

T. P. HANDY & C. B. KLEIBACKER.  
SUPPLEMENTAL HORSESHOE.

No. 89,991.

Patented May 11, 1869.

Fig. 1

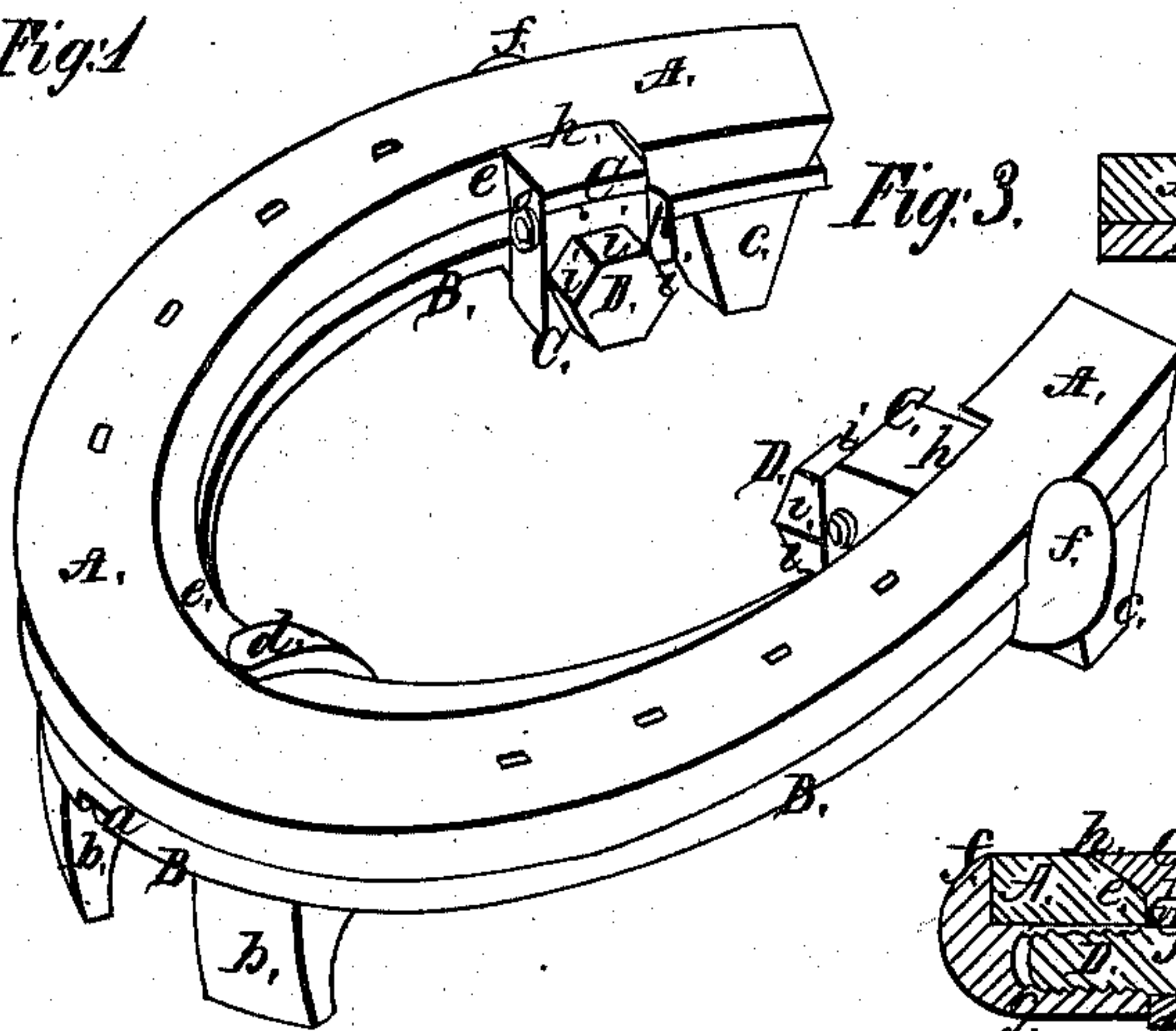


Fig. 3.

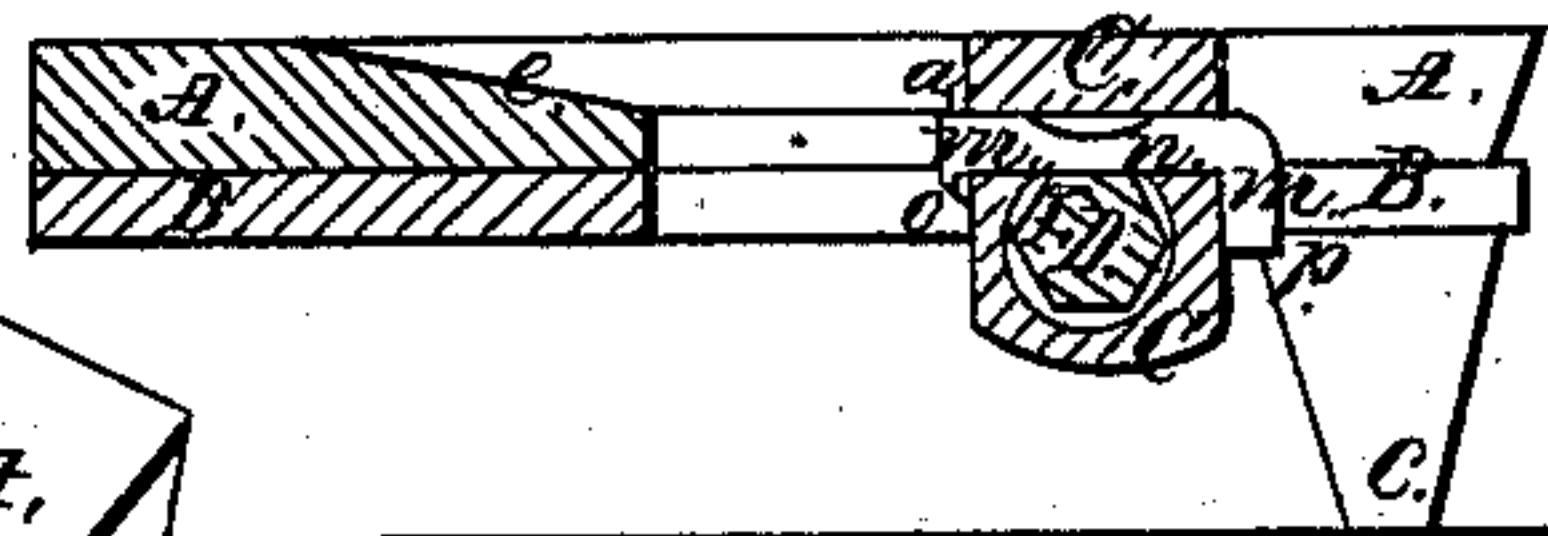


Fig. 4.

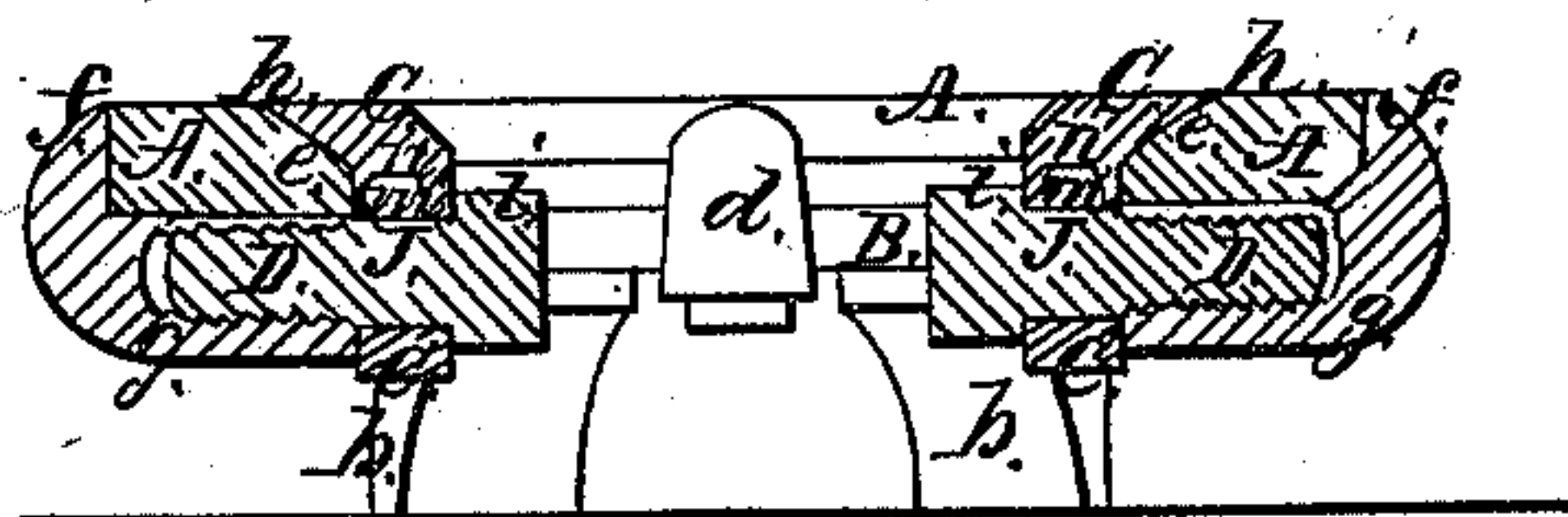


Fig. 2.

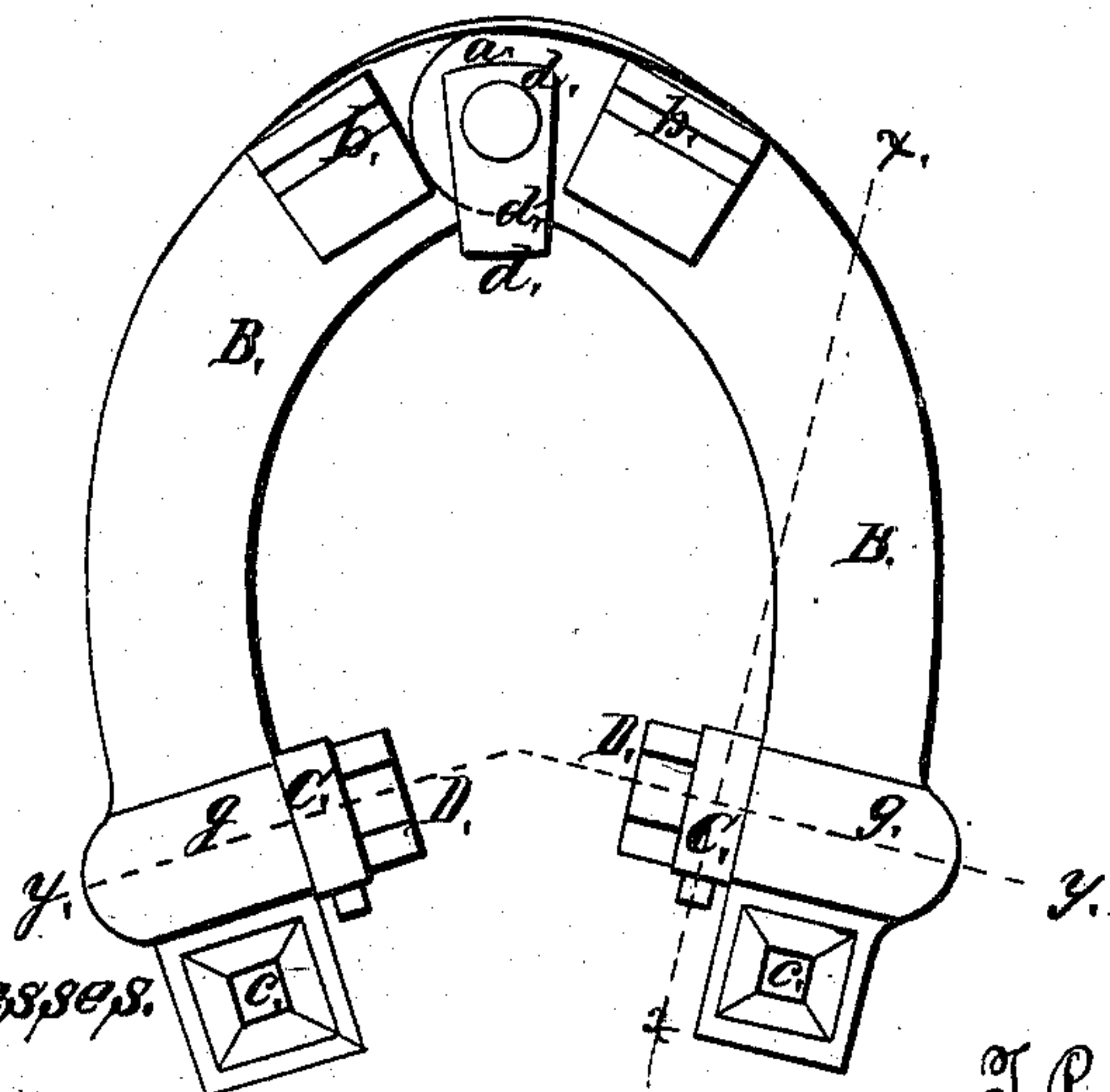
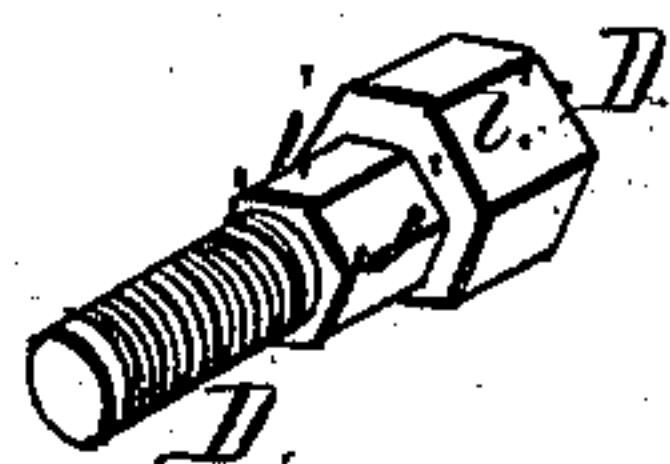


Fig. 5.



Witnesses.

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THOMAS P. HANDY AND CHRISTIAN B. KLEIBACKER, OF BALTIMORE, MARYLAND.

Letters Patent No. 89,991, dated May 11, 1869.

## IMPROVEMENT IN SUPPLEMENTAL HORSESHOES.

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

*To all whom it may concern:*

Be it known that we, THOMAS P. HANDY and CHRISTIAN B. KLEIBACKER, of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Supplemental Horseshoes; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents, in perspective, an ordinary horseshoe, with the supplemental shoe attached thereto.

Figure 2 represents a plan of the under side of the supplemental shoe.

Figure 3 represents a section taken through the red line *x x* of fig. 2, and

Figure 4 represents a section taken through the red line *y y* of fig. 2.

Figure 5 represents, in perspective, and detached, the screw-bolt for securing the supplemental to the ordinary shoe, at the heels or after-portions thereof.

Similar letters of reference, where they occur in the separate figures, denote like parts in all of the drawings.

Supplemental shoes, to be attached to and removed from the ordinary fast horseshoes, have been devised, but from the want of greater simplicity and efficiency, they have failed to go into general use. Of that kind of supplemental shoe in which the ordinary shoe must be made with holes, or other devices, for receiving and holding the supplemental shoe to itself, we make no special reference, because, if the ordinary shoe be not accurately made for the reception of the supplemental shoe, it could not be applied. So, too, if the supplemental shoe be not so made as to be fitted to the ordinary shoes of different forms and sizes, they fail to meet the wants of the public in the use of such appliances.

Our invention relates to that class of supplemental horseshoes in which the fastenings by which it is united to the ordinary shoe, do not, of necessity, require special preparation to meet and hold, in specially prepared openings in the latter; and

It further relates to a supplemental shoe, that can be applied to the ordinary fast shoes, though the latter may vary in shape and size, and still be made to conform thereto.

And our invention consists, first, in combining with a hinged supplemental shoe the studs or clips thereon, at the heel and outside thereof, to prevent the two parts of said hinged shoe from being pressed together, said studs or clips bearing against the ordinary shoe.

Our invention further consists in combining with a supplemental horseshoe, with stationary studs or clips on the outside thereof, movable flanges on the other side, operated by a screw, for holding against or on

the fast shoe, and thus securing the former to the latter.

Our invention further consists in a locking-mechanism or device, in connection with the screws for holding the movable flanges, to prevent said screws from turning, or the flanges from working loose.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same, with reference to the drawings.

A represents an ordinary horseshoe, which is fastened to the foot of the horse in the ordinary way.

B is the supplemental shoe, which is hinged at *a*, so that the heel-portions may be moved towards or from each other, and which may be furnished with the ordinary toe and heel-calks, *b c*.

At the toe or front portion of this supplemental shoe there is a hook, *d*, which catches over or on to the bevel *e* of the fast shoe A, and toward the heel-portions of the supplemental shoe there are stationary studs or clips *f f*, which bear against the outside of the fast shoe, to keep the temporary or supplemental shoe from being pressed together.

There is, moreover, a swelled portion, *g g*, on each bow of the supplemental shoe, in which a screw-thread is cut, to receive and hold a screw-bolt, as will be now explained.

C C are movable flanges, the jaws *h h* of which catch over the bevelled or chamfered edge *e* of the fast shoe A, and these flanges are run up tight against both the removable or supplemental shoe B, and the fast shoe A, by the screw-bolts D D, the heads *i* of which are shaped for receiving a wrench, by which they may be turned.

Between the head *i* of the screw-bolt and its shank there is formed a secondary head, *j*, as it were, or a many-sided portion, which portion is in the flanges, that is, not necessarily extending through the flanges; and through the flanges, at right angles to the line of the screw-bolts, and so as to come opposite to the many-sided portions, *j*, of said bolts, there is passed a key or locking-mechanism, consisting substantially of a rod or wire, *m*, having a portion, *n*, thereof cut away, as distinctly seen in fig. 4.

One end of said key or lock is riveted or otherwise secured, as at *o*, and the opposite end, *p*, bent down, to serve as a ready means of turning said key or lock when necessary, and may serve as an indicator, to show which side of the key or lock is cut away, and which not.

When the screw-bolts are to be turned, the key is turned so that its cut-away portion comes next to the sided portion, *j*, thereof, which allows the bolts to freely turn.

When the bolts are run up tight against the flange, and it in turn is jammed up against the edges of the shoes, then the key is turned into the position shown in fig. 3, and the bolt is locked, as the key cuts off or



closes up a part of the space that the screw-bolt requires to turn in, and entirely prevents it from turning, or the flanges from becoming loose.

This locking-mechanism is simple and efficient. We find it practical and useful, because it is so united to the flanges that it cannot be lost, and is always in place and ready for use. Other devices may be used, but we find it necessary to have a locking-mechanism of some kind, else the supplemental shoe will work loose; and we claim the preventive, viz, locking the screw against turning.

We have mentioned the shoe A as being an ordinary horseshoe. It may, and probably does, differ from ordinary horseshoes in the extent of the bevel on the upper or hoof-side of the shoe. But there is a commercial article of horseshoes, or a "make" of horseshoes, that has sufficient bevel on them for our purpose, and yet they may not be the common horseshoes of commerce.

It would be possible to pass the screws D from the outside to the inside of the supplemental shoe, and there to screw into and hold the flanges C, but the head of the screw, protruding from the outside, would be dangerous to the horse, and unworkmanlike; and if the head be sunken, then a special kind of tool would be required to take hold and turn it.

We propose, if it is found desirable to do so, to place a rubber, or any other elastic material, between these shoes, or the devices for holding one to the other, to relieve the foot of the horse from jar, or to prevent the concussion from working said holding-devices loose.

Without the hinge at *a*, in the supplemental shoe, the latter could not be fitted to any but shoes specially made to receive it. The hinge, however, makes them an article of commerce, as they can be adapted

to shoes of various shapes, forms, and sizes, within certain limits, without being specially made for them.

The shoe we have shown in the drawing is what is termed a round shoe, that is, round at the toe-portion. Shoes are often made square at the toe, and with a square or straight toe-calk. Our supplemental shoe is equally applicable to the square as to the round-toed shoe. And when square, the supplemental shoe may set with its rear portion in front of the rear calks of the fast shoe, and its front portion in rear of the toe-calk of the square shoe, or behind the toe-calk.

Having thus fully described our invention,

What we claim therein as new, and desire to secure by Letters Patent, is—

1. In combination with a supplemental horseshoe, hinged at or near its front or toe-portion, the stationary studs or clips at or near its rear or heel-portion, to prevent it from being pressed inward, substantially as described.

2. Also, in combination with a supplemental horseshoe, having stationary studs or clips thereon, the movable flanges, controlled or worked by a screw, to hold the supplemental and the ordinary shoe tight together, substantially as described.

3. Also, in combination with a supplemental shoe, held to an ordinary horseshoe by means of screws, the locking-mechanism, to prevent said screws from turning, or the fastening from becoming loose, substantially as described.

THOMAS P. HANDY.

CHRISTIAN B. KLEIBACKER.

Witnesses:

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