A. REESE.

Making Horseshoe Calks.

No. 85,130. Patented Dec. 22, 1868.

Fig. 1.

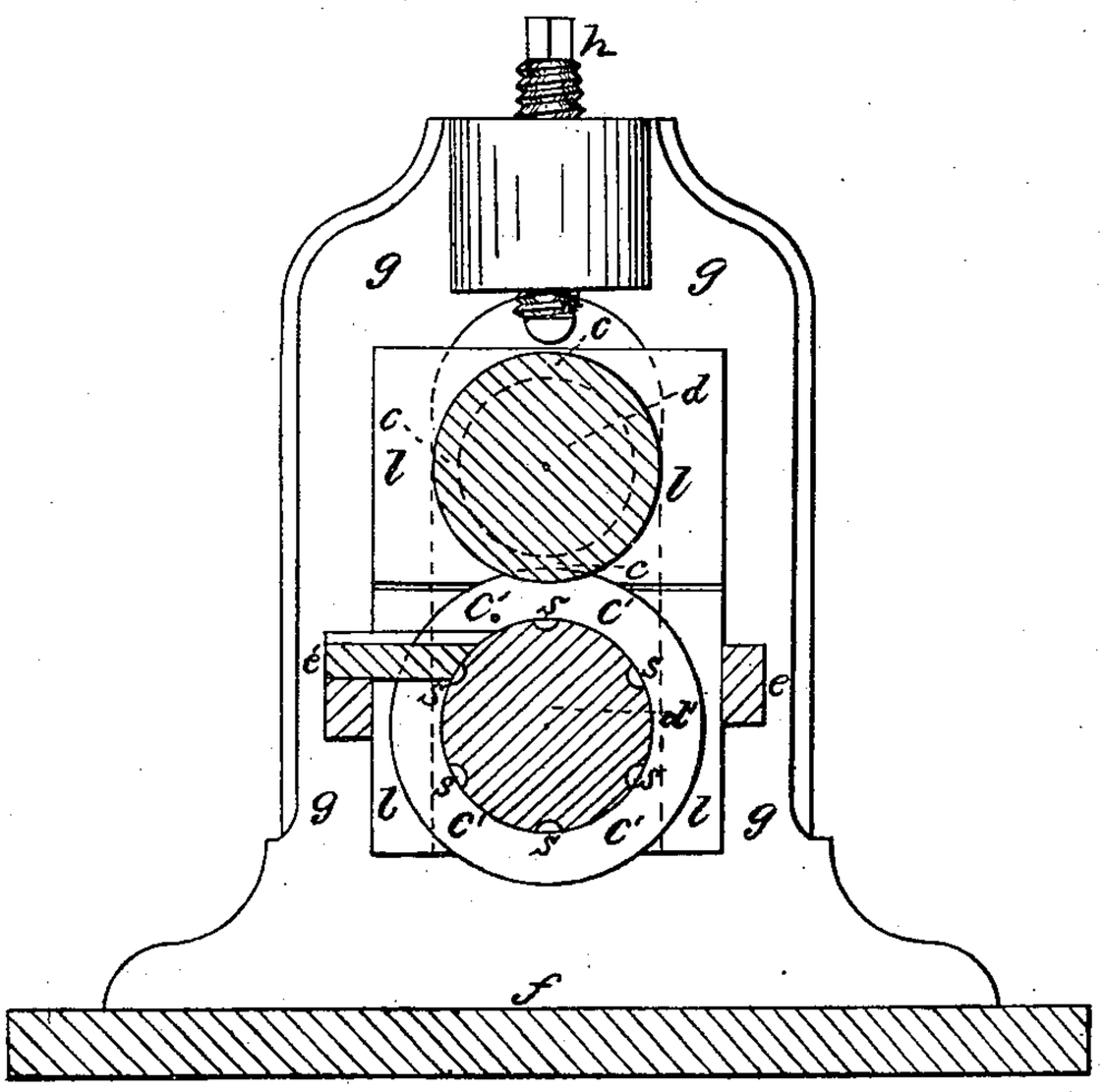


Fig. 2.

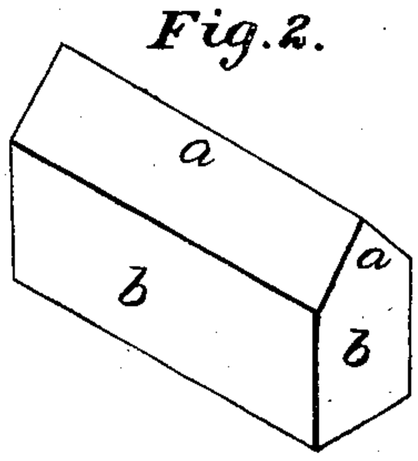


Fig. 3.

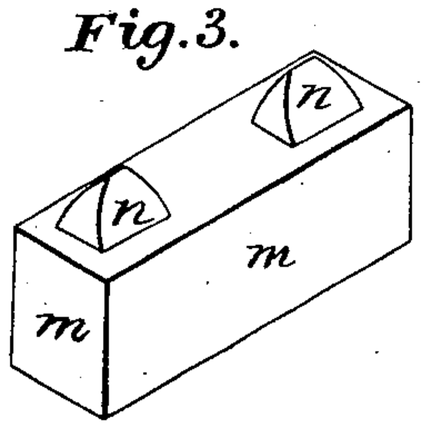
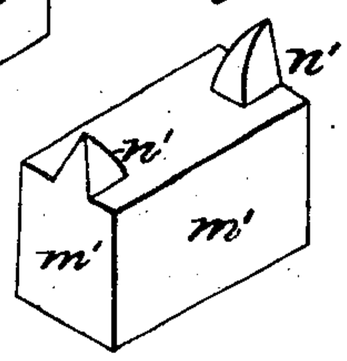


Fig. 4.



Witnesses:

Thos. B Kerr

R C Wrenshall

Inventor:

Abram Reese.

by Bakewell Johnson

his Att'ys

United States Patent Office.

ABRAM REESE, OF McCLURE TOWNSHIP, PENNSYLVANIA.

Letters Patent No. 85,130, *dated December* 22, 1868.

IMPROVED MODE OF MANUFACTURING TOE-CALK BLANKS.

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, ABRAM REESE, of McClure township, in the county of Allegheny, and State of Pennsylvania, have invented a new and useful Improvement in the Manufacture of Toe-Calks; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a cross-section of a pair of rolls, properly grooved, collared, and notched, for rolling toe-calks or toe-calk bars;

Figure 2 is a perspective view of a bar with a raised edge, illustrating an intermediate step in the process of rolling;

Figure 3 shows, by a similar view, the shape of the toe-calk bar; and

Figure 4 is a like view of one of the toe-calks, cut from the finished bar.

The nature of my invention consists in rolling toe-calk bars, from which to make toe-calks for horse-shoes, by first rolling a raised bead or projection along the edge of a bar of iron or steel, of proper thickness and depth, and then rolling down such bead or projection at intervals, so as to leave standing the spurs, by which more perfectly to weld the calk to the horse-shoe, and further, in the mode of cutting calks from such rolled bars.

To enable others skilled in the art to make and use my invention, I will proceed to describe its mode of operation and manner of use.

I first take iron or steel bars, of the proper quality for the use designed, and, by rolls suitably grooved, reduce them to the thickness required in toe-calks, and to a width a little in excess of such requirement; or I work the iron or steel into that shape and size direct from the bloom, pile, or billet.

Such bar I then pass through between a pair of rolls, so grooved as to reduce it to the form substantially as shown in fig. 2, the excess of metal in the original bar, consequent on its excess of width, as above described, being sufficient to form the bead *a*, on the body *b*, of a V-shape, as shown, or of an oval form, or of such other regular or irregular shape as will secure the same result.

For the further rolling of the bar, I construct a pair of rolls, collared, grooved, an dnotched, as in fig. 1.

The bed *f*, housing *g*, set-screws *h*, and plummer-blocks *l*, are of the usual construction.

d and *d'* are a pair of cylindrical metallic rolls, the upper one, *d*, having a collar, *c*, of the breadth of the body *b* of the bar. Such collar *c* plays into a groove, *c'*, in the lower roll.

The distance from the face of the collar *c* to the bottom of the groove *c'*, at the point of bite, is equal to the vertical depth of the calk-bars *m* (fig. 3) to be made.

In the bottom of the groove *c'* is a series of notches or depressions, *s*, of the proper size and depth for forming the spurs *n* on the calk-bars *m*.

The rolls are furnished with a guide, *e*, for entering the bars, and a grooved guide, *e'*, on the opposite side, for delivering them from the rolls.

The beaded bar, shown in fig. 2, is then run through the groove *c'*, with the beaded edge *a* downwards, against the bottom of the recessed groove *c'*. This bead *a* is then flattened, and rolled down into the body *m* of the calk-bar, except where it enters the notches or depressions *s*. In these the spurs *n* are formed, as already stated, and at such distances from each other that each calk, when the bar is cut into calks, shall have one or more such spurs on its upper surface.

The bars, when thus rolled, are sold in that condition, as an article of merchandise, or cut up into calks and then sold, ready to be heated and welded to the shoe.

As already intimated, I do not limit myself to any particular form for the bead *a*, provided that it be deep enough, or raised high enough to give spurs *n* of the required depth.

In cutting the calk-bars *m* into calks, I find it better to make the division or cut through the middle of each spur *n*, so that thus I get a calk of the form shown in fig. 4, the spurs *n'* being at the extremities of the body *m'* of the calk, and each spur *n'* being one-half of one of the spurs *n*, as rolled on the body *m* of the calk-bar. In this way I get a sharper spur than can be conveniently produced merely by rolling, and consequently one by which the calk can be more easily attached, and more perfectly welded to the shoe.

What I claim as my invention, and desire to secure by Letters Patent, is—

The mode of making toe-calks, substantially as hereinbefore described.

In testimony whereof, I, the said ABRAM REESE, have hereunto set my hand.

ABRAM REESE.

Witnesses:

ELL TORRANCE.

G. H. CHRISTY.