(No Model.)

G. RANK.

HARNESS SADDLE.

No. 381,952. Patented May 1, 1888.

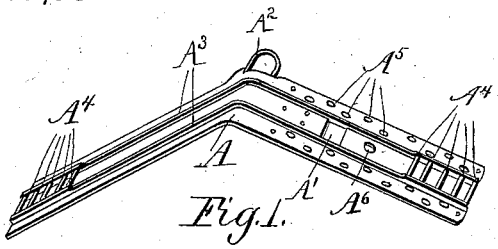

Fig. 1.

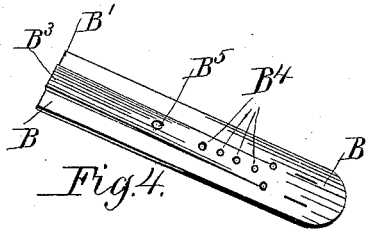

Fig. 4.

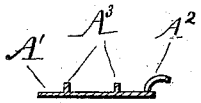

Fig. 2

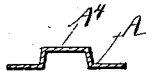

Fig. 3

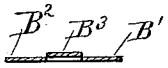

Fig. 5.

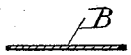

Fig. 6

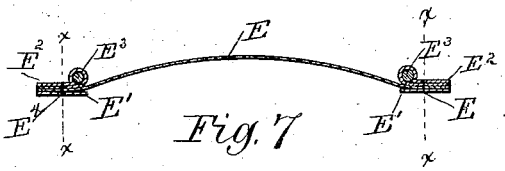

Fig. 7

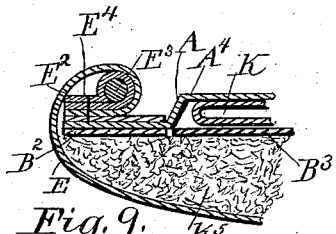

Fig. 9.

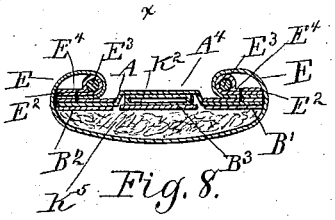

Fig. 8.

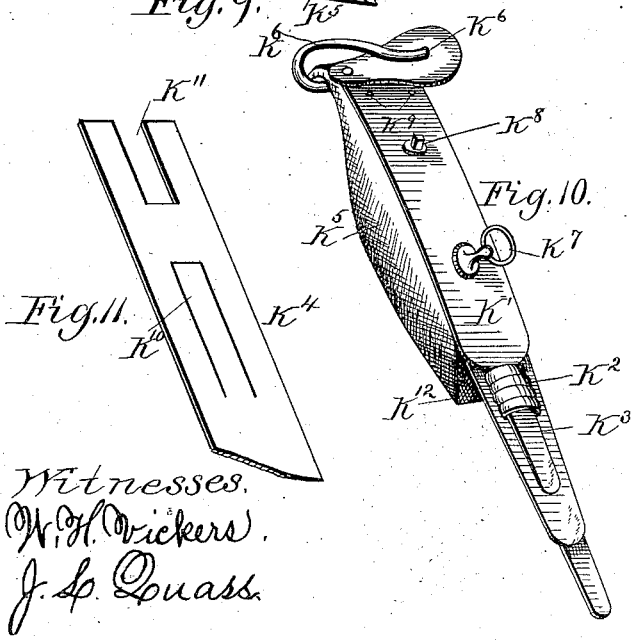

Fig. 10.

Fig. 11.

Fig. 12.

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UNITED STATES PATENT OFFICE.

GEORGE RANK, OF SALEM, OHIO.

HARNESS-SADDLE.

SPECIFICATION forming part of Letters Patent No. 381,952, dated May 1, 1888.

Application filed October 24, 1887. Serial No. 253,247. (No model.)

To all whom it may concern:

Be it known that I, GEORGE RANK, a citizen of the United States, residing at Salem, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Kay Harness-Saddles; and the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in kay harness-saddles or so-called "kay strap-saddles," the first object of which is to simplify the manufacture and reduce the initial cost of this form of harness-saddles. The second object is to make the improvements convertible or interchangeable in the manufacture of harness-saddles of different form and grade.

The term "kay," as used in this specification, represents the beaded and rolled heads or edges of the improved harness-saddle described and shown in the accompanying drawings.

In the accompanying drawings, Figure 1 is a view in perspective of my improved metal tree for kay harness-saddles. Fig. 2 is a transverse sectional view of the same at the center of the tree. Fig. 3 is a transverse sectional view of one leg of the tree near its lower ends. Fig. 4 is a view in perspective of my improved convertible clinching flexible point-piece. Fig. 5 is a transverse sectional or upper end view of the same. Fig. 6 is a transverse sectional view of the same near its lower end. Fig. 7 is a transverse sectional or end view of the parts of my improved harness-saddle, showing the kay, the kay-base, and the pad-casing, and the manner of stitching the same together. Fig. 8 is a transverse sectional or end view showing the same parts after being stitched together and rolled. In this view is also shown a transverse section of the metal tree near its lower ends, and the three branches or parts of the convertible clinching flexible point-piece, and the shaft or thill bearer and their relative position to each other when fastened together. Fig. 9 is an enlarged view of one-half of the saddle, showing the same parts. Fig. 10 is a view in perspective of one-half of my improved kay harness-saddle, made as shown in Figs. 7, 8, and 9, with skirt, jockey, saddle, &c., added to complete it. Fig. 11 is a view of the upper parts of the skirt of my improved kay harness-saddle, showing how the same is to be cut and slit before attaching it to the tree. Fig. 12 is a transverse sectional or end view of my improved form of cheaper grade of harness-saddle, showing the same improved parts put together in a somewhat modified form, all of which will be hereinafter more fully described.

In the accompanying drawings, A represents the malleable kay saddle-tree; A′, square central hole for tongue-strap, &c.; A^2, the back-strap loop; A^3, upwardly-projecting flanges on tree; A^4, series of cross-bars or bridges; A^5, tacking-holes; A^6, hole for terret or pad-stop; B, convertible clinching flexible point-piece; B′, rear branch of the same; B^2, front branch of the same; B^3, middle branch or tongue of the same; B^4, holes corresponding with spaces between bars; B^5, hole corresponding with terret-hole in tree; E, pad-leather or oil-cloth; E′, base-leather for the kay; E^2, oil-cloth or muslin casing for the kay; E^3, rattan bead or welt; E^4, place where stitched together to form kay; E^5, place where tacked together in cheaper form; K, finished kay-saddle; K′, the jockey; K^2, the locking-loop; K^3, the thill-bearer; K^4, the skirt; K^5, the pad; K^6, the saddle-seat; K^7, the terret; K^8, the pad-stop; K^9, the pad-tacks; K^{10}, slit in skirt for bearer, locking-loop, &c.; K^{11}, cut-out for tongue of point-piece; K^{12}, flexible point of pad.

Similar letters and figures refer to similar parts throughout the several views.

The tree for my improved kay harness-saddles is preferably made of malleable cast-iron. Except for about four inches of the lower end of each leg of the tree, it is nearly flat in section, as is shown in Figs. 1 and 2. Two central upwardly-projecting flanges, A^3, are formed on the same, extending the whole length of the tree. For about four inches of their length at the lower end of each leg of the tree said flanges are made somewhat higher, rising in height toward the ends, and across the top of the same are cast a series of cross-bars or bridges, A^4, forming an arch-shaped section in the middle of each leg of the tree at their lower ends, as shown in Figs. 1 and 3, and under the raised or arched ends the upper ends of the shaft or thill bearers are inserted, as shown in Figs. 8, 9, and 12.

The malleable cast-iron tree has also cast on it a series of oblong tacking-holes, A^5, as shown in Fig. 1. It has also cast on it near the center of each leg a square hole or opening, A', through which the middle branch or tongue, B^3, of the convertible clinching flexible point-piece is drawn from the under side of the tree to the upper side, the two ends coming together under the saddle-seat K^6. It has also cast in it a round hole near the center of each leg for the terret or pad-stop, and several small holes in the upper end of each leg for tufting or tacking holes or for pad-tacks, as may be desired, and as shown in Figs. 1 and 10.

If preferred, the terret may be placed at the point of spaces between the cross-bars or bridges and the pad-stop at the hole A^6.

The convertible clinching flexible point-piece B is made out of heavy coarse cloth having an oil-cloth finish or out of heavy tough paper having an oil-cloth finish, and is cut or slit and provided with holes B^4 and B^5, as shown in Fig. 4. The holes are made to correspond with the holes in and the openings between the cross-bars A^4 of the cast-metal tree A. After this convertible clinching flexible point-piece is cut or slit for about three-fourths of its length from the upper end, as shown in Fig. 4, in making the better grade of kay harness-saddles it is put immediately under the cast-metal tree A, as shown in Figs. 8 and 9, and the upper end of the central branch or tongue is passed through the opening A' to the outside or upper side of the tree, as hereinbefore described.

In making the cheaper grade of harness-saddle, or "imitation hand-lace saddle," (as it might be termed, and both forming what may also be termed "single-strap harness-saddles,") the convertible clinching flexible point-piece is applied to the cast-metal tree in a somewhat different manner, but still combining with it in substantially the same manner.

The central branch or tongue is started in at the lower end of the tree, under the same, and under the shaft or thill bearer, the same as hereinbefore described, and shown in Figs. 8, 9, and 12; but the two outside branches, B' and B^2, are put on the upper side of the tree A, the inside edges of said outside branches resting tightly against the outside of the flanges A^3 of the tree, the tongue or central branch being brought up through the square hole A' of the tree, the same as hereinbefore described.

The pad-leather or pad-casing E may be ordinary leather or oil-cloth.

The base-leather or base-strap E' is made of good tough leather of ordinary thickness; but it may also be made of heavy tough paper-board.

The casing E^2 for the kay may be made of light leather or oil-cloth or muslin.

The bead or welt of the kay is preferably made of a piece of rattan; but any tough piece of wood would answer the same purpose.

After the pad-casing E, the base-straps E', and the bead-casing E^2 are placed together, as shown in Fig. 7, they are stitched together on a machine at the point shown by dotted lines $x\,x$ in the same figure, and as well in Figs. 8 and 9. After the parts are stitched together, as described, the sides are rolled upwardly and inwardly until the parts have turned one revolution, which will bring the two kay sides to the finished well-beaded form, as shown in Figs. 8 and 9, when the base-leather straps E may be tacked securely to the tree A, the tacks passing through the holes of the tree into the clinching-piece B.

In making the cheaper grades of harness-saddles, as shown in Fig. 12, the kay is not rolled; but the pad-leather is drawn around the sides of the tree A on top of the two outside branches of the convertible clinching flexible point-piece B and under the bead-casing E^3, and the parts tacked together and to the tree A, as shown in Fig. 12. In this case tacks E^5 are used to fasten the several parts together and to the tree, while in the case hereinbefore described, and shown in Figs. 7, 8, and 9, the leather parts are first stitched together and then rolled and afterward tacked to the tree A.

The skirt K^4 of my improved kay harness-saddle has a recess and a slit cut in it, K^{10} and K^{11}, as shown in Fig. 11. The upper recess, K^{11}, forms the rest for the upper end of the middle branch or tongue, B^3, of the convertible clinching flexible point-piece. The central tongue-piece, K^{10}, is cut or slit, as shown, for the purpose of locking the loop K^2 to the skirt K^4, which will be hereinafter more fully described.

The shaft-bearer K^3, working with the tongue-piece K^{10} and the locking-loop K^2, will also be hereinafter more fully described.

The jockey, the saddle-seat, the terrets, &c., are to be made in any of the well-known ways, and need not be particularly described, as no claims are made in this application on the construction of these parts. The locking-loop K^2 being made in the usual form, it is tacked or stitched to the convertible clinching flexible point-piece B near the lower end thereof, and the tongue K^{10} of the skirt is passed through it, and the upper end of the shaft-bearer K^3 is then also passed through the loop on top of the tongue K^{10}. Before slipping the tongue K^{10} up through the loop K^2 a suitable nut for the terret K^7 is tacked onto the end of the same, and before slipping the upper end of the shaft-bearer K^3 up through the loop K^2 a suitable nut for the pad-stop K^8 is tacked onto the end of the same, and when the terrets and pad-stops are screwed into said nuts the several parts are locked firmly together, as shown in Fig. 10.

The pads K^5 are made in the usual manner, the hair or other filling being inserted from the lower end of the pad-casing and the openings afterward closed. The lower end of the pads being properly filled, a well-shaped and very flexible point is obtained, improving the appearance and the utility of the saddles.

By the use of my improvements better and cheaper grades of harness-saddles may be produced than have heretofore been known.

Having described the improvements for which I desire to secure Letters Patent, what I claim is—

1. In the herein described harness saddle tree, the combination of the upwardly-projecting flanges running the full length of the tree, with a series of cross-bars or bridges at the lower ends thereof, substantially as shown and described.

2. The herein-described harness-saddle tree, provided with the projecting flanges running the whole length of the tree, the series of cross-bars or bridges forming the arched ends, and the square central hole between the flanges, substantially as shown and set forth.

3. In the herein-described harness-saddle, the interchangeable or convertible clinching flexible point-piece B, constructed as herein-before described, for the purpose of forming two different grades of harness-saddles, as set forth.

4. In the herein-described harness-saddle, the combination of the pad-leather casing, the base-leather for the kay or bead, and the bead-casing, all sewed together and rolled upwardly and inwardly to form the kay bead or welt, substantially as shown and described.

5. In the herein-described harness saddle, the combination of the cast-metal tree A, the convertible clinching flexible point-piece B, the pad-leather E, the base-leather E′, and the bead-casing E^2, substantially as shown and described.

6. In the herein-described harness-saddle, the combination of the cast-metal tree A, the convertible clinching flexible point-piece B, the pad-leather E, the base-leather E′, the bead-casing E^2, the rattan bead E^3, the skirt K^4, the jockey K′, the locking-loop K^2, and the shaft-bearer K^3, substantially as shown and described.

7. In the herein-described harness-saddle, the combination of the cast-metal tree A, the convertible clinching flexible point-piece B, the skirt K^4, with its tongue-piece K^{10}, the shaft-bearer K^3, and the locking-loop K^2, substantially as shown and described.

8. In the herein-described harness-saddle, the combination of the cast-metal tree A, the convertible clinching flexible point-piece B, the pad-leather E, the base-leather E′, the bead-casing E^2, the rattan bead E^3, the skirt K^4, with its tongue-piece K^{10}, the shaft-bearer K^3, the locking-loop K^2, the jockey K′, the terrets K^7, the pad-stops K^8, and the saddle-seat K^6, substantially as shown and described.

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J. L. QUASS.