J. A. CONKEY.

HORSESHOES.

No. 193,807. Patented Aug. 7, 1877.

Fig. 1.

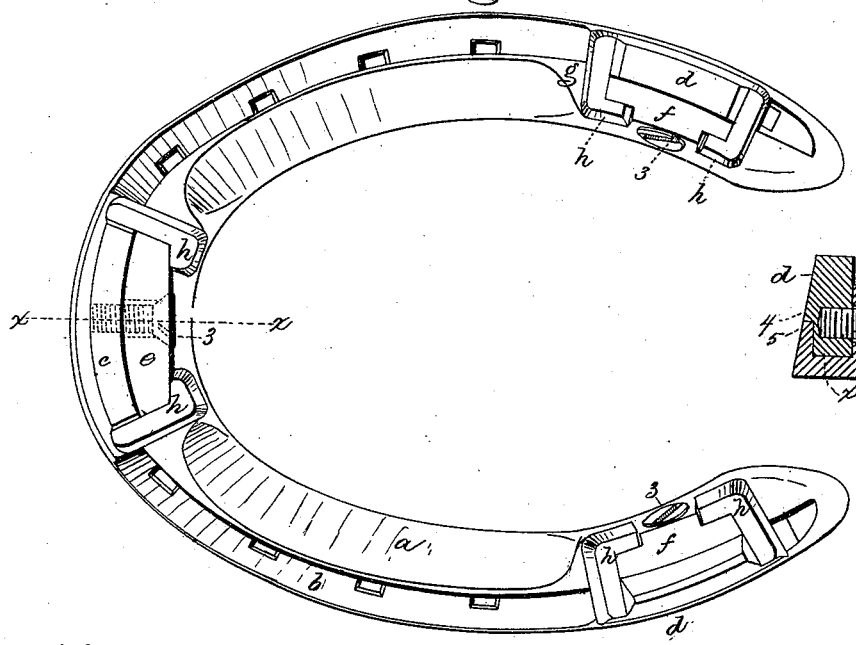


Fig. 3.

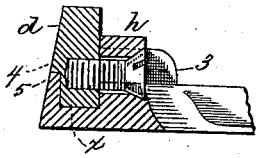


Fig. 4.

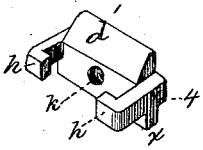


Fig. 2.

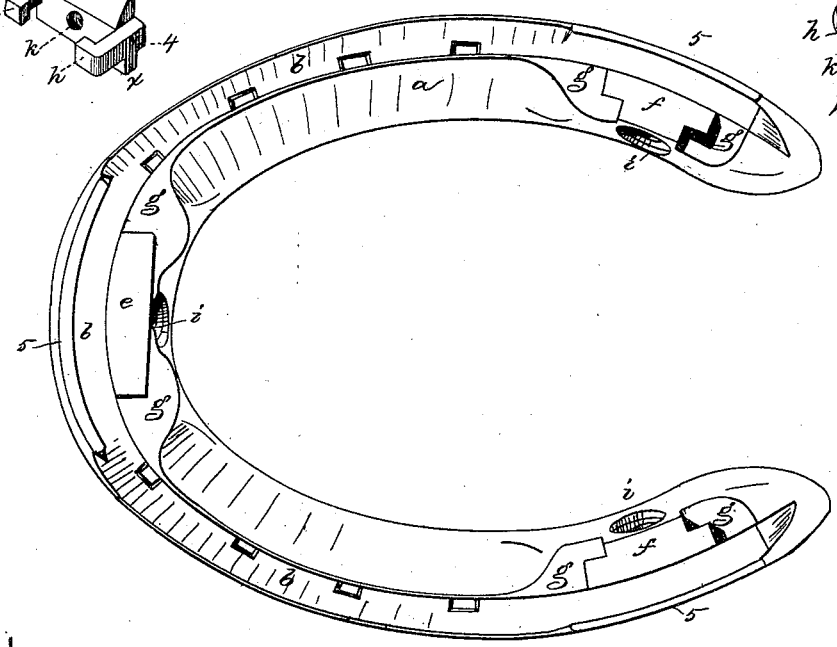
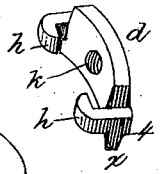


Fig. 5.



Witnesses.

L. H. Latimer,

W. J. Pratt.

Inventor:

Jason A. Conkey

per Crosby & Gregory, Attys

UNITED STATES PATENT OFFICE.

JASON A. CONKEY, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO HIMSELF AND EDWIN R. FLINT, OF SAME PLACE.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. **193,807**, dated August 7, 1877; application filed January 10, 1877.

To all whom it may concern:

Be it known that I, JASON A. CONKEY, of Newton, in the county of Middlesex and State of Massachusetts, have invented an Improved Horseshoe, of which the following is a specification:

This invention relates to improvements in horseshoes; and has for its object the construction of a shoe to be used at will, either as a sharp or dull calk-shoe.

The main plate of the shoe is provided, about its outer edge upon its under side, with a groove or channel for the reception of the nail-heads and the tops of the removable calks. Near the inner edge of the shoe I provide at the front and at the ends isolated projections resembling ordinary toe and heel calks. About these isolated projections at the inner edge of the shoe, and embracing them on all four sides, are placed the toe and heel calks, constructed substantially as hereinafter described. These calks are removably attached to these projections by means of screws. The calks may be made either sharp or dull.

Figure 1 represents an under-side view of a shoe with the calks attached. Fig. 2 shows the shoe with the calks removed; Fig. 3, a section of the shoe and calk at the toe; Fig. 4, a view of a sharp calk for frozen ground or ice; and Fig. 5, a view of a dull or flat calk for dry or summer travel.

The body *a* of the shoe is made flat where it comes in contact with the crust of the hoof, and at or near its inner edge it is beveled a little. The under side of the shoe about its outer edge is provided with a groove, *b*, to receive the nail-heads and the upper portions *x* of the calks *c d d'*. Near the inner edge of the shoe, rather than at its outer edge, as heretofore common, is placed a toe-projection, *e*, and at the heels heel-projections *f f*. The calks are shaped at top, as at *x*, to enter the groove *b*. Each end of each calk is bent or provided with a hooked arm, as at *h*, to fit about the projection *e* or *f*, to which it is to be applied.

The arms and body of the calk embrace the projections *e* or *f* on all sides, and the upper portion of each arm rests at each end of the calk against the under face of the shoe, preferably flattened, as at *g*. Each projection is provided with a hole, *i*, for the reception of a screw, 3, that enters a threaded hole, *k*, in the calk.

The calk *d'* is shown as a sharp calk, while the calk *d* is a blunt or dull calk. Calks of either of these kinds may be applied readily to the shoe, according to the requirements of the road or weather. These calks are made and sold separately, and may be readily renewed when worn and new ones be applied.

This shoe must always be worn with either the sharp or smooth calks. If properly attended to and changed when worn down almost to the projections *e f*, the shoe proper and projection will outlast several sets of calks. Some horses wear out the calks at one side of the shoe faster than at the other side. In such case the calks may, by a screw-driver, be readily changed from one to the other side of the shoe.

The calks may be made of steel, either by casting or by drop-forging.

The ledges 4 at the outer or convex portion of the calks rest upon the rims 5, outside the groove *b*, beyond the projections *e f*.

I am aware that it is not new to attach toe and heel calks adjustably to a shoe; and I am aware that calks have been sprung upon a continuous rib extending from end to end of the shoe.

I do not claim a horseshoe provided with permanent calks at toe and heel; but I am not aware that a shoe was ever before made with calk-like projections, as at *e f*, arranged at the inner concaved edge of the shoe, as shown in Fig. 2.

The removable calks applied to the shoe, as herein described, are securely and firmly held against lateral or rocking movement on the shoe-body, and the screws prevent and permit (as may be desired) the removal of the calks from the projections *e* or *f*.

The shank of the screw fits the hole in the projection loosely, but its tapering head fits the counter-sink therein closely, so that the calk, subjected to blows in traveling, does not strain the screw and bind it in the hole *i*.

The arms *h* might be made to simply extend past the ends of the projections instead of lapping over upon the inner sides, as shown.

I claim—

1. The shoe-body provided with isolated projections *e f* at the concaved inner edges at toe and heels, and with a groove, *b*, outside the projections, in combination with a removable calk provided with a portion, *x*, to enter the groove, and with hooked arms to clasp the projections, substantially as described.

2. A calk provided with the inwardly-projecting hooked arms *h* and projecting portion *x*, in combination with projection *e*, substantially as described.

3. The calk provided with the threaded hole *k*, and made as described, in combination with the projection *e* and the screw with shank fitted loosely to the hole in the projection and with a tapering head, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JASON A. CONKEY.

Witnesses:

GEO. W. GREGORY,

ELMER C. PERKINS.