances being in line at intervals of 12 paces, with seats packed an orderly on each seat beside the driver, the commands are given:

1. **Inspection**, 2. **AMBULANCES**.

At the second command the orderly jumps down, runs to the rear of the ambulance, opens the tail gate and raises the curtain, if necessary, and then comes to **attention** one pace in rear of the left wheel,

acing the ambulance. The inspector first examines the animals and harness, then the ambulance and contents, after which he directs the seats to be prepared, or such other work to be done as he desires executed.

The inspection being completed, the orderly closes the tail gate and resumes his position on the seat beside the driver.

HONORS AND SALUTES.

228. The national or regimental color or standard, uncased, passing a guard or other armed body will be saluted, the field music sounding "to the color" or "to the standard." Officers or enlisted men passing the uncased color will render the prescribed salute. The headdress will not be removed.

229. Whenever "The Star-Spangled Banner" is played at a military station, or at any place where persons belonging to the military service are present in their official capacity or present unofficially but in uniform, all officers and enlisted men present will stand at attention, facing toward the music, retaining that position until the last note of the air, and then salute. With no arms in hand the salute will be the hand salute. The same respect will be observed toward the national air of any other country, when it is played as a compliment to official representatives of such country. When played under the circumstances contemplated by this paragraph, "The Star-Spangled Banner" will be played through without repetition of any part that is not required to be repeated to make the air complete.

230. At every military post or station the flag will be hoisted at the sounding of the first note of the reveille, or of the first note of the march, if a march be played before the reveille. The flag will be lowered at the sounding of the last note of the retreat, and while the flag is being lowered the band will play "The Star-Spangled Banner," or, if there be no band present, the field music will sound "to the color." When "to the color" is sounded by the field music while the flag is being lowered the same respect will be observed as when "The Star-Spangled Banner" is played by the band, and in either case officers and enlisted men out of ranks will face toward the flag, stand at attention, and render the prescribed salute at the last note of the music.

231. Saluting distance is that within which recognition is easy. In general it does not exceed 30 paces.

In approaching or passing each other within saluting distance individuals or bodies of troops exchange salutes when at a distance of about 6 paces. If they do not approach each other that closely the salute is exchanged at the point of nearest approach.

232. **Eyes right** and **present arms** are not executed by troops except in the ceremonies and in saluting the color.

233. The commander of a body of troops salutes all general officers and his regimental, post, battalion, or company commander, by bringing his command to attention and saluting in person. The troops are brought to attention in time to permit the salute to be rendered at the prescribed distance; they are held at attention until after the salute has been acknowledged.

When an officer entitled to the salute passes in rear of a body of troops, it is brought to attention while he is opposite the post of the commander.

The commander of a body of troops salutes in person all other officers senior to him in rank; the troops are not brought to attention except that a noncommissioned officer commanding a detachment less than a company will bring it to attention before saluting an officer.

The commander of a body of troops exchanges salutes with the commanders of other bodies of troops; the troops are brought to attention during the exchange.

234. An officer commanding a body of troops is saluted by all officers junior to him in rank and by all enlisted men. He acknowledges the salutes in person; the command is not brought to attention.

235. When covered, all enlisted men within saluting distance and not in ranks, salute all officers. The hand is held in the position of salute until the salute has been acknowledged or until the officer has passed or has been passed. If uncovered, they stand at attention, without saluting.

Enlisted men out of doors and armed with the rifle salute with the piece on the right shoulder; if indoors, the rifle salute is rendered at the order or trail.

236. Officers not in uniform are saluted if recognized.

237. Officers will acknowledge salutes smartly and promptly.

As a rule, troops on the march pay no compliments; individuals salute when they address, or are addressed by, a superior officer.

238. When making or receiving official reports, all officers will salute, if covered; if uncovered, they stand at attention.

When under arms, the salute is made with the sword or saber if drawn, otherwise with the hand. A mounted officer dismounts before addressing a superior not mounted.

On meeting, all officers salute when covered; when uncovered they exchange the courtesies observed between gentlemen in civil life.

Military courtesy requires the junior to salute first, but when the salute is introductory to a report made at a military ceremony or,

formation, to the representative of a common superior—as, for example, to the adjutant, officer of the day, etc.—the officer making the report, whatever his rank, will salute first; the officer to whom the report is made will acknowledge by saluting, if covered, or verbally, if uncovered, that he has received and understood the report.

239. An enlisted man, if seated, rises on the approach of an officer, faces toward him and, if covered, salutes. If standing, he faces the officer for the same purpose. If the parties remain in the same place or on the same ground, such compliments need not be repeated. Soldiers actually at work do not cease work to salute an officer unless addressed by him.

240. Before addressing an officer, an enlisted man makes the prescribed salute with the weapon with which he is armed, or if unarmed and covered, with the right hand. He also makes the same salute after receiving a reply. If uncovered, he stands at attention without saluting.

241. Indoors, an unarmed enlisted man uncovers and stands at attention upon the approach of an officer; he does not salute. If armed, he salutes as heretofore prescribed, without uncovering.

242. On all occasions outdoors, and also in public places, such as stores, theaters, railway and steamboat stations, and the like, the salute to any person whatever by officers and enlisted men in uniform, with no arms in hand, whether on or off duty, shall be the hand salute, the right hand being used, the headdress not to be removed.

243. When an officer enters a room where there are soldiers, the word **attention** is given by some one who perceives him, when all rise and remain standing in the position of a soldier until the officer leaves the room. Soldiers at meals do not rise.

244. Officers at all times acknowledge the courtesies of junior officers and enlisted men by returning their salutes. When several officers in company are saluted, all return the salute.

245. Officers arriving at the headquarters of a military command, or at a military post, call upon the commander thereof as soon as practicable and register their names. If the visiting officer be senior to the commander, the former may send a card, in which case it becomes the duty of the commander to make the first call.

246. Officers of the navy are saluted according to their relative rank; officers of marines and of the volunteer forces or militia in the service of the United States, and officers of foreign services, are saluted according to rank.

247. Honors, courtesies, and ceremonies not referred to herein, are found in Army Regulations and in the Manual of Guard Duty

MANUAL OF THE SABER FOR OFFICERS.

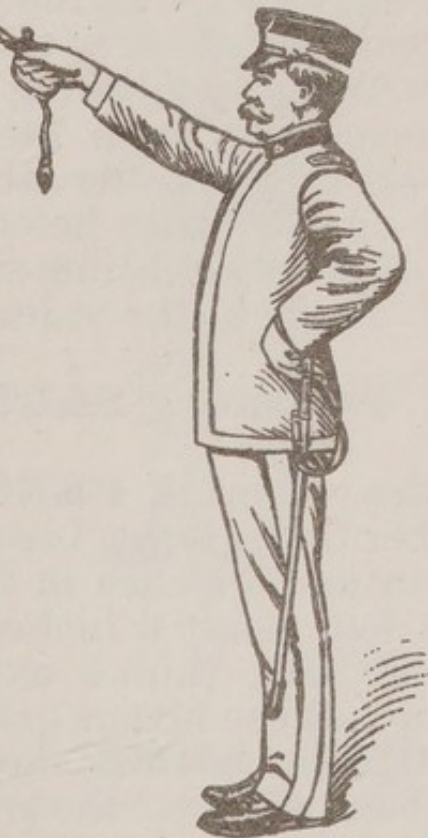
248.

1. Draw, 2. SABER.

At the command **DRAW**, unhook the saber with the thumb and first two fingers of the left hand, thumb on the end of the hook, fingers lifting the upper ring; grasp the scabbard with the left hand



Pl. 66, Par. 248.



Pl. 67, Par. 248.



Pl. 68, Par. 248.

at the upper band, bring the hilt a little forward, seize the grip with the right hand, and draw the blade 6 inches out of the scabbard, pressing the scabbard against the thigh with the left hand.

At the command **SABER**, draw the saber quickly, raising the arm to its full extent to the right front, at an angle of about 45° with the horizontal, the saber, edge down, in a straight line with the arm; make a slight pause and bring the back of the blade against the shoulder, edge to the front, arm nearly extended, hand by the side, elbow back, third and fourth fingers back of the grip; at the same time hook up the scabbard with the thumb and first two fingers of the left hand, thumb through the upper ring, fingers supporting it; drop the left hand by the side.



Pl. 69, Par. 250.

This is the position of carry saber dismounted.

Officers unhook the scabbard before mounting when mounted, in the first motion of **draw saber**, they reach with the right hand over the bridle hand and, without the aid of the bridle hand, draw the saber as before; the right hand at the **carry** rests on the right thigh.

On foot, officers carry the scabbard hooked up.

249. When publishing orders, the saber is held suspended from the right wrist by the saber knot; when the saber knot is used, it is placed on the wrist before drawing saber, and taken off after returning saber.

250. Being at the order or carry:

1. Present, 2. **SABER** (or **ARMS**).

At the command **PRESENT**, raise and carry the saber to the front, base of the hilt as high as the chin and 6 inches in front of the neck, edge to the left, point 6 inches farther to the front than the hilt, thumb extended on the left of the grip, all the fingers grasping the grip.

At the command **SABER** (or **ARMS**), lower the saber, point in prolongation of the right foot, and near the ground, edge to the left, hand by the side, thumb on left of grip, arm extended. If mounted the hand is held behind the thigh, point a little to the right and front of the stirrup.

In rendering honors with troops, officers execute the first motion of the salute at the command **present**, the second motion at the command **ARMS**; enlisted men with the sword execute the first motion at the command **ARMS** and omit the second motion.

251. Being at a carry:

1. Order, 2. **SABER** (or **ARMS**).

Drop the point of the saber directly to the front, point on or near the ground, edge down, thumb on back of grip.

Being at the present saber, should the next command be order arms, officers order saber; if the command be other than order arms, they execute carry saber.



Pl. 70, Par. 251.



Pl. 71, Par. 253.



Pl. 72, Par. 254.

When arms are brought to the order, the officers or enlisted men, with the saber drawn **order saber**. (Troops armed with the rifle come to the order on halting.)

252. The saber is held at the carry while giving commands, marching at attention, or changing position in quick time.

When at the order, sabers are brought to the carry when arms are brought to any position except the present or parade rest.

253. Being at the order:

1. Parade, 2. **REST.**

Take the position of parade rest except that the left hand is uppermost and rests on the right hand, point of saber on or near the ground in front of the center of the body, edge to the right.

At the command **ATTENTION**, resume the order of parade rest with the saber and the position of the soldier.

254. In marching in double time, the saber is carried diagonally across the breast, edge to the front, and the left hand steadies the scabbard.

255. Officers on all duties under arms draw and return saber without waiting for command. All commands to soldiers under arms are given with the saber drawn.

256. Being at a carry:

1. Return, 2. **SABER.**

At the command **RETURN**, carry the right hand opposite to and 6 inches from the left shoulder, saber vertical, edge to the left; at the same time unhook and lower the scabbard with the left hand, and grasp it at the upper band.

At the command **SABER**, drop the point to the rear and pass the blade across and along the left arm, turn the head slightly to the left, fixing the eyes on the opening of the scabbard, raise the right hand and insert and return the blade; free the wrist from the saber knot (if inserted in it), turn the head to the front, drop the right hand by the side, hook up the scabbard with the left hand, drop the left hand by the side.

Officers, mounted, return saber without using the left hand; the scabbard is hooked up on dismounting.

257. At inspection, enlisted men with the saber drawn execute the first motion of **present saber**, and turn the wrist to show both sides of the blade, resuming the carry when the inspector has passed.



Pl. 73, Par. 256.

POSITION OF THE MEDICAL DEPARTMENT ON THE MARCH.

258. Ordinarily regimental medical officers march—the senior with the regimental commander and one in rear of each battalion unit. Each officer is accompanied by an orderly; the remaining regimental sanitary personnel usually march with the battalion units. Each regiment is followed by an ambulance from the ambulance companies, unless otherwise ordered. These ambulances join their companies at the beginning of an engagement.

In time of peace, troops operating alone are accompanied by their quota of ambulances; in time of war, ambulances will be assigned as conditions may require.

TENT DRILL.

TO PITCH TENTS.

259. Wall pins are so driven as to slope slightly away from the tent; guy pins, so as to slope slightly toward the tent.

The centers of the storm guys are looped over the pole pins and the ends carried diagonally across the roof of the tent and looped over tent pins driven in line with the other guy pins.

Each tent, its fly, hood, poles, and tripod should have the same number.

The hospital and ward tents should always be pitched first in a field hospital.

The tents having been pitched, should at once be ditched, unless otherwise directed. In setting or removing wall pins the work should commence at the corners of the tent, working first on the sides and then on the ends.

HOSPITAL TENTS.

260. To pitch all types of Army tents, except shelter and conical wall tents: Mark line of tents by driving a wall pin on the spot to be occupied by the right (or left) corner of each tent. For pyramidal tents the interval between adjacent pins should be about 30 feet which will give a passage of 2 feet between tents. Spread tripod on the ground where the center of tent is to be, if tripod is used. Spread the tent on the ground to be occupied, door to the front, and place the right (or left) front wall loop over the pin. The door (or doors if more than one) being fastened and held together at the bottom, the left (or right) corner wall loop is carried to the left (or right) as far as it will go and a wall pin driven through it, the pin being placed in line with the right (or left) corner pins already driven. At the same time the rear corner wall loops are pulled to the rear and outward so that the rear wall of the tent is stretched to complete the rectangle. Wall pins are then driven through these loops. Each corner pin should be directly in rear of the corresponding front corner pin, making a rectangle. Unless the canvas be wet, a small amount of slack should be allowed before the corner pins are driven. According to the size of the tent, one or two men crawling under the tent if necessary, fit each pole or ridge or upright into the ring or ridge pole holes, and such accessories as hood, fly, and brace.

ropes are adjusted. If a tripod be used, an additional man will go under the tent to adjust it. The tent steadied by the remaining men, one at each corner guy rope, will then be raised. If the tent is a ward or storage type, corner poles will now be placed at the four corners. The four corner guy ropes are then placed over the lower notches of the large pins driven in prolongation of the diagonals at such distance as to hold the walls and ends of the tent vertical and smooth when the guy ropes are drawn taut. A wall pin is then driven through each remaining wall loop and a large pin for each guy rope is driven in line with the corner guy pins already driven. The guy ropes of the tent are placed over the lower notches, while the guy ropes of the fly are placed over the upper notches, and are then drawn taut. Brace ropes, when used, are then secured to stakes or pins suitably placed. (*C. D. R. and S. M. S. T., No. 3.*)

261. Rescinded. (*C. D. R. and S. M. S. T., No. 3.*)

262. Rescinded. (*C. D. R. and S. M. S. T., No. 3.*)

SHELTER TENTS.

263. The Hospital Corps will be equipped with the shelter tent used by the cavalry.

Being in line or in column of platoons, the officer commands:

FORM FOR SHELTER TENTS: The officers fall out and the senior sergeant falls in on the right of the right guide; the file closers fall in on the left, and twos are counted. Intervals of two paces are then taken, as prescribed in paragraph 63. The officer commanding then commands: **PITCH TENTS.**

Each No. 1 marks the position of his right heel with his hospital corps knife; each No. 2 moves back to four paces in rear of his No. 1; all unsling and open blanket rolls and take out the shelter half, poles, and pins; No. 1 places one pin in the ground at the point marked by his hospital corps knife. Each then spreads his shelter half, triangle to the rear, flat upon the ground the tent is to occupy, No. 1's half on the right. The halves are then buttoned together. Each No. 1 joins his pole, inserts the top in the eyes of the halves, and holds the pole upright beside the pin placed in the ground; No. 2, using the pins in front, pins down the front corners of the tent on the line of pins stretching the canvas taut; he then inserts a pin in the eye of the rope and drives the pin at such distance in front of the pole as to hold the rope taut. Both then go to the rear of the tent; No. 2 adjusts the pole and No. 1 drives the pins. The rest of the pins are then driven by both men, No. 1 working on the right.

As soon as the tent is pitched, each man arranges the contents of the blanket roll in the tent, and stands at attention in front of his own half on line with the front guy-rope pin.

The guy ropes, to have a uniform slope when the shelter tents are pitched, should all be of the same length. (*C. D. R. and S. M. S. No. 1.*)

264. Double shelter tents may be pitched by first pitching one tent as heretofore described, then pitching a second tent against the opening of the first, using one pole to support both tents, and passing the front guy ropes over and down the sides of the opposite tent. The front corner of one tent is not pegged down, but is thrown back to permit an opening into the tent.

SINGLE SLEEPING BAG.

265. Spread the poncho on the ground, buttoned end at the feet; buttoned side to the left; fold the blanket once across its short dimension and lay in on the poncho, folded side along the right side of the poncho; tie the blanket together along the left side by means of the tapes provided; fold the left half of the poncho over the blanket and button it together along the side and bottom.

DOUBLE SLEEPING BAG.

266. Spread one poncho on the ground, buttoned end at the feet; buttoned side to the left; spread the blankets on top of the poncho; tie the edges of the blankets together with the tapes provided; spread a second poncho on top of the blankets, buttoned end at the feet; buttoned side to the right; button the two ponchos together along both sides and across the end.

TO STRIKE TENTS.

Ward, hospital, and pyramidal tents.

267. The men first remove all pins except those of the four front and rear guy ropes. The pins are neatly piled or placed in the receptacle.

One man holds each guy, and when the ground is clear, the tent is lowered, folded, or rolled and tied, the poles or tripod and poles fastened together, and the remaining pins collected.

Shelter tents.

268. The men standing in front of their tents, the command is given: **STRIKE TENTS.**

The contents of the packs are removed from the tent; the tents are lowered, packs made up and slung, and the men stand at attention in the places originally occupied after taking intervals.

To re-form the detachment.

1. **Assemble to the right** (left), 2. **MARCH.**

TO FOLD TENTS.

Hospital, storage, and ward tents.

269. Spread the tent, folded at the ridge so that bottoms of side walls are even, ends of tent extending to the right and left; fold the ends toward the middle, making it rectangular in shape; fold the top over about 9 inches; make a complete fold by carrying the top over to the foot, and fold again from top to foot; throw all guys on the tent except the second from each end; fold from both ends toward the middle, making a compact bundle, and tie with the exposed guys.

The pyramidal tent, large.

The tent is thrown toward the rear and the back wall and roof canvas pulled out smooth. This may be most easily accomplished by leaving the rear-corner wall pins in the ground with the wall loops attached, one man at each rear-corner guy, and one holding the square iron in a perpendicular position and pulling the canvas to its limit away from the former front of the tent. This leaves the three remaining sides of the tent on top of the rear side, with the floor side in the middle.

Now carry the right-front corner over and lay it on the left-rear corner. Pull all canvas smooth, throw guys toward square iron, and pull bottom edges even. Then take the right-front corner and return to the right, covering the right-rear corner. This folds the right side of the tent on itself, with the crease in the middle and under the front side of tent.

Next carry the left-front corner to the right and back as described above; this when completed will leave the front and rear sides of the tent lying smooth and flat and the two side walls folded inward, each on itself.

Place the hood in the square iron which has been folded downward toward the bottom of tent, and continue to fold around the square iron as a core, pressing all folds down flat and smooth, and parallel with the bottom of the tent. If each fold is compactly made and the canvas kept smooth, the last fold will exactly cover the lower edge of the canvas. Lay all exposed guys along the folded canvas except the two on the center width, which should be pulled out and away from bottom edge to their extreme length for tying. Now, beginning at one end, fold toward the center on the first seam (that joining the first and second widths) and fold again toward the center so that the already folded canvas will come to within about 3 inches of the middle width. Then fold over to the opposite edge of middle width of canvas. Then begin folding from opposite end, folding the first width in half, then making a second fold to come within about 3 or 5 inches of that already folded; turn this fold entirely over the already folded. Take the exposed guys and draw them taut across each other, turn bundle over on the under guy, cross guys on top of bundle drawing tight. Turn bundle over on the cross guys and tie lengthwise.

When properly tied and pressed together this will make a pack 11 by 23 by 34 inches, requiring about 8,855 cubic inches to store the pack.

Stencil the organization designation on the lower half of the middle width of canvas in the back wall.

The pyramidal tent, small.

Fold in a similar manner to that prescribed above for the large pyramidal tent.

GENERAL REMARKS.

270. As soon as the lines of company streets are established, the positions of the tents should be marked from the flank nearest the officers' tents by pins. The door pins of the pyramidal tents occupy the points so marked. The distance between tent doors may be determined by pacing, or by measuring with a cord with the distances marked upon it. These distances are, for pyramidal tents, 10 paces; for pyramidal tents, small, 8 paces; for hospital tents, 6 paces. The pins marking the position of the tents are, when practicable, set in a straight line and the detachment officers verify and correct the alignment of such pins in the quickest and most convenient manner.

271. Wall pins are so driven as to slope slightly away from the tent; guy pins, so as to slope slightly toward the tent.

The centers of the storm guys are looped over the pole pins and the ends carried diagonally across the roof of the tent and looped over tent pins driven in line with the other guy pins.

272. Each tent, its fly, hood, poles, and tripod, should have the same number.

273. *The hospital tent, regulation, complete*, consists of 1 tent, 105 pounds; 1 fly, 36 pounds; 1 set of poles, 72 pounds; 18 large and 26 small pins, 25 pounds; total weight, 238 pounds. Its dimensions are: Length of ridge, 14 feet, 3 inches; width, 14 feet, 6 inches; height, 11 feet; height of wall, 4 feet, 6 inches.

274. *The hospital tent, tropical, complete*, consists of 1 tent, 129 pounds; 1 fly, 54 pounds; 1 set of poles, 97 pounds; 18 large and 26 small pins, 25 pounds; total weight, 305 pounds. Its dimensions are: Length of ridge, 14 feet, 3 inches; width, 15 feet, 7 inches; height, 12 feet; height of wall, 4 feet, 7 inches.

275. *The pyramidal tent, complete*, consists of 1 tent and hood, 97 pounds, 10 ounces; 1 pole and tripod, 35 pounds; 28 large and 28 small pins, 32 pounds; total, 164 pounds 10 ounces. The roof is 16 feet square at the base and 18 inches square at the top. Walls are 3 feet high. Height when pitched to top of roof, 11 feet.

276. *The pyramidal tent, small, complete*, consists of 1 tent and hood, 51 pounds; 1 fly, 24 pounds; 1 pole, 6 pounds; 24 large and 12 small pins, 23 pounds; total, 104 pounds. Its dimensions are 9 feet square at base and 18 inches square at top; height, 8 feet; height of wall, 3 feet, 9 inches.

277. *The shelter tent* equipment for each enlisted man consists of the following:

- (a) One shelter half, weight, 3 pounds.
- (b) One pole in 3 joints, 47 inches long; weight, 10½ ounces.
- (c) Five tent pins, 9 inches long; weight, 10 ounces.

The shelter tent is pitched by 2 men, whose combined equipments make a complete tent. The tent, when pitched, occupies a space 5 feet, 4 inches deep, and 6 feet, 4 inches wide; the 2 triangular parts, when pinned to the ground, inclose an additional triangular ground space 20 inches deep.

278. *The ward tent, complete*, consists of 1 tent, weight, 351 pounds; 4 uprights, weight, 88 pounds; 4 corner poles, weight, 36 pounds; 72 large and 56 small pins, weight, 80 pounds; total weight, 555 pounds. Its dimensions are: Length, 50 feet; width, 16 feet;

height, 10 feet; height of wall, 4 feet, 6 inches; packs in 20 cub feet.

279. *The storage tent, complete*, consists of 1 tent, weight, 1 pounds; 1 fly, weight, 54 pounds; 1 ridge pole in 2 sections, w uprights and 3 ridge uprights, weight, 225 pounds; 44 large a 36 small pins, weight, 49 pounds. Its dimensions are: Leng 20 feet, 5 inches; width, 17 feet, 10 inches; height, 13 feet; heig of wall, 5 feet, 2 inches.

In striking tents, hospital, storage and ward tents are, unl otherwise directed, lowered to the right, facing out from the te door; pyramidal tents, away from the door.

MANUAL OF THE BUGLE.

WARNING CALLS.

280. *First call, guard mounting, full dress, overcoats, drill, stable, water, and boots and saddles* precede the assembly by such interval as may be prescribed by the commanding officer.

Mess, church, and fatigue, classed as service calls, may also be used as warning calls.

First call is the first signal for formation for roll call and for all ceremonies except guard mounting.

Guard mounting is the first signal for guard mounting.

The field music assembles at *first call* and *guard mounting*.

In a mixed command, *boots and saddles* is the signal to mounted troops that their formation is to be mounted; for mounted guard mounting or mounted drill, it immediately follows the signal *guard mounting* or *drill*.

When full dress or overcoats are to be worn, the *full dress* or *overcoat* call immediately follows *first call, guard mounting, or boots and saddles*.

FORMATION CALLS.

281. *Assembly*: The signal for companies or details to fall in.

Adjutant's call: The signal for companies to form battalion; also for the guard details to form for guard mounting on the camp or garrison parade ground; it follows the *assembly* at such interval as may be prescribed by the commanding officer.

It is also used as a signal for the battalions to form regiment, following the first *adjutant's call* at such interval as the commanding officer may prescribe.

To the color: Is sounded when the color salutes.

ALARM CALLS.

282. Fire call: The signal for the men to fall in without arms, and extinguish fire.

To arms: The signal for the men to fall in, under arms, on the company parade grounds as quickly as possible.

To horse: The signal for mounted men to proceed under arms to their horses, saddle, mount, and assemble at a designated place as quickly as possible. In extended order this signal is used to remount troops.

SERVICE CALLS.

283. Tatto, taps, mess, sick, church, recall, issue, officer's, captains, first sergeants', fatigue, school, and the general.

The general is the signal for striking tents and loading wagons preparatory to marching.

Reveille precedes the *assembly* for roll call; *retreat* follows the *assembly*, the interval between being only that required for formation and roll call, except when there is parade.

Taps is the signal for extinguishing lights; it is usually preceded by *call to quarters* by such interval as prescribed by Army Regulations.

Assembly, reveille, retreat, adjutant's call, to the color, the flourishes, ruffles, and the marches are sounded by all the field music united; the other calls, as a rule, are sounded by the musician of the guard or orderly musician; he may also sound the *assembly* when the musicians are not united.

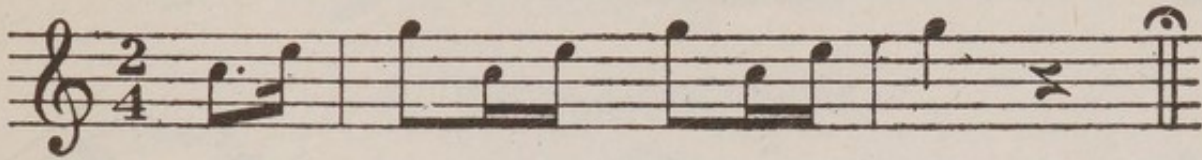
The morning gun is fired at the first note of *reveille*, or, if *marche* be played before *reveille*, it is fired at the commencement of the first march.

The evening gun is fired at the last note of *retreat*.

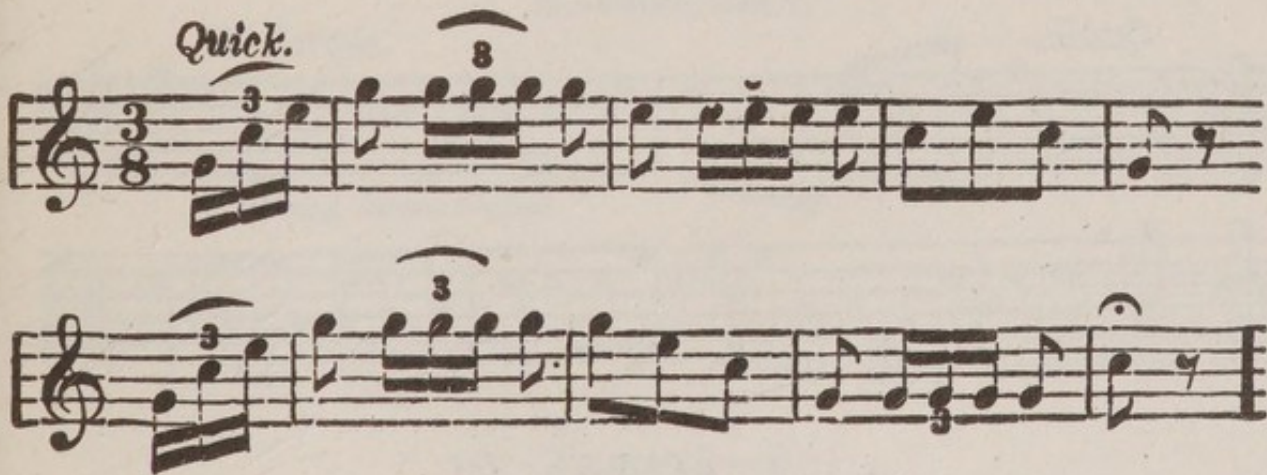
BUGLE CALLS.

HOSPITAL CORPS CALL.

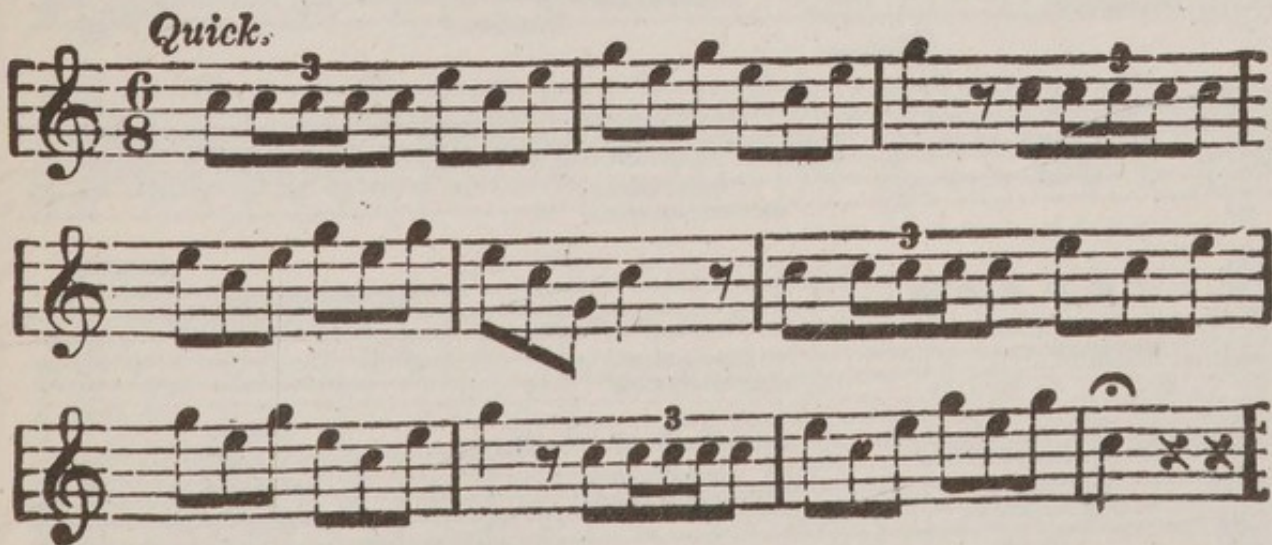
284.



1. FIRST CALL.



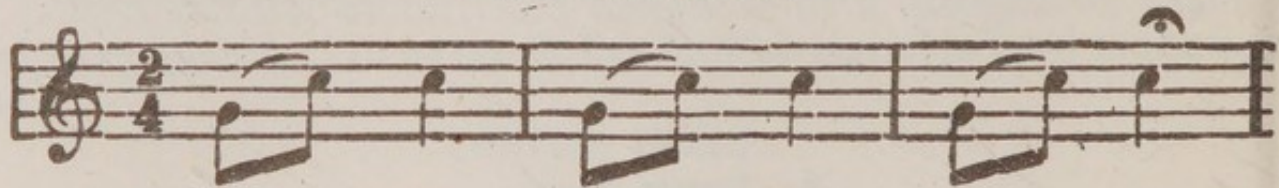
2. GUARD MOUNTING.



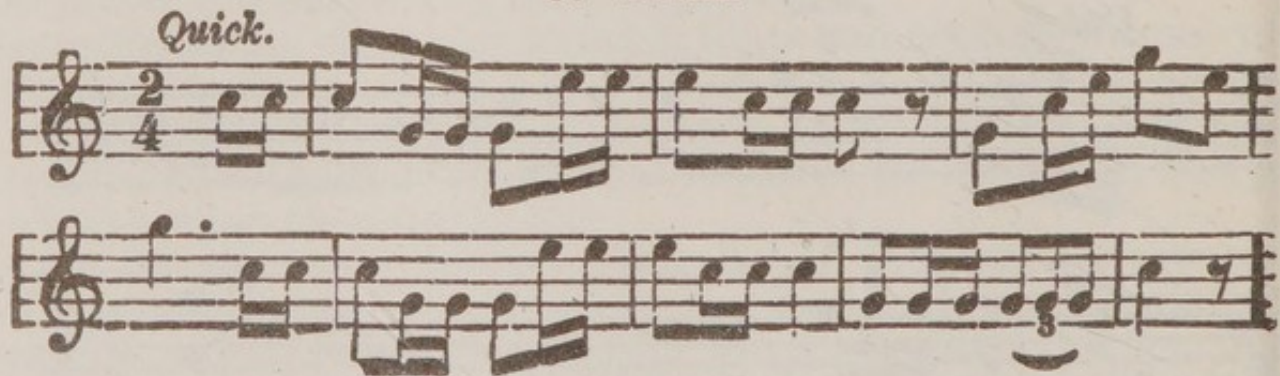
3. FULL DRESS.



4. OVERCOATS.



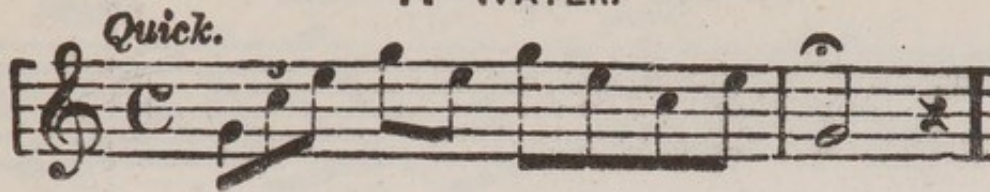
5. DRILL.



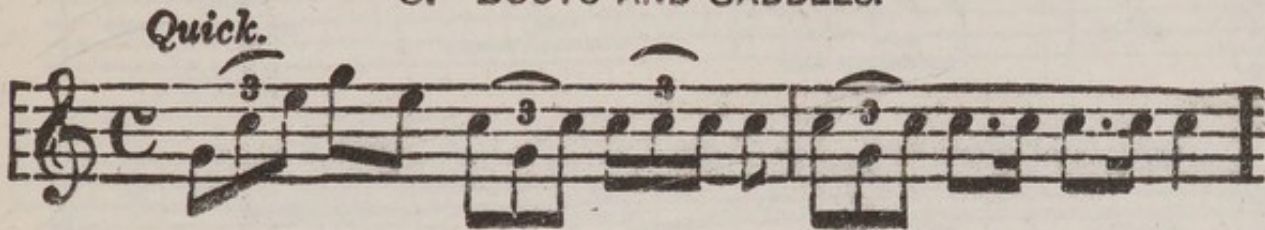
6. STABLE.



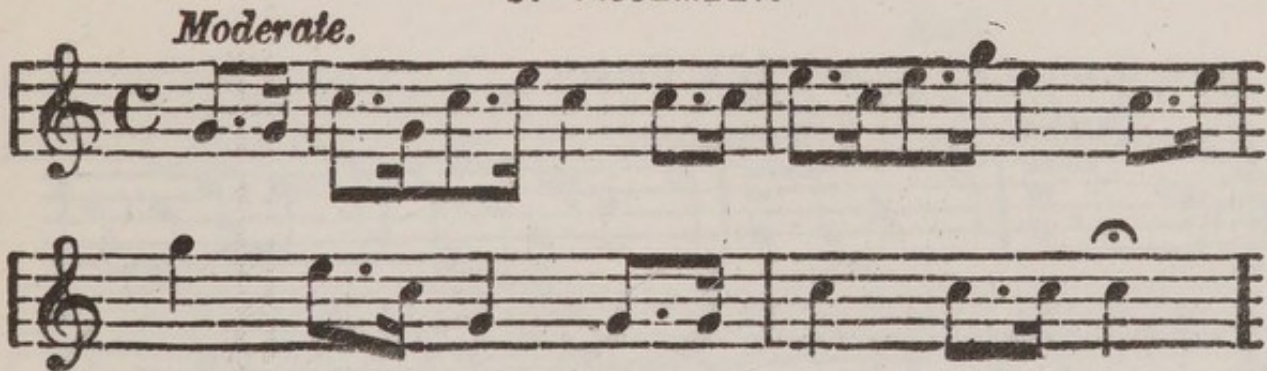
7. WATER.



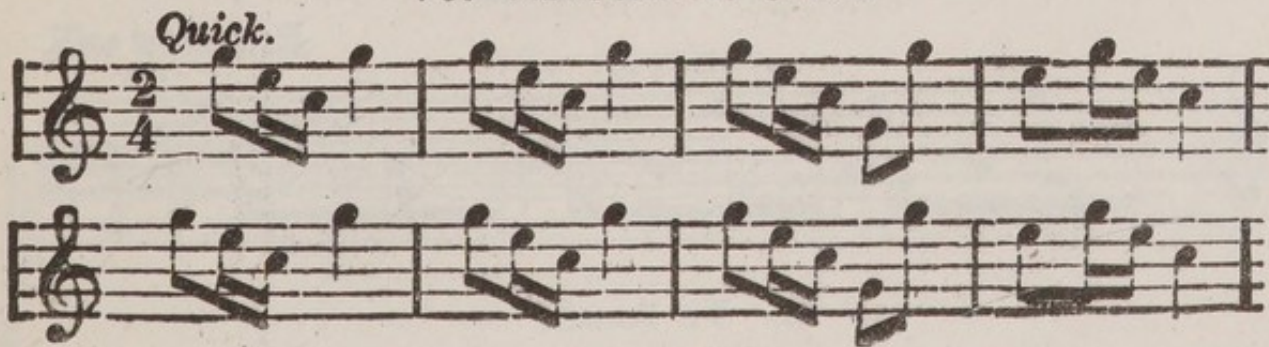
8. BOOTS AND SADDLES.



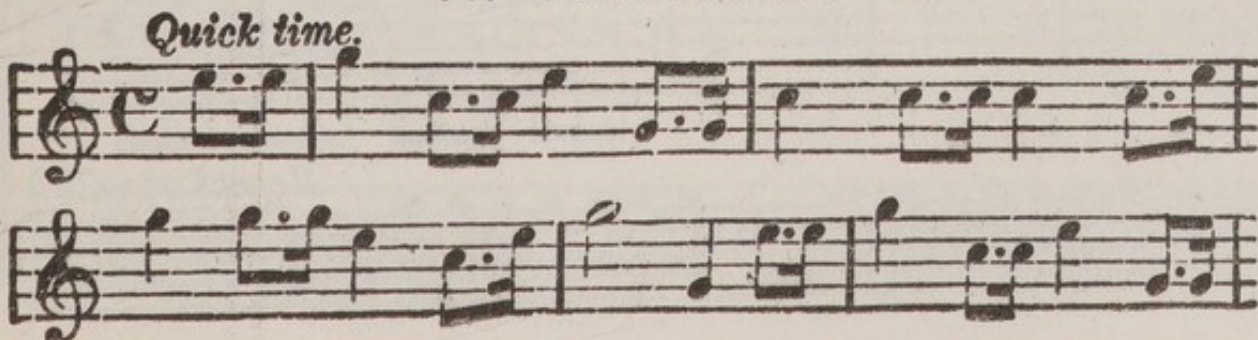
9. ASSEMBLY.



10. ADJUTANT'S CALL.



11. TO THE COLOR.



MANUAL OF THE BUGLE.

TO THE COLOR—*Concluded.*

End.

The musical notation for 'TO THE COLOR' consists of three staves. The first staff begins with a treble clef and a common time signature. The melody is written in a series of eighth and sixteenth notes. The second staff continues the melody with similar rhythmic patterns. The third staff concludes the piece with a final note and a fermata, marked with 'D.C.' (Da Capo) at the end.

12. FIRE.

Quick.

The musical notation for '12. FIRE.' consists of three staves. The first staff begins with a treble clef and a common time signature. The tempo is marked 'Quick.' The melody features a series of eighth notes and rests. The second staff continues the melody with similar rhythmic patterns. The third staff concludes the piece with a final note and a fermata, marked with 'Repeat at will.' at the end.

13. TO ARMS.

Quick.

The musical notation for '13. TO ARMS.' consists of two staves. The first staff begins with a treble clef and a common time signature. The tempo is marked 'Quick.' The melody features a series of eighth notes and rests, with triplets indicated by a '3' over the notes. The second staff continues the melody with similar rhythmic patterns, also featuring triplets. The piece concludes with a final note and a fermata, marked with 'Repeat at will.' at the end.

14. TO HORSE.

Presto.

A single staff of music in treble clef with a common time signature (C). The melody consists of eighth and sixteenth notes, with a triplet of eighth notes in the second measure.

15. REVEILLE.

Quick.

A single staff of music in treble clef with a 2/4 time signature. The melody is composed of eighth notes and quarter notes.

End.

A single staff of music in treble clef with a 2/4 time signature, continuing the melody from the previous block. It ends with a double bar line and a repeat sign.

D.C.

A single staff of music in treble clef with a 2/4 time signature, continuing the melody from the previous block. It ends with a double bar line and a repeat sign.

16. RETREAT.

Moderate.

Three staves of music in treble clef with a 2/4 time signature. The melody is composed of quarter notes and eighth notes. The first two staves are connected by a vertical line on the left, and the third staff is also connected to the second.

RETREAT—*Concluded.*

The first system of musical notation consists of three staves. Each staff begins with a treble clef. The music is written in a single melodic line across the three staves, with various note values including quarter, eighth, and sixteenth notes, as well as rests. The notation is typical of a bugle call score.

The second system of musical notation consists of three staves. It continues the melodic line from the first system. The notation includes quarter notes, eighth notes, and rests. The music concludes with a final note marked with an asterisk, indicating the end of the piece.

The third system of musical notation consists of three staves. It continues the melodic line from the second system. The notation includes quarter notes, eighth notes, and rests. The music concludes with a final note marked with an asterisk, indicating the end of the piece.

17. TATTOO.

Quick.

The first system of musical notation consists of three staves. The top staff is in treble clef with a common time signature (C). The music begins with a dotted quarter note, followed by eighth notes, and then a series of sixteenth notes. The second and third staves mirror the first staff's melody, with the third staff providing a bass line of eighth notes.

The second system of musical notation consists of three staves. The top staff continues the melody from the first system, featuring a quarter rest followed by eighth notes. The second and third staves continue the accompaniment, with the third staff showing a bass line of eighth notes.

The third system of musical notation consists of three staves. The top staff continues the melody, including a quarter rest and a final eighth note. The second and third staves continue the accompaniment, with the third staff showing a bass line of eighth notes.

TATTOO—Continued.

The first system of musical notation consists of three staves. Each staff begins with a treble clef. The music is written in a rhythmic pattern of eighth and sixteenth notes, with some notes beamed together. The first two staves end with a fermata over a note, and the third staff ends with a fermata over a note and a double bar line.

The second system of musical notation consists of three staves. Each staff begins with a treble clef. The music continues with a rhythmic pattern of eighth and sixteenth notes. The first two staves end with a fermata over a note, and the third staff ends with a fermata over a note and a double bar line.

The third system of musical notation consists of three staves. Each staff begins with a treble clef. The music continues with a rhythmic pattern of eighth and sixteenth notes. The first two staves end with a fermata over a note, and the third staff ends with a fermata over a note and a double bar line.

TATTOO—*Concluded.*

The first system of musical notation consists of three staves. The top two staves begin with a triplet of eighth notes, followed by another triplet of eighth notes, and then a quarter note with a fermata. The bottom staff follows a similar rhythmic pattern, starting with a quarter note, then a quarter note, and ending with a quarter note and a quarter rest.

The second system of musical notation consists of three staves. Each staff begins with a quarter note, followed by a quarter note, and then a quarter note with a fermata. The bottom staff includes a quarter rest at the end of the first measure.

The third system of musical notation consists of three staves. Each staff begins with a quarter note, followed by a quarter note, and then a quarter note with a fermata. The bottom staff includes a quarter rest at the end of the first measure.

18. CALL TO QUARTERS.

Slow.

Two staves of musical notation for 'Call to Quarters'. The first staff begins with a treble clef, a common time signature (C), and the tempo marking 'Slow.'. The melody consists of quarter and eighth notes, with a triplet of eighth notes in the final measure. The second staff continues the melody with similar note values and a triplet of eighth notes in the final measure.

19. TAPS.

Slow.

Two staves of musical notation for 'Taps'. The first staff begins with a treble clef, a common time signature (C), and the tempo marking 'Slow.'. The melody is composed of dotted quarter notes and eighth notes. The second staff continues the melody with similar note values and a dotted quarter note in the final measure.

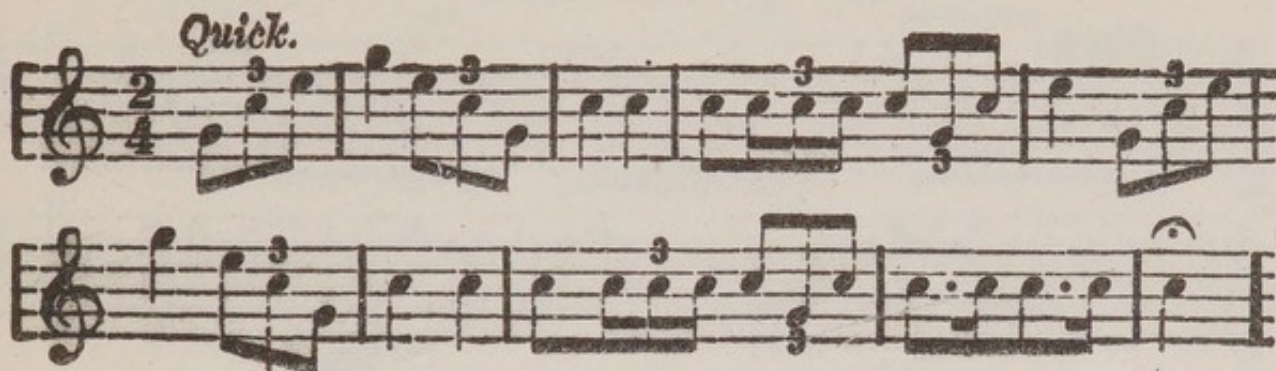
20. MESS.

Quick.

Three staves of musical notation for 'Mess'. The first staff begins with a treble clef, a 2/4 time signature, and the tempo marking 'Quick.'. The melody features eighth and sixteenth notes, with a triplet of eighth notes in the final measure. The second and third staves continue the melody with similar note values and a triplet of eighth notes in the final measure. The third staff ends with a double bar line and an asterisk (*).

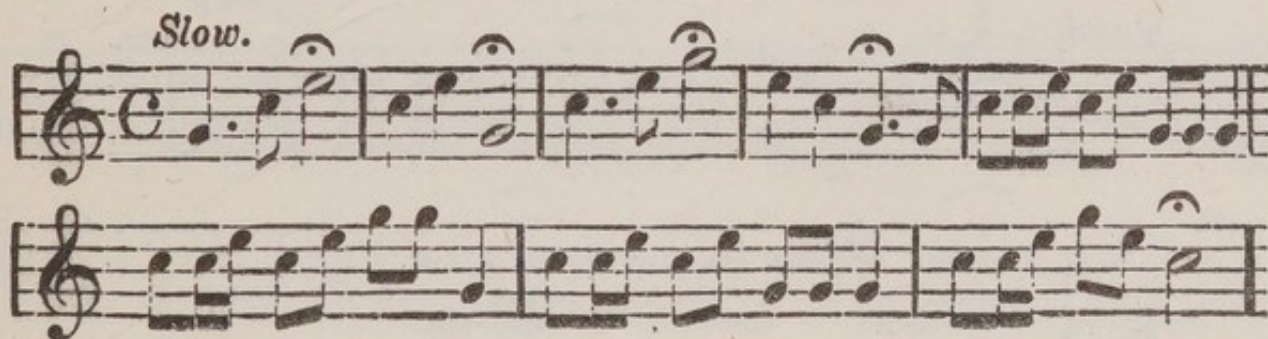
21. SICK.

Quick.



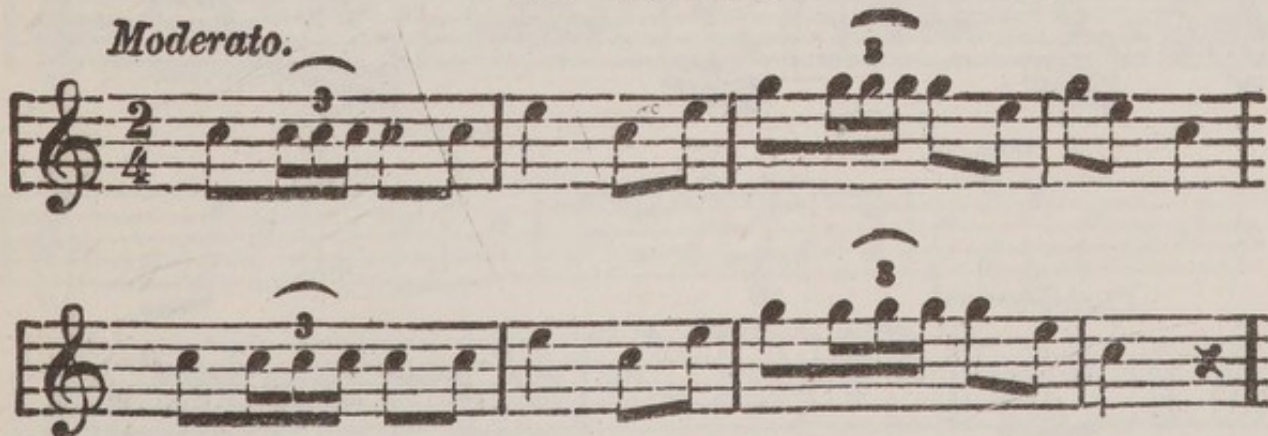
22. CHURCH.

Slow.



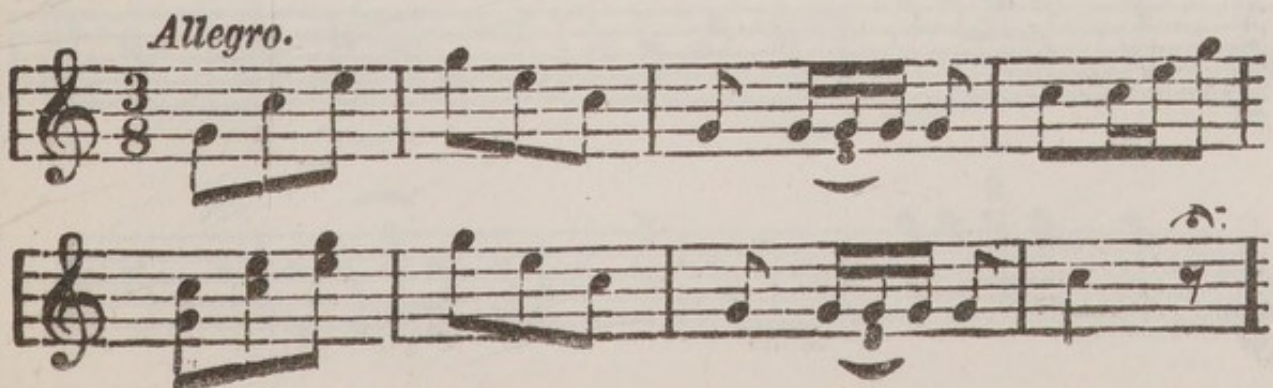
23. RECALL.

Moderato.



24. ISSUE.

Allegro.



25. OFFICERS' CALL.

Quick.

Two staves of music in 6/8 time. The first staff begins with a treble clef and a 6/8 time signature. The melody consists of eighth notes and quarter notes. The second staff continues the melody, ending with a quarter note and a half note.

26. CAPTAINS' CALL.

Quick.

One staff of music in 6/8 time. The melody consists of eighth notes and quarter notes. The piece concludes with a quarter note and a half note.

27. FIRST SERGEANTS' CALL.

Quick.

One staff of music in 2/4 time. The melody features triplets of eighth notes and quarter notes. The piece concludes with a quarter note and a half note.

28. FATIGUE.

Quick.

Three staves of music in 3/8 time. The melody consists of eighth notes and quarter notes. The piece concludes with a quarter note and a half note.

29. SCHOOL.

Quick.

30. THE GENERAL.

Quick.

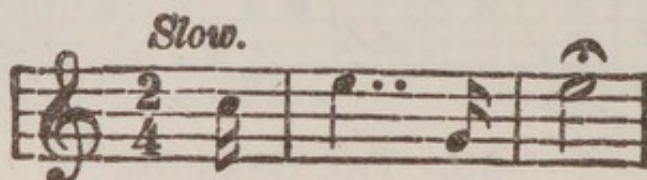
MANUAL OF THE BUGLE.

BUGLE SIGNALS.

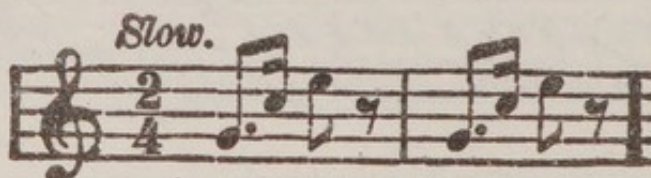
31. ASSEMBLE. MARCH.

Same as *Assembly*, No. 9.

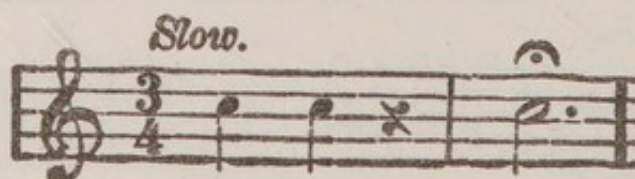
32. ATTENTION.



33. ATTENTION TO ORDERS.



34. FORWARD. MARCH.



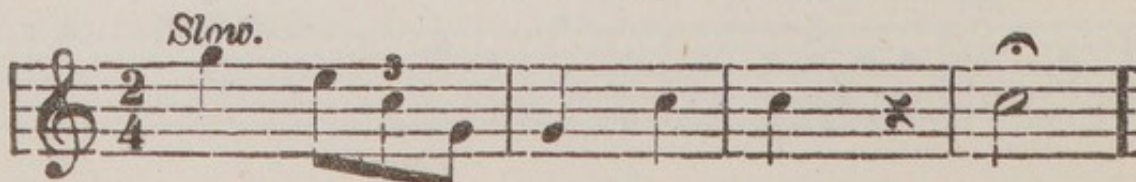
35. HALT.



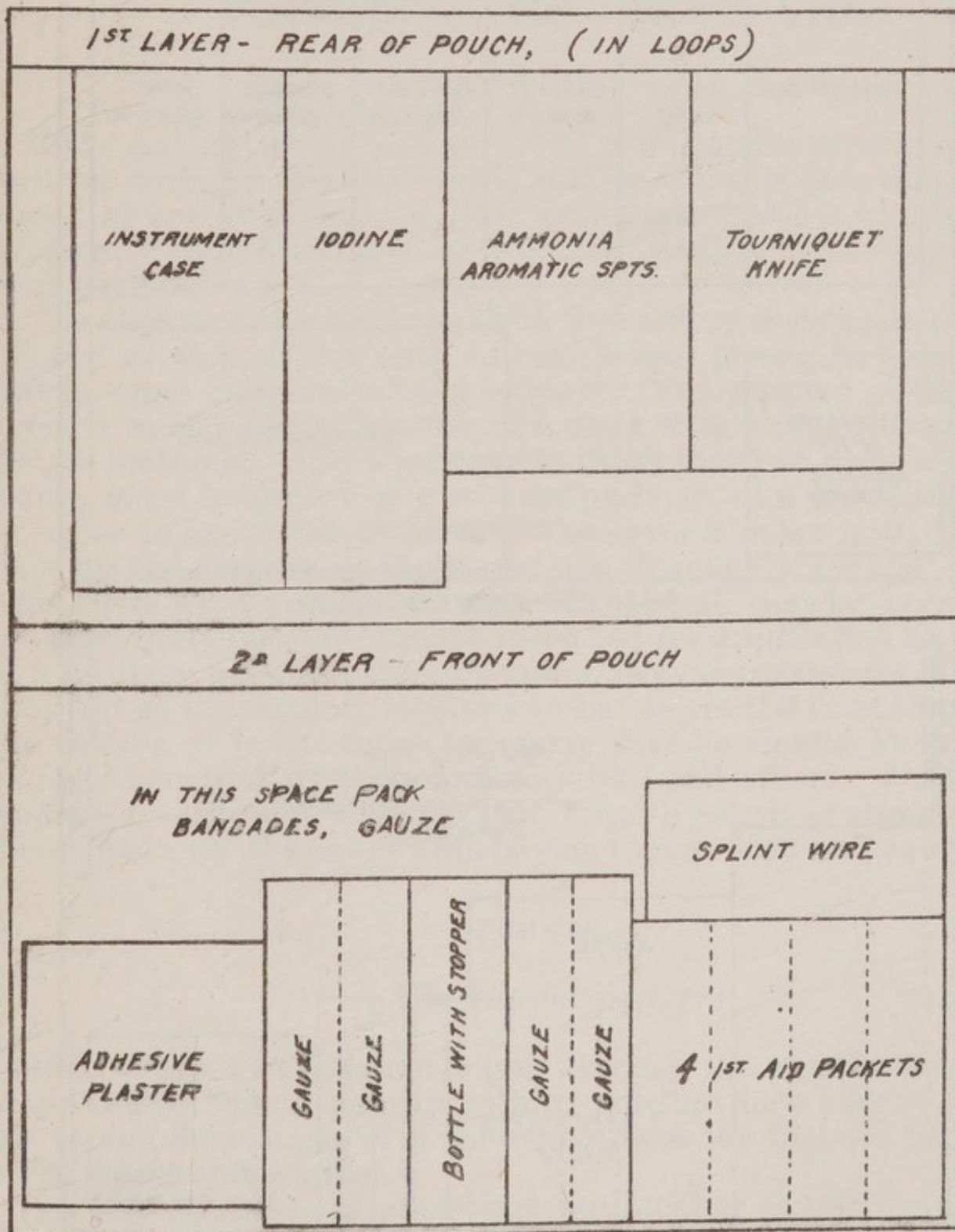
36. DOUBLE TIME. MARCH.



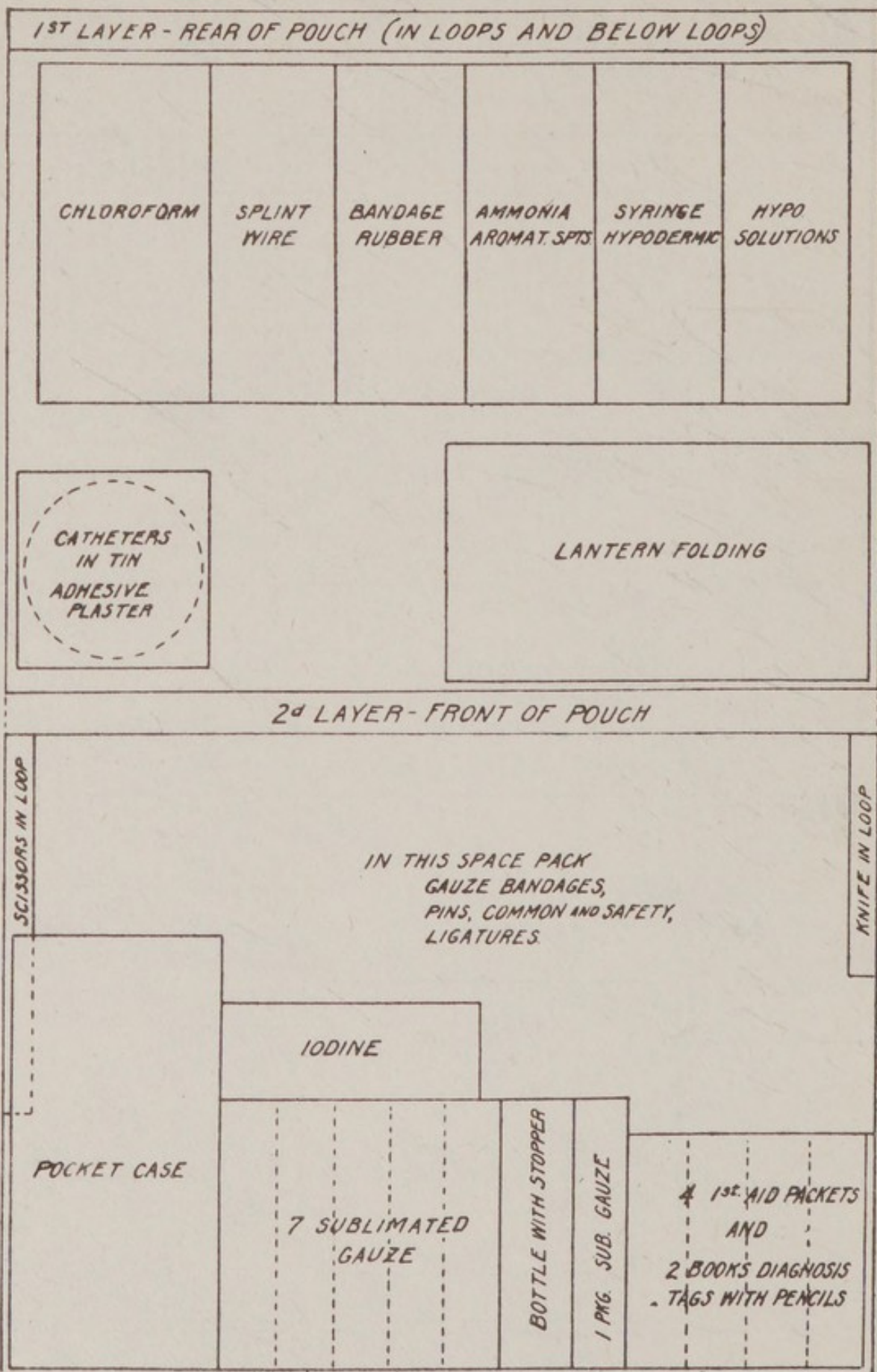
37. TO THE REAR. MARCH.



SCHEME FOR PACKING THE HOSPITAL CORPS POUCH



SCHEME FOR PACKING THE ORDERLY POUCH



OUTLINES OF FIRST AID.

285. As most of the first-aid work in war under present conditions will be done by the individual soldier acting alone, and not by a squad of two or more men, it is important that his training should be largely individual and such as will develop self-reliance and resourcefulness.

The object of any teaching upon first aid, or early assistance of the injured or sick, is not only to enable one person to help another, but in some measure to help himself. The purpose of these directions is to show how this may be done with simple means and by simple methods. It is a mistake to think that you must know many things to be helpful, but you must understand a few things clearly in order to assist the patient in the severer cases until he can be seen by the surgeon or those who are thoroughly trained. In ordinary cases what you can do may often be all that is necessary.

These short instructions are intended for application anywhere— at a military post, in camp, or under any circumstances of ordinary life; but as the wounds received in battle are the most important to the soldier, it is the more necessary that he should know what to expect there and what to do for himself and others. Most of these wounds are made by the rifle ball, fewer by shell or shrapnel, while those made by the saber and bayonet come last in frequency.

WOUNDS.

The first-aid packet.

286. When a ball enters or goes through the muscles or soft parts of the body alone, generally nothing need be done except to protect the wound or wounds with the contents of the first-aid packet.

Each packet contains:

(1) Two bandages of absorbent sublimated (1:1000) gauze, 4 by 34 inches.

(2) Two compresses of absorbent sublimated (1:1000) gauze, each composed of $\frac{1}{2}$ square yard of gauze, folded so as to make a compress $3\frac{1}{2}$ by 7 inches.

One compress to be placed lengthwise in the center of each bandage and retained in position by sewing along one end and across the center. The loose end of the compress is then folded on the sewer part and held by one or two stitches, thus making a compress $3\frac{1}{2}$ by $3\frac{1}{2}$ inches.

Each bandage thus prepared to be rolled loosely from each end with the roll toward the back of the bandage, until the compress is reached. The latter is now folded through the center and the flattened rolls of the bandage laid on either side of the folded compress. Each bandage then to be wrapped separately in parchment or waxed paper.

(3) Two No. 3 safety pins wrapped in waxed paper.

The two compresses and the safety pins are then wrapped together in tough paper on which simple directions for application are printed.

The packet thus prepared to be placed in a hermetically sealed metal case with a suitable arrangement for easy opening. All contents of the case must be sterile. Dimensions of the case should not exceed 4 by $2\frac{1}{4}$ by 16 inches.

The words "First-aid packet, U. S. Army," are stamped on the metal case. Also directions for opening, manufacturer's name, and date of contract.

The shell-wound dressing consists of:

(1) One compress composed of 1 square yard of absorbent sublimated (1:1000) gauze, so folded as to make a pad 6 by 9 inches. Across the back of each end of this compress is placed a piece of gauze bandage 3 inches wide by 48 inches long projecting beyond the compress 21 inches on each side. These bandages are held in position by stitching along the edges of the compress; the tails are loosely rolled and placed on the back of the compress. The compress thus made is wrapped in parchment or waxed paper.

(2) One bandage, 3 inches wide by 5 yards long of absorbent sublimated (1:1000) gauze, loosely rolled and wrapped in parchment or waxed paper.

(3) Two No. 3 safety pins wrapped in waxed paper.

The whole dressing is wrapped in tough paper with directions for application printed thereon.

The short bandages sewed to the compress are for the purpose of temporarily fixing the compresses on the wound after which it is firmly bound on by the roller bandage.

DIRECTIONS FOR APPLYING FIRST-AID PACKET.

287. Carefully remove the wrapper and proceed as follows:

1. If there is only one wound, carefully remove the paper from one of the two packages without unfolding compress or bandage and hold by grasping the outside rolls of bandage between the thumb and fingers.

When ready to dress wound, open compress by pulling on the two rolls, being careful not to touch the inside of the compress with fingers or anything else. Still holding one roll of the bandage in each hand, apply the compress to the wound, then wrap the bandage around the limb or part and tie the ends together or fasten with safety pins. The second compress and bandage may be applied over the first, or it may be used for a sling if the arm is wounded or to bind both legs together if one is injured.

2. If there are two wounds opposite each other, apply to one wound a compress with unrolled bandage, and hold it in place by the bandage of the compress used to cover the other wound.

3. If there are two wounds not opposite each other tie a compress over each.

4. If the wound is too large to be covered by the compress find and break the stitch holding the compress together, unfold it, and apply as directed above.

5. Be careful not to touch the wound with your fingers nor handle it in any way, for the dirt on your hands is harmful, and you must disturb a wound as little as possible. Never wash the wound except under the orders of a medical officer.

The bandaging will stop ordinary bleeding.

Generally this is all that is necessary for the first treatment, and sometimes it is all that is needed for several days. The importance of the care with which this first dressing is made can not be too seriously insisted upon. It is better to leave a wound undressed than to dress it carelessly or ignorantly, so that the dressing must soon be removed. (*C. D. R. and S. M. S. T., No. 1.*)

BANDAGES AND SLINGS.

288. In addition to the slings made with the bandages two forms of slings provided by the ordinary clothing are shown here. (Pl. 76 and 77.)

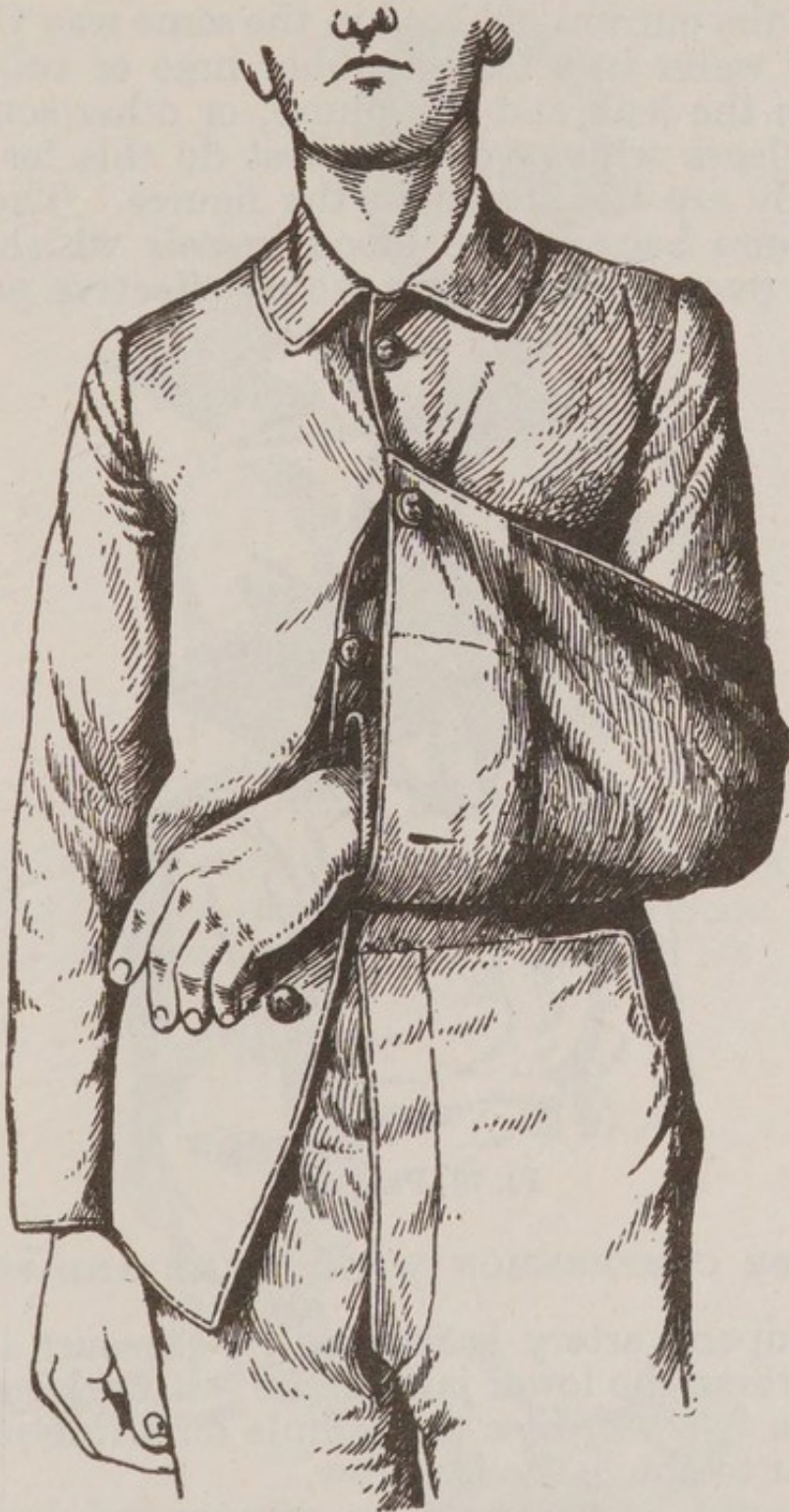


Pl. 76, Par. 288. SLEEVE AS SLING.

BLEEDING FROM WOUNDS.

289. Now and then a wound will bleed very freely, because a large blood vessel has been wounded; and you must know how to stop the bleeding, or hemorrhage, as it is called. Remember that

wounds bleed a little, but that, as a rule, this bleeding will stop in a few minutes if the patient is quiet, and that the firm pressure of the



Pl. 77, Par. 288. FLAP OF COAT AS SLING.

pads and bandage will keep it controlled. Occasionally, but not often, something else must be done.

Looking upon the heart as a pump, you will understand that to stop the current of blood pumped through the arteries you must press upon the blood vessel between the wound and the heart.

Pressure stops the current of blood in the same way that you would stop the flow of water in a leaky rubber hose or tube by pressing upon it between the leak and the pump, or other source of power. The points or places where you can best do this for the different parts of the body are illustrated in the figures. These points are chosen for pressure because the blood vessels which you wish to control there lie over a bone against which effective pressure can be made.



Pl. 78, Par. 291.

POINTS FOR COMPRESSION WITH THUMB AND FINGERS.

290. The temporal artery is reached by pressure in front of the ear just above where the lower jaw can be felt working in its socket. A branch of this artery crosses the temple on a line from the upper border of the ear to above the eyebrow.

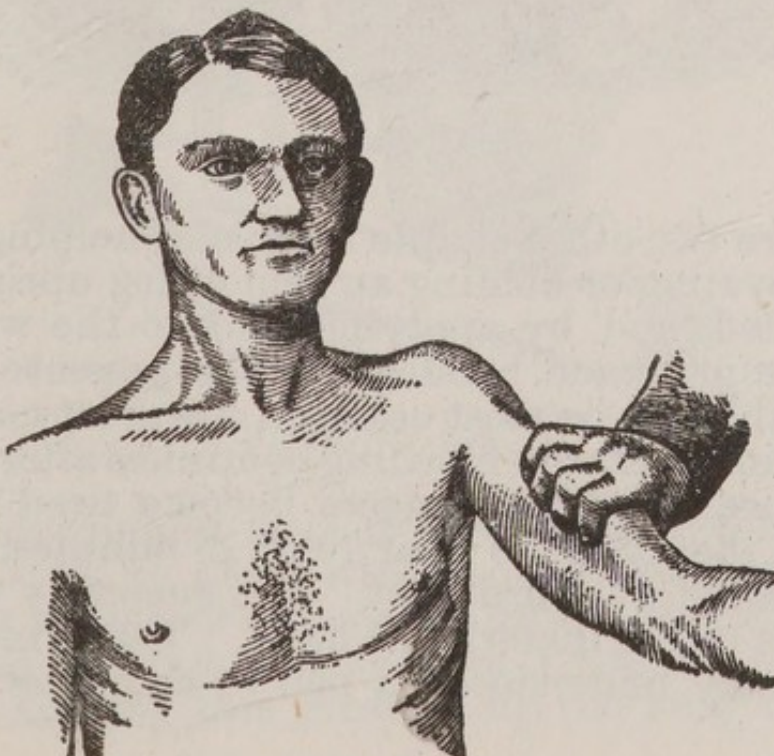
291. The carotid artery may be compressed by pressing the thumb and fingers deeply into the neck in front of the strongly marked muscle which reaches from behind the ear to the upper part of the breastbone. Pl. 78 shows pressure on the carotid of the left side.

292. In bleeding from wounds of the shoulder or armpit the subclavian artery may be reached by pressing the thumb deeply into the hollow behind the middle of the collar bone, Pl. 79.



Pl. 79, Par. 292.

293. In bleeding from any part of the arm or hand the brachial artery should be pressed outward against the bone just behind the inner border of the large muscle of the arm, Pl. 80.



Pl. 80, Par. 293.

294. In bleeding from the thigh, leg, or foot, press backward with the thumbs on the femoral artery at the middle of the groin where the artery passes over the bone. The point is a little higher up than that indicated in Pl. 81.



Pl. 81, Par. 294.

295. There are two other simple means for helping to stop bleeding—such as elevating or holding an arm or leg upright when these parts are wounded, and by applying cold to the wound; but you will find the compress and bandage, or the pressure made by your fingers, as described, to be most useful in the great majority of cases.

296. When, however, the bleeding continues after you have used these simpler means, or your fingers become tired in making the pressure, which they may do after 10 or 15 minutes, you will have to use what is called a “tourniquet,” and generally will be obliged to improvise one out of material at hand. The principle of such a tourniquet is easily understood—a pad or compress placed on the

line of the artery and a strap or band to go over the pad and around the limb, so that, when tightened, it will press the pad down upon the artery and interrupt the flow of blood.

In the arm, apply the tourniquet over the point shown for compression by the fingers; in the thigh 4 or 5 inches below the groin, as it can not be applied higher up. (See Pls. 82 and 83.)

The pad or compress may be made of such an object as a cork or smooth round stone wrapped in some material to make it less rough, a bandage, a handkerchief, or a cravat being used for the strap. After tying the band closely around the limb, any degree of pressure may be made by passing a stick, bayonet, or something of that kind of sufficient length, and twisting or turning it around so that the pad is pressed firmly in place.

IMPROVISED TOURNIQUET.



Pl. 82, Par. 296.

Turn the stick slowly and stop at once when the blood ceases to flow, fixing the stick in place with another bandage. Remember that you may do harm in two ways in using this rough tourniquet: First, by bruising the flesh and muscles if you use too much force; and second, by keeping this pressure up too long and thus stran-

gling the limb. It is a good rule to relax or ease up on this or any other tourniquet at the end of an hour, and allow it to remain loose, but in place, if no bleeding appears. By watching you can tighten the tourniquet at any time if necessary.

IMPROVISED TOURNIQUET.



Pl. 83, Par. 296.

FRACTURES.

297. The next injury you must know how to help is a broken bone. The lower extremities, thigh and leg, are more frequently wounded than the upper, arm and forearm; and so you will find more fractures of the thigh and leg bones than of the bones of the

arm and forearm. You will usually know when one of these long bones is broken by the way the arm or leg is held, for the wounded man loses power of control over the limb, and it is no longer firm and straight. What you must do is much the same in all cases—straighten the limb gently, pulling upon the end of it firmly and quietly when this is necessary, and fix or retain it in position by such splints or other material as you may have. This is called “setting” the bone. If you have none of the splint material supplied, many common materials will do for immediate and temporary



Pl. 84, Par. 298.



Pl. 85, Par. 299.

use—a shingle or piece of board, a carbine boot, a scabbard, a tin gutter or rain spout cut and fitted to the limb, a bunch of twigs, etc. Whatever material you choose must be well padded upon the side next to the limb, and afterwards secured or bound firmly in place, care being taken never to place the bandage over the fracture, but always above and below. Some of these methods are shown in the accompanying figures.

298. Fracture of the arm.—Apply two splints, one in front, the other behind, if the lower part of the bone is broken; or to the inner and outer sides if the fracture is in the middle or upper part; support by sling, as in Pl. 84.

299. *Fracture of the forearm.*—Place the forearm across the breast thumb up, and apply a splint to the outer surface extending to the wrist, and to the inner surface, extending to the tips of the fingers, support by sling, as in Pl. 85.



Pl. 86, Par. 300.

300. *Fracture of the thigh.*—Apply a long splint, reaching from the armpit to beyond the foot, on the outside and a short splint on the inside (Pl. 86). The military rifle may be used as an outside splint, but its application needs care. A blanket rolled into two rolls, forming a trough for the limb, is useful.

The carbine boot may be used to advantage in splinting fractures of the thigh and leg, as illustrated in Pls. 87 and 88.

301. *Fracture of the leg.*—Apply two splints, one on the outside, the other on the inside, of the limb. When nothing better can be had support may be given by a roll of clothing and two sticks, as shown in Pl. 89.

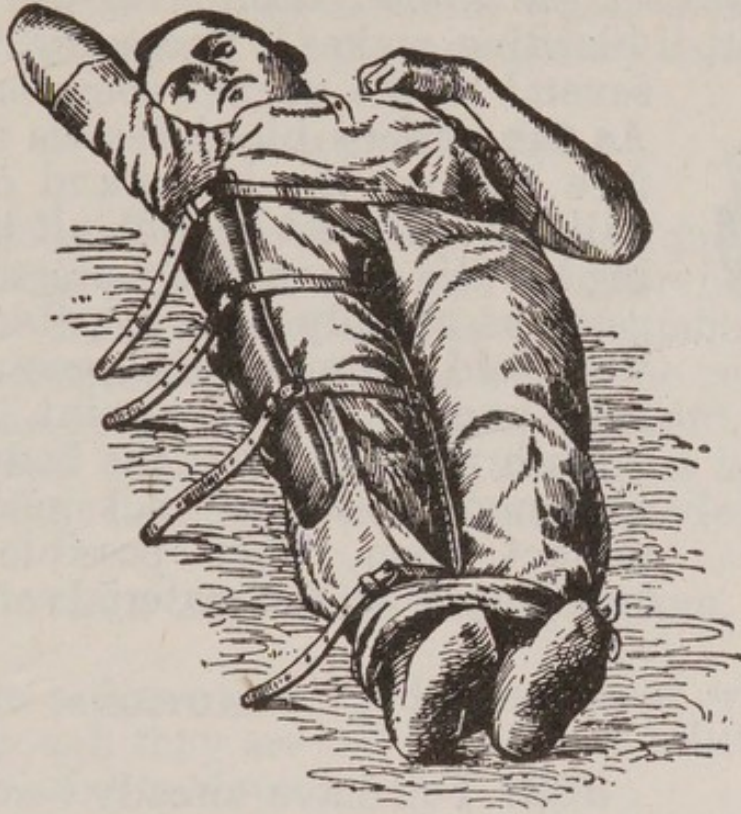
Many surgeons think that the method of fixing the wounded leg to its fellow, and of binding the arm to the body, is the best plan for the field, as the quickest and as serving the immediate purpose.

The object of all this is to prevent, as far as possible, any motion of the broken bone, and so limit the injury to the neighboring muscles, and to lessen the pain.

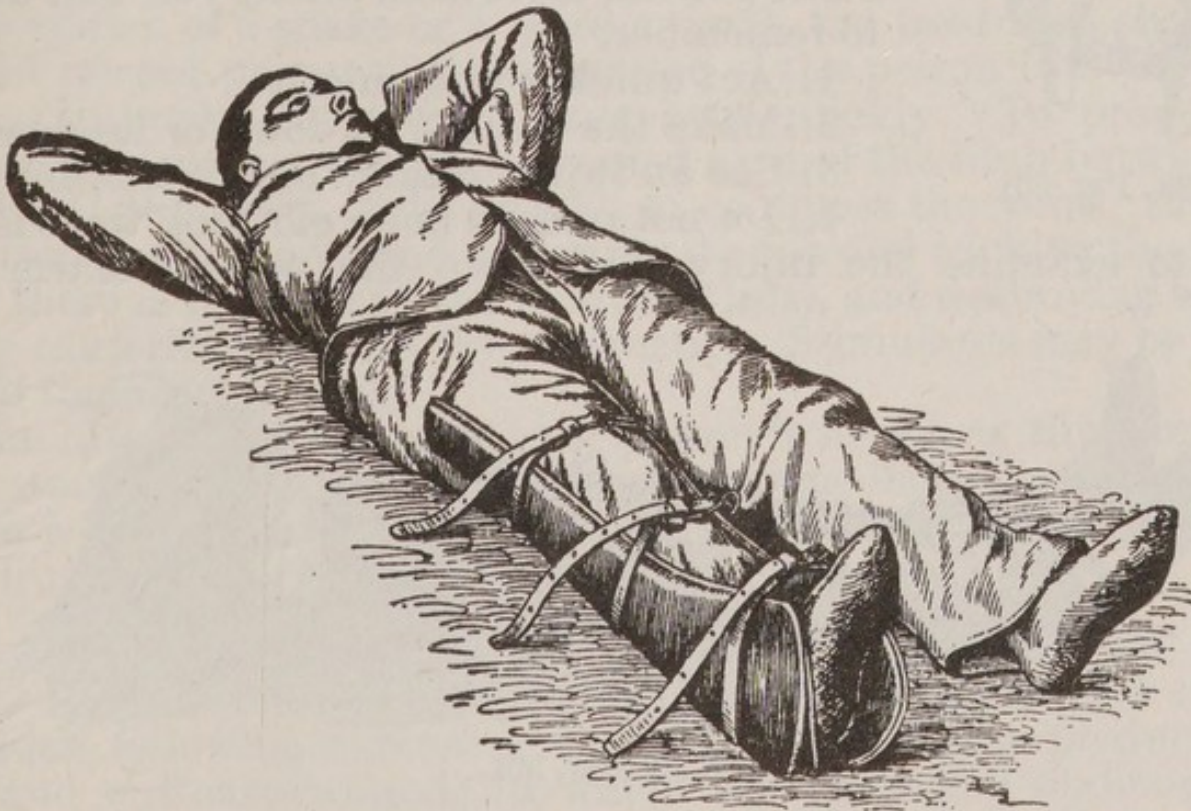
Be very careful always to handle a broken limb gently. Do not turn or twist it more than is necessary to get it straight, but secure it quickly and firmly in one of the ways shown, and so make the patient comfortable for carriage to the dressing station or hospital. Time is not to be wasted in complicated dressings.

OTHER WOUNDS.

302. There are, of course, many wounds of the head, face, and of the body, but for the most part you will have little to do with

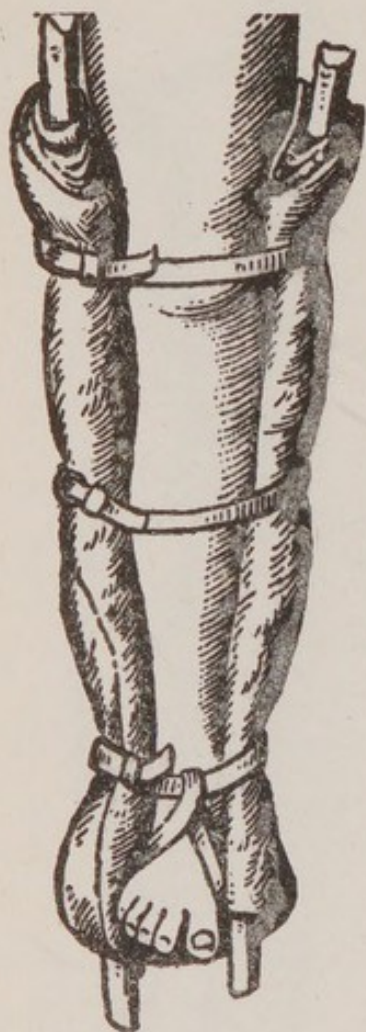


Pl. 87, Par. 300.



Pl. 88, Par. 300.

these except to protect the wound itself with the contents of the first-aid packet, or, if bleeding makes it necessary, use, in addition, several of the packet compresses to control it. As the surface blood vessels of the head and face lie over the bones and close to them, it will generally not be difficult to stop the bleeding by this means or by pressure with the fingers, as already shown. Remember, as you were told, to make the pressure between the heart and the bleeding point.



Pl. 89, Par. 301.

With wounds about the body, the chest, and abdomen, you must not meddle, except to protect them, when possible without much handling, with the materials of the packet.

CAUTIONS.

303. You have already been warned to be gentle in the treatment of the wounded, and the necessity for not touching the wound must be always in your mind; but there are some other general directions which you will do well to remember:

1. Act quickly but quietly.
2. Make the patient sit down or lie down.
3. See an injury clearly before treating it.
4. Do not remove more clothing than is necessary to examine the injury, and keep the patient warm with

covering, if needed. Always rip or, if you can not rip, cut the clothing from the injured part, and pull nothing off.



Pl. 90, Par. 301.

covering, if needed. Always rip or, if you can not rip, cut the clothing from the injured part, and pull nothing off.

5. Give alcoholic stimulants cautiously and slowly, and only when necessary. Hot drinks will often suffice when obtainable.

6. Keep from the patient all persons not actually needed to help him.

THE DIAGNOSIS TAG.

304. The diagnosis tag is very important in preventing unnecessary handling of the wounded man and interference with his dressings on the field. When available, it is to be attached by the person who applies the first dressing, and is not to be removed until the patient reaches the field hospital. When a patient has a tag on, it is to be carefully read before additional treatment is given, and will usually indicate that no further treatment is needed before reaching the hospital.

OTHER ACCIDENTS AND INJURIES.

305. There are a few other conditions about which you should be informed, although they are not peculiar to military life, the first two only being related to wounds.

POISONED WOUNDS.

306. When a wound is known to be poisoned, such as one infected by the venom of a snake or a rabid animal, the treatment should be directed toward preventing the passage of the poison into the circulation. In snake bites the poison acts quickly. To prevent its absorption a bandage should be carried around the limb between the wound and the heart, tight enough to compress the veins; then get the poison out of the wound by laying it open and sucking the poison out (if there is no crack in the mouth or lips), and destroying what is left by cauterization with fire or caustic. Stimulants may be freely given if the heart is weak.

In the bite of a rabid animal the poison is for a long time localized in the wound, and there is no danger of immediate absorption. Do not use a tourniquet, but use the other local measures advised for snake bite.

SHOCK.

307. By this term is meant a very severe physical and mental depression following extensive wounds, such as those produced by shell, and ordinary wounds in which the chest and abdomen are entered. You can hardly mistake this condition, for it resembles

approaching death. If possible, the patient should not be moved, but kept in position where found, warmed and carefully stimulated. This will be difficult, perhaps impossible, on the battlefield, but it should be attempted unless removal is unavoidable.

FAINTING.

308. This condition is generally the result of severe bleeding or exhaustion from fatigue. The patient should be laid upon his back, head lowered, arms by the side, feet extended, and should be carefully stimulated. This condition is rarely dangerous.

The other important accidents or conditions with which you may have to deal are poisoning, drowning, sunstroke, heat exhaustion, burns, and freezing.

POISONING.

309. Poisoning by way of the stomach may result from swallowing mineral or vegetable poisons. In the military service it often follows the taking of food which has undergone changes resulting in the production of poisons—ptomaines, etc.

Whenever there is no evidence of caustic action, such as burns on the mouth, an effort should be made to empty the stomach and bowels by the free use of emetics and laxatives, such as mustard and warm water, two teaspoonsful; a tablespoonful of salt in a glass of warm water; epsom or rochelle salts; castor oil, etc. After the poison has been evacuated, give stimulants and apply heat and rubbing externally.

When the lips are burned, give no emetic; give olive oil, cottonseed oil, or castor oil, internally, and also the proper antidote if you know it.

FAILURE OF RESPIRATION.

310. Artificial respiration is required in cases of failure of respiration from drowning, from inhalation of gas, from electric shock, or from concussion of the brain.

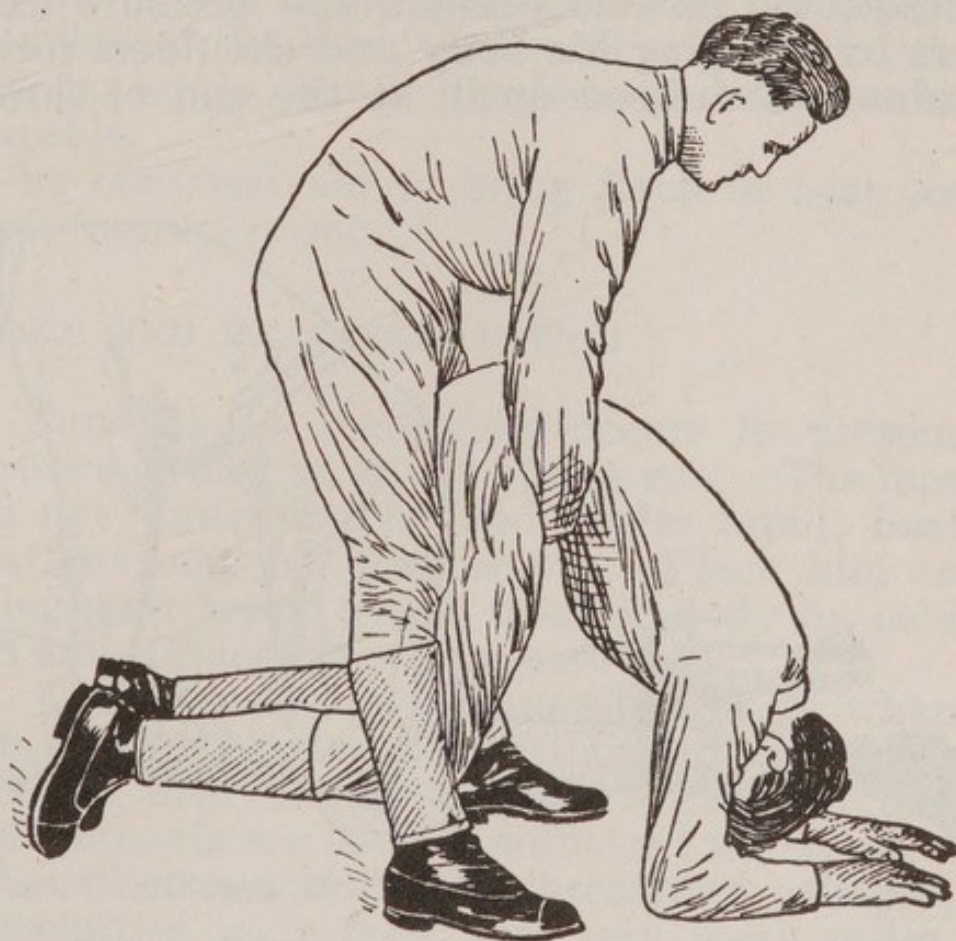
Being under water for four or five minutes is generally fatal, but an effort to revive the apparently drowned should always be made, unless it is known that the body has been under water for a long time. It is of the first importance in attempting to revive cases of this character that artificial respiration be begun at the earliest practicable moment, as soon as the patient is on shore or in a boat; and it must be continued, in many instances, an hour and a half or two hours before the case is considered hopeless. After the patient begins to

breathe, watch carefully to see that he does not stop again, and when he breathes faintly, assist him with artificial respiration. Do not attempt to raise the patient, nor allow him to rise, until breathing has become regular. As soon as the patient is removed from the water, lay him face down, and grasping him around his waist, raise his hips so that any water may drain out of the air passages while the head remains low. Then proceed with the following method of artificial respiration, which can be carried out by one person, without great exhaustion, for one or two hours.

SCHAEFER METHOD.

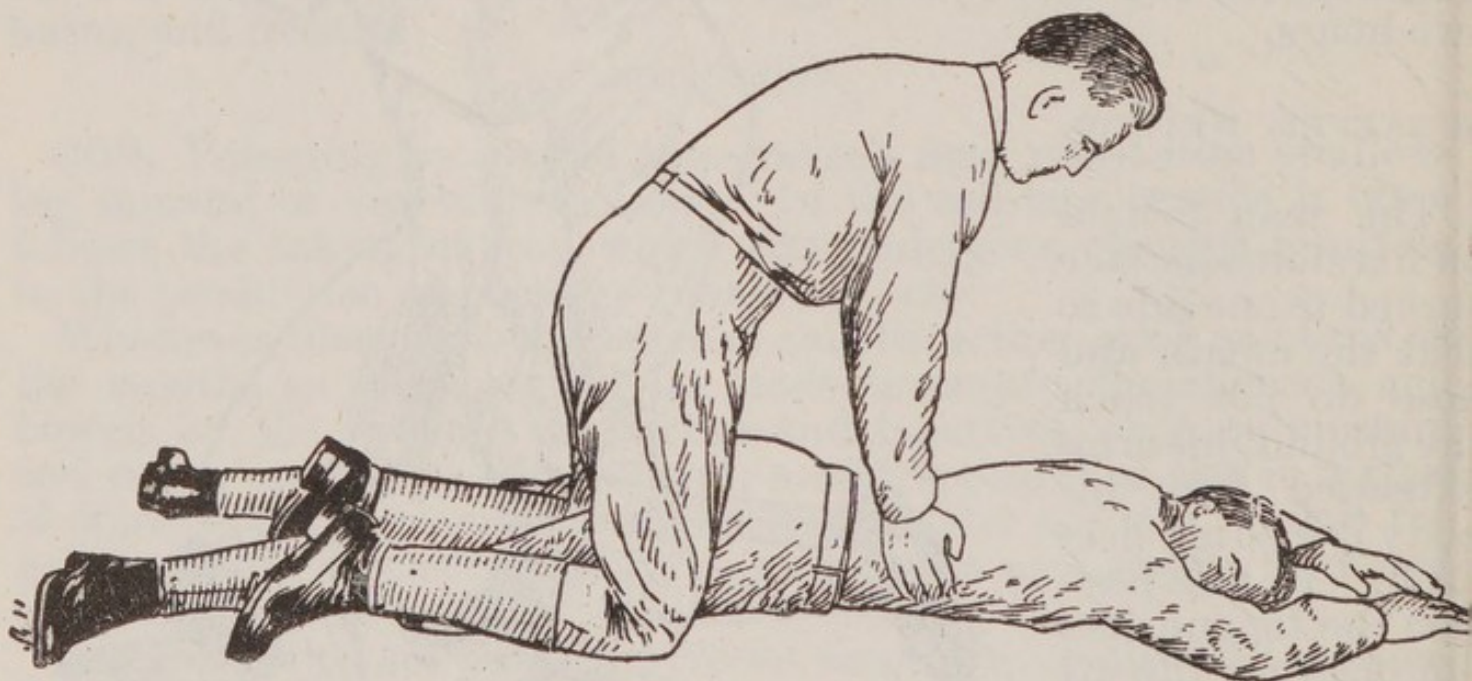
The man is laid on his stomach, face turned to one side so that the mouth and nose do not touch the ground, his arms extended from his body beyond his head. In this position the tongue does not obstruct the air passages but falls forward of its own weight, and the removal of any foreign body, tobacco, chewing gum, or false teeth, or of mucus, blood, or vomitus is facilitated.

The operator kneels, straddling one or both of the patient's thighs, facing the patient's head and places his hands, with the thumb nearly parallel to the fingers, so that the little finger curls over the end of the lowest rib. The lower margin of the hand must be free from the pelvis, and resting on the lowest rib. The ribs can be more easily located and the pelvis avoided by operating on the bare back of the patient.



Pl. 91, Par. 310.

The nearer to the ends of the ribs the heels of the hands (thenar and hypothenar eminences) can be placed without sliding off, the better the position. Thus the hands are far removed from the spine and the fingers nearly out of sight. The fingers help some, but the chief pressure is exerted by the heels of the hands, the weight coming straight from the shoulder. To bend the arms and shove the hands in at the sides in addition to the vertical pressure is a waste of energy, being less beneficial than the vertical pressure alone. The operator's arms should be held straight, and pressure exerted from his shoulders by bringing his body and shoulders forward. This weight is gradually increased until, at the end of three seconds of vertical



Pl. 92, Par. 310.

pressure on the lower ribs of the patient, the force is felt to be sufficient to compress the parts; then the weight is suddenly removed; if there is danger of not returning the hands to the right position, they may remain lightly in place, but it is usually better to remove the hands entirely.

With an overweight patient, a light operator can utilize over 80 per cent of his weight by raising his knees from the ground and supporting his weight entirely on his toes and the heels of his hands—the latter properly placed on the ends of the floating ribs of the patient. In this manner he can work as effectively as a heavy man.

A feather or a few fibers of absorbent cotton, held near the patient's nose, will indicate whether or not air passes with each forced expira-

tion and spontaneous inspiration. The rate of compression should not exceed twelve or fifteen times per minute, the lungs being thoroughly emptied by three seconds of pressure and allowed two seconds to refill.

There are liable to be evidences of life within 25 minutes in patients who will recover from electric shock, but where there is doubt the patient should have the benefit of it. In drowning recoveries after two hours or more of unconsciousness are on record.

Aromatic spirits of ammonia on a handkerchief may be placed continuously within 3 inches of the nose; no liquid will be given a patient while unconscious; apply warm blankets and hot water bottles as soon as practicable.

Due caution should be observed not to bring force to bear too violently on the ribs, lest fracture occur.

SUNSTROKE AND HEAT EXHAUSTION.

311. (a) Sunstroke. Sunstroke or heatstroke occurs in persons exposed to high temperature, either in or out of the sun. The face is flushed, skin hot and dry, breathing labored, pulse rapid, heat of body great. The patient may be unconscious. Place him in the shade, loosen clothing, and try to lessen heat of body by cold applications to the head and surface generally.

(b) Heat exhaustion. The heat may also cause, especially when soldier is much fatigued, a form of exhaustion without insensibility. Rest on the back in the shade, with cold applications to the head, and a little aromatic spirits of ammonia are usually sufficient to relieve.

In rare cases this exhaustion may go on to threatened collapse, with cold skin and extremities, pale face, and very weak pulse. Here alcoholic stimulants and heat to the body become necessary.

It is well to be warned that both sunstroke and heat exhaustion are common and severe among drinkers and the intemperate.

BURNS.

312. Do not pull the clothing from the burnt part, but rip or cut it off. Do not break the blisters nor prick them, even if large. Protect a burn quickly with a mixture of equal parts of linseed or olive oil and lime water, if you have them, or with the plain oil, covering the whole with lint or cotton wool. Put nothing on a burn that will be difficult to remove afterwards.

FREEZING AND FROSTBITE.

313. The part frozen, which looks white or bluish white, and cold, should be very slowly raised in temperature by careful rubbing with snow or ice and water, in a cool place and never near a fire. Stimulants are to be given cautiously when the patient can swallow and followed by small amounts of warm liquid nourishment. The object is to restore the circulation of the blood and the natural warmth gradually and not violently. Care and patience are necessary to do this.

TRANSPORTATION.

314. The carriage of patients for moderate distances on or from the field is best done with the service litter and, when that cannot be procured, by some improvised substitute which secures the comfort and safety of the person disabled. These methods, and those of one or more bearers, are fully described in the preceding paragraphs and are not repeated here.

DEIMER'S FIRST-AID RULES (MODIFIED).

315. 1. Never touch a wound with anything unclean—dirty fingers, nondisinfected bandages, dirty water, etc. It may cause inflammation, ulceration, or blood poisoning.

2. Expose the wound by removing the covering article of dressings which contains many impurities. Unbutton or cut clothes and examine extent of bleeding. Open all articles of clothing which might hinder circulation of blood or breathing (collar, necktie, belt). To avoid pain and bleeding, raise legs by putting under them a valise, saddle, truss of straw, etc.; slight bleeding will often cease in this position of its own accord, without any bandaging. A bandage is advisable to protect the wound from dirt, flies, or cold. **USE THE FIRST-AID PACKET.** Coats, pouches, haversacks, etc., may be used as pillows.

3. If the wound does not bleed at all, or only a few drops at a time, no constriction or pressure is necessary.

4. If the blood is spurting or in a strong stream from a wound you must use measures to stop it.

5. Whoever is able to walk after being wounded must repair once to the dressing station. Those who can not walk must be carried by stretcher bearers, and must await their arrival by lying down as quietly and as comfortably as possible, in order to avoid pain, bleeding, and aggravation of the wound.

PART II.

SERVICE REGULATIONS FOR AMBULANCE COMPANIES AND FIELD HOSPITALS.

GENERAL.

316. The object to be attained by the training of ambulance companies and field hospitals is to insure proper care and the necessary transportation of the sick and wounded of troops serving in the field.

The special functions of mobile sanitary units are—

(1) In time of war to promptly succor and transport the sick and wounded and to give them proper care and attention until such time as they can be transferred to the next sanitary organization on the line to the rear;

(2) In time of peace to train the greatest number of sanitary soldiers practicable in those duties pertaining to transportation, the care of animals, and the conduct of the interior economy of sanitary organizations in the field.

The requirements of war must be made the standard of efficiency, and all sanitary soldiers must be instructed not only in appropriate methods of rendering first aid and of caring for the sick and wounded, but in all duties pertaining to the conduct of field sanitary units.

Instruction in time of peace must be conducted with a view to drilling the personnel thoroughly in their ordinary duties, and to afford both officers and men practice and experience in dealing with situations and difficulties apt to arise in campaign.

317. A progressive order will be followed in all instructions, which should commence with the theoretical and practical instruction of the individual soldier. This should be followed by the school of the detachment, then by the school of the company, and should culminate in practical exercises under assumed active service conditions in the field and at maneuvers.

Thorough training of the individual soldier is the basis of efficiency. Great precision and attention to detail are essential to this instruc-

tion, for from it the soldier must acquire that habit of implicit obedience to orders and of the accurate performance of his individual duties which are the indispensable requirements for efficiency in combined training.

318: The basis of the practical training of sanitary soldiers is laid down in the Drill Regulations and Outlines of First Aid (Part I of this volume). Men must be made thoroughly familiar with the exercises and maneuvers prescribed therein before entering upon the special training in the duties pertaining to ambulance companies and field hospitals.

319. The commanding officer of each ambulance company and field hospital will distribute its administrative and military duties among his subordinates according to his judgment. He will also, in his organization is the only one at the post, assign instructors to assist him in carrying out such course of training as may be necessary in order to conform to the general scheme of training prescribed in these regulations. The efficiency of an organization will be determined by the manner in which it performs its duties in the field and by the number of men whom it has trained for field service.

When two or more such organizations in time of peace are serving in a garrison, the senior officer of said organizations will, for post administrative purposes, assume command. He will conduct the garrison course of instruction therein as though they were a single organization, and will assign the instructors from the permanent personnel of both, or of all, the said organizations, as he may deem best. In other respects, however, the several organizations will retain their autonomy as separate and distinct administrative units each under the command of its own senior officer.

The discipline and interior economy of these organizations will, as far as practicable, conform to those of a company of infantry. The regulations of each organization will define plainly and explicitly the restrictions and rules of conduct to which all its members are required to conform. The routine military and administrative duties of all noncommissioned officers and men will also be explicitly defined.

AMBULANCE COMPANIES.

320. For each division there shall be one medical officer, a major as director of ambulance companies, with one sergeant and one private first class, both mounted.

PERSONNEL OF AN AMBULANCE COMPANY.

321. The personnel of an ambulance company in time of peace comprises a permanent cadre, consisting of such a number of noncommissioned officers and men as are deemed necessary to maintain continuity of policy and method in instruction, and a temporary personnel, embracing all men assigned to duty with the company who are not included in the permanent cadre. The personnel allotted an ambulance company in peace and in war is published from time to time in organization tables. The strength at present authorized (1914) is given in the Appendix, Section II.

322. The ambulance company will be formed:

1. Dismounted and without transportation.
2. Mounted and with transportation.

THE AMBULANCE COMPANY, DISMOUNTED.

323. The company dismounted is formed in single rank. On restricted ground the company may be habitually formed for roll calls and similar purposes in column of platoons with reduced distances.

The dismounted formation is used for roll calls, litter drill, and other exercises.

GENERAL PROVISIONS.

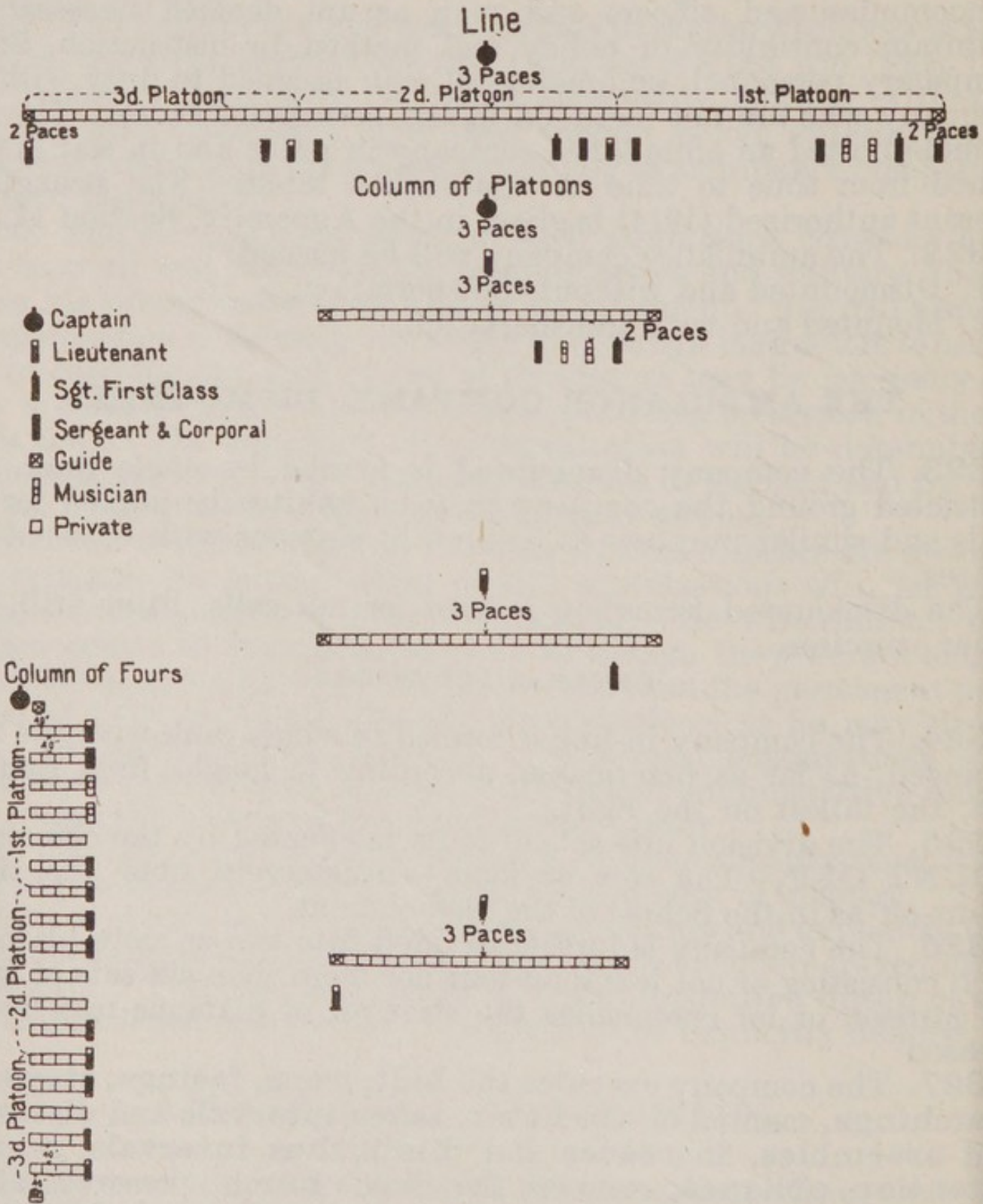
324. The company in line is formed in single rank with the men arranged, as far as practicable, according to height from right to left, the tallest on the right.

325. The division into sets of fours is effected by the command, **COUNT OFF**. The sets of fours, successively from the right, count off as in the School of the Detachment.

326. The company is further divided into two or more platoons, each consisting of not less than four nor more than six sets of fours. In garrison or for ceremonies the strength of platoons may be increased.

327. The company executes the **halt, rests, facings, steps and marchings, manual of the litter, takes intervals and distances and assembles, increases and diminishes intervals, resumes attention, obliques, resumes the direct march, preserves alignments, as explained in the schools of the soldier and the detachment, substituting in the commands company for squad or detachment.** The same rule applies to platoons, details, etc.,

Ambulance Company, Dismounted



substituting their designation for **detachment** in the commands. In the same manner these execute the movements prescribed for the company, whenever possible, substituting their designation for **company** in the commands.

328. A company so depleted as to make division into platoons impracticable is led by the captain as a single platoon, but retains the designation of company.

329. The right guide of the right platoon and the left guide of the left platoon are the leading and rear guides respectively when the company is in column of fours and the right and left guides when in line. Other guides are in the line of file closers. In platoon movements the post of platoon guide is at the head of the platoon, if the platoon is in column, and on the guiding flank if in line. When a platoon has two guides their original assignment to the flanks of the platoon does not change.

330. All mounted movements not specially excepted may be executed at a trot. If marching at a trot, the gait will be decreased to a walk before halting.

331. To execute a movement at a trot, the command **trot** precedes the command **march**, unless marching at the gait desired.

332. At mounted formations of ambulance companies and field hospitals, the foot detachments take up **double time** at the command **trot**, and **quick time** at the command **walk**.

333. Movements or procedures explained for the smaller units are, in general, applicable to larger ones when under instruction of the same character, the commands being modified so as to be adapted to the particular unit dealt with.

334. The intervals and distances prescribed in the text are in general such that if marched by the flank from line the elements will be in column at proper distances, or if marched by the flank from column they will be in line at proper intervals. Similarly, if marching obliquely, a second oblique will place the elements in line or column, as the case may be, at proper intervals or distances. If, however, due to the disproportion in the length and breadth of the various elements, these conditions do not accurately obtain, the proper intervals or distances are gradually secured by appropriate modifications of the gait.

335. Officers and noncommissioned officers commanding organizations or subdivisions thereof, when absent, are ordinarily replaced by the next in rank in their organization or subdivision.

COMMANDS.

336. On foot the command of execution is pronounced in a firm brief tone.

In mounted movements the preparatory commands are more or less prolonged to insure their being heard; the command of execution is always prolonged.

The bugle calls and prescribed arm signals are frequently used in instruction in order that officers and men may readily recognize them.

TO FORM THE COMPANY.

337. At the sounding of the assembly the first sergeant takes position six paces in front of where the center of the company is to be, faces it, and commands: **FALL IN.**

338. The right guide of the company places himself, facing to the front, where the right of the company is to rest, and at such point that the center of the company will be six paces from, and opposite the first sergeant; the men form in their places on the left of the right guide, superintended by the other sergeants, who then take their posts.

339. The first sergeant calls the roll, each man answering "*here*" as his name is called.

340. The men being in line as described, the first sergeant sizes the company by facing them to the right and arranging them according to height; he then faces them to the left into line. The company being sized, habitually forms in the same order.

341. The first sergeant then commands: **COUNT FOURS.** At the command fours, all execute *eyes right*, and beginning on the right the men count *one, two, three, four*, and so on to the left. Each man turns his head and eyes to the front as he counts. The guides do not count. If the last set of fours is incomplete the men will ordinarily be placed in the line of file closers.

The first sergeant then faces about, salutes the captain, and reports:

Sir, all present, or accounted for; or, Sir, —— privates absent, giving names. He then takes his post without command. The captain places himself twelve paces in front of the center of, and facing, the company in time to receive the report of the first sergeant, whose salute he returns and then draws saber.

The lieutenants take their posts when the first sergeant has reported and draw saber with the captain.

TO DISMISS THE COMPANY.

342. Being in line at a halt, the captain directs the first sergeant *Dismiss the company*. The officers fall out, the first sergeant steps three paces to the front and two paces to the right of the company, salutes, faces to the left, and commands: **DISMISSED**.

ALIGNMENTS.

343. The alignments are executed as prescribed in the School of the Detachment. At each alignment the captain places himself in prolongation of the line two paces from and facing the flank toward which the dress is made, verifies the alignment, and commands: **FRONT**.

MARCHINGS.

344. The company will be exercised and maneuvered in the same manner and by the same commands as prescribed for detachments of the Hospital Corps, except that the word *company* will be substituted for the word *detachment*.

THE AMBULANCE COMPANY, MOUNTED.

345. The mounted formation with transportation is used for company and field exercises, muster and inspection, and for ceremonies.

346. For purposes of drill and exercises in company evolutions, the ambulance company mounted is divided into four detachments, as follows:

1. The bearer detachment.
2. The pack transport detachment.
3. The ambulance detachment.
4. The wagon detachment.

347. Detachments are assigned to lieutenants and noncommissioned officers in order of rank, as follows: Bearer, ambulance, pack transport, and wagon.

348. The bearer detachment is drilled and maneuvered as prescribed for detachments of the Hospital Corps. The bearer detachment may be divided into two platoons.

349. The pack transport detachment is drilled and trained as prescribed in paragraphs 475-479; it constitutes one platoon of the company.

350. The ambulance detachment is drilled and maneuvered as prescribed in paragraphs 438—471; it is divided into three platoons.

351. The wagon detachment constitutes one platoon of the company, and is drilled and maneuvered as prescribed for the ambulance detachment.

STABLE MANAGEMENT.

352. Foul air and dampness cause many of the diseases of the horse, hence the importance and economy of spacious, clean, dry and well-ventilated stables. Ceilings should be 12 to 15 feet high with large ventilators through the roof, and a window or side aperture in each stall, which should be placed well above the horse's eyes. If possible, the building should have no upper story or loft.

Double stalls should be not less than 9 feet wide by 10 feet 6 inches long, measured from the wall, and not less than 1,200 cubic feet of air space should be allowed to each horse in the stable.

In stables with a loft, ventilation from the top is always insufficient, and there must be side openings well above the horses, so that the draft will pass over their heads.

These openings should not be closed, except on the windward side to keep out the rain or snow.

If the stable is partitioned off into single stalls, each stall should be at least 5 feet in width, to permit the horse to lie down without difficulty.

A picket line is established in the immediate vicinity of each stable, the horses being tied to a manila or wire rope or chain passing through the picket posts. There should be shallow trenches behind the horses to carry off the rain, the ground on which they stand having just enough slope to let water run into the trenches, or there may be a single drain in the center along the line of the posts. Constant attention must be given to keeping the ground about the picket line in good order.

GENERAL RULES FOR STABLE MANAGEMENT.

353. The following general rules are recommended:

The stable sergeant has immediate charge of the police and sanitation condition of the stable, picket line, etc., and is the custodian of the forage and stable property generally.

The stable is to be kept thoroughly policed, free from smells, and except portions of the stalls that horses can reach, should be litter washed. There must be no accumulation of manure or foul litter.

inside, nor near the doors or windows without. The feed boxes are washed from time to time and kept clean. The ground about the picket line is swept daily, and all dung, etc., carried to the manure heap.

Except at night, after the horses are bedded down, no manure or urine is to remain in the stalls; the stable police remove it as it accumulates.

If practicable, all woodwork within the reach of the horses and not protected with sheet iron or other metal should be painted with thin coal tar to prevent it being gnawed. The same precaution may be followed with regard to troughs, picket posts, and picket line. It should be thoroughly dried before putting horses near it.

Smoking in stables, or in their immediate vicinity, is prohibited.

One or more lamps will be hung in each stable to burn during the night.

The horses are stalled according to their sections; their places at the picket line will be in accordance with the same rule.

Over each horse's stall is placed the name of the horse under the name of the man to whom assigned.

Clay is the best for earthen floors. Gravel or sandy earth is not suitable.

The sloping of the floor of stalls from the manger to the heelpost is injurious and uncomfortable for the animal, making him stand in an unnatural position, with the forelegs higher than the hind ones. When the earthen floors are level, the horse will paw a hollow for his forefeet unless he can elevate his hindquarters by backing out of the stall.

Whenever horses go out of the stable, the windows of their stalls are to be kept open, unless necessary to exclude rain or snow, or when cold drafts affect the animals in contiguous or opposite stalls.

Stable doors are never closed in daytime, except to keep out wet or to exclude cold winds that blow on the horses. If the doors be in a single piece, bars are put across the doorway; if divided into upper and lower halves, it will usually be sufficient to open the upper part. At night the entrance to the stables should be secured in such manner as will prevent the escape of animals.

When circumstances permit, horses should be turned loose in the corral during the daytime or herded under the charge of a guard. When neither is practicable, they should, except in very cold, windy weather, or in very hot weather where there is no shade, stand most of the day at the picket line, as they have better air and are less confined, while the stables become drier and more healthful.

In ordinary climates, cavalry stables must be kept as cool as possible. If the horses do not stand directly in the draft, the colder the stable the less will they suffer if called suddenly to take the field. For the same reason, horses should never be blanketed in the stable, except during very cold weather.

354. Horses require gentle treatment. Docile but bold horses are apt to retaliate upon those who abuse them, while persistent kindness often reclaims vicious animals.

A horse must never be kicked, or struck about the head.

Daily exercise for at least two hours is necessary to the health and good condition of horses. They should be marched a few miles when cold weather, muddy ground, etc., prevent drill.

Horses' legs will be often hand-rubbed, particularly after severe exercise, as this removes enlargement and relieves or prevents stiffness.

The sheath will be washed out when necessary with warm water and castile soap, and then dried with a cloth.

SICK HORSES.

355. The horses on sick report are in charge of the stable sergeant, who reports daily to the captain for instructions as to their treatment.

The sick horses are inspected daily. The names of the horses on sick report, and the treatment they receive, are recorded daily in the sick book.

In treating sick horses, it is to be observed that very little medicine is ordinarily required, and that unnecessary doses do a great deal of harm.

If a horse sustains an injury, neglects his feed, refuses to drink, or gives any evidence of sickness, it will be at once reported.

No horse on sick report will be taken from the stable or picket line for exercise or work without permission from proper authority.

356. If there be at any time a suspicious discharge from one or both nostrils of an animal, it must be immediately reported.

To prevent contagion to man or beast, an animal that shows any decided symptom of glanders is to be isolated at once, and confined or tied up in some locality where no other animal can approach him.

A glandered horse should be killed as soon as possible. The stall in which he stood is torn down and all the woodwork burned and the ironwork disinfected, or otherwise it is closed, and must remain empty until the rack, manger, and every part of the iron and woodwork, as also the vessels used in watering and feeding, and his saddle

and bit have been three or four times thoroughly washed with a 5 per cent solution of carbolic acid or a 1 to 1,000 solution of corrosive sublimate; all parts to which the latter has been applied should be thoroughly scrubbed with hot water to remove all traces of the poisonous salt. The application of a lime wash to all the stalls, after complete disinfection, will be desirable. Small articles, such as bits, etc., can be disinfected by keeping them immersed for a half hour in boiling water. All articles of little value that have been used with a glandered horse, such as halters, bridles, horse cloths, saddlecloths, blankets, nose bags, currycombs, brushes, etc., should be destroyed.

Stables occupied by infected or suspected horses should be disinfected daily by washing exposed surfaces with a 5 per cent solution of carbolic acid, and nose bags, halters, buckets used for drinking water, etc., should be carefully washed with the same solution or with boiling water.

CARE OF THE STABLES.

357. A noncommissioned officer designated as *stable sergeant*, or *corporal*, is detailed in each company to take immediate general charge of the forage and stables. He is held responsible for the proper policing and sanitary condition of the stable, picket line, and ground pertaining to them. Two or more men, called *stable police*, are detailed for the purpose of policing, removing manure, feeding, etc., under the direction of the stable sergeant.

Usually horses are groomed twice daily, at morning and at evening stables, under the supervision of the first sergeant and a commissioned officer. Under special circumstances, it may be advisable to groom only once a day.

The stable police, after grooming their own horses at morning stables, clean out the stalls and police the stable, under the direction of the stable sergeant. The bedding is taken up, that which is much soiled being separated for the manure heap, and the remainder put on the litter racks or spread upon the ground to dry.

At or before evening stables the stable is policed, the bedding is laid down and fresh straw spread on top of it; the bed must be soft and even, with the thickest part toward the manger; where horses eat their bedding, the old litter should be placed on top of the new straw.

GROOMING.

358. The grooming is always done at the picket line, except stormy weather. Stable call is the first call or warning call at stables, and precedes assembly by such intervals as may be prescribed. The roll having been called, the detachment is marched to the horses or stable, and upon arrival there the first sergeant commands, **Commence grooming; FALL OUT.** The horses are then tied on the picket line, if not already there, and are groomed under the direction of the platoon leader. Each man habitually grooms his own horse, except that the horses of the sergeants, first class, may, at the discretion of the company commander, be groomed by other men of the platoon to which these horses are attached. Drivers and wagoners groom the animals assigned to them.

For the purpose of proper supervision in grooming, feeding, etc., the horses of the men not assigned to platoons and other supernumerary horses, will be attached to platoons.

At stables, each man examines his horse's feet. Horses requiring shoeing are reported to the noncommissioned officer in charge of the section, who notifies the stable sergeant.

Each horse should be groomed not less than 20 minutes, and much longer as may be necessary. When the horses of any platoon are sufficiently groomed, the platoon leader reports that fact to the first sergeant. The platoon, at the discretion of the detachment commander, may then lead in, and the horses will be led to the stalls and properly secured under the supervision of the platoon leader. Should the officer wish to inspect the horses of any platoon or of the whole detachment before they are led in, he will notify the platoon leader or the first sergeant, who will then command: **Cease grooming; STAND TO HEEL;** each man stands one yard in rear and facing his horse. When all the horses have been groomed and led in, and the grooming kits put away, the sergeant will form the detachment, march it to the company parade, and dismiss it.

If, when the horses are inspected, the officer finds any of them not properly groomed, he will direct that these horses be left at the picket line and groomed under the supervision of a noncommissioned officer detailed for that purpose.

TO GROOM.

359. The horse's feet are first thoroughly cleaned with a hoof pick. Then take the currycomb in the right hand, fingers over back.

comb; begin at the near side at the upper part of the neck, thence proceed to the chest, arms, shoulders, back, belly, flank, loins, and croup in the order named. Then go to the off side, taking the comb in the left hand, and proceed as before.

The currycomb is applied gently and is used only to loosen the scurf and matted hair; it is not used on the legs from the knees or hock downward, except to carefully loosen dried mud.

Next, take the brush in the left hand and change the currycomb to the right; begin at the head and then the neck on the near side, and proceed in the same order as in currying, brushing also the parts not touched by the comb; on the off side take the brush in the right hand, the currycomb in the left. The principal working of the brush should follow the direction of the hair, but in places difficult to clean it may be necessary to brush against it, finishing by leaving the hair smooth. After every few strokes clean the brush of dust with the currycomb.

Having finished with the brush, rub or dust off the horse with the grooming cloth, wipe out the eyes, ears, and nostrils, and clean the dock. The skin under the flank and between the hind quarters must be soft, clean, and free from dust.

Currycombs, cards, or common combs must never be applied to the mane or tail; the brush, fingers, and cloth are freely used on both. Straw is used when the horse comes in wet from exercise, rubbing against the hair until dry, from his hind quarters up to his head. If very wet, very hot, or very cold, blanket the horse, groom and hand rub the legs; then remove the blanket and groom the body.

FEEDING.

360. Guiding principles in feeding are: (1) Feed in small quantities and often: (2) Do not work the animal hard immediately after a full meal. In garrison and on the march, animals should be fed at reveille, at mid-day, and at night, ordinarily one third of the grain ration being given each time. In garrison, the stable sergeant, assisted by members of the stable guard or police, may feed at first call for reveille. In the evening, grain should be fed after hay has been distributed, the stable swept out and the dust thoroughly settled.

The men are marched to the forage wagons or other grain depository where the noncommissioned officer in charge, with an allowance measure, issues to each in turn.

The platoon leaders then march their platoons back to the horses and command: **FEED.** Ordinarily one man of each platoon will remain near the horses until they have finished eating, to adjust feed

bags. Each man may be required to feed and groom as soon as he has received his grain.

Very little hay, if any, is fed in the morning when hard work follows, but about one-third of the ration should be fed at noon, and the remainder at night. The dust must be well shaken out of the hay when it is put in the mangers.

In camp hay is fed at the picket line morning, noon, and evening; on the march, when the horses are grazed during the day, in the evening only.

The use of bran once or twice a week is important for stable horses. In spring or early summer they should be grazed.

Two and a half ounces of salt should be given each week, preferably lumps of rock salt, secured in or near the manger.

Grazing should be encouraged at every spare moment, both in camp and at halts on the march.

The daily allowance of oats, barley, or corn is 12 pounds to each horse and 9 pounds to each mule; that of hay, 14 pounds to each animal; the allowance of straw for bedding is 100 pounds a month to each animal.

361. Good oats weigh about 40 pounds to the bushel; barley, about 48 pounds; corn, about 56 pounds. Pressed hay weighs about 11 pounds to the cubic foot.

The standard bushel in the United States contains 2,150.4 cubic inches. A cubic yard contains 21.69 bushels. A box 16 by 16.8 by 8 inches holds 1 bushel; a box 8 by 8.4 by 8 inches holds 1 peck; a box 8 by 8 by 4.2 inches holds one-half peck, or 4 quarts.

WATERING.

362. Horses must be watered quietly and without confusion; the manner in which this duty is performed is often a good test of the discipline of a mounted command.

Horses are to be led to and from water at a walk. At the drinking place no horse should be hurried or have his head jerked up from the water.

On the march, the oftener the animals are watered, the better, especially as it is not usually known when water may be obtained again. Many watering places not otherwise available may be used by watering from buckets. In warm weather water drawn from a cold well or spring should stand long enough for the chill to pass off.

The horses are watered under the immediate direction of the platoon leaders, but if they are liable to meet those of other commands

at the watering place a commissioned officer should supervise this duty.

Horses should be watered before feeding or not until two hours after feeding. The rule is to allow water in small quantities, and often; in hot weather as often as practicable. In very cold weather once a day, about noon, is sufficient. A horse will rarely drink freely very early in the morning.

Should a mounted command have to march a long distance without water, so that it will be necessary to encamp en route, the animals are fed, and denied water until just before starting, when they are permitted to drink freely. The command marches in the afternoon and does not encamp until it has accomplished at least half of the distance, and moves early next morning to reach water.

Watering the horses on the march depends in a great measure upon the facilities to be had. If nothing is known as to the country over which the day's march is to be made, water call should be sounded shortly before leaving the camp and every horse given an opportunity to drink. As many animals, however, will not drink at an early hour, or until after exercising, the horses should be watered at the first opportunity. On severe marches frequent watering is of great benefit.

The daily allowance of water for a horse at rest is about 6 gallons; when at work, from 8 to 15 gallons. One gallon of fresh water weighs $8\frac{1}{2}$ pounds, approximately 1 pint to a pound.

CARE OF DRAFT ANIMALS IN THE FIELD.

363. Constant and intelligent supervision of adjustment of the bearing parts of harness, packs, and saddles is productive of better results than medication in keeping transportation animals in serviceable condition.

364. In preparing for the field it is well to bear in mind that nearly all animals in a command lose flesh rapidly for the first 10 days of a march, and that during this period the adjustment of all parts of the harness, more especially the collars, should be given close attention.

365. If the march should happen to be a continuous and a severe one, it may be noticed that about the sixteenth day draft animals appear suddenly to become very lean in the muscles of the shoulders, back, abdomen, and croup. If a fair amount of forage is available they quickly improve to a certain point, where they remain stationary and continue to do hard work without noticeable change under

an intelligent system of watering and feeding. They are now in working condition.

366. *Water* on the march whenever a good opportunity to do so presents itself, never forgetting, however, that a warm animal should be watered but sparingly, and that such a watered animal should not be allowed to remain stationary even for a few minutes, as this induces laminitis (founder), due to contraction of the internal blood vessels by the cold water taken and the consequent increase of blood pressure in the legs and feet where it can not, while the animal is inactive, be taken care of by the system. Laminitis (founder) is due to congestion of the feet.

367. *Feeding.*—Soon after reaching camp, offer a little hay. Water before feeding grain when possible. Offer grain immediately after watering, and then place before the animals what remains of the hay for that day. The morning watering must of necessity be governed by circumstances. If absolutely sure of water on the road, say one hour after breaking camp, it would be a needless waste of time and energy to water immediately before or after the morning feed on the line.

368. *Midday baiting.*—As little as 1 pound of grain per animal, taken from the daily allowance and given in charge to each driver, fed at the noon halt, will have a wonderful effect for good on the animals of a command. At this halt the careful driver will add a few handfuls of grass, and at the same time look over his collars and breeching with a view to their readjustment.

369. *Collars* of steel are preferable to leather for military use when properly adjusted and cleaned. When improperly adjusted they are inferior to the leather article. Steel collars are adjusted by means of bolts and plates. Leather collars by means of top straps and hames. When these methods will not produce the desired results the use of collar pads must be resorted to. Felt collar pads are not desirable, as they soon become stiff and hard.

A collar should fit snugly to the sides of the neck without compressing it, and its bearing surface should rest squarely on the bed of muscles situated on the front of the shoulder. When in position there should be a space between its lower part and the windpipe sufficiently large to comfortably admit the insertion of the open hand, back up, as far as the wrist.

All collars should be furnished with a neck plate of zinc for the protection of the top of the neck against rubbing.

To prevent blistering of the top of the neck on hot, sunny days it will be found that a wet sponge or a wet piece of folded gunny sack,

properly secured to the top of the collar and wetted at intervals, is effective.

The bearing surface of steel collars should not be scraped unless considered absolutely necessary to remove accumulated dirt due to negligence. If scraped they should be boned smooth and then slightly oiled. Leather collars may be easily cleaned with a damp sponge. They should be thus cleaned each evening. A careful man will not let his collars remain on the ground overnight, but will hang them on the pole, or put them in some safe place where he will protect them from the rain and the dust of the camp.

370. Necks and shoulders.—On arrival in camp let collars remain in position for about 15 minutes. Their weight on the hot, tender skin affords sufficient pressure to prevent the formation of swellings so often observed after the collar is suddenly removed. Normal circulation will establish itself gradually under collar pressure alone and the skin of the shoulders and neck will regain its tone and elasticity.

After removal of the collar, bathe the shoulder and neck with clean water; this to remove sand and dust that would otherwise remain in the hair, where it may not be reached with the horse brush.

Salty water, or a weak solution of vinegar in water, when applied to the shoulders and neck, acts as a tonic to the jaded skin.

Animals with narrow, lean shoulders should not be placed in the collar. For these, if they must be harnessed, a breast strap (Dutch collar) should be used.

When putting on a collar, see that the mane hangs naturally beneath the neck plate. If the collar is a steel one, be careful when snapping it in place that the skin of the upper part of the neck is not pinched between the neck plate and the collar itself.

If swellings appear on the shoulders, use massage to remove them, and in addition apply a cold-water pack during the night; a wet sack properly adjusted and held in place will answer the purpose. If a gall appears, do not grease it. Wash it with water and soap, dry thoroughly, and apply a weak solution of alum (one-half ounce to a pint of water) or a solution of aloes in water (one-half ounce to the pint). If the animal must be worked, use a chambered (cut-out) pad over the spot to remove pressure. Greasy ointments serve as a trap for dust and sand.

371. Traces.—Verify the length of traces frequently. Do not depend on the chain links as a guide in hitching. Leather traces stretch considerably in wet weather. A difference of half an inch in the length of traces will cause trouble on the shoulder of the shorter

side. • It is also liable to produce lameness due to irritation of extensor muscles. If the point of attachment of the trace to the collar should be too high, it will cause a downward pull on top of neck, with its consequent irritation. If too low, it will cause the collar to "ride," and nearly all the pressure will be on the point of the shoulders and on the windpipe.

The number of sore-shouldered draft animals in a command on the march is an excellent standard by which to judge the horsemanship of the personnel.

372. Breeching.—The breeching should be fairly loose, otherwise it is liable to chafe the quarters and to interfere with the free play of the muscles. It should be taken up as the animals become thin.

Martingales should not fit too snugly, as they are very liable to chafe the soft, thin skin of the under part of the body.

373. Yoke straps should be adjusted with a view to the height of the pair. They should never be permitted to trespass on the bearing surface of the collars.

374. Backstraps should be so adjusted as not to let the saddles ride the withers, but at the same time there should not be sufficient strain on them to cause the crupper to irritate the under part of the tail.

375. Bellybands and cinchas should never be unduly tightened, as they cause cinch sores near the elbow and quarterstrap sores beneath the ring shields.

When a cinch gall appears, remove the cause, keep the place clean, and apply a solution of aloes or alum in water. Either of these will stimulate the gall and deter insects from alighting on the wound.

376. Bearing reins should be of such a length that the animals may have free use of the muscles of head and neck. Bearing reins are not a necessity.

377. A driving bit should be smooth and jointed. It should be so adjusted that it will not lift the corners of the mouth. If placed too high in the mouth, the animal uses his molar teeth to press against it, and gains for himself the reputation of a hard-mouthed puller.

378. Beware of thread ends in collar pads and of knots in headstalls, throatlatches, bellybands, cinchas, and surcingles, and be careful that buckles are not turned toward the skin. These readily produce irritations and abrasions, and are plain evidence of negligence and carelessness on the part of the rider or driver, as well as loose supervision on the part of those superior in rank.

379. To keep his animal in the collar and off the lead line should be the aim of each driver. This can be accomplished with little trouble, barring accidents, if the harness is kept in proper shape and fit and necks and shoulders are kept clean.

THE AMBULANCE DETACHMENT.

THE DRIVER.

380. To each driver are assigned four mules, a wheel pair, and a lead pair. The mule on the left side is called the near mule and the other the off mule.

381. At the discretion of the company commander, the ambulance orderly may be placed in charge of one pair of mules in harnessing and unharnessing and in hitching and unhitching at drill, and in the field when his services are not required by the sick.

DISPOSITION OF HARNESS.

382. *In garrison:* The harness is arranged on two or four pegs in the harness room. If two pegs only are available, the wheel set is placed on one peg and the lead set on the other. When four pegs are available, the near harness of each set is kept on the left side of the off harness.

In the field: The lead bars are placed under the end of the pole, and the harness is hung over the pole. Care should be taken to keep the harness off the ground. In bad weather it is advisable to put the harness inside the ambulance.

TO HARNESS.

383. A pair of quiet mules, in a double stall, is assigned to each recruit, who should be supervised at first by a competent man. The instructor causes a pair to be harnessed, points out the names of the different parts of the harness and explains their uses; he then causes the harness to be taken off and replaced on its pegs.

The harness being on the pegs, the instructor causes the recruits to **stand to heel**, and commands:

1. **By detail**, 2. **HARNESS.**

Collar on: At this command each driver puts on and buckles the collar of his off mule, then that of his near mule.

Traces and breeching: Each driver takes the hames, traces, and breeching from the peg, carries them on the right arm and, approaching the proper mule from the near side, gently places the harness upon the mule's back. The hames are put on the collar and the

lower hame strap buckled. Then the saddle is buckled on the near side, and the straps which are attached to either side of the breeching are attached to the ring in the martingale by means of snaps.

Bridle: The off mule is bridled first, then the near mule. Unless instructions to the contrary are given, the halters are removed before bridling. The check rein is taken in the right hand, the crown in the left; the mule is approached from the near side. The check rein is slipped over his head and allowed to rest on his neck. The crownpiece is then taken with the right hand and the bit in the left; the crown piece is then brought in front and slightly below its proper position. The left thumb is inserted in the side of the mouth, above the tusk, the jaw pressed open and the bit inserted by raising the crown piece. The ears are then gently drawn under the crownpiece, beginning with the left ear. The throatlatch is then secured.

Couple: Each driver backs his pair out of the stall, places them side by side facing the stable exit, and attaches the reins properly.

To harness without detail:

1. HARNESS.

The mules are harnessed in the manner described above, but each successive step is taken without command as rapidly as possible.

TO UNHARNES.

384. The command is given:

1. By detail, 2. UNHARNES.

Uncouple: Each driver steps in front of his mules, uncouples the reins, and fastens them by looping them on the near hame of the near harness and the off hame of the off harness, and tying them with a half hitch, and then leads the mules into the stall.

Unbridle: He then unbridles the near mule, hanging the bridle on the near hame, puts on the halter and fastens the chain to the manger; the same is done with the off mule, hanging the bridle on the off hame of the off harness.

Traces and breeching off: The various parts of the harness mentioned in **traces and breeching** are unfastened in reverse order. The left hand is used to place the breeching, saddle, and hames on the

right arm in removing the harness from the mule. The harness is placed on its proper peg.

Collar off: He removes the collar of the near mule, then that of the off mule, and hangs them up in the same order, first near collar, then off collar.

Harnessing and unharnessing in the field is executed as in garrison with such modifications as the disposition of the harness requires. The mules are ordinarily tied by the halters to the wheels of the ambulance while harnessing and unharnessing.

FITTING HARNESS.

385. When the recruit has become familiar with the methods of harnessing and unharnessing he will be instructed in fitting harness, and the importance thereof will be thoroughly impressed on him.

The bridle is so adjusted that the bit touches, but does not draw up the corners of the mouth.

The collar when adjusted should freely admit the hand between the lower part and the throat of the animal, and the fingers between the sides and the neck. A short collar chokes an animal by pressing upon the windpipe; a narrow one pinches and rubs its neck, and a broad collar works about and galls the shoulders.

The breech strap should be adjusted so that it will bear quickly when the animal is required to check the momentum of the ambulance, but will not impede his movements while in draft. This adjustment is most important. It can best be made by observing the animal in draft, and tightening the straps as much as can be done without impeding the free movements of the animal while in draft.

The hip straps should be of such length that the breech strap will bear just below the point of the buttocks. The lower the breech strap is adjusted, the less does it assist the animal in checking the momentum of the ambulance.

The loin strap should be so adjusted that the traces, when in draft, will be straight and without downward pull on the loops that support them.

The length of the wheel and lead traces must depend in a great measure upon the size of the animal and his stride. The rule for lead pairs is to allow but 1 yard from the heads of wheel pair to point of buttocks of leaders when in draft. The wheel traces should be so adjusted as to allow at least 14 inches between hind quarters

and singletree when in draft. The traces should be adjusted so that the line of traction will be straight from the singletree to the collar. This rule will regulate, in a measure, the length of the loin straps, and the matching of animals.

TO LEAD OUT.

386. To form pairs after harnessing the instructor indicates the place of formation, and whether the formation is to be in line or in column of pairs, and commands:

LEAD OUT BY PAIRS.

387. The pairs are led out by the driver, and formed at the designated place.

TO POST THE TEAMS WITH THEIR AMBULANCES.

388. The teams are marched to the park in column of teams, and so directed as to approach the flank and rear of the ambulance. As the head of the column approaches the ambulances the instructor commands:

TEAMS TO YOUR POSTS.

Each team, as it comes opposite its ambulance, wheels from the column and proceeds to its ambulance; having passed the end of the pole the driver causes the wheel pair to back so that the pole is between the mules. The lead pair takes its position immediately in front of the wheel pair.

THE PARK.

389. Ambulances are ordinarily arranged in park in order in line, the ambulances being arranged from right to left in order of their numbers. The interval between vehicles may be either the normal of 12.5 yards, or such interval as the commander may direct. The three escort wagons are parked on the left in the same formation as the ambulances, or in a second rank, as may be prescribed.

The lead bars are used to support the pole by means of one singletree.

In garrison ambulances are kept in a shed.

390. The column of drivers is halted in front of the building, the sergeant, first class, gives the necessary directions for the formation of the park, and commands:

FORM PARK.

The drivers fall out and run the ambulances out by hand and form them in park.

The ambulances having been formed in park, the drivers fall in and are marched to the stable or picket line, commanded by the sergeant, first class.

TO HITCH AND UNHITCH.

391. The brake is firmly set before teams are hitched to an ambulance or wagon, and hitching is so conducted that the mules are kept under control; until teams are well broken, this may necessitate the assignment of the orderly, or of other drivers, to assist the driver of the team.

392. Well-broken teams are hitched as follows: After lead and wheel teams have been harnessed, the lead teams tied near their respective ambulances, and the wheel teams placed in position in front of the ambulances, the pole between the mules and each driver at the heads of his wheel team, the command is given:

1. Drivers, 2. HITCH.

The pole straps are passed through the rings on the chains at the end of the pole and fastened to the rings on the hames; the driver passes behind the near mule and attaches the near trace of the off mule and the traces of the near mule. Going in front of the team, he passes to the rear of the off mule and attaches the fourth trace. He then brings the lead team into position, hooks the lead bar to the end of the pole, attaches traces as described above, takes the reins, first of the lead team and then of the wheel team, and mounts to the right side of the seat. The orderly mounts the seat from the left side.

393. At the command:

1. Drivers, 2. UNHITCH.

Each driver reverses the several steps used in hitching.

DRIVING.

394. Never pole too tightly, especially when the pole is a heavy one, because if the pole chains are tight the weight of the pole will continually rest on the neck. On the other hand, if the poling up is too loose the constant swaying will be a source of irritation and danger to the team.

COUPLING REINS.

395. The correct adjustment of the two short inside reins, called coupling reins, requires great care. They should be so fitted that an even pressure is brought to bear on both sides of the animals' mouths, and in such a way also that both animals shall go straight and pull evenly on the traces. For instance, if the near horse carries his head to the near side, the coupling rein on the off side should be taken up, when his head will be straightened.

Supposing we have two animals apparently well matched, but that the near one carries his head rather out to the front, and has a light mouth, while the off animal has a hard mouth and carries his head close to his chest. Now, to get this pair to pull equally on the traces we must have the near animal's rein considerably longer than those of the off animal. In this case we should begin by letting out the off side coupling rein and taking up the near side rein the same number of holes.

The reins will now be adjusted so as to permit the near horse to hold his head well in front of the other, while the collars are brought level.

The most general fault is coupling up both reins too tightly, which makes the animals carry their heads in toward the pole, instead of going straight, as they should do. To prevent animals acquiring this habit, it is a good plan to change their positions occasionally, instead of always driving them on the same side of the pole.

It is a convenient plan to have more than one hole in the billets for buckling the reins on the bits, so that an animal can be pulled back or let out a hole or two on either side without altering the coupling rein.

HOLDING THE REINS.

396. Place both reins in the left hand, the near rein over the forefinger and the off rein under the middle finger. Thus you have two fingers between the reins. The reason for this is that it gives much more scope for play of the wrist on the mouths than if you have only one finger between the reins. The thumb should point

straight to the right and the forefinger be held well out, pointing to the right rear. This will keep the rein close up to the knuckle, and the pair may be easily moved across the road by turning the back of hand up or down; up for left turn, down for right turn.

397. Sit firmly but comfortably in your seat, body erect, without stiffness, and elbows close to side. Do not lean forward. Now take the whip in the right hand, at the place where it balances comfortably, and you are ready to start.

398. Bring the pair to attention by feeling their mouths gently, and speak to them. If they do not respond, touch them gently with the whip.

The moment they start drop the hand slightly; "jibbing" is often caused by neglect of this precaution.

399. The elbows should be held close to the sides, with the points almost touching the hips.

The wrist should be well bent, as by this means the driver is enabled to keep a perfectly steady bearing on the mouths without any jerking.

The forearms should be horizontal, and the fingers from 3 to 5 inches from the center of the body, with the knuckles to the front.

The thumb should not be pressed down on the rein. The fingers that should grip the reins are the three lower ones.

400. Never hit an animal while the right hand is holding a rein, because if you try to cut him when you have the off rein in the right hand you must slack that rein off, and the pair is apt to dash to the left.

401. Do not get into the habit of "jabbing" the pair with the bits, and do not flap the reins on their backs to start them or make them increase their pace.

Drive at a steady, even pace, as nothing tires a team so much as to constantly change the rate of speed.

When it is necessary to pull up in a hurry, the proper course to pursue is to catch hold of the reins with the finger and thumb of the right hand, just behind the left, and shorten them as much as necessary by pulling them through. This is safer and more business-like than elevating the hands, which disturbs the seat.

402. The driving gloves should be large and very comfortable. They should never be of a size to cramp the hand in the slightest.

403. The right hand is known as the whip hand. It is generally used only for holding the whip, for assisting the left hand, and for shortening the reins by pulling them through from behind the rein hand.

DRIVING FOUR-IN-HAND.

404. The driving of four animals as they should be driven is an art that can only be learned by constant practice and study.

405. When driving, the body should be kept upright and square to the front, but all stiffness should be avoided. The driving seat should be about 3 or 4 inches higher at the back than in front, so that the driver can sit well back in a really comfortable position. The ankles and knees should be just touching each other, and the arms close to the sides. The forearm should be about horizontal, and the left hand, as in driving a pair, from 4 to 5 inches from the center of the body, the back of the hand being turned toward the front, but inclined a little toward the team. The wrist should be bent slightly toward the body, and on no account allowed to bend the other way. This is far the best position for feeling the mouths, as the wrist then acts like a spring, and an even pressure can be maintained.

The driver should on no account be half standing, or merely leaning against the seat, with unbent knees, as, in the event of a wheel falling or shying to the side, he will probably be jerked off the wagon.

THE REINS.

406. The best way of holding the reins is to have the near lead over the left forefinger, the off lead between the forefinger and the middle finger, the near wheel between the same and under the off lead. The reins must be gripped firmly by the three lower fingers of the left hand. The thumb should point to the right, and the forefinger be held well out. The near lead rein should pass over or close to the knuckle of the forefinger and not over the first or second joint.

ADJUSTING THE REINS.

407. All four reins can be shortened, if much is required, by pulling them through from behind, but it is generally quicker and neater to hold the reins with right hand 2 or 3 inches in front of left (the little and third fingers over the off-side reins and the middle finger between the near-side reins), and then slide the left hand up to the right. This movement is generally required when going down hill.

WHEEL REINS.

408. It is better to shorten these by pulling them through from behind. This is necessary when going down hill, especially when the wheelers are loosely poled up, so as to prevent the singletrees from hitting the leaders' hind legs.

LEAD REINS.

409. In order to shorten these, take out both the leaders with the right hand (the third and little fingers over off, and first or middle finger over near side rein); they then can be passed back to the left hand the required length by letting them slip through the right hand the necessary amount. To lengthen them, simply pull them through from the front.

NEAR LEAD REIN.

Either push through from the front, with the full of the right hand over the rein, or take it right out of left hand and replace it the proper length.

OFF LEAD REIN.

Push it through from the front.

NEAR WHEEL REIN.

This is the most difficult rein to keep in its right place and to shorten. It is constantly slipping when the wheelers pull. It appears to be the best plan to pull it through from behind.

OFF WHEEL REIN.

Push it through from the front with the right hand.

CROSSING THE ROAD.

410. *To the left:* Turn the left hand, knuckles upward, and pass it across the body from left to right; the team will incline to the left, the reins on that side being shorter.

To the right: Pass the left hand down toward the left hip, back of the hand to the front, with the knuckles of the forefinger downward,

and that of the little finger uppermost. This shortens the right hand reins and causes the team to incline in that direction. The whip can be applied to the off wheeler in the first instance, or to the near one in the second, if they do not cross rapidly enough.

TURNING TO THE LEFT.

411. With the right hand seize the near lead and wheel reins under the lower fingers; then either pull those reins up toward the center of the body, which will shorten them, or allow the left hand to go slightly to the front, which will slack off the right reins, or, better still, combine these motions.

TURNING TO THE RIGHT.

412. Take hold of the off lead and wheel reins with the lower fingers of the right hand and treat them in the same way as in using the left reins.

TO STEADY THE TEAM.

413. In order to steady the animals or to ease the left hand, the right may be placed in front of the other over all the four reins, the third and little fingers being over the off reins and the upper fingers over only one of the near reins.

THE WHIP.

414. The handle should rest in the palm of the right hand and be kept firmly in its place by the action of the thumb pressing against the base of the forefinger; the lower fingers will then be left free to catch hold of the reins.

If, however, it is necessary to pull the reins through from behind, the lower fingers must be tightened on the handle, so as to allow the thumb and forefinger to be used.

Hold the whip at an angle of about 30° to the left front and about 40° upward.

The thong ought to have three or four turns round the handle.

The point of the thong should be just under the inside of the thumb; this will keep it from slipping. Hold the whip where it will balance comfortably, the end of handle under the forearm, the wrist well bent, and the elbow close to the side.

415. When the right hand is on the reins or using the whip, it should be kept close to the left, the forearm being nearly horizontal. It can then rest on the thigh and yet be ready for any emergency.

416. The wheelers should be hit in front of the saddles, to avoid making them kick. It is no use hitting the wheelers if the leaders' reins are too long. In this case you must first shorten up the wheelers' reins, and then use the whip on the leaders; otherwise, as soon as the wheelers have jumped into their collars, the leaders will again press forward and allow the wheelers to hang back as before.

417. The proper hitting of the leaders with the whip can only be acquired by constant practice when off the wagon. A good whip can hit his leaders wherever he desires and without the dangerous, flail-like swipes that some teamsters appear to consider necessary.

TO START.

418. Feel all the animals' mouths, and, if necessary, give them the word to go, dropping the hand to them at once until the vehicle is fairly off. The wheelers ought to start the wagon, and this can be effected by touching them with the whip, if they require a hint. It is never safe to start without having the whip in the right hand, ready for immediate use. The whip is to the driver what the leg is to the rider, that is, it keeps the team up to their bits. As soon as the team is going straight, take the right hand off the reins, at the same time keeping it close by, ready for any emergency.

PULLING UP.

419. When you want to pull up, shorten all the four reins by passing the left hand up to the right, or else by pulling all the four reins through from behind, as before explained; then, having the right forefinger on the near lead rein, the middle finger on the near wheel, and the lower fingers of the right hand on the off reins, pull both hands back toward the body, and if necessary lean back a little.

Should the team be getting the better of you, and you find that you can not stop it, it will be found a great assistance to place the right leg over all the four reins, as you may be able to stop them by the extra power and leverage by the position of the leg. Of course, it is understood the brake has been applied.

A FEW HINTS.

420. Always keep a steady pressure on the reins.

Never remove left hand from reins, even though the right may be holding them in front, as it is very difficult to get the left hand back into its place again with the reins in the right places.

Lead reins should seldom be removed from left hand.

Grip the reins tightly with the third and little fingers to prevent their slipping.

Alter position of the bits if the team pulls hard.

See to it that your wagon is always well greased.

Always take a pull at the team to steady it just before you arrive at the crest of a hill, and begin to descend slowly, holding the leader steady, and with just enough traction to keep their singletrees from hitting them.

In crossing ruts and in turning corners be careful that the leader are out of draft; otherwise the pole may be snapped off or the wheeler pulled down.

If, while going down a hill, and especially when near the bottom you find a wheeler slipping on his hocks, do not try to pull him up but drop the hand and allow the team to go a trifle faster.

RULES OF THE ROAD.

421. Always keep to the right when meeting vehicles.

On a narrow road a loaded team has the right of way, and it should be given ungrudgingly.

On overtaking a vehicle, pull out to the left and pass it at a steady pace and without cracking your whip or coming in too close.

When followed closely by another vehicle and both are at a good pace, signal with your whip if you are about to slacken your gait or change your direction.

When approaching a railroad crossing, bring your team to a walk or halt if necessary, but always look and listen.

Be courteous in observing the simple rules of the road; give plenty of room to others, and do not forget that a smile or a pleasant laugh will do more for you than a growl or a surly remark. Horsemen, as a rule, possess good dispositions; meet them, at least half way.

CARE OF SADDLE ANIMALS.

422. Animals for riding purposes should be selected with a view to the adaptability of their backs to the saddle.

423. The back of a saddle animal should be fairly short. A short back sustains weight better than a long one. The withers should not be high enough to be rubbed by the pommel arch when the horse's condition is low. A broad, low withers is objectionable for the reason that it is liable to be pinched by the saddle bars. It also allows the saddle to drift to the front, and, as a matter of course, the cincha will come in contact with the elbow and lower breast muscles, where it is liable to produce galls.

A short back with medium withers is rarely concave (sway back) to any great extent. Such backs generally have well-developed, well-rounded, deep chests, and properly proportioned abdomens.

424. A thin, tucked-up belly is undesirable in a saddle animal, the reason being that the saddle has a tendency to drift to the rear, no matter how tightly it may be cinched; then too, animals with tucked-up bellies are "poor keepers," and go to pieces quickly in the field. On the other hand, "pot-bellied" animals, as a rule, are narrow and flat in the chest ("slab-sided"), usually poor stayers, and are generally of a sluggish disposition.

425. The problem in the field is to keep the back in good condition. A sore back means a led horse, and for riding purposes a useless one.

It is believed that with fair care in saddling, riding, and unsaddling an animal of decent saddle conformation, a continuous march of 2,000 miles and more, at the usual rate, with the pack up, can be made without a gall. This supposes, of course, that there is a sufficiency of forage to keep the animal in fair condition of flesh.

BLANKET.

426. The blanket should, if possible, be kept dry and free from sand, caked dandruff, and hairs. It should be frequently shaken out and well switched, if necessary, to restore its pliability and remove dust and hair. In warm weather, when the animal sweats freely, a fresh, clean bearing surface on the blanket should be placed next to the back.

It is not a good plan to dry the sweat-soaked surface of a folded blanket in the sun and put this dried surface next the back the following morning. Such drying hardens the dandruff mixed with sweat and dust that is always present, and makes this part of the blanket rough and hard. It is preferable to double the sweat-soaked folded blanket on itself, so it will remain moist and soft.

To keep the back and saddle blanket clean and the latter free from sweat, a piece of smooth canvas, slightly smaller than the fold of the blanket, and placed next to the skin, will be found to give satisfactory results. This piece of canvas should never be washed, should be allowed to become smooth and slick.

Before placing the blanket on the back, be sure that both are free from sand and dust, and that the mane lies properly. Place the blanket in position in such a manner that it will not disturb the mane or ruffle the hair of saddle bed, and be sure there are no wrinkles in any of its folds.

SADDLE.

427. It is of importance that the saddle fit the rider as well as the horse.

A saddle too large for the rider may not be objectionable, if the stirrups are of the proper length, but a saddle with too small a seat causes the rider to place undue weight over the cantle arch. This uneven distribution of weight causes the rear of the bars to bore into the muscles of the posterior portion of the saddle bed and to induce "cantle sores," or so-called "kidney sores."

A saddle too large for the animal may press on the thin covering of the ribs when he becomes low in flesh. Doubling the blanket will save him from the inevitable gall. As such a saddle sits lower on the back as the animal's condition becomes low, the pommel arch when the withers are high, cause contusion there, and may produce a fistula.

In selecting a saddle, secure one that will not be too large for the animal when he becomes thin, and that will not be too small in the seat to properly accommodate the rider.

SADDLING.

428. There is no hard and fast rule for placing a saddle in position on the back. The saddle place is determined by the animal's conformation, and will sooner or later, during the morning, take the proper place irrespective of tight cinching. On backs of good saddle conformation, however, the saddle if too tightly cinched may interfere with the free play of the shoulder blades, when placed too far forward in the first instance, and may remain for a sufficient length of time in this objectionable position to cause lameness by the irritation of the muscles that run from the upper part of shoulder to the base of the arms.

The saddle should not be placed too far to the rear, for two reasons. First, on most backs it causes it to tilt forward and bore into

muscles back of the withers; second, this position brings the cincha back on the "floating" ribs, where it will compress them, thus interfering with the proper expansion of the lungs.

The saddle being placed in the proper position, determined by the conformation, and on the blanket, which should be without the suspicion of a wrinkle, the rider should see to it that all straps, buckles, and lashings are free of the bars, that the bars rest only on the blanket, and that the pack on pommel and cantle does not rest on the withers nor the back.

It should now be seen to that the quarter straps are evenly adjusted and that there are no wrinkles or rough places on the ring safes.

CINCHING.

429. The cincha should not be unduly tightened. Tight cinching causes young animals to rear and even throw themselves. It induces local swellings and galls, by interfering with the circulation, and it teaches all saddle animals to inflate the lungs ("swell themselves") the moment they feel the touch of the cincha. On cold mornings tight cinching causes even old saddlers to buck.

Take up the cincha gently and draw it snugly, then secure it temporarily. Adjust your stirrups and see that they are of equal length. This can be judged by standing in front of the animal and comparing one with the other. It will be found that from the often repeated mounting and dismounting on the near side the stirrup leather of that side will usually be found longer than the other. Having adjusted things generally, return to the cincha and take up the slack that will now be found, draw it snugly but not tightly, and secure it, being careful that there are no wrinkles in the strap and that the cincha itself does not encroach on the quarter strap ring shield. If it does, either the cincha strap is too long on the off side or the cincha is too long. In either event, make the necessary correction at once, if possible. If this correction is not made soon, a gall may be expected.

UNSADDLING.

430. On arriving in camp and having dismounted, ease off the cincha about 3 inches and change the bearing of the saddle by moving it to rear or front at least an inch. Allow the saddle to remain on the back for ten or twelve minutes, to enable the almost bloodless skin beneath (caused by weight of yourself and pack) and the tired

saddle bed muscles to regain to some extent their lost tone, while you busy yourself about the bridle and halter, and the religious duty of closely examining the feet for loose shoes, rocks, nail bruises, thrush, and interfering sores. Now remove the saddle, turn over the blanket, and let that remain in place until the back has dried.

431. If any dry spots are noticed on the sweaty skin while the blanket is being turned over, remember they are inflammations of the skin, produced by unequal distribution of weight, and are liable to puff up later if not attended to. Mark their location well for you are close to the walking stage if you neglect them. When the back is dry, remove the blanket and take care of it. Massage well from front to rear the spots referred to, bathe the saddle bed with clean water, dry it, and let the animal roll if he will. Should small swellings appear, however, keep the blanket in place until a soaking wet gunny sack is procured. Now remove the blanket, massage the swelling vigorously, and put the wet folded gunny sack pack over the back and secure it there. Do not allow the animal to roll if it can be avoided, and keep the pack wet during the night. In the majority of cases the animal will be ready for careful saddling in the morning.

432. Should you have produced a gall, the place should be bathed and disinfected with creolin or carbolic-acid solution (1 ounce to the quart of water), the spot protected from the flies, cold packed if necessary, and the animal led until nature effects a cure. Close attention to cleanliness, disinfection, and stimulation of the wound will hasten the process. Use a solution of aloes or alum in water (one-half ounce of either to a pint of water) as a stimulant.

433. Even with very close attention to saddling, galls may be produced if the rider is not a careful one.

Irrespective of the fit of the saddle and condition of blanket, the things that cause galls and "bunches" most frequently are carelessness in balancing and securing the pack, a lounging, shifting seat and a sloppy method of handling the reins, inattention to proper cinching, unequal length of stirrups, neglect of adjustment at the halts, the riding of a lame animal, and the galloping of a leg-wearer.

BITTING.

434. Use a snaffle in preference to a curb, and adjust it so that it will not elevate the corners of the lips. When a bit and bridoon are used, let the bit hang somewhat lower than the bridoon. Adjust

the curb strap or chain properly, and be sure that the animal is comfortably fitted.

The inside of the lower jaw is often injured by ignorant handling of the curb rein. These injuries appear above the bridle teeth or "tusks" and present inflamed places that sometimes exhibit ulcers. Quite often the bone is splintered. Less frequently the under part of the jaw, in the vicinity of the curb groove, is bruised and perhaps fractured more or less completely.

Any of these conditions may be made manifest by the animal "fighting the bit," "throwing the head," or rearing.

435. These injuries should be treated by putting the animal on a snaffle at once and placing it high enough in the mouth to avoid any pressure on the injured parts. If ulcers appear, wash them out frequently with a saturated solution of boracic acid. When the bone is splintered it is usually a serious matter, and the parts should not be interfered with by the inexperienced.

ARM SIGNALS.

436. Signals are ordinarily made with the right arm, but may be made with the left arm when more convenient; when made with the left arm the reins are taken temporarily in the right hand.

If the saber is in hand, the signals are made in the manner similar to that prescribed for the arm.

Ordinarily before making a signal for the execution of a movement, the captain places himself where he can be seen by the company, generally with his horse facing in the same direction as the mules, and commands or signals the **attention** or causes it to be sounded on the bugle. The captain may signal the attention by blowing a long blast on a whistle.

The signals prescribed for the different maneuvers are preparatory signals; for the signal of execution, the arm is extended vertically and then lowered quickly to the side. If a movement involves a change in the direction of march, the captain moves his horse in the new direction on making the preparatory signal.

PREPARATORY SIGNALS.

437. **Attention:** Extend the arm vertically and move it slowly back and forth from right to left.

Forward: Extend the arm vertically and lower it to the front until horizontal.

By the right (left) flank: Extend the arm vertically and lower it to the right (left) until horizontal.

Right (left) about: Extend the arm vertically and describe slowly a large horizontal circle with the hand; then extend the arm to the left (right) and describe a horizontal arc to the front and right (left).

Countermarch: Extend the arm vertically and describe quickly several horizontal circles with the hand.

Right (left) oblique: Extend the arm obliquely upward to the right (left) and front, and then lower the arm, describing a vertical circle on the right (left) side of the horse.

To increase the gait: Carry the hand to the shoulder, forearm vertical; extend the arm vertically from this position and repeat several times.

To decrease the gait: Hold the arm horizontally above and in front of the forehead.

To indicate an increased or decreased gait from a maneuver, the appropriate signal is made just after the preparatory signal for the maneuver.

To halt: Extend the arm vertically and hold it there until the signal is obeyed.

To change direction to the right (left): Extend the arm vertically; lower it to the left (right) until horizontal and describe a horizontal arc to the front and right (left).

To close intervals: Point to the ambulance on which the intervals are to be closed, and then signal right (left) oblique, or left and right oblique, according as the intervals are to be closed on the right (left) ambulance or an interior ambulance.

To extend intervals: Point to the ambulance on which the intervals are to be extended, and then signal left (right) oblique or right and left oblique, according as the intervals are to be extended on the right (left) ambulance or an interior ambulance.

By ambulances from the right (left): Point to the right (left) ambulance and signal forward.

Right (left) front into line: Extend the arm vertically and describe several large vertical circles on the right (left) side of the horse.

On right (left) into line: Signal a change of direction to the right (left) followed by describing small circles with the hand while the arm is extended to the right (left).

MANEUVERS OF THE AMBULANCE DETACHMENT.

GENERAL PROVISIONS.

438. The twelve ambulances are divided into three platoons of four ambulances each. To each platoon is assigned an officer or noncommissioned officer as platoon leader.

The platoon leader rides 4 yards in front of the center of his platoon when in line or in column of detachment or platoon, and at the side of the near lead mule of the right ambulance of his platoon when in column of sections. (Within the meaning of these regulations each ambulance with its driver, orderly, and team constitute a section.)

Guides: When two or more ambulances are marching in line, the instructor, as soon as the march in line is begun, designates the element on one flank or the other as the guide of the movement, thus: **Guide right (left)**. The other elements align themselves on the guide thus indicated and maintain their intervals from that flank.

In marching in column, or if marching obliquely, the leading element is, without indication, the guide of the movement.

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

439. Alignments: Being in line at a halt, the instructor sees that the driver on the flank toward which the alignment is to be made is in the desired position and commands:

1. **Right (left), 2. DRESS, 3. FRONT.**

At the command **DRESS**, the drivers look to the right and align themselves accurately, keeping their teams straight and preserving their intervals. Ambulances are aligned when the front axles are in the same line.

The instructor may place himself on either flank and give a general alignment by ordering any driver to move one mule or all of his team forward or backward.

440. Gaits: In changing formation, the ambulances which establish the direction and rate of march of the new formation are termed *directing ambulances*.

Increasing the gait is to be understood as passing from the halt to the walk, or from a walk to a trot.

Reducing the gait is to be understood as passing from the trot to a walk, or from a walk to a halt.

441. When a change of formation requires certain ambulances gain ground so as to reach specified positions abreast of the directing ambulances, the instructor may or may not announce an increased gait for the movement. If he announces an increased gait, the directing ambulances maintain their gait; the others move at the gait announced until they reach their new positions, when they take the gait of the directing ambulances. If the instructor does not announce an increased gait, the directing ambulances reduce their gait; the others maintain their gait until they reach their new position, when they take the gait of the directing ambulances.

If the movement is executed from a halt, and an increased gait is not ordered, the directing ambulances advance a distance equal to twice the length of an ambulance toward the front of the new formation and halt.

This rule applies to forming line from column, or from column into platoons, to the flank or to the front.

442. When a change of formation requires a directing ambulance to gain ground in order to precede the other ambulances, the instructor may or may not announce an increased gait for the movement. If he announces an increased gait, the directing ambulance takes up the increased gait at once; the other ambulances take it up so as to follow the movement in proper order.

If the instructor does not announce an increased gait, the directing ambulances maintain their gait, the others reduce their gait and take up the gait of the directing ambulances in time to follow the movement in their proper order. If the movement is executed from a halt, while marching at a walk and an increased gait is not ordered, the directing ambulances move at a walk; the others remain halted, halt, and take up the gait of the directing ambulances as before.

443. The gait is increased by a command *trot*, and reduced by a command *walk* or *halt*.

MARCHINGS.

444. To march to the front:

1. Forward, 2. **MARCH.**

At the command **MARCH** the teams move out simultaneously and march straight to the front. If in column, they take the trail and distance from the ambulance ahead; if in line, they preserve their alignment and the interval from the guiding flank.

445. To halt:

1. Ambulances, 2. **HALT**.

At the command **HALT**, the driver stops his team, but not suddenly, and keeps it straight. The traces are stretched, as soon as the ambulance is halted, by causing the mules to take a step or two forward.

446. To march by flank:

1. By the right (left) flank, 2. **MARCH**.

At the command **MARCH**, the driver wheels his team to the right by causing the off mule of the lead pair to move over a quarter of a circle whose radius is four yards, and the near mule to quicken his movements so as to keep abreast of the off mule; the wheel pair follow their lead and wheel to the right on the same ground.

447. To march to the rear:

1. Right (left) about, 2. **MARCH**.

Executed as explained for the march by the flank except that the driver causes his team to move over a half circle instead of a quarter circle. If executed at a trot, the radius is slightly increased and the gait moderated.

448. To march obliquely:

1. Right (left) oblique, 2. **MARCH**.

Executed as described for the march by the flank, except that the driver causes his team to move over an eighth of a circle instead of a quarter circle. During the oblique march drivers maintain their relative positions with respect to each other, so that on executing a second oblique they will be in line or column, as the case may be, with proper intervals and distances.

449. To rein back:

1. Backward, **MARCH**, 3. Ambulances, 4. **HALT**.

Executed from a halt. The mules are reined back evenly and kept straight. This movement is used only for the purpose of moving the mules a few steps to the rear.

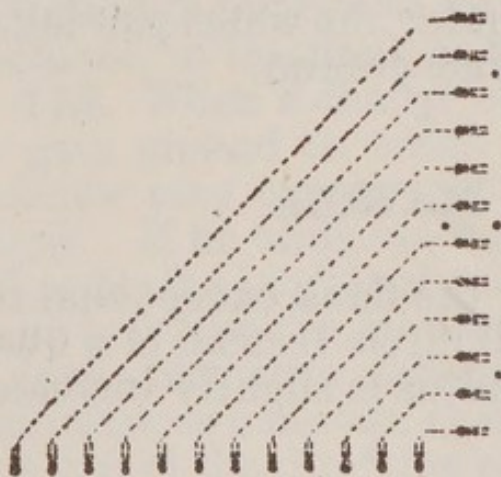
450. To change direction:

1. **Right** (left) wheel, 2. **MARCH**.

If in column, the leading ambulance wheels to the right as explained in paragraph 446; the other ambulances follow in the track of the leading one, and wheel on the same ground.

In line, the pivot ambulance wheels to the right as described in paragraph 446; the other ambulances take increased gait, preserving their interval from the pivot ambulance, and take the gait of the latter on arriving abreast of it.

451. In reducing the gait or in halting, the movement must be checked gradually so as not to bring undue strain upon the mules or the harness. Ordinarily about 2 yards should be gained in bringing an ambulance to a halt from a walk; and from 5 to 10 yards in halting from a trot.



Pl. 94, Par. 452.

452. Being in line, to change direction:

1. **Detachment**, 2. **Right** (left) turn,
3. **MARCH**, 4. **HALT**.

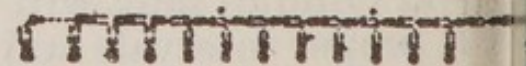
At the command **MARCH**, the directing ambulance wheels 90° to the right and advances in the new direction; the others oblique to the right until opposite their interval in the new line, then straight to the front and align themselves

on the directing ambulance, preserving their proper intervals.

The command **HALT** may be given when the directing ambulance has advanced at least two ambulance lengths to the new front. For gaits see paragraph 440.

453. Being in line, to form column to the flank:

1. **Ambulances right** (left), 2. **MARCH**,
3. **HALT**.



Pl. 95, Par. 453.

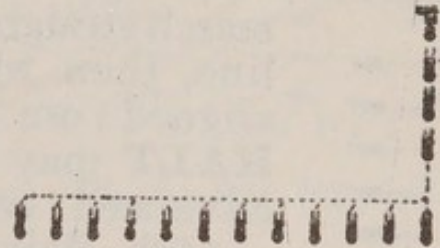
At the command **MARCH**, each ambulance wheels 90 degrees to the right and moves off in the new direction. The command

HALT may be given after the leading ambulance has advanced at least two ambulance lengths in the new direction (21 yards).

454. Being in line, to form column to the front:

1. **By ambulance from the right (left), 2. MARCH.**

At the command **MARCH**, the ambulance on the right moves straight to the front; the others wheel to the right and advance until they reach the track of the leading ambulance, then to the left and follow each other at a distance of 21 yards.



Pl. 96, Par. 454.

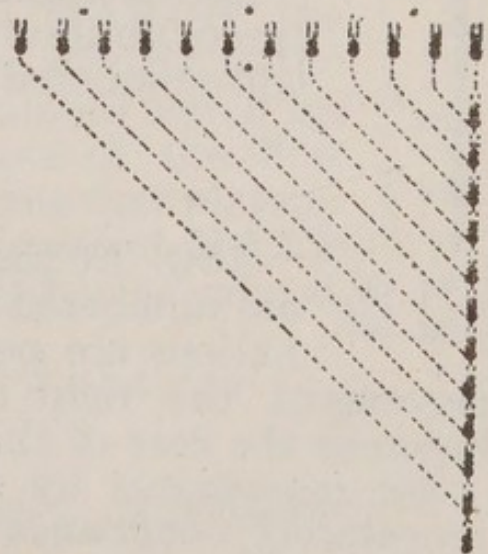
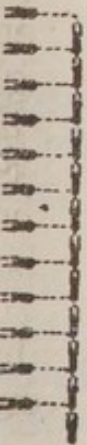
455. Being in column, to form line to the flank:

1. **Ambulance left (right), 2. MARCH, 3. HALT.**

At the command **MARCH**, each ambulance wheels 90 degrees to the left and moves off in the new direction, preserving alignment and interval. The command **HALT**, may be given as soon as the ambulances have advanced at least two ambulance lengths (21 yards) in the new direction.

456. Being in column, to form line to the front:

1. **Detachment, 2. Left (right) front into line, 3. MARCH, 4. HALT.**



At the command **MARCH**, the leading ambulance moves straight to the front; the others oblique to the left until opposite their intervals in the line, then straight to the front and align themselves upon the directing ambulance, preserving the proper interval. The command **HALT**, may be given when the directing ambulance has advanced two ambulance lengths to the front. For gaits see paragraph 440.

Pl. 98, Par. 456.

457. Being in column, to form line on the flanks:

1. Detachment, 2. On right (left) into line, 3. **MARCH, HALT.**

At the command **MARCH**, the directing ambulance wheels 90 degrees to the right and advances in the new direction; the other ambulances march straight to the front until opposite their places in the line, then wheel 90 degrees to the right and halt when aligned on the directing ambulance. The command **HALT** may be given when the directing ambulance has advanced two ambulance lengths in the new direction.

458. Being in column, to countermarch:

1. Countermarch, 2. **MARCH.**

At the command **MARCH** the leading ambulance executes a **left-about**; the other ambulances follow in the track of the leading ambulance and execute a **left-about** on the same ground.

459. Being in column, to form double column:

1. Form double column, 2. **MARCH.**

At the command **MARCH** the even numbered ambulances oblique to the left and align themselves upon the odd-numbered ones and preserve an interval of two yards.

MOVEMENTS BY PLATOONS.

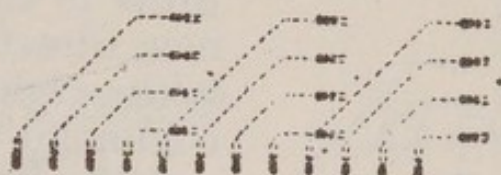
460. At the formation of the detachment, the platoons are numbered consecutively from right to left; these designations are permanent and do not change, when by any movement, the right becomes the left of the line, or the head becomes the rear of the column.

For movements by platoons, each platoon leader repeats such preparatory commands as are to be immediately executed by his platoon. The drivers execute the commands **MARCH** or **HALT** applicable to their platoons, at the command of the detachment commander. Each platoon leader repeats the commands prescribed for him so as to insure execution of the movement at the proper time.

461. Being in line, to form column of platoons to the flank:

1. Platoons right (left) turn, 2. **MARCH**, 3. **HALT**.

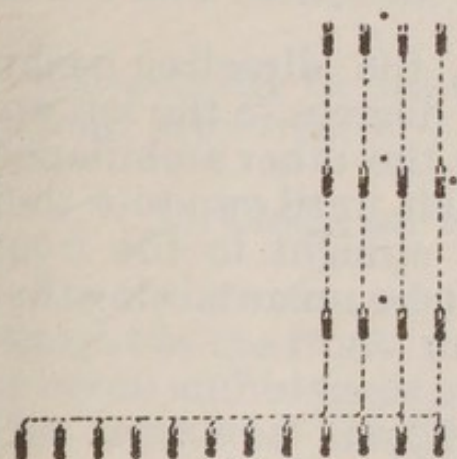
At the command **MARCH**, the directing ambulance of each platoon wheels 90° to the right and advances in the new direction; the others oblique to the right until opposite their position in the platoon line, then straight to the front and align themselves on their respective directing ambulances. The command **HALT** may be given as soon as the directing ambulances have advanced two ambulance lengths (21 yards) in the new direction. For gaits see paragraph 440.



Pl. 100, Par. 461.

462. Being in line, to form column of platoons to the front:

1. By platoons from the right (left), 2. **MARCH**, 3. **HALT**.



Pl. 101, Par. 462.

At the first command, the leader of the first platoon commands: **Forward**, the leader of the other platoons command: **Ambulances right**.

At the command **MARCH**, the first platoon moves straight to the front; the other platoons march by the right flank until they reach the traces of the first platoon, then by the left flank and follow the first platoon in succession, at proper distance. The command **HALT** may be given after the leading platoon has advanced at least 125 yards to the front.



463. Being in column, to form column of platoons:

1. Platoons left (right) front into line, 2. **MARCH**, 3. **HALT**.

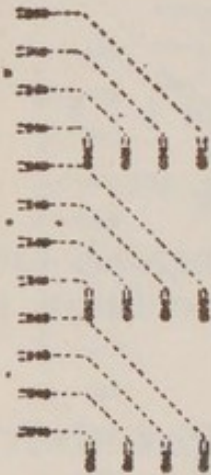
Pl. 102, Par. 463.

Executed by each platoon as prescribed for detachment in paragraph 72.

464. Being in column of platoons, to change direction:

1. Column right (left), 2. **MARCH**.

At the first command, the leader of the first platoon commands: **Platoon, right turn**. At the command **MARCH**, the first platoon turns to the right and continues to advance in the new direction. The other platoons advance and turn to the right in succession on the same ground at the command of their platoon leaders.



465. Being in column of platoons, to form line to the flank:

1. Platoons left (right) turn, 2. **MARCH**, 3. **HALT**.

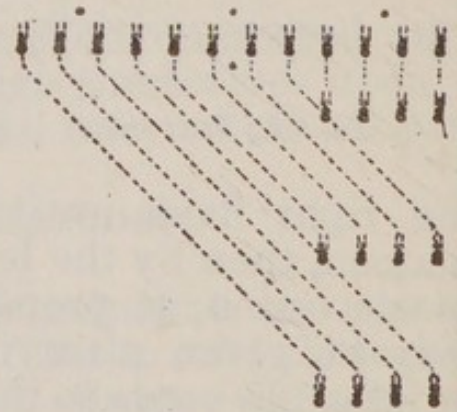
At the command **MARCH**, the directing ambulance of each platoon wheels 90 degrees to the left and advances in the new direction; the other ambulances of each platoon oblique to the left until opposite their places in the new line, then straight to the front, aligning themselves on their directing ambulances, maintaining their proper intervals.

466. Being in column of platoons, to form line to the front:

1. Detachment, 2. Left (right) front into line, 3. **MARCH**, 4. **HALT**.

At the second command, platoon leaders of the second and third platoons command: **Platoon, left oblique**.

At the command **MARCH**, the first platoon continues straight to the front; the other platoons execute **left oblique** until opposite their places in the new line, then straight to the front and align themselves on the first platoon. The second command **HALT** may be given when the first platoon has advanced two ambulance lengths to the front.



Pl. 104, Par. 466.

467. Being in column of platoons, to form column to the front:

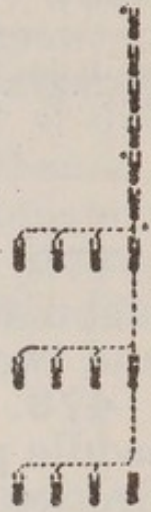
1. **Platoons**, 2. **By ambulances to the right (left)**, 3. **MARCH**.

Executed by each platoon as described in paragraph 454.

468. Being in column of platoons, to form line of platoons, and the reverse:

1. **Ambulances right (left)**, 2. **MARCH**, 3. **HALT**.

At the command **MARCH**, each ambulance wheels 90° to the right and moves off in the new direction. The command **HALT** may be given as soon as the directing ambulances have advanced two ambulance lengths in the new direction.

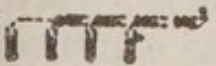
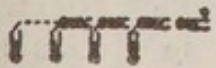
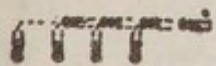


Pl. 105,
Par. 467.

469. Being in line of column of platoons, to close or extend intervals:

1. **Close on right (left)**, 2. **MARCH**, 3. **HALT**.

At the command **MARCH**, the directing ambulance moves straight to the front; the others oblique to the right until the interval between ambulances is reduced to 2 yards, then straight to the front. The command **HALT** may be given when the directing ambulances have gained three ambulance lengths to the front. For gaits, see paragraph 440.



470. Being in line or in column of platoons at close intervals to extend:

1. **Extend to the left (right)**, 2. **MARCH**, 3. **HALT**.

Executed as described above except that ambulances oblique to the left until extended interval is gained.

Pl. 106, Par. 468.

471. Being in column of platoons to close intervals and distances:

1. **Detachment**, 2. **In close order**, 3. **MARCH**, 4. **HALT**.

At the second command platoon leaders command: *Close on right*. At the command **MARCH**, the directing ambulances move

straight to the front, the others oblique to the right until the interval between ambulances is reduced to 2 yards, then straight to the front. The command **HALT** may be given when the directing ambulances have advanced at least three ambulance lengths to the front. The second and third platoons may be halted when distance between platoons has been reduced to 14 yards. For gaits, see paragraph 440.

THE PACK TRANSPORT DETACHMENT.

472. The pack transport detachment constitutes a platoon of the ambulance company, and is divided into two sections of two packers and two mules each.

473. The Medical Department pack outfit consists of the pack saddle proper, and a number of accessory articles. See Appendix, Section III.

474. For transporting the equipment of a dressing station on four pack animals, the packs are arranged as shown in the Appendix, Section III.

MARCHINGS.

GENERAL PROVISIONS.

475. The personnel of the pack transport platoon consists of one noncommissioned officer and four drivers, one of each of the latter being placed in charge of a pack mule.

476. The noncommissioned officer commands the platoon, and is responsible to the detachment commander for the efficiency of the men and the care of the matériel and animals pertaining thereto.

477. *Intervals and distances.*—The interval between mules in line is 3 yards. The distance between mules in column is 1 yard; between sections, 5 yards.

478. Mules are turned on an arc of a circle whose radius is 2 yards.

479. The pack transport detachment is maneuvered as a platoon of the ambulance company, and by the same commands and means as if composed of litter squads, substituting the word *packs* for the word *squad*.

When the ambulance company is in column, the pack transport detachment habitually marches in column of sections.

THE WAGON DETACHMENT.

480. The wagon detachment comprising three escort wagons of the ambulance company constitutes a platoon of the ambulance company. The personnel of the platoon consists of one noncommissioned officer and three drivers, the horseshoer, and the saddler.

481. The noncommissioned officer commands the platoon, and is responsible to the detachment commander for the efficiency of the men and the care of the matériel and the animals pertaining thereto.

482. The directions given under the head of The Ambulance Detachment concerning disposition of harness, harnessing, fitting harness, hitching and unhitching, etc., in so far as they apply, are prescribed for the wagon detachment.

MARCHINGS.

483. The wagon detachment is maneuvered in the same manner and by the same commands as a platoon of the ambulance detachment.

484. The intervals and distances between wagons are the same as in an ambulance platoon.

485. Wagons are wheeled on an arc of a circle whose radius is 6 yards.

486. The method of loading wagons of the ambulance company is described in the Manual of the Medical Department, 1911, paragraphs 868 and 869.

THE AMBULANCE COMPANY, MOUNTED.

487. The special object of this instruction is the training of the personnel of the ambulance company in the dispositions and maneuvers requisite for forming the company as a whole, for marchings, going in and out of camp or garrison, and for ceremonies.

488. A progressive order of instruction must be observed. The detachments having been instructed by their commanders, the captain takes up and completes the training of the company as a whole.

GENERAL PROVISIONS.

489. *The saber.*—During instruction, the saber is in the scabbard or drawn, at the discretion of the captain; when the captain draws saber, detachment commanders will also draw saber.

At mounted instruction the saber is habitually attached to the left side of the saddle; on dismounting for instruction in the duties at the dressing station and similar functions, it is not removed.

490. *Duties of officers, noncommissioned officers, etc.*—The captain commands the company and is responsible for its training and efficiency.

The lieutenants command detachments and are responsible to the captain for the efficiency of their men and the serviceable condition of the animals and matériel of their detachments. One of the lieutenants also acts as quartermaster of the company. A sergeant, first class, is assistant to the captain and is responsible to him for the general good order, police, and discipline of the company. In action he supervises the enlisted men at the dressing station.

Another sergeant, first class, is the quartermaster sergeant of the company, and is responsible to the quartermaster for the general care and maintenance of the Government property issued to the company. In action he supervises the service of the ambulances.

The stable sergeant is responsible for the care of the public animals, and the good order and the police of the stables, picket lines, etc.

The sergeants of the bearer detachment are responsible to the detachment commander for the efficiency of the men of the detachment. In action they supervise the service of the litter bearers.

The drivers are directly responsible to their platoon leaders for the mules, harness, and vehicles.

The captain, lieutenants, sergeants, first class, platoon leaders of the pack transport, ambulance and wagon platoons, horseshoer, and orderlies are mounted.

Ambulance orderlies ride on their respective ambulances.

The artificer and cooks ride on the escort wagons.

FORMATIONS.

491. The habitual formations are in line and in section column. The company may also be formed in column of detachments or platoons.

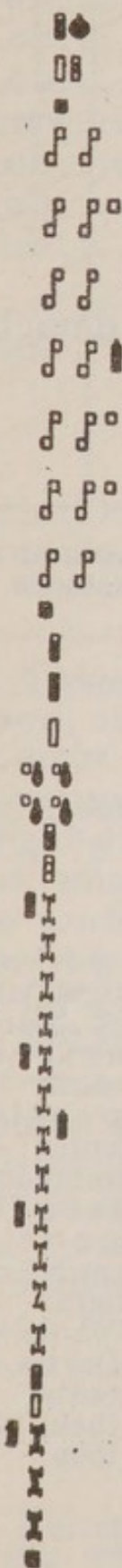
INTERVALS AND DISTANCES.

492. *Intervals:*

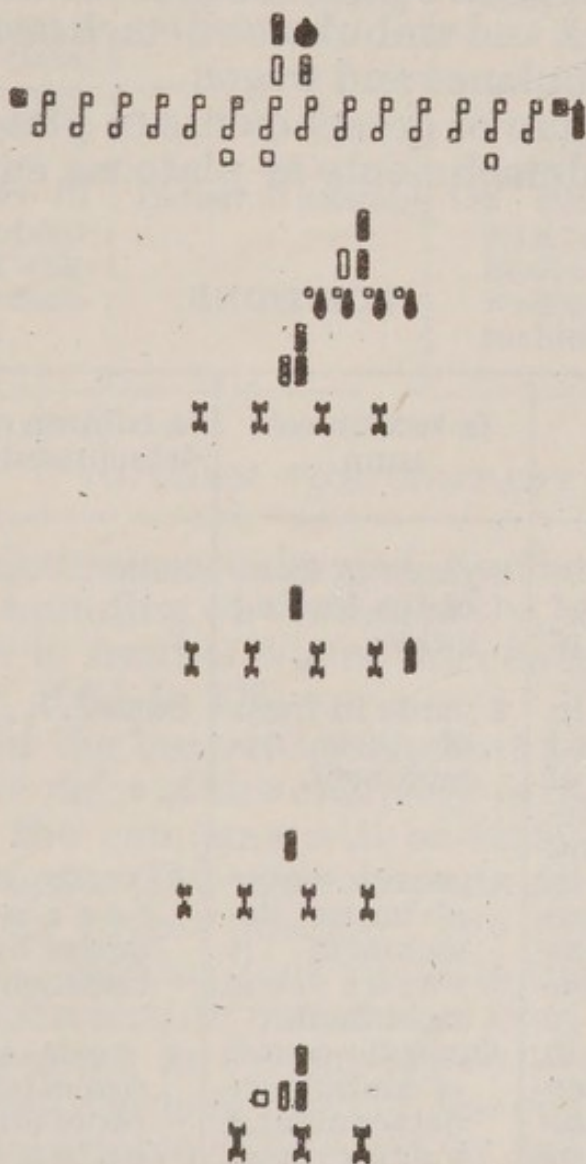
Interval between litters (close order 45 inches).....	paces..	4
Interval between pack mules.....	do....	4
Interval between ambulances and wagons (close order, 2 yards).....	yards..	10
Interval between bearer and pack detachments.....	yards..	8
Intervals between pack and ambulance, ambulance and wagon detachments.....	yards..	14

Ambulance Company, Mounted

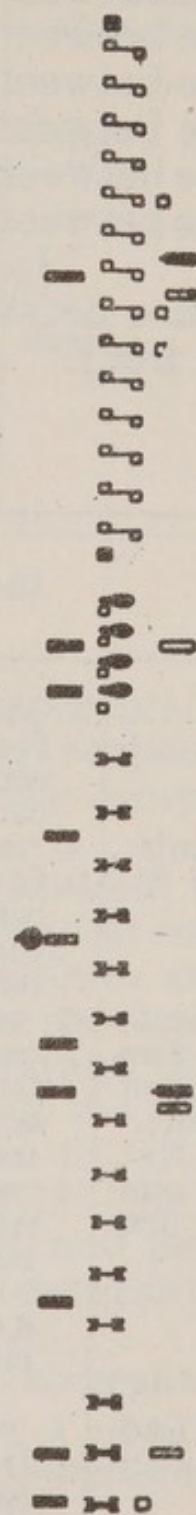
In section column



In column of Platoons.



In line



- Captain
- Lieutenant
- ◆ Sgt. First Class
- ▣ Sgt. & Corporal
- ▧ Musician
- Orderly
- Guide
- Private
- ⌈ Litter squad
- Mule
- ⌘ Ambulance
- ⌘ Wagon

493. Distances:

Distance between litters.....	paces..
Distance between litter sections.....	do....
Distance between pack mules.....	do....
Distance between pack-mule sections.....	do....
Distance between ambulances and wagons.....	yards..
Distance between bearer and pack detachments.....	do....
Distance between pack and ambulance detachments.....	do....
Distance between ambulance and wagon.....	do....

In column of detachments or platoons.

Distance between detachments or platoons equals detachment platoon front.

494.**POSITIONS.**

	In line.	In section column.	In column of detachments.	In column of platoons.	En-route
Captain.....	8 yards in front of center of company.	8 yards in front of the leading guide.	Same.....	Same.....	Same
Lieutenants..	4 yards in front of center of their detachment.	8 yards in front of their detachment.	Same.....	Same.....	Same
Sergeant, first class (acting first sergeant).	4 yards in rear of center of bearer detachment.	Opposite center of bearer detachment, 4 yards from right flank.	4 yards in rear of bearer detachment.	4 yards from right flank of bearer detachment.	
Second sergeant, first class.	4 yards in rear of center of ambulance detachment.	Opposite center of ambulance detachment, 4 yards from right flank.	4 yards in rear of center of ambulance detachment.	Opposite center of ambulance detachment, 4 yards from right.	
Platoon leaders.	4 yards in front of center of their platoon.	Beside near lead mule of leading ambulance of their platoon.	4 yards in front of center of their platoon.	4 yards in front of center of their platoon.	

494.

POSITIONS—continued.

	In line.	In section column.	In column of detachments.	In column of platoons.	En Route.
Orderlies.....	On left of sergeants, first class. C.O. orderly 2 yards in rear.	2 yards in rear of the officer.	Same.....	Same.....	
Horseshoer...	4 yards in rear of center of wagon detachment.	In rear of column	On left of platoon leader of wagon detachment.	Same.....	

TO FORM THE COMPANY.

495. The detachments are formed by their respective first sergeants and, at the sounding of the assembly, the first sergeant places himself eight yards in front of where the center of the company is to be and commands: **FALL IN.**

The right guide of the bearer detachment places himself, facing to the front, where the right of the company is to rest and at such point that the center of the company will be eight yards from and opposite the first sergeant. The detachments form in succession from right to left, in their proper places. The first sergeant then commands: **REPORT.** Moving four paces to the front, the senior sergeant of each detachment, in succession from right to left, salutes and reports: All present; or Private (s)—— absent. The captain places himself fifteen yards in front of the center of, and facing, the company in time to receive the report of the first sergeant, whose salute he returns, and then draws saber.

The lieutenants take their posts when the first sergeant has reported and draw saber with the captain.

The company may also be formed in column of detachments.

TO DISMISS THE COMPANY.

496. Being at a halt, the captain directs the first sergeant: **DISMISS THE COMPANY.** The officers fall out; the first ser-

geant places himself eight yards in front of the company if in line, or eight yards from the flank if in column, and commands: **DISMISSED**. The bearers fall out and the other detachments are conducted to their proper places by the senior sergeants, where the animals are unhitched and unharnessed and the men dismissed.

ALIGNMENTS.

497. The alignments are executed as prescribed heretofore, the heads of the animals in the lead teams being in line with the bearer detachment.

At each alignment the captain places himself in prolongation of the line, and facing the flank toward which the dress is made, verifies the alignment, and commands: **FRONT**.

MARCHINGS.

498. The ambulance company may be formed and maneuvered in line, in line of platoons; in column detachments, platoons and sections, in accordance with the principles laid down in the instructions for detachments, substituting the word *company* for *detachment*.

499. In changing from line to column or the reverse, the leading element of the company will advance a sufficient distance in the new direction so that ambulances and wagons will have the opportunity to straighten out their teams.

500. In forming column from line, the bearer detachment will advance at least thirty paces in the new direction before the command **HALT** is given.

501. In forming line from column the bearer detachment will advance at least twenty paces in the new direction before the command **HALT** is given.

502. For ceremonies or other purposes the company may be formed in column of detachments or platoons in close order by the commands:

1. **Company**, 2. **Close order**, 3. **MARCH**, 4. **HALT**.

503. At the second command detachment commanders (platoon leaders) command: **Close on right**. At the command **MARCH**, detachment or platoons continue the advance and close on right. The leading detachment or platoon shortens step; the others shorten

step or check their gait as soon as they have gained the required distance. The command **HALT** may be given as soon as the detachments or platoons are in proper position.

MANEUVERS OF TWO OR MORE COMPANIES.

504. Two, three, or four ambulance companies may be exercised and maneuvered as a battalion. The normal formations of the battalion are: In line, in column of sections, platoons, or detachments.

505. The individual companies are formed as prescribed in Par. 491. In each case the formation of the battalion is analogous hereto.

506. In line, the interval between companies is fourteen yards. The distance between companies in column of sections is fourteen yards, and between companies in column of platoons or detachments, platoon or detachment distance.

507. If the battalion is formed in column, with its companies in line, the formation is called a *column of companies*. The distance between companies is equal to company front at full distance; it is platoon distance when in close order. When the battalion is in column of companies at closed distance, it is said to be closed in mass.

At formations of the battalion the companies take their places from right to left in line, and from front to rear in column, in order of rank of their captains.

TO FORM THE BATTALION.

508. At ceremonies the director is thirty yards in front of the center of his battalion. On other occasions he places himself where he can most readily observe and direct the battalion. His non-commissioned officer and orderly are two yards in rear.

To form the battalion in line, the noncommissioned officer places himself, at the sounding of the assembly, at the point where the right of the battalion is to rest. The companies approach from the rear and are posted in succession from right to left by their captains. When the company that arrives first on the line has been established, the noncommissioned officer rejoins the director.

The battalion may also be assembled in any other formation.

TO ALIGN THE BATTALION.

509. To effect a general alignment, the director causes one of the flank companies to be established in the desired position, and commands:

1. **By company,** 2. **Right,** 3. **DRESS.**

Each captain in turn, commencing with the company first posted, aligns his company toward the flank designated and commands: **FRONT**, when the alignment is completed.

TO DISMISS THE BATTALION.

510. The director commands: **DISMISS YOUR COMPANIES**, or sends appropriate instructions to his captains. Each captain marches his company to its park and dismisses it.

MANEUVERS.

511. To reach a designated position at the proper time is the object to be attained in maneuver of two or more ambulance companies.

The movements are not effected by the maneuver of the battalion as such, but rather by separate movements of individual ambulance companies to the place assigned to them.

512. For passing from one formation to another, and for the simple evolutions requisite for ceremonies and ordinary incidents of the service, several companies are maneuvered in accordance with the principles heretofore prescribed for a single ambulance company and by similar commands. In case of simultaneous movements, such as marching to the front, to the flank, to the rear, obliquely, etc., the command or signal of execution of the director of ambulance companies is immediately repeated by the captain and simultaneously executed by the ambulance companies. In case of successive movements, the captains maneuver their companies so as to cause them to arrive at their proper positions by the shortest route and in conformity with the principles of the rules of gaits.

FIELD TRAINING.

513. After the company has completed the garrison course of instruction in professional subjects and in drills, it must take up a course of field training in the duties necessary to keep the company in an effective condition and to enable it to fulfill its function in campaign.

514. The following-named subjects will be taken up consecutively and the company made proficient therein:

1. Route marches.
2. Making and breaking camp.
3. Battle service.

515. *Route marches:* The section column is the habitual column of route. When marching in column with other troops, the distance between latter and pack transport detachments may be reduced to one pace.

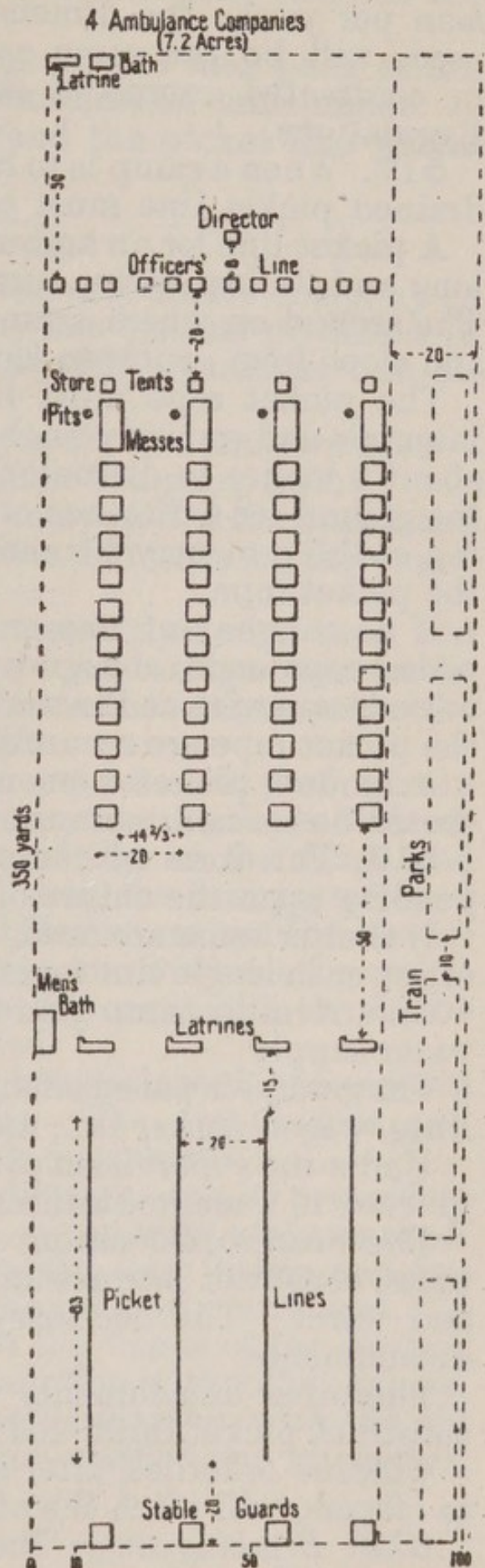
Being in march: **ROUTE ORDER**, or **AT EASE**.—Executed according to principles already described. Sabers are returned if drawn.

To resume attention, the captain commands: 1. **Company**, 2. **ATTENTION**.

The company as a whole must be exercised in route marching in order to insure against "backing and filling" of the column, by constantly maintaining proper distance between the elements. In an organization composed of a variety of elements, the difficulty of maintaining proper distances is much greater than in those in which there is greater uniformity in this respect.

Practice marches must be made on all kinds of roads, and special attention must be given to the drivers. The column must not be allowed to vary in length and lieutenants will be held responsible for the proper conduct of their respective detachments.

516. *Making and breaking camp:* Ambulance companies usually encamp in column of company units, and are allowed a space of 350 by 100 yards. With the same width of streets and the tents of each company in one line (1



Pl. 108, par. 516.

man per yard), the dimensions of camps, when shelter tents are used, will be the same as above. Allowance of space allotted in contracted camps of short duration is given in Field Service Regulations.

517. When a camp is to be occupied for any length of time, a well-drained picket line must be constructed.

A picket line for an ambulance company should be about 90 yards long and 24 feet wide, surrounded by a trench about 1 foot deep. The ground on which animals are to stand should be macadamized and slope from center to facilitate drainage.

The picket rope must be supported by posts at about 30-foot intervals and securely anchored at both ends. The posts should be about 8 inches in diameter and 6 or 7 feet long; they are sunk into the ground for a distance of about 2 feet. A horseshoe nailed to the top of the post may be used in place of a hole through the post for the picket rope.

If no convenient tree or stump is found on which to anchor the picket-rope ends, a large piece of timber, 1 foot by 3 feet, may be buried crosswise at the end of the picket line to which the ends of the picket rope are securely tied.

A ground picket rope is preferable for night camps. Animals should be trained to its use by bandaging their legs for a few nights.

518. This form of camp may have to be modified, however, depending upon the nature of the ground where the camp is located.

If shelter tents are used, they are pitched in two lines facing each other, or in single line facing the head of the column.

On arrival in camp guards are posted to enforce proper use of the water supply.

The ground is paced off and the locations of the lines of tents, picket lines, wagon parks, etc., are marked.

Under the supervision of their officers the various detachments will proceed in a methodical manner to establish the camp.

The bearer detachment and cooks will establish kitchens, pitch tents, construct latrines and kitchen incinerators, and procure fuel and water. The necessary guard will also be furnished by these detachments.

The other detachments will unharness and secure their animals, construct picket lines, and procure forage.

Officers' orderlies, after securing their horses and those belonging to officers, will pitch the officers' tents.

519. *Breaking camp:* The men in charge of animals will rise at such time as will enable them to feed, water, groom and harness, or saddle

their animals; make up their blanket rolls and deposit them at the place designated for loading.

When tents have been struck and the wagons and pack mules loaded, each detachment commander assembles his detachment.

The camp will be thoroughly policed and the picket line wastes burned if practicable.

BATTLE SERVICE.

520. The instruction in the duties of the ambulance company in battle will be taken up after the company has become proficient in the duties that are necessary to maintain the organization in an effective condition in the field.

For this service the ambulance company is divided into two parts—the dressing-station party and the ambulance company train.

The dressing-station party is ordinarily composed of the bearer and pack transport detachments, and, if the situation permits, the wagon detachment is also included.

It is not considered practicable to permanently assign each and every member of the company to specific duties during action, as the special necessities of each case must determine the assignments to be made at the time and place by the captain.

In preparation for field service, officers must be made proficient in the elements of map reading and the preparation of simple location sketches. They must also acquire a knowledge of the range and trajectory of projectiles, the efficiency of cover, the interpretation of orders, and the elements of tactics of the different arms of the service in order to be able to appreciate the situation under which the ambulance company must perform its duties in connection with the rescue, care, and transportation of wounded.

A location for a dressing station having been selected, the captain assigns officers and men to their duties. The ambulances and wagons are parked, the men lay aside their equipment.

The ground is laid off and the various departments, as prescribed in the Manual for the Medical Department, are appropriately marked. Dressing and operating tables are constructed from litters and improvised supports. The supplies are conveniently arranged. A kitchen is established. Rears are dug on the flanks of the station. If the exercises are conducted in conjunction with other troops, bearer parties are sent out to establish communication with the aid stations and the route to the dressing station marked and improved, if necessary.

Officers and enlisted men are instructed in the duties of the various departments.

The ground selected for the dressing station should be ample, so as to admit of an orderly and convenient arrangement of the various departments.

Near the entrance, which is marked by the Red Cross flag, the receiving and forwarding department is established, where patients are recorded and assigned to the slightly wounded or severely wounded departments. The department for severely wounded should be placed convenient to the receiving place. It must be provided with a number of improvised operating and dressing tables, one for each medical officer assigned to this department. Opposite the severely wounded department that for slightly wounded is established; it is also to be provided with dressing tables. Surgical supplies are placed convenient to the dressing tables.

The dispensary may also be placed near the entrance to the area, opposite the receiving department.

The kitchen is placed in rear of the slightly wounded department, the place for the dead at some distance in rear of the severely wounded department.

CEREMONIES.

(See also paragraph 212.)

521. The inspector prescribes the kind of inspection and the formation desired.

The company dismounted is inspected as prescribed for detachments of the Hospital Corps.

Inspection, mounted.

522. The company being formed in line, in column of detachments or platoons, in normal or close order, the captain commands:

1. Prepare for inspection, 2. **MARCH.**

At the command **MARCH**, the junior officers take their proper position in front of their detachments. The ambulance orderlies dismount and take position one yard in rear of the left wheel of their respective ambulances, facing the front.

As soon as the alignment is completed the captain commands: **FRONT.**

Detachments stand **at ease** until the inspector approaches, when the detachment commander commands: 1. **Detachment**, 2. **ATTENTION**. Detachment commanders, after being inspected, accompany the inspector during the inspection of their detachments. When this is completed, the commander again commands: **AT EASE**.

The inspecting officer dismounts and inspects the bearer detachment in the manner heretofore prescribed; then mounting, he rides from right to left in front of the other detachments inspecting officers, noncommissioned officers, men, and the animals and harness; he then rides from left to right in rear of the line inspecting wagons, ambulances, and orderlies.

As the inspection of each ambulance is completed, the orderly closes the tail gate and resumes his position on the seat beside the driver.

Reviews.

523. Unless otherwise directed, the company passes in review in column of platoons in close order.

The ambulance companies having been formed in line, the director takes his post 15 yards in front of the center of the line, and at the proper time commands:

1. **Pass in review**, 2. **Platoons right**, 3. **MARCH**.

The director salutes, turns his head to the right as in *eyes right*, and looks toward the reviewing officer when six paces from him. He returns to a carry and turns head and eyes to the front after passing six paces beyond the reviewing officer.

Without facing about, each captain commands: 1. **Eyes**, in time to add 2. **RIGHT**, when six paces from the reviewing officer, and commands **FRONT**, when the company is six paces beyond him.

At the command **eyes** the company officers execute the first motion of **present saber**; at the command **RIGHT** all turn head and eyes to the right and the company officers complete **present saber**; at the command **FRONT** all turn head and eyes to the front, and officers resume **carry saber**.

Noncommissioned officers in command of subdivisions salute and turn the head and eyes, return to front, and drop the hand, at the points prescribed for the director.

FIELD HOSPITALS.

For each division (Cavalry divisions excepted) there shall be one medical officer, a major, as director of field hospitals, with one sergeant, mounted, and one private, first class, mounted.

PERSONNEL OF A FIELD HOSPITAL.

525. The personnel of the field hospital in time of peace, like that of the ambulance company, comprises a permanent cadre consisting of such a number of noncommissioned officers and men as are deemed necessary to maintain continuity of policy and method in instruction, and a temporary personnel embracing all men assigned to duty with the company who are not included in the permanent cadre.

The personnel allotted a field hospital in peace and in war is published from time to time in Tables of Organization. The strength at present authorized (1914) is given in the Appendix, Section II.

526. The field hospital company will conform, unless otherwise specifically stated, to the regulations governing drills, formations for ceremonies, and for all other purposes prescribed herein for the ambulance company. This includes the wagon drill for the field hospital with animals hitched, the formation being the same as that for ambulances.

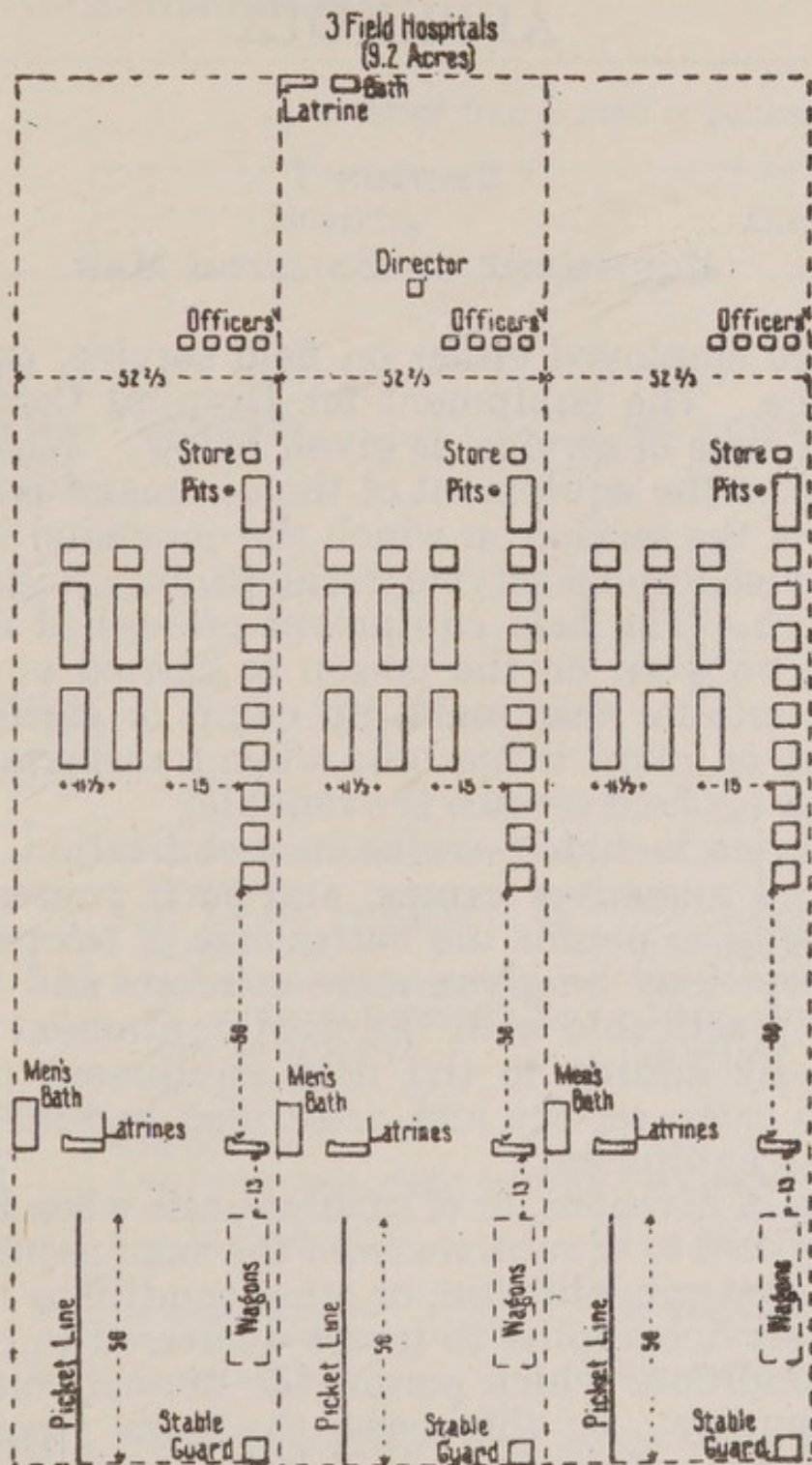
SCHEME FOR PITCHING FIELD HOSPITALS.

527. The field hospitals of a division, when established together, will usually be pitched in accordance with the following plan. Because of conformation of site, lack of sufficient space, or of the temporary status of the camp it may at times be desirable to modify the plan.

The location of the sinks and of the picket line, and transportation, will depend upon peculiarities of site, prevailing winds, etc. Their distances from the tents should be those specified in the plans when circumstances permit.

Ordinarily it will be found most convenient to pitch first the center line of tents, the kitchen, and the dispensary of a field hospital. With these tents pitched, the work of the hospital can proceed while the remainder of the tents are being pitched and the camp put in order. More or less canvas than that shown in the diagram will be pitched, as circumstances indicate. In campaign, canvas will be pitched for hospital purposes only when buildings are not available, or to supplement the shelter provided by buildings. In

camp, as a general rule, canvas will be pitched only as required. The utility of ward tents, which have no flies, is greatly impaired



Camp for 3 Hospitals established, 150 x 200 yards

Pl. 109, Par. 527.

by small tears incident to careless handling. Whenever practicable, a protective covering should be placed in the bottom of the wagon before loading tentage.

APPENDIX.

SECTION I.

EQUIPMENT OF ENLISTED MEN.

1. Troops are employed either on field service, camp service, or garrison service. The equipment for Hospital Corps men, appropriate to each class of service, is given below. While traveling on train or transport the equipment of the command is determined by the character of the service on which the command is ordered.

2. Field service implies service in campaign, simulated campaign, or on the march. The field equipment prescribed is the complete equipment to be worn on the person or carried on horse on field service. The articles that make up camp or garrison equipment can accompany or follow troops only when transportation additional to that allotted for field service is available.

3. Camp service includes service in mobilization, concentration, instruction, and maneuver camps, and such pauses in operations against an enemy as permit the better care of troops. Under such conditions troops may be given more comforts and better sanitary care than are practicable with the field equipment only. This is accomplished by adding to the field equipment certain articles appropriate to camp service and prescribed herein. The whole is known as camp equipment.

Commanders of divisions, or of smaller units when independent or detached, may add to or subtract from the camp equipment of their commands as strategic, climatic, or other conditions indicate.

4. Garrison service applies to troops quartered in cantonments or posts under conditions which permit the normal conveniences of a civilian community. In this sense the term "garrison service" includes the service of the Organized Militia at their home stations.

The articles enumerated below do not include all the additional articles required for garrison service, but only such articles as may on occasion become appropriate temporary additions to the camp equipment.

FOR THE FIELD.

NOTE.—* indicates "when ordered"; ¹ indicates that the article is furnished by the Quartermaster Corps; ², by the Ordnance Department; ³, by the Medical Department; ⁴, by the individual soldier.]

	How transported or packed.	
	Mounted.	Dismounted.
LIGHT KIT.		
Clothing:		
Belt waist, web ¹ ...	1 on person.....	1 on person.
Breeches (if cotton) ¹	do.....	Do.
Breeches (if wool-en) ¹	do.....	Do.
Cord, hat ¹	do.....	Do.
Drawers ¹ ... pair.....	do.....	Do.
Hat, service ¹	do.....	Do.
Leggings ¹	do.....	Do.
Shirts, O. D. ¹	do.....	Do.
Shoes, marching, pairs. ¹	do.....	Do.
Stockings ¹ ... pair.....	do.....	Do.
Undershirt ¹	do.....	Do.
Slicker ¹	1 on person or strapped to pommel.	1 on person or in pack.
*Sweater ¹	1 on person or pack, or in surplus kit.	1 on person or in pack, or in surplus kit.
*Overcoat ¹	1 on person, on pommel, or in camp equipment as may be ordered.	1 on person or in pack or in camp equipment as may be ordered.
*Brassard ³	1 on left arm.....	1 on left arm.
Personal equipment:		
*Pistol ²	1 in holster.....	1 in holster.
*Pistol holster ²	1 on pistol belt, right side....	1 on pistol belt, right side.
*Belt, waist, leather ²	1 on person.....	1 on person.
*Magazines (for ammunition). ²	2 on pistol belt.....	2 on pistol belt.
Ammunition as ordered. ²	In magazines.....	In magazines.
Knife, Hospital Corps. ²	1 in scabbard.....	1 in scabbard.
Scabbard for Hospital Corps knife. ²	1 on waist belt, left side.....	1 on waist belt, left side.
Identification tag ¹	1 on person.....	1 on person.
Pouch for first aid packet. ²	1 on back of waist belt.....	1 on back of waist belt.
First-aid packet ³	1 in pouch for same.....	1 in pouch for same.

FOR THE FIELD—continued.

	How transported or packed.	
	Mounted.	Dismounted.
LIGHT KIT—continued.		
Personal equipment—continued.		
Haversack ²		1 on left hip hung from canteen-haversack strap, passing under belt and over right shoulder. On the march the haversack may be carried on the back, the strap being adjusted so as to bring the haversack between the shoulder blades.
Canteen-haversack straps. ²		2 to suspend the haversack and canteen.
Canteen strap, cavalry. ²	1 on near cantle ring	
Canteen, cavalry ² .	1 on canteen strap on near cantle ring.	1 on left hip suspended from canteen-haversack strap, passing under belt in rear over right shoulder and outside of belt in front.
Saddlebags, pair ² ..	1 on saddle	
Cup ²	1 in near saddlebag	1 in haversack body.
Meat can ²	do	Do.
Knife ²	do	Do.
Fork ²	do	Do.
Spoon ²	do	Do.
* Haversack ration	do	Do.
* Emergency ration	do	Do.
Spurs ²	2 on person	
Spur straps ²	do	
Saddle, complete ² .	1 on horse	
Cavalry bridle, 1909, complete. ²	do	
Link ²	do	
Currycomb ²	1 in off saddlebag	
Horse brush ²	do	
Lariat and strap ² ..	1 on near cantle ring	
Picket pin ²	1 on lariat	
Horseshoes ¹	2, 1 hind and 1 fore, fitted in off saddlebag.	
Horseshoe nails, noncorrosive. ¹	12 in off saddlebag	

FOR THE FIELD—continued.

		How transported.	
		Mounted.	Dismounted.
Horse equipment:			
Saddle blanket ²		1 on horse.	
Surcingle ²		Do.	
Feed bag ²		1 on pommel.	
Grain bag ²		1 in feed bag.	
Halter ²		1 on horse.	
*Horse cover ²		Do.	
		How transported.	
		Mounted.	Dismounted.
Pack:			
Blanket roll.....		1 strapped to cantle of saddle.	
Contents:		1 slung over left shoulder.	
Shelter tent, half ¹	1		
Shelter-tent pole ¹	1		
Shelter-tent pins ¹	5		
Blanket ¹	1		
Stockings ¹ pair..	1		
Drawers ¹ do....	1		
Undershirt ¹	1		
Shoe laces ¹ pair..	1		
Comb ⁴	1		
Piece soap ⁴	1		
Towel ⁴	1		
Toothbrush ⁴	1		
Housewife ¹	1		

6. In addition to the equipment listed above, each medical officer's orderly carries an orderly pouch,³ and all other privates carry the Hospital Corps pouch.³ Noncommissioned officers, excepting certain ones on duty with field hospitals and ambulance companies, carry an emergency case.³ Either of the pouches or the emergency case is carried by both mounted and dismounted men on the right hip, hung by a sling, the rear end of which passes under the belt and over the left shoulder.

FOR THE FIELD—continued.

	How transported.
6. Surplus kit:	
Drawers ¹ pair.. 1	Packed in surplus kit bag, one of which is provided for each group of 8 men, is plainly marked and carried on wagons provided in addition to those allotted to an organization.
Shoes, marching ¹ .. do.... 1	
Stockings ¹ pairs.. 2	
Undershirt ¹ 1	
Shoe laces ¹ ...extra pair.. 1	

These articles form a part of the camp equipment listed below.

IN CAMPS.

	How packed and transported.
Camp equipment:	
Blankets ¹ 1	In barrack bag or as directed. Transportation for this equipment is provided in addition to that assigned to organizations of the division.
Breeches (if cotton) ¹ 2	
Breeches (if woolen) ¹ 1	
Cord, hat ¹ 1	
Drawers ¹ pairs.. 2	
Leggings ¹ pairs.. 1	
Shirt, O. D. ¹ 1	
Shoes, marching ¹ pairs.. 1	
Shoe laces ¹ extra pair.. 1	
Stockings ¹ pairs.. 4	
Undershirts ¹ 2	
Coats: ¹	
Cotton service 2	
Woolen service 1	
*Fatigue 1	
§Trousers, fatigue ¹ 1	
Towels ² 2	
Mosquito bar or head net (when issued) ¹ 1	
Cot ¹ 1	

¹ For privates, when ordered.

IN GARRISON.

Garrison equipment, in addition to articles previously listed, includes trunk lockers¹ containing:

Extra clothing.

Personal effects.

Mattress covers (those issued for soldier's use).¹

Pillowcases (those issued for soldier's use).¹

Bed sheets (those issued for soldier's use).¹

BLANKET ROLL.

Certain articles of the field equipment of the enlisted man are designated to be carried in the blanket roll, which is slung over the left shoulder; or, when transportation is available, it may be carried on a wagon.

The roll is packed as follows:

Each man with his shelter half smoothly spread on the ground, with buttons up and triangular end to the front, folds his blanket once across its length and places it upon the shelter half; fold toward the bottom, edge $\frac{1}{2}$ inch from the square end, the same amount of canvas uncovered at the top and bottom. He then places the parts of the pole on the side of the blanket next the square end of the shelter half, near and parallel to the fold, end of pole about 6 inches from the edge of the blanket; nests the pins similarly near the opposite edge of the blanket; and distributes the other articles carried in the roll; folds the triangular end and then the exposed portion of the bottom of the shelter half over the blanket.

The two men in each squad roll and fasten first the roll of No. 1 and then of No. 2. The file closers work similarly, two and two. Each pair stands on the folded side, rolls the blanket roll closely and buckles the straps, passing the end of the strap through both keeper and buckle, back over the buckle and under the keeper. With the roll so lying on the ground that the edge of the shelter half can just be seen when looking vertically downward, one end is bent upward and over to meet the other, the blanket roll straps are applied, the distance between the ends of the roll being adjusted to suit the wearer.

TO ROLL THE OVERCOAT.

Spread the overcoat, inside down, collar extended, belt unbuttoned, throughout. Lay the sleeves at right angles to the middle seam with the cuffs not quite reaching the edges of the coat. Fold over the top of the coat about 15 inches, or so as to bring the fold to the lower edge of the extended sleeves; fold over both corners of the skirt so that each fold will be about 22 inches from the middle seam. Roll tightly from the top with hands and knees.

TO ROLL THE BED BLANKET AND SHELTER TENT.

Spread the shelter tent half, roll straps underneath; turn in the triangular end flap, making the tent rectangular. Turn under the roll strap edge of the shelter half 8 inches to form a pocket. Lay the entire blanket flat on the shelter half, its middle line over the middle seam of the tent, shorter edge parallel to the pocket fold of the tent, and 1 inch from it. Fold the two sides of both tent and blanket inward, so that the canvas will have a fold of about 11 inches. As a precaution against the ends pulling out, pass the two exposed roll straps across and fasten to opposite buckles. Guy ropes, tent pins and pole, extra clothing, and toilet articles will be spread smoothly in the center of the roll. Roll tightly, using hands and knees, toward the roll straps, and bring over the entire roll that part of the tent which was turned under, thus binding the roll. Buckle the two available roll straps about the roll, passing them around twice. The roll will then be about 44 inches in length and 6 inches in diameter.

SECTION II.

PERSONNEL OF AMBULANCE COMPANIES AND FIELD HOSPITALS

(1) For the operation of an ambulance company in peace, personnel is assigned as follows:

- 1 captain.
- 1 lieutenant.
- *2 sergeants, first class.
- 7 sergeants and corporals.
- 1 acting cook.
- †1 horseshoer.
- †1 saddler.
- †1 farrier.
- †15 wagoners.
- 26 privates, first-class, and privates.

* One of whom will act as first sergeant.

† Graded as privates, first class.

Whenever practicable, personnel in addition to that listed above will be attached to the organization for purposes of instruction.

(2) The personnel of an ambulance company in time of war will be:

- 1 captain.
- 4 lieutenants.
- *2 sergeants, first class.
- 7 sergeants and corporals.
- 1 acting cook.
- †1 horseshoer.
- †1 saddler.
- †1 farrier.
- †15 wagoners.
- 51 privates, first class, and privates.

For the operation of a field hospital in peace, personnel is assigned as follows:

- 1 major.
- 1 captain or lieutenant.
- *3 sergeants, first class.
- 6 sergeants and corporals.
- 1 acting cook.
- †1 artificer.
- †8 wagoners.
- 17 privates, first class, and privates.

Whenever practicable, personnel in addition to that listed above will be attached to the organization for purposes of instruction.

The personnel of a field hospital in time of war will be:

- 1 major.
- 5 captains or lieutenants.
- *3 sergeants, first class.
- 6 sergeants.
- 4 acting cooks.
- †1 artificer.
- †8 wagoners.
- 45 privates, first class, and privates.

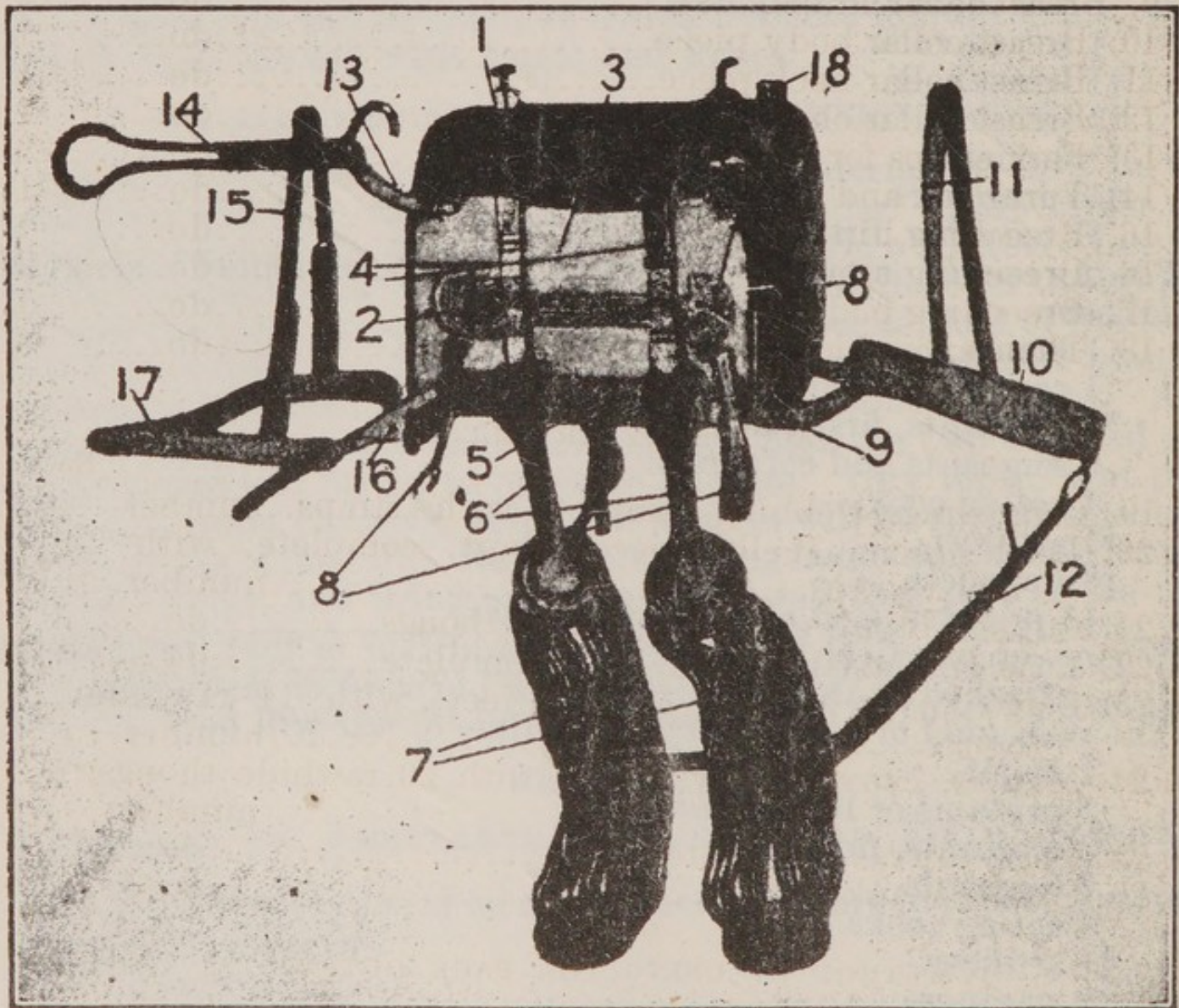
* One of whom will act as first sergeant.

† Graded as private, first class.

SECTION III.

THE MEDICAL DEPARTMENT PACK OUTFIT.

THE PACK SADDLE PROPER.



Pl. 110. Section III, Appendix.

	Each.
No. 1. Pack frame, of metal.....number..	1
No. 2. Stretchers of spreaders for saddle pads, of corrugated metal.....number..	2
No. 3. Saddle pads.....do.....	2
No. 4. Quarter straps.....do.....	4

	Each.
No. 5 and 6. Quarter strap ring sets, complete, consisting of 2 rings with leather union (5) and 2 cincha straps (6).....sets..	2
No. 7. Cincha, horsehair, double.....do....	1
No. 8. Accessory leather straps.....number..	6
No. 9. Breast collar straps.....do....	2
No. 10. Breast collar body piece.....do....	1
No. 11. Breast collar neck piece.....do....	1
No. 12. Breast collar choke strap.....do....	1
No. 13. Fork straps for turnback.....do....	2
No. 14. Turnback and crupper, complete.....do....	1
No. 16. Breeching hip strap.....do....	1
No. 16. Breeching straps.....do....	2
No. 17. Breeching body piece.....do....	1
No. 18. Thongs, rawhide.....do....	6

ACCESSORY ARTICLES.

	Each.
No. 19. Cargo slings, webbing, complete, with 4 straps..number..	2
No. 20. Load cincha (belly piece) short, complete, with 2 cincha straps.....number..	1
No. 21. Cupped blind, complete, with 2 thongs.....do....	1
No. 22. Load cincha (top piece) long, complete.....do....	1
No. 23. Cargo cover, canvas, 3 by 6 feet, with 14 rawhide thongs.....number..	1
No. 24. Mantas, canvas, 6 by 6 feet, with 20 rawhide thongs, number..	2
No. 25. Bags, canvas, complete.....do....	2
No. 26. Saddle blanket.....do....	1

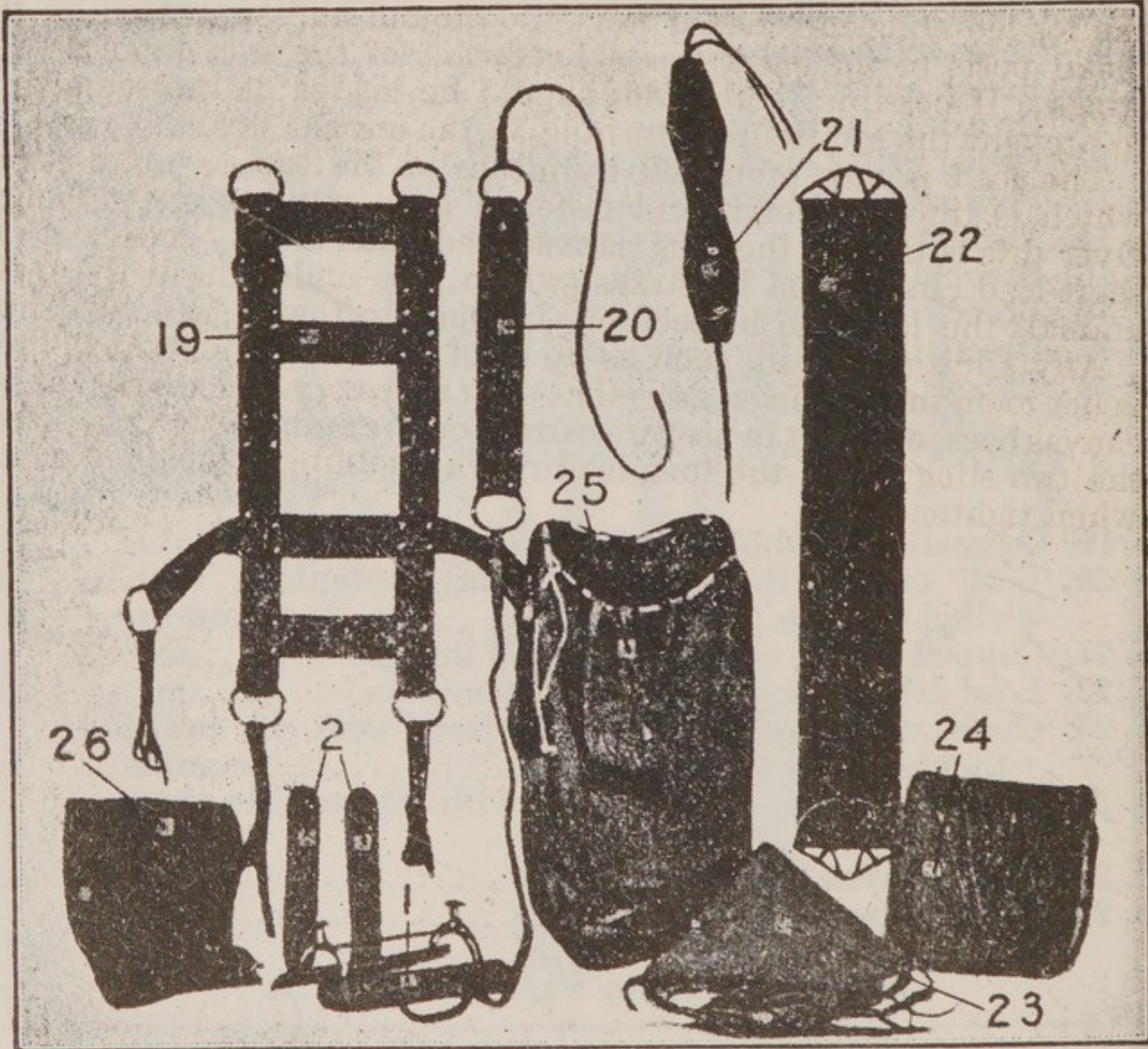
METHOD OF USING THE PACK OUTFIT.

As the pack outfits are issued from the supply depot, the pack saddle proper is assembled as shown in Plate 110. The accessory articles are loosely packed in the shipping box.

To use the pack outfit, the pack saddle proper is placed on the animal with a saddle blanket under it. The breast collar and breeching are adjusted to the animal as required. The saddle is then firmly cinched in position. To prevent undesirable moving about on the part of the pack animal while the saddle and load are

being placed in position, it is advisable to blindfold the animal by means of the cupped blind.

To load the animal, the webbing slings are placed on the ground with the link piece down. On them are placed such articles as



Pl. 111. Section III, Appendix.

may be desired. Chests, bedding rolls, boxes, etc., are conveniently carried in the slings; dressings, or a number of small pieces that are likely to be lost, can be put into the canvas bags and then placed in the slings. If desired, all articles may be previously wrapped in the canvas mantas to protect them from the elements. The sling in

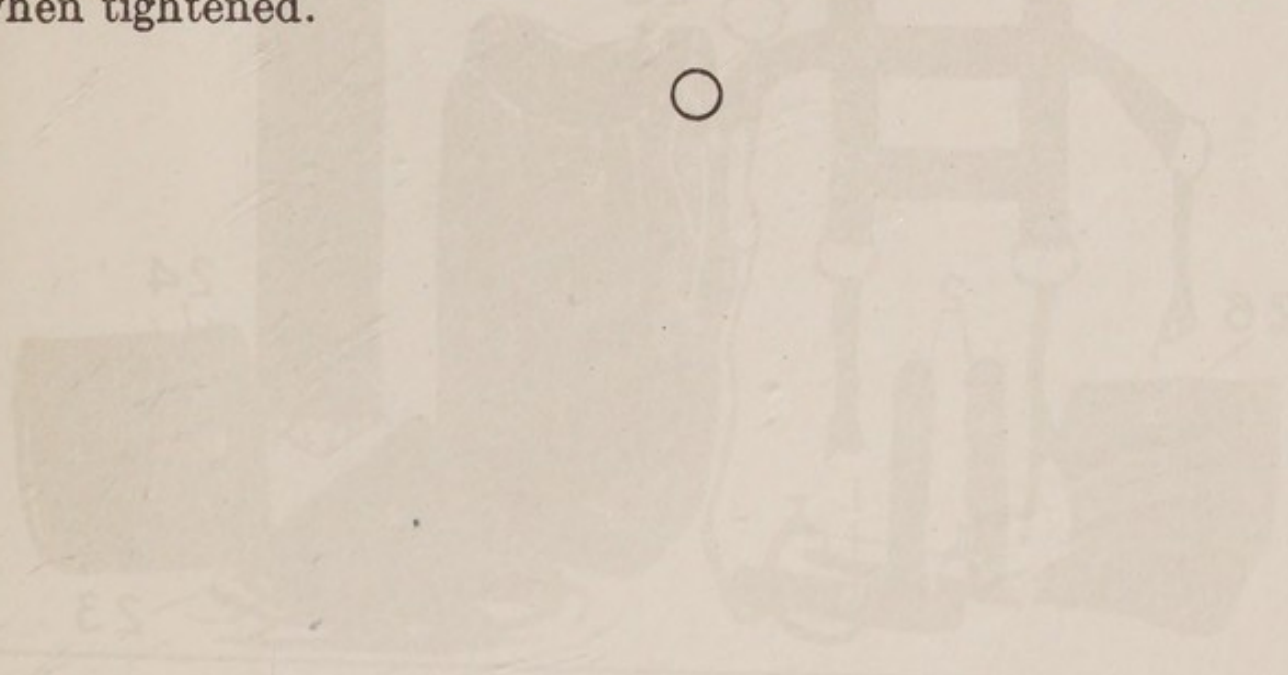
then securely fastened about the load by means of the leather straps secured to its metal rings.

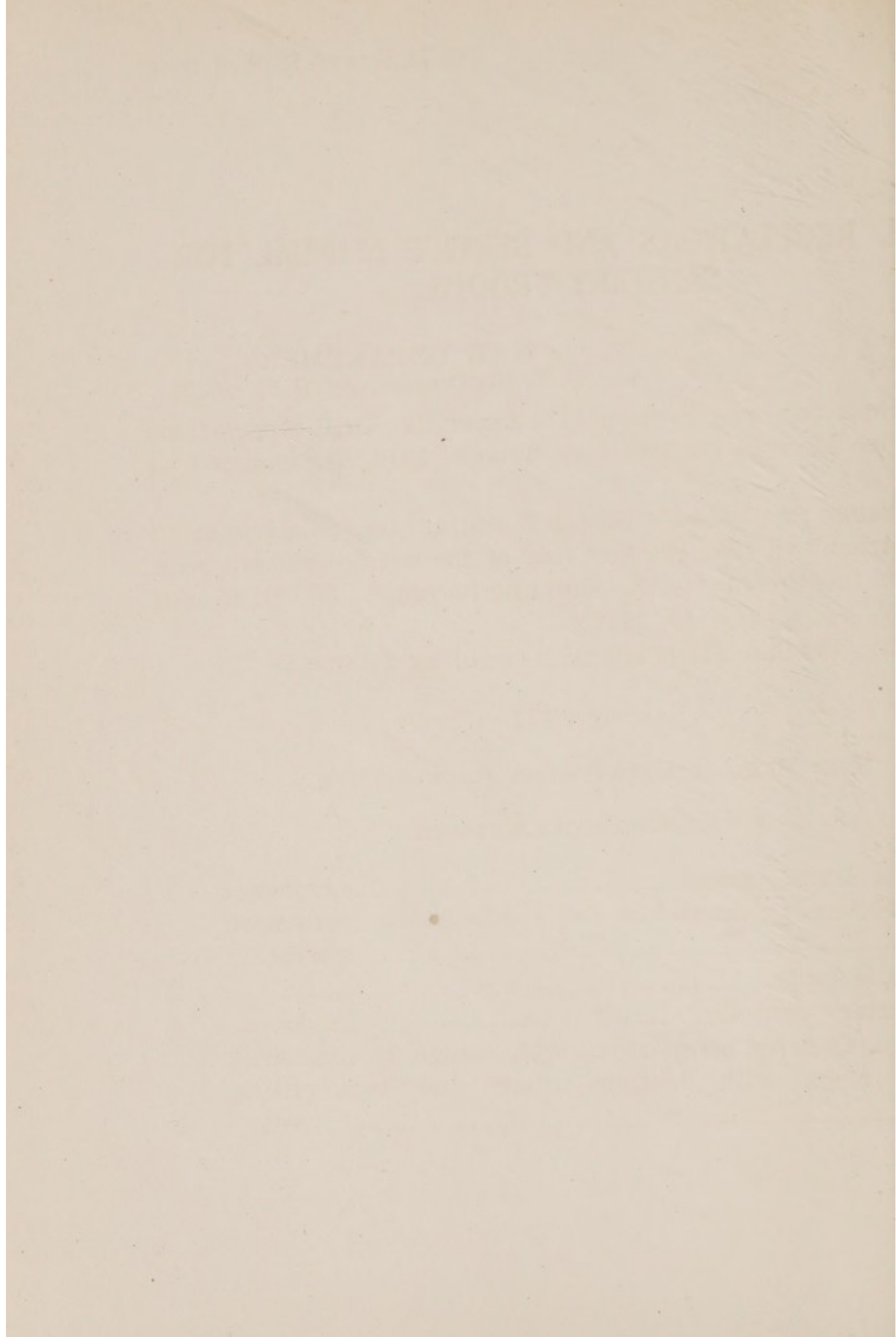
The load is divided in such a manner that each sling will carry approximately the same weight.

The next step is to place the load on the animal. To do this, the loaded slings are raised from the ground and supported on the metal posts of the pack frame by means of the iron links on the slings. If possible, both sides should be loaded at the same time to prevent the saddle from turning on the animal's back.

The load is now protected by means of the canvas cargo cover, which is thrown over it and fastened by a number of its thongs. Over this is thrown the long canvas load cincha. By means of the short-load cincha and its straps (which pass under the belly of the animal) the load can be securely fastened so that it will not shift.

Any additional load, such as sacks of grain, etc., for which there is not room in the slings, as well as such accessory articles as mantas, canvas bags, etc., not in use, are carried on the animal's back between the two sling loads, the long-load cincha holding them in position when tightened.





DRILL REGULATIONS AND SERVICE MANUAL FOR SANITARY TROOPS.

CHANGES }
No. 4. }

WAR DEPARTMENT,
WASHINGTON, *April 14, 1917.*

Paragraph 265, and Section III, Appendix, Drill Regulations and Service Manual for Sanitary Troops, 1914, are changed as follows:

265. Change the word "button," ending the paragraph, to read "bottom," so that the last line of the paragraph will read "button it together along the side and bottom." (*C. D. R. and S. M. S. T. No. 4, Apr. 14, 1917.*)

Appendix, Section III. Change to read as follows:

SECTION III.

THE MEDICAL DEPARTMENT PACK OUTFIT.

1. THE PACK SADDLE PROPER.

No. 1. Pack frame, metal	----- number	1
No. 2. Stretchers or spreaders for saddle pads, corrugated metal	----- number	2
No. 3. Saddle pads	----- do	2
No. 4. Quarter straps	----- do	4
No. 5 and 6. Quarter strap rings sets, complete, consisting of two rings with leather union and two cincha straps	----- sets	2

No. 7. Cincha, horsehair, double	sets
No. 8. Accessory leather straps	number
No. 9. Breast collar straps	do
No. 10. Breast collar body piece	do
No. 11. Breast collar neck piece	do
No. 12. Breast collar choke strap	do
No. 13. Fork straps for turnback	do
No. 14. Turnback and crupper, complete	do
No. 15. Breeching hip strap	do
No. 16. Breeching straps	do
No. 17. Breeching body piece	do
No. 18. Thongs, rawhide	do

2. ACCESSORY ARTICLES.

No. 19. Cargo frames (modified Rice frames), Nos. 1 and 2 of each	number
No. 20. Straps, leather, for attachment of frames to cincha rings	number
No. 21. Load straps, web, long and short, of each	do
No. 22. Load cincha (belly piece), short, complete, with two cincha straps	number
No. 23. Load cincha (top piece), long, complete	do
No. 24. Manta, canvas, 6 by 6 feet, with 20 rawhide thongs,	number
No. 25. Saddle, blanket	do
No. 26. Blind, cupped, complete	do

3. METHOD OF USING THE PACK OUTFIT.

As the pack outfits are issued from the supply depot, the pack saddle proper is assembled as shown in figure 1. The accessory articles are loosely packed in the shipping box.

To use the pack outfit, the saddle blanket is placed on the animal and the pack saddle proper over the blanket. The breast

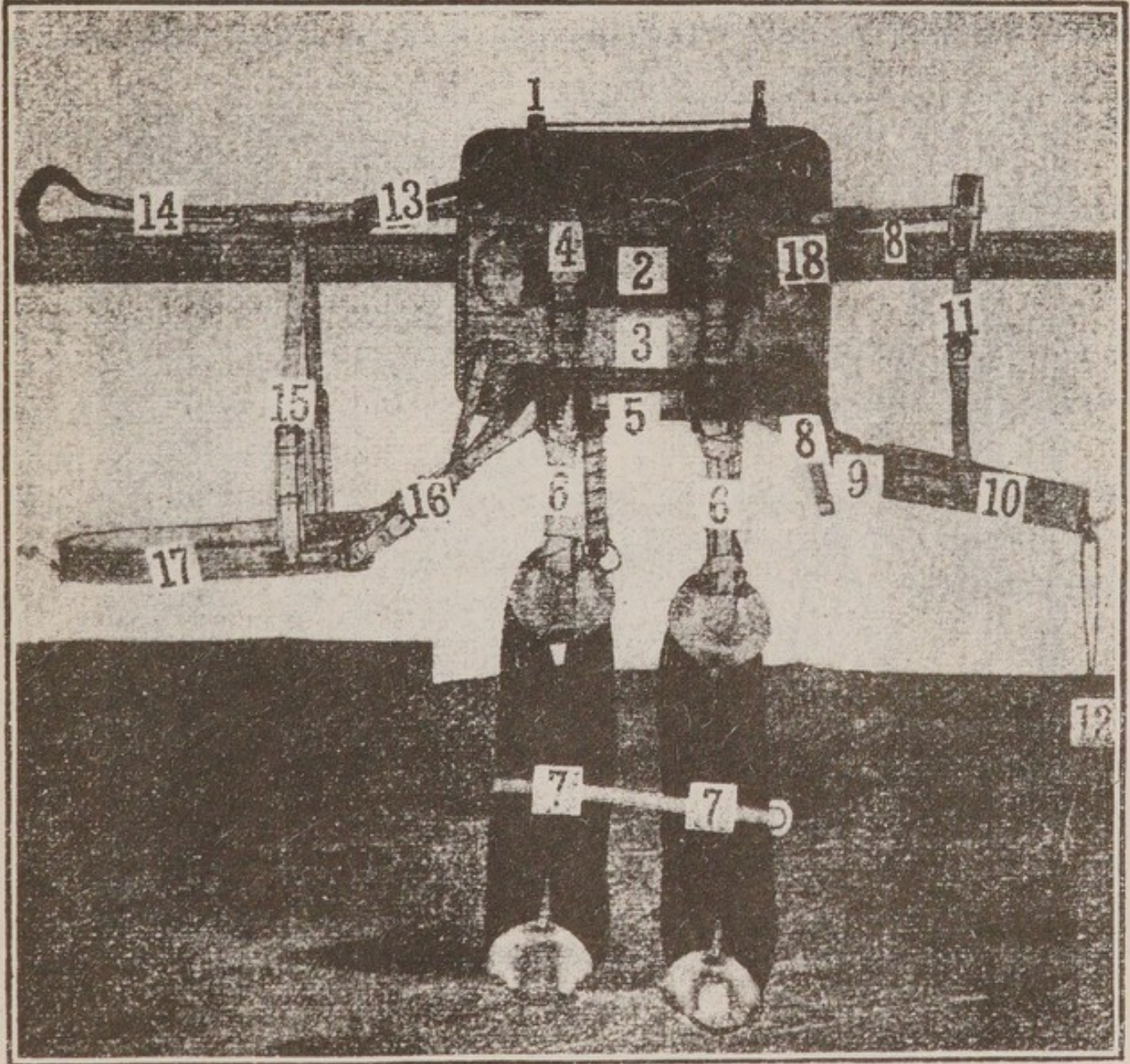


FIG. 1.

collar and breeching are adjusted to the animal as required. The saddle is then firmly cinched in position. To prevent undesirable moving about on the part of the pack animal while the

saddle and load are being placed in position, it is advisable to blindfold the animal by means of the cupped blind.

To load the animal, place the No. 1 frame on the saddle, followed by the No. 2 frame (the number is stamped on the horizontal bar of each frame). Adjust the leather straps attached to

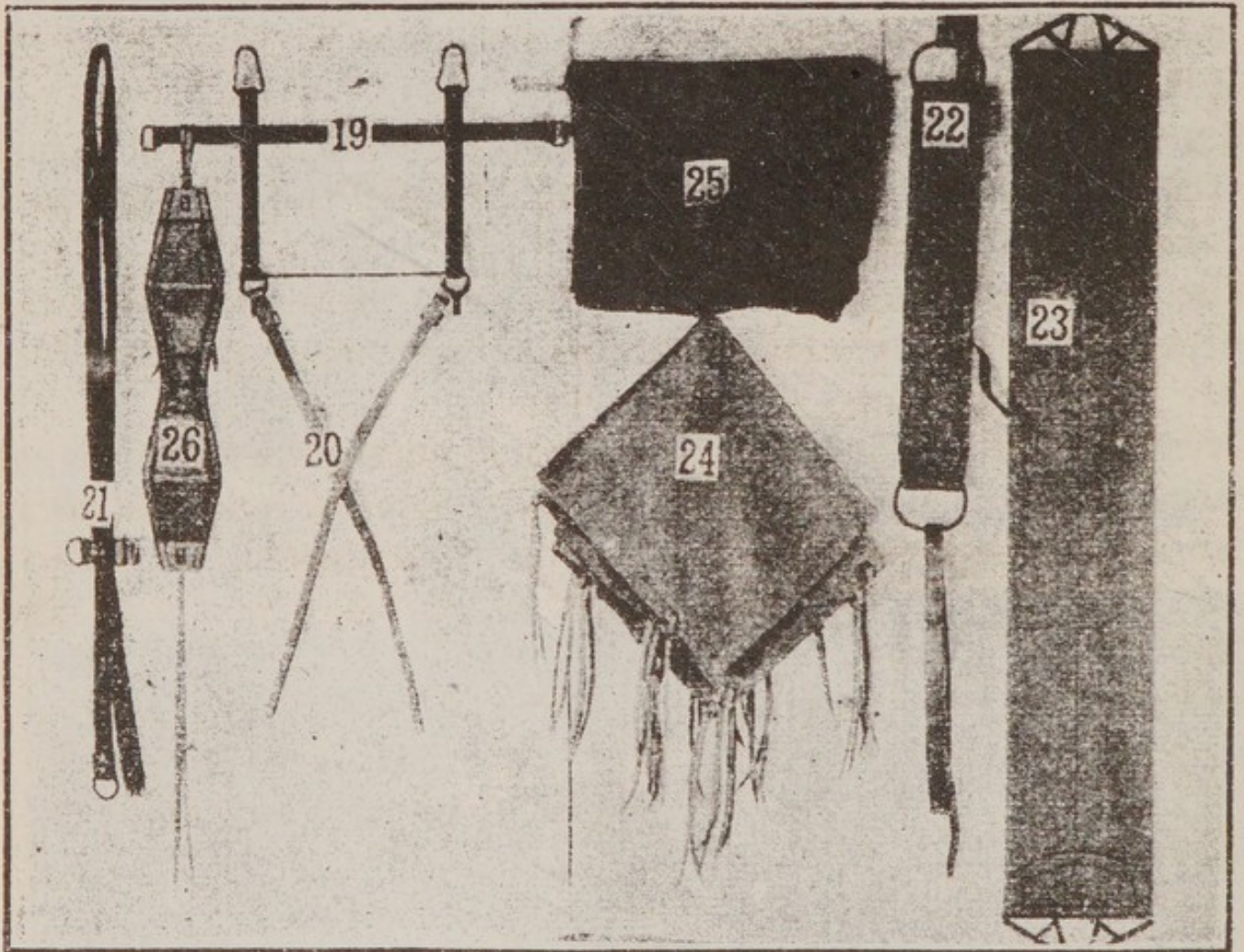


FIG. 2.

the D rings on the under side of each frame so that when buckled into the cincha rings of the saddle they will hold the frame firmly against the saddle, but not so tightly as to bend the frame. The boxes or other articles constituting the side loads are placed in the frames and secured by the short load straps passed to the

D rings on the horizontal bar of each frame. The top load, if any, is then put in place. The long load straps are now thrown over all, the rings in their ends slipped into the hooks on the frames, and the straps drawn up tightly by means of the buckles. If necessary, the load may be further secured by the use of the load cincha.

Experienced packers may find it an advantage to substitute for the load straps a single length of three-eighth-inch rope with a ring, or loop, in one end.

The boxes carried as side loads need no protection from the weather. When a top load is carried, it is wrapped in the manta before being loaded.

Great care should be taken that approximately the same weight is carried on each side of the saddle, otherwise the load will carry badly and the pack animal will be likely to develop sore back. (*C. D. R. and S. M. S. T. No. 4, Apr. 14, 1917.*)

[2478536, A. G. O.]

BY ORDER OF THE SECRETARY OF WAR:

H. L. SCOTT,
Major General, Chief of Staff.

OFFICIAL:

H. P. McCAIN,
The Adjutant General.



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