No. 676,627. Patented June 18, 1901.

# S. A. MARKER.

## HARNESS SADDLE.

(Application filed Jan. 14, 1901.)

(No Model.)

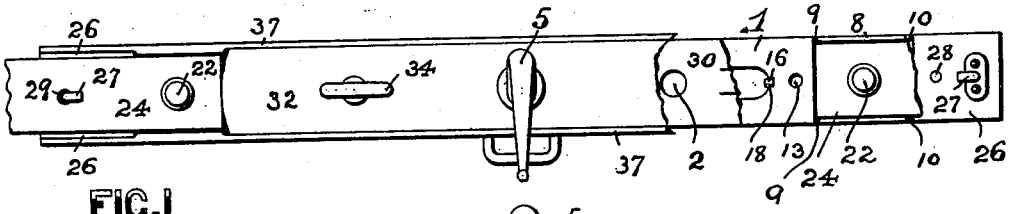

FIG. 1

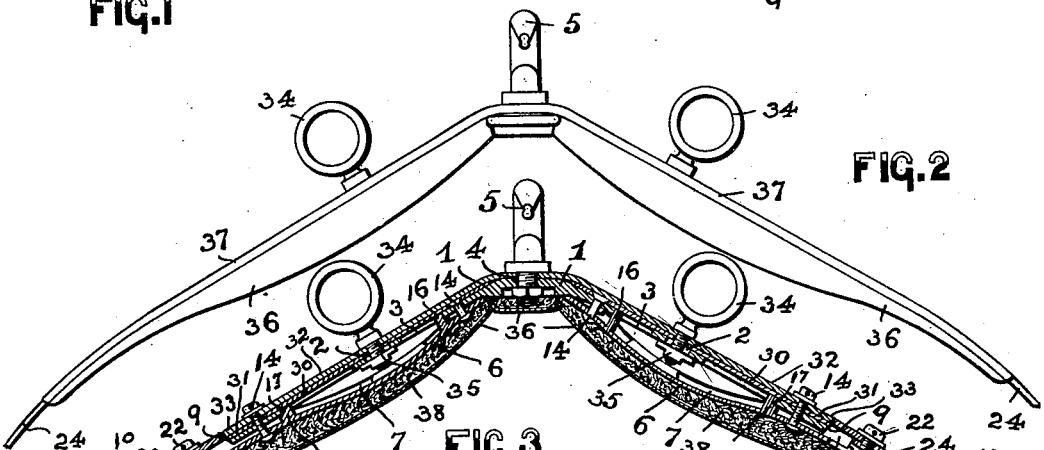

FIG. 2



FIG. 3

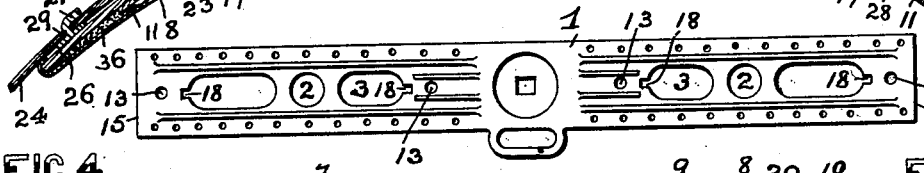

FIG. 4

FIG. 5

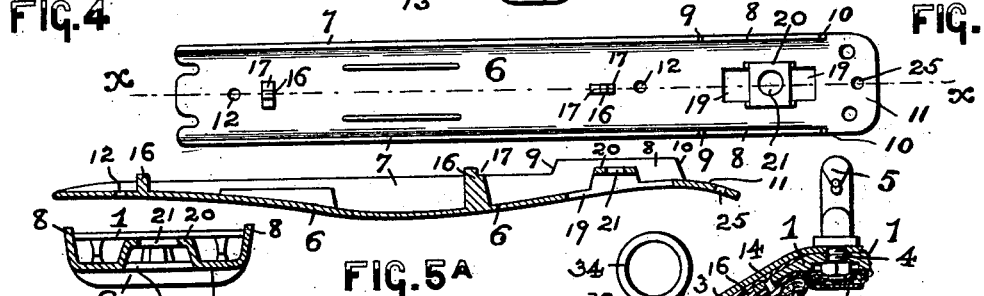

FIG. 5A



FIG. 6



FIG. 7

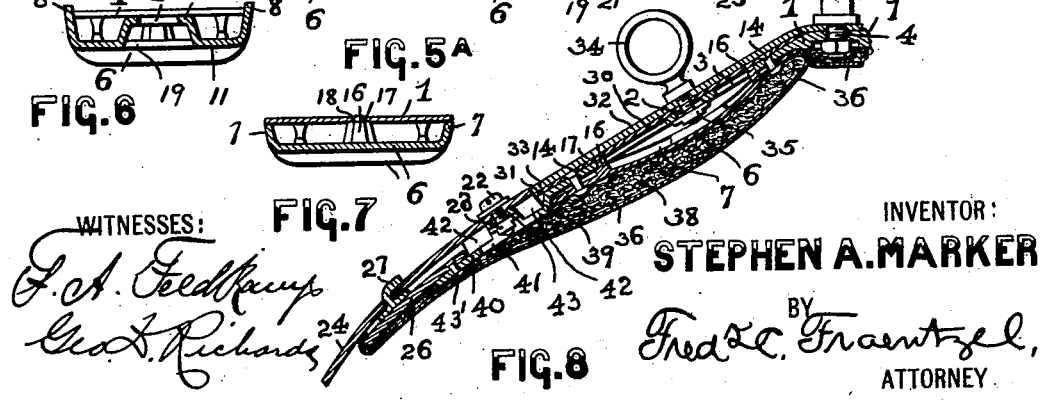

FIG. 8

WITNESSES:

F. A. Feldkamp

Geo. T. Richards

INVENTOR:

STEPHEN A. MARKER

BY

Fred'k C. Fraentzel,

ATTORNEY.

# UNITED STATES PATENT OFFICE.

STEPHEN A. MARKER, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE PERFORATED PAD COMPANY, OF RHODE ISLAND.

## HARNESS-SADDLE.

SPECIFICATION forming part of Letters Patent No. 676,627, dated June 18, 1901.

Application filed January 14, 1901. Serial No. 43,103. (No model.)

*To all whom it may concern:*

Be it known that I, STEPHEN A. MARKER, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Harness-Saddles; and I do hereby declare the following to be 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, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in harness-saddles; and the invention has for its principal object to provide a novel arrangement and construction of the pad-plate and shell and to avoid the cutting away or notching of the side edges of the ends of the side pieces or skirts, and, furthermore, to provide a construction in which the upper surface or face of the side piece or skirt will not rise above the upper edges of the binding at the longitudinal edges of the pad, which admits of making the pad quite thin at this point and at the same time produces neatness, as well as cheapness, of construction.

Other objects of this invention not here specifically mentioned will be more fully set forth in the following description.

The present invention therefore consists in the general arrangement and combinations of the various parts comprising my novel form of harness-saddle, as well as in the details of the construction of such parts, all of which will be more particularly described in the accompanying specification and finally pointed out in the clauses of the claim.

The invention is fully illustrated in the accompanying drawings, in which—

Figure 1 is a top or plan view of a harness-saddle embodying the principles of my invention, representing, in connection therewith, portions of the pad top and binding, the foundation-piece, one of the end pieces, and parts of the side pieces or skirts. Fig. 2 is a side view of the complete harness-saddle, and Fig. 3 is a longitudinal vertical section of the same. Fig. 4 is a view of the under side of the pad-plate. Fig. 5 is a plan view of one of the shells, on an enlarged scale, employed with the said pad-plate; and Fig. 5ª is a longitudinal vertical section of the said shell, said section being taken on line $x\,x$ in said Fig. 5, said view illustrating more particularly one arrangement of a pair of raised portions or projections on an extension of said shell and a perforated bridge for attachment thereto of the inner end of a side piece or skirt. Fig. 6 is a vertical cross-section of the said shell, taken through the bridge and the said raised portions or projections, illustrating in connection therewith and in end elevation in position upon the side flanges of the shell and directly behind the said raised portions or projections a part of the pad-plate; and Fig. 7 is a similar cross-section taken across the said shell and the pad-plate at a point where said pad-plate rests upon the side flanges of the shell. Fig. 8 is a longitudinal vertical section of a harness-saddle of a modified construction, but still embodying the principal features of this invention.

Similar numerals of reference are employed in all of the said above-described views to indicate corresponding parts.

In the said drawings, 1 indicates the pad-plate, which is provided with the usual openings 2 and 3 for the insertion of the terret-shanks and their nuts, respectively. The said pad-plate is of the usual yoke shape and is provided at the apex with an opening 4, in which is secured the rein-hook 5. The lower end portions of the pad-plate 1 are preferably cut off straight, as at 15, or approximately so, and this enables me when said pad-plate is used with the novel construction of shell, to be presently more fully described, to make the said pad-plate considerably shorter at each end, thereby greatly reducing the weight of the metal as well as the cost of producing the complete harness-saddle. The shells employed, of which there are two for each pad-plate, are indicated by the reference-numeral 6, each shell, as will be more particularly seen from an inspection of Figs. 5 and 5ª, being provided with side flanges 7 along the longitudinal edges of the upper side of each shell. These flanges 7 are formed near the lower end portion of each shell with raised portions or projections 8, providing an offset 9, substantially as shown. The raised por-

tions or projections 8 terminate at 10, where the shell is left with an approximately flat end portion or extension 11.

The shell 6 is arranged in position against the lower side of the pad-plate 1 by fitting the flanges 7 along the longitudinal edges of the said plate and having the edge or end portion 15 of the pad-plate resting directly against the offsets 9, formed by the raised portions or projections 8 of said side flanges 7. The shell 6 is shown herein with lugs 16 projecting from its upper side and with holes or perforations 12. The said lugs 16 are shouldered, as at 17, to receive the under side of the pad-plate 1, which is provided with suitable notches 18, fitted to the ends of the lugs 16 above the shoulders 17 to prevent displacement of the plate 1 and shell 6 when these parts are secured together by means of the rivets or bolts 14, arranged in the holes 12 in the shell 6 and in correspondingly-placed holes or perforations 13 in the pad-plate 1. Of course it will be evident that any other suitable means of connection for securing the shells 6 in position against the under sides of the pad-plate 1 may be employed, if desired. Each shell 6 is also provided at suitable points between the raised portions or projections 8 with an opening 19, across which extends a raised bridge 20, in which there is a central hole or opening 21, substantially as illustrated and for the purposes of receiving a bolt 22 and nut 23 on said bolt beneath the bridge by means of which the inner end of the side piece or skirt 24 is attached in position. In the end portion or extension 11 of the shell 6 is a suitable hole or perforation 25, and 26 is a leather or other flexible end piece provided with a pad-hook 27. This end piece 26 is secured in place by means of a rivet 28, which is passed through the hole or perforation and riveted in place against the under surface of the shell 6. The pad-hook 27 extends through a hole 29 in the side piece or skirt 24 and takes the strain from that part of the skirt held by the bolt 22. The leather or other flexible foundation-piece 30 is secured upon the upper surface of the pad-plate 1 in the usual manner, with its lower end terminating directly at the offsets 9, formed by the raised portions or projections 8 with the flanges 7, and the upper surface of said foundation-piece 30 is perfectly flush with the upper edges of said raised portions or projections 8. Over the two foundation-pieces 30 is secured the pad-top 32, the lower ends 33 of said pad-top terminating at and directly above the lower ends 31 of the foundation-pieces 30, and being made of material corresponding in thickness to that of the side pieces or skirts 24 a continuous and smooth as well as a finished surface will be produced between the abutting ends of the said parts, as clearly illustrated in Figs. 3 and 8 of the drawings. The said pad-top is fastened in position by the bolts or screws 14, the terrets 34 and their nuts 35, and the rein-hook 5, and also by the usual binding 37 of the pad-bottom 36. The stuffing or felt applied on the under sides of the two shells 6 is indicated by the reference-numeral 38.

In the modified construction of harness-saddle represented in Fig. 8 of the drawings the pad-plate 1 may be provided near each lower end with a downwardly-extending part 39 and a forwardly-projecting end piece or extension 40. In each end piece or extension 40 is an opening 41, over which extends a perforated bridge 43, said end pieces or extensions being also provided with the raised portions or projections 42. The shells 6 in this construction terminate directly back of the said downwardly-extending parts 39, as will be clearly understood from an inspection of said Fig. 8. In this construction the flexible end pieces 26, which are provided with the pad-hooks 27, are suitably secured in place upon the end pieces or extensions 40 by means of the rivets 43'. The remaining parts of the harness-saddle are all secured in their respective positions in the manner set forth hereinabove in connection with the description of the construction illustrated in Figs. 1 to 3, inclusive.

From the above description of my invention it will be clearly evident that the ends of the side pieces or skirts may be readily secured in place without skiving and without cutting away the edges of the said pieces as heretofore. The ends of the side pieces or skirts can thus be left their full thickness and still will not project above the upper edges of the binding. This construction admits of making the pad quite thin at this point, still providing the requisite strength. A neater pad is also produced, and the construction is much lighter and cheaper in cost of manufacture. Furthermore, the projections or raised portions on the lower extension at the end of each shell or at the ends of the pad-plate, as in Fig. 8, take up the thickness of the pad-plate and the top leather, and they provide for sufficient space for the inner ends of the side pieces or skirts between them, so as not to raise the pad-top above the binding.

I am aware that changes may be made in the several arrangements and combinations of the parts as well as in the details of the construction thereof without departing from the scope of my present invention. Hence I do not limit my invention to the exact arrangements and combinations of the various parts as described in the previous specification and as illustrated in the accompanying drawings, nor do I confine myself to the exact details of the construction of the said parts.

Having thus described my invention, what I claim is—

1. In a harness-saddle, the combination, with a pad-plate, of a shell adapted to be arranged against said pad-plate, longitudinal side flanges near the edges of said shell, raised portions in alinement with said side flanges,

and a skirt having its inner end arranged between said raised portions and having its outer face flush with the upper edges of said raised portions, substantially as and for the purposes set forth.

2. In a harness-saddle, the combination, with a pad-plate, of a shell adapted to be arranged against the under side of said pad-plate, longitudinal side flanges near the edges of said shell, an extension at the lower end of the shell, raised portions on said extension in alinement with said side flanges, the said raised portions extending above the upper edges of said flanges and forming offsets 9, a pad-top on said side flanges terminating at said offsets 9, and a skirt having its inner end arranged between said raised portions or projections and having its outer face flush with the upper edges of said raised portions and also flush with the outer face of the pad-top, substantially as and for the purposes set forth.

In testimony that I claim the invention set forth above I have hereunto set my hand this 3d day of January, 1901.

STEPHEN A. MARKER.

Witnesses:
FREDK. C. FRAENTZEL,
GEO. D. RICHARDS.