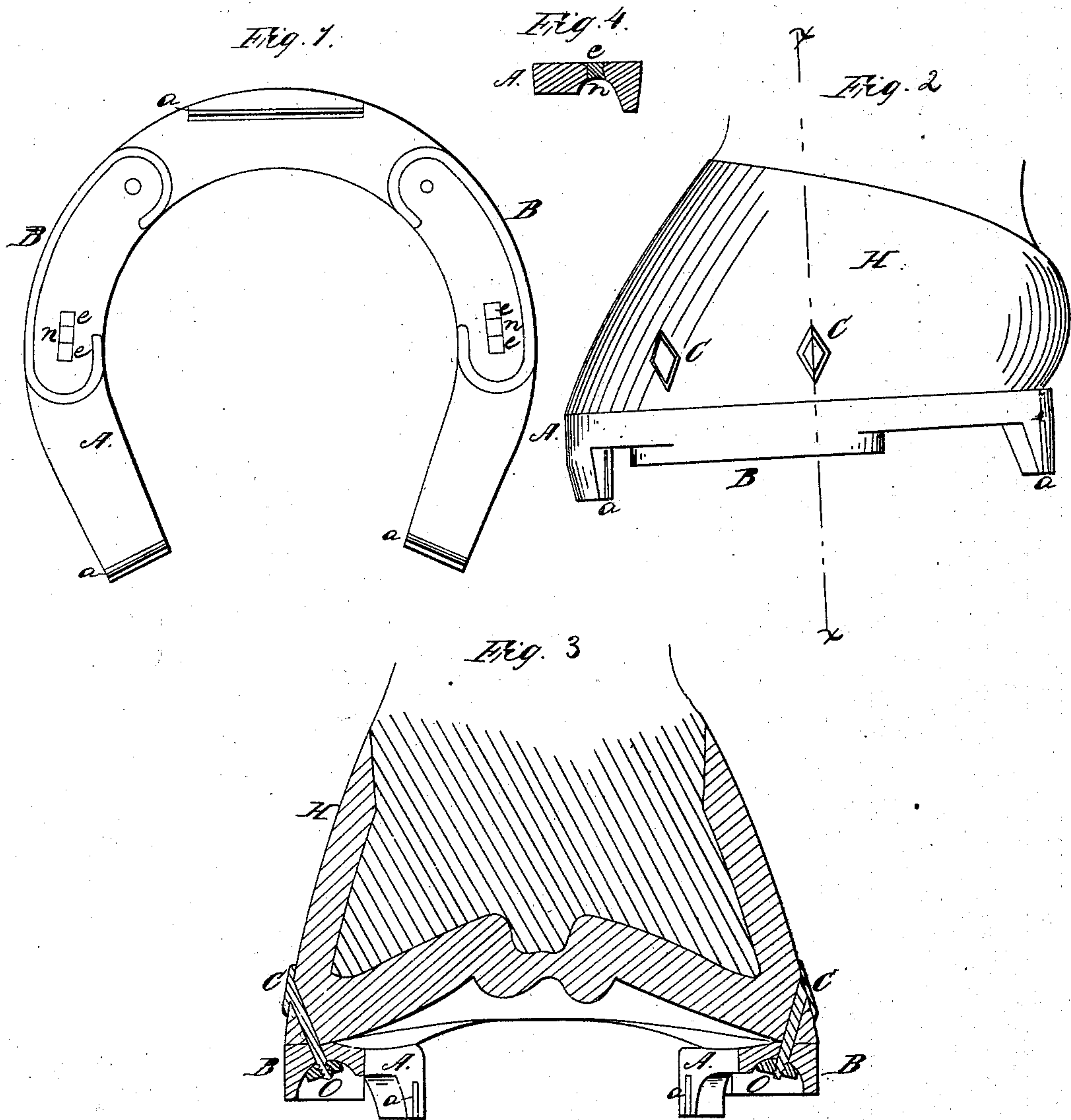


*J. Austin,*  
*Horseshoe.*

*N<sup>o</sup> 61,982.*

*Patented Feb. 12, 1867.*



# United States Patent Office.

JOHN AUSTIN, OF ROCKFORD, ILLINOIS.

*Letters Patent No. 61,982, dated February 12, 1867.*

## IMPROVEMENT IN 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, JOHN AUSTIN, of Rockford, in the county of Winnebago, and State of Illinois, have invented certain new and useful improvements in Horse-Shoes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, and to the letters of reference marked thereon, like letters indicating like parts wherever they occur.

To enable others skilled in the art to construct and use the invention, I will proceed to describe it:

Figure 1 is a bottom plan view.

Figure 2, a side elevation; and

Figure 3, a vertical section, taken on the line *xx* of fig. 2.

My invention consists in the insertion in the calks of a piece of steel set vertically, to render the calks self-sharpening. It further consists in a novel construction of bolt and shoe, for the purpose of securing it to the foot without the use of nails, and without the necessity of going to a blacksmith.

A represents the shoe, which is made of a single piece, in the usual form. This shoe is secured to the horse's foot by means of bolts C, which are inserted through inclined holes bored in the hoof at the proper positions to correspond with holes made in the shoe; the position of the bolts being clearly shown in section in fig. 3. These bolts are provided with heads, which stand at an inclination to correspond with the side of the hoof, when the bolt is inserted, as shown in fig. 3. The lower ends of the bolts pass through the shoe, and are secured by nuts *o*. In order to protect the nuts and the ends of the bolts a guard, B, is formed on the under side of the shoe, around that portion through which the holes are made, the under face of the shoe being made concave within the guard B, as shown in section in figs. 3 and 4. In order to avoid the necessity of injuring the hoof by boring new holes, in case a shoe is used in which the holes do not exactly correspond with the holes of the hoof, I make an elongated hole or slot in the shoe, as shown at *n*, fig. 1; and in this slot are fitted a number of small pieces, *e*, space being left for the passage of the bolt C. These pieces *e* have a bevelled head, fitting into a corresponding recess on the upper side of the shoe, which prevents them from falling out. These pieces *e* can be shoved either forward or backward in the slot *n*, and thus throw the opening for the passage of the bolt either forward or backward, as may be desired. A vertical slot is cut, or otherwise made, in the calks of the shoe; and in this slot is secured a thin piece of steel, as shown by *a*. This steel, being much harder than the iron of the calk, will, of course, wear away more slowly, and hence will protrude below the iron, thus forming a self-sharpening calk, and one that will remain so as long as the steel lasts.

To attach the shoe, it is only necessary to bore the holes, insert the bolt C, apply the shoe, and screw on the nuts. By these means I save all danger of injuring the animal's foot by nails, make a less number of holes in the hoof, and provide a shoe that can be applied without the aid of a blacksmith, and in which the calks are rendered self-sharpening.

Having thus described my invention, what I claim, is—

1. Securing the shoe to the animal's foot by means of the bolts C, constructed and applied as shown and described.
2. The movable pieces *e*, secured in the slot *n*, substantially as and for the purpose set forth.
3. I claim making the calks self-sharpening, by inserting within the body of the calk a piece of steel, substantially as described.

JOHN AUSTIN.

Witnesses:

STEPHEN D. HALSTED,

THOMAS J. RUDD.