

No. 631,544.

Patented Aug. 22, 1899.

W. S. JONES.  
ICE CREEPER FOR HORSESHOES.

(Application filed Apr. 7, 1899.)

(No Model.)

Fig. 1.

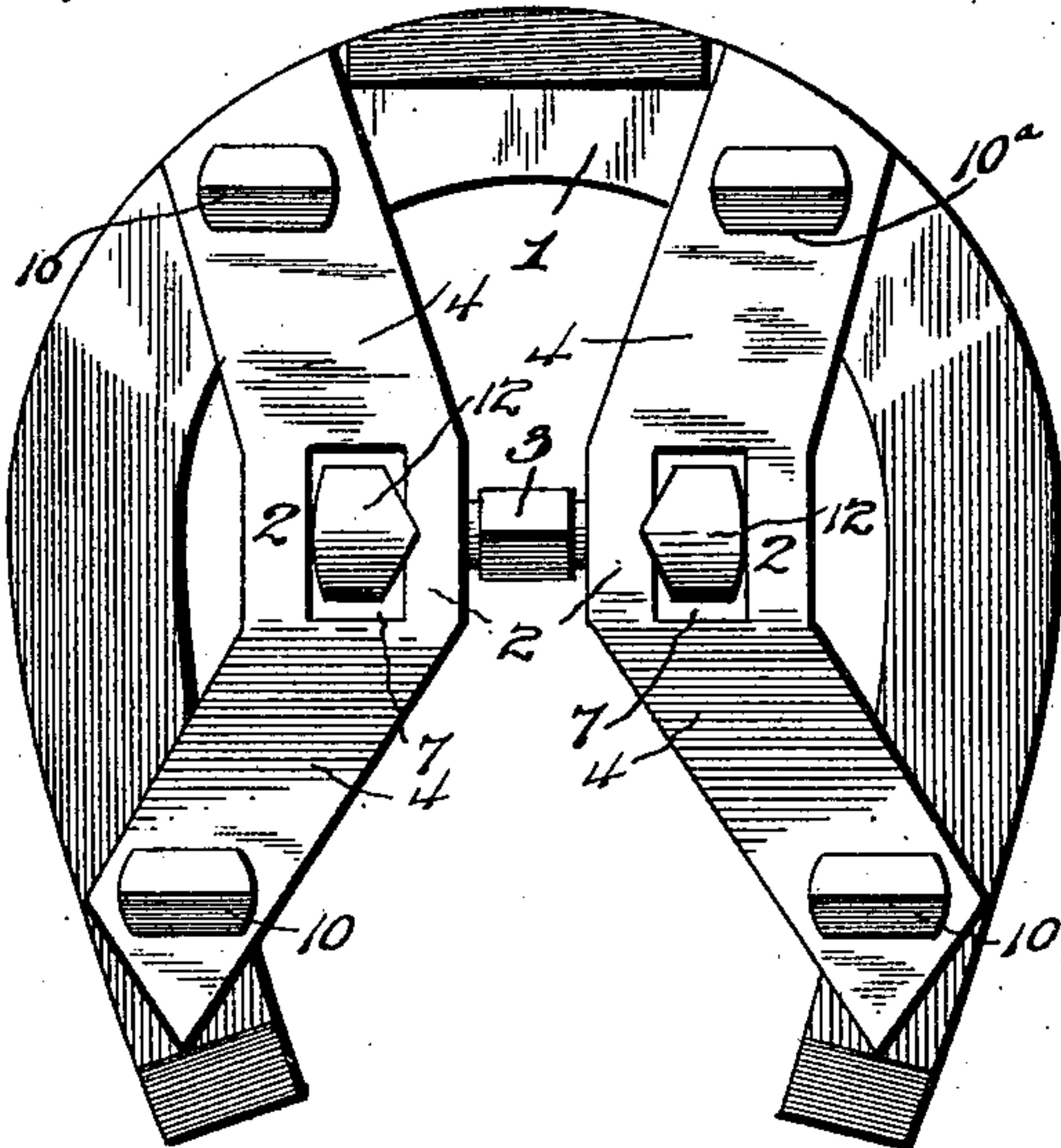


Fig. 2.

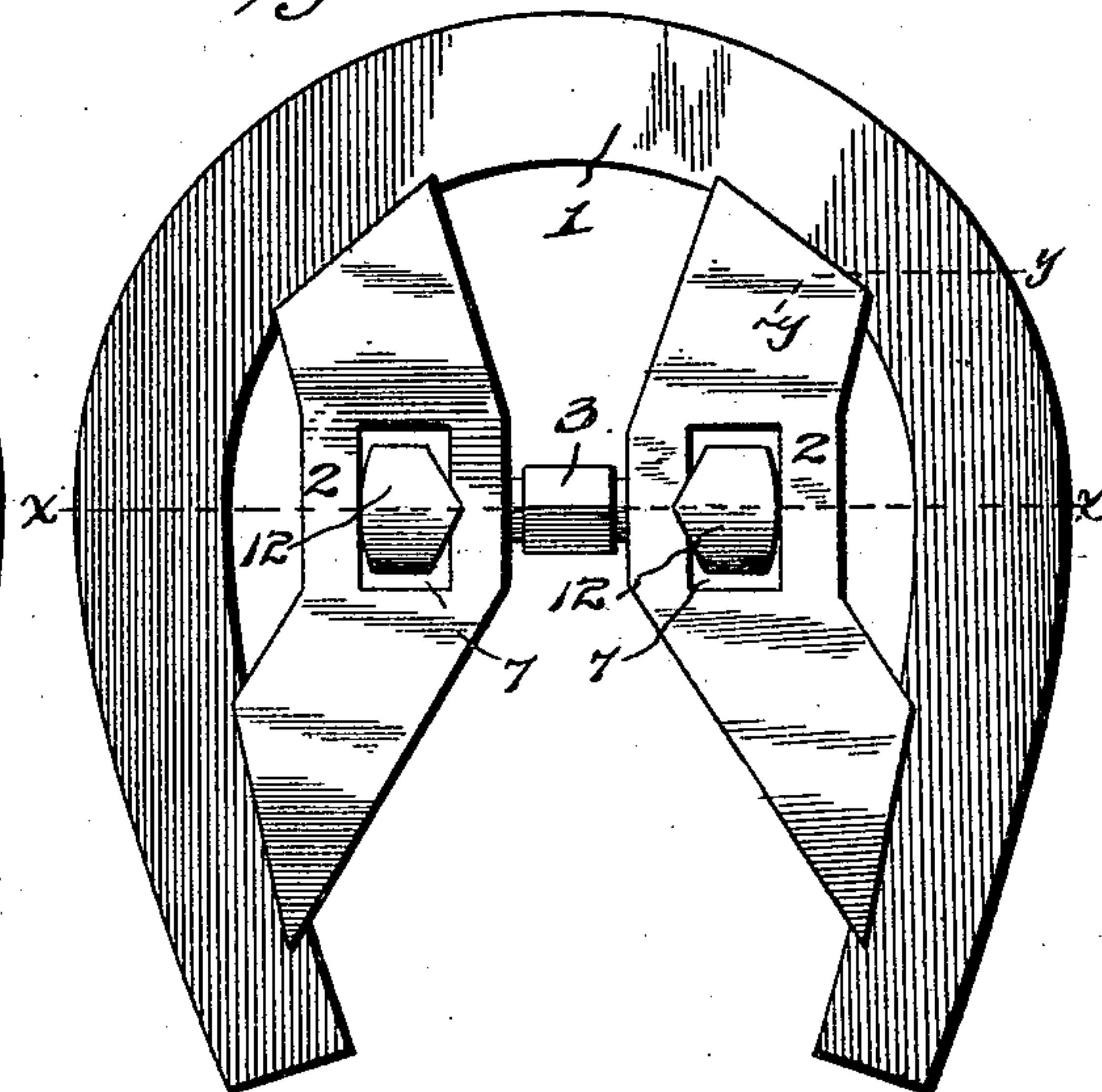


Fig. 3.

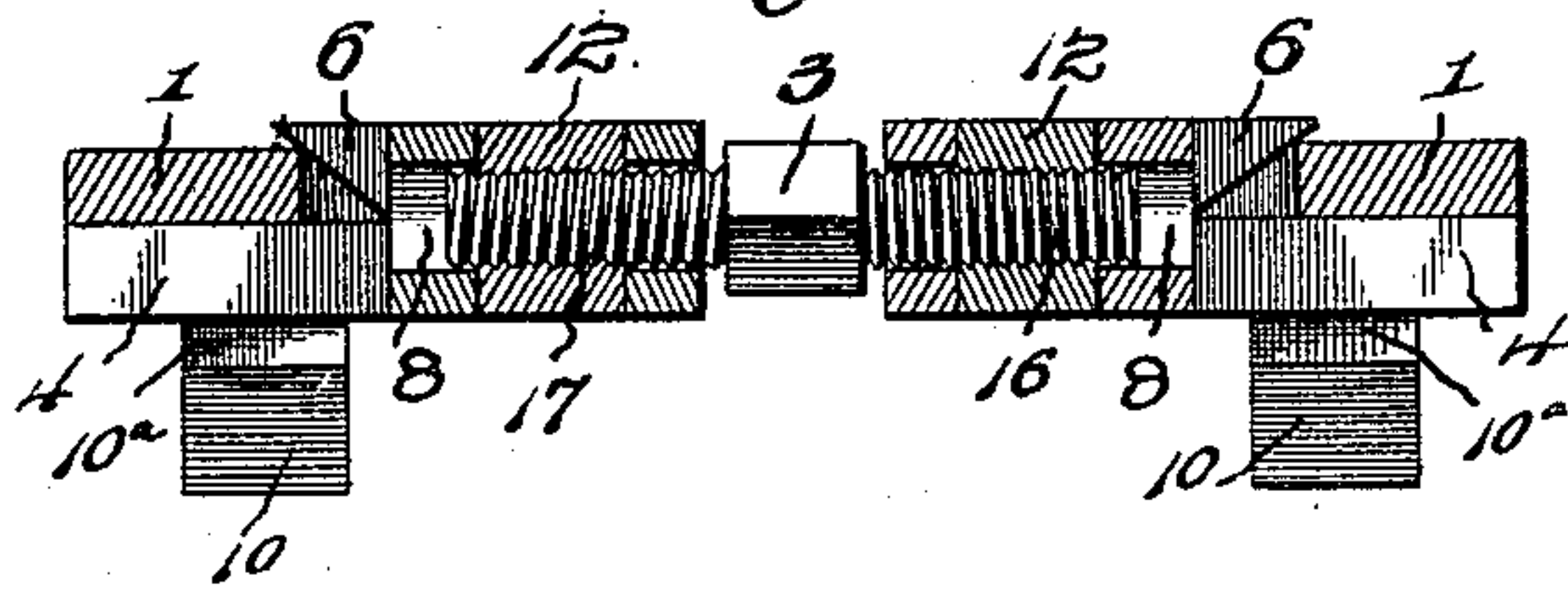


Fig. 7.

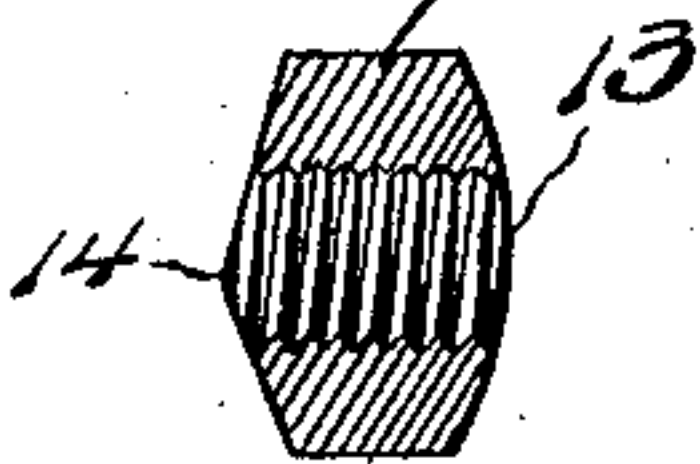


Fig. 6.

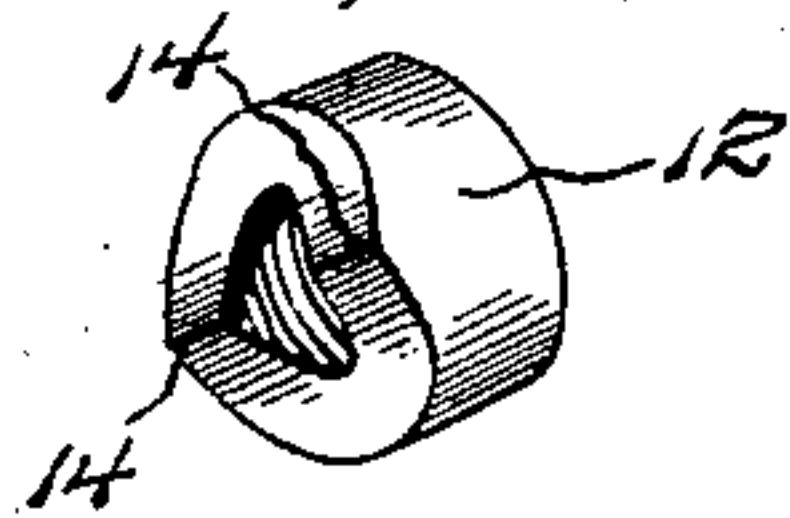


Fig. 5.

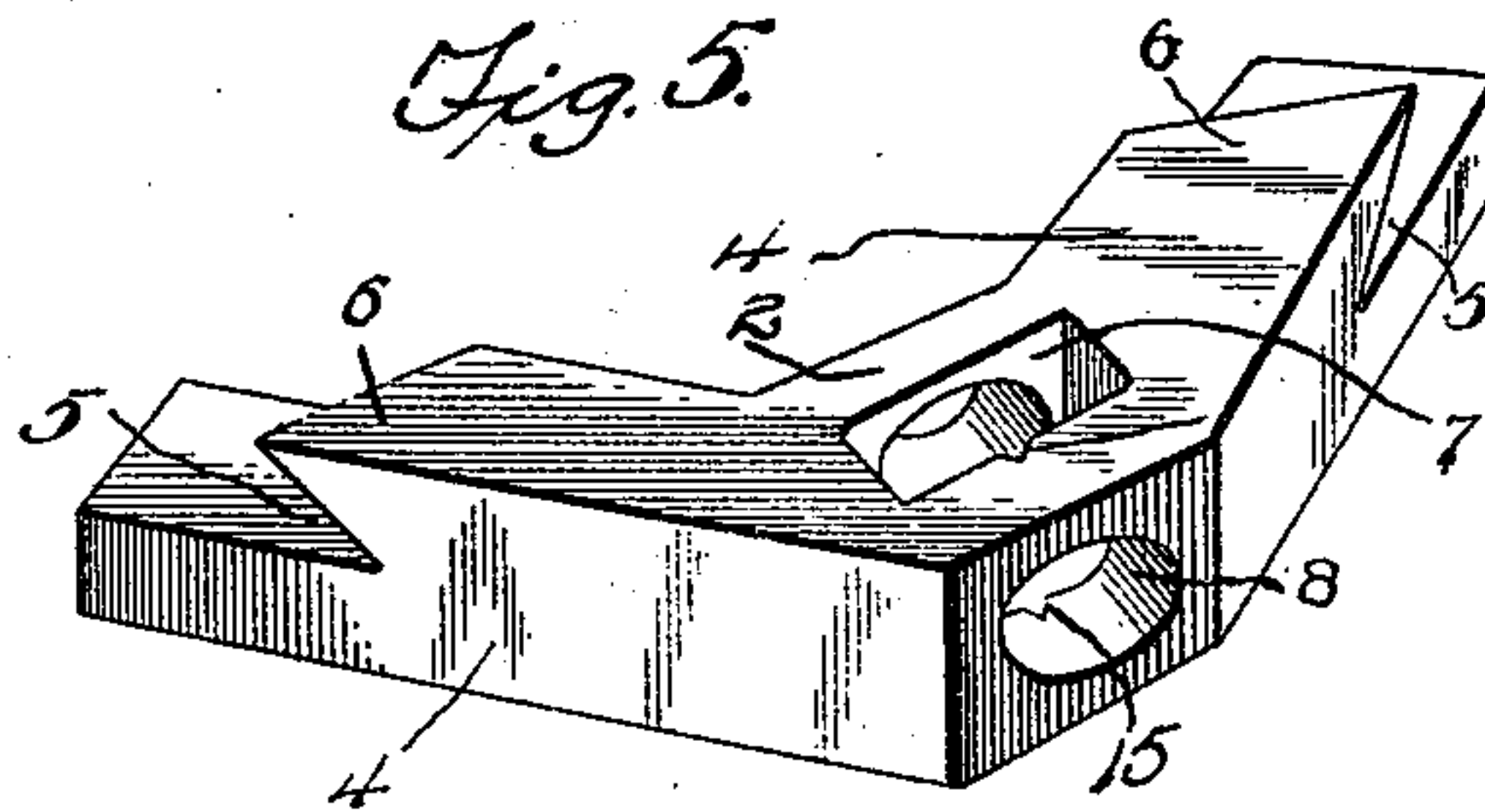
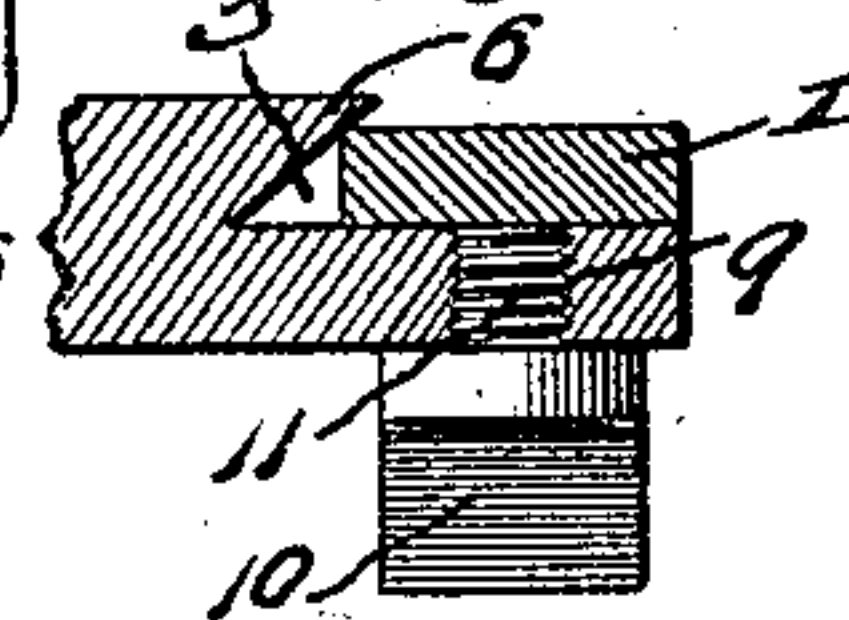


Fig. 4.



Witnesses

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By Two Attorneys.

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# UNITED STATES PATENT OFFICE.

WARREN S. JONES, OF NEW BRUNSWICK, NEW JERSEY.

## ICE-CREEPER FOR HORSESHOES.

SPECIFICATION forming part of Letters Patent No. 631,544, dated August 22, 1899.

Application filed April 7, 1899. Serial No. 712,085. (No model.)

*To all whom it may concern:*

Be it known that I, WARREN S. JONES, a citizen of the United States, residing at New Brunswick, in the county of Middlesex and State of New Jersey, have invented new and useful Ice-Creepers for Horseshoes, of which the following is a specification.

This invention relates to horseshoes, and has for its object to provide adjustable and removable ice-creepers therefor which may be readily applied when desired for use and which may be as readily removed when the condition of the weather permits the use of the ordinary shoe.

To this end the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the claims.

In the drawings, Figure 1 is a reverse plan view of the device applied to a horseshoe. Fig. 2 is a top plan view thereof. Fig. 3 is a transverse sectional view on the line *xx*, Fig. 2. Fig. 4 is a detail sectional view on the line *yy*, Fig. 2. Fig. 5 is a detail perspective view of one of the calk-holding members. Fig. 6 is a perspective view of one of the lock-nuts. Fig. 7 is a horizontal transverse sectional view thereof.

Corresponding parts are designated by like reference-numerals in all the figures of the drawings.

Referring to the accompanying drawings, 1 designates an ordinary horseshoe to which my invention is applied.

The device comprises opposite duplicate calk members 2, which are adjustably connected by means of a turn-screw 3. As the calk members are duplicates, a description of one will be sufficient. Each member comprises a flat rectangular body 2, having at one side divergent arms 4, which extend outward flush with the under face of the body, but are reduced to about one-half the thickness of the body. The shoulders of the body, above the arms, are each undercut, forming the approximately V-shaped grooves 5 and the overhanging shoulders or ears 6. A rectangular slot 7 is provided vertically through the body of the member, and a smooth bore 8 extends transversely through the same between the

arms 4 and intersecting the vertical slot 7 at right angles thereto. The under side of each arm has a vertical threaded opening 9 provided therein near its extremity, and calks 10, having reduced threaded shanks 11, are removably fitted in said openings. Opposite sides of the calks are flattened, as at 10<sup>a</sup>, to provide for unscrewing the calks. Situated in the vertical slot of each member 2 is a lock-nut 12, which is shown in detail in Figs. 6 and 7. One face 13 of the nut is convexed transversely across the bore thereof, and the opposite face is beveled from opposite transverse edges inwardly to form a pair of vertically-alined pointed ribs 14 at the upper and lower sides of the bore of the nut. A nut of this character is placed in each vertical slot of the calk members, the ribs 14 registering with an approximately V-shaped groove 15, formed in one face of the slot.

As hereinbefore set forth, the device comprises two duplicate calk members, which are connected together by means of a turn-screw 3, having its opposite reversely-threaded ends 16 and 17 respectively passed through the transverse bores 8 of the members and engaging the respective lock-nuts 12. The wrench-head 3 of the turn-screw is arranged between the calk members, and the arms of latter extend outward in opposite directions.

In applying the device to a horseshoe the turn-screw is operated to draw the calk members together, so that the shoulders or ears 6 may be fitted between the sides of the shoe, the upper faces of the arms 4 resting flush against the under side of the shoe. Then the turn-screw is operated to force the members apart, whereby the overhanging shoulders 6 are engaged over the inner side edges of the shoe, which is firmly clamped in the V-shaped grooves 5 of each of the arms. It will be noted that the rear arms of each calk member diverge from each other more than the front arms, so that the members will fit properly to the toe and to the heel of the shoe. The bore 8 of each member is elongated transversely, and so is the vertical slot 7, to permit of the members being rocked transversely upon the turn-screw to accommodate the same to the curvature of the toe and heel of the shoe. By reason of the lock-nuts having their



respective faces 13 convexed the members may be rocked, as described, without binding upon the nuts.

The adjustable construction and arrangement of the parts of the present device permit of the same being readily adjusted to fit the varying sizes of shoes, and by reason of the calks being removable they may be replaced when broken.

It is not necessary to put new shoes upon a horse, as the device is adapted to be fitted to old shoes which are already upon the hoofs of the horse, and therefore may be removed at will to prevent the sharp calks from damaging the floor of the stable and stalls.

Changes in the form, proportion, size, and the minor details of construction within the scope of the appended claims may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed is—

1. A device of the class described, comprising opposite duplicate calk members, each member being provided with a vertical slot and a smooth transverse bore intersecting the slot, a lock-nut arranged within the vertical slot and alined with the bore, and a turn-screw having its opposite reversely-threaded ends extending through the bores of the respective members and engaging the nuts thereof, whereby the members may be adjusted toward and away from each other, substantially as shown and described.

2. A device of the class described, comprising opposite duplicate calk members, each member being provided with a vertical slot and a smooth transversely-elongated bore intersecting the vertical slot, a lock-nut loosely arranged within the vertical slot and alined with the bore, and a turn-screw having its opposite reversely-threaded ends extending through the transversely-elongated bore, and engaging the respective lock-nuts, the members being adapted to be rocked upon the turn-screw, by reason of the elongated bores, whereby the device may be adjusted, substantially as shown and described.

3. A device of the class described, comprising opposite duplicate calk members, lock-nuts carried by the members, and a turn-screw having its opposite reversely-threaded ends engaging the respective nuts and adjustably connecting the members together, and the latter having a rocking movement upon the turn-screw, whereby said members may be fitted to the horseshoe, substantially as set forth.

4. A device of the class described, comprising opposite duplicate calk members, each member being provided with a vertical slot having a groove formed in one face thereof, a smooth transverse bore intersecting the slot, and a lock-nut having ribs or the equivalent, the nut being arranged within the vertical slot and the ribs engaging the groove of the slot, whereby the nut is prevented from being turned, and a turn-screw, having its opposite reversely-threaded ends extending through the respective bores of the members and engaging the nuts thereof, substantially as shown and described.

5. A device of the class described, comprising opposite duplicate calk members, each member being provided with a vertical slot, having a groove formed in one face thereof, and a smooth transverse bore intersecting the slot and elongated transversely, and lock-nuts carried by the members, each lock-nut having one end rounded, and the opposite end thereof being beveled inwardly in opposite directions and forming ribs located at opposite sides of the bore of the nut, each of the latter being arranged within one of the vertical slots, and the ribs engaging the groove of said slot, and a turn-screw having its oppositely-threaded ends engaging the respective nuts and passing loosely through the bores of the respective members, substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WARREN S. JONES.

Witnesses:

JOHN W. JONES,

THOMAS HENRY McNICHOL.