(No Model.)

# W. A. BATES.

## HARNESS PAD.

No. 424,532. Patented Apr. 1, 1890.

Fig. 1.

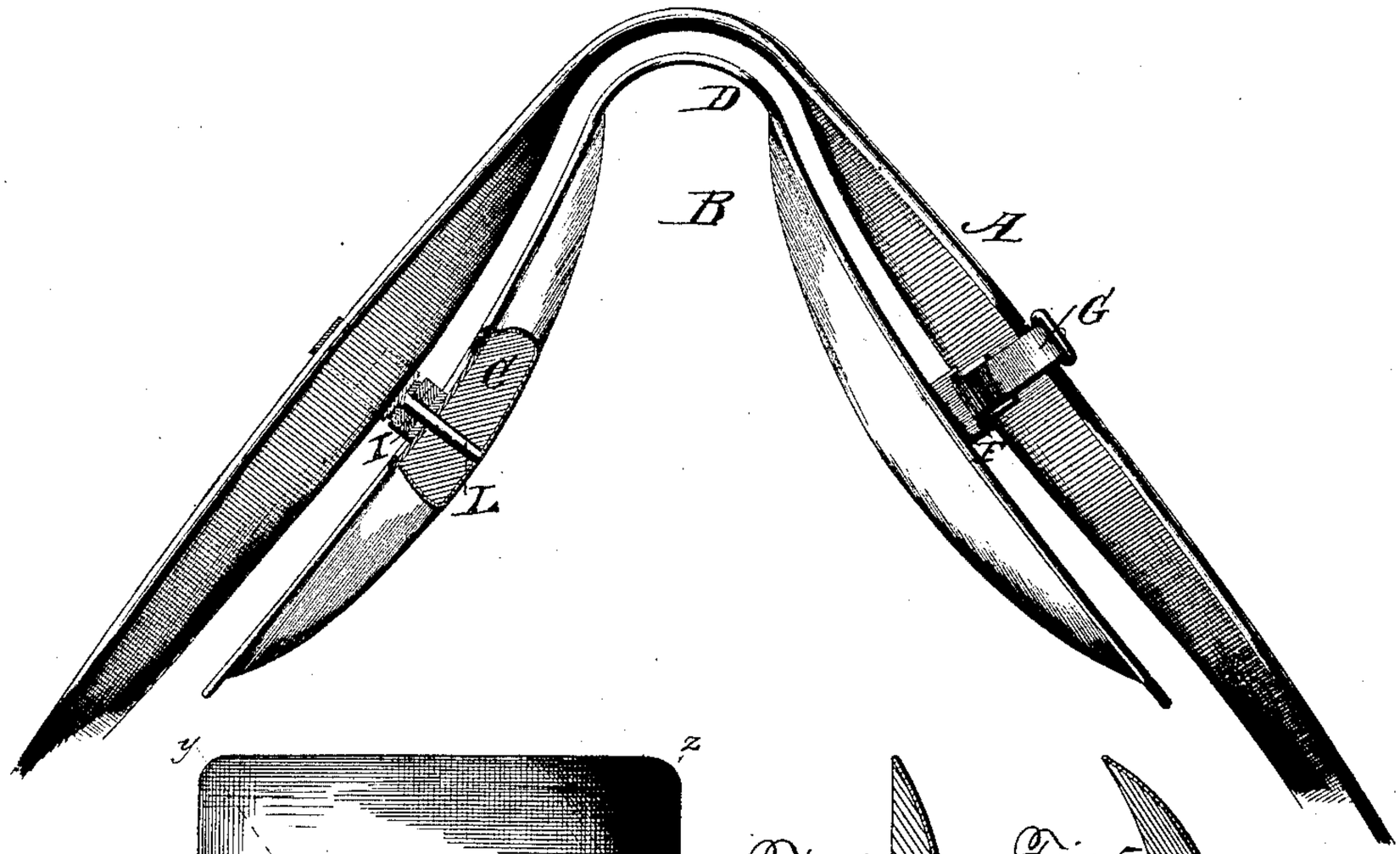


Fig. 2.

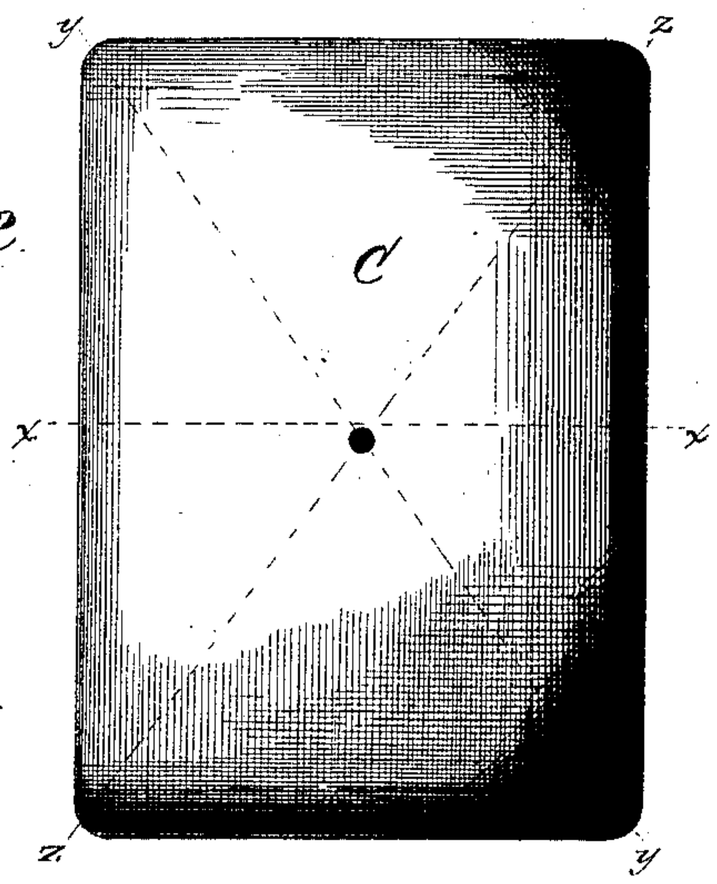


Fig. 3.

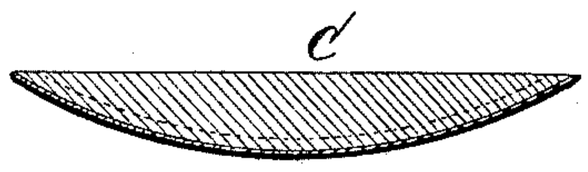


Fig. 4.

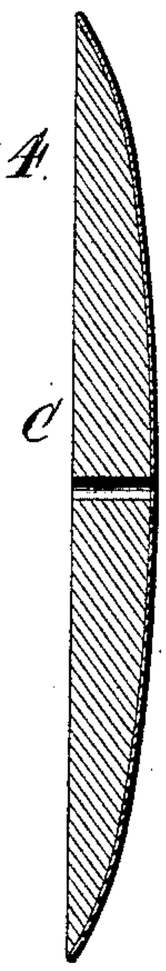


Fig. 5.

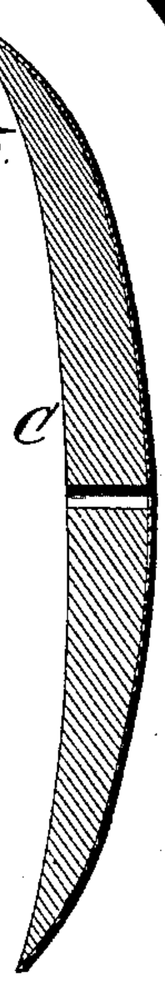


Fig. 6.


Witnesses
Chas. J. Williamson.
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# UNITED STATES PATENT OFFICE.

WILLARD A. BATES, OF PRINCETON, MAINE.

## HARNESS-PAD.

SPECIFICATION forming part of Letters Patent No. 424,532, dated April 1, 1890.

Application filed July 25, 1889. Serial No. 318,626. (No model.)

*To all whom it may concern:*

Be it known that I, WILLARD A. BATES, a citizen of the United States, residing at Princeton, in the county of Washington and State of Maine, have invented certain new and useful Improvements in Harness-Pads; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters of reference marked thereon.

This invention has relation to certain new and useful improvements in harness-pads of that class made and sold separate and designed to be afterward secured under the saddle; and the object of the invention is to provide a pad of this class of an improved form that can be readily adjusted to accommodate itself to the contour of the animal, so that in use it will be much more comfortable and less liable to gall the horse.

The invention is designed as an improvement upon the device disclosed in my application for patent filed February 7, 1889, Serial No. 299,060; and it consists, principally, in providing a saddle-pad composed of two inflexible pads united by a flexible connection and having a rocker or support at or near the center of each pad to give a rocking movement to the ends of the pads to and from the saddle. I provide a sheet-metal pad of improved form and equipped with a stiffener to prevent the rocker or support from crushing or bending the sheet-metal pad. The upper layer of the support is formed with an upward curve at each end and has a rigid projecting pin on its under side to enter a hole extending downward through the retaining-strap, the layers of the rocker, and the core or stiffener. A support thus constructed will not be liable to allow the pad to move from under the saddle.

Other novel features will be hereinafter more particularly described, shown in the drawings, and then particularly pointed out in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a side view of a saddle provided with my improved pads, parts being broken away and others in section to better illustrate the construction. Fig. 2 is a plan view of one of the pads removed. Fig. 3 is a cross-section through the pad on the line *x x* of Fig. 2. Fig. 4 is a diagonal section through the line *y y* of the same figure. Fig. 5 is a diagonal section through the line *z z* of the said Fig. 2. Fig. 6 is a perspective view showing the manner of connecting the strap, support, and rocker to the pad.

Referring now to the details of the drawings by letter, A designates an ordinary gig-saddle, and B represents my improved pad attached thereto.

It is well known that an animal's back has not the same curvature where the rearward part of the saddle bears that it has where the forward part bears; nor has it the same curve where the upper end bears that it has where the lower end bears. I therefore construct my pad with different degrees of curve for the rearward and forward parts and for the upper and lower parts. These different degrees are illustrated in Figs. 2, 3, 4, and 5 of the drawings. As will be seen from these figures, transversely through the pad there is considerable curve, while from through the line *y y* it is much less. Through the line *z z* the inner or under side is cut away to a convex form, being more or less convex where the back is more or less curved. This pad is formed of a wooden or other suitable inflexible core C, covered with zinc, attached thereto in any suitable manner. Zinc is preferred on account of its healing properties; but other analogous materials may be used. Two of these pads are attached to the ornamental back D, which I make after the usual manner of constructing thin housing-pads.

I am aware that harness-pads have heretofore been made of sheet metal, and therefore make no claim, broadly, to such construction.

The pad has attached thereto upon the outside of the ornamental back a block or keeper F, formed with keepers *f* at the ends, through which passes the retaining-strap G, formed with buckle and perforated tongue, by means of which the pad is attached to the saddle, as shown in Fig. 1. Each of these blocks or keepers is designed to retain a plurality of blocks of leather, metal, wood, or other suitable material, as shown at I in Figs. 1 and 6.

K is a curved metallic plate, provided with a rigid pin L, which is designed to pass through a suitable hole in the strap, through holes in the blocks I, through the keeper and through the ornamental back, and into a hole in the core of the pad. This curved piece or rocker is placed above the strap, as shown, and has its ends curved upward, as shown.

If desired, the keeper that secures the layers of the support may be dispensed with and the cross pieces or layers of the support secured to the pad by means of pins or screws.

While the core is mentioned as being made of wood, I do not wish to confine myself to such material, as other inflexible substances may be employed—such, for instance, as sheet metal—in which case it would of course be made thinner and concave on the inner side, and the parts of the keeper that extend across the pad would have to be made of a curved form to conform to the curved shape of the stiffener or core.

The pin of the upper curved layer of the support or rocker may be made rigid with the layer or pass loosely through it, having a head rounded on the under side to allow of the rocking of the parts. When the pin is rigid with the rocker, the holes in the other parts should be slightly larger than the pin to allow of movement of the parts.

What I claim as new is—

1. The combination, in a harness-pad, with the back and the core and covering, of a keeper on said back, a retaining-strap on said keeper, and a curved metallic plate secured above the strap with its ends free, substantially as shown and described.

2. The combination, in a harness-pad, with the back, the inflexible core, and the covering thereof, of the keeper, the layers of the support in said keeper, the strap on said layers, and the curved rocker on the said layers, and provided with a rigid pin passed vertically through holes in the strap, layers, keeper, back, and core, substantially as shown and described.

3. In a rocker-support for saddle-pads, the improved rocker herein described, consisting of a layer curved to form a retaining-seat for the saddle and an outer layer provided with loops for the retaining-straps, and the under side of the curved layer adapted to rock upon the outer layers of the rocker to give a rocking motion to the pads in the direction of the sides of the pads to and from the saddle, substantially as shown, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLARD A. BATES.

Witnesses:

JOSEPH LAWLER,

HOWARD A. HORSMAN.