DAVID GRIM.

Improvement in Horse Shoes.

No. 120,813. Patented Nov. 14, 1871.

Fig. 1.

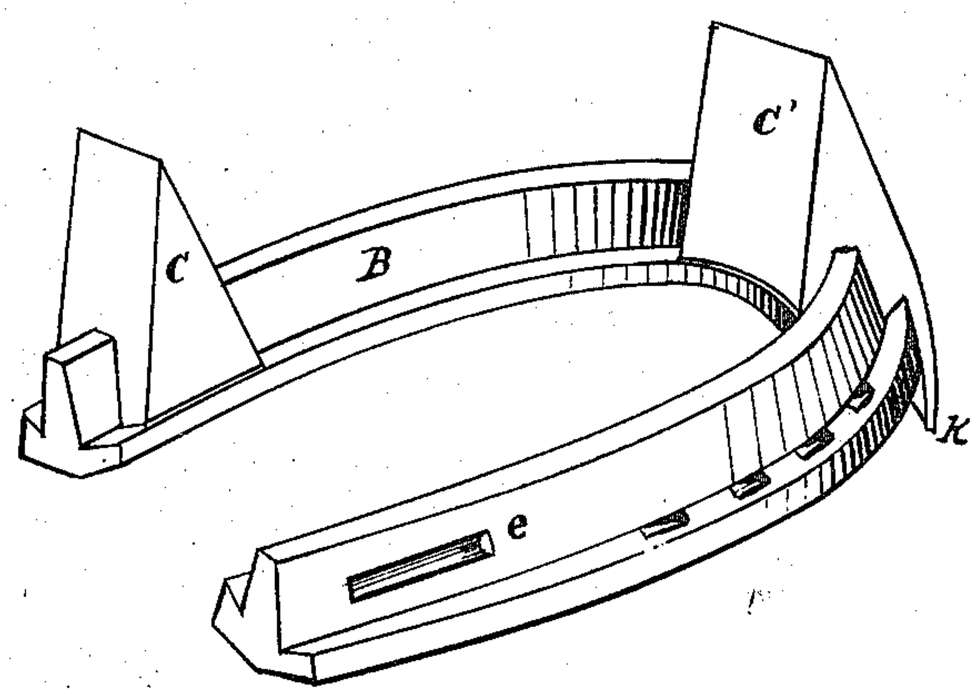


Fig. 2.

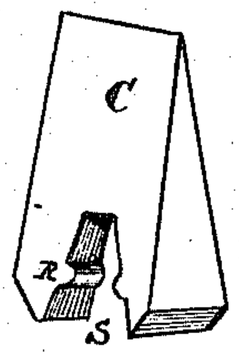


Fig. 3.

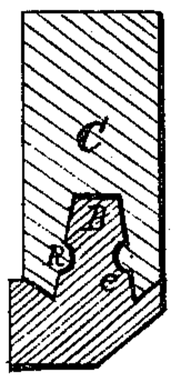


Fig. 4.

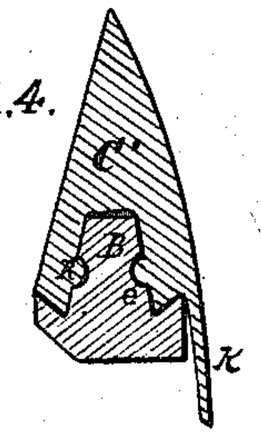


Fig. 5.

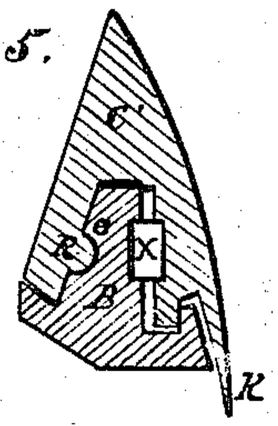
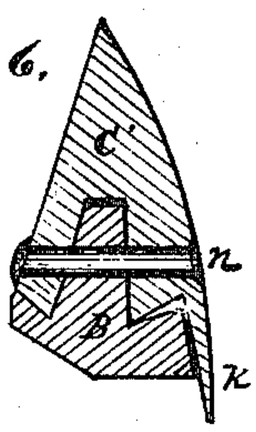


Fig. 6.



— WITNESSES —

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UNITED STATES PATENT OFFICE.

DAVID GRIM, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN HORSESHOES.

Specification forming part of Letters Patent No. 120,813, dated November 14, 1871.

To all whom it may concern:

Be it known that I, DAVID GRIM, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Horseshoes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 represents a perspective view of my improved horseshoe with one of its heel-calks detached; Fig. 2, a perspective view of said detached heel-calk; Fig. 3, transverse vertical section of a heel-calk and that part of the shoe whereon it rests; Fig. 4, similar section of the toe-calk and shoe. Figs. 5 and 6 represent modified plans of securing said toe-calk, the one by means of a key-wedge and the other by a rivet.

To make horseshoes in accordance with my invention, I take a bar of iron of requisite length, breadth, and thickness and form thereon, by means of rolls or other contrivances, a high central-tapering rib, B. In this rib and near its base, and on opposite sides thereof, I make long shallow indentations *e*, so arranged with respect to each other as that, when the bar is bent to the shape of a horseshoe, one indentation will be on each side of the rib B at those points intended for the reception of the calks *c c'*, which calks may be made of malleable cast-iron, wrought-iron, or steel, and so shaped as to represent a wedge in their general outline. In the base of each of these calks a deep A-shaped groove, *s*, is cut, corresponding in size and form to the rib B, each groove being provided with small inside projections R, answerable in position and proportion to the oblong indentations *e*, so that when a calk is set astride of the rib at the proper place and force applied the jaws or groove of the calk will open enough to enable it to pass down the rib until the projections R are each opposite its respective indentation *e*, when it will spring into place, as represented in the sectional drawing, Figs. 3 and 4, which shows the projections on the calks *c c'* as having entered their proper indentations *e*, and by which means they are held firmly and securely in position without any other contrivance, requiring no little force to disarrange or detach them. But where the calks require to be doubly secured, as, for instance, those that are to be used on the rough pavements of a city, then and in that case I pass a rivet, *n*, through each calk and its inclosed portion of the rib B, which, by preventing the spread of the groove *s*, strengthens its attachment to the shoe. I have also provided the toe-calks *c'* with a clip, *k*, that extends above the margin of the shoe and forms a protection to the hoof at that point, and also assists in holding the shoe steady on the foot. In the sectional drawing, Fig. 5, the toe-calk *c'* is maintained in position partly by a projection, R, fitting into a groove, *e*, on one side of the rib only, and a key-wedge, *x*, driven between the calk and rib on the opposite side, the spreading of the calk and its consequent displacement being prevented by the peculiar construction and arrangement of parts.

I claim—

A horseshoe formed with a high central rib, B, provided with indentations *e*, in combination with toe and heel calks *c c'*, so constructed and arranged as to set astride of said rib and be maintained in place by their inside projections R resting in the indentations of the rib, substantially in the manner shown and set forth.

DAVID GRIM.

Witnesses:

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WILL. B. MCCARTHY. (60)