

J. M. Johnson,

Horseshoe.

N^o 42,857.

Patented May 24, 1864.

Fig. 1.

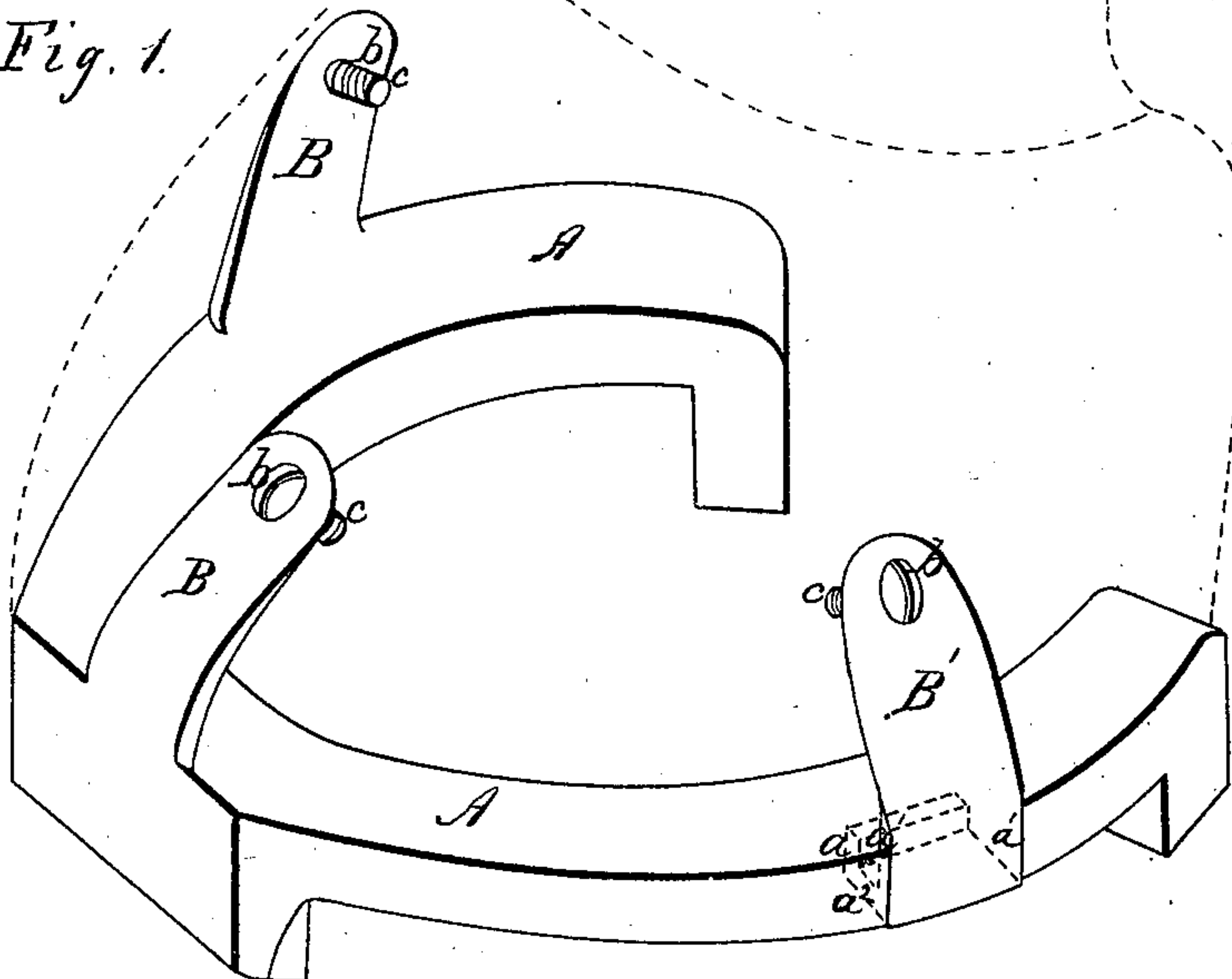


Fig. 2.

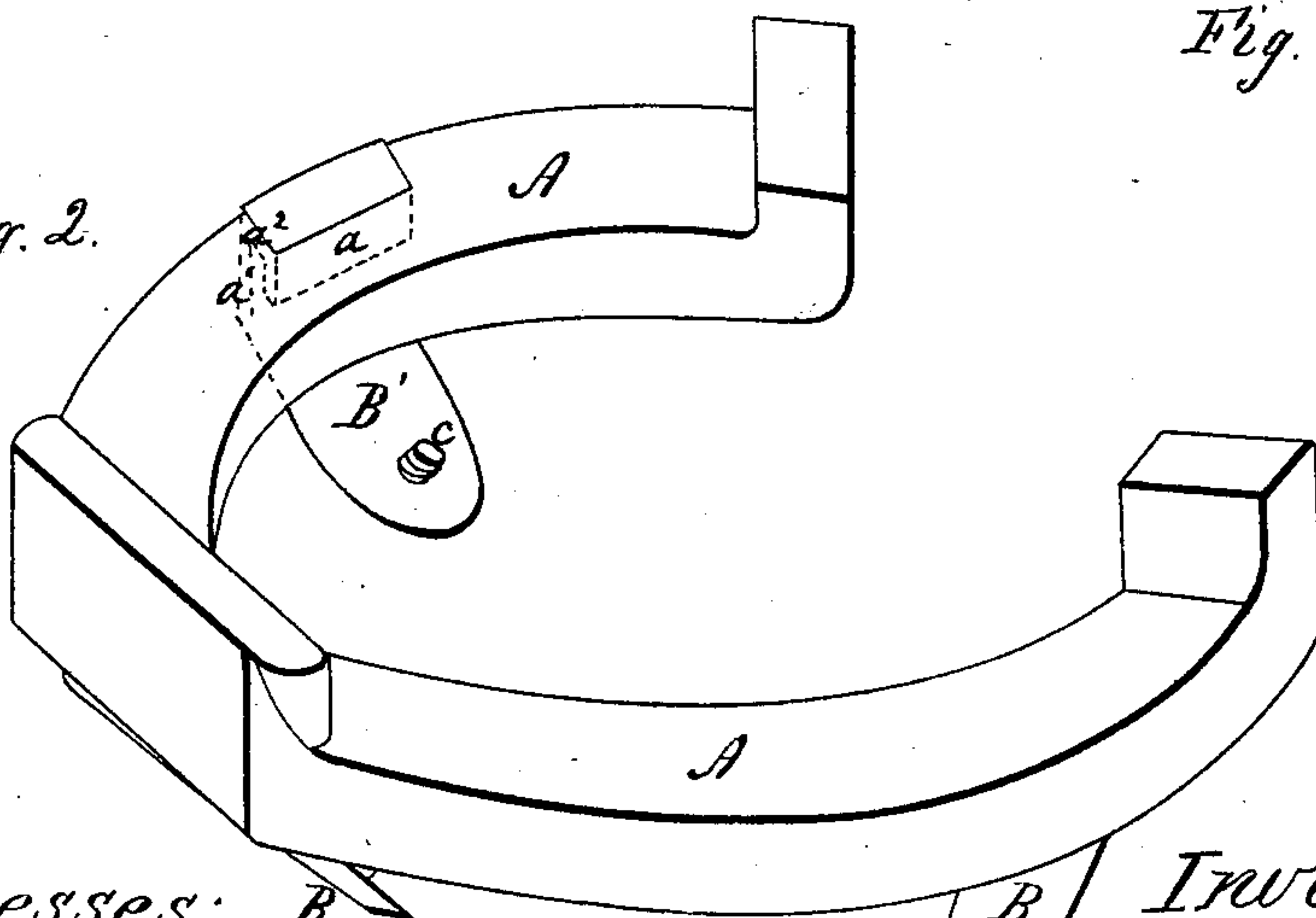
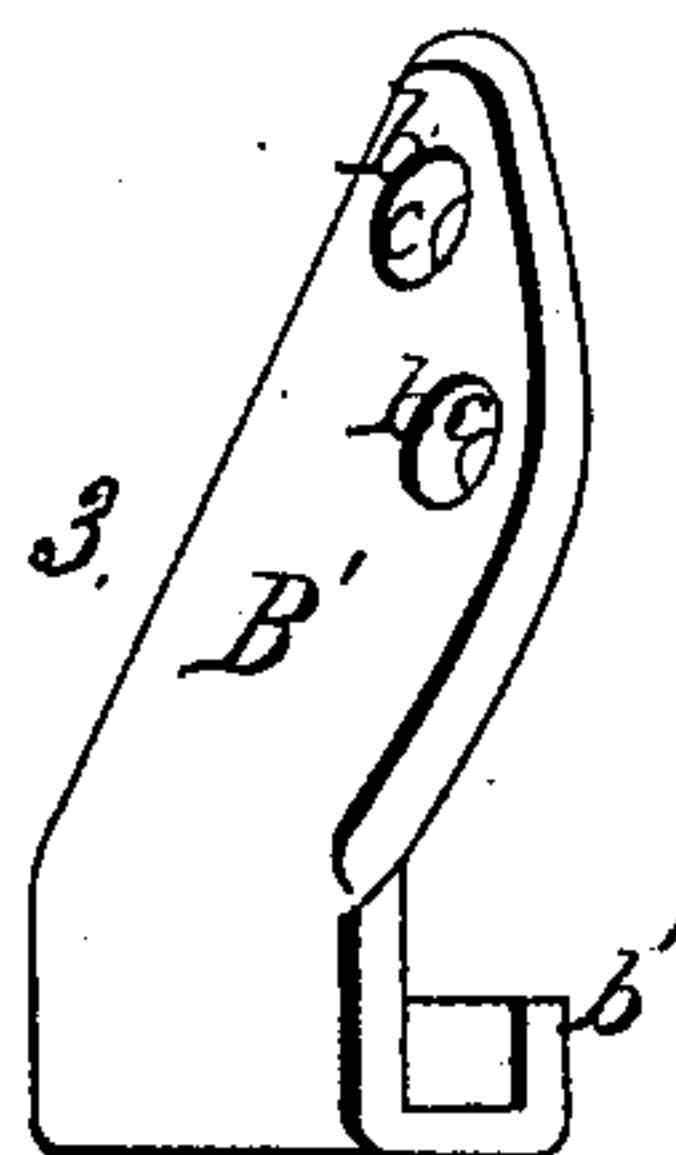


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN M. JOHNSON, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVED HORSESHOE.

Specification forming part of Letters Patent No. 42,857, dated May 24, 1864.

To all whom it may concern:

Be it known that I, JOHN M. JOHNSON, of the city and county of Washington, in the District of Columbia, have invented a new and useful Improvement in Horseshoes; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a perspective view illustrating my improved manner of attaching the shoe. Fig. 2 is a perspective view of the shoe, looking from the under side. Fig. 3 is a detached view of one of the clips or arms, to be hereinafter described.

Similar letters of reference indicate corresponding parts in the several figures.

The object of this invention is to provide novel means for securing shoes to the hoofs of horses, which causes less injury and violence to the hoof, and which may admit of the shoes being readily attached or detached by any person having charge of the animals, and which, while constituting a more secure fastening, greatly lessens the expense, time, and labor which are involved in attaching the shoes by the ordinary nails.

In order that others skilled in the art to which my invention appertains may be enabled to fully understand and use the same, I will proceed to describe the manner of carrying it into effect.

In the accompanying drawings, A represents a shoe, the form of which may be identical with that in common use.

B B B' represent three clips or arms projecting upward from the toe and sides of the shoe in the manner shown, and each provided at its upper end with an aperture, *b*, for the reception of a screw, C, by which they are securely and immovably held in contact with the hoof, which latter is indicated in red lines. The boring is effected by a suitable instrument, the penetration of which is limited so as to prevent it reaching the sensitive part of the foot. As shown in Fig. 3, one of the clips, B', is formed separately, being bent at its lower end, and formed with a flange, *b'*, which is inserted in a corresponding slot or groove, *a*, in the under side of the shoe A, and in the latter are also formed countersinks or depressions *a' a''*, which adapt the clip B' to be coin-

cident with the shoe and hold the same against both vertical and horizontal displacement.

When the shoe A is to be attached, the flanges *b'* of the clip B' are inserted into the grooves *a*, in the manner described, after the shoe is applied to the hoof, the foot placed upon the ground, and the animal caused to bear upon it so as to press the shoe firmly and snugly in its place. The weight of the horse thus effects the same purpose as the driving, which by the usual mode is depended on to draw the shoe firmly against the foot. Suitable apertures are then bored in the wall of the hoof, and the screws C inserted in the apertures *b*. To take off the shoe it is only necessary to withdraw the screws C and press the movable clip in a downward direction. The shoe is thus immediately released. If all the clips be permanently attached to the shoe, one of them is bent outward sufficiently to admit of the application of the shoe, and when the latter has been adjusted to the foot the clip is bent inward and secured in the manner already explained. The upper ends of any or all of the clips may be provided with spurs to penetrate the hoof and be employed as accessory to or instead of the screws C.

In Fig. 3 the clip B is represented as having two screw-holes *b*, which are placed diagonally, so that when an old shoe and its clips are removed, new clips may be used, in which the screw-holes are placed in reverse positions from those occupied by the first, in order that the screws may not be so frequently inserted into the same holes as to endanger the secure attachment of the shoe.

The attachment of the clips to the shoe may be effected by means of a flange and slot, as described; or this may be done by screws, welding, or any other suitable means.

The clips may be made of such dimensions, both longitudinally and vertically, as the condition of the horse's hoof or any other circumstance may render desirable, and instead of being formed separately from the shoe they may be raised or beaten up therefrom in the same manner as the ordinary toe-clip on the shoe in general use. Any or all of the clips may be tapered or beveled toward the top in thickness as well as in width, as clearly illustrated in Fig. 3. The clips, when thus tapered or beveled, are more especially appli-

cable for the inside of the hind shoes, as they cannot be removed by being trodden upon by the horse, which, generally speaking, has a fashion of resting one hoof against its fellow, when standing, which might render the displacement of the clips of frequent occurrence if the same were so made as to form at top an angular projection or abutment.

It has been found that screws C, inserted horizontally, need not penetrate more than half-way into the solid substance of the hoof to adapt them to securely fasten the clips, so that injury to the horse by this means is impossible, whereas it requires a skillful person to properly drive the nails commonly employed, and even when driven in the best possible manner they necessarily wedge and press inward as well as outward, and hence are liable to occasion injury and restlessness.

The above-described manner of attaching horseshoes has been found effectual in every

respect. The clips and screws are much less expensive in use than the common shoe-nails, and the shoes which are employed in connection with my invention may be more expeditiously made than those attached by nails, inasmuch as the use of the clips obviates the necessity of forming the grooves which are made to accommodate nail-heads.

Having thus described my invention, what I claim as new therein, and desire to secure by Letters Patent, is—

Attaching horseshoes by means of two, three, or more clips or arms, B, secured to the shoes in any manner, substantially as herein described, and fastened to the hoof by one, two, or more screws C, as set forth.

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Witnesses:

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