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QUARTERMASTER CORPS
TENTATIVE
SPECIFICATION

J.Q.D. No. 509C

5 July 1945

Superseding

J.Q.D. No. 509B

22 January 1945.

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OBSOLETE SPECIFICATION

SADDLE, PHILLIPS PACK, CARGO, 23 INCH*
(STOCK NO. 34-S-236).

A. APPLICABLE SPECIFICATIONS.

A-1. The following specifications and subsidiaries thereto, of the issue in effect on date of invitation for bids, shall form a part of this specification.

A-1a. Federal Specifications:-

- R-N- 91 - Naphthalene; balls and flakes.
- V-T-276 - Thread; cotton.
- V-T-291 - Thread; linen.
- KK-L-171 - Leather; harness, black and russet (vegetable tanned).
- KK-L-271 - Leather; strap, black and russet.
- QQ-A-351 - Aluminum-alloy, (aluminum-copper-magnesium-manganese); bars, rods, shapes and wire.
- QQ-A-353 - Aluminum-alloy (AL-17), (aluminum-copper-magnesium-manganese); plates, sheets and strips.
- QQ-B-611 - Brass, commercial; bars, plates, rods, shapes, sheets and strips.
- QQ-B-691 - Bronze; castings.
- QQ-W-321 - Wire; brass.
- UU-P-268 - Paper; kraft, wrapping.
- DDD-S-751 - Stitches; seams; and stitching.

A-1b. United States Army Specifications:-

- 2-97 - Wax (saddler's and stitching).
- 3-1 - Color Card supplement to specification for paints and related materials.
- 3-124 - Bronze finish.
- 3-162 - Lacquer enamel, lustreless.
- 3-186 - Sealer, wood, preservative.
- 8-15 - Felt, pressed.
- 9-97 - Leather, calfskin (vegetable tanned).
- 48-5 - Wire, soft iron and steel, bare and coated.
- 48-18 - Wire, steel, music spring.
- 57-107 - Steel, carbon and alloy, bars.
- 57-136 - Steel, carbon and alloy, sheets and strips.
- 92-42 - Pads, saddle, woven, olive drab.
- 92-54 - Covers, saddle, Phillips pack, cargo, and cavalry.

*This is the approved Nomenclature.

A-1c. Quartermaster Corps Tentative Specifications:-

- J.Q.D. No. 177 - Buckles, barrel roller.
- J.Q.D. No. 191 - Rings-D.
- J.Q.D. No. 233 - Cinchas, mohair, Phillips pack saddles, cargo and cavalry.
- J.Q.D. No. 250 - Snaps, german and harness.
- J.Q.D. No. 365 - Rings.
- J.Q.D. No. 391 - Loops, conway.
- J.Q.D. No. 430 - Rivets, belt; with burrs.
- J.Q.D. No. 458 - Shield, buckles, 1-inch.
- J.Q.D. No. 459 - Loops, layer.
- J.Q.D. No. 460 - Snap 1-1/4", hubbard, malleable iron, enameled.
- J.Q.D. No. 475 - Cloth, wool, felt, woven, 60 oz., gray.
- J.Q.D. No. 596 - Finishing (mildew resistant) of thread.
- O.Q.M.G. No. 94 - Specifications for marking of outside shipping containers by contractors.
- O.Q.M.G. No. 106 - Strapping, Steel, nailless type (flat and round steel wire) for boxes, crates and bales.

A-1d. Army-Navy Aeronautical Specification:-

AN-TT-P-656 - Primer; zinc chromate.

A-1e. Joint Army-Navy Specifications:-

- JAN-P-105 - Boxes, wood, cleated, plywood.
- JAN-P-106 - Boxes, wood, nailed.
- JAN-P-125 - Barrier-materials, waterproof, flexible.

A-1f. Quartermaster Corps Drawings (attached to and forming a part of this specification):-

- 1-1-12 Rev. 4 - Pads, Saddle, woven.
- 1-1-13 Rev. 4 - Cincha Mohair; Strap, Cincha; and Device, Quick-Release, Cincha, For Saddles, Phillips Pack, Cargo and Cavalry.
- 1-1-14 Rev. 1 - Saddle, Phillips Pack, Cavalry; Collar, Preast.
- 1-1-101 - Saddle, Phillips Pack, Cargo, 23 Inch, Illustration.
- 1-1-102 - Saddle, Phillips Pack, Cargo, 23 Inch, Frame, Illustration, Assembly and Details.
- 1-1-103 - Saddle, Phillips Pack, Cargo, 23 Inch, Frame, Details "A".

- 1-1-104 - Saddle, Phillips Pack, Cargo, 23 Inch, Frame, Details "B".
- 1-1-105 - Saddle, Phillips Pack, Cargo, 23 Inch, Pads, Illustration and Details.
- 1-1-106 - Saddle, Phillips Pack, Cargo, 23 Inch, Pads, Assembly and Details.
- 1-1-107 - Saddle, Phillips Pack, Cargo, 23 Inch, Pads, Details "A".
- 1-1-108 - Saddle, Phillips Pack, Cargo, 23 Inch, Pads, Details "B".
- 1-1-109 - Saddle, Phillips Pack, Cargo, 23 Inch, Breaching, Illustration and Details.
- 1-1-110 - Saddle, Phillips Pack, Cargo, 23 Inch, Breeching, Details.
- 1-1-111 - Saddle, Phillips Pack, Cargo, 23 Inch; Cover.
- 1-1-112 - Mold for Phillips Pack Saddle Pads, Illustration and Location of Sections.
- 1-1-113 - Mold for Phillips Pack Saddle Pads, Sections 1-1 to 12-12.
- 1-1-114 - Mold for Phillips Pack Saddle Pads, Sections A-A to M-M.
- 1-1-115 - Mold for Phillips Pack Saddle Pads, Location of Thong Holes.
- 1-1-116 - Steel Frame for Mold, Phillips Pack Saddle, Cargo, 23 Inch, Assembly and Details.
- 4-1-22 Rev. 9 - Rivets; Cap and Burrs.

NOTE:- Drawings 25" x 33-1/2", will be furnished manufacturers upon request.

B. TYPE AND SIZE.

B-1. This specification covers one type and size of Saddle, Phillips Pack, Cargo, 23 Inch, Complete and consisting of the following component parts.

- Component Parts of Saddle -

- 1 - Frame
- 2 - Pads, 1-right, 1-left.
- 1 - Cover, Saddle, Phillips Pack, Cargo, 23-Inch.
- 2 - Cinchas, mohair, 20-inch.
- 4 - Straps, cincha.
- 1 - Collar, Breast.
- 1 - Breeching.
- 1 - Pad, saddle, woven 27" x 44", Type II.

C. MATERIAL AND WORKMANSHIP.

C-1. Material. - The materials shall conform in all respects to the specifications and drawing listed in Section A, and as specified in this specification.

C-1a. Frame. -

C-1a(1). Arch. - Shall be fabricated from aluminum-alloy bars, 1-1/8" diameter, conforming to the requirements of Condition "A", Specification QQ-A-351.

C-1a(2). Hanger Bars. - Shall be fabricated from aluminum-alloy bars, 3/4" diameter, conforming to the requirements of Condition "A", Specification QQ-A-351.

C-1a(3). Side Bars. - Shall be fabricated from aluminum-alloy, sheet, in the thickness specified on Drawing 1-1-104, conforming to the requirements of Condition "T", Specification QQ-A-353.

C-1a(4). Bottom Bars. - Shall be made from aluminum-alloy, bars, in the thickness specified on Drawing 1-1-103, conforming to the requirements of Condition "T", Specification QQ-A-351.

C-1a(4)a. Upon approval of the Quartermaster General a bottom bar made of steel and reinforced with wood, as shown on Drawing 1-1-103, may be used in lieu of the aluminum bottom bar indicated in Paragraph C-1a(4). The body shall be fabricated from steel, sheet, in the thickness and carbon content specified on Drawing 1-1-103, conforming to the requirements of Specification 57-136. The lumber used in the manufacture of the reinforce shall be thoroughly and uniformly dried to not more than 8 per cent moisture content, shall be free from decay, case hardening, knots, shakes, checks, splits, or other defects which might affect the strength or durability of the reinforce. The direction of the grain of the wood reinforce shall run parallel to the length of the steel body. The species of wood used shall be any one of the following:

Ash
Hickory

Hard Maple
White Oak

C-1a(4)b. Finish of Wood Reinforce. - Prior to assembly of the bottom bar, the wood reinforce shall be thoroughly sealed with a penetrating wood sealer, conforming to the requirements of Type I or Type II, Specification 3-186, followed by a heavy coat of a good grade Phenol-Formaldehyde resin varnish.

C-1a(4)c. Washers. - The washers, used in attaching the staples of the bottom bar referred to in Paragraph C-1a(4)a, shall be fabricated from steel, sheet, in the thickness and carbon content specified on Drawing 1-1-103, conforming to the requirements of Specification 57-136.

C-1a(5). Hitch Hooks. - Shall be fabricated from steel, carbon, forging quality, in the diameter and carbon content specified on Drawing 1-1-103, conforming to the requirements of Specification 57-107.

C-1a(6). Hanger Bar Reinforce. - Shall be fabricated from steel sheet, in the thickness and carbon content specified on Drawing 1-1-104, conforming to the requirements of Specification 57-136.

C-1a(7). Ribs Frame. - Shall be manufactured from spring steel, in the dimension and carbon content specified on Drawing 1-1-103, conforming to the requirements of Specification 57-107. After forming to shape, the ribs shall be heat treated so as to have a Rockwell "C" hardness 37-40.

C-1a(7)a. The midpoint of a rib or section thereof shall be capable of being depressed under static load to a corresponding position of inverse camber across a 10" chord space without cracking or fracturing as specified in Paragraph F-3c.

C-1a(8). Rings-D 2" x 2" and Clasps. -

C-1a(8)a. Rings-D. - Shall be fabricated from steel wire, in the diameter and carbon content specified on Drawing 1-1-103, conforming to the requirements of Type I, Specification 48-5.

C-1a(8)b. Clasp. - Shall be fabricated from steel, sheet, in the thickness and carbon content specified on Drawing 1-1-103, conforming to the requirements of Specification 57-136.

C-1a(9). Hook, Lock Staple. - Shall be made from cold rolled strip steel, in the dimensions and carbon content specified on Drawing 1-1-104, conforming to the requirements of Specification 57-136.

C-1a(10). Staples, Frame. - Shall be fabricated from steel wire, in the diameter and carbon content specified on Drawing 1-1-103, conforming to the requirements of Type I, Specification 48-5. The proper staple as indicated on Drawing 1-1-103, shall be used on aluminum or steel bottom bars.

C-1a(11). Rivets. - The rivets used in the manufacture of the frame shall, with the exception of copper rivets used in securing hanger bar reinforces, be made of steel wire, rivet grade, conforming to the requirements of W.D. No. 1010, Specification 48-5. Copper rivets shall be made of materials conforming to the requirements specified for Grade B, Specification J.Q.D. No. 430. The kind and size of steel rivets shall be as specified on Drawing 1-1-102.

C-1b. Pads. -

C-1b(1). Leather. -

C-1b(1)a. The leather used in the manufacture of the backs, bottom bar pocket reinforces, fillers and adjusting hole covers, of the pads shall be russet harness 12/64 inch thick, Class 2(b), conforming in all respects to the requirements of Specification KK-L-171. Care shall be exercised to see that defects in leather are such as not to affect the serviceability of the leather cut into the above parts.

C-1b(1)b. The leather used for the stitching thongs shall be russet calfskin, $\frac{3}{64}$ " thick, vegetable tanned, Grade "A" and Grade "B", with not less than 50 per cent Grade "A", Type B, conforming in all respects to the requirements of Specification 9-97.

C-1b(2). Thread. - Shall conform to the requirements of Specification V-T-276 and V-T-291 as follows:-

Machine Stitching. -
Cotton thread - 6-Ply, Ticket No. 8/6, Types IIIA and IIIB, Table IV, (V-T-276).

Hand Stitching. -
Linen thread - No. 10, Type C, Table III, (V-T-291).

C-1b(2)a. Color. - The thread shall be vat dyed a light brown shade of color and shall show good fastness to laundering agents containing active chlorine.

C-1b(2)b. Treatment, Mildew Resistant. - The thread shall be given a mildew resistant treatment conforming to the requirements of Class B, Specification J.Q.D. No. 596.

C-1b(3). Wax. - The wax, russet, saddler's used in hand stitching shall be Type I, and the wax, russet, stitching, used in machine stitching shall be Type II, conforming to the requirements of Specification 2-97.

C-1b(4). Gum, Tragacanth. - Used for finishing edges, laps, etc., of leather, shall be what is known commercially as No. 3, flake.

C-1b(5). Felt. - Used for the belly of the pads shall be gray, wool, woven, $\frac{1}{4}$ " thick, 60 oz., per square yard conforming to the requirements of Specification J.Q.D. No. 475.

C-1b(6). Hair. - Used for stuffing the pads shall be curled hair (drawings) gray, good grade, 55% prime winter hog, 30% cattle, 5% horse mane hair, 10% horse tail hair, all properly carded, picked and curled.

C-1b(7). Naphthalene, Flake. - Used for mixing with the hair of each pad as it is being stuffed shall conform to the requirements for Class B, Specification R-N-91.

C-1b(8). Ribs, Horizontal, Plate, Front Vertical and Rear Vertical. - Shall be fabricated from aluminum-alloy, sheet, in the thickness specified on Drawing 1-1-107, conforming to the requirements of Condition "T", Specification QQ-A-353.

C-1b(9). Bottom Bar Pockets. - Shall be cast from aluminum-alloy composed of the following composition:-

Aluminum-copper-alloy - 8 to 10 percent. (by weight)

Pure Aluminum - Remains

The aluminum-copper-alloy is made by mixing equal parts (by weight) of pure aluminum and pure copper to form the alloy. The bottom bar pockets shall withstand the test specified in paragraph F-3d.

C-lb(10). Bottom Bar Pocket Pin With Spring and Washer.

C-lb(10)a. Body and Knob. - Shall be fabricated from half hard brass wire, in the diameter specified on Drawing 1-1-108, conforming to the requirements for Grade B, Specification QQ-W-321.

C-lb(10)b. Spring. - Shall be formed from 0".037 diameter music wire conforming to the requirements for W.D. 1085W, Specification 48-18.

C-lb(10)c. Washer. - Shall be fabricated from half hard brass sheet, in the thickness specified on Drawing 1-1-108, conforming to the requirements of Composition C, Specification QQ-B-611.

C-lb(10)d. Finish. - The bottom bar pocket pin, spring and washer after complete fabrication, shall be given a bronze finish conforming to the requirements of Specification 3-124.

At the option of the contractor substitution of an oxidized finish (blue-black color) may be applied in lieu of bronze finish. The formula of this finish and method of application shall be as follows:

Formula -

Copper carbonate	1 pound.
Ammonium hydroxide (commercial)	1 quart.
Water	3 quarts.

Method of application -

Thoroughly clean article to be finished by any satisfactory commercial method. Add the water after the copper carbonate and the ammonia have been thoroughly mixed. Use at a temperature of 175°F., and immerse the work until the color is obtained (usually from 1/2 to 1 minute). There must be excess copper carbonate.

C-lb(11). Rings-D, and Clasps. -

C-lb(11)a. Rings-D, 1" x .75" and 1" x .85"-Brass or Bronze, Bronze Finish. - Used in the manufacture of the pads shall conform to the requirements for Class D, Specification J.Q.D. No. 191.

C-lb(11)b. Clasps. - The clasps for rings-D shall be fabricated from half hard brass sheet, in the thickness specified on Drawing 1-1-108, conforming to the requirements of Specification QQ-B-611. The clasps, after complete fabrication, shall be given

a finish in accordance with the requirements specified in paragraph C-1b(10)d.

C-1b(12). Lock Staples. - Shall conform to the design, shape and dimensions as shown on Drawing 1-1-108, and be of cast bronze, conforming to the requirements for Composition I, Specification QQ-B-691.

C-1b(12)a. Finish. - The lock staple, after complete fabrication, shall be given a finish conforming to the requirements specified in paragraph C-1b(10)d.

C-1b(13). Rivets and Burrs. - All belt rivets and burrs used in the manufacture of the pads shall be made in accordance with the requirements for either Class A or Class B, Specification J.Q.D. No. 430. All other rivets and burrs used in fabricating the pads shall be made of like material and finished in accordance with the requirements of Specification J.Q.D. No. 430. The kind of rivet used and the length shall be as specified on Drawings 1-1-105 and 1-1-106.

C-1c. Strap, Cincha; and Thongs for Cincha Straps. -

C-1c(1). Straps, Cincha. - Shall be fabricated from russet strap leather, $8/64$ " thick, Class 2, Grade "A" and Grade "B" with not less than 50 per cent Grade "A", conforming in all respects to the requirements of Specification KK-L-271. The design, shape and dimensions of the straps shall be as shown on Drawing 1-1-13, Rev. 4.

C-1c(2). Thongs. - Shall be fabricated from russet calfskin leather, $3/64$ " thick, vegetable tanned, Grade "A" and Grade "B", with not less than 50 per cent Grade "A", Type B, conforming in all respects to the requirements of Specification 9-97. Thongs shall conform to the dimensions as specified on Drawing 1-1-13, Rev. 4.

C-1d. Breast Collar. -

C-1d(1). Leather. - Used in the manufacture of the breast collar shall be russet strap, $8/64$ inch thick, Class 2, Grade "A" and Grade "B", with not less than 50% Grade "A", conforming in all respects to the requirements of Specification KK-L-271. The leather used for standing and slide loops shall be split to a thickness of $6/64$ inch.

C-1d(2). Thread. - Shall conform to the requirements of Specification V-T-276 and V-T-291 as follows:-

Machine Stitching. -

Cotton thread - 6-Ply, Ticket No. 8/6, Type IIIA and IIIB, Table IV, (V-T-276).

Hand Stitching. -

Linen thread - No. 10, Type C, Table III, (V-T-291).

C-1d(2). Color. - The thread shall be vat dyed a light brown shade of color and shall show good fastness to laundering agents containing active chlorine.

C-1d(2)b. Treatment, Mildew Resistant. - The thread shall be given a mildew resistant treatment conforming to the requirements of Class B, Specification J.Q.D. No. 596.

C-1d(3). Wax. - The wax, russet, saddler's used in hand stitching, shall be Type I, and the wax, russet, stitching, used in machine stitching, shall be Type II, conforming to the requirements of Specification 2-97.

C-1d(4). Gum, Tragacanth. - Used for finishing edges, laps, etc., of leather, shall be what is known commercially as No. 3 flake.

C-1d(5). Buckles 1", Barrel Roller, Bronze, Bronze Finish. - Shall conform to the requirements for Class C, Specification J.Q.D. No. 177.

C-1d(6). Loops, Conway, 7/8", Bronze, Bronze Finish. - Shall conform to the requirements for Class A, Specification J.Q.D. No. 391.

C-1d(7). Rings, "D", 1".25 x 1".375, Brass or Bronze, Bronze Finish. - Shall conform to the requirements for Class D, Specification J.Q.D. No. 191.

C-1d(8). Loops, Layer, Bronze, Bronze Finish, 1" x 1-1/4". - Shall conform to the requirements for Class A, Specification J.Q.D. No. 459.

C-1d(9). Snaps, 1", German, Malleable Iron, Enameled. - Shall conform to the requirements of Type I, Specification J.Q.D. No. 250. The use of the 1" harness snaps, referred to in aforementioned specification as Type II is permitted in lieu of the german snaps.

C-1d(10). Rivets, Belt, With Burrs. - The flat head belt rivets and burrs used in the manufacture of the breast collar shall be No. 10 conforming to the requirements for Class A or Class B, Specification J.Q.D. No. 430.

C-1e. Breeching. -

C-1e(1). Leather. -

C-1e(1)a. The leather used for all parts of the breeching, except the croup piece layer, breeching layer and fold, shall be russet harness, 12/64 inch thick, Class 2(b), conforming in all respects to the requirements of Specification KK-L-171. The leather used for standing and slide loops shall be split to a thickness of 6/64 inch. Care shall be exercised to see that defects in

leather are such as not to affect the serviceability of the cut into the parts for breeching.

C-1c(1)b. The leather used for the croup piece layer and breeching layer shall be russet strap, 8/64 inch thick, Class 2, Grade "A" and Grade "B", with not less than 50% Grade "A", conforming in all respects to the requirements of Specification KK-L-271.

C-1c(1)c. The leather used for the fold may be either russet harness or strap, 8/64 inch thick, conforming to the requirements specified in paragraph C-1c(1)a for harness leather and paragraph C-1c(1)b, for strap leather.

C-1c(2). Thread. - Shall conform to the requirements of Specification V-T-276 and V-T-291 as follows:

Machine Stitching. -

Cotton thread - 6-Ply, Ticket No. 8/6, Types IIIA and IIIB, Table IV, (V-T-276).

Hand Stitching. -

Linen thread - No. 10, Type C, Table III, (V-T-291).

C-1c(2)a. Color. - The thread shall be vat dyed a light brown shade of color and shall show good fastness to laundering agents containing active chlorine.

C-1c(2)b. Treatment, Mildew Resistant. - The thread shall be given a mildew resistant treatment conforming to the requirements of Class B, Specification J.Q.D. No. 596.

C-1c(3). Felt. - Used for the filler of the breeching fold shall be soft pressed, 3/16" to 1/4" thick, gray and conform in all respects to the requirements of Item 26, Table I, Specification 8-15.

C-1c(4). Wax. - The wax, russet, saddlers used in hand stitching, shall be Type I and the wax, russet, stitching, used in machine stitching, shall be Type II, conforming to the requirements of Specification 2-97.

C-1c(5). Gum, Tragacanth. - Used for finishing edges, laps, etc., of leather, shall be what is known commercially as No. 3 flake.

C-1c(6). Buckles, 1" and 1-1/4", Barrel Roller, Bronze, Bronze Finish. - Shall conform to the requirements for Class C, Specification J.Q.D. No. 177.

C-1c(7). Shield, Buckle, Brass, Bronze Finish, 1-Inch. - Shall conform to the requirements for Class A, Specification J.Q.D. No. 458.

C-1e(8). Rings-D, 1".25 x 1".375 and 1".5 x 2".375, Brass or Bronze, Bronze Finish. - Shall conform to the requirements for Class D, Specification J.Q.D. No. 191.

C-1e(9). Loops, Layer, Bronze, Bronze Finish, 1" x 2-1/4". - Shall conform to the requirements for Class A, Specification J.Q.D. No. 459.

C-1e(10). Rings 4", Style 1, Nickel Steel, Bronze Finish. - Shall conform to the requirements for Class C, Specification J.Q.D. No. 365.

C-1e(11). Snap, 1-1/4" Hubbard, Malleable Iron, Enamelled. - Shall conform to the requirements of Specification J.Q.D. No. 460.

C-1e(12). Snaps, 1" German, Malleable Iron, Enamelled. - Shall conform to the requirements for Type I, Specification J.Q.D. No. 250. The use of the 1" harness snap, referred to in aforementioned specification as Type II is permitted in lieu of the german snap.

C-1e(13). Stay Piece Reinforce. - Shall be fabricated from steel, sheet, in the thickness and carbon content specified on Drawing 1-1-110, conforming to the requirements of Specification 57-136. The reinforces shall be given a hot galvanized finish by the hot dip method. The hot galvanizing to be uniform, smooth, adherent, and shall have an average thickness of 0.002", a minimum thickness of 0.001" will be permitted in places difficult to coat.

C-1e(14). Rivets, Belt, With Burrs. - The belt rivets with burrs used in the manufacture of the breeching shall be flat head No. 10, conforming to the requirements for Class A or Class B, Specification J.Q.D. No. 430. The length of the rivets shall be as specified on Drawing 1-1-109.

C-2. Workmanship. - The finished articles shall be clean, well made, and free from any defects which may affect appearance or serviceability.

D. GENERAL REQUIREMENTS.

D-1. See Section E.

E. DETAIL REQUIREMENTS.

E-1. Construction. - Shall conform to the requirements specified herein and as shown on drawings.

E-2. Stitching. -

E-2a. Stitching shall be in regular lines. Thread tension of machine stitching shall be properly maintained so that the lock will be embedded in the material sewed.

E-2b. Machine stitching, Type 301, specified in Specification DDD-S-751, shall be done on a machine capable of using a hot stitching wax, the wax to conform to Type II, specified in paragraph C-1b(3). The use of a cold liquid wax or prewaxed thread will not be permitted. Six stitches per inch shall be used for all machine stitching except on corners of belly which shall be five stitches per inch, stitched as shown on Drawing 1-1-107.

E-2b(1). The Type IIIB cotton thread shall be used for needle thread in machine and the Type IIIA cotton thread for bobbin or bottom thread in machine.

E-2c. Hand stitching, Type 201, specified in Specification DDD-S-751, shall be done with a wax-end made of No. 10 shoe thread, waxed well twisted and rewaxed with wax conforming to Type I, specified in paragraph C-1b(3). The wax-end used for hand stitching on breast collar and breeching shall be made with 3 strands of thread and for the pads the wax-end shall be made with 4 strands of thread. Six stitches per inch shall be used for all hand stitching except on corners of belly which shall be five double stitches per inch, stitched as shown on Drawing 1-1-107.

E-3. Finish of Leather. -

E-3a. Creasing, edging, finishing, etc., of leather shall be done in an accurate, neat and workmanlike manner.

E-3b. The leather of the finished articles, with exception of the pads, shall be cleaned with a solution of approximately two tablespoonfuls of oxalic acid crystals dissolved in one quart of water.

E-4. Finish of Frame and Bottom Bar Pockets. -

E-4a. Preparation of metal For Finishing. - After complete fabrication, all parts of the frame and the bottom bar pockets shall be thoroughly cleaned and degreased by any suitable method, to insure proper adhesion of the finish.

E-4b. Phosphatizing. - Following cleaning and degreasing the frame shall be assembled and, together with the bottom bar pockets, given a phosphatized treatment prior to application of primer.

E-4c. Primer Coat. - The phosphatized treatment shall be followed by one coat of zinc chromate primer conforming to the requirements of Specification AN-TT-P-656.

E-4d. Enameling. - After the primer coat is thoroughly dry, the frame and bottom bar pockets shall be given a finish coat of olive drab, lacquer enamel conforming to the requirements of Grade I, Specification 3-162. The color shall correspond to No. 319 of color card supplement to Specification No. 3-1. The finish coat shall level out to produce a smooth and uniform film, without orange peel, runs, wrinkles, drops or areas of thin film or no film and free from any trace of grit or coarse particles.

E-5. Each pad shall be stuffed with not less than 11 pounds of curled hair (drawings), conforming to the requirements outlined in paragraph C-1b(6).

E-6. One third (1/3) pound of flake naphthalene conforming to the requirements outlined in paragraph C-1b(7) shall be mixed with the hair as it is being stuffed into each pad.

E-7. After the pads have been formed, stuffed and the tufting thongs tied, the ends of the tufting thongs, on the upper half of the pads, shall not be trimmed off. The ends of the tufting thongs on the lower half of the pads may be cut off, after the knot is tied.

E-8. All welds shall be sound and smooth.

E-9. All rivets shall be neatly and securely set.

E-10. Heat Treatment of Arch and Hanger Bar. - The arch and hanger bar, after being forged and trimmed, shall be given a heat treatment conforming to the requirements specified in paragraph I-2 of Specification QQ-A-351. The arch and hanger bar shall be tested for hardness and shall show a Rockwell hardness of 60 - 70 on the "B" scale, at any point tested after heat treating.

E-11. Cinchas, Mohair, 20", Saddle, Phillips Pack, Cargo. Shall conform to the requirements of Specification J.Q.D. No. 233.

E-12. Cover, Saddle, Phillips Pack, Cargo, 23 Inch. - Shall conform to the requirements for Type I, Specification 92-54, except that the dimensions of finished cover shall be as shown on Drawing 1-1-111. The body of the cover shall be made of No. 4 cotton duck.

E-13. Pad, Saddle, Woven, 27" x 44". - Shall conform to the requirements for Type II, Specification 92-42.

E-14. Spare parts and accessories shall be procured in accordance with the latest approved list furnished by the Office of The Quartermaster General. Accessories and spare parts shall not be packed with the saddle.

E-15. Marking for Identification. - The marking or stamping of the "U.S.", manufacturer's name, trade name or trademark of such known character easily identifiable with said manufacturer and the year manufactured, shall be done on the pack saddle frame, breast collar and breeching in the size and location as shown on Drawings 1-1-104, 1-1-14, Rev.1 and 1-1-110, respectively. The surface opposite the stamp marks on the pack saddle frame shall show no sign of penetration or unevenness or cause distortion.

E-16. Samples for Approval. - Before production is commenced, a sample of the finished commodity shall be submitted for approval.

E-17. Contractor's inspection. - The contractor take such steps for inspection of the finished articles to assure compliance with this specification prior to submitting them to United States Government for final inspection.

F. METHODS OF SAMPLING, INSPECTION AND TESTS.

F-1. Sampling. - Samples of any materials, components, etc., not furnished by the United States Government, entering into the manufacture of the articles covered herein, shall be selected from time to time by the Government Inspector, and carefully examined and tests made to determine if they are in accordance with the drawings and specifications listed in Section A, and with this specification.

F-2. Inspection. - Inspection may be made throughout the entire process of manufacture. The passing as satisfactory of any detail of construction or materials shall not relieve the contractor of responsibility for faulty workmanship or materials which may be discovered at any time prior to final acceptance. Final inspection of the finished articles shall be made either at point of production or at point of delivery designated in the contract or purchase order of procuring agency. In case of factory inspection, every facility shall be afforded inspectors, by the manufacturer, for the prosecution of their work.

F-3. Tests. -

F-3a. Samples for Test. - Shall be as required by the Inspection Officer.

F-3b. Necessary physical, chemical and finish tests shall be conducted to see that the subject commodity is in accordance with this and applicable specifications.

F-3c. Fracture Test for Ribs, Frame. - A rib is supported convex side upward on two rigid supports ten inches apart. A concentrated load is applied to the rib midway between the supports through a 1/4 inch bearing plate at right angles to the length of the rib; the load is increased slowly until the curvature of the rib is reversed, with the mid point below the level of the supports a distance equal to its original distance above the supports. The load is then removed and the rib examined for cracks. Permanent set resulting from the test shall not be considered failure.

F-3d. Fracture Test For Bottom Bar Pockets. - The bottom bar pocket shall be tested for fracture by holding in a vertical position with the foot rest (hooked portion), uppermost and dropping a 50 lb. weight from a distance of 3 ft. to strike the footrest. The foot rest shall show no sign of fracture after completion of the test. Slight compression or distortion resulting from the test shall not be considered as failure.

F-3e. It is to be understood that the methods of testing described in this specification will in general be used; however, the Government reserves the right to use such additional information or methods deemed necessary to determine compliance with the letter and spirit of this specification.

G. PACKAGING, PACKING AND MARKING.

G-1. Packaging. - Each 23 inch cargo Phillips' pack saddle shall be prepared for packing in accordance with the following:-

G-1a. The frame, pads, and saddle cover shall be completely assembled and the cincha straps attached.

G-1b. The woven saddle pad shall be sprinkled with one-eighth pound of flake naphthalene; folded; completely wrapped in No. 2 kraft paper, 60 pounds per 1000 sheets based on size 24" x 36" conforming to Specification UU-P-268, and securely tied with a suitable cord or string.

G-2. Packing. - Each 23 inch cargo Phillips' pack shall be packed as specified below:-

G-2a. Each saddle shall be packed in a box having inside dimensions 28-3/4" long by 23" wide by 23-1/4" deep and conforming to one of the following:-

G-2a(1). A nailed wood box conforming to the requirements of Specification JAN-P-106, Style 2 or 4, except that the material used throughout the box shall be not less than 3/4" thick.

G-2a(1)a. The box shall be reinforced with two (2) steel straps conforming to the requirements of Specification O.Q.M.G. No. 106, except that the flat strap shall be not less than 5/8" x 0.020" or the round strap not less than 13 gage.

G-2a(2). A cleated plywood box conforming to the requirements of Specification JAN-P-105, Style A or B, except that the plywood in the top, bottom, and ends shall be of 3-ply construction having a total thickness of not less than 1/4", and the plywood in the sides shall be of 5-ply construction having a total thickness of not less than 5/16". In general, cleats on each panel of the box shall be not less than 1-3/4" wide by 3/4" thick. However, the bottom panel of the box shall have a center cleat not less than 2-3/8" wide on the outer face parallel to the width dimension, and the top panel shall have two (2) outside cleats not less than 4-3/4" wide and one (1) center cleat not less than 1-3/4" wide on the outer face parallel to the width dimension. The side panels shall each have a center cleat not less than 1-3/4" wide on the outer face parallel to the depth dimension. The end panels shall each have a center cleat not less than 1-3/4" wide, parallel to either the width or depth dimension.

G-2a(2)a. The box shall be reinforced with three (3) steel straps as specified in paragraph G-2a(1)a, except that they shall be centered over the row of cleats at each end of the box and over the center row of cleats.

G-2b. The contents shall be protected by a prefabricated bag or case liner constructed of waterproof barrier material conforming to the requirements of Specification JAN-P-125, Type L-2.

All seams, closures, and joints shall be securely sealed with water-resistant adhesive so as to provide protection equal to that afforded by the barrier material. If a liner is used, all joints shall overlap not less than 3".

G-2c. The box shall be equipped with a top and bottom pad made of corrugated fibreboard having a bursting strength of not less than 200 pounds per square inch. These pads shall be located inside the waterproof paper liner in direct contact with the saddle. The bottom pad shall be approximately 28-3/4" long by 23" wide. The top pad shall be approximately 34-3/4" long by 23" wide and shall have flaps not less than 3" wide located at each end which, when the pad is placed on top of the saddle, will fold over the bottom bar pockets and project downwards parallel to the ends of the box.

G-2d. The saddle shall be placed in the box in an inverted position with the arch down and parallel to the width of the box, and the bottom bar pockets uppermost. The pads shall be sprinkled with one-fourth pound of flake naphthalene. The packaged woven saddle pad and the other component parts of the saddle that have not been assembled on the frame shall then be packed on top of the saddle in the space between the pads.

G-3. Marking. - Marking on each shipping container shall conform to the requirements of Specification O.Q.M.G. No. 94.

H. NOTES.

H-1. As of this date, Bill of Materials No. 4-176B, for Saddle, Phillips' Pack, Cargo, 23-Inch, Complete, is applicable to this specification.

This Bill of Materials is for the information of the United States Government only and is not for distribution to fabricators.

H-2. Revisions. - This is a complete revision over preceding specification made for the purpose of omitting all reference to Bridle, Halter, M-1917 and Rope, Halter Tie, M-1912, 5/8" with Snap; to change finish requirements on frame and bottom bar pockets; to change leather used for cincha straps from latigo to strap leather; to change packing requirements and to make numerous editorial changes to bring specification up to latest Quartermaster form.

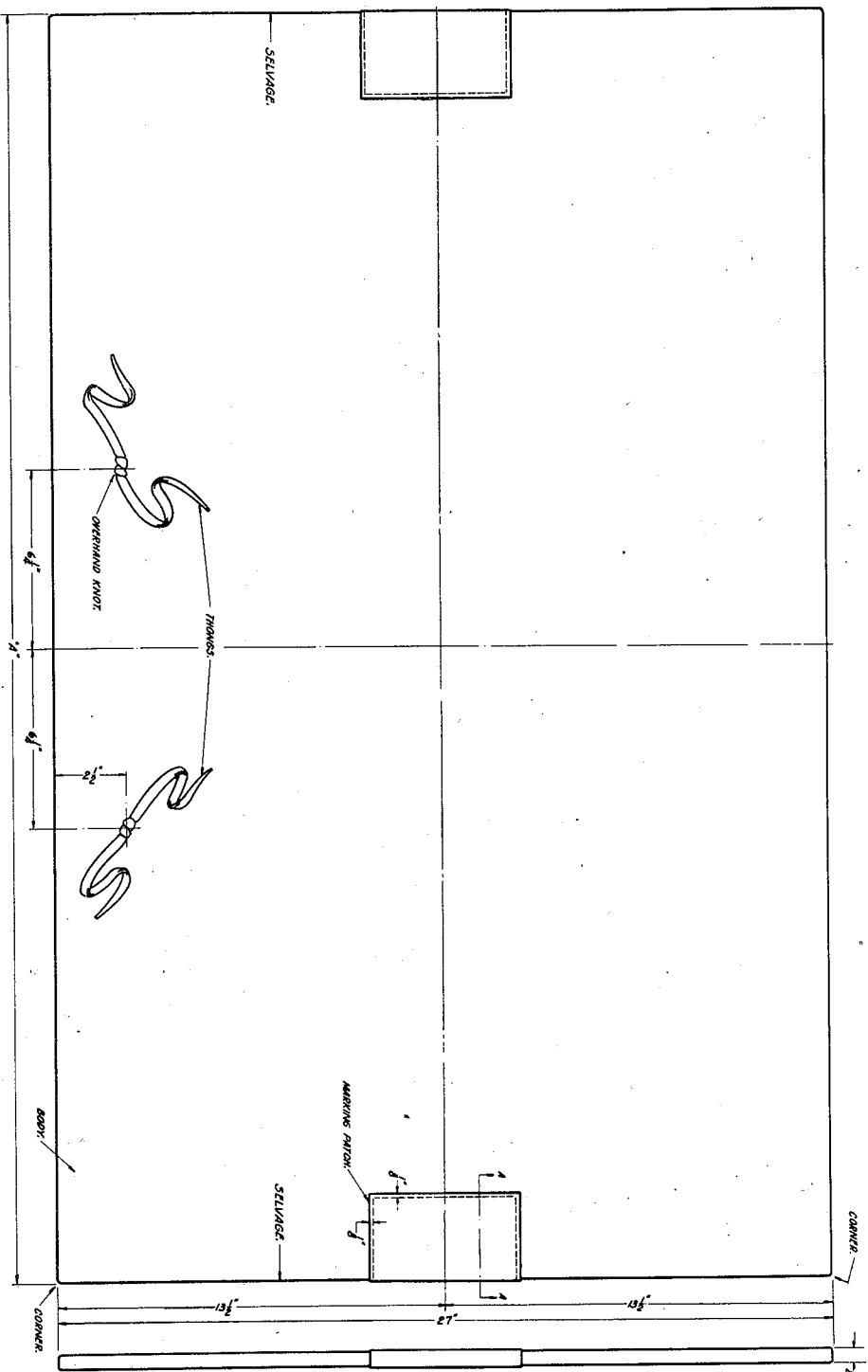
H-3. This specification contains emergency provisions and will be considered for revision when the present emergency is over.

NOTICE:- When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished or in any way supplied the said drawings,

Specifications, or other data is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

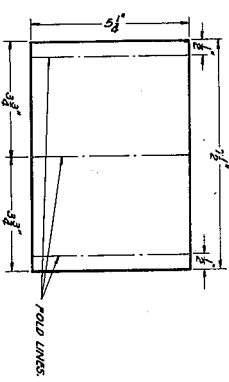
NOTE:- Unless otherwise specified in invitation for bid or purchase order, copies of this specification may be obtained at the following point:-

Jeffersonville Quartermaster Depot, Jeffersonville, Indiana.

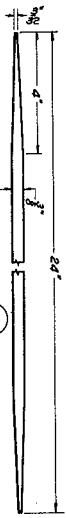


SADDLE, PHILLIPS, PACK, CARBO (A) **SADDLE, PHILLIPS, PACK, CARBURY** (B) **SADDLE, OFFICERS** (C)
 BODY: OUIRE PAD - 3" x 44 INCHES
 BODY: OUIRE PAD - 3" x 38 INCHES
 BODY: OUIRE PAD - 3" x 50 INCHES

PAD, SADDLE WOVEN



MARKING PATCH (PATTERN) (D)
 2 REQS. - 5 1/2" W. x 3 1/2" H. OR OUIRE PAD OR OTHER WEAVING CUT 7/8" IN LONG.

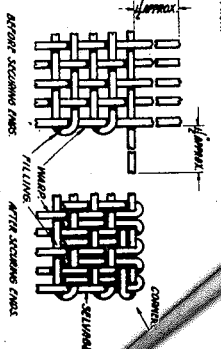
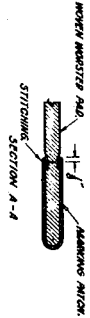
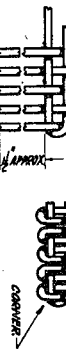
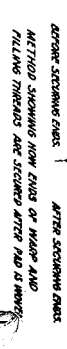


THONG (E)
 2 REQS. RUBBER CATTLE SKIN, 1/2" INCH THICK (PLUS OR MINUS 1/2 SIXTY-FOURTH)

NOTE 1:
 MARKING PATCH AND THONGS NOT
 REQUIRED ON PAD FOR SADDLES,
 OFFICERS.

NOTE 2:
 AFTER WEAVING PADS ARE FITTED BY
 SHIMMING TO SIZES SHOWN.

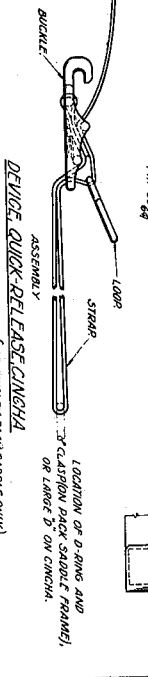
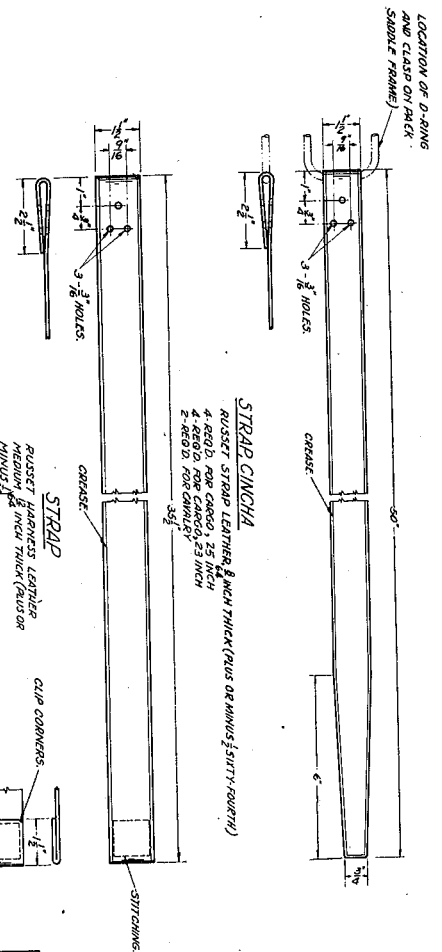
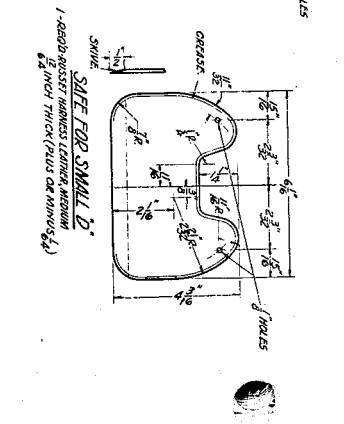
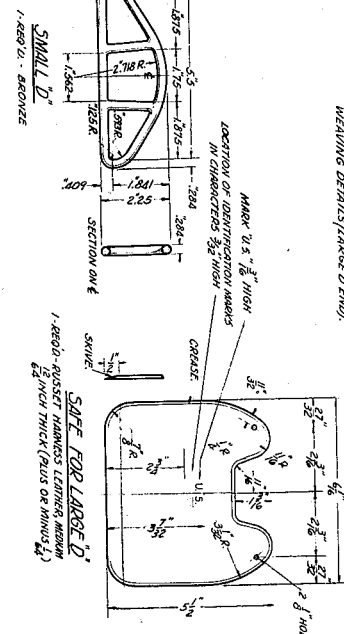
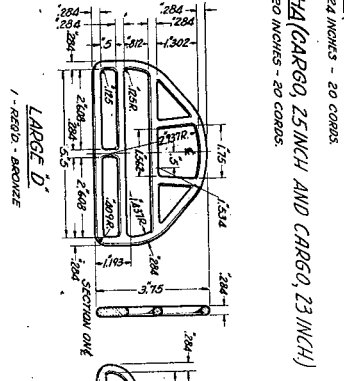
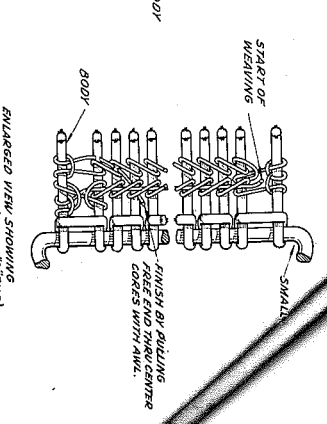
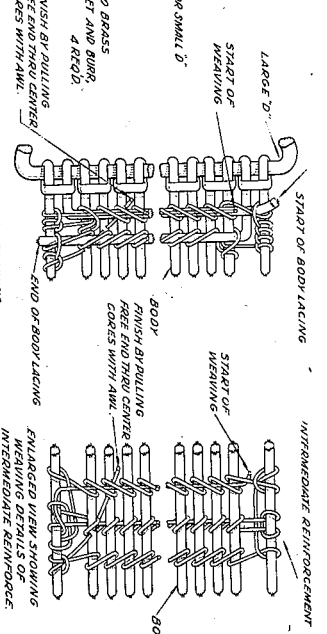
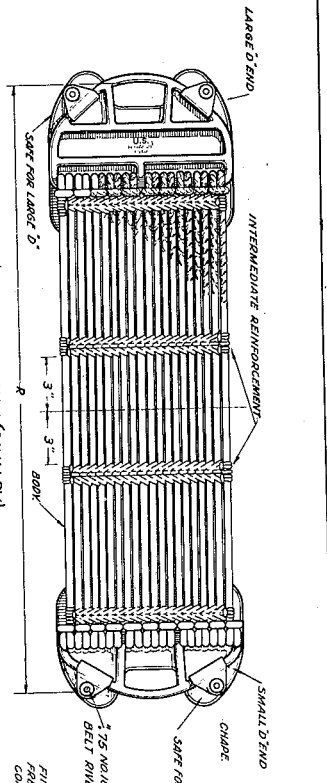
NOTE 3:
 MACHINE STITCHING TO BE DONE WITH NO. 25-3 COAR OUIRE PAD LATH MACHINE THREAD,
 4 STITCHES TO THE INCH, LOCKSTITCH METHOD OF STITCHING SHALL BE USED.
 SUPERSEDES DRAWING NO. 1-1-12 DATED MAY 1, 1929



DRAWING PERTAINING TO	REVISIONS	DATE	BY	REASON
1	1	APRIL 12, 1928	J. H. BROWN	ORIGINAL
2	2	MAY 1, 1929	J. H. BROWN	REVISED
3	3	MAY 1, 1929	J. H. BROWN	REVISED
4	4	MAY 1, 1929	J. H. BROWN	REVISED

SCALE	1" = 1'
DRAWN BY	J. H. BROWN
CHECKED BY	J. H. BROWN
APPROVED BY	J. H. BROWN
DATE	APRIL 12, 1928
DESIGNED BY	J. H. BROWN
TESTED BY	J. H. BROWN
APPROVED FOR	J. H. BROWN
SPECIFICATION NO.	U.S.A. 92-42
DRAWING NO.	1-1-12

WAR DEPARTMENT
 QUARTERMASTER CORPS
 JEFF. CUMBERBORN



SUPERSEDES DRAWING NO. 1-1-13 DATED APRIL 26, 1929

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DATE: APRIL 12, 1928

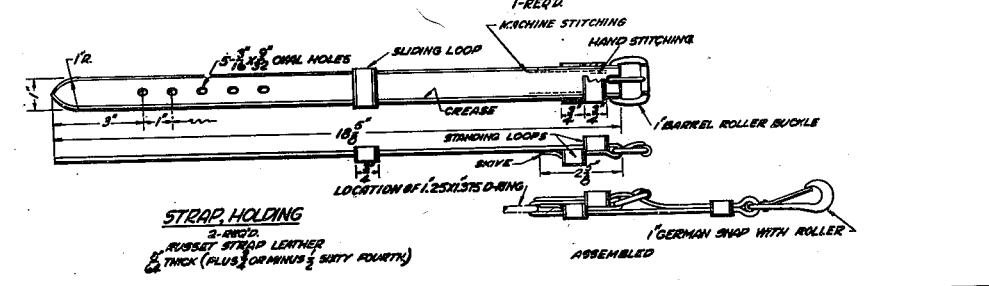
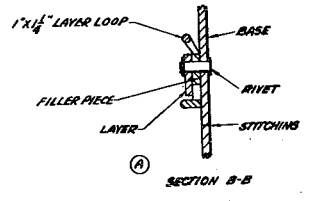
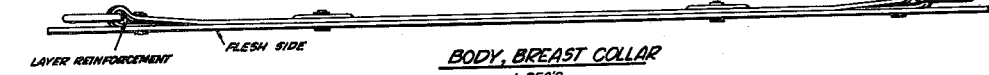
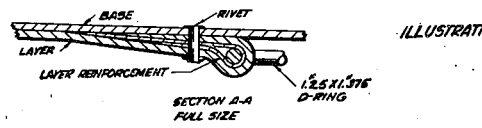
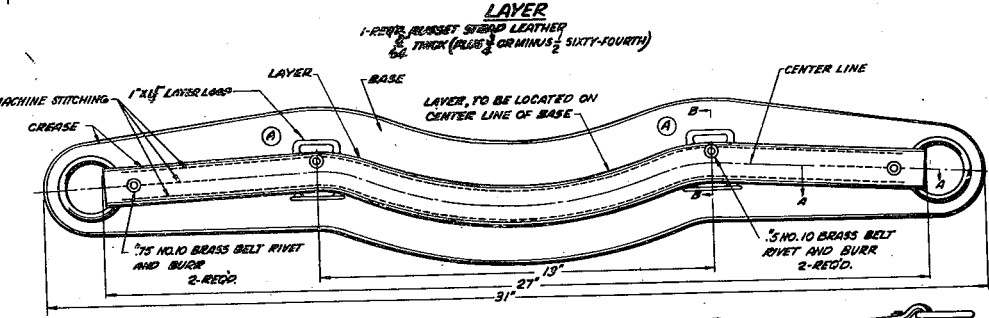
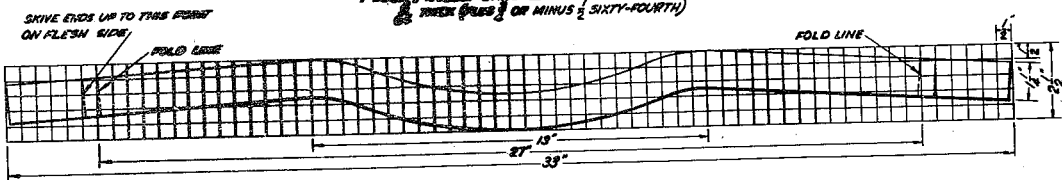
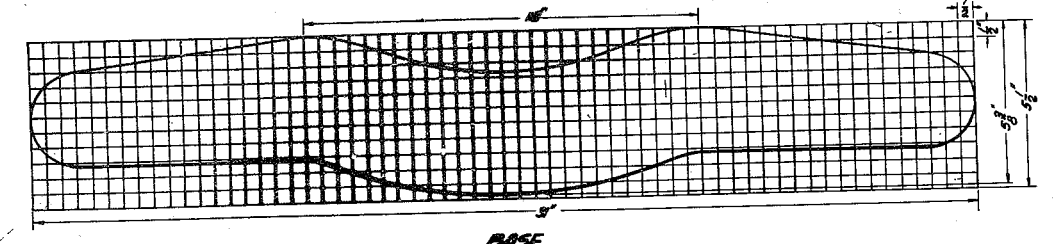
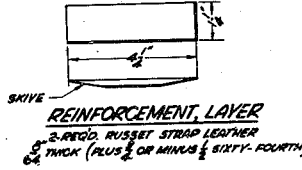
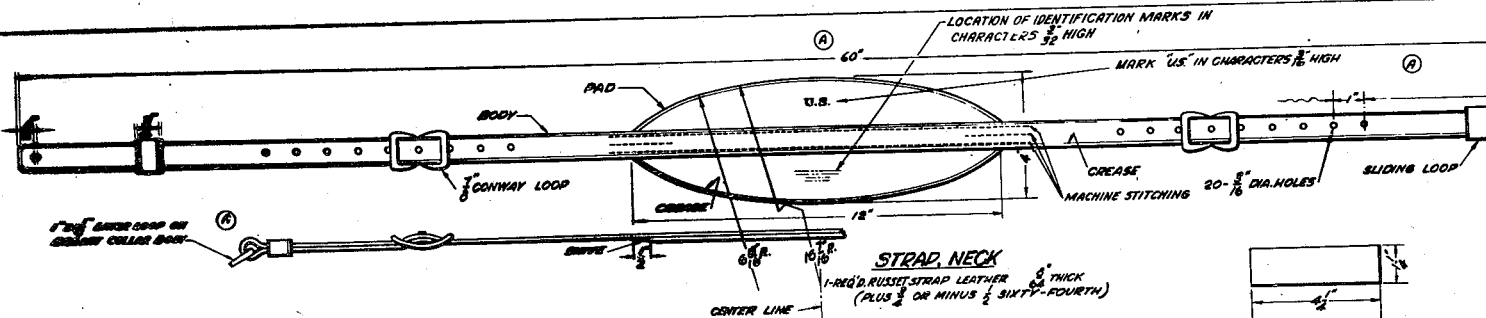
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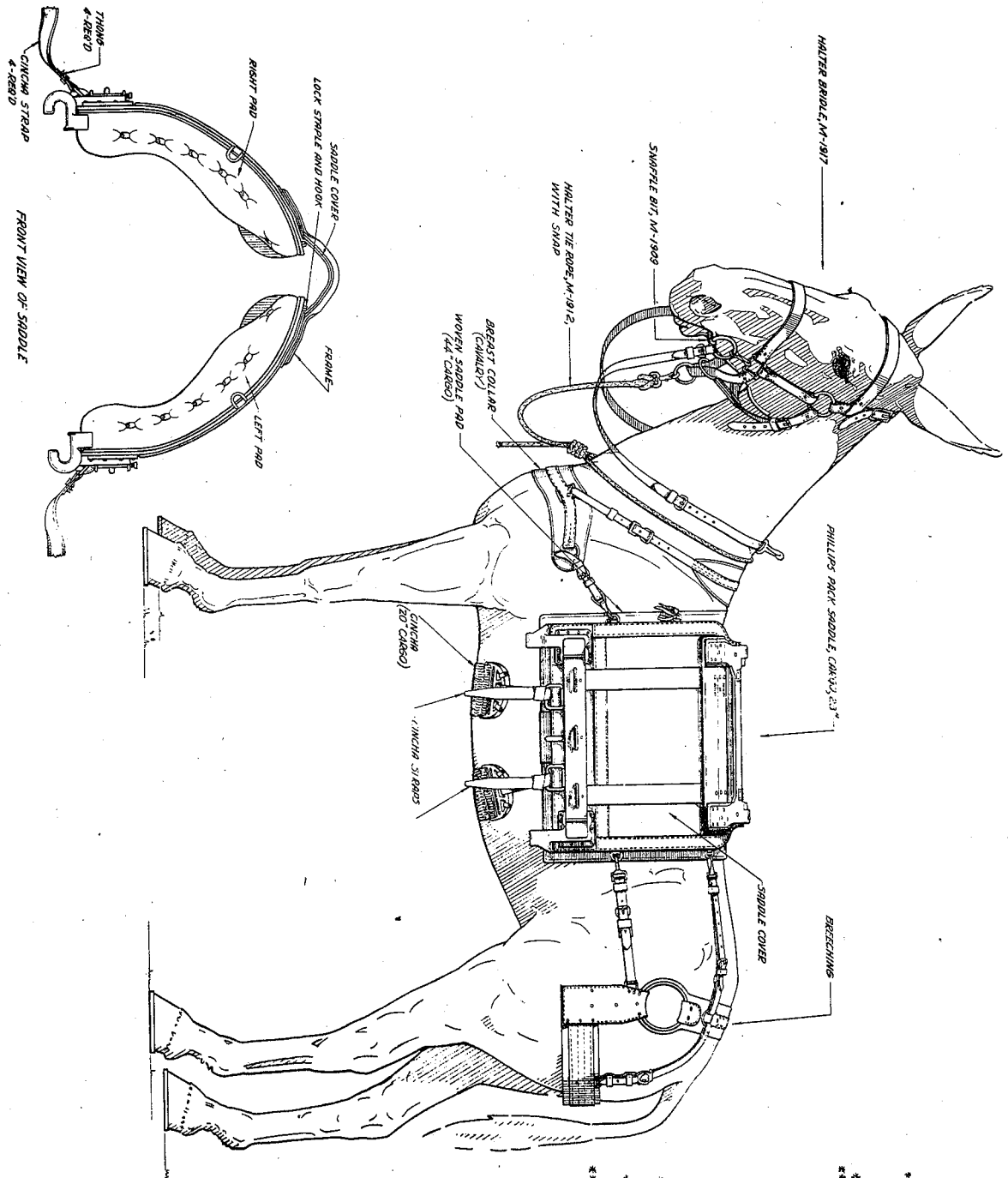
SPECIFICATION NO. U.O.D. 233

DRAWING NO. **1-1-13**

NAR DEPARTMENT
 QUARTERMASTER CORPS
 JEFF CAMPBELL

CINCHA MOUNTING, STRAP CINCHA AND DEVICE FOR QUICK-RELEASE CINCHA FOR SADDLES PHILLIPS PACK, CARGO AND CANALRY





NOTE:
FOR MANUAL OF APPROXIMATELY 900 TO 1000 LBS
WEIGHT (HEAVY LOAD)

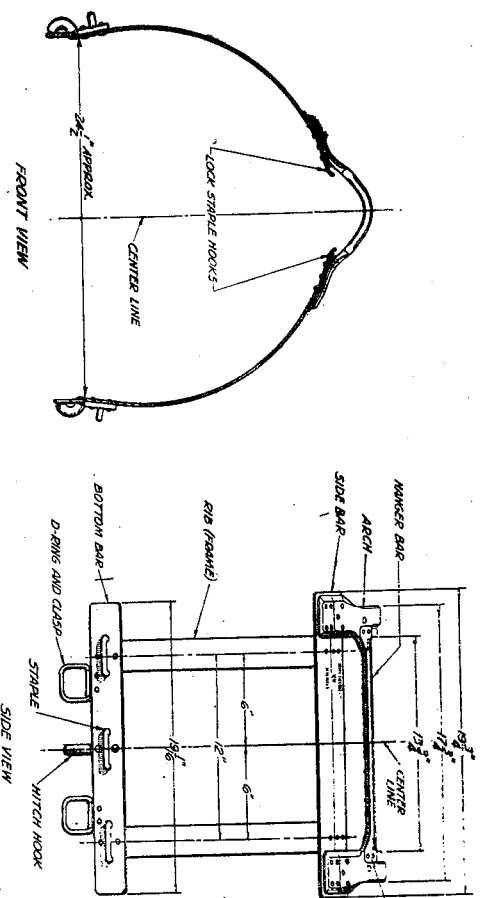
LIST OF DRAWINGS

SMALL PHILLIPS BACK SADDLE, 23 INCH	1-1-10
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SHINPLE BR, M-1903	1-1-10
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WOMEN SADDLE PAD (44" CARNO)	1-1-10
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LEFT PAD	1-1-10
THONG 4-12897D	1-1-10
CINCHA STRAP 4-12897D	1-1-10

- * PAD, SADDLE, WOMEN AS USUALLY USED ON 25 INCH CARNO BACK SADDLE
- ** LONG SHALL BE USED FOR THIS BACK SADDLE
- ** CANTLEY BACK SADDLE BREAST COLLAR SHALL BE USED FOR THIS BACK SADDLE
- *** SEE SPECIFICATION

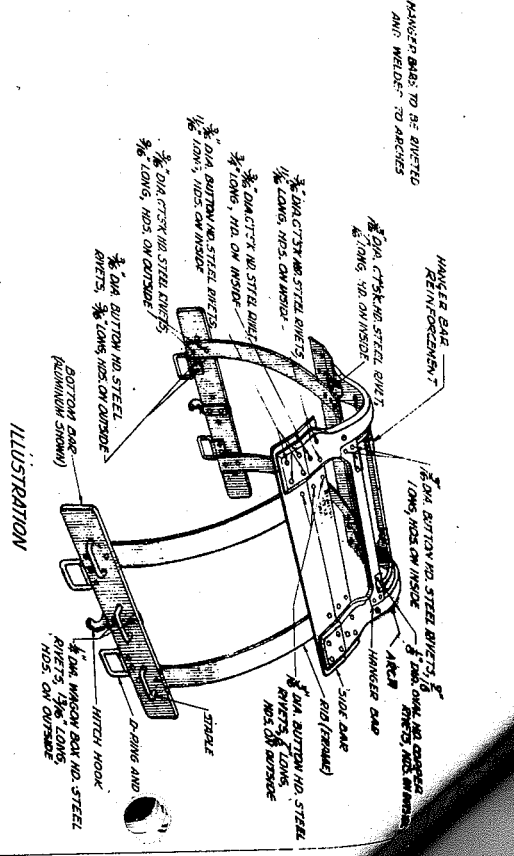
APPROVED FOR THE G.M.G.
BY: [Signature]

REVISED	FROM	TO	DATE
	WAR DEPARTMENT		
	QUARTERMASTER CORPS		
	UNIT G.M.G. DEPT		
	VER. 1000		
SADDLE, PHILLIPS BACK			
CARNO, 23 INCH			
ILLUSTRATION			
SCALE	DO NOT SCALE	DATE	1-1-10
FORM	PREPARED	CHECKED	
DATE	BY	BY	
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SPECIFICATION NO.	U.Q.D. 500		
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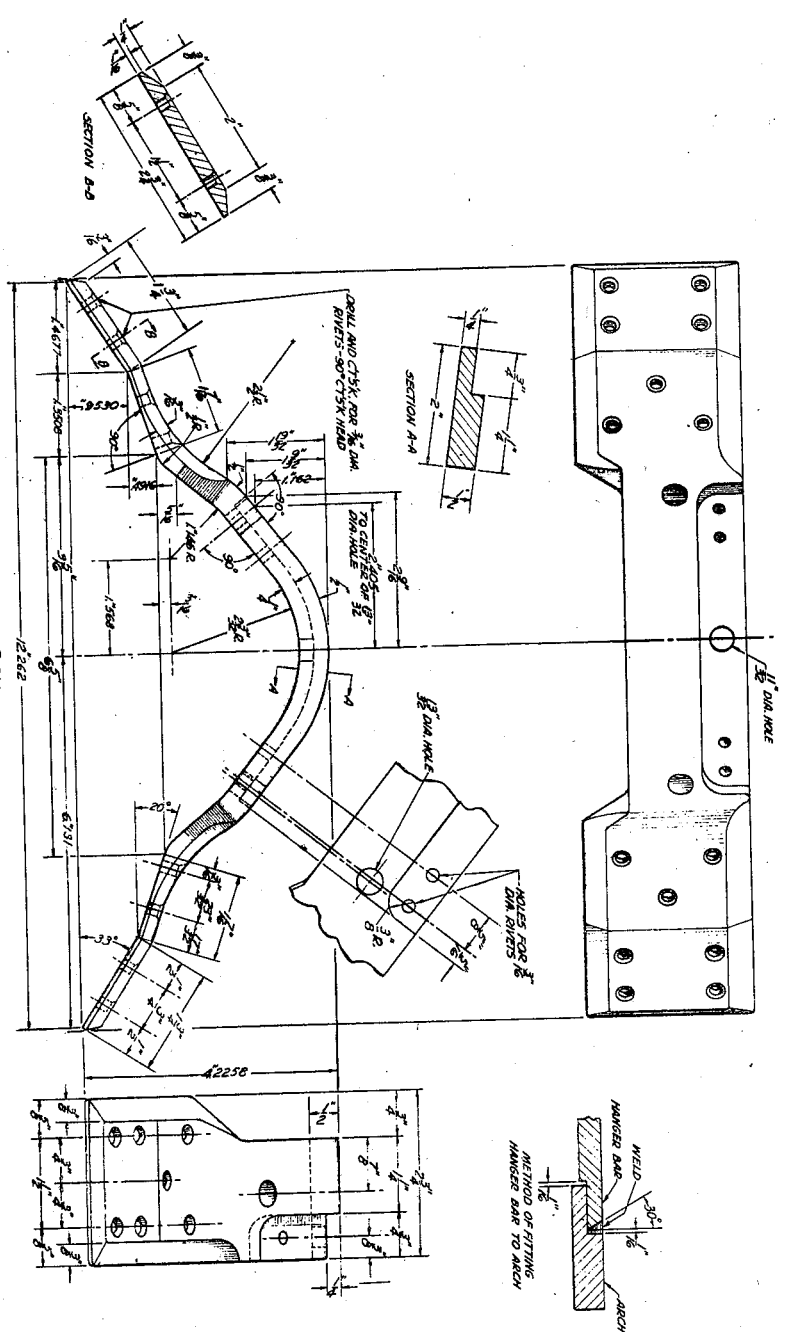


FRONT VIEW

ASSEMBLY



ILLUSTRATION



METHOD OF FITTING HANGER BAR TO ARCH

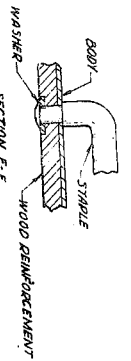
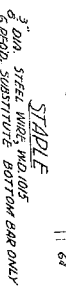
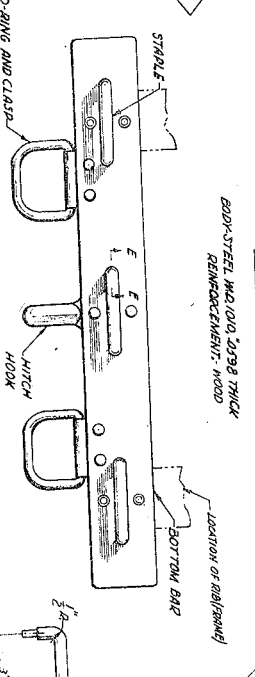
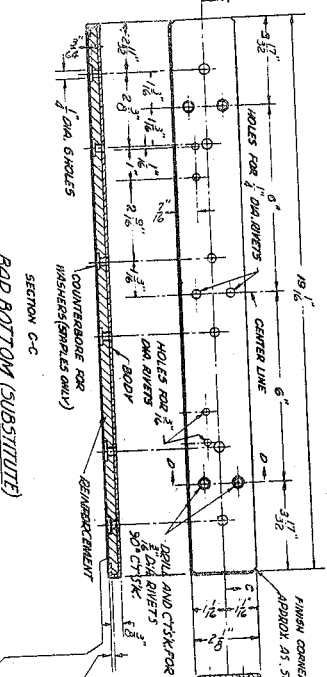
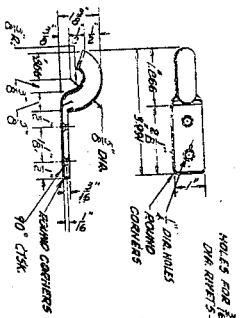
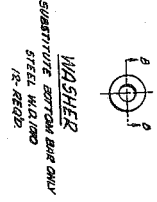
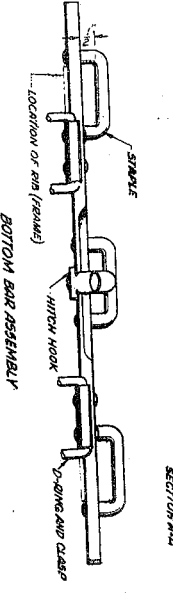
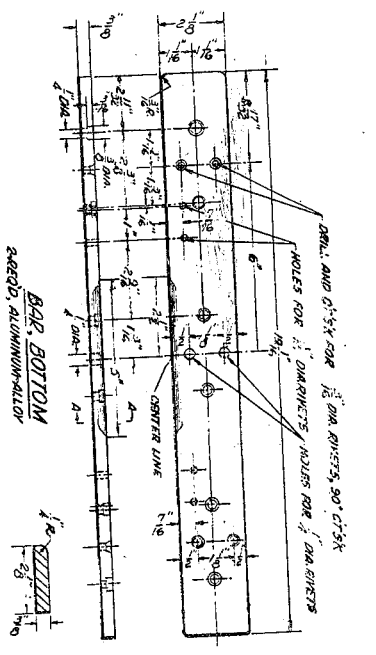
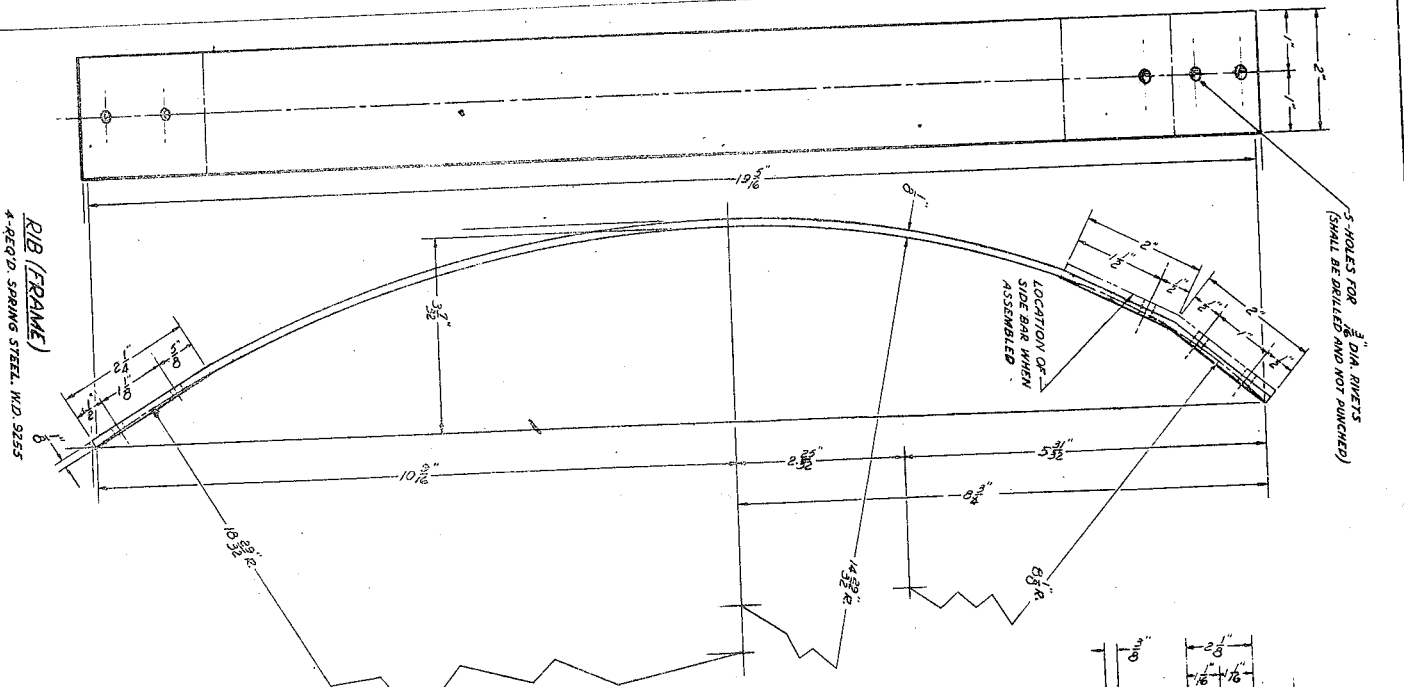
LIST OF DRAWINGS

NO.	DESCRIPTION	DATE
1-1	FINAL LIST, ASSEMBLY AND DETAILS	1-1-102
1-2	FRONT DETAILS	1-1-102
1-3	FRONT DETAILS	1-1-102

ARCH
2-28897-12-11-102

APPROVED FOR THE G.M.C.
1-1-102

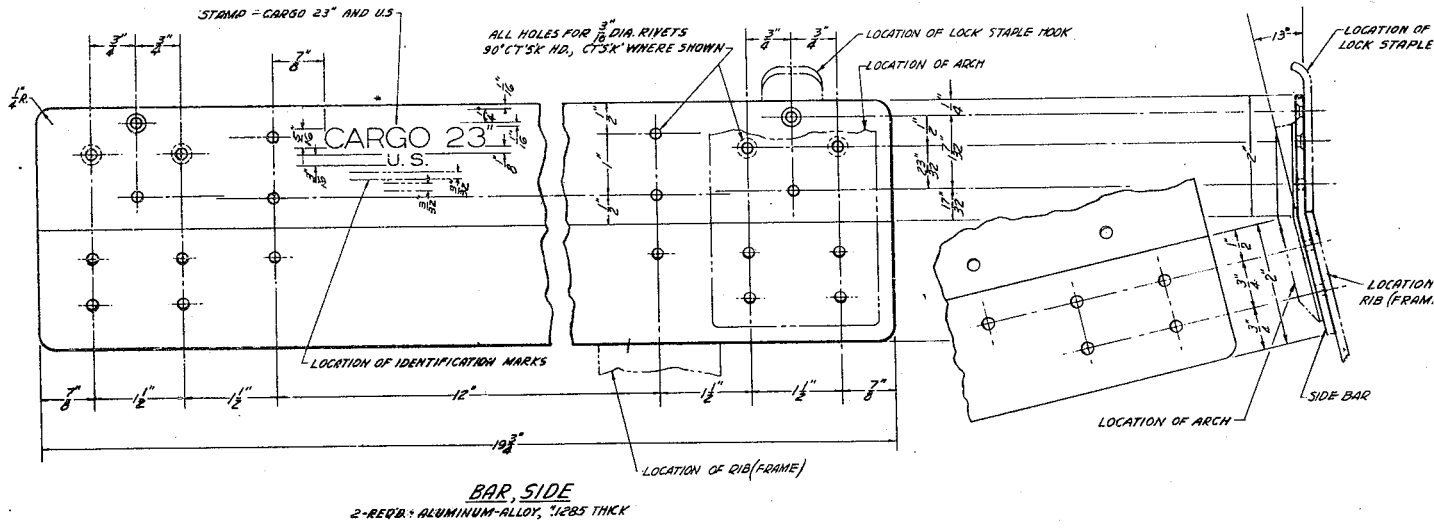
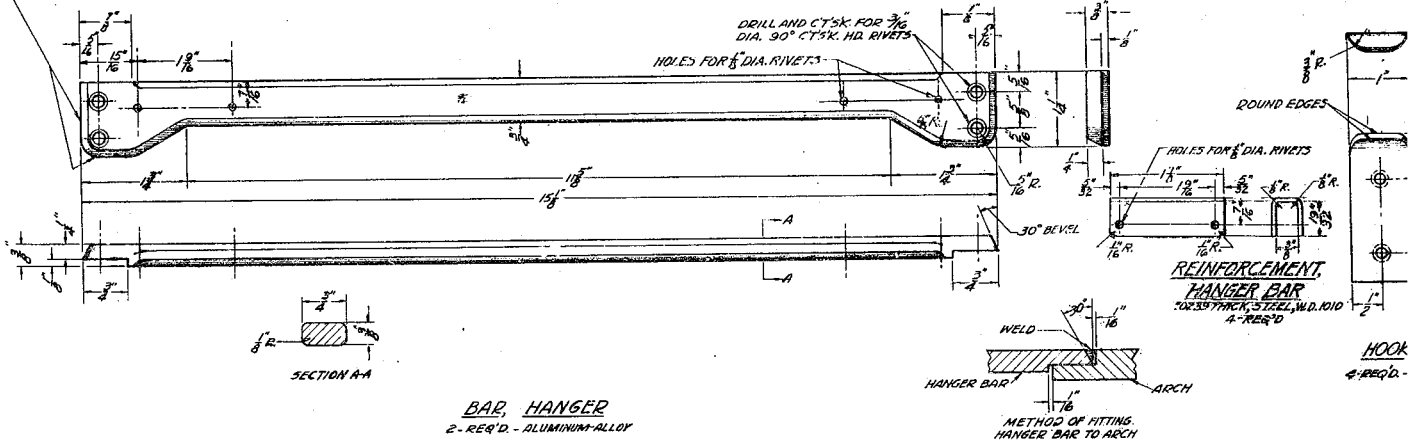
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	NAVE DEPARTMENT		
	QUARTERMASTER CORPS		
	W/SGT G.M. BERT		
SADDLE PHILLIP'S PATENTS			
FRAME, ILLUSTRATION, ASSEMBLY AND DETAILS			
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SPECIFICATION NO. J.A.R. 509			
DRAWING NO. 1-1-102			



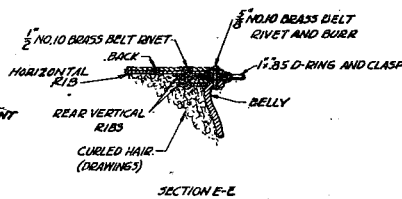
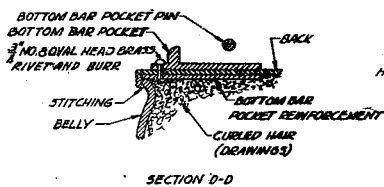
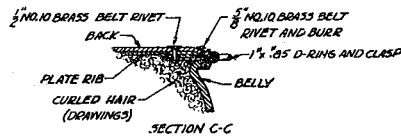
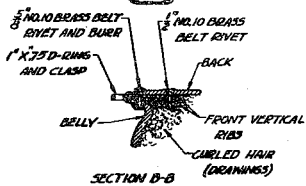
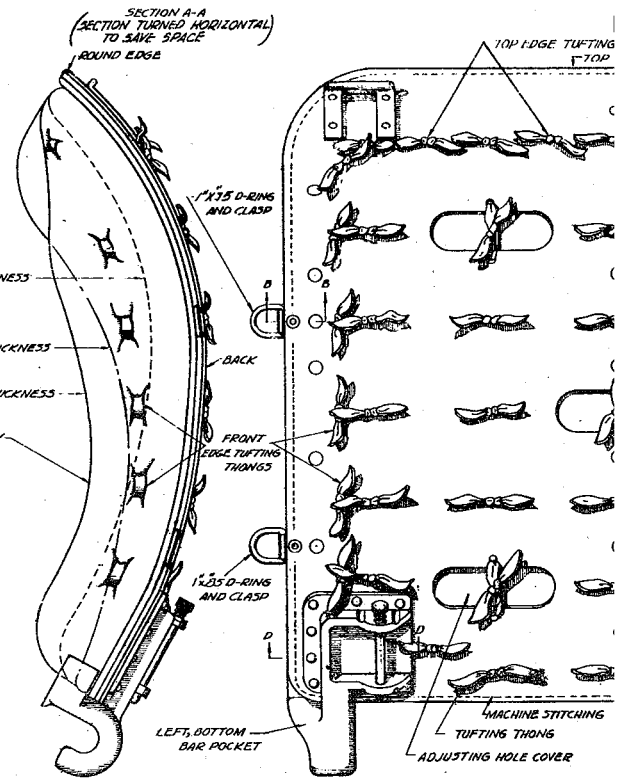
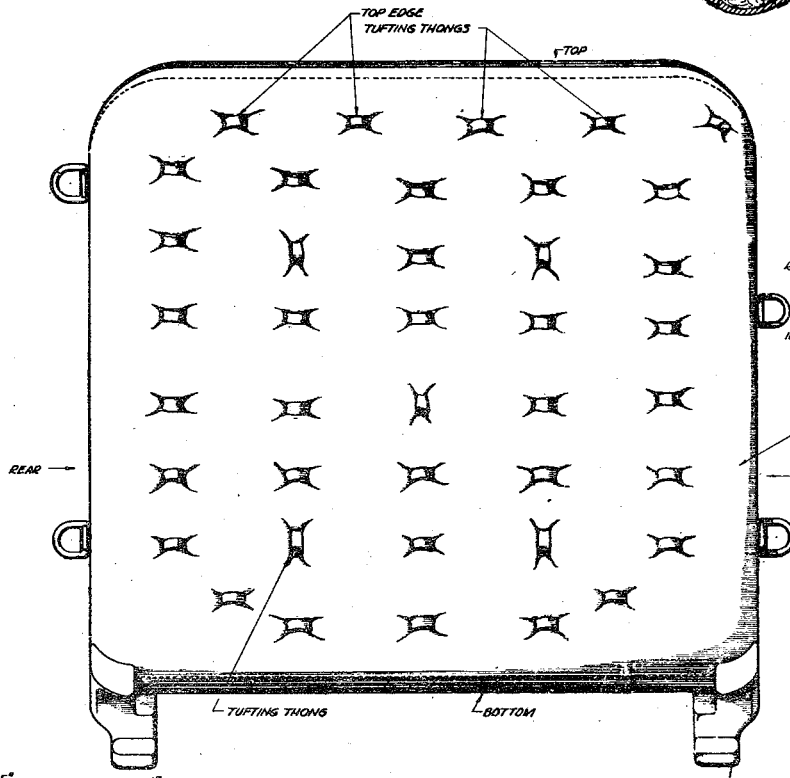
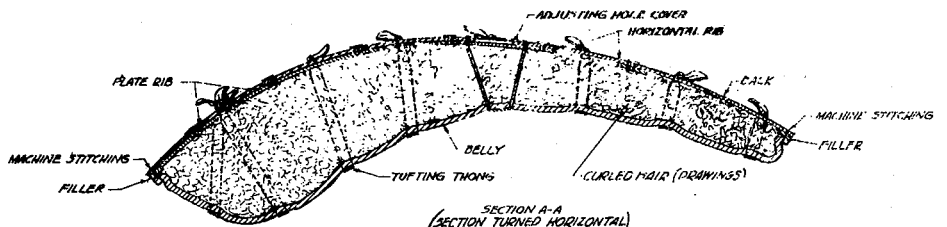
APPROVED FOR THE G.M.S.
1-1-103

DESIGNER	FROM	TO	DATE
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SCALE	DO NOT SCALE		
PROJ. NO.	1-1-103		
DATE	1-1-103		
DESIGNED BY	W.D. PHILLIPS		
DRAWN BY	W.D. PHILLIPS		
CHECKED BY	W.D. PHILLIPS		
SPECIAL INSTRUCTIONS	U.S.A. 508		
REVISION NO.	1-1-103		

WELD THESE EDGES TO ARCH AND GRIND SMOOTH AFTER ASSEMBLING, OTHER END SAME

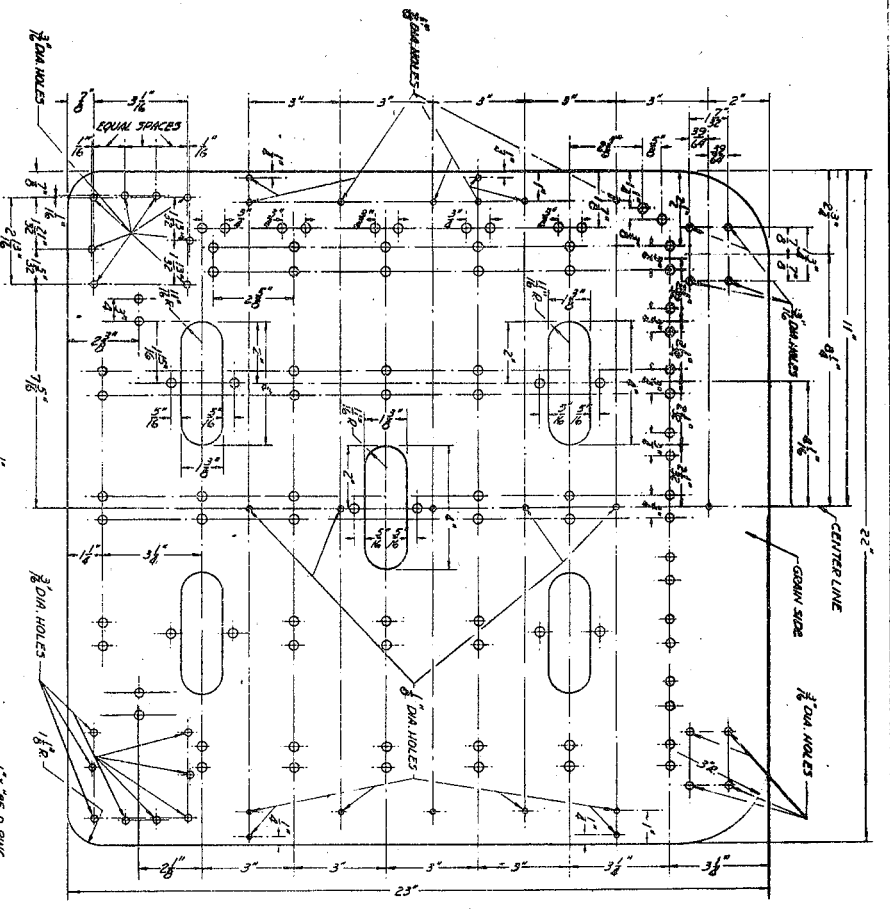


APPROVED FOR THE G
[Signature]



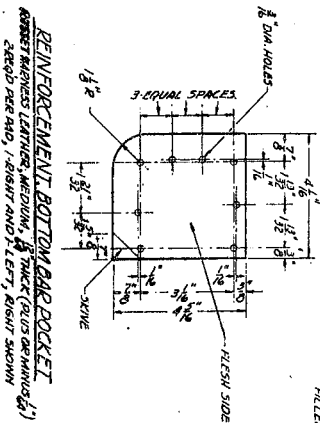
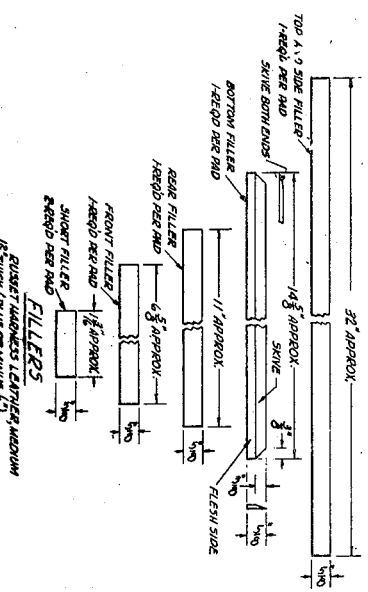
LIST OF DRAWINGS	DRG. NO.'S
SADDLE, PHIL. PACK, CARGO, 23 INCH.	
PADS, ILLUSTRATION AND DETAILS.	1-1-105
PADS, ASSEMBLY AND DETAILS.	1-1-106
PADS, DETAILS "A"	1-1-107
PADS, DETAILS "B"	1-1-108

APPROVED FOR T

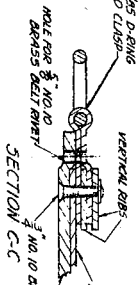


ALL HOLES 1/4\"/>

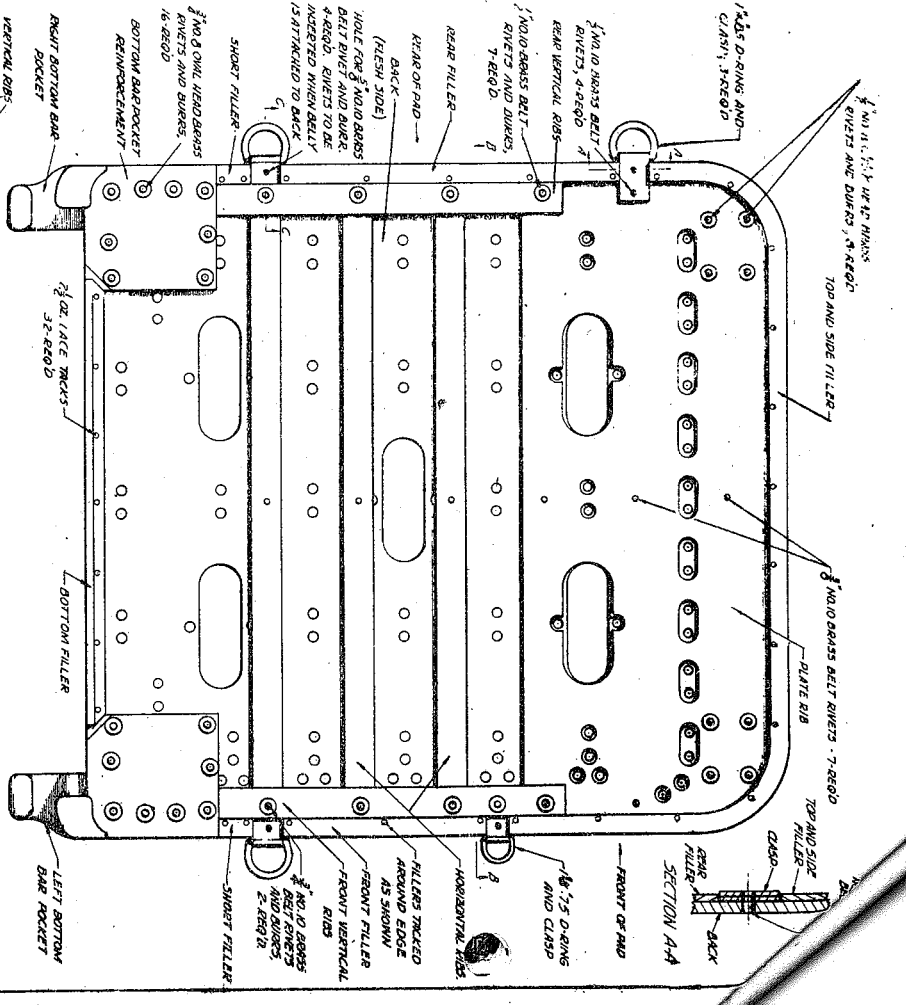
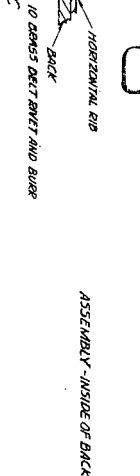
BACK
 ROSET HARNESS LEATHER, MEDIUM, 1/4\"/>



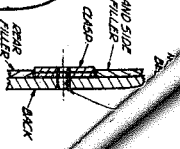
SECTION C-C



SECTION B-B



SECTION A-A



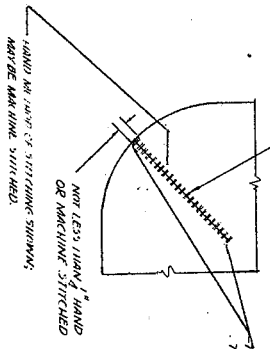
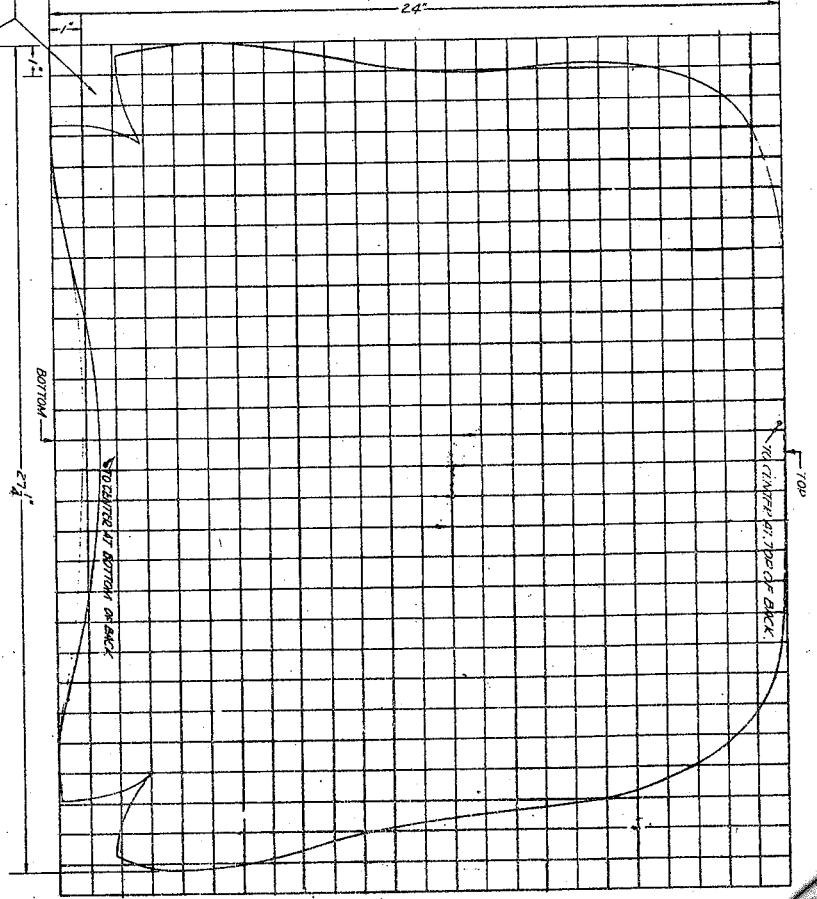
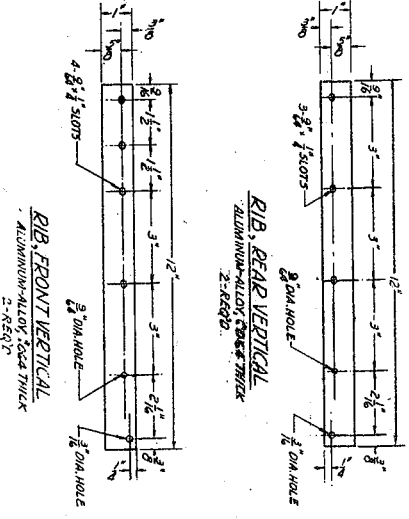
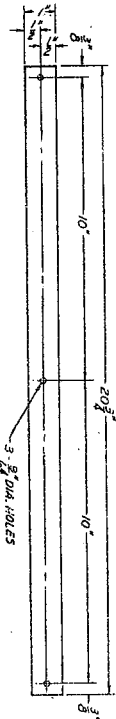
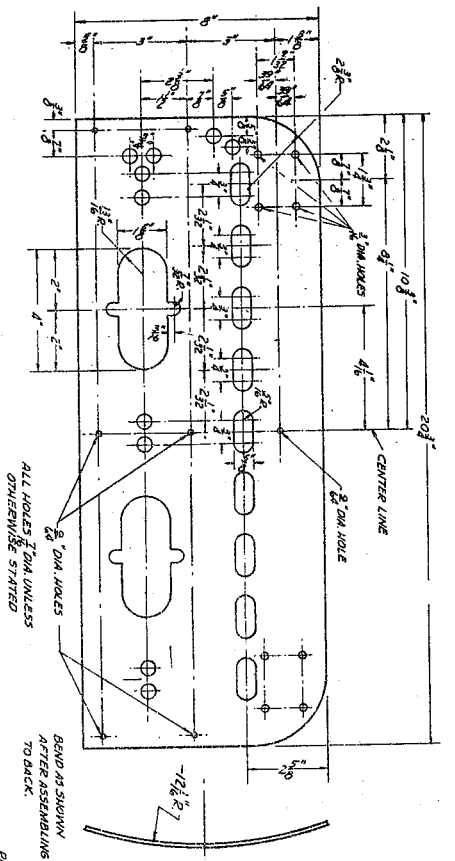
APPROVED FOR THE G.M.C.
 Signed: *W. M. McMillan*, Lt. Col., USA.
 1-7-106

REV.	FROM	TO	DATE

HEAD DEPARTMENT
 QUARTERMASTER CORPS
 WASHINGTON, D.C.

**SADDLE, PHILIPPS PACK,
 CAREG, 23 INCH,
 PADS, ASSEMBLY AND DETAILS**

SCALE: DO NOT SCALE
 DRAWING NO. C-1002 300
 JAN 1910
 SECTION 101A

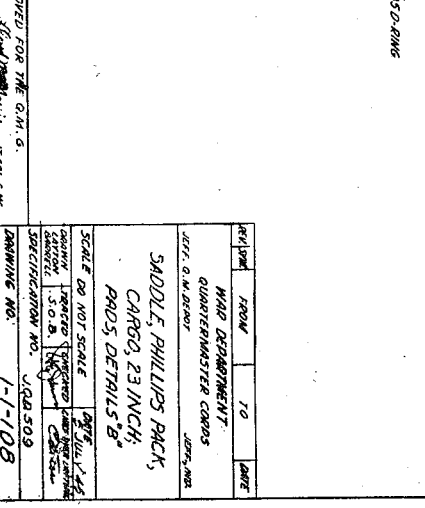
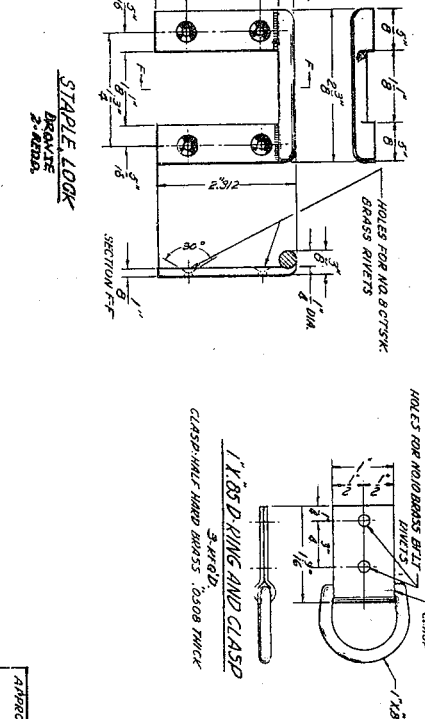
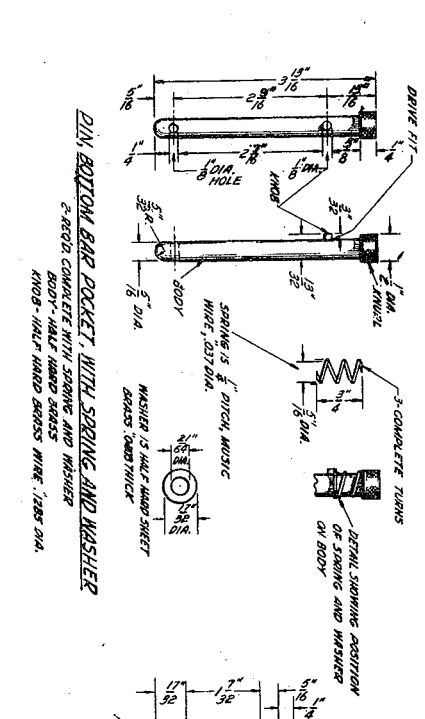
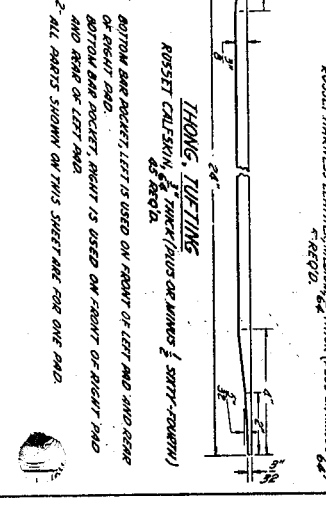
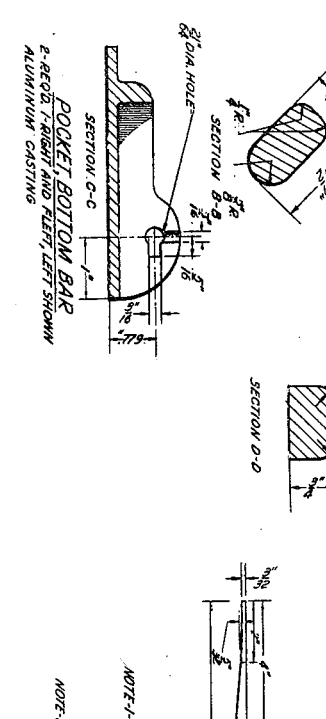
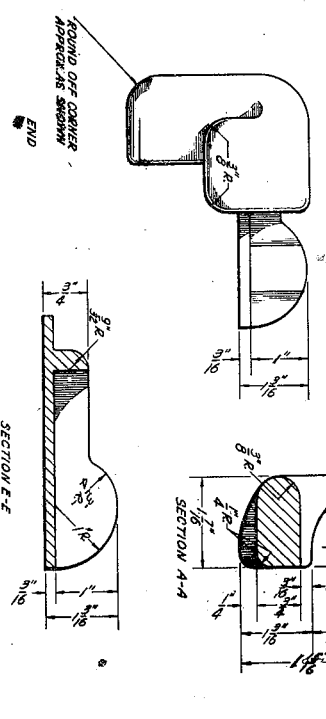
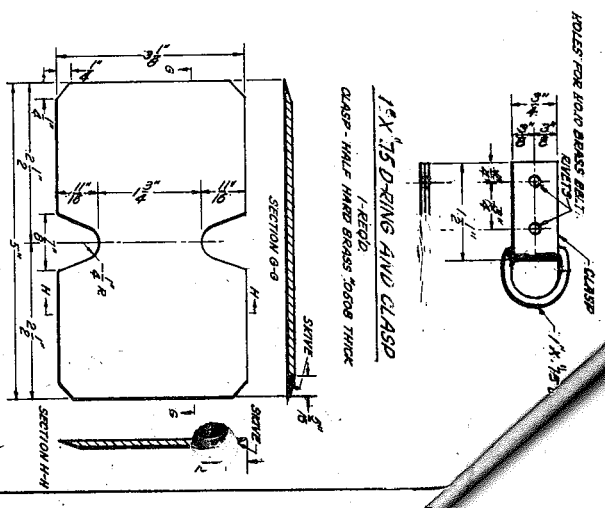
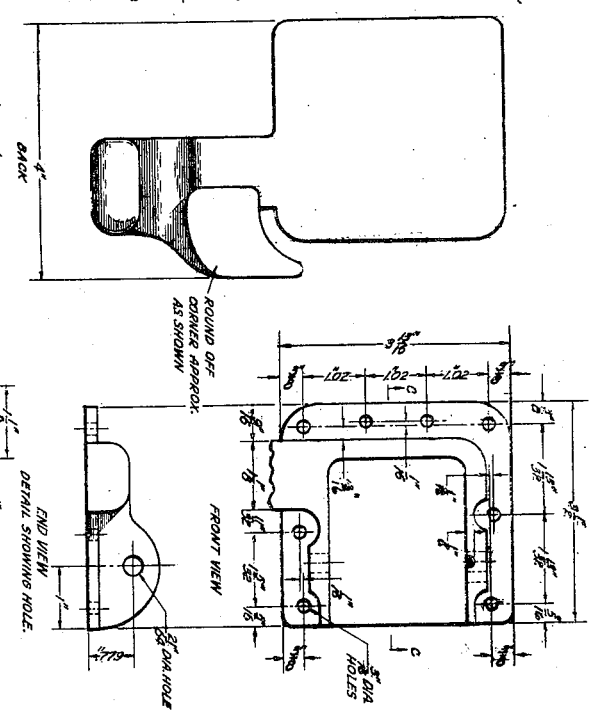
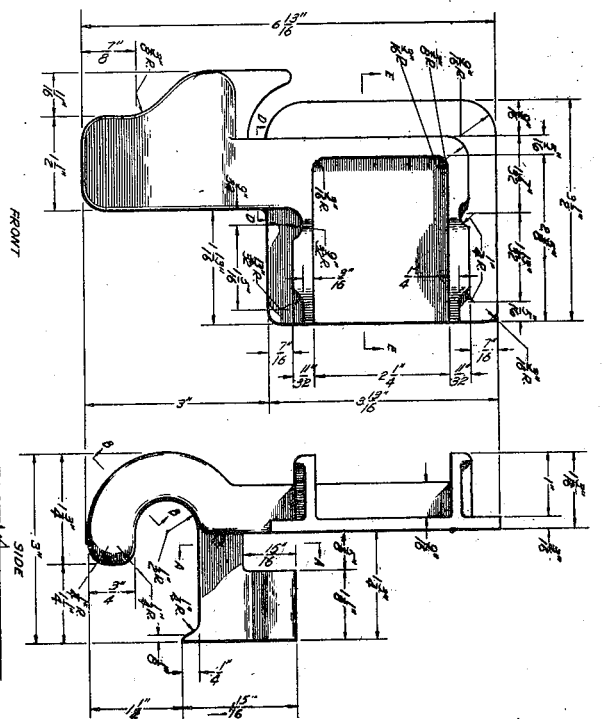


NOTE - ALL PARTS SHOWN ON THIS SHEET ARE FOR ONE PAD UNLESS OTHERWISE STATED.

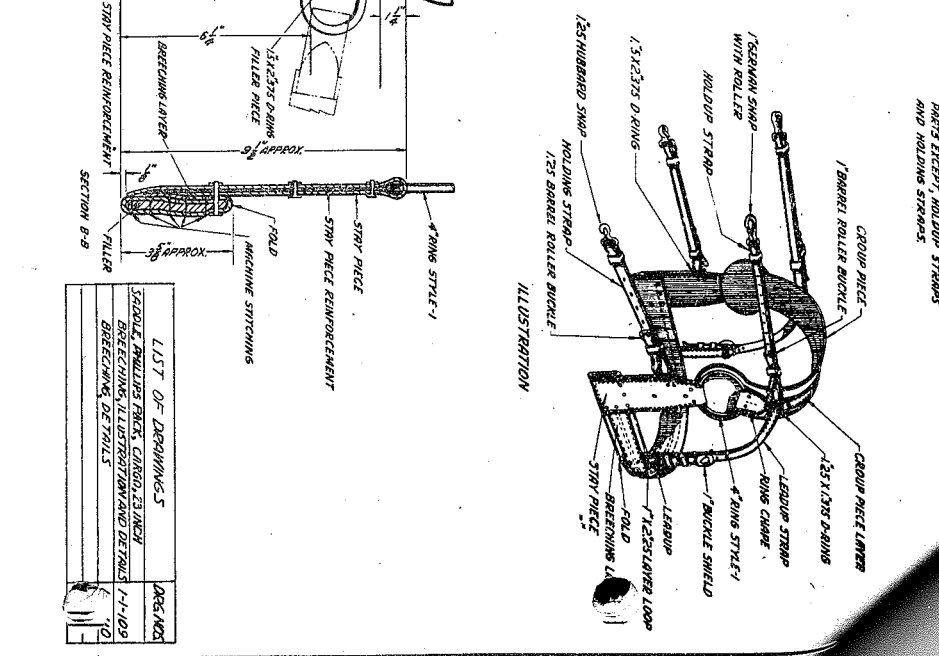
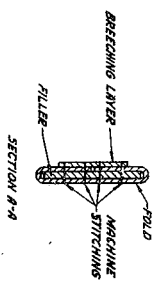
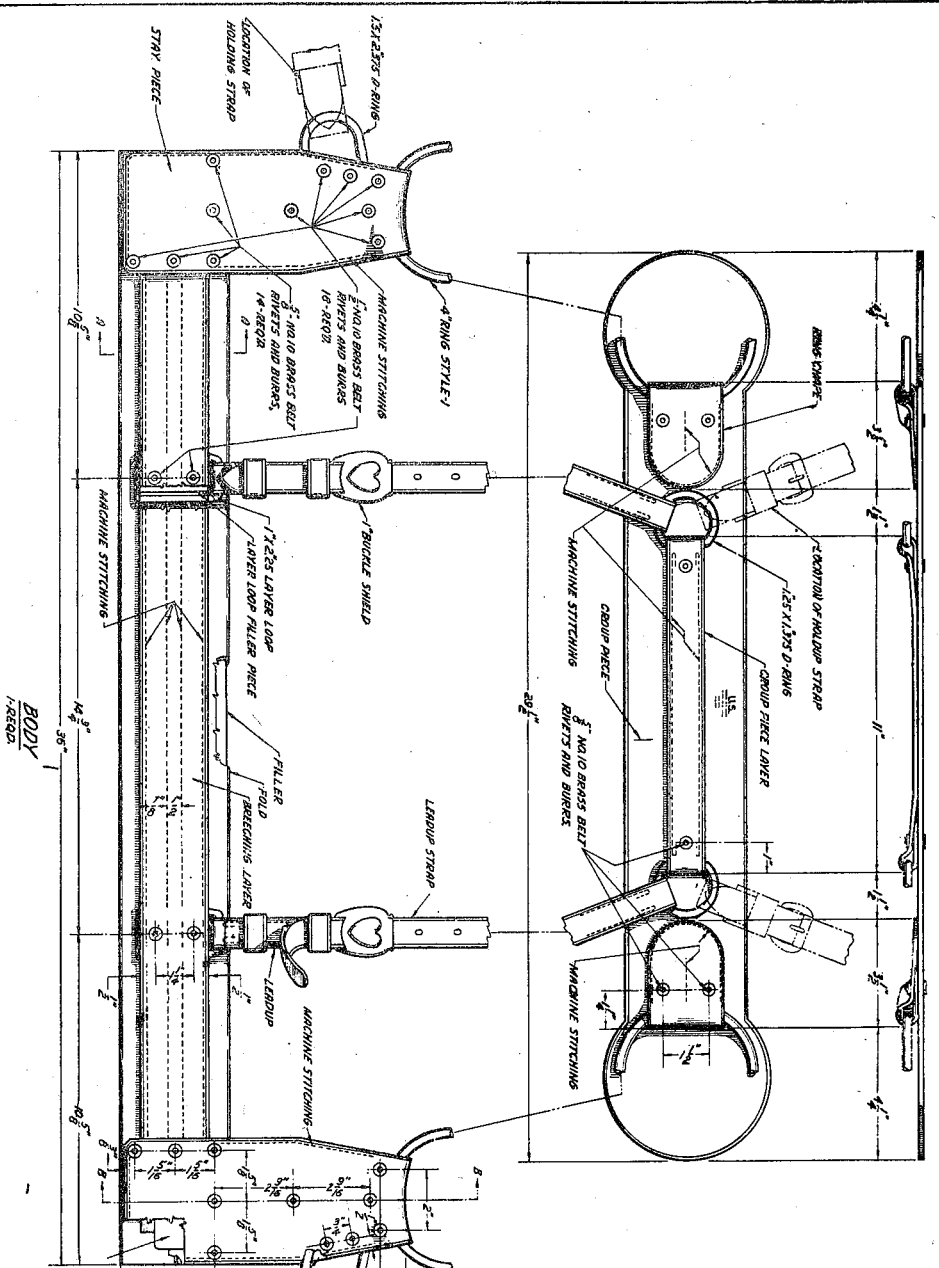
APPROVED FOR THE G.M.C.
R. W. M. Thomas, Chief Eng.

REV.	FROM	TO	DATE
1	FROM	TO	

MADE BY: JERRY GARDNER
 CHECKED BY: JERRY GARDNER
 DRAWN BY: JERRY GARDNER
 SCALE: DO NOT SCALE
 C.I.A. C.I.A.
 SPECIFICATIONS: ADD 5028
 DRAWING NO: 1-1-107



REVISED	ROOM	TO	DATE
	WARD DEPARTMENT		
	QUARTERMASTER CORPS		
	LEFT O.M. REPLY		
	J.M.P.M.B.		
SADDLE, PHILLIPS PACK,			
CARGO, 23 INCH,			
PADS, DETAILS "B"			
SCALE DO NOT SCALE			
DESIGNED BY	W.C. W.	DATE	1-1-14
CHECKED BY	S.O.B.	DATE	1-1-14
APPROVED BY	J.R.D.S.G.	DATE	1-1-14
DRAWING NO. 1-1-108			
APPROVED FOR THE C.M. G.			
J.M.P.M.B.			



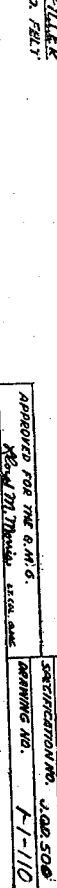
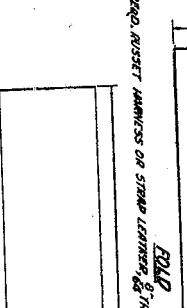
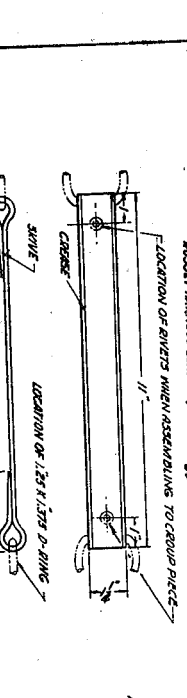
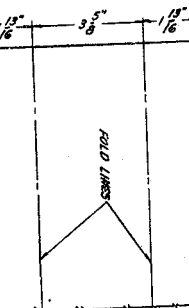
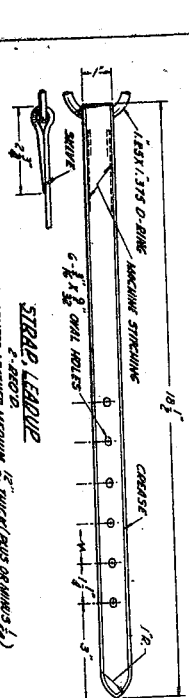
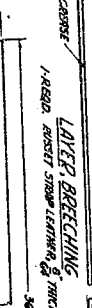
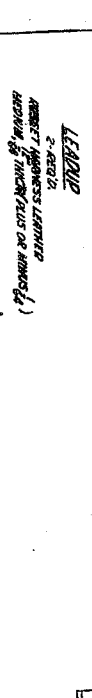
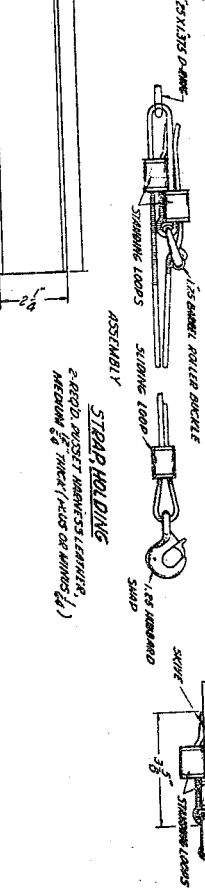
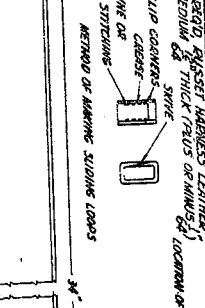
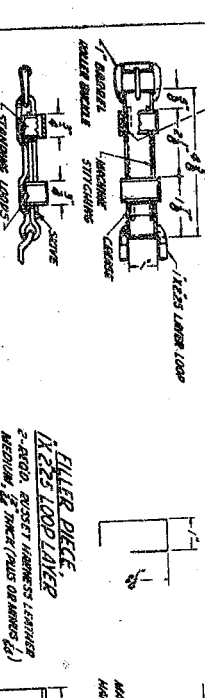
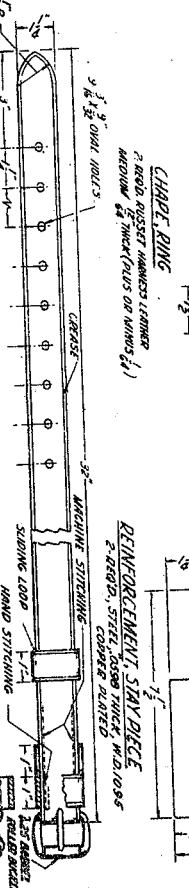
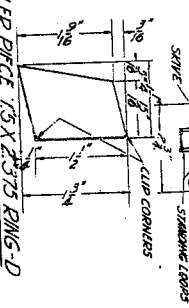
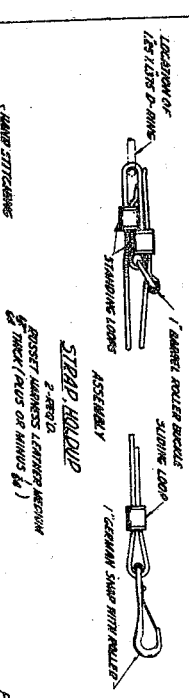
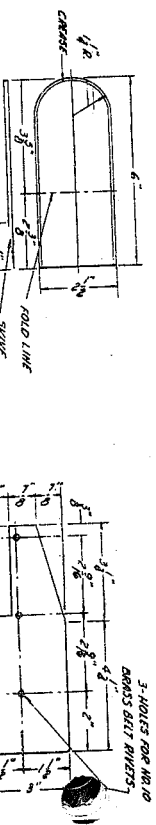
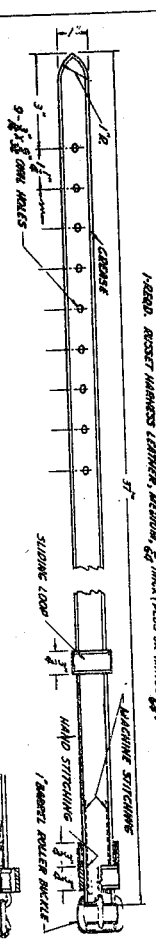
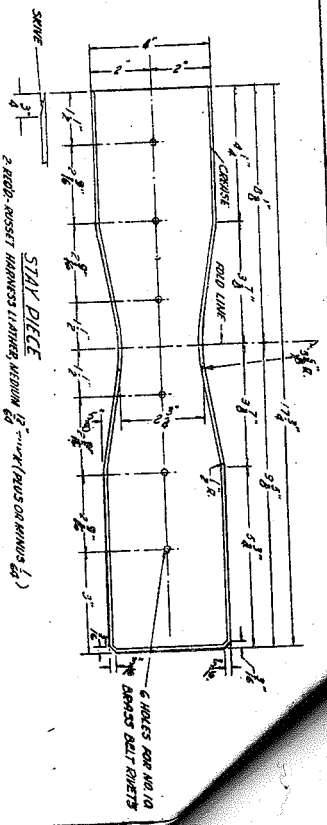
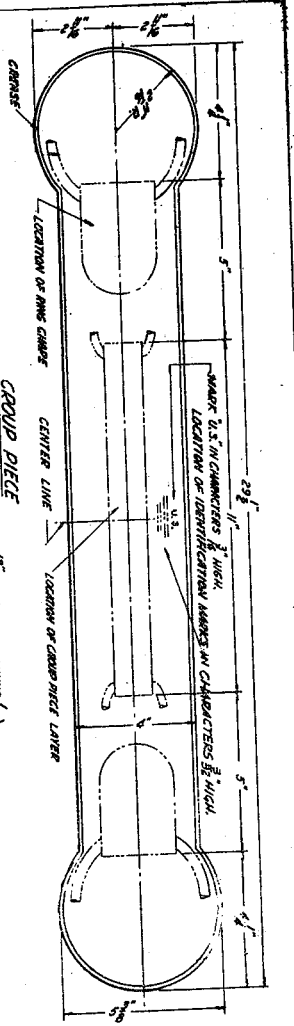
NOTE - 1
BREECHING BODY CONSISTS OF ALL PARTS EXCEPT HOLDUP STRAPS AND HOLDING STRAPS.

LIST OF DRAWINGS

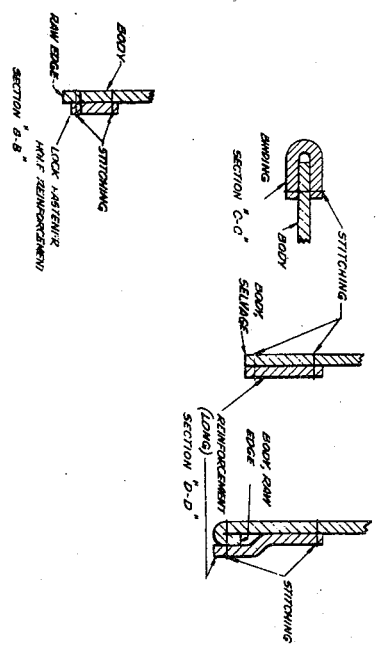
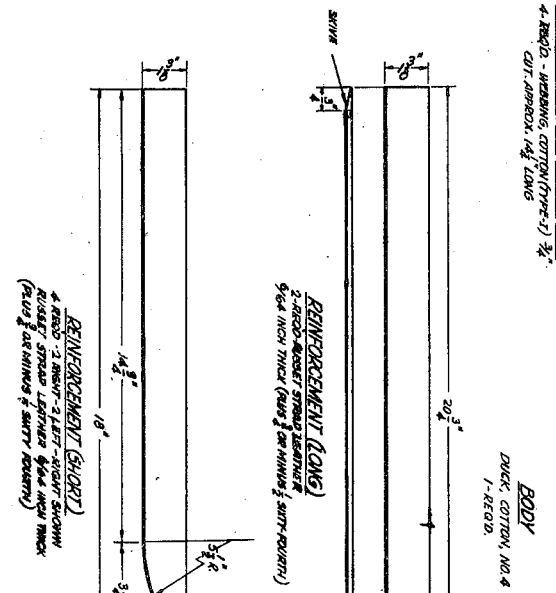
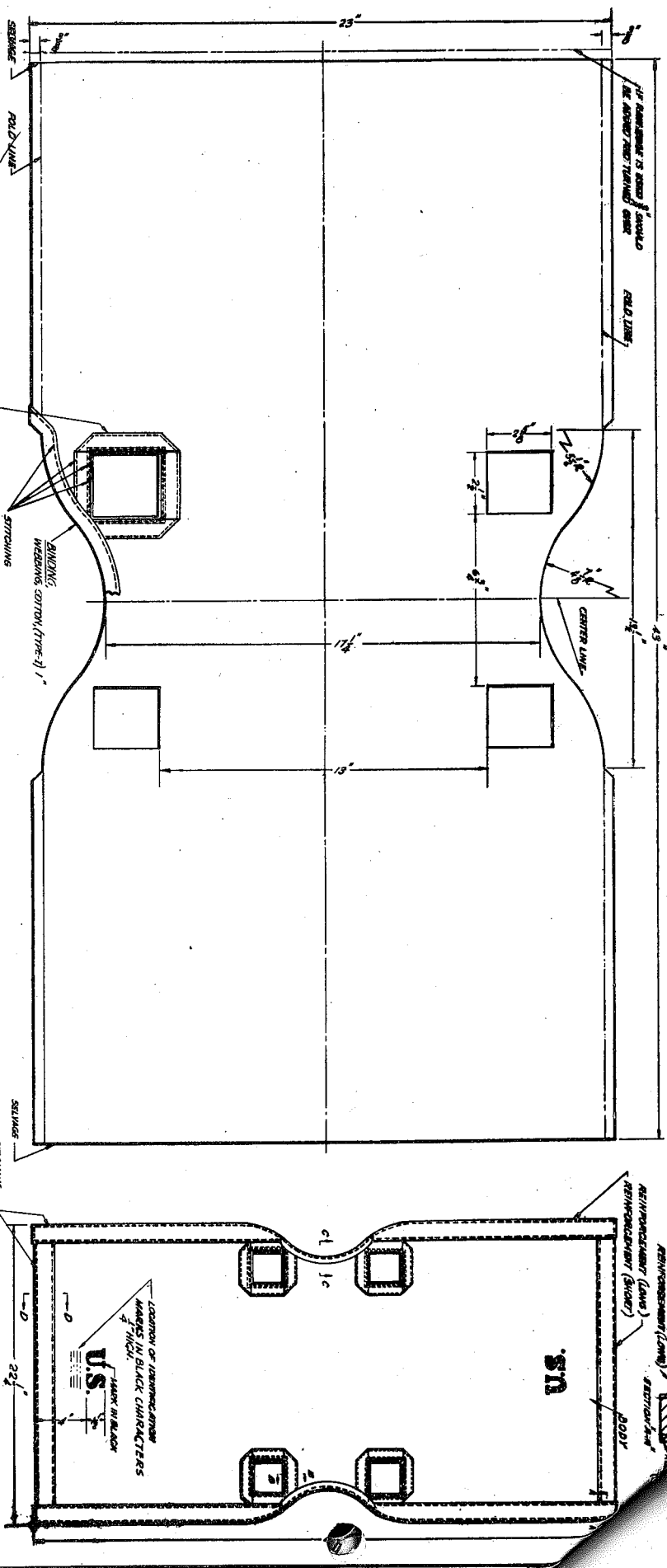
SADDLE, PHILLIPS PACK, COND. 23 INCH	DRAWING NO.	1-1-109
BREECHING, ILLUSTRATION AND DETAILS	DRAWING NO.	1-1-109
BREECHING, DETAILS	DRAWING NO.	1-1-109

APPROVED FOR THE G.M. & C. BY THE CHIEF, 4500, G.M.C.

REVISED	FROM	TO	DATE
	HEAD DEPARTMENT	QUARTERMASTER CORPS	
	4500, G.M.C.	4500, G.M.C.	
SADDLE, PHILLIPS PACK,			
COND. 23 INCH,			
BREECHING, ILLUSTRATION AND DETAILS			
SCALE	DO NOT SCALE	DATE	
APPROVED	DESIGNED	BY	
SPECIFICATION NO. 4500, 5000			
DRAWING NO. 1-1-109			



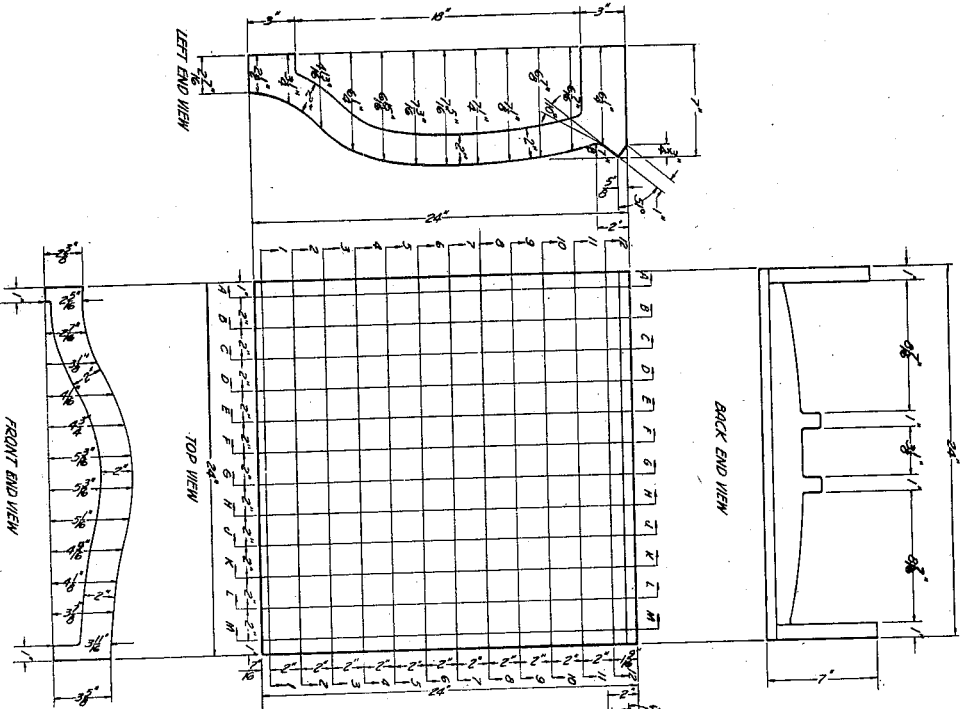
REVISION	FROM	TO	DATE
HORN DEPARTMENT QUANTITYMASTER CORP. 405 S. M. DR. 200 SADDLE, PHILLIPS PACK, CARBON, 23 INCHES, BEECHING, DETAILS.			
SCALE: DO NOT SCALE DRAWING 1:00, 500 REPRODUCTION NO. 1-1-110			
APPROVED FOR THE S.M.D. [Signature]			



APPROVED FOR THE G.M.G.
 J. M. [Signature]
 1-1-11

APPROVED	DATE	BY
MADE	NOV 1941	W.C.
BY		
DATE		
NO.		
SCALE	DO NOT SCALE	9/16" = 1"
DESIGNED BY	W.C.	
CHECKED BY	W.C.	
DESCRIPTION	SADDLE COVER	
PROJECT NO.	1-1-11	
REVISED		
DATE		
BY		
NO.		
SCALE	DO NOT SCALE	
DESIGNED BY	W.C.	
CHECKED BY	W.C.	
DESCRIPTION	SADDLE COVER	
PROJECT NO.	1-1-11	
REVISED		
DATE		
BY		
NO.		

MOLD
2 REEDS, 1 RIGHT AND 1 LEFT - LEFT SHOWN
ALUMINUM



LIST OF DRAWINGS

NO.	DESCRIPTION	DATE
1	MOLD FOR PHILLIPS BACK SADDLE PADS	1-1-112
2	ILLUSTRATION AND LOCATION OF SECTIONS	1-1-112
3	SECTIONS 1-1 TO 12-12	1-1-112
4	SECTIONS 4-4 TO 11-11	1-1-112
5	LOCATION OF TRUSS TOOLS	1-1-112

NOTE - 1
ALL CURVES ON TOP SURFACE TO BE SMOOTH
AND EXIST AS SHOWN IN DRAWINGS.

NOTE - 2 - THESE MOLDS ARE USED FOR STUFFING
THE FOLLOWING PACE SADDLE PADS:
CARRO, 25 INCH
CANALY, 23 INCH
CHINA SPECIAL
PONY.

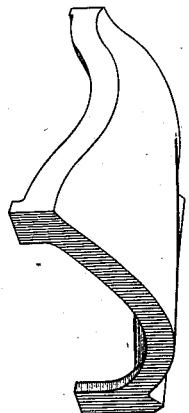
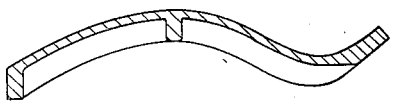


ILLUSTRATION
(TRUSS HOLES NOT SHOWN)



SECTION E-E REBATED SKIVING
REINFORCING RIB VIEW TO SHOW IT IS
SIMILAR IN CONSTRUCTION.

REV	NO	BY	TO	DATE

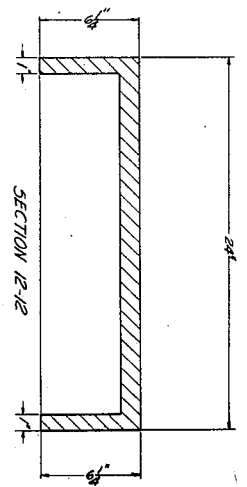
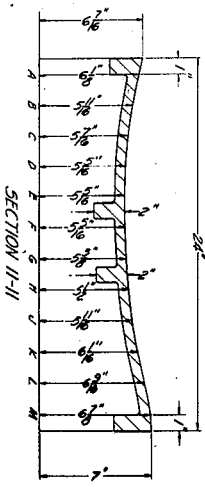
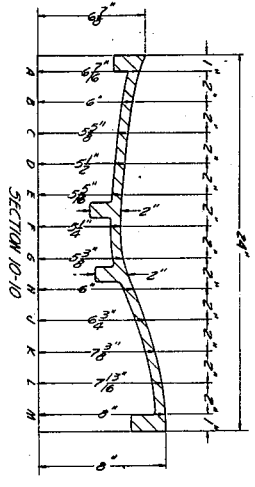
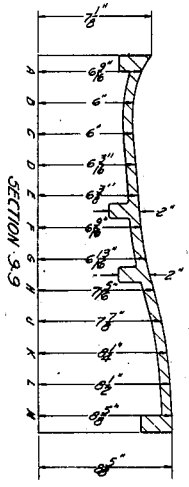
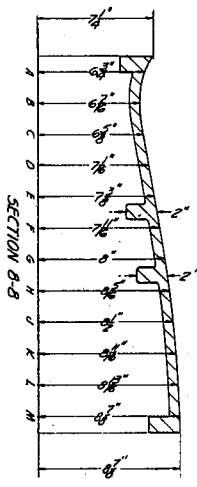
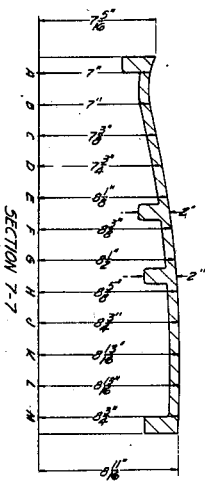
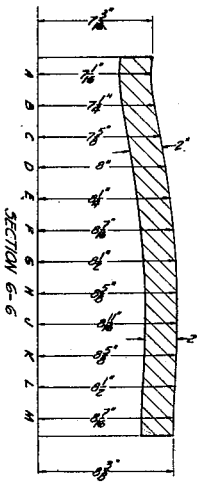
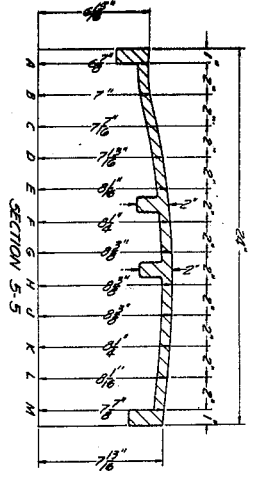
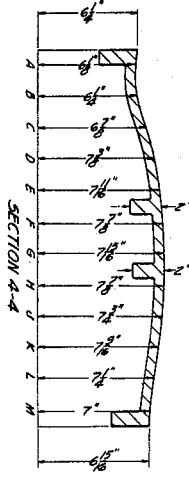
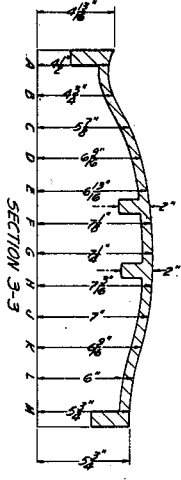
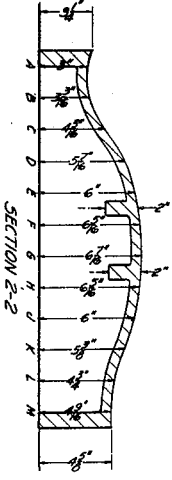
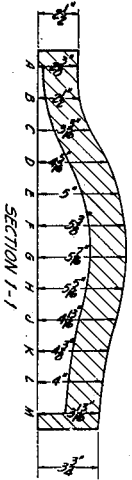
WAG DEPARTMENT
QUARTERMASTER CORPS
LIEUT. W. M. BERRY

MOLD FOR PHILLIPS
BACK SADDLE PADS
ILLUSTRATION AND LOCATION OF SECTIONS

SCALE: DO NOT SCALE
1/8" = 1" (VERTICAL)
1/8" = 1" (HORIZONTAL)

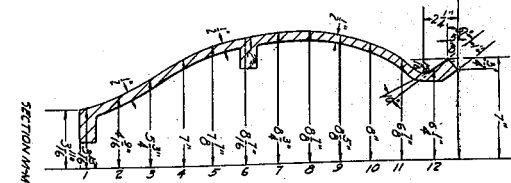
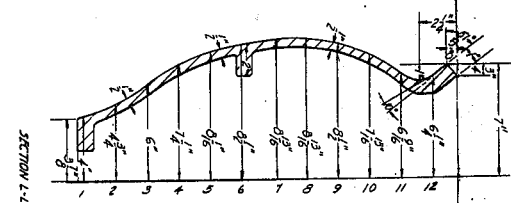
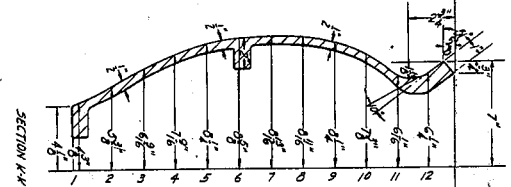
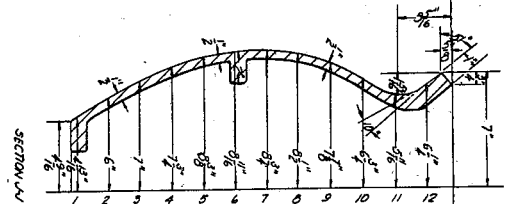
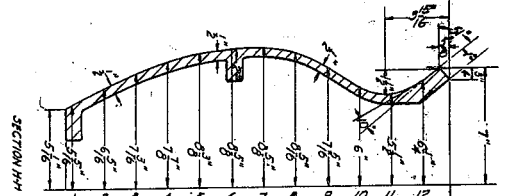
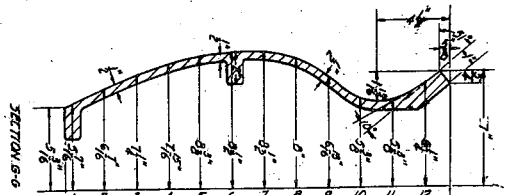
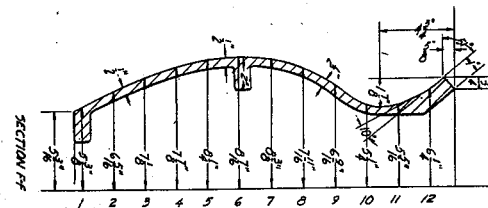
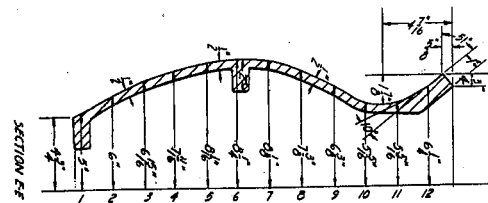
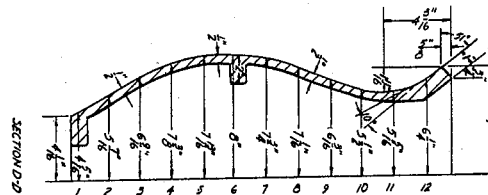
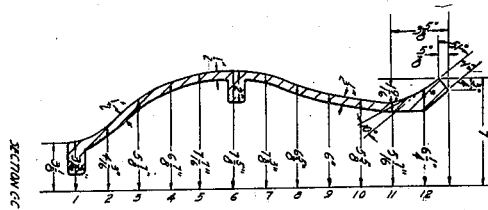
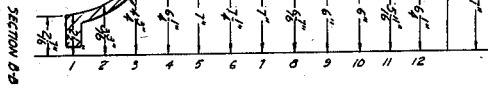
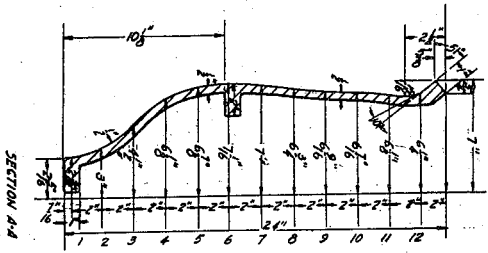
APPROVED FOR THE G.O.S.
SPECIALIST
1-1-112

DRAWING NO.



NOTE- ALL CURVES ON TOP SURFACE TO BE SMOOTH AND RASPY AS SHOWN IN DRAWINGS.

SECTION	FROM	TO	DATE
MOLD DEPARTMENT			
QUANTITY NUMBER CROSS			
LAYER NUMBER CROSS			
LAYER NUMBER CROSS			
MOLD FOR PHILLIPS			
BACK SADDLE PADS.			
SECTIONS 1-1 TO 12-12			
SCALE DO NOT SCALE			
DRAWN BY			
CHECKED BY			
FIELD NO.			
APPROVED FOR THE Q.M.S.			
SPECIFICATION NO.			
DRAWING NO. 1-1-113			



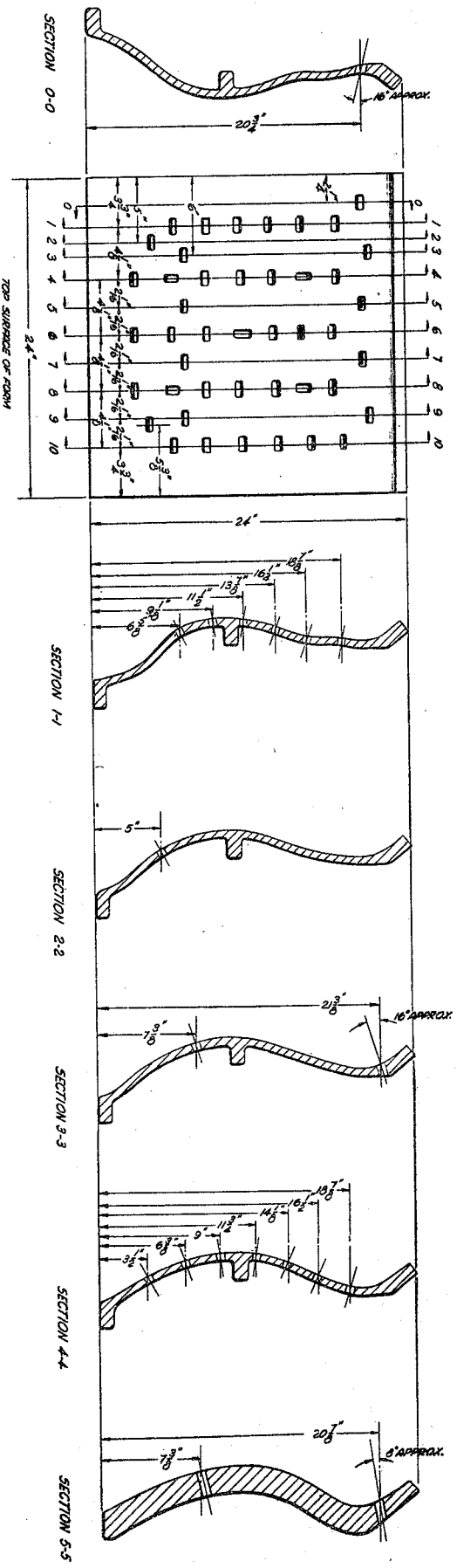
NOTE - ALL CURVES ON TOP SURFACE TO BE SMOOTH AND EASY AS SHOWN IN DRAWINGS.

REV.	BY	TO	DATE

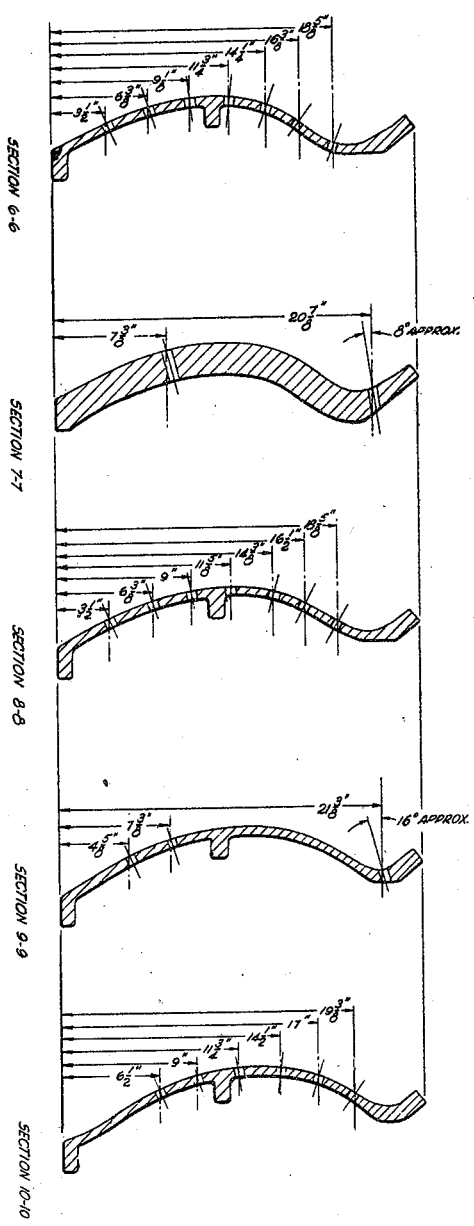
WALD DEPARTMENT
QUARTERMASTER CORPS
JEF. G. M. BENT
JUN 1916

**MOLD FOR PHILLIPS
PACK SADDLE PADS
SECTIONS A-A TO M-M**

SCALE: DRAWING SCALE: 1" = 1" (1/2" = 1")
 DRAWING: 1-1-114
 APPROVED FOR THE Q.M.C. BY: [Signature]
 SPECIFICATION NO. 1-1-114
 DRAWING NO. 1-1-114



2-MOLDS REQUIRED
 1-RIGHT - 1-LEFT, LEFT SHOWN

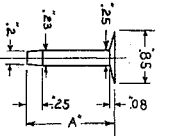


NOTE - ALL DIMS ON TOP SURFACE TO BE SMOOTH AND EASY AS SHOWN IN DRAWINGS



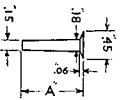
PERSON	FROM	TO	DATE
WAR DEPARTMENT			
QUARTERMASTER CORPS			
WAR OFFICE			
WAR DEPARTMENT			
QUARTERMASTER CORPS			
WAR OFFICE			
WAR DEPARTMENT			
QUARTERMASTER CORPS			
WAR OFFICE			

APPROVED FOR THE CHIEF OF THE
 DRAWING NO. 1-1-115



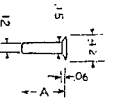
BELT RIVET NO. 5
COPPER, NOT BRONZED

NO.	A
5	1.43



BELT RIVET NO. 8
BRASS BRONZED

NO.	A
8	1.25



BELT RIVET NO. 10
BRASS BRONZED

NO.	A
10	1.25



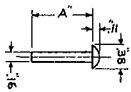
BELT RIVET NO. 12
BRASS BRONZED OR BRASS

NO.	A
12	1.5



BELT RIVET NO. 14
BRASS BRONZED

NO.	A
14	1.25



OVAL HEAD TRUNK RIVET NO. 2
SOFT STEEL, BRASS OR COPPERED

NO.	A
2	.625



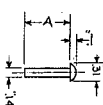
OVAL HEAD TRUNK RIVET NO. 7
SOFT STEEL, TERNE-PLATE FINISH

NO.	A
7	.5



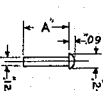
OVAL HEAD TRUNK RIVET NO. 9
SOFT STEEL, BRASS OR COPPERED

NO.	A
9	1.25



OVAL HEAD RIVET NO. 10
BRASS BRONZED

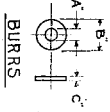
NO.	A
10	1.5



OVAL HEAD RIVET NO. 12
BRASS BRONZED OR BRASS

NO.	A
12	1.00

NO.	A
5	.625
8	.75
10	1.00
12	1.25

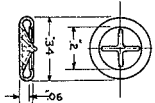


BURRS

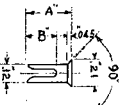


TUBULAR RIVETS
BRASS BRONZED

SIZE	A	B
1/8"	.125	.04
3/16"	.1875	.04
1/4"	.25	.04
5/16"	.3125	.04
3/8"	.375	.04
7/16"	.4375	.04
1/2"	.5	.04
5/8"	.625	.04
3/4"	.75	.04
7/8"	.875	.04
1"	1.00	.04

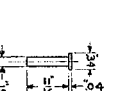


CAP (TUBULAR RIVET)
BRASS BRONZED



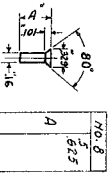
FLAT HEAD BIFURCATED RIVET
SOFT STEEL

SIZE	A	B
1/8"	.125	.08
3/16"	.1875	.08

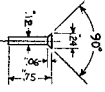


FLAT HEAD RIVET NO. 9
SOFT STEEL

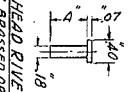
SIZE	A	B	C	MATERIAL
No. 5	.218	.57	.062	BRASS
No. 8	.163	.47	.037	BRASS BRONZED
No. 9	.155	.525	.059	BRASS BRONZED
No. 10	.120	.39	.028	BRASS BRONZED
No. 12	.125	.275	.028	BRASS BRONZED
No. 14	.093	.24	.028	BRASS BRONZED



80° COUNTERSUNK HEAD RIVET NO. 8
BRASS BRONZED



90° COUNTERSUNK HEAD RIVET NO. 12
SOFT STEEL



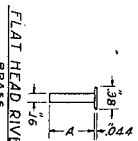
FLAT HEAD RIVET NO. 7
SOFT STEEL, BRASS OR COPPERED

NO.	A
7	.625



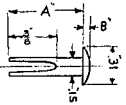
OVAL HEAD BIFURCATED RIVET NO. 12
SOFT STEEL

NO.	A	B
12	.25	.31



FLAT HEAD RIVET NO. 8
BRASS

NO.	A
8	1.25



OVAL HEAD BIFURCATED RIVET NO. 9
SOFT STEEL, BRASS OR COPPERED

NO.	A	B
9	.25	.31

* BRASS BRONZED

SUPersedes DWG. NO. 4-1-22 DATED SEPT 28, 1921
FOR LIST OF WHERE RIVETS, CAP, AND BURRS ARE USED SEE DWG. 4-1-22A

REVISIONS	NO.	DATE	REVISIONS	NO.	DATE
3	2/27/29		3	2/27/29	
4	1/17/32		4	1/17/32	
5	1/17/32		5	1/17/32	

DRAWING NO.	4-1-22	QUARTERMASTER GENERAL'S OFFICE	
WIR		DEPARTMENT	
RIVETS, CAP AND BURRS			
SCALE	1" = 2" x 3" = 1"	DATE	OCT 14 1931
DRAWN	RAS	CHECKED	CH. DEPARTMENT
SUBMITTED	RAS	EXAMINED	CH. DEPARTMENT
APPROVED FOR Q.M.G.		SPECIALIST	CH. DEPARTMENT
SPECIFICATION		DRAWING NO.	4-1-22