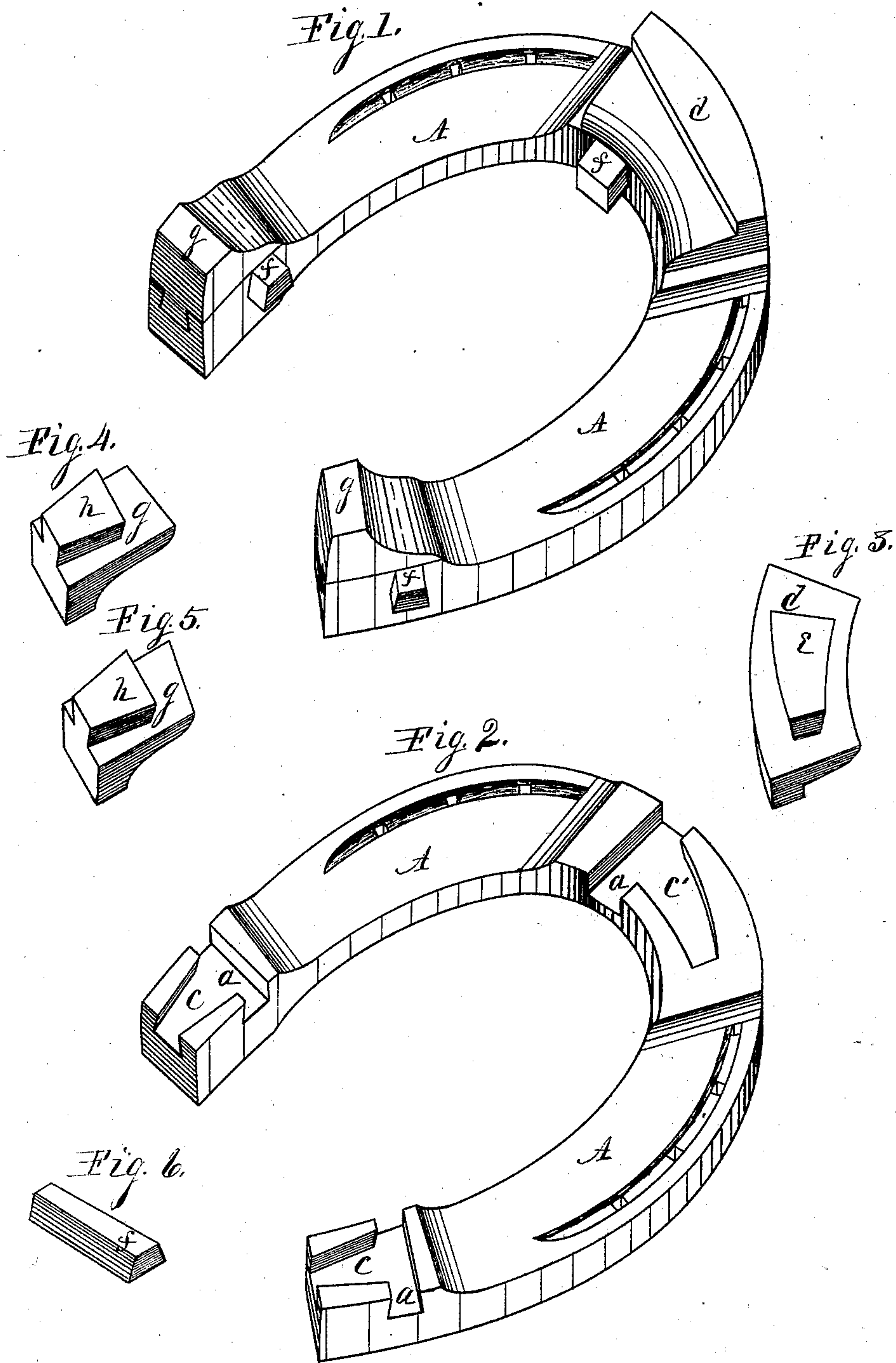


W. DICKINSON.
Calk Attachment for Horseshoes.

No. 216,026.

Patented June 3, 1879.



Attest.
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UNITED STATES PATENT OFFICE

WILLIAM DICKINSON, OF ROCKFORD, ILLINOIS.

IMPROVEMENT IN CALK ATTACHMENTS FOR HORSESHOES.

Specification forming part of Letters Patent No. **216,026**, dated June 3, 1879; application filed October 16, 1878.

To all whom it may concern:

Be it known that I, WILLIAM DICKINSON, of the city of Rockford, in the county of Winnebago and State of Illinois, have invented a new and useful Improvement in Horseshoes, of which the following is a specification.

This invention relates to that class of horseshoes known as the "removable-calk shoe;" and the invention consists in producing a horseshoe in which the calks are made removable in such a manner that they may be removed and replaced, or other like calks of any or most of the different varieties now in use or applicable for summer or winter use may be inserted without removing the shoe from the horse's foot.

In the accompanying drawings, Figure 1 is an isometrical representation of a horseshoe embodying my invention. Fig. 2 is a similar view, in which the calks are removed; Fig. 3, a representation of the toe-calk removed from the shoe. Figs. 4 and 5 represent the heel-calks removed from the shoe, and Fig. 6 is a representation of the key employed to hold the calks in place when inserted in the shoe.

In the figures, A represents the main portion of the shoe, which, in the main, is of the usual form of shoes now in use. At the three points to which it is common to fix the calks, this shoe is made of greater thickness than the main portion of the shoe, and forms a seat for the calks at these several points. These portions of the shoe are provided with transverse double dovetailed key-seats, as shown at *a*, and from these key-seats in the heel portions of the shoe are formed double dovetailed grooves *c*, which extend from the key-seat rearward and open through the heel ends of the shoe. These grooves are made dovetailing both in length and width, forming double dovetailed grooves.

In the toe portion of the shoe a double dovetailed groove, *c'*, substantially the same as those at *c* in the heel portion of the shoe, commences at the key-seat *a*, and extends with the curve of the shoe centrally in the forward portion of the shoe.

d represents a toe-calk, which, in its general form, is substantially the same as toe-calks in general use. Its under side is formed with a dovetailed tenon, *e*, adapted to enter the dovetailed groove *c'*, and when placed

therein, is moved or driven toward the closing end of the groove until the dovetailing-walls of the parts come in contact firmly. The key represented at *f* is then driven in the key-seat from the outside of the shoe between the wall of the key-seat and the head of the dovetailed tenon *e*. The wedging form of the key will force the toe-calk into the groove firmly and hold it securely in place.

At *g* are represented the heel-calks, which are, in their general form, substantially the same as some calks in use. These calks are provided on their under sides with a double dovetailed tenon, *h*, adapted to enter and fit the dovetailed grooves *c* in the heels of the shoe in the same manner as the toe-calks, and are held thereon by means of the keys *f*, driven from the outside of the shoe in the same manner that the toe-calk is held in place.

To remove these calks it will simply require the keys to be driven out and the calks to be freed from the dovetailing walls of the grooves, when they can be removed from the shoe and others inserted in their places without removing the shoe from the horse's foot.

From the foregoing it will be seen that all these calks are constructed, applied, held, and made removable in the same manner and by the same means.

These shoes and calks will be more readily produced by casting, and may be made of malleable iron or steel castings, and may be produced in different size and varieties, and the parts can be duplicated to any desirable extent.

I claim as my invention—

A horseshoe the heel and toe portions of which are respectively provided with T-shaped dovetailed grooves *a e* and *c c'*, the grooves *a* extending entirely across the shoe, in combination with removable heel and toe calks, each constructed with dovetail tenons and fastening-keys *f*, said heel and toe calks being constructed with their wearing-faces of sufficient length to overlap the grooves *a*, and thus protect the keys *f* from wear or displacement, substantially as set forth.

WILLIAM DICKINSON.

Witnesses:

JAS. H. KEELING,
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