No. 1719

HORSE EQUIPMENTS

AND

EQUIPMENTS FOR OFFICERS AND ENLISTED MEN

(*21 PLATES*)

MAY 10, 1905
REVISED JULY 3, 1908

WASHINGTON
GOVERNMENT PRINTING OFFICE
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JOHN A. SEAVERNS

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PART I.

HORSE EQUIPMENTS.

HORSE EQUIPMENT.

A complete set of horse equipments for enlisted men regularly consists of—

and, when especially required—

For officers only are added—

for which the equipments are the same in material and finish, except as noted.

CAVALRY SADDLE, McCLELLAN PATTERN.

(Plate I.)

A complete saddle is composed of—

1 saddletree (covered).
1 set saddle trimmings.
6 coat straps.
1 quarter strap (adjustable) complete.
2 stirrup straps.
2 stirrups (hooded).
1 cincha (hair).

SADDLETREE.

The parts are—

1 pommel.
1 cantle.
2 side bars.
1 pommel iron.
1 cantle iron.
2 stirrup-strap loops.

The pommel consists of two pieces of selected ash (rough size, $1\frac{1}{2}$ by 3 by $14\frac{5}{8}$ inches) framed together at the top, glued and properly shaped. It is fastened to the side bars with two $1\frac{1}{2}$-inch and two $1\frac{3}{4}$-inch No. 12 wood screws, and has one slot for coat strap.

The cantle is made of two pieces of selected ash (rough size, $1\frac{1}{2}$ by $4\frac{3}{4}$ by $14\frac{1}{2}$ inches) framed together at the top, glued and properly shaped. It is fastened to side bars with two $1\frac{1}{2}$-inch and two $1\frac{3}{4}$-inch No. 12 wood screws, and has three slots for coat straps.

Each side bar is made from one piece of selected basswood (rough size, $2\frac{1}{2}$ by $6\frac{1}{4}$ by $22\frac{1}{4}$ inches) turned to shape and gained for stirrup-strap loop.

The pommel iron is made from decarbonized sheet steel 0.065-inch thick, pressed to shape, and secured to pommel with three $1\frac{1}{4}$ inch No. 8 iron rivets, and to side bars with four—two in each.

The cantle iron is made from decarbonized sheet steel 0.065-inch thick, pressed to shape and secured to cantle with four $1\frac{1}{4}$-inch No. 8 iron rivets, and to side bars with six—three in each.

The stirrup-strap loops made from 0.284-inch decarbonized steel wire welded, are attached to the side bars by straps of decarbonized sheet steel 0.049 inch thick, each strap being fastened to the bar by three $1\frac{1}{2}$-inch No. 8 iron rivets. The loops have their lower edges inclined from the horizontal upward and to the front, and swing freely in the straps for the better adjustment of the stirrup straps when the rider is in the saddle.

Saddletrees are made in three sizes, in the following proportions:

15 per cent with 11-inch seat.
50 per cent with 11½-inch seat.
35 per cent with 12-inch seat.

The size of seat, 11, 11½ and 12 inches, is the inside measurement, on the bare tree, between the intersections of cantle and pommel with the side bars. The actual measurements between these points is 0.17 inch larger than the above figures, to allow for the thickness of cover. After the saddle is covered with rawhide and leather the position of these points at intersection can not be accurately determined, but can be measured with sufficient precision to definitely fix the size of the saddle.

The length of the side bars alone varies with the different sizes of saddles, the other parts of the saddletree remaining the same for all sizes. These side bars are turned in copying lathes which produce duplicates of the forms used as guides; two forms, one right and one left, being required for each size of saddle. After turning, the centering ends of the side bars are cut off and the bars placed in forms which detect any defects in form due to warping or other causes, and which also insure great exactness in the distance between the side bars and the positions of cantle and pommel, these being fastened to the side bars while the latter are firmly held in forms. A separate form is used for each size of saddle, thus insuring exact uniformity in all essential dimensions.

The cantle and pommel irons are pressed to the shape required to fit the angles between the side bars and the pieces which they support. The principal surfaces of contact are near the tops of the cantle and pommel, where they best sustain the strains. Both irons are cut away toward the lower edges of the side bars so that they will not interfere with the holes for lacing thongs described below.

FINISHING AND COVERING THE SADDLETREE AFTER ASSEMBLING.

The front and rear ends of the side bars are carefully finished and shaped down by hand; holes for lacing thongs are bored through the bars along junctions of pommel and cantle, front and rear, and the bars grooved underneath in line with these holes so that the thongs used will not project below the under surface of the side bars.

The tree is finished smooth and then coated by dipping into a mixture of white lead in oil, which protects and preserves the wood. It is then covered with hard rawhide made from calfskin. This skin is cut to shape under dies, is then soaked, and while wet, stretched and secured in place with wet rawhide (hard cowhide) thongs passing through the holes in front and rear of pommel and cantle. The top and bottom covers are then trimmed down and drawn together with

light wet rawhide (hard calfskin) thongs, the seams being confined to the top and upper edges of the side bars so that no ridges are formed on the under bearing surfaces.

When this rawhide dries and shrinks it forms a smooth, hard cover, which prevents the wood from splitting and binds the parts of the tree into a strong, rigid, and serviceable unit that will retain its shape even after the wood itself is considerably decayed.

The rawhided tree is now covered with russet collar leather weighing 6 to 7 ounces per square foot. The seams around the pommel and cantle are reinforced with welts of leather and the seams in center of top covers have light welts; the seams on the edges of side bars are so placed that they will not chafe the horse or rider. The bottoms are lined with sheepskin, having wool ½ inch long, which is sewed to same before attaching to saddle. Four wrought iron saddle nails, 1¼ inches long, with heads ½-inch in diameter, japanned to color of leather, are placed in the side bars at the points of the pommel and cantle to cover and protect the ends of the seams.

SADDLE TRIMMINGS.

Saddle trimmings are made of brass, as it does not rust, is amply strong, and is easily cast and formed into the required shapes.

A complete set includes—

4 1¼-inch rings.
2 foot staples (semicircular), with screws.
4 foot staples (low), with screws.
2 foot staples (high), with screws.
7 ovals, with screw pins.
1 shield, with screw pins.
1 saddlebag stud, with rivets.

Located as follows:

Two 1¼-inch rings of cast brass are on front end of side bars, and two on rear of cantle.

The semicircular foot staples, made of cast brass, are fastened to the front ends of the side bars with four 1-inch No. 6 brass screws and secure two of the 1¼-inch rings.

The low foot staples are made of cast brass and used for holding the coat straps, two being placed on the front of pommel and two on the rear of cantle. Each is secured with two ⅝-inch No. 6 brass screws.

The high foot staples, made of cast brass, are used on the rear end of saddle bars for attaching the saddlebags. They are secured to the side bars through the rear quarter strap by two 1-inch No. 6 brass screws.

The ovals are made from sheet brass 0.028 inch thick and are placed around the slots for coat straps as follows: One on front of pommel,

three on front and three on rear of cantle. Each is secured with two $\frac{3}{4}$-inch No. 2 brass screw pins.

The shield is made of sheet brass 0.028-inch thick, pressed to shape, punched with slot for coat strap, stamped with size of saddletree, and secured to pommel, over slot, with three $\frac{3}{4}$-inch No. 2 brass screw pins.

The saddlebag stud is made of cast brass and secured to cantle iron, through rear quarter strap, with one $\frac{3}{8}$-inch No. 10 brass rivet, and to saddletree, through quarter strap and cantle iron, with one 1-inch No. 8 oval-head brass rivet.

COAT STRAPS.

These are six in number—

3 for pommel, 33 inches long.
3 for cantle, 45 inches long.

They are made from russet collar leather, 7 to 8 ounces per square foot. They pass through the slots and foot staples and have leather stops riveted on them $10\frac{1}{2}$ inches from buckle, with $\frac{3}{16}$-inch tubular iron rivet and cap. One $\frac{3}{4}$-inch cast-brass center bar buckle, with tongue of brass wire 0.120-inch diameter, is securely sewed to each strap.[1]

[1]

QUARTER STRAP.

This is made from medium russet harness leather, the parts of one complete adjustable strap being—

1 pommel quarter strap.
1 cantle quarter strap.
2 side quarter straps and sliding loops.
2 quarter strap safes, lined.
2 quarter strap rings, 4-inch.
2 cincha straps.

The pommel quarter strap is passed over pommel iron and secured at the center to top of saddletree with two No. 8 1-inch oval-head brass rivets and burs. Each end is sewn into a $1\frac{1}{4}$ by $1\frac{3}{8}$ inch halter square and rivited with a $\frac{3}{8}$-inch tubular iron rivet and cap.

The cantle quarter strap is passed over cantle iron, and center of the strap secured to top of saddle with one 1-inch No. 8 oval-head brass rivet and bur (which also secures the saddlebag stud) and with two 1-inch No. 8 oval-head brass rivets and burs, one placed each side about 3 inches from saddlebag stud. It is secured to lower edges of side bars by the foot staples, which are fastened with four 1-inch No. 6 brass screws. Each end is sewn into a $1\frac{1}{4}$ by $1\frac{3}{8}$-inch halter square and riveted with a $\frac{3}{8}$-inch tubular iron rivet and cap.

The side quarter straps are made from russet collar leather 7 to 8 ounces per square foot, have one $1\frac{1}{4}$-inch malleable-iron barrel roller buckle sewn on one end, and have one standing loop and two sliding

loops. The billet end has eight holes spaced $1\frac{3}{4}$ inches apart for adjusting the length of strap.

To Assemble the Side Strap.—First. Pass the billet under the ring on the safe between the ring chapes and draw up until the buckle is about 12 inches from the ring; then pass it through the halter square on pommel strap from the under side, again through ring on safe, thence through halter square on cantle from under side and then through buckle adjusting the length required.

The quarter strap safes are made of two thicknesses of medium russet harness leather, stitched together and lined with sheepskin with wool $\frac{1}{2}$ inch long and secured to quarter strap rings with leather chapes and two $\frac{5}{8}$-inch No. 10 brass rivets and burs.

The cincha straps are made from russet collar leather 7 to 8 ounces per square foot, and securely stitched to quarter strap ring; the stitching being reinforced with one $\frac{3}{16}$-inch tubular iron rivet and cap.

The 4-inch quarter strap rings are made from 0.284-inch decarbonized steel wire, as brass is not strong enough to retain its shape under the strain of the cincha.

stirrup straps.

These, two in number, are made of medium russet harness leather, with one $1\frac{3}{8}$-inch malleable-iron center-bar buckle securely sewed on one end, and have a standing loop on the upper side made sufficiently high to take the billet end after the strap has been passed through. The buckle is sewed on reversed so that when the stirrup is assembled the strap is given a quarter turn to throw the opening of the hood somewhat out from the horse for convenience in mounting.

To Assemble Strap with Right or Off Stirrup.—Place stirrup on floor with opening of hood toward you. Pass free end of strap through the small opening in top of hood, and out of large opening in rear, rough side of leather bearing on the wooden crossbar. Grasp free end of strap in right hand and buckle end in left. Pass free end of strap around right side of buckle end and through the loop at buckle end from the bottom toward the top, rough side of leather of free end against the smooth side of leather of buckle end. Pull the free end of strap up until the buckle end slides down so that double thickness of leather is around wooden crossbar. From the outside pass free end of strap through top of right stirrup-strap loop on saddle, rough side of leather bearing on the loop. Buckle free end of strap, passing what remains of free end after buckling through opening at end of buckle and down center of loop between the two portions of stirrup strap already encircled by loop.

To Assemble Strap with Left or Near Stirrup.—Pass free end of strap through opening in top of stirrup, rough side of strap to wooden crossbar and out at rear, as above explained. Grasp the

buckle end in right hand, and free end in left. Pass free end around left side of strap and through loop near buckle, rough side of free end bearing against smooth side of buckle end. The remainder of the operation is the same as for right stirrup strap.

When assembled, the buckle lies on inside of strap, the opening of hood is to the rear, and the strap lies flat against the shin.

STIRRUPS.

A pair of stirrups consists of —

2 stirrup staves with rivets.
2 stirrup spreaders.
4 crescentric washers, with rivets.
2 stirrup hoods.

STAVES.—To be made from selected white oak (rough size, 5 by 24 inches); they may be either sawed or split; if sawed, they must be $\frac{5}{8}$ inch thick and sawed parallel to the grain of the wood; if split, they must be $\frac{3}{4}$ inch thick. They must be of tough, live wood, of best quality, entirely free from knots and all defects, and after steaming must be capable of being quickly bent around a curve to form them into stirrups without developing splits, cracks, breaks, or checks.

Staves are cut to size, planed, gained for riser, and steamed, before bending. After bending they are thoroughly kiln-dried and then properly shaped.

The spreaders, made from clear ash, are placed between the upper ends of the bent staves for attaching the stirrup strap. Each is secured by one $2\frac{3}{4}$ by $\frac{3}{16}$ inch iron rivet and bur, and one 3 by $\frac{3}{16}$ inch iron rivet, which also passes through the middle of the crescentric washers.

The crescentric washers are made of decarbonized sheet steel 0.05 inch thick, each being secured to stirrup with one 3 by $\frac{3}{16}$ inch iron rivet and bur passing through stave and spreader, and with two $\frac{5}{8}$-inch No. 10 iron rivets passing through stave only.

The crescentric washers prevent the stave from splitting through the plane of the spreader rivets, and the wings by extending down over the section of greatest curvature, strengthen the stave where it is most likely to break. Due to the tendency to straighten after bending, stirrups vary in curvature, and the washer is given its particular form so it can be more easily adjusted and fitted to the stirrup than if oval or triangular in shape.

Stirrup hoods, made of russet harness leather with letters "U. S." stamped in an oval on center of front, are riveted to stirrup with four $\frac{5}{8}$-inch and two $\frac{3}{4}$-inch tubular iron rivets, brown japan finish. They are made of two thicknesses of leather sewed around the edge. The bottom of the hood projects $\frac{3}{4}$ inch below the plane of underside of stirrup.

CINCHA.

The parts are—

1 cincha body.
2 cincha safes.
2 cincha covers.
2 cincha 4-inch rings.

They are made 20 inches in length, this being the actual measurement of cincha unstretched, from inside to inside of the outer ends of the rings.

The cincha body is made of 24 strands of 6-ply spun and twisted horsehair rope, knotted on the cincha ring. The body is 8 inches wide in center when finished. A three-strand horsehair rope is woven across the body near each ring, and in two places across the middle to keep the strands from spreading.

Safes are made of medium russet harness leather, and placed under the rings. The knots of the cincha are protected by a cover of the same weight of leather, which is secured to safe and cincha rings with stitching and with one $\frac{5}{8}$-inch No. 10 brass belt rivet and bur.

The cincha rings are the same as those for the quarter straps, made of decarbonized steel wire 0.284-inch diameter, welded. Their inside diameter is 4 inches.

SADDLE COVER.

(Plate II.)

The parts are—

1 body (in halves).
3 billets.
3 buckles and chapes.

The body is made of two pieces of No. 9 olive-drab cotton duck with edges turned under and sewed around sides and bottom, forming a bag and having the top hemmed. The top is closed and held by three billets and buckle chapes of medium harness leather, each of which is reinforced with scrap leather and secured to the body by stitching, and one tubular rivet and cap. The billets and buckle chapes are $\frac{7}{8}$-inch wide and are fastened on outside of body on opposite sides. The buckle chape has a $\frac{7}{8}$-inch barrel roller buckle, brown japan finish, and a standing loop.

SADDLEBAGS.

(Plate III.)

The finish of metal parts of saddlebags is bronze for officers, and brown japan for enlisted men.

The components of a complete pair are—

2 pouches, with flaps.
1 seat.
1 set linings.

1 salt bag.
2 coffee and sugar bags.
2 side straps.

For each pouch, 1 flap, 1 front, 1 back, 3 flap billets, 3 buckle chapes, 1 ring chape, and 1 gusset are required. The near-side pouch is for rations and the off-side for clothing.

The flaps are made of russet bag leather, 5 to 6 ounces per square foot, have letters "U. S." within an oval stamped on center of face. Three flap billets, made of russet collar leather, pass through slots in the flap.

The fronts are made of russet bag leather 5 to 6 ounces per square foot, and two metallic buttons are fastened inside near top of "front" for securing the linings. Three $\frac{3}{4}$-inch brass-wire buckles with chapes and standing loops of russet collar leather are sewed to lower part of "front" for fastening down flaps by billets mentioned.

The backs are made of russet bag leather 5 to 6 ounces per square foot, and have two metallic buttons fastened near top for securing the linings. Side straps are used to fasten the saddlebags to cincha rings to prevent flapping, and are attached to lower front corner of saddlebag backs by a $\frac{7}{8}$-inch brass ring and chape of russet collar leather.

The gussets are made of russet bag leather, 5 to 6 ounces per square foot. Front, back, and gusset are joined together and stitched, with folded welt inclosed in seam. The back of the pouch is reinforced on each side with a triangular piece of russet bag leather. To prevent ripping or tearing the ends of gusset are reinforced with a strip secured to the gusset by two $\frac{3}{16}$-inch tubular iron rivets and caps, and to the front with one $\frac{3}{16}$-inch tubular iron rivet and cap, and to back, through triangular reinforcement, with one $\frac{1}{4}$-inch tubular iron rivet and cap. Pouch and flap are joined separately to seat with stitching and with two $\frac{5}{16}$-inch tubular iron rivets and caps.

The seat, made of russet collar leather 7 to 8 ounces per square foot and fastened to pouches and flaps, as stated above, is designed to fit smoothly over cantle and side bars of the saddle, and has one hole through center for the saddlebag stud, with a slot on each side for the foot staples (high) to pass through. These slots are reinforced with two brass ovals 0.035 inch thick, each secured to seat with two $\frac{3}{8}$-inch No. 12 brass belt rivets. Two key billets are riveted to "seat" near slots, each with $\frac{5}{16}$-inch tubular iron rivet and cap.

LININGS.

The parts of one set are—

2 front linings.
1 back lining, off side.
1 back lining, near side.
1 gusset lining.

All the linings are made from No. 9 olive-drab cotton duck, and each back lining has two buttonholes near the top for fastening to the pouches. The back lining of near side has two pockets of the same kind of duck, for the knife, fork, and spoon. The front, back, and gusset linings of each pouch are joined and stitched with No. 25 olive-drab linen thread.

The coffee, sugar, and salt bags, three in number, are made from white cotton drill, 8 ounces per square yard, with a draw string of No. 12 cotton chalk line, 20 inches long, run through hem.

The side straps are made of russet collar leather, 7 to 8 ounces per square foot, with $\frac{3}{4}$-inch brass-wire buckle and two standing loops of same material as strap.

SADDLE BLANKET.

SPECIFICATIONS.

1. WOOL.—The blankets will be made of pure wool; no Colorado wool, or what is known as "carpet wool," or kemp, to be used. The yarn to be evenly spun with a moderate twist and free from lumps or shreds.

2. COLOR.—To be a mixture of olive-drab shade, the various colors required to produce the mixture to be dyed in wool and thoroughly cleaned before mixing. They must be sufficiently fast to withstand milling and climatic influences, such as sunlight, air, and the exposure incident to military service.

3. BORDER.—An olive-brown border of two stripes, as shown in drawing. The wool in the border to be of the same grade as the body of the blanket, and to withstand the tests for permanency of color.

4. THREADS.—The finished blanket to have not less than 26 threads per inch in the warp and 36 threads per inch in the woof, and to weigh not less than 5 pounds.

5. STRENGTH.—The blankets must be moderately combed and stand a strain of at least 80 pounds per inch in the direction of the warp, and 90 pounds per inch in the direction of the woof.

6. SIZE.—The blankets to be rectangular, 72 by 84 inches, with straight edges.

7. ORDNANCE DEPARTMENT BRAND.—Each blanket to have the letters "U. S." and the bursting shell as shown in drawing. The letters, insignia, color, and method of working same in the blanket to be the same as that shown upon the drawing.

8. COLOR TEST.—The permanency of the color of the blanket will be tested by subjecting one blanket in every ten to the following test:

If the tested blankets do not conform to the requirements of the specifications, all the blankets delivered in that lot will be rejected.

Test No. 1. Boil for ten minutes in a solution composed of 80 grains of Ivory soap to one pint of water.

Test No. 2.—A second sample shall be taken and boiled ten minutes in solution containing 10 grains of dry carbonate of soda to one pint of water.

Test No. 3.—Soaking twelve hours in a solution composed of 3 drams of citric acid to two fluid ounces of water, temperature about 70° F.

Test No. 4.—Soaking twenty-four hours in lactic acid, sp. gr. 1.21 U. S. P., temperature about 70° F.

Test No. 5.—An exposure to the weather (roof test) for thirty days.

To correctly judge the results, the specimens that have been subjected to the above tests must be washed in a weak solution of Ivory soap and tepid warm water. No change of color must appear. The olive brown borders must also stand the above test without change.

9. Workmanship.—The blankets to be manufactured in a thoroughly workmanlike manner and when finished must be free from grease, must smell sweet, present a bright, clear appearance, and be perfectly dry when presented for inspection. They must be of uniform quality and not show any stops in weave when held against the light, or any other defects in workmanship. The ends to be secured from raveling by a gimp and elastic overlock stitch as shown upon the standard sample. The gimp and thread employed to conform in shade to the body of the blanket.

CURB BRIDLE, MODEL OF 1902.

(Plate IV.)

The components are—

1 curb bit, model of 1892.
1 curb chain, model of 1904.
1 rein.

Headstall—

2 cheek pieces.
1 crownpiece.
1 brow band.
1 throatlatch.
2 brow band ornaments.

All bridle trimmings, except brow band ornaments, are of bronze; bronze finish for officers, brown japan for enlisted men.

The curb bit, model of 1892, is made of best quality shear steel and has dull nickel finish. The branches are drop-forged and electrically welded to the mouthpiece, which is made of soft decarbonized steel. A loop is forged on upper part of each branch for attaching the curb-chain hook and cheek piece, and an eye on lower end of each branch into which is welded the rein ring, made of 0.203-inch

decarbonized steel wire. The bits are made regularly in three sizes, which differ only in length of mouthpiece, the proportions being:

Number.	Length of mouthpiece.	Proportion of manufacture.
	Inches.	*Per cent.*
1	4.5	15
2	4.75	75
3	5.	10

A larger size, No. 4, with mouthpiece 5.25 inches long, is occasionally made to fill special requisitions.

The curb chain, model of 1904, is a special steel chain with links and hooks finished in dull nickel.

The curb-chain hooks, model of 1904, are made right and left, of spring-steel wire, 0.165-inch diameter, tempered, and have dull nickel finish. The left hook is formed with the eye and hook in the same plane, while the right hook has the eye twisted at a right angle to the hook. The hooks are closed so as to offer a resistance of 10 to 16 pounds to disengaging from a ring of 0.134-inch diameter wire.

All leather parts of the bridle are made from russet bridle leather weighing $9\frac{1}{2}$ to $10\frac{1}{2}$ ounces per square foot.

The reins are made of two pieces of russet bridle leather sewed together in the middle. One rein billet, with one $\frac{7}{8}$-inch bronze center-bar buckle, is securely sewed to each end of rein.

The cheek pieces are made of russet bridle leather. For officers' bridles they are alike, but for enlisted men they are right and left. They differ in that the right cheek piece has a $\frac{3}{4}$-inch bronze center-bar buckle, while the left cheek piece has a $\frac{3}{4}$-inch bronze "Saalbach" buckle securely sewed to upper end. This buckle has a loop at the lower end which takes the snap of the link when the link is carried on the bridle. Both cheek pieces have billets with $\frac{3}{4}$-inch bronze center-bar buckles securely sewed to lower end. To admit fine adjustments, the holes in the crownpiece for the cheek-piece buckles are spaced $\frac{1}{2}$ inch apart, while those in billets are $\frac{7}{8}$ inch.

The crownpiece is made of russet bridle leather with ends split for a distance of 8 inches and a $\frac{1}{8}$-inch strip taken out of the center, forming a cheek and throat strap billet on each end.

The brow band is made of russet bridle leather. A loop is formed on each end by doubling over and stitching the ends of the piece.

The throatlatch is made of russet bridle leather, and has a $\frac{5}{8}$-inch bronze center-bar buckle securely sewed on each end.

The brow-band ornaments are made from sheet copper 0.035 inch thick for enlisted men and 0.109 inch thick for officers; both are bronzed and bear the coat of arms of the United States in relief. Loops of 0.109 inch soft brass wire, to receive the brow band, are soldered to the rear sides.

WATERING BRIDLE.

(Plate III.)

The parts are—

1 watering bit.
2 bit snaps.
1 rein.

The watering bit has dull nickel finish.

The mouthpiece is made in two parts. Each is slightly curved and tapers from 0.59 inch diameter just inside of the rein ring to 0.4 inch diameter at base of eye, being forged from a soft decarbonized steel bar 0.625 inch in diameter. The ends of the two pieces have holes 0.34 inch in diameter and are joined together, as shown on Plate III, by having the eye in one piece cut and closed into the other. The other ends of the mouthpiece are drilled with holes 0.31 inch diameter, into which are welded the rein rings, 2.75 inches in diameter, made of 0.25 inch decarbonized steel wire.

Bit snaps are dull nickel finished after assembling. The body is drop-forged from a soft, decarbonized steel bar $\frac{5}{16}$-inch diameter; the spring is made of sheet spring steel 0.0218 inch thick, and is secured in place by two projections on snap body, which are clenched over spring and by punching metal into a depression on body.

The reins are made from two pieces of russet bridle leather, 9½ to 10½ ounces per square foot, sewed together at middle. One rein billet with one $\frac{3}{4}$-inch bronze center-bar buckle, brown japan finish, is securely sewed to each outer end.

HALTER.

(Plate III.)

The parts of a complete halter are—

Headstall—

1 crown strap.
1 crown chape.
2 cheek pieces.
1 noseband.
1 chin strap.
1 throat strap and swivel ring.
1 throatband.
1 halter strap.

All leather parts except the halter strap are made from medium russet harness leather.

The crown strap has one end secured to upper ring of off cheek piece with stitching and one $\frac{3}{4}$-inch tubular iron rivet and cap, while the billet end of strap fastens into buckle of crown chape.

The crown chape has one end secured to upper ring of near cheek piece, while to the other is stitched a $1\frac{1}{8}$-inch malleable-iron center-bar buckle. The ends of chape are folded over and fastened with stitching and one $\frac{7}{16}$-inch tubular iron rivet and cap.

One end of each cheek piece is secured to the halter square of noseband with stitching and a $\frac{3}{8}$-inch tubular iron rivet and cap, while the other end is secured in the same way to a malleable-iron ring $1\frac{5}{8}$ inches diameter.

The noseband has a malleable-iron halter square, $1\frac{1}{4}$ by $1\frac{3}{8}$ inches, secured to each end with stitching, and a $\frac{3}{8}$-inch tubular iron rivet and cap.

The chin strap has a $1\frac{1}{8}$-inch malleable-iron center-bar buckle and 2 standing loops, sewed to one end. Two sliding loops are also provided.

The throat strap is folded on itself, making three thicknesses, and stitched, forming a loop at the top for the throatband. Held in its fold at the bottom end is one $1\frac{1}{4}$-inch halter bolt, around which passes the ring of the swivel ring; two $\frac{7}{16}$-inch tubular iron rivets and caps reinforce the stitching.

The swivel ring is made of malleable iron and consists of one $1\frac{1}{8}$-inch halter square swiveled on a $1\frac{3}{4}$-inch ring.

The throatband passes through the loop in throat strap and is secured to each check ring with stitching and one $\frac{3}{8}$-inch tubular iron rivet and cap.

The halter strap is made of heavy russet harness leather, tapered at one end to facilitate tying; to the other end is attached, by stitching and riveting, a $1\frac{1}{8}$-inch tongueless malleable-iron center-bar buckle.

The halter for officers' equipment differs from the above in the metal parts, which are cast bronze bronzed, instead of malleable iron with brown japan finish.

LINK.

(Plate IV.)

The strap is made of medium russet harness leather. A 1-inch malleable-iron snap, German, bronzed, is sewed to one end, and adjustment to fit cheek piece is provided by a sliding loop and a hook of 0.15-inch brass wire, which is riveted to the other end of the strap with two $\frac{3}{8}$-inch No. 14 brass belt rivets. The link is used by enlisted men only.

SURCINGLE.

(Plate X.)

The body of the surcingle is made of linen webbing $3\frac{1}{2}$ inches wide, blue for cavalry and scarlet for artillery. A $1\frac{1}{2}$-inch iron barrel roller buckle, brown japan finish, with chape and standing loop of medium russet harness leather, is securely sewed to one end, and a $1\frac{1}{2}$-inch billet,

with swell and reinforce, of medium russet harness leather, to the other end. Two leather loops of medium russet harness leather are sewed on web to take the billet. Surcingles are manufactured in three sizes and in equal proportions, as follows:

Size.	Length of webbing.	Total length, including billet.
	Inches.	*Inches.*
No. 1	48	74
No. 2	63	81
No. 3	63	93

LARIAT.

(Plate V.)

The body is a $\frac{3}{8}$-inch linen braided rope, of twenty strands, glazed, and 26 feet long. To each end is attached a link and hook, the rope being protected from wear by a thimble, around which the end of the rope is passed and secured by being wrapped in two places with soft copper wire of 0.035 inch diameter. One end of hook is closed around the link, while the other forms the hook. It has a spring made from sheet spring steel 0.028 inch thick and tempered.

LARIAT STRAP.

(Plate V.)

This is made from russet collar leather, 7 to 8 ounces per square foot. It is $\frac{7}{8}$ inch wide and has at one end a bronzed 1-inch malleable-iron snap, German, fastened with one No. 10 brass belt rivet, the other end having a standing loop fastened with two No. 10 brass belt rivets.

PICKET PIN.

(Plate V.)

The parts are—

1 pin.
1 crossbar.
1 loop.
1 ring and eye.

All parts, except the ring, are drop-forged from soft decarbonized steel.

The pin is made 0.6 inch in diameter, with the head sufficiently strong to resist upsetting when struck to drive the pin into the ground. The crossbar swivels around head of pin, while the loop is riveted to the crossbar so as to turn freely. The eye is riveted into loop, so as to swivel easily, and the ring, made of decarbonized steel wire $\frac{1}{4}$ inch diameter, is welded into eye. The complete picket pin is painted black.

NOSEBAG.

(Plate V.)

The parts of the nosebag are —

1 body.
1 bottom.
1 headband with reinforce.
1 buckle and chape.
1 ventilator.

The body is made of No. 9 olive-drab cotton duck, hemmed at the top and stitched to the bottom, which, to resist wear, is made of two thicknesses of russet harness leather.

The headband, made of 1½-inch olive-drab cotton halter webbing, with No. 0 brass gromets, is fastened to top of off side of nosebag by stitching and one $\frac{7}{16}$-inch tubular iron rivet, while a 1½-inch iron roller buckle, brown japan finish, with chape of olive-drab cotton halter webbing, is fastened in the same manner to near side of nosebag.

The ventilator, made of russet collar leather, 7 to 8 ounces per square foot, is sewed to front side of nosebag and then perforated with ¼-inch holes, as shown. The letters "U. S.", 1½ inches high, are stenciled on body of nosebag above ventilator.

HORSE BRUSH.

(Plate V.)

The body, oval in shape, consists of a top or veneer piece and a sufficient number of thicknesses of scrap leather resulting from other manufactures, glued together, making a thickness of 0.53 inch. It is drilled with 510 holes 0.132 inch in diameter, which are filled with an excellent grade of Okatka or Turkish bristles drawn with a 0.016-inch soft brass wire. After the brush is drawn, the veneer piece is glued on and hand strap and veneer piece are stitched to body, as shown. The hand strap is embossed with the letters "U. S." within an oval and stitching reinforced by four $\frac{5}{8}$-inch tubular iron rivets and caps.

CURRYCOMB.

(Plate V.)

The parts are —

1 back.
4 tooth bars.
1 dust iron.
1 hook iron.
1 strap.
1 hook.

The back is made of two thicknesses of russet collar leather, 7 to 8 ounces per square foot, glued together and stitched, as shown.

Four tooth bars, blanked from decarbonized sheet steel 0.035 inch thick, bent into an inverted U shape, making seven rows of teeth and one dust plate, are secured to back with eight $\frac{3}{4}$-inch No. 8 rivets.

The hook and dust irons, made of decarbonized steel $\frac{5}{16}$ by 0.095 inch, are secured to body, through tooth plates with one $\frac{1}{2}$-inch No. 8 rivet and one $\frac{1}{2}$-inch No. 8 countersunk rivet.

The strap, made of russet collar leather, 7 to 8 ounces per square foot, with letters "U. S." within an oval, stamped thereon, is secured to back through tooth plates by four $\frac{1}{2}$-inch No. 8 flathead rivets.

The hook is of steel $\frac{1}{4}$ inch thick and when not in use closes and lies along the top of the back. It is fastened through the hook iron with one $\frac{5}{8}$-inch No. 8 rivet.

SCABBARD.

(Plate II.)

For United States magazine rifle, model of 1903.

The parts are—

1 body and mouth reinforce.
2 springs.
2 straps with sliding loops and snaps.
4 loops.
1 ring.

The body is made of medium russet harness leather, cut and stitched as shown. Mouth of scabbard is reinforced with a piece of medium russet harness leather. One $\frac{5}{16}$-inch tubular iron rivet and cap, brown japan finish, is riveted through scabbard just below swell, to reinforce stitching, as this is the seat of the lower band swivel and carries a large part of the weight of the rifle.

Two springs, made of sheet spring steel 0.028 inch thick, with holes punched for stitching, are fastened in bottom of scabbard to strengthen the scabbard against the end thrust of rifle, and to form a hole for the escape of water.

The rifle scabbard straps are made of medium russet harness leather, with $\frac{7}{8}$-inch barrel roller buckle, brown japan finish, two standing loops of the same material as straps, which are secured to each strap by stitching and one sliding loop.

The upper strap passes around scabbard and through two loops, while the lower passes around scabbard and through an inch ring and two loops. The straps are provided with snaps, so that the scabbard can be quickly removed from the saddle.

The loops are made of same material as the straps, and each secured to scabbard with two $\frac{3}{8}$-inch tubular iron rivets and caps, brown japan finish.

The ring is 1 inch in diameter, made of malleable iron, brown japan finish. It is placed around the ring reinforce and secured in the

seam of scabbard by stitching, and one $\frac{3}{8}$-inch tubular iron rivet and cap, brown japan finish.

SABER STRAPS.

(Plate II.)

These are made of russet collar leather, 7 to 8 ounces per square foot, with $\frac{5}{8}$-inch brass center-bar buckle, and standing loop of same material as strap, secured to strap with stitching. Buckle is finished in bronze for officers and brown japan for enlisted men.

SERVICE SADDLECLOTH FOR ENLISTED MEN.

(Plate VI.)

The service saddle cloth for enlisted men is made from No. 9 olive drab cotton duck and lined with No. 2 olive drab cotton duck. Saddlecloth is made in halves and held together by $1\frac{1}{4}$-inch olive drab cotton webbing placed over the seam and stitched through both thicknesses of duck. Around the edge is a binding of $1\frac{1}{4}$-inch olive drab cotton webbing, showing on outside $\frac{5}{8}$ inch. In each flank corner is placed the number of the regiment, and "band," "N. C. S.," or the company letter, the letters and figures being of enameled leather 2 inches high and color to suit arm of service—yellow for cavalry, light blue for infantry, scarlet for artillery. The engineers have a scarlet letter two inches high outlined with a white letter, both being of enameled leather.

COMBINATION HALTER BRIDLE.

EXPERIMENTAL.

(Plate VII.)

The components are—

1 curb bit, model of 1892.
1 curb chain, model of 1904.
1 rein.
2 bridle cheek pieces.
1 crownpiece.
2 halter cheek pieces.
1 nose and chin strap.
1 gullet.
1 brow band.
2 brow band ornaments.
1 halter strap.

All trimmings, except brow band ornaments, are of malleable iron; bronze finish for officers and brown japan finish for enlisted men.

The curb bit and curb chain are the same as are used on the curb bridle, model of 1902.

All leather parts are made from russet harness leather.

The rein is 1 inch in width, made in two pieces and sewed together in the middle. Each part ends in a rein billet having a 1-inch barrel roller buckle and one standing loop.

The bridle cheek pieces are alike, the upper end of each having a 1-inch barrel roller buckle and standing loop, and the lower end having a billet with a 1-inch barrel roller buckle and one standing loop.

The crownpiece is made from one piece of leather 1⅞ inches wide with both ends split in two for a distance of 7½ inches from the end, forming three billets and one buckle piece. The latter is ⅞ inch in width and extends 13¼ inches beyond the end of billet and forms the throatlatch, ending in a ⅞-inch barrel roller buckle and one standing loop. To the 1-inch billets are attached first, the halter cheek piece, and then the bridle cheek piece.

The halter cheek pieces are alike and are made of two thicknesses of leather sewn together and forming a loop at the lower end, through which the nose and chin strap passes, and having sewed to the upper end a 1-inch barrel roller buckle and one standing loop for attaching to the crownpiece.

The nose and chin strap is made in two parts: an outer strap 1 inch wide with ends sewn into a 1 by 1¼ inch halter square, and an inside chin strap ⅝ inch wide, consisting of a billet and buckle piece, which fastens under the halter square with a ⅝-inch barrel roller buckle and standing loop. The nose and chin strap passes through the loops in lower end of the halter cheek pieces in assembling.

The gullet is folded on itself, making three thicknesses and stitched, forming a loop at the top for the throatlatch and holding the halter square above mentioned in a fold at the bottom.

The brow band is made with a loop in each end through which the crownpiece passes and is formed by doubling over the end and stitching.

The brow band ornaments, made from sheet copper 0.035-inch thick for enlisted men and 0.109 inch thick for officers, are the same as are used on the curb bridle, model of 1902.

The halter strap is made of 1-inch width, tapering at the end. The upper part ends in a billet having a 1-inch barrel roller buckle and one standing loop for attaching to the halter square.

CAVALRY BRIDLE, MODEL OF 1906.

EXPERIMENTAL.

(Plate IV.)

This consists of a curb bridle, model of 1906, experimental, and a bridoon bridle, model of 1906, experimental, made from russet collar leather 7 to 8 ounces per square foot and assembled together.

The components of the curb bridle are—

1 curb bit, model of 1906, experimental.
2 curb hooks.
1 curb chain, model of 1906, experimental.
1 curb bit thong.
1 rein.

Headstall—

2 cheek pieces
1 crownpiece.
1 brow band.
2 brow band ornaments.

All bridle trimmings, except brow band ornaments, are made of bronze; bronze finish for officers, brown japan finish for enlisted men.

The curb bit, model of 1906, has dull nickel finish. The branches are drop-forged from best quality shear steel and electrically welded to mouthpiece, which is made of soft decarbonized steel. A loop is forged on upper part of each branch for attaching the cheek piece and curb hook, the latter being of shear steel, bent around the loop. The lower end of each branch is straight, tapering from $\frac{5}{16}$-inch diameter below the mouthpiece to 0.28 inch above the bottom end, which is forged to the rear at a right angle and into which is welded the rein ring, made from 0.203-inch decarbonized steel wire. Near the middle of the lower branch an eye is forged for attachment of the curb bit thong.

The curb chain, model of 1906, is the model of 1904 chain with an additional ring in the middle, through which the curb chain thong passes.

The curb bit thong is of soft rawhide and is passed through middle link of curb chain and has the ends tied into the middle eye on each branch of the curb bit.

The rein is $\frac{3}{4}$ inch in width, made in two pieces, and sewed together in the middle. Each part ends in a rein billet having a $\frac{3}{4}$-inch bronze buckle and three standing loops.

The cheek pieces are alike, the upper end of each having a $\frac{3}{4}$-inch bronze buckle, one standing loop and one sliding loop, and the lower end having a billet with $\frac{3}{4}$-inch bronze buckle and three standing loops.

The crownpiece is $1\frac{1}{4}$ inches in width with both ends split in two for a distance of $7\frac{3}{4}$ inches from the end, and forming three billets and one buckle piece. The latter is $\frac{1}{2}$ inch in width and extends $14\frac{1}{2}$ inches beyond the end of billet, forming the throatlatch and ending in a $\frac{1}{2}$-inch bronze buckle with one standing loop and one sliding loop.

The brow band is made by doubling over each end and stitching so as to form two loops through which the crownpieces of both bridles pass when assembled.

The brow band ornaments are made from sheet copper, 0.035 inch thick for enlisted men, and 0.109 inch thick for officers; both are bronzed and have loops of 0.109 inch soft brass wire soldered to the rear sides to receive the brow band.

The bridoon bridle, model of 1906, is composed of the following parts:

1 bridoon bit, model of 1906, experimental.
1 rein.
1 cheek piece.
1 crownpiece.

The bridoon bit, model of 1906, has dull nickel finish. The mouthpiece is forged in two parts from a soft decarbonized steel bar 0.625 inch in diameter, and joined at the center, the ends having holes 0.38 inch in diameter, one of which is cut through and closed into the other. The other ends are closed around the rein rings. The rein ring and curved branch with loop for cheek piece and crownpiece are drop forged in one piece. The ring section varies in diameter from 0.35 inch at the mouthpiece to $\frac{3}{16}$ inch diametrically opposite. The branch tapers to 0.32 inch diameter below the loop, which measures 0.75 inch diameter inside and has circular section of 0.2 inch diameter at upper part.

The rein is $\frac{7}{8}$ inch wide, made in two parts, and joined together in the middle, the ends being narrowed to $\frac{5}{8}$ inch and being secured with a $\frac{5}{8}$-inch bronze buckle and standing loop. One rein billet with one $\frac{7}{8}$-inch bronze buckle and three standing loops are securely sewed to each outer end.

The cheek piece is the same as is used on the curb bridle, model of 1906, and is fastened at the upper end to the crownpiece.

The crownpiece is $\frac{3}{4}$ inch in width and is provided at the billet end with eight holes for adjustment in fastening to the cheek piece. The lower end has a billet, $\frac{7}{8}$-inch bronze buckle, and three standing loops for attachment to the loop bit.

HORSE COVER.

(Plate VIII.)

The parts of a complete horse cover are—

1 cover.
2 billets, with reinforces.
2 buckles, with chape and reinforces.
1 surcingle.
1 crupper, with reinforces.

The cover is made of olive-drab cotton duck No. 9, cut and stitched as shown. It has two slits, reinforced with olive-drab cotton webbing, through which the surcingle passes. For cold climates the cover is blanket lined.

The billets are made of medium russet harness leather. Each has two reinforces of same material as billet, and is fastened to front of cover on off side, with stitching and one No. 10 brass belt rivet and bur.

Two 1-inch barrel roller buckles, brown japan finish, with chapes of medium harness leather, are secured to front of cover on near side through reinforces, each chape being fastened to cover with stitching and one No. 10 brass belt rivet and bur.

The surcingle is made of olive-drab cotton duck No. 9, doubled and stitched, as shown. One 1½-inch barrel roller buckle, brown japan finish, with russet harness leather chape, is securely sewed to one end, and a billet of medium russet harness leather to the other.

The crupper is made of manila rope 0.25 inch in diameter, covered with 1½-inch olive-drab cotton webbing, and is fastened to the inside of the cover. The cover is reinforced outside and inside at the points of attachment with russet leather disks.

STIRRUP WITH GUIDON SOCKET.

(Plate I.)

The guidon socket is used with the regulation stirrup to form the guidon stirrup, and consists of—

1 socket.
1 top strap and reinforce.
1 bottom strap.

The socket is made of medium russet harness leather and secured to stirrup hood by the two straps.

The top strap is made of medium russet harness leather, reinforced, sewed around socket, and riveted to hood with two $\frac{5}{16}$-inch tubular iron rivets and caps, brown japan finish. Two $\frac{5}{16}$-inch tubular iron rivets and caps, brown japan finish, through strap and reinforce, in addition to stitching, give necessary stiffness.

The bottom strap is made of medium russet harness leather, sewed around socket, to which it is also secured with two No. 12 brass belt rivets and burs. It is fastened to the stirrup hood by two $\frac{5}{16}$-inch tubular iron rivets and caps, brown japan finish.

SADDLECLOTHS.

(Plate IX.)

The dress saddlecloth for general officers is made of dark-blue cloth, Army standard, with an inner lining of buckram and an outer lining made from black enameled No. 1 duck, 54 inches wide, weighing about 24 ounces per linear yard. Saddlecloth is made in halves, neatly joined and held together by a strip of black enameled leather placed over the seam and stitched through the cloth and lining. Around the edge is a binding of black enameled leather, showing on

the outside a width of ⅜ inch. The cloth is trimmed with two bands of gold lace, 1 inch wide and 1½ inches apart, the outer band next to the enameled leather. In each flank corner is placed the coat of arms of the United States surmounted by stars, indicating the rank; coat of arms dull gold, stars of dull silver. General officers of the staff corps and departments will have the insignia of the corps or department in flank corners, instead of the coat of arms.

The dress saddlecloth for permanent officers of the staff corps or departments is made of dark-blue cloth, Army standard, with an inner lining of buckram and an outer lining made from black enameled No. 1 duck, 54 inches wide, weighing about 24 ounces per linear yard. Saddlecloth is made in halves, neatly joined and held together by a strip of black enameled leather placed over the seam and stitched through the cloth and lining. Around the edge is a binding of black enameled leather showing, on the outside, a width of ⅜ inch. It is trimmed with gold lace 1 inch wide next to the enameled leather, with the insignia of the staff corps or department in each flank.

Dress saddlecloth for officers of the Engineer Corps is the same as for the other staff corps, except that the edging of gold lace is replaced by scarlet enameled leather 1 inch in width, with a piping of white ¼ inch wide.

The dress saddlecloth for line officers is made of dark-blue cloth, Army standard, with lining made from No. 2 white cotton duck, 22 inches wide. Saddlecloth is made in halves, neatly joined and held together by a strip of black enameled leather placed over the seam and stitched through the cloth and lining. Around the edge is a binding of enameled leather (scarlet for artillery, yellow for cavalry, and light blue for infantry), showing 1 inch on the outside of the cloth. In the flank corners of the saddlecloth is placed the number of the regiment (except for officers of Coast Artillery, who will wear the metal insignia as prescribed) 2 inches in length, of enameled leather same color as binding.

Officers of the line on the General Staff, serving as aid-de-camps or detailed in the staff corps or departments, will have the regulation saddlecloth of their arm, except that the numbers will be replaced by the proper insignia.

Dress saddlecloths for chaplains are the same as for line officers, with edging conforming to color of arm of service with which they are serving, and having in each flank corner a white-metal cross.

SPECIFICATIONS FOR DARK-BLUE CLOTH, ARMY STANDARD.

Wool to be of pure long staple, American fleece wool of three-quarters and full blood mixed in equal proportions, free from shoddy, flocks, reworked wool, or any other impurities.

Width to be 54 inches.

Threads to contain not less than 66 threads of warp and 60 threads of filling in each square inch.

Weight: To weigh not less than 20 ounces to the linear yard.

Strength: To be capable of sustaining a strain of 50 pounds to the inch in width of warp, and 42 pounds to the inch in width of filling.

Color: To be of same shade of dark blue as standard sample, and to be dyed in the wool with pure indigo, best quality (unless otherwise authorized in writing by the contracting officer).

The service saddlecloth for enlisted men is made from No. 9 olive drab cotton duck and lined with No. 2 olive drab cotton duck. Saddlecloth is made in halves and held together by $1\frac{1}{4}$-inch olive drab cotton webbing placed over the seam and stitched through both thicknesses of duck. Around the edge is a binding of $1\frac{1}{4}$-inch olive drab cotton webbing showing on outside $\frac{5}{8}$ inch. In each flank corner is placed the number of the regiment, and "Band," "N. C. S.," or the company letter, the letters and figures being of enameled leather, 2 inches high, and color to suit arm of service—yellow for cavalry, light blue for infantry, scarlet for artillery. The engineers have a scarlet letter 2 inches high outlined with a white letter, both being of enameled leather.

Service saddlecloth for all officers is made from No. 9 olive drab cotton duck, 22 inches wide, and lined with No. 2 white cotton duck, 22 inches wide. Saddlecloth is made in halves, neatly joined and held together by a strip of russet collar leather placed over the seam and stitched through both thicknesses of duck. Around the edge is a binding of russet collar leather, showing on the outside a width of $\frac{5}{8}$ inch. In each flank corner is placed for line officers (except for officers of Engineers and Coast Artillery, who will wear the prescribed bronze metal insignia, and chaplain, who will wear a white metal cross) the number of the regiment, 2 inches high, same color as the trimmings of their respective arms; for officers of the General Staff, staff corps or departments, and aid-de-camps the proper insignia in bronze, and for general officers stars in bronze indicating their rank.

BREAST STRAP AND MARTINGALE.

HUNTING DESIGN.

(Plate VII.)

The parts are—

1 neck strap.
2 saddle straps.
2 shoulder strap billets.
2 shoulder strap buckle pieces.
1 martingale rear end.
1 martingale buckle piece.
1 martingale front end.

All trimmings have bronze finish.

All leather parts are made from russet bridle leather, 7 to 8 ounces per square foot.

The neck strap is $1\frac{3}{4}$ inches wide and has a 1.3-inch brass ring attached to the upper side of each end by a ring chape $\frac{3}{4}$ inch in width, which is secured by stitching.

The saddle straps are $\frac{3}{4}$ inch wide and have on one end a $\frac{3}{4}$-inch center-bar brass buckle and standing loop. In assembling, the free end of strap is passed through ring of neck strap from upper side and through standing loop, being drawn as close as desired, then through ring of saddle from under side and buckled, the loop at saddle ring being held by a sliding loop.

The shoulder strap billets are $\frac{7}{8}$ inch wide and each is secured by stitching to the ring on neck strap.

The shoulder strap buckle pieces are $\frac{7}{8}$ inch wide and each has stitched to the upper end a $\frac{7}{8}$-inch brass center-bar buckle with sliding loop. The lower ends are secured by stitching to a 1.81-inch brass ring, which is stitched to the martingale rear end.

The martingale rear end is $1\frac{1}{4}$ inches wide. One end has a $1\frac{1}{4}$-inch malleable iron barrel roller buckle and standing loop, through which the body is passed, forming an adjustable loop to receive the cincha. The other end forms a loop, holding the 1.81-inch ring above mentioned, which is provided with a safe, the latter and the two thicknesses of body being stitched together.

The martingale buckle piece is $\frac{7}{8}$ inch wide. It is fastened by a $\frac{7}{8}$-inch brass center-bar buckle to the martingale front end, and forms a loop to receive 1.81-inch ring of martingale rear end.

The martingale front end is $1\frac{5}{8}$ inches wide. By removing from the center a piece $\frac{1}{8}$ inch in width two parts $\frac{3}{4}$ inch wide are formed, the end of each being fastened by stitching to a $1\frac{1}{2}$-inch brass ring. The other end of martingale forms a billet $\frac{7}{8}$ inch wide, which fastens into the $\frac{7}{8}$-inch center-bar buckle on martingale buckle piece.

WHITMAN SADDLE.

(Plate X.)

A complete saddle consists of—

1 saddletree (covered).
1 set saddle trimmings (bronzed).
5 coat straps.
1 quarter strap, complete.
2 stirrup straps.
2 stirrups (German silver).
1 cincha (horse hair).

This saddle is for officers and has all exposed metal parts bronze finish.

SADDLETREE.

The parts of the saddletree are—

1 cantle.
1 pommel block.
2 side bars.
1 pommel iron.
1 cantle iron.
1 pommel strap.
2 stirrup-strap loops (bronzed).

The cantle is made of two pieces of poplar, fitted together with a halved joint and glued. It is fastened to the side bars with two $1\frac{3}{4}$-inch and two $1\frac{1}{2}$-inch No. 12 wood screws.

The pommel block is made of poplar, placed in a form and glued to the front ends of the side bars.

Each side bar is made from one piece of selected basswood (rough size $3\frac{1}{2}$ by $6\frac{5}{8}$ by 24 inches), turned to shape and tested and gained for stirrup-strap loop, quarter straps, pommel iron, and pommel strap.

The pommel iron is made from decarbonized sheet steel 0.065 inch thick, drop-forged and fitted flush with top of pommel block and side bars, to which it is fastened with four $\frac{3}{4}$-inch No. 8 wood screws.

The cantle iron is made from decarbonized sheet steel 0.065 inch thick, pressed to shape and fastened to cantle and side bars with eight $1\frac{1}{4}$-inch No. 8 iron rivets.

The pommel strap is made of steel $\frac{1}{8}$ by 1 inch, and formed to shape required; it fits into the under side of pommel block and side bars and is fastened with four $1\frac{1}{2}$-inch No. 8 iron rivets.

The stirrup-strap loops are the same as for the McClellan saddle, and are attached to the side bars in a similar manner.

Saddletrees are made in three sizes and are measured from top of pommel in front to the slot for coat strap. The sizes and measurements are as follows:

11-inch measures 16 inches.
$11\frac{1}{2}$-inch measures 17 inches.
12-inch measures 18 inches.

The finishing and covering of the saddletree with rawhide is nearly the same as for the McClellan saddle, the boring of holes and grooving for lacing thongs being at the base of cantle only. The rawhided tree is covered with russet collar leather 6 to 7 ounces per square foot.

The top covers and rear cantle pieces are each seamed with light welts of the same leather. Two bronzed wrought-iron saddle nails $1\frac{1}{4}$ inches long, with heads $\frac{1}{2}$ inch in diameter, are placed in the side bars at the base of the cantle to protect the end of the seams.

SADDLE TRIMMINGS.

A complete set includes—

4 1¼-inch rings.
4 foot staples (low) with screws.
2 foot staples (high) with screws.
2 ovals, with screw pins.
1 saddlebag stud, with rivets.

Placed as follows:

Two 1¼-inch rings, of cast brass, are on front end of side bars and two on rear of cantle.

The low foot staples are made of cast brass, and each is fastened with two 1-inch No. 6 brass screws, and secures a 1¼-inch ring and a coat strap.

The high foot staples are made of cast brass and are used on the rear end of side bars for attaching the saddlebags. Each is secured with two 1-inch No. 6 brass screws.

The ovals are made from sheet brass 0.028 inch thick and are placed in front and rear of cantle around slot for coat strap, the one in front being stamped with the size of saddle, and each being fastened with two ¾-inch No. 2 brass screw pins.

The saddlebag stud is made of brass and secured to the cantle iron with two ⅜-inch No. 10 brass belt rivets, being attached before the saddletree is covered with rawhide.

COAT STRAPS.

These are five in number—

2 for pommel, 33 inches long.
2 for cantle, 45 inches long.
1 for cantle (double), 45 inches long.

They are made from russet collar leather, 7 to 8 ounces per square foot.

The single coat straps are the same as those used on the McClellan pattern. The double coat strap is the same as two cantle straps cut from one piece of stock, except that at 6 inches from buckle end 2 inches remain uncut.

QUARTER STRAP.

This is made from medium harness leather and is not adjustable. The parts are—

2 pommel quarter straps.
2 cantle quarter straps.
2 quarter-strap rings, 2-inch.
2 quarter-strap safes.
2 cincha straps.

The upper ends of the quarter straps fit into the grooves gained in the side bars and each is fastened with four 1-inch No. 6 brass screws.

The lower ends form loops which hold the 2-inch quarter-strap rings and are securely sewed to the quarter-strap safes.

The quarter-strap rings are of cast brass, 2.1 inches inside diameter and of circular section 0.328 inch in diameter.

The quarter-strap safes are made from one piece of medium harness leather and are sewed with three rows of stitching to the quarter straps under the quarter-strap ring.

The cincha straps are made from russet collar leather, 7 to 8 ounces per square foot, and securely stitched to the quarter-strap ring with three rows of stitching.

STIRRUP STRAPS.

These are the same as for the McClellan saddle.

To Assemble Strap with Right or Off Stirrup.—Place the stirrup on floor with loop for stirrup strap pointing toward you. Pass the free end of strap through the loop of stirrup from the far side, rough side of leather next to the loop; grasp strap and complete the assembling as directed for the McClellan saddle.

To Assemble Strap with Left or Near Stirrup.—Place the stirrup on floor as above described and assemble as directed for the McClellan saddle.

STIRRUPS.

A pair of stirrups consists of—

2 stirrup bodies.
2 treads.

The body is of cast German silver and has the base hollowed out to receive the tread. The arch of the stirrup tapers toward the top, where it forms a loop with opening (for the stirrup strap) $\frac{1}{4}$ by $1\frac{3}{8}$ inches on the rear side, and somewhat wider on the front, the loop being inclined to the rear. The body is polished and stamped on the bottom with the letters "U. S." and place and year of manufacture, after which it is nickel plated.

The tread is of soft rubber with top surface corrugated. It is fitted to the shape of the opening in the base of stirrup to which it is secured by three German silver rivets passing horizontally from front to rear and finished flush with outside of base.

CINCHA.

The cincha is the same as for the McClellan saddle, but has the cincha ring bronzed.

When so ordered the underside of saddle and inside of quarter-strap safes are lined with sheepskin, having wool $\frac{1}{2}$ inch long.

PART II.

EQUIPMENTS FOR OFFICERS AND ENLISTED MEN.

50518—08——3

EQUIPMENTS FOR OFFICERS AND ENLISTED MEN OF THE U. S. ARMY.

The particular articles for the different arms of the service are enumerated in general orders. The following list comprises all the articles of equipment for all arms:

REVOLVER HOLSTERS, COLT'S CALIBER .38 AND CALIBER .45, LONG AND SHORT BARREL.

(Plate XI.)

There are three revolver holsters of the same general design. They are for the Colt's caliber .38, the Colt's caliber .45 long-barrel, and the Colt's caliber .45 short-barrel revolvers.

All of these are made of russet collar leather, weighing 9 to 9½ ounces per square foot.

The parts are—

1 body.
1 billet.
1 loop.
1 holster button, washer, and safe.
1 ring, stud, and washer.

The body is stamped on the front with the letters "U. S.," surrounded by an oval, and is punched near the bottom on the inside with a small hole for drainage. A bronzed button for fastening the billet is riveted to the body, the inside washer being covered by a leather safe, stitched in place. The seam at the top of the body is reinforced by a piece of leather stitched inside across the seam. A circular bottom is sewed in flush with the body, and into this is riveted an eye and ring, of bronzed brass, for attaching the elk-skin leg thongs.

The billet is fastened to the body with three No. 12 brass belt rivets, to the loop with two, and is provided with a hole and slit for button.

The loop is doubled and stitched to the body, the stitching being reinforced by three No. 12 brass rivets passing through both thicknesses and the body, and three through the inner fold and body in addition to the two which fasten it to the flap. The loop is made large enough to pass over the woven rifle cartridge belt when filled with cartridges.

CARTRIDGE BELT, MODEL OF 1903, FOR .30 CALIBER MAGAZINE RIFLE, AND SUSPENDERS, MODEL OF 1907, FOR CARTRIDGE BELTS.

(Plate XII.)

SPECIFICATIONS FOR BELTS.—Each woven cartridge belt to be straight and 3½ inches wide, having nine pockets each, of the required size for holding two clips, each clip containing five cartridges. Each pocket shall be woven with its top even with the top edge of the belt body, and shall be provided with a substantial flap extending the full depth of the pocket, or substantially to the bottom. The pockets may, in the discretion of the Department, be made with woven partitions for separating the clips. Each pocket will be

fastened to the belt body by three metallic eyelets or rivets, equally spaced, as shown on drawing, with centers 0.28 inch from top edge of belt, and its outer end be fastened to the pocket by a secure and serviceable glove fastener. The fasteners must be capable of withstanding 5,000 fastenings and unfastenings without losing their usefulness as such. The bottom of each pocket shall be woven to the belt body and shall for a distance of 1 inch from the lower edge of pocket be reinforced to a double thickness, either by interwoven linen threads or by an extension of the flap, the raw edge of which shall be sewed by two rows of stitching to the pocket proper. The raw edges of the top of the flap shall be turned under and sewed. The nine pockets must be of equal dimensions and be equally spaced in a length 26.2 inches. At each end of the pocket section there shall be 10.5 inches of plain webbing, the width of which shall be the same as that of the body of the belt, to which the belt fastener, furnished by the Ordnance Department, will be attached. Ends of billets shall be completely incased in metal and a hook shall be attached to each end of the belt, and two metallic eyelets shall be inserted between adjacent pockets for the three outer pockets only, two outside of each end pocket, and sets of two at intervals of 2 inches therefrom toward the end of the belt, into which the hooks may be inserted to permit the length of the belt to be adjusted, as shown in drawings. Metallic eyelets will also be inserted in the body of the belt, near both edges, between the adjacent pockets and outside of each end pocket. These eyelets shall be located with their centers $\frac{3}{8}$ inch from the edge of belt, and shall have washers on their front faces. The diameter of the flanges of these eyelets shall be not less than 0.4 inch and diameter of washers shall be not less than 0.45 inch. For all eyelets the threads shall be separated, the eyelet then inserted and clinched without previous forming of a hole by the cutting of threads. All metallic eyelets shall be permanently secured in the belt without fraying it and be amply strong to support a dead load of not less than that which may be sustained by the fabric of which the belt is made. The interior diameter of the hole in the eyelets shall be 0.2 inch.

Fifteen per cent of the belts, and no more, shall be made 4 inches longer than the standard belt, but the number and position of the eyelets shall remain the same as in the standard belt except that the four inner eyelets for the end hooks will be omitted. A tolerance of plus or minus 2 per cent will be permitted upon the dimensions of the belt shown upon the drawing.

Specifications for Suspenders.—Each pair of suspenders for woven cartridge belts for ball cartridges, model of 1907, shall consist of two straps crossing in the back through a seamless drawn bronze or copper guide. The straps shall be of folded tape or of

webbing woven to shape. The two ends at the back must be provided with hooks for attaching them to the belt. To each front end there must be attached two branches, the upper ends of which are joined to a buckle or other device which can be adjusted on the shoulder strap, and the lower ends of which are provided with hooks for attaching them to the belt. The shoulder pieces should be 2¼ inches in width where they bear on the shoulders, and be reduced in width in front and rear thereof to about 1 inch, a tolerance of plus or minus 0.10 inch being allowed. The hooks for attaching the suspenders to the belt must be of such size as can be readily inserted in 0.2-inch holes in the metallic eyelets of the belts, and each hook must sustain a pull of not less than 100 pounds. A tolerance of plus or minus 2 per cent will be permitted upon the dimensions of the suspenders shown on the drawings, except where other tolerances are prescribed.

All metal parts, including glove fasteners, eyelets, etc., shall be dull-finish bronze or of metal fire gilt and burnished, and of the same shade of color as that prescribed for the buttons on the service uniforms of the United States Army.

The belts and suspenders must be well milled, thoroughly clean, free from crocking, closely shorn, water-repellant, and free from streaks or other imperfections of dye, weave, and finish. The thread used in these belts and suspenders must be dyed an olive-drab color of the same standard shade as prescribed for the olive-drab colored uniform of the United States Army. The color must pass the tests prescribed in paragraph 6 of "Instructions to bidders and special specifications governing the manufacture and inspection of woven rifle cartridge belts, model of 1903, and suspenders, model of 1907, No. 480."

The rifle cartridge-belt fastener is made in two parts, male and female, from bronze bronzed.

To fit the belt for cavalry a ring of 0.135-inch soft brass wire is fastened to it by a chape of russet collar leather, which is secured by two No. 10 brass belt rivets passing through the eyelets between the second and third pockets from the left end.

CANTEEN STRAP.

(Plate XII.)

This consists of a body, two hooks, two clips, and a canteen snap hook.

The body is made of 1-inch olive-drab webbing, three ply, to which are fastened by brass eyelets the hooks, each composed of a clip made from sheet brass 0.016 inch thick, and a hook of 0.134 inch soft brass wire bronzed. The canteen snap hook is held in position by a tubular iron rivet passing through the body of the strap.

OFFICERS' SABER BELT.

(Plate XIII.)

The parts are—

1 belt body with buckle and sliding loop.
1 officers' saber belt slide.
1 slide safe.
1 officers' saber attachment.

The belt body is made from russet collar leather 7 to 8 ounces per square foot, or of two thicknesses of pigskin stitched together. It is provided with a sliding loop of the same material and a $1\frac{3}{4}$-inch bronze center-bar buckle, bronzed, which is secured by stitching.

The belt slide is made of bronze bronzed with a loop at the lower end for hook attachment, and is provided with a safe to protect the clothing from wear.

The length of the saber belt is measured from the buckle end of belt body to the last hole, and is 3 inches shorter than the over-all measurement. Officers' saber belts are regularly made in four sizes, the proportions being as follows:

38 inches over all, with adjustment between $27\frac{1}{2}$ and 35 inches, 35 per cent.
43 inches over all, with adjustment between $32\frac{1}{2}$ and 40 inches, 53 per cent.
48 inches over all, with adjustment between $37\frac{1}{2}$ and 45 inches, 10 per cent.
53 inches over all, with adjustment between $42\frac{1}{2}$ and 50 inches, 2 per cent.

The officers' saber attachment consists of the following parts:

1 officers' hook attachment.
1 long strap.
1 short strap.
2 officers' saber-belt snap hooks.
2 buttons for officers' saber attachment.

The hook attachment consists of a hook of cast bronze riveted to a spring plate of half-hard brass, 0.049 inch thick. A loop of bronze, for attaching the straps, is inclosed in lower part of spring plate.

Each strap is made from russet collar leather 7 to 8 ounces per square foot, or from two thicknesses of pigskin stitched, and has a standing loop of same material. One end of strap is passed through loop of hook attachment and standing loop on strap, and is then passed through loop on snap hook and fastened by a brass button, bronzed, which engages in slits in the strap.

The snap hooks are made of bronze, with tongue of same material actuated by a spring made of special steel wire 0.035 inch in diameter. A lock nut is placed on hook near the swivel, so that

the tongue can be locked in position after snap hook is engaged in ring of saber scabbard. The upper part of hook is riveted into the loop of swivel, which is of sheet brass 0.083 inch thick. A pin of soft-brass wire 0.134 inch in diameter is riveted through upper part of loop for attaching strap, as explained. All metal parts are bronzed.

ENLISTED MEN'S SABER BELT.

(Plate XIII.)

The parts are—

1 belt body with buckle and sliding loop.
1 enlisted men's saber-belt slide.
1 enlisted men's saber attachment.

The belt body is made from russet collar leather 7 to 8 ounces per square foot, with sliding loop of the same. The buckle is the same as for officers, while the belt slide differs somewhat in shape and dimensions.

Enlisted men's belts are made 38 and 47 inches over all, in equal proportions; the former with adjustment between 24½ and 35 inches, and the latter with adjustment between 33½ and 44 inches.

Belts for the enlisted men of the Hospital Corps are provided with two holes, with eyelets, to receive the double hook of the pouch for first-aid packet.

One enlisted man's saber attachment consists of the following parts:

1 enlisted men's hook attachment.
1 long strap with sliding loop.
1 short strap with sliding loop.
2 buttons for enlisted men's saber attachment.

The hook attachment consists of a hook of bronze riveted to a spring plate of half-hard brass 0.049 inch thick, which is slotted in lower part to receive the straps.

Each strap is made from russet collar leather 7 to 8 ounces per square foot and has a sliding loop. One end of strap is passed through the slot in hook attachment and is fastened with a No. 10 brass belt rivet; the other end is passed through the ring on saber scabbard and sliding loop, and is fastened by a brass button engaging in slits in the strap. All metal parts are bronzed.

SABER KNOT FOR OFFICERS.

(Plate XIII.)

The parts are—

1 sling.
2 sling sliding loops.
1 tassel.
1 button piece.
1 button-piece sliding loop.
1 saber-knot button.

The body is made from russet collar leather 5½ to 6 ounces per square foot, cut and braided around a core of chalk line so as to form a soft, pliable cord, which is doubled, the ends being fastened to a tassel, which is made from the same leather as the body, split and rolled. The ends of the tassel are stitched through sling and wrapped with waxed shoe thread, over which russet collar leather is braided.

The button piece, made from 5½ to 6 ounce russet collar leather, secures the sling strap to the saber. It is fastened by a bronzed saber-knot button of brass fitting into slits in the loop.

SABER KNOT FOR ENLISTED MEN.

(Plate XIII.)

The parts are—

1 sling strap.
2 sliding loops.
1 tassel.
1 button piece.
1 saber-knot button.

The sling strap is a single flap strap, with two sliding loops, all made from 6 to 7 ounce russet collar leather. The ends are passed through a loop on the tassel and stitched together, then passed through the two sliding loops, a hole punched, and slits made for the saber-knot button, which fastens the sling strap and button piece together.

The tassel, of the same leather as the body, is slit, then made into a roll ¾ inch in diameter and wrapped with waxed shoe thread. A loop is then sewed on, after which the tassel is again wrapped with waxed thread, over which russet collar leather is braided.

The button piece, made from the same leather as the body and tassel, doubles around the guard of the saber, and is fastened to the sling strap by the saber-knot button of bronzed brass.

SPURS.

(Plate XIV.)

The parts are, for one pair —

2 spur bodies.
2 rowels.

The bodies of officers' spurs are made of polished white metal, with bar loop and stud for spur strap on each side. The rowels, made from sheet spring steel 0.049 inch thick, have 24 teeth, are 0.75 inch in diameter, and fastened into body by a rivet of soft steel wire 0.109 inch in diameter.

Spurs for enlisted men are made of bronze, with loops and studs for the spur strap. The rowels, made from soft decarbonized sheet steel 0.0625 inch thick, are 0.875 inch in diameter, with ten teeth, and are fastened into body in the same manner as those for officers.

SPUR STRAPS.

(Plate XIV.)

Officers' spur straps are made from russet collar leather 5½ to 6 ounces per square foot. They are narrowed at the ends and fitted with ⅝-inch white metal buckles.

Enlisted men's spur straps are made from russet collar leather 7 to 8 ounces per square foot, are uniform in width, and fitted with ¾-inch brass wire buckles.

CANTEEN.

(Plate XII.)

The components are—

1 body.
1 neck.
1 boss.
1 cork and safety.
1 cover, olive-drab duck.
1 cover, felt.

The body, made of IX sheet tin, bright finish, is formed by a die in two pieces, which are then soldered together. A triangular loop of 0.148-inch tinned iron wire, with a clip of the same tin as the body, is soldered on each side. The neck is a single piece of white metal, soldered to the canteen by a tin boss.

The cork is 1.25 inches long, tapering from 0.9375 to 0.8125 inch in diameter, and has a cap of IX tin covering the top.

A No. 00 brass safety chain, 3 inches long, is attached to a ring of 0.095-inch brass wire, which passes around the neck. The other end is fastened to the loop of the cork pull, which passes through the cork and is held in by a tin washer and galvanized-iron nut.

The canteen is first covered, for protection and coolness, with gray wool felt 0.25 inch thick, and over this with No. 9 olive-drab duck. The letters "U. S." are printed on the front.

McKEEVER CARTRIDGE BOX, CALIBER .30.

(Plate XI.)

The parts are—

1 front.
1 back.
1 hinge.
2 belt loops.
1 thumb piece.
1 large end, plain.
1 small end, plain.
1 large pressed end for screw-driver.
1 small pressed end for screw-driver.

1 button and washer.
1 hinge rod and washer.
1 large body piece.
1 small body piece.
1 large bellows piece.
1 small bellows piece.

The body is made of russet collar leather 9 to 9½ ounces per square foot, cut and stitched, as shown. The front and back, connected by a leather hinge, rotate on a bronzed brass hinge rod 0.165 inch in diameter, which is held in position by brass washers, riveted to the ends. A swell is pressed in the right-hand end of the box, across which a strap is stretched to form a recess for carrying a screw-driver.

The front is stamped with the letters "U. S." and is fastened to the back at the top by a leather thumb piece, sewn to the back, which fits over a bronzed brass button riveted to the front. Two waist-belt loops are fastened to the back by stitching at the lower ends and No. 12 brass rivets at the upper.

The cartridges are held in loops of 1-inch webbing sewed to a bellows of No. 9 olive-drab duck. The bellows, by allowing the heads of the cartridges to incline forward when the box is open, facilitates their insertion and extraction.

MEAT CAN.

(Plate XV.)

The parts of the meat can are—

1 body.
1 cover.
1 handle.

The body, formed in a die, is made from soft decarbonized steel, 0.025 inch thick, thoroughly pickled, annealed, and capable of being drawn, without further annealing, into shape shown. After forming, the body is tinned by immersion in a bath of melted tin. A hinge for attaching the handle is riveted to the body by three $\frac{3}{16}$-inch No. 10 tinned iron rivets.

The cover is formed in a die from the same material used for the body, and is also tinned. For convenience in removing the cover, a D ring of 0.109-inch tinned iron wire is attached to it with a tin clip and $\frac{3}{16}$-inch rivet 0.134 inch in diameter.

The handle is formed from soft decarbonized steel 0.12-inch thick, then tinned and secured to the hinge by pin 0.134 inch in diameter. When the meat can is assembled, the handle folds over the cover and the end of it engages the rim of the body, holding the cover firmly in place.

CUP, MODEL OF 1908.

(Plate XV.)

The parts are —

1 body.
1 handle.
1 upper insulator.
1 lower insulator.

The body is made from sheet aluminum 0.04 inch thick and drawn by two operations into a cup 4.8 inches in diameter and 2½ inches deep. The top of the cup is rolled to form a strong, stiff rim.

The handle is made from same material as the body and is completed in six operations. It is stamped with the letters "U. S." and "R. I. A." and year of manufacture. The edges are folded for stiffness and a slot is punched to receive the tines of a fork for handling cup over a fire. It is separated by fiber board insulators 0.05 inch thick from the body, to which it is fastened by three aluminum rivets of 0.15 inch diameter.

CUP, MODEL OF 1906.

(Plate XV.)

The parts are—

1 body.
1 handle.
1 upper insulator.
1 lower insulator.

The body is made from sheet aluminum 0.04 inch thick and drawn by three operations into a cup 4 inches in diameter by 4.13 inches deep. The top of the cup is rolled to form a strong, stiff rim.

The handle is made from decarbonized sheet steel 0.022 inch thick in three operations. It is stamped with the letters "U. S." and "R. I. A." and year of manufacture, the edges folded for stiffness, and a slot punched to receive the tines of a fork for handling cup, after which it is aluminized. It is separated by fiber board insulators 0.05 inch thick from the body, to which it is fastened by three aluminum rivets of 0.15 inch diameter.

KNIFE.

(Plate XV.)

The knife blade, blanked from special double-bevel cutlery steel, is straightened and tempered. The aluminum handles are then cast on, after which the blades are ground, polished, and tinned, the handles finally being stamped with the letters "U. S." and "R. I. A." and year of manufacture.

FORK.

(Plate XV.)

The fork is blanked by three operations, after which it is formed to shape, with letters "U. S." on handle, tempered, polished, and tinned. It is then stamped with letters "R. I. A." and year of manufacture.

SPOON.

(Plate XV.)

The spoon is blanked and formed with letters "U. S." on handle at a single operation, after which it is polished and tinned. It is then stamped the same as the fork.

CARTRIDGE BOX FOR CALIBERS .38 AND .45 REVOLVER AMMUNITION.

(Plate XI.)

The parts are—

1 body.
2 end pieces.
1 bottom reinforce.
2 belt loops.
1 revolver cartridge-box button and washer.
1 block.

The body is made from a single piece of russet collar leather 5½ to 6 ounces per square foot, cut to shape by a die, after which it is stamped with letters "U. S." It is then made up with ends and bottom reinforce stitched in place. A bronzed brass button, for fastening flap, is riveted through bottom, and two waist-belt loops secured to back by stitching at the bottom and riveting at the top. A poplar block, bored for 12 cartridges and reinforced by leather to prevent splitting, is inserted in the box when used for caliber .38 cartridges.

REVOLVER LANYARD.

(Plate XI.)

The parts are—

1 body.
1 sliding loop.
1 chape.
1 bag snap hook.

For officers the body is made from russet leather 6 to 7 ounces per square foot, cut and braided around a core of chalk line so as to form a cord. The cord is doubled, provided with a sliding loop, and the ends fastened to a ⅝-inch bronzed bag snap-hook by a chape of 8 to 9 ounce russet collar leather.

For enlisted men the body is made from No. 5 olive-drab sash cord with sliding loop of leather covered with thread to match. The ends are fastened to a $\frac{5}{8}$-inch brown japanned bag snap hook by a russet leather chape, to which they are strongly stitched.

HAVERSACK, MODEL OF 1908.

(Plate XII.)

The parts are—

1 back.
1 reinforce.
1 front pouch.
1 front pouch bottom.
1 front pouch flap.
1 rear pouch.
1 rear pouch bottom.
1 salt bag.
2 sugar and coffee bags.
2 knife and fork pockets.
1 knife scabbard.
1 fork scabbard.
1 fastening strap.
1 buckle chape.
2 hook chapes.
2 haversack snap hooks.

The back is made from No. 4 olive-drab cotton duck. The reinforce, rear pouch, rear pouch bottom, front pouch, front pouch bottom, front pouch flap, and knife and fork pockets are made from No. 9 duck. The knife and fork scabbards are from scrap leather; the salt bag and sugar and coffee bags from 8-ounce white cotton drill, and the fastening strap, buckle, and hook chapes of olive-drab webbing.

The top edges of both pouches and the lower edge of the front pouch flap are bound with 1-inch olive-drab cotton webbing, and the flap is held down by two soft rawhide thongs.

The front pouch and bottom are sewn together and seam felled, and with fastening strap and front pouch flap is stitched to the reinforce, the latter being then stitched with a felled seam across the wider portion of back, so that the top of the haversack is covered with two thicknesses of duck, after which the edges are bound with 1-inch olive-drab cotton webbing extending an inch beyond seam.

The hook chapes are sewn on outside of back, the two haversack snap hooks being for attachment to rifle cartridge belt.

The rear pouch bottom, with buckle chape and knife pockets sewn in place, is stitched to rear pouch and seam felled after both edges of bottom have been bound with tape. These form a pouch with knife

and fork pockets across the ends when stitched to inside of back. The letters "U. S." are stenciled on outside of back.

The salt and coffee and sugar bags are three in number and are provided with draw strings of No. 12 cotton chalk line, 20 inches long.

BLANKET-ROLL STRAP.

(Plate XVI.)

This consists of four separate straps made from russet leather 6 to 7 ounces per square foot. The two straps for buckling around the blanket roll near the ends have a ¾-inch japanned iron skate buckle riveted to one end and a ¾-inch D ring fastened by two rivets and a loop about 5½ inches from the buckle. A third strap, with a special swivel snap at one end and a buckle at the other connects the first two straps by fastening into the D's. The fourth strap, like the first two but without D ring, is used to buckle around the middle of the roll.

GUN SLING, MODEL OF 1907, FOR U. S. MAGAZINE RIFLE, MODEL OF 1903

(Plate XVI.)

The parts are—

1 body.
2 sliding loops.
2 gun-sling hooks.
1 gun-sling loop.

The body is made from russet collar leather weighing from 7 to 8 ounces per square foot.

It consists of a loop part and a point part, one end of each having a gun-sling hook attached by three No. 14 brass belt rivets. The other end of the loop part is sewed through the gun-sling loop, through which the point part passes, forming a double sling, the two parts being held together by a sliding loop at either end. The loop part has 16 sets of holes and the point part 26 sets to allow adjustment in length for convenience in carrying.

The gun-sling hook is stamped from sheet brass 0.109 inch thick, formed to shape, and bronzed. The gun-sling loop is $\frac{3}{16}$ inch in diameter of bronze, bronzed.

CANTEEN-HAVERSACK STRAP.

(Plate XVI.)

The parts are—

1 body.
2 sliding loops.
2 brass wire end hooks.
2 brass wire double hooks.

The body is cut by a die from russet collar leather 7 to 8 ounces per square foot. The ends form loops through the double hooks, and are fastened by the end hooks, which are held in place by the sliding loops. Holes in the body admit of adjustment for length. The end hooks are made of brass wire 0.148 inch in diameter. The double hooks are made of brass wire 0.134 inch in diameter and have their ends twisted through 45° to permit the strap being used with haversacks having either the old D rings or the new snap hooks.

CARTRIDGE BELT, MODEL OF 1903, FOR COLT'S .38 CALIBER REVOLVER.

(Plate XIX.)

SPECIFICATIONS.—Each woven belt to be straight and $2\frac{1}{4}$ inches wide, to have eight pockets, each of the required size for holding six caliber .38 revolver cartridges. Each pocket shall be provided with a substantial flap, with the outer end fastened to the pocket by a secure and serviceable glove fastener. The fasteners must be capable of withstanding 5,000 fastenings and unfastenings without losing their usefulness as such. The eight pockets must be of equal dimensions and be equally spaced in a length of 23.25 inches. At each end of the pocket section there shall be 11 inches of plain webbing, the width of which shall be the same as that of the body of the belt, to which the fastener furnished by the Ordnance Department will be attached. Ends of billets shall be completely incased in metal and a hook shall be attached to each end of the belt and two metallic eyelets shall be inserted between adjacent pockets, two outside of each end pocket, and sets of two at intervals of 2 inches therefrom toward the end of the belt, into which the hooks may be inserted to permit the length of the belt to be adjusted, as shown in drawings. For eyelets the threads shall be separated, the eyelet then inserted and clinched without previous forming of a hole by cutting of threads. All metallic eyelets shall be permanently secured in the belt without fraying it and be amply strong to support a dead load of not less than that which is sustained by the fabric of which the belt is made. The interior diameter of the hole in the eyelets shall be 0.2 of an inch.

The general specifications as to metal parts and the kind, quality, and tests of the material from which the belt is made are the same as those for the rifle cartridge belt.

The cartridge-belt fastener is similar to that of the rifle cartridge belt, except that it is the proper size for the narrow web of the revolver cartridge belt, and the inside loop of the female is straight. Where this belt is prescribed as part of the equipment for mounted men a ring of soft brass wire for saber attachment is fastened to it by a chape of russet collar leather, which is secured by two brass rivets passing through the lower edge of the belt between the second and third pockets from the left end.

WAIST BELTS FOR BANDS.

(Plate XVI.)

These are for bandsmen only and are made from enameled leather of the color of the corps or arm of the service. They are of the same width and lengths as regulation belts for enlisted men, all metal parts being the same as for the russet-leather belts.

The body of the belts for cavalry, artillery, and infantry are made from a single piece of enameled leather folded around a strip of buckram, glued near one edge, and stitched along both. The buckram is used to give sufficient thickness. The holes are fitted with No. 151 brass eyelets to prevent stretching and tearing by the buckle tongue.

For the Engineer Corps the body of the belt is made from white enameled leather with a strip of red leather of the proper width glued and stitched to the face.

Saber attachments of enameled leather, of the same dimensions as the regulation saber attachment, with slide, are made for the drum majors of mounted bands only. Three thicknesses of leather are folded together and stitched in the same manner as the belt.

SWORD FROG (FOR NONCOMMISSIONED OFFICER'S WAIST BELT).

(Plate XVI.)

This is made from russet leather weighing 7 to 8 ounces per square foot. The form complete, with slot for the sword and hole for the hook, is cut with a die, so that all are alike. The ends are brought together and the frog is stitched twice across the middle of the body and down both edges, forming a loop for the belt and a socket for the sword.

INTRENCHING TOOLS.

(Plate XVII.)

The tools are—

1 rule.
1 wire cutter.
1 hand-ax and carrier.
1 intrenching shovel and carrier.
1 intrenching pick mattock and carrier.

The rule is 2 feet long and four fold, and is graduated in eighths, tenths, twelfths, and sixteenths of an inch.

The wire cutter is a commercial button pliers, 10 inches long.

The hand ax is of solid cast steel, forged and tempered and weighing 28½ ounces, the handle being of second-growth hickory, secured to the head by a wooden wedge and a metal wedge. The carrier body is made from No. 1 olive-drab cotton duck and provided with a buckle

chape and billet for holding down the flap, and with a hook and fastener for attachment to the cartridge belt.

The intrenching shovel weighs 30 ounces and has a blade of solid cast steel, tempered and ground, the upper part forming a socket for the ash or second-growth hickory handle, which is in two pieces, forming a T, with a sheet-steel strap around the joint and fastened with two through rivets. The carrier consists of a body of olive-drab duck and a strap which secures the shovel by one turn around the handle. It is attached to the belt with a hook and fastener similar to the one used on the hand-ax carrier.

The pick mattock weighs complete 42 ounces, has a head of solid cast steel drop forged and ground, the blade and point being tempered, and a handle of second-growth hickory, which is detached when carried.

The carrier body consists of three pieces of olive-drab cotton duck held together by tubular rivets, and so assembled that one piece forms a pocket for the head, which is secured in place by folding up the bottom and fastening the strap around the outside, while the two other pieces form a carrier for the handle. A hook and fastener similar to those used on the hand-ax carrier are attached.

ARTILLERY KNAPSACK.

(Plate XVIII.)

The parts are—

1 body.
1 pocket flap.
1 flap B.
2 flaps A.
2 flaps C.
2 reinforces.
2 knapsack straps with handle.
2 pocket straps with billets.
2 pouch straps with billets.
3 securing straps with billets.

This knapsack is designed to replace the haversack and blanket roll for enlisted men of light batteries. It is made with two compartments, one in the form of a pocket similar to the haversack, the other with four folding flaps in the form of a pouch about 12 by 14 by 4 inches. The cloth parts are made from No. 9 olive-drab cotton duck and the leather parts from russet collar leather weighing 9 to 9½ ounces per square foot.

The body, cut in one piece, forms the back and front of the pocket and the back, side, and one end of the pouch. The pocket and middle pouch flaps are stitched to the middle portion of the back about 4 inches apart. The pocket flap is provided with two straps and the

pouch flaps with one for fastening. The side pouch flaps are stitched to the upturned side edges of the body and fold across the top or front face of the pouch.

One of the leather reinforce pieces is stitched across the underside of the body between the pocket and middle pouch flaps. Four loops stitched to the upper side of the body through this reinforce form a method of attaching the knapsack straps and handle. The other reinforce piece is stitched on the inside of the bottom end of the pouch. The chapes and buckles of the securing straps are stitched to the outside of this end through this reinforce. The securing straps themselves are stitched to the middle of the back of the pocket. When buckled, these straps hold the lower end of the pocket and pouch together.

The knapsack straps, secured as above described, pass around both pocket and pouch, forming a means of carrying the knapsack.

POUCH, MODEL OF 1907, FOR FIRST-AID PACKET.

(Plate XVIII.)

The parts are—

1 body.
1 double hook.

The body is made of one piece of No. 9 olive-drab cotton duck, the flap and top having double thickness for attachment of the glove fasteners and eyelets for the double hook. The latter is of half-hard brass wire 0.109 inch in diameter, passes through the eyelets, and has the ends bent into a form suitable for attaching to the cartridge belt.

SCABBARD FOR HOSPITAL CORPS KNIFE, MODEL OF 1905.

(Plate XIX.)

This consists of a body and belt loop made from russet collar leather 6 to 7 ounces per square foot, the welts being harness leather. The mouth of the scabbard is stiffened by an outside plate, an inside plate, and two springs, and is secured by two 0.125-inch brass rivets. The belt loop is formed by folding the ends and sewing together around the loop stiffener, which is made from sheet steel 0.022 inch thick.

The swivel passes through the belt loop and inside piece of the body and is held by a washer of sheet brass 0.049 inch thick, which is prevented from contact with the hospital corps knife by a leather swivel cover having its edges sewed in with welt. A lug on the swivel engages a stop washer having a slot which limits the rotation of the swivel.

HOSPITAL CORPS KNIFE, MODEL OF 1905.

(Plate XIX.)

The blade is of forged steel tempered the entire length, including tang, being 17.316 inches. The guard is of brass and is provided

with a slot which fits around the lower part of the tang and against a shoulder on the blade. The grip is of black walnut, grooved to receive the tang and shaped to fit the fingers of the hand, and is fastened to the tang by three brass rivets. The pommel is of brass and secured to the tang by a steel screw 0.117 inch diameter. A bushing of brass tubing is forced through the tang at the upper end and has its ends flush with the grip.

OFFICERS' SABER AND SCABBARD.

(Plate XX.)

The parts are—

Blade.
Tang.
Pommel.
Guard.
Grip.
Ferrule.
Nut.
Washer.

and of the scabbard—

Body, with tip, bands, and rings.
Mouthpiece, with screws.
Linings.

The blades are made from tool steel in lengths of 30, 32, and 34 inches. The tang or support for the hilt is made of soft iron welded to the base of the blade.

The pommel, guard, and ferrule are of German silver. The pommel covers the end of the hilt and extends along the back of the grip, the lower end being held by a ferrule, while the upper end is secured by heading down the tang, which passes through all parts of the hilt when the latter is assembled with the blade.

The guard is of the basket form with four branches, plate, and hook. The ends are slotted for the tang, the lower end abuts against the shoulder of the blade, and the upper end fits into a notch in the front of the pommel. It has a slot near the upper end for attaching the sword knot.

The ferrule passes around the pommel and grip just above the lower end of the guard, holding them securely together. The grip is of black bone shaped to fit the fingers of the hand.

The scabbard is made from sheet steel formed to shape and brazed, after which the tip and bands for rings, also of steel, are brazed to the scabbard. The bands are drilled to receive the 1-inch rings made from 0.166-inch steel wire.

The steel mouthpiece is secured to the body by two screws and has a spring which extends inside the scabbard and grips the sides

of the blade to secure it in the scabbard. Two lining strips of wood held between the mouthpiece and the sides of the scabbard, protect the point in sheathing the saber. The scabbard is nickel plated.

NONCOMMISSIONED OFFICERS' SWORD.

(Plate XX.)

The only straight sword now in service is that for noncommissioned officers.

The blade, of shear steel, is 32 inches long, $\frac{7}{8}$ inch wide at the shoulder, tapering gradually to the point. The knob and grip are of brass, cast in one piece. The guard, also of brass, consists of the curved branch, crosspiece, and plate.

The grip and guard are first assembled and then fastened to the blade and to each other by the tang, which passes through the hilt and is headed at the top of the knob.

The body of the scabbard is sheet steel formed to shape and brazed. A brass ferrule and hook for carrying the sword in the frog is secured to the upper end of the scabbard by a brass screw. A brass tip is similarly secured to the lower end of the scabbard.

CAVALRY SABER AND SCABBARD.

(Plate XXI.)

The parts are nearly the same as for the officer's saber, but all are much heavier, and the scabbard has no wood lining strips.

The blade of steel is 36 inches long, with a moderate degree of curvature, as it is intended for both thrusting and cutting. The guard is of steel and has three branches instead of four, as in the officer's saber.

The pommel is of malleable iron brazed to a sheet-steel ferrule, which extends part way down the grip. The grip is of wood, covered with leather and wound with brass wire. The hilt is secured by the tang, which passes through the guard, grip, and pommel, being headed down on the latter.

The scabbard is formed and made in the same manner as that for the officers' saber, but browned by the same process used for rifle barrels, instead of being nickel plated.

LIGHT ARTILLERY SABER AND SCABBARD.

(Plate XXI.)

The light artillery saber has a heavy 32-inch blade of considerable curvature, as it is essentially a cutting weapon. For the same reason the hilt is made light, the guard having a single branch terminating in a scroll or hook. The grip, pommel, and method of securing the blade to the hilt are practically the same as for the cavalry saber. The scabbard does not differ in any essential detail from that for the cavalry saber already described.

DISPATCH CASE.

(Plate XIX.)

This consists of a dispatch case body, a shoulder strap and a map case. The parts are:

Dispatch case body—

1 front.
1 gusset.
1 front partition.
1 back partition.
2 side flaps.
1 back and flap.
1 pencil holder.
1 ink-bottle holder.
1 buckle chape.
1 billet.
2 D-ring chapes.
1 shoulder-strap billet.
1 shoulder-strap buckle piece

Map case—

1 front.
1 back.
1 gusset.
2 D-ring chapes.
1 cord.

The dispatch case and map case are made from russet collar leather 3 to 3½ ounces per square foot. The dispatch case has three compartments, the front and middle ones having gussets and the rear one, for carrying the map case, being formed by stitching the back partition at sides and bottom between the gusset of middle compartment and the back. This gusset extends beyond the partition, is tapered and forms a welt between the back and flap and the side flaps which fold inside the flap and form a protection for all compartments. The pencil holder and ink-bottle holder are stitched to the front face of the front partition, the upper part of which folds down over the front. A billet and buckle chape, respectively, on flap and front fasten the case. An adjustable shoulder strap, composed of billet and buckle piece, each with a 0.625-inch bronzed bag snap at the end, hooks into a bronzed brass wire D ring 0.148 inch in diameter. The ring is held by a chape, which is fastened to the back by stitching and a tubular iron rivet.

The map case is made with a gusset stitched to back and front. The front is made of two pieces with heavy transparent celluloid stitched between, and the back has the upper part folded down over the front in a short flap. Two ring chapes with D rings of bronzed

brass wire 0.049 inch in diameter are sewed to the back of the case, which is carried by a three-cord linen twine.

The dispatch case and map case are made from pigskin when so requested.

SHOULDER BELT.

(Plate XIX.)

The parts are—

2 shoulder straps with sliding loops and end hooks.
1 rear centerpiece.
1 loop piece.
1 loop.
3 clamps.

This is made from russet collar leather 7 to 8 ounces per square foot. The shoulder straps are cut and punched with seven holes for adjustment. One end of each is doubled into a loop for the clamp, which is held to place by a sliding loop, and has an end hook of soft brass wire 0.148 inch in diameter fastened by two No. 14 brass belt rivets. The other end is attached to the loop piece by a No. 10 brass belt rivet passing through a No. 151 brass eyelet.

The loop is of cast bronze and joins the rear centerpiece to the loop piece, the latter being stitched across close to loop. A clamp is secured by stitching to the other end of the rear centerpiece.

This belt is made from pigskin when so requested.

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ORDNANCE,
Washington, July 3, 1908.

May 10, 1905.
Revised July 3, 1908.
Form No. 1719.
Ed. July 3-08—3,000.
25301 I—1085.

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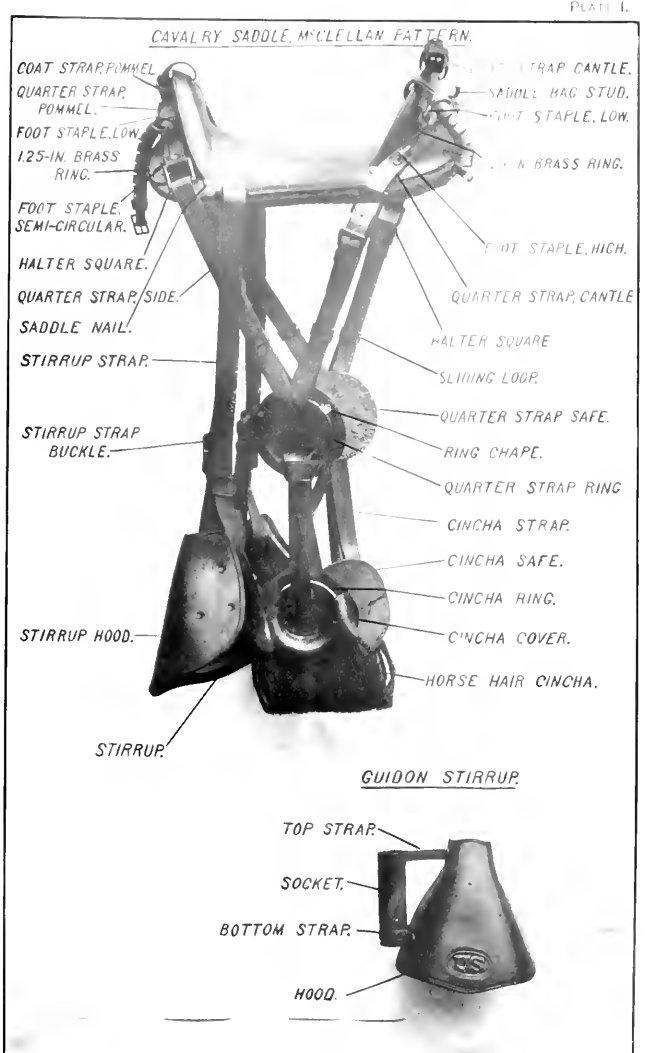
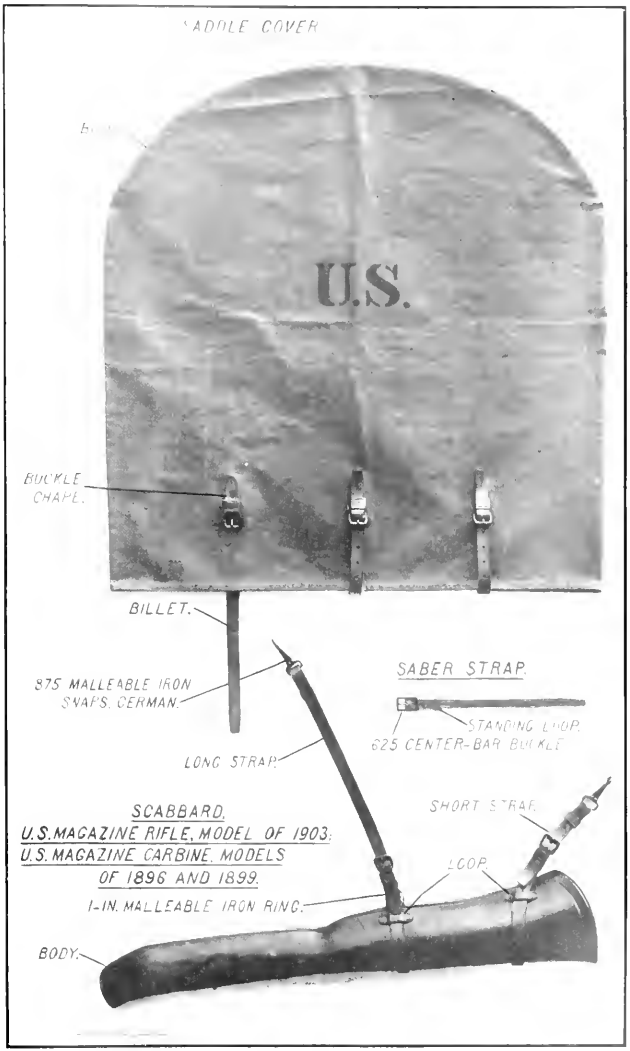
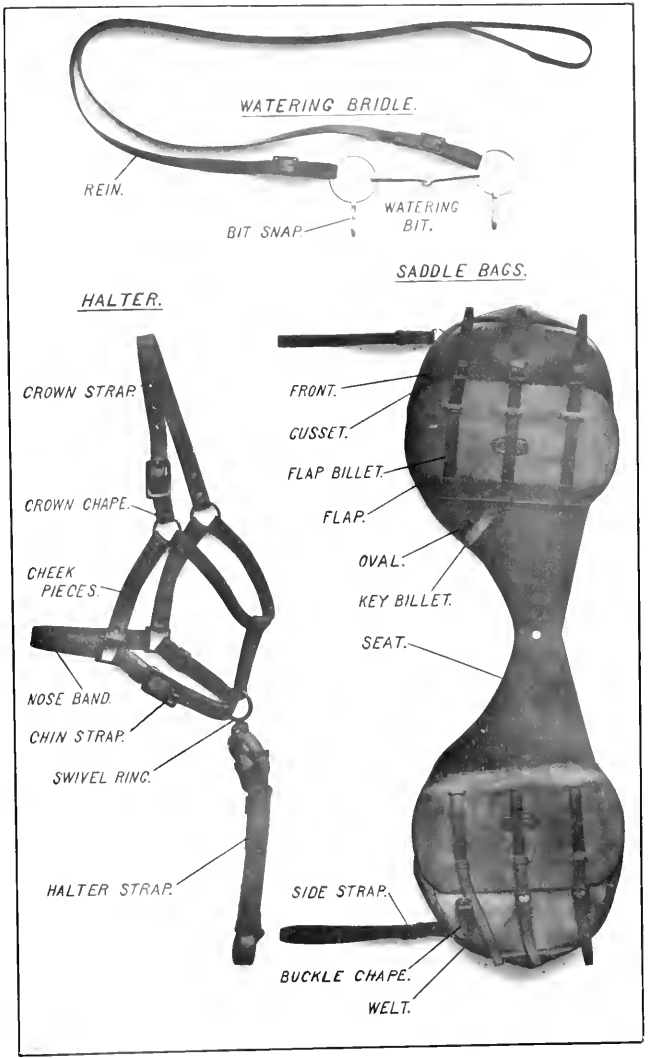
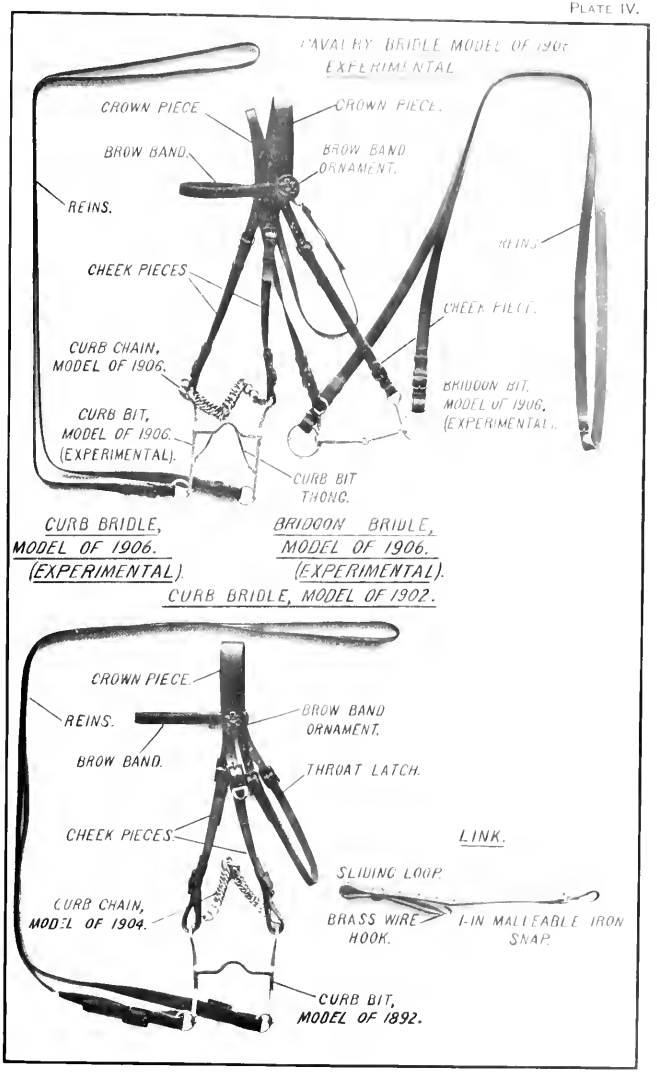
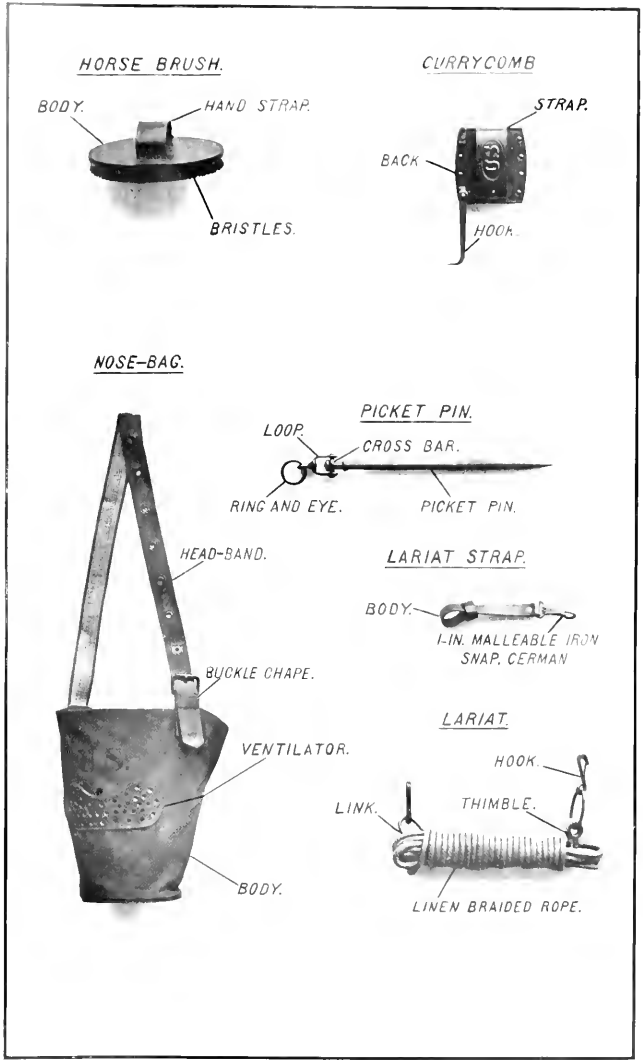
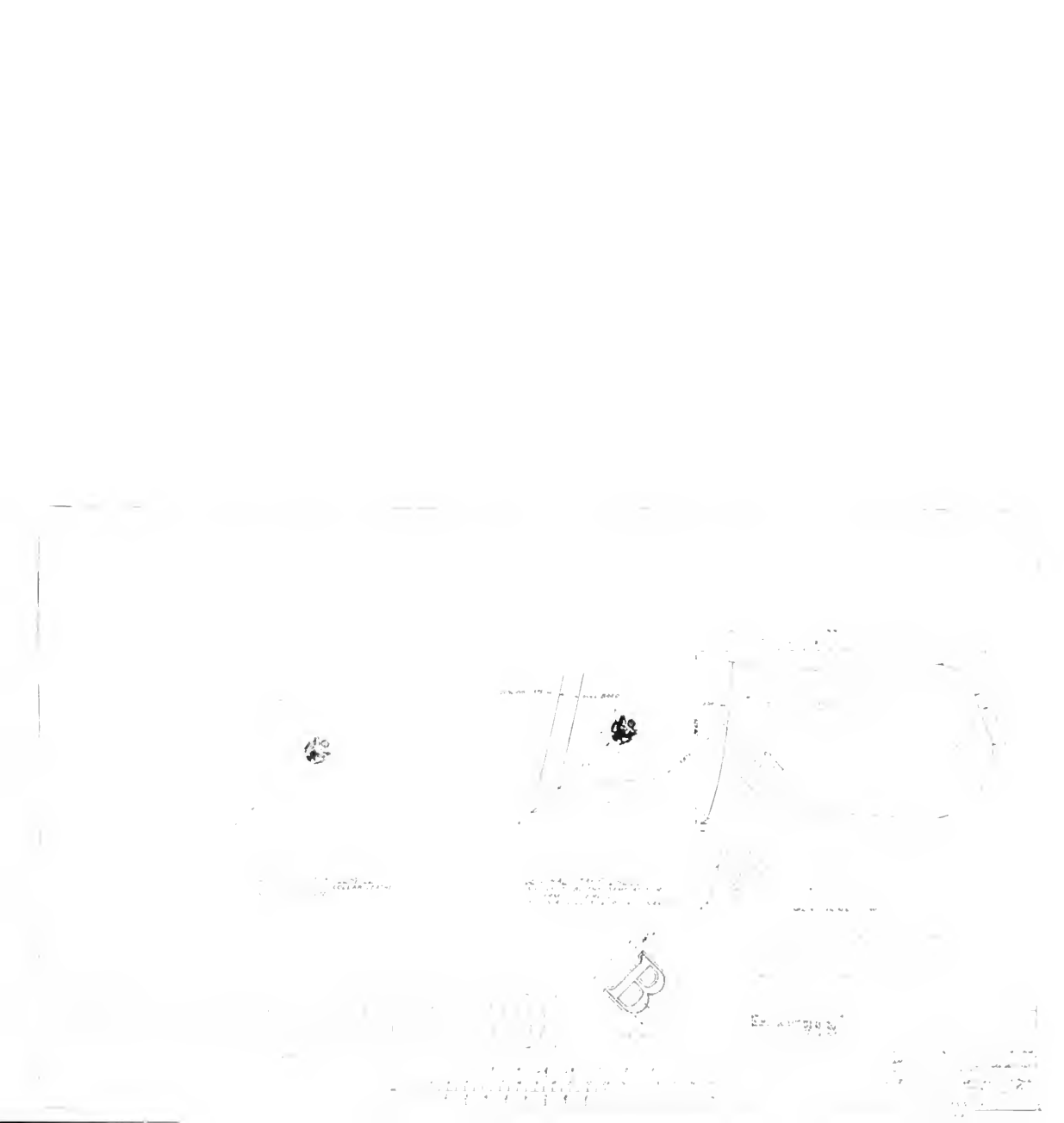

CAVALRY SADDLE, McCLELLAN PATTERN.
COAT STRAP, POMMEL.
QUARTER STRAP, POMMEL.
FOOT STAPLE, LOW.
1.25-IN. BRASS RING.
FOOT STAPLE, SEMI-CIRCULAR.
HALTER SQUARE.
QUARTER STRAP, SIDE.
SADDLE NAIL.
STIRRUP STRAP.
STIRRUP STRAP BUCKLE.
STIRRUP HOOD.
STIRRUP.
QUARTER STRAP, CANTLE.
SADDLE BAG STUD.
FOOT STAPLE, LOW.
1.25-IN. BRASS RING.
FOOT STAPLE, HIGH.
QUARTER STRAP, CANTLE
HALTER SQUARE
SLIDING LOOP.
QUARTER STRAP SAFE.
RING CHAPE.
QUARTER STRAP RING
CINCHA STRAP.
CINCHA SAFE.
CINCHA RING.
CINCHA COVER.
HORSE HAIR CINCHA.
GUIDON STIRRUP.
TOP STRAP.
SOCKET.
BOTTOM STRAP.
HOOD.

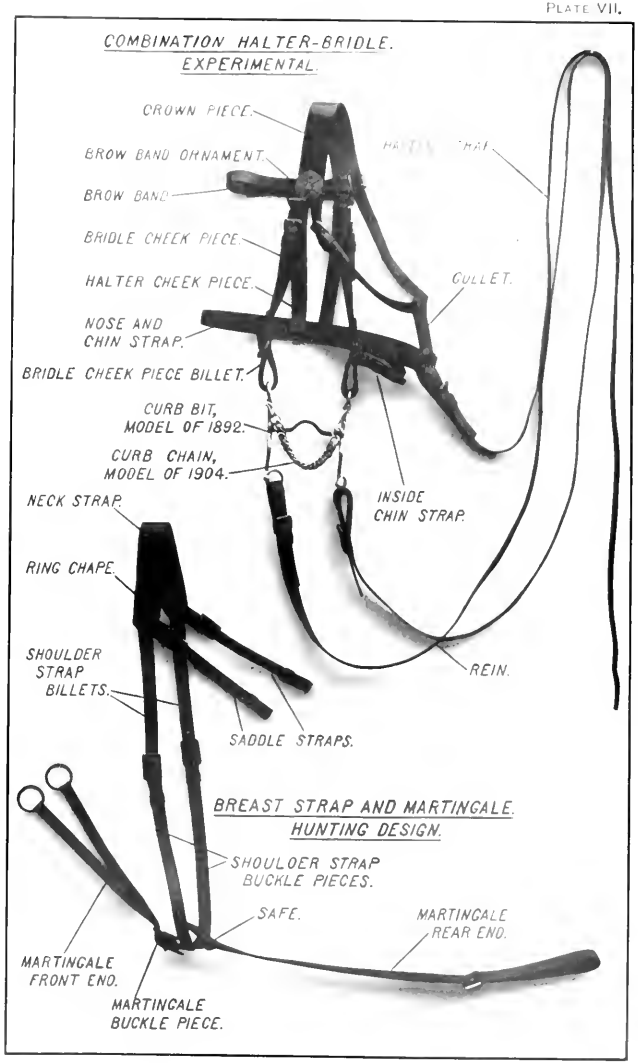

SADDLE COVER
U.S.
BUCKLE
CHAPE.
BILLET.
.875 MALLEABLE IRON
SNAPS. GERMAN.
LONG STRAP.
SABER STRAP.
STANDING LOOP.
.625 CENTER-BAR BUCKLE
SCABBARD.
U.S. MAGAZINE RIFLE, MODEL OF 1903.
U.S. MAGAZINE CARBINE, MODELS
OF 1896 AND 1899.
SHORT STRAP.
LOOP.
1-IN. MALLEABLE IRON RING.
BODY.

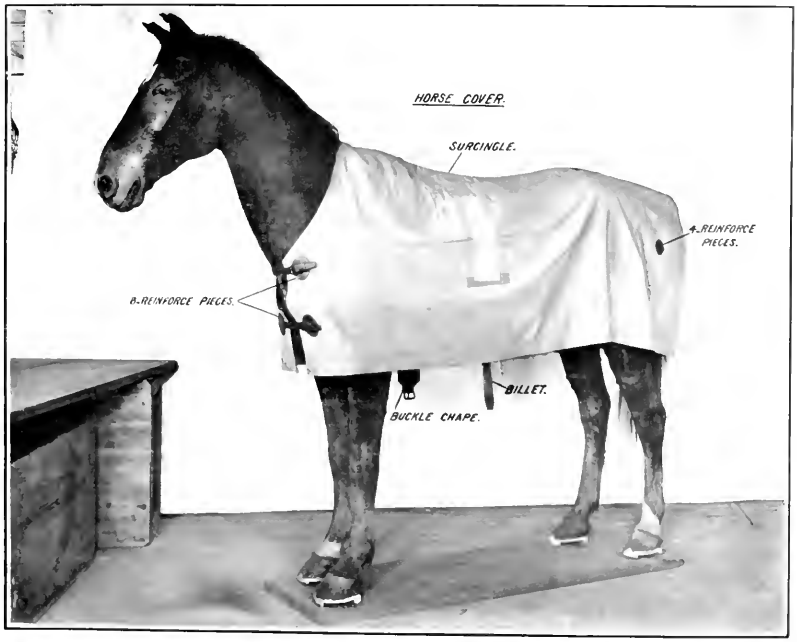

WATERING BRIDLE.
REIN.
BIT SNAP.
WATERING BIT.
SADDLE BAGS.
HALTER.
CROWN STRAP.
CROWN CHAPE.
CHEEK PIECES.
NOSE BAND.
CHIN STRAP.
SWIVEL RING.
HALTER STRAP.
FRONT.
GUSSET.
FLAP BILLET.
FLAP.
OVAL.
KEY BILLET.
SEAT.
SIDE STRAP.
BUCKLE CHAPE.
WELT.

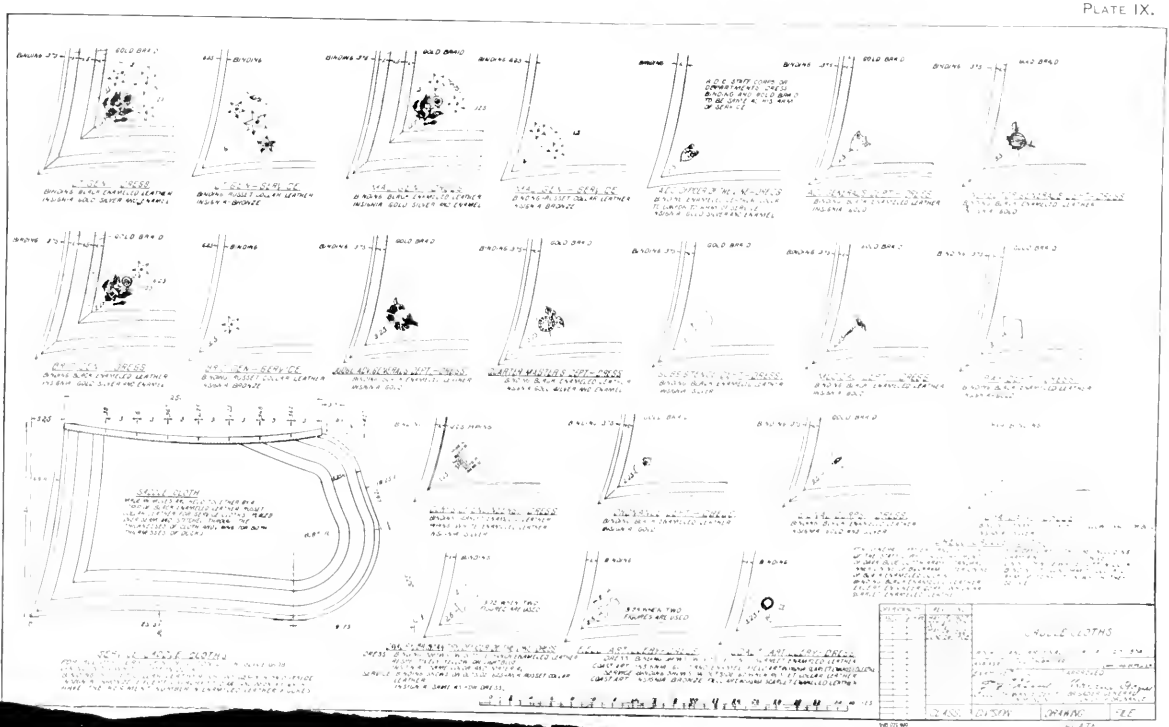

CAVALRY BRIDLE MODEL OF 1906
EXPERIMENTAL
CROWN PIECE
CROWN PIECE.
BROW BAND.
BROW BAND ORNAMENT.
REINS.
REINS.
CHEEK PIECES
CHEEK PIECE.
CURB CHAIN, MODEL OF 1906.
BRIDOON BIT, MODEL OF 1906, (EXPERIMENTAL).
CURB BIT, MODEL OF 1906. (EXPERIMENTAL).
CURB BIT THONG.
CURB BRIDLE, MODEL OF 1906. (EXPERIMENTAL).
BRIDOON BRIDLE, MODEL OF 1906. (EXPERIMENTAL).
CURB BRIDLE, MODEL OF 1902.
CROWN PIECE.
REINS.
BROW BAND ORNAMENT.
BROW BAND.
THROAT LATCH.
CHEEK PIECES.
LINK.
SLIDING LOOP.
CURB CHAIN, MODEL OF 1904.
BRASS WIRE HOOK.
1-IN MALLEABLE IRON SNAP.
CURB BIT, MODEL OF 1892.

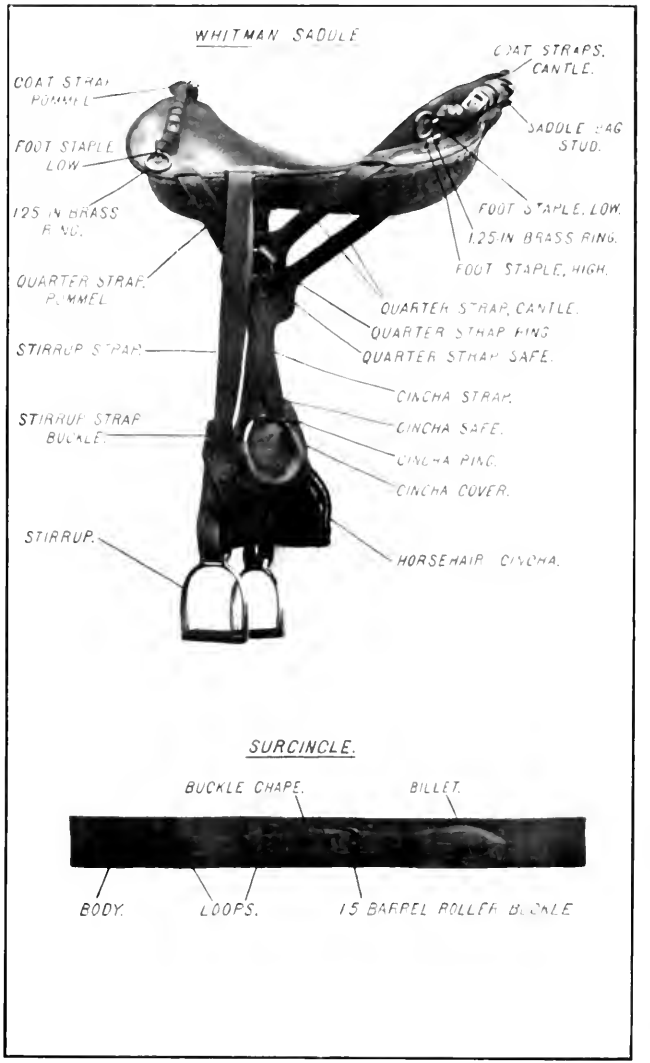

HORSE BRUSH.
BODY.
HAND STRAP.
BRISTLES.
CURRYCOMB
STRAP.
BACK
HOOK.
NOSE-BAG.
HEAD-BAND.
BUCKLE CHAPE.
VENTILATOR.
BODY.
PICKET PIN.
LOOP.
CROSS BAR.
RING AND EYE.
PICKET PIN.
LARIAT STRAP.
BODY.
1-IN. MALLEABLE IRON SNAP, GERMAN
LARIAT.
HOOK.
LINK.
THIMBLE.
LINEN BRAIDED ROPE.



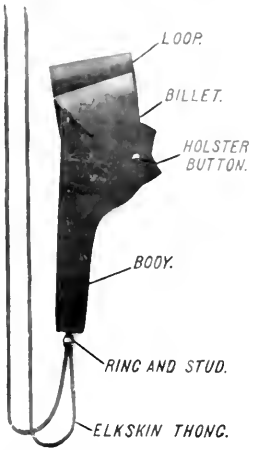

COMBINATION HALTER-BRIDLE.
EXPERIMENTAL.
CROWN PIECE.
BROW BAND ORNAMENT.
BROW BAND.
BRIDLE CHEEK PIECE.
HALTER CHEEK PIECE.
NOSE AND CHIN STRAP.
BRIDLE CHEEK PIECE BILLET.
CURB BIT, MODEL OF 1892.
CURB CHAIN, MODEL OF 1904.
NECK STRAP.
RING CHAPE.
SHOULDER STRAP BILLETS.
CULLET.
INSIDE CHIN STRAP.
REIN.
SADDLE STRAPS.
BREAST STRAP AND MARTINGALE.
HUNTING DESIGN.
SHOULDER STRAP BUCKLE PIECES.
SAFE.
MARTINGALE REAR END.
MARTINGALE FRONT END.
MARTINGALE BUCKLE PIECE.


HORSE COVER.
SURCINGLE.
4. REINFORCE PIECES.
8. REINFORCE PIECES.
BILLET.
BUCKLE CHAPE.

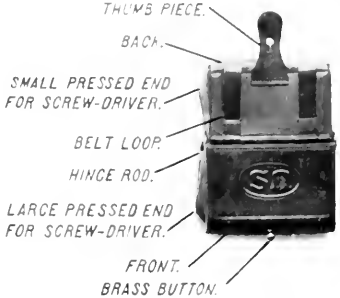



WHITMAN SADDLE
COAT STRAPS. CANTLE.
COAT STRAP PÖMMEL
SADDLE BAG STUD.
FOOT STAPLE LOW
FOOT STAPLE. LOW.
1.25 IN BRASS RING.
1.25 IN BRASS RING.
FOOT STAPLE, HIGH.
QUARTER STRAP PUMMEL
QUARTER STRAP, CANTLE.
QUARTER STRAP RING
STIRRUP STRAP
QUARTER STRAP SAFE.
CINCHA STRAP.
STIRRUP STRAP BUCKLE.
CINCHA SAFE.
CINCHA RING.
CINCHA COVER.
STIRRUP.
HORSEHAIR CINCHA.
SURCINCLE.
BUCKLE CHAPE.
BILLET.
BODY.
LOOPS.
15 BARREL ROLLER BUCKLE

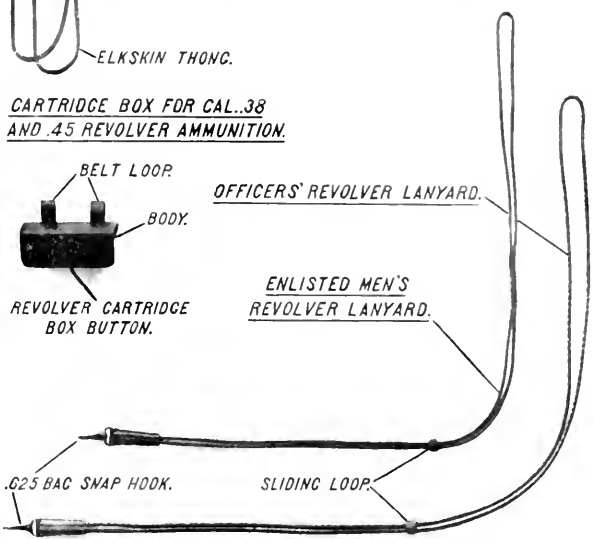
REVOLVER HOLSTER, COLTS.
CAL. .38 AND CAL .45 LONG.

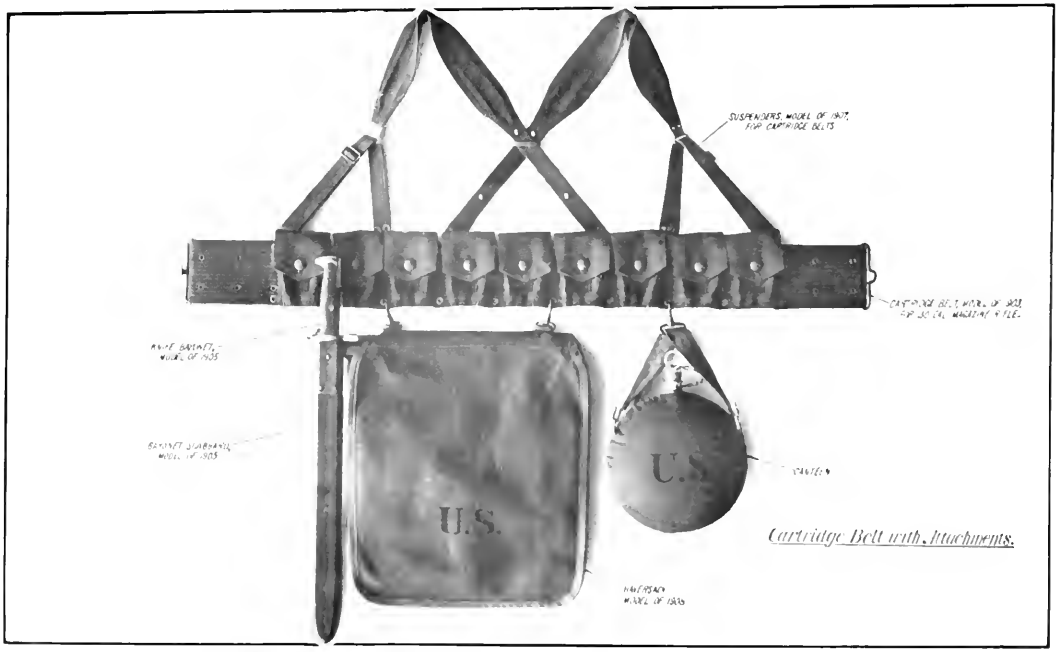


M^c KEEVER CARTRIDGE BOX.
CAL. 30

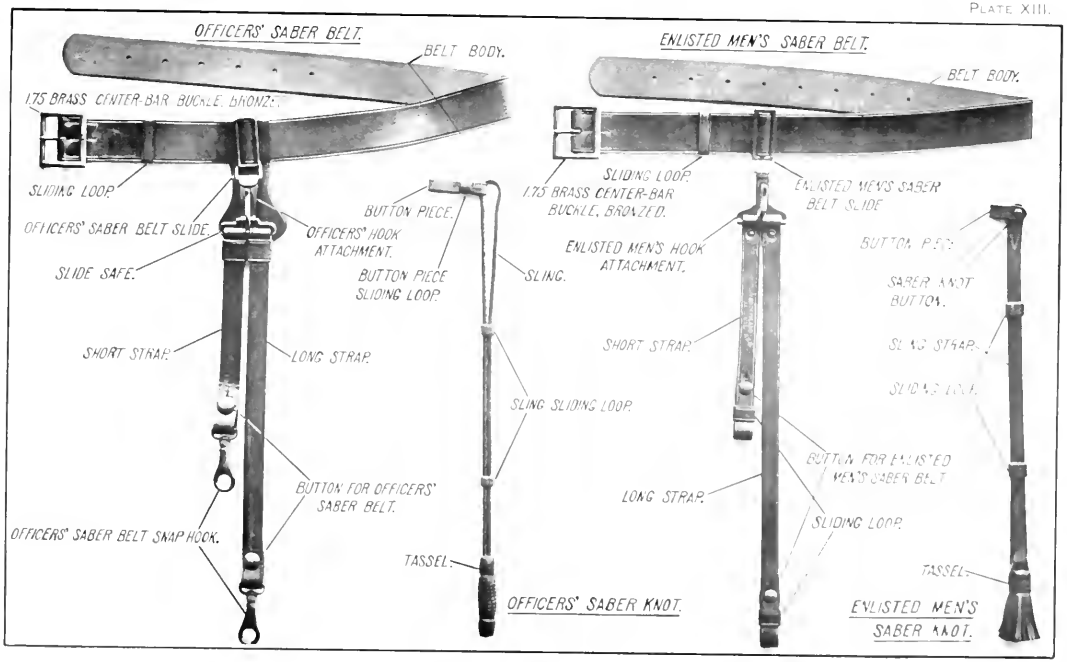


CARTRIDGE BOX FOR CAL..38
AND .45 REVOLVER AMMUNITION.

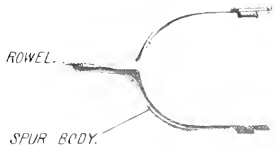




Cartridge Belt with Attachments.


OFFICERS' SABER BELT.
BELT BODY.
1.75 BRASS CENTER-BAR BUCKLE, BRONZED.
SLIDING LOOP.
OFFICERS' SABER BELT SLIDE.
SLIDE SAFE.
OFFICERS' HOOK ATTACHMENT.
BUTTON PIECE.
BUTTON PIECE SLIDING LOOP.
SLING.
SHORT STRAP.
LONG STRAP.
SLING SLIDING LOOP.
BUTTON FOR OFFICERS' SABER BELT.
OFFICERS' SABER BELT SNAP HOOK.
TASSEL.
OFFICERS' SABER KNOT.
ENLISTED MEN'S SABER BELT.
BELT BODY.
SLIDING LOOP.
1.75 BRASS CENTER-BAR BUCKLE, BRONZED.
ENLISTED MEN'S SABER BELT SLIDE
ENLISTED MEN'S HOOK ATTACHMENT.
BUTTON PIECE.
SABER KNOT BUTTON.
SLING STRAP.
SLIDING LOOP.
SHORT STRAP.
BUTTON FOR ENLISTED MEN'S SABER BELT.
LONG STRAP.
SLIDING LOOP.
TASSEL.
ENLISTED MEN'S SABER KNOT.

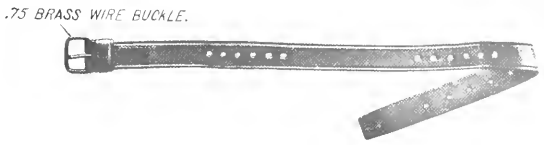
OFFICERS' SPUR.



OFFICERS' SPUR STRAP.

ENLISTED MEN'S SPUR.

ENLISTED MEN'S SPUR STRAP.



CUP, MODEL OF 1908.
EXPERIMENTAL.

KNIFE.

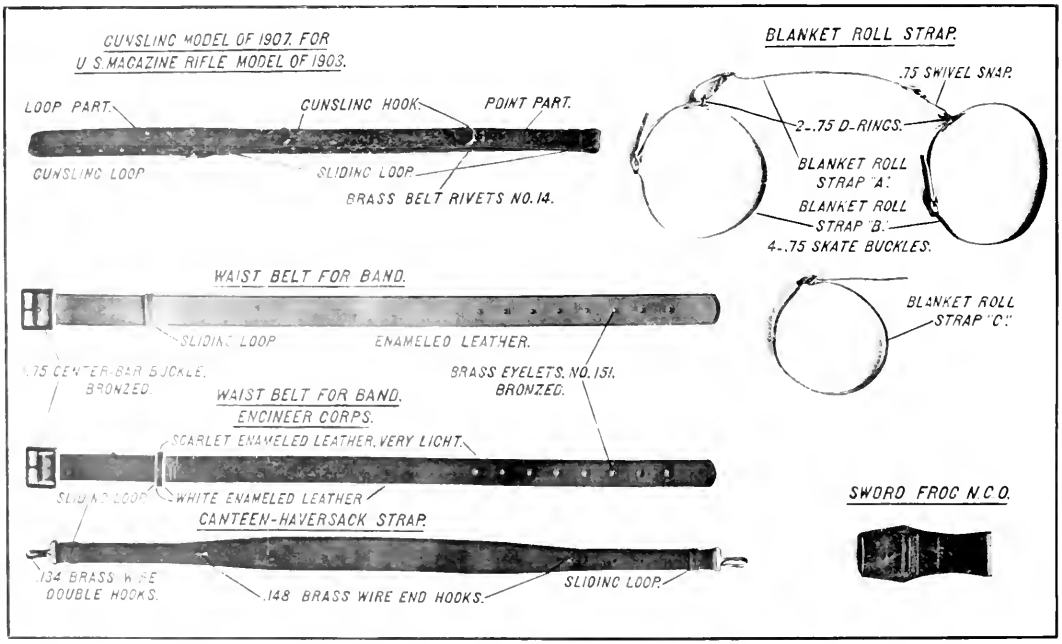
SPOON.

CUP, MODEL OF 1906.
(ALUMINUM).

FORK.

MEAT CAN.

MEAT CAN COVER.


GUNSLING MODEL OF 1907. FOR
U.S. MAGAZINE RIFLE MODEL OF 1903.
LOOP PART.
GUNSLING HOOK.
POINT PART.
GUNSLING LOOP.
SLIDING LOOP.
BRASS BELT RIVETS NO. 14.
BLANKET ROLL STRAP.
.75 SWIVEL SNAP.
2-.75 D-RINGS.
BLANKET ROLL STRAP "A."
BLANKET ROLL STRAP "B."
4-.75 SKATE BUCKLES.
BLANKET ROLL STRAP "C."
WAIST BELT FOR BAND.
SLIDING LOOP
ENAMELED LEATHER.
.75 CENTER-BAR BUCKLE. BRONZED.
BRASS EYELETS. NO. 151. BRONZED.
WAIST BELT FOR BAND. ENGINEER CORPS.
SCARLET ENAMELED LEATHER. VERY LIGHT.
SLIDING LOOP
WHITE ENAMELED LEATHER
CANTEEN-HAVERSACK STRAP.
.134 BRASS WIRE DOUBLE HOOKS.
.148 BRASS WIRE END HOOKS.
SLIDING LOOP.
SWORD FROG N.C.O.

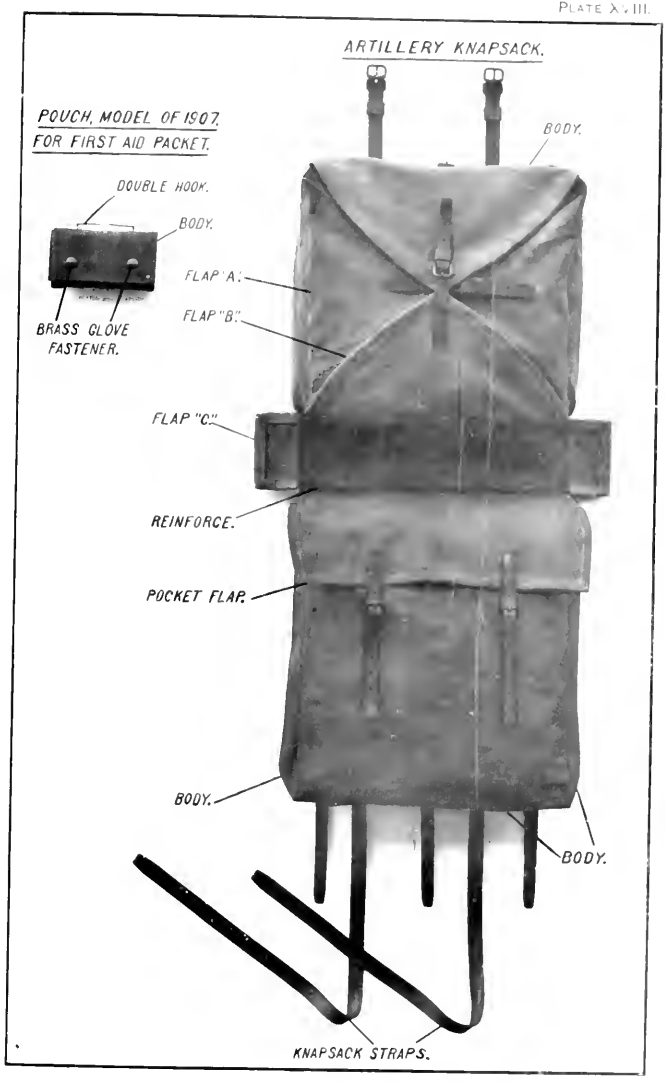
INTRENCHING HAND-AX AND CARRIER.

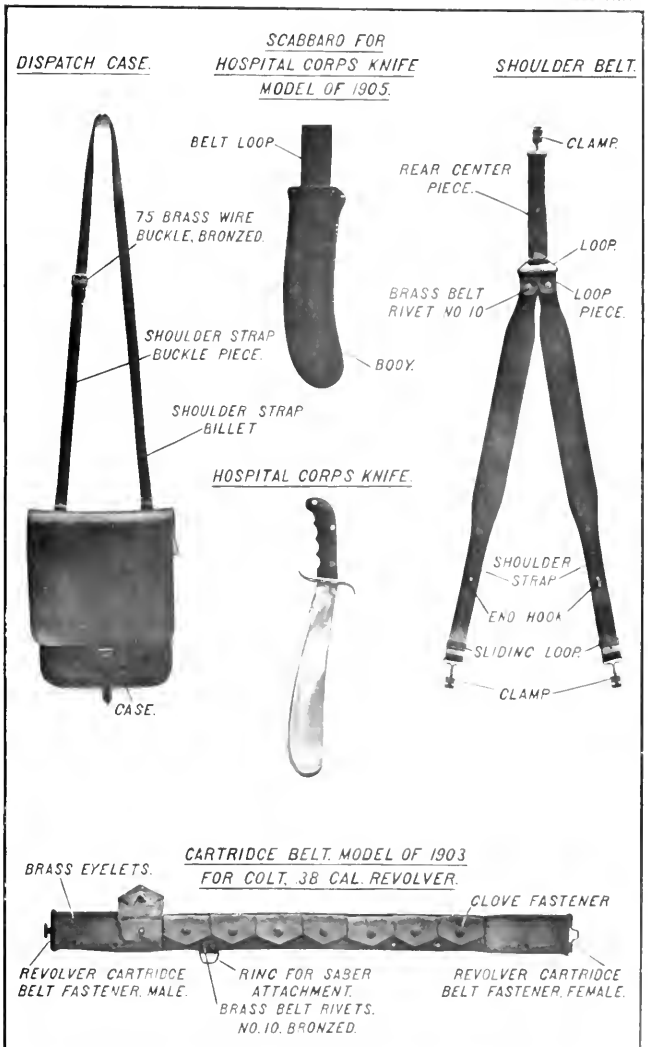
RULE.

WIRE CUTTER.

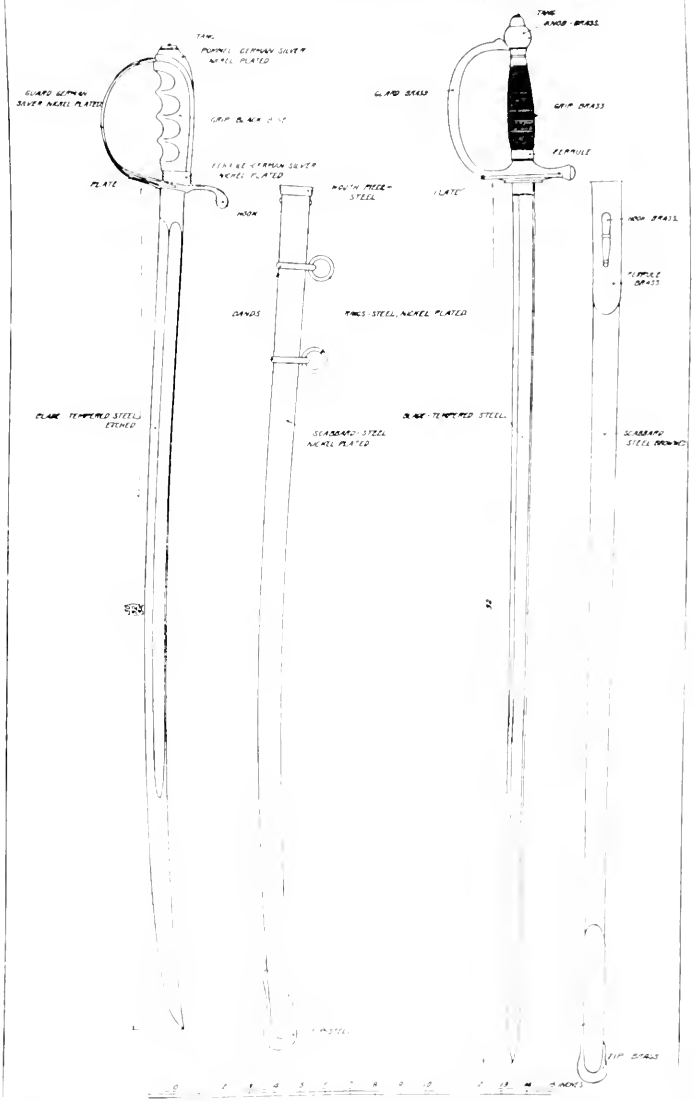
INTRENCHING PICK-MATTOCK AND CARRIER.

INTRENCHING SHOVEL AND CARRIER.

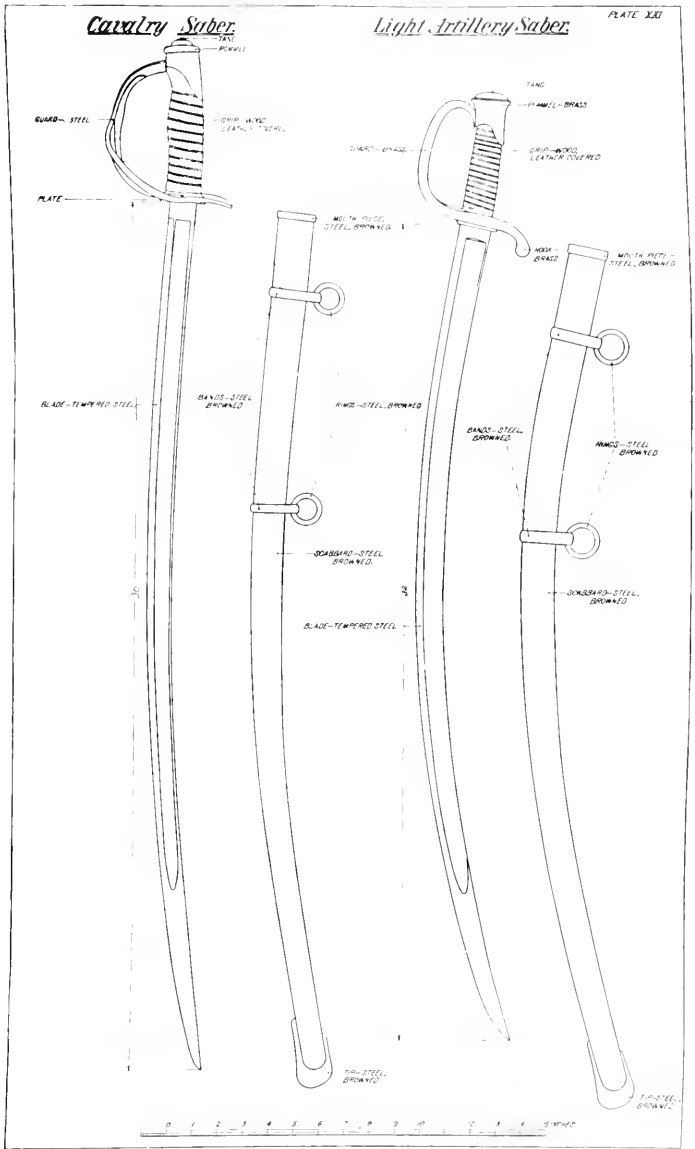

ARTILLERY KNAPSACK.
POUCH, MODEL OF 1907.
FOR FIRST AID PACKET.
DOUBLE HOOK.
BODY.
BRASS GLOVE FASTENER.
BODY.
FLAP "A".
FLAP "B".
FLAP "C".
REINFORCE.
POCKET FLAP.
BODY.
BODY.
KNAPSACK STRAPS.


DISPATCH CASE.
SCABBARD FOR HOSPITAL CORPS KNIFE MODEL OF 1905.
SHOULDER BELT.
BELT LOOP.
75 BRASS WIRE BUCKLE, BRONZED.
SHOULDER STRAP BUCKLE PIECE.
SHOULDER STRAP BILLET
BODY.
CASE.
HOSPITAL CORPS KNIFE.
CLAMP.
REAR CENTER PIECE.
LOOP.
BRASS BELT RIVET NO 10
LOOP PIECE.
SHOULDER STRAP
END HOOK
SLIDING LOOP.
CLAMP
CARTRIDGE BELT. MODEL OF 1903 FOR COLT .38 CAL. REVOLVER.
BRASS EYELETS.
CLOVE FASTENER
REVOLVER CARTRIDGE BELT FASTENER, MALE.
RING FOR SABER ATTACHMENT.
BRASS BELT RIVETS. NO. 10. BRONZED.
REVOLVER CARTRIDGE BELT FASTENER, FEMALE.

Officer's Saber. Noncommissioned Officer's Sword.



CLASS 36 - DIVISION 20 - DRAWING 22



CLASS 3c - DIVISION 20 - DRAWING 2.

CLASSIFICATION OF COMPONENT PARTS OF HORSE EQUIPMENTS AND EQUIPMENTS FOR OFFICERS AND ENLISTED MEN.

[Insert in Ordnance Department pamphlet No. 1719 at the end of text.]

PART I, CLASS IX, SECTION 3.

Artillery knapsack.

PART I, CLASS X, SECTION 3.

Ax, hand (intrenching).
Ax, hand, carrier (intrenching).

PART I, CLASS IX, SECTION 3.

Belt, cartridge, caliber .38 (or .45) revolver, model of 1903.

PART I, CLASS IX, SECTION 2.

Belt, cartridge, woven, cavalry, caliber .30, model of 1903.
Belt, saber, enlisted men.

PART I, CLASS IX, SECTION 6.

Belt, saber, officer's.
Belt, shoulder.

PART I, CLASS IX, SECTION 4.

Belts, waist, for bands.

PART I, CLASS IX, SECTION 1.

Blanket-roll straps.

PART I, CLASS IX, SECTION 5.

Blanket, saddle.

PART I, CLASS IX, SECTION 1.

Box, cartridge, McKeever, caliber .30.

PART I, CLASS IX, SECTION 2.

Box, cartridge, caliber .38 (or .45), revolver.

PART I, CLASS IX, SECTION 6.

Breast strap and martingale, hunting design.

PART I, CLASS IX, SECTION 5.

Bridle, cavalry, model of 1906, composed of—
- Bridoon bit, model of 1906.
- Brow band.
- Brow-band ornaments.
- Cheek pieces for bridoon bridle.
- Cheek pieces for curb bridle.
- Crownpiece for bridoon bridle.
- Crownpiece for curb bridle.
- Curb bit, model of 1906.

Bridle, cavalry, model of 1906, composed of—Continued.
Curb-bit thong.
Curb chain, model of 1906.
Curb-chain hooks.
Reins for bridoon bridle.
Reins for curb bridle.

PART I, CLASS IX, SECTION 6.

Bridle, combination halter, officer's, experimental, composed of—
Brow band.
Brow-band ornaments.
Cheek pieces (bridle).
Cheek pieces (halter).
Crownpiece.
Curb bit, model of 1892.
Curb chain, model of 1904.
Gullet.
Halter strap.
Nose and chin strap.
Rein.

PART I, CLASS IX, SECTION 5.

Bridle, curb, model of 1902, composed of—
Curb bit, model of 1892.
Curb chain, model of 1904.
Curb-chain hooks.
Headstall—
Brow band.
Brow-band ornaments.
Cheek pieces.
Crownpiece.
Throatlatch.
Rein.
Bridle, watering, composed of—
Bit, watering.
Bit snaps.
Rein.
Bridoon bit, model of 1906.
Brow band.
Brow-band ornaments.

PART I, CLASS IX, SECTION 5.

Brush, horse.

PART I, CLASS IX, SECTION 1.

Can, meat.
Canteen.
Canteen-haversack strap.
Canteen strap, web.

PART I, CLASS IX, SECTION 2.

Canteen strap, cavalry.
Cartridge belts (See Belt, cartridge).
Cartridge boxes (See Box, cartridge).

PART I, CLASS VII, SECTION 5.

Cavalry saber and scabbard.

PART I, CLASS IX, SECTION 5.

Cavalry bridle, model of 1906.
(See Bridle, cavalry, model of 1906.)
Cavalry saddle, McClellan pattern.
(See Saddle, cavalry, McClellan pattern).
Cheek pieces.
Cincha, hair.
Cincha, horse hair.
Coat straps, cantle.
Coat straps, pommel.
Cover, horse.
Cover, saddle.

PART I, CLASS IX, SECTION 6.

Combination halter bridle.
(See Bridle, combination halter.)

PART I, CLASS IX, SECTION 5.

Crownpieces.

PART I, CLASS IX, SECTION 1.

Cup, model of 1906.
Cup, model of 1908.

PART I, CLASS IX, SECTION 5.

Curb bit, model of 1892.
Curb bit, model of 1906.
Curb bridle, model of 1902.
(See Bridle, curb, model of 1902.)
Curb chain, model of 1904.
Curb chain, model of 1906.
Curb-chain hooks.
Currycomb.

PART I, CLASS IX, SECTION 6.

Dispatch case.

PART I, CLASS IX, SECTION 1.

Fork.
Frog, sliding, for N. C. O. waist belt.
Gunsling, model of 1907.

PART I, CLASS IX, SECTION 5.

Halter:
Halter headstall.
Halter strap.

PART I, CLASS IX, SECTION 1.

Haversack, model of 1908.

PART I, CLASS IX, SECTION 2.

Holster, revolver, Colt's, caliber .38 (or .45) long (or short) barrel.

PART I, CLASS IX, SECTION 5.

Horse brush.
Horse cover.
Horse cover, blanket lined.

PART I, CLASS VII, SECTION 5.

Hospital Corps knife, model of 1905.
Hospital Corps knife scabbard, model of 1905.

PART I, CLASS X, SECTION 3.

Intrenching tools:
- Ax, hand.
- Ax, hand, carrier.
- Pick mattock.
- Pick-mattock carrier.
- Rule.
- Shovel.
- Shovel carrier.
- Wire cutter.

PART I, CLASS IX, SECTION 3.

Knapsack, artillery.

PART I, CLASS IX, SECTION 1.

Knife.

PART I, CLASS VII, SECTION 5.

Knife, Hospital Corps, model of 1905.

PART I, CLASS IX, SECTION 2.

Knot, saber, enlisted men's.

PART I, CLASS IX, SECTION 6.

Knot, saber, officer's.

PART I, CLASS IX, SECTION 2.

Lanyard, revolver.

PART I, CLASS IX, SECTION 5.

Lariat.
Lariat strap.
Link.

PART I, CLASS VII, SECTION 5.

Light artillery saber and scabbard.

PART I, CLASS IX, SECTION 5.

McClellan saddle.
(See Saddle, cavalry, McClellan pattern.)

PART I, CLASS IX, SECTION 1.

McKeever cartridge box, caliber .30.
Meat can.

PART I, CLASS VII, SECTION 5.

Noncommissioned officer's sword.

PART I, CLASS IX, SECTION 5.

Nosebag.

PART I, CLASS VII, SECTION 5.

Officer's saber and scabbard.

PART I, CLASS X, SECTION 3.

Pick mattock (intrenching).
Pick-mattock carrier (intrenching).

PART I, CLASS IX, SECTION 5.

Picket pin.

PART I, CLASS IX, SECTION 1.

Pouch, model of 1907, for first-aid packet.

PART I, CLASS IX, SECTION 5.

Quarter strap.
Quarter straps, adjustable.
Reins for bridoon bridle.
Reins for curb bridle.

PART I, CLASS IX, SECTION 2.

Revolver holster. (See Holster, revolver.)
Revolver lanyard.

PART I, CLASS X, SECTION 3.

Rule (intrenching).

PART I, CLASS VII, SECTION 5.

Saber and scabbard, cavalry.
Saber and scabbard, light artillery.
Saber and scabbard, officer's.
Saber belts. (See Belt, saber.)
Saber knots. (See Knot, saber.)

PART I, CLASS IX, SECTION 5.

Saber straps.
Saddle, cavalry, McClellan pattern, composed of—
- Cincha, hair.
- Coat straps, cantle.
- Coat straps, pommel.
- Quarter straps, adjustable.
- Saddletree, covered.
- Saddle trimmings.
- Stirrups, hooded.
- Stirrup straps.

PART I, CLASS IX, SECTION 6.

Saddle, Whitman, composed of—
- Cincha, horsehair.
- Coat straps.
- Quarter straps.
- Saddletree.
- Saddle trimmings.
- Stirrups, German silver.
- Stirrup straps.

PART I, CLASS IX, SECTION 5.

Saddlebags.
Saddle blanket.
Saddle cover.
Saddlecloth, service.

PART I, CLASS IX, SECTION 6.

Saddlecloth, dress, officer's.
Saddlecloth, service, officer's.

PART I, CLASS IX, SECTION 5.

Saddletree.
Saddle trimmings.

PART I, CLASS VII, SECTION 5.

Scabbard for Hospital Corps knife, model of 1905.

PART I, CLASS IX, SECTION 5.

Scabbard for U. S. rifle, model of 1903.

PART I, CLASS IX, SECTION 6.

Shoulder belt.

PART I, CLASS X, SECTION 3.

Shovel (intrenching).
Shovel carrier (intrenching).

PART I, CLASS IX, SECTION 1

Sliding frog for N. C. O. waist belt.
Sling, gun, model of 1907.
Spoon.

PART I, CLASS IX, SECTION 2.

Spurs.
Spur straps.

PART I, CLASS IX, SECTION 6.

Spurs, officer's.
Spur straps, officer's.
Stirrups, German silver.

PART I, CLASS IX, SECTION 5.

Stirrups, hooded.
Stirrups, with guidon socket.
Stirrup straps.

PART I, CLASS IX, SECTION 1.

Straps, blanket-roll
Straps, canteen-haversack.
Straps, canteen, web.

PART I, CLASS IX, SECTION 2.

Strap, canteen, cavalry.

PART I, CLASS IX, SECTION 5

Straps, lariat.
Straps, saber.

PART I, CLASS IX, SECTION 2.

Straps, spur.

PART I, CLASS IX, SECTION 6

Straps, spur, officer's.

PART I, CLASS IX, SECTION 5

Straps, stirrup.
Surcingle.

PART I, CLASS IX, SECTION 1.

Suspenders, cartridge belt, model of 1907.

PART I, CLASS VII, SECTION 5

Sword for noncommissioned officer.

PART I, CLASS X, SECTION 3.

Tools, intrenching.
(See Intrenching Tools.

PART I, CLASS IX, SECTION 4.

Waist belts for band.

PART I, CLASS IX, SECTION 5.

Watering bridle (See Bridle, watering)

PART I, CLASS IX, SECTION 6.

Whitman saddle (See Saddle, Whitman).

PART I, CLASS X, SECTION 3.

Wire cutter (intrenching).

WAR DEPARTMENT,
OFFICE OF THE CHIEF OF ORDNANCE,
Washington, March 2, 1911.