

W. J. Berne,

Horseshoe.

N<sup>o</sup> 70,507.

Patented Nov. 5, 1867.

Fig. 1.

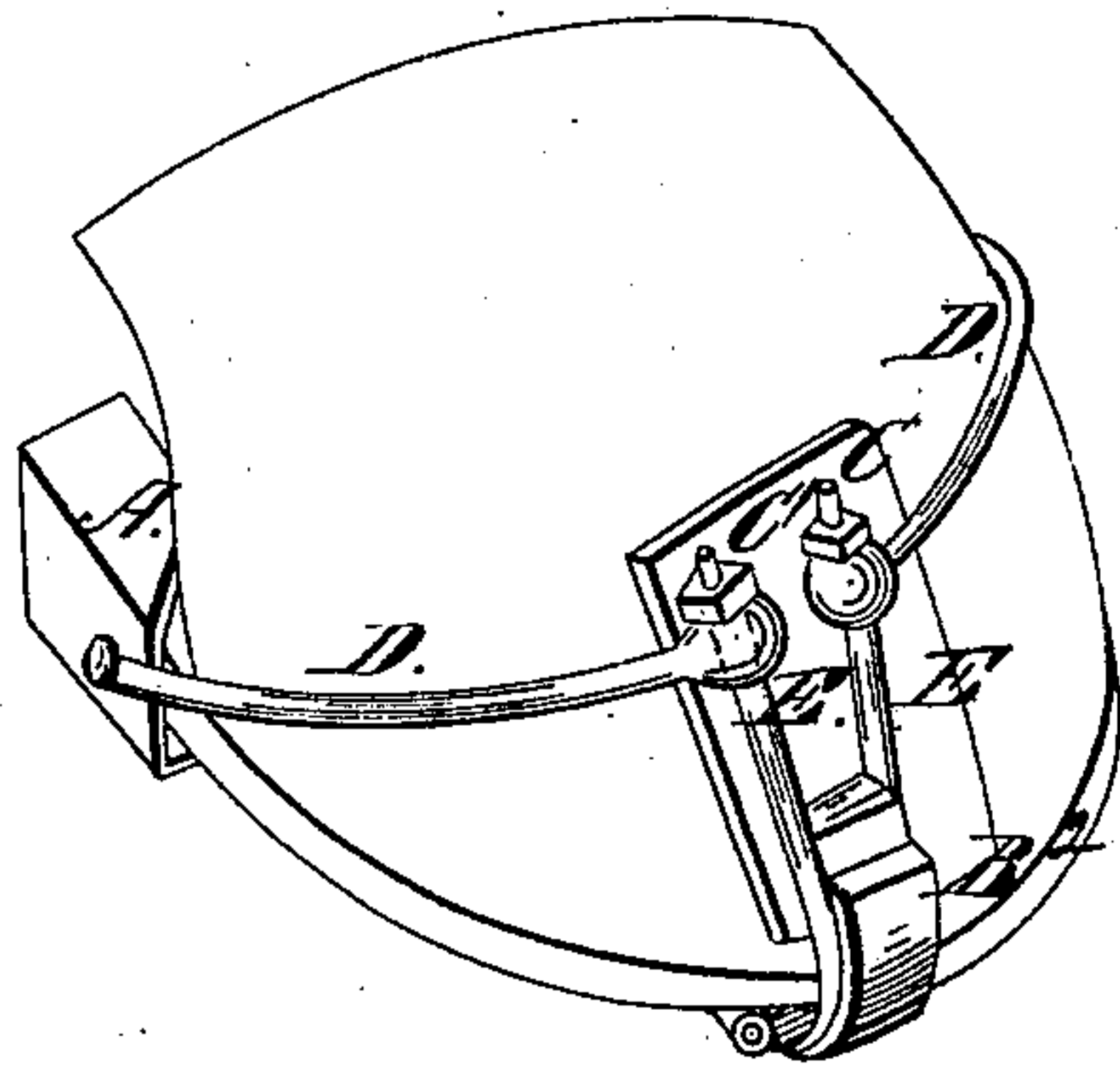


Fig. 2.

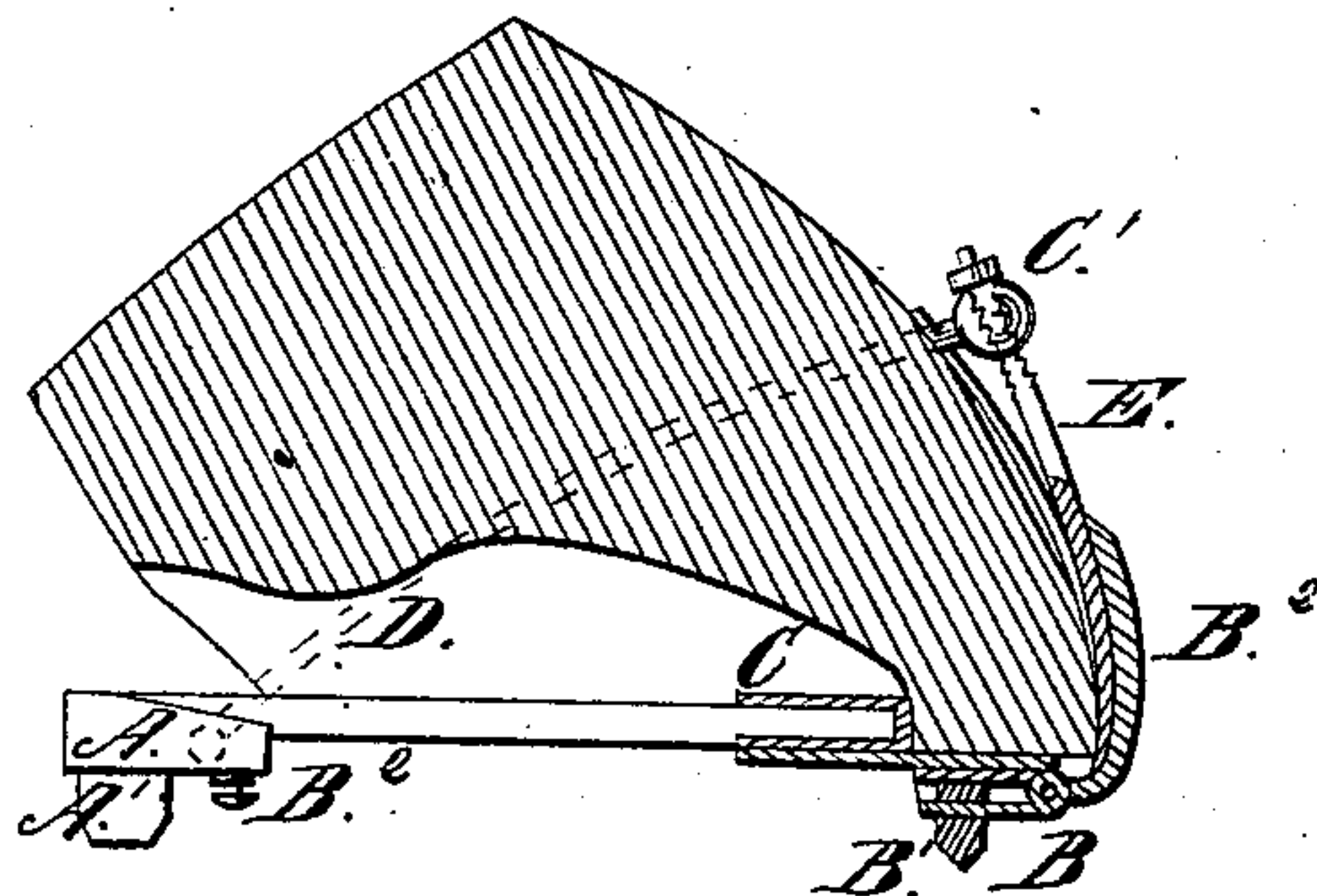
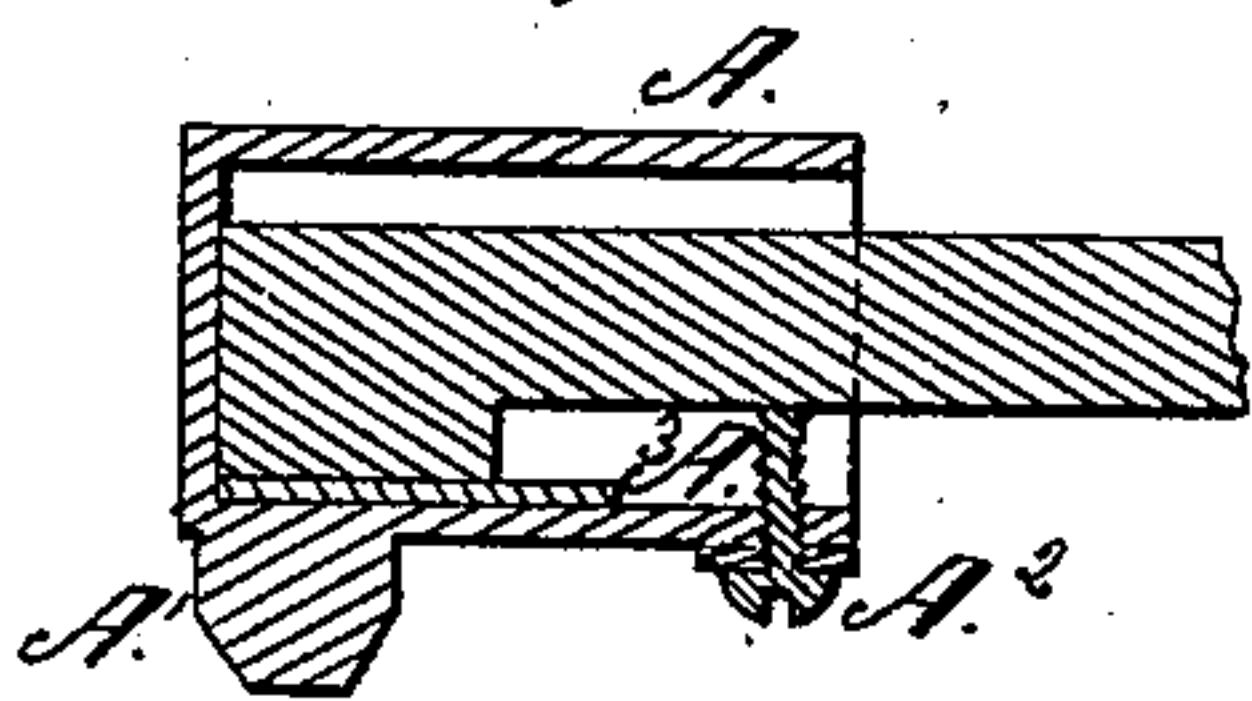


Fig. 3.



Witnesses

Chas F. Clausen

Inventor  
W. J. Berne  
by  
D. P. Holloway  
his atty -

# United States Patent Office.

WILLIAM JONES BERNE, OF CINCINNATI, OHIO.

*Letters Patent No. 70,507, dated November 5, 1867.*

## IMPROVEMENT IN ADJUSTABLE CALKS FOR HORSE-SHOES.

*The Schedule referred to in these Letters Patent and making part of the same.*

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM JONES BERNE, of Cincinnati, in the county of Hamilton, and State of Ohio, have invented a new and useful Improvement in Adjustable Calks for Horse-Shoes; 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 part of this specification, in which—

Figure 1 is a perspective view,

Figure 2 is a vertical section, and

Figure 3 a vertical section of the heel-sockets.

The same letters in all the figures are used to designate identical parts.

My invention relates to improvements made upon the construction of adjustable calks as set forth in Letters Patent granted to me, bearing date the 16th day of July, A. D. 1867, to which reference is made for a more full description of such parts of the original construction as may not be fully set forth herein.

The metallic sockets A are made to slip over the heel of the horse-shoe, and are provided with calks A<sup>1</sup>. In the original construction they were not supported in front. I now propose to hold them rigidly in place by means of set-screws A<sup>2</sup>, passing through the front end, and bearing against the under side of the shoe. The socket should be made thicker at this point to permit a thread to be cut therein to correspond with the thread of the set-screw. I also propose to insert strips of India rubber, felt, leather, or other suitable material, under the calk of the horse-shoe, and between it and the bottom of the socket, to form an elastic bearing for the shoe. The socket shown in my original patent was square on the front end. I prefer to cut away the top of the socket, and so much of the inner side as may be necessary to fit it to the hoof. The lower part of the toe-piece is formed, as described in my former patent, with a sharp calk, B<sup>1</sup>, and attached to the shoe by means of a cross-piece, C, which fits snugly within the shoe at the toe, having a flange extending around the same over the inner edge of the shoe. This piece was, in the original construction, made to turn on a pivot, where it was attached to the toe-piece. I propose, however, to unite the two parts rigidly by screws, and in order to facilitate its attachment to the shoe, the front piece B<sup>2</sup>, which extends around the toe, and in front of the hoof, is united to the lower part B by a hinge joint, so that the cross-piece C may be placed under the hoof, and slid into place, and then the piece B<sup>2</sup> be turned up over the front of the hoof, where it is confined by the rods E, passing through the ends of the straps D, and secured tightly by nuts C'. The straps D are attached by pivots, upon which they may turn in being adjusted to the hoof, as in the original construction. An elastic pad is also inserted behind the extension of the toe-piece.

What I claim as my invention, and desire to secure by Letters Patent, as additional improvements, is—

1. The mode of securing the sockets A by means of the set-screws A<sup>2</sup>, arranged to operate in combination therewith, substantially as set forth.
2. In combination with the sockets A, the use of an elastic substance, A<sup>3</sup>, interposed between the heel of the shoe and the socket, substantially as set forth.
3. The toe-piece B, rigidly attached to the cross-piece C, for attaching the same to the shoe, substantially as set forth.
4. In combination with the toe-piece B, the front extension B<sup>2</sup>, hinged thereto, and arranged to operate substantially in the manner set forth.
5. The combination of the cross-piece C, the toe-piece B, hinged extension B<sup>2</sup> of the toe-piece, rods E, and straps D, attached to the sockets A, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM JONES BERNE.

Witnesses:

J. WM. JOHNSON,  
NICHOLAS BIRD.