R. B. Caswell,

Ice Calk Bar.

No. 112,321. Patented Mar. 7. 1871.

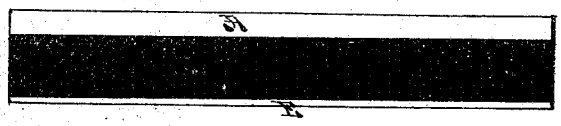

Fig. I.

Fig. II.

Inventor.

Ralph B. Caswell
by Gardiner Hyde

Witnesses.

W. W. Hopkins
James L. Johnson

UNITED STATES PATENT OFFICE.

RALPH B. CASWELL, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN TOE-CALK BARS.

Specification forming part of Letters Patent No. **112,321**, dated March 7, 1871; antedated March 2, 1871.

I, RALPH B. CASWELL, of Springfield, Hampden county, Commonwealth of Massachusetts, have invented an Improved Bar for Toe-Calks, of which the following is a specification:

Nature and Object of the Invention.

My invention relates to a toe-calk bar intended to be cut into blanks, and formed of iron and steel in combination, in a peculiar manner, the steel being partially covered on each side with iron, and projecting above the iron in a triangular shape to form the web from which the spurs are to be punched or cut, the web or steel portion extending beneath the iron at the bottom of the bar sufficiently to compose a wear-edge; and the object of this invention is to form a bar in which the iron on each side of the steel furnishes the stock to come against the shoe or shoulders, and, wearing off in use from the sides of the steel faster than the steel itself, leave the latter to always form a sharp edge for the calk.

The sharp spur for the calk, being cut out of the upwardly-projecting steel, can be driven into the shoe in attaching the calk, as in practice I have found iron spurs totally inefficient, for the reason that about one out of three or four will crumble under the blows of the hammer before entering the shoe; but by having the spurs steel, and shaped as shown in my patent of June 11, 1867, No. 65,723, this objection is entirely obviated.

The bar in use being rolled double, and the stock punched out of the web to leave the spurs, the latter are always dull at the point, and, being of iron, are necessarily so to insure sufficient strength. This renders it necessary to punch a hole in the shoe for the reception of the iron spur, which even then crumbles frequently, as before mentioned.

Description of the Accompanying Drawing.

Figure I shows a side view of one of my bars. Fig. II shows an end view of the same.

General Description.

A is the steel, as shown in Fig. II, projecting in a triangular form above the triangular iron sides B D of the bar, the shorter sides of these forming a shoulder on each side of the steel to join with the shoe by welding, and the steel also projecting far enough below the sides B D to furnish a sharp wear-edge, E.

It will be readily seen that in use the calk will be constantly sharp instead of dulling, as would be the case were the calk composed entirely of steel or iron, or of iron covered by steel.

Claim.

What I claim as my invention is—

The bar for toe-calks, constructed, as described, of steel center-piece A and iron side plates B D, the parts being formed, combined, and arranged substantially as shown.

RALPH B. CASWELL.

Witnesses:
R. F. HYDE,
L. V. SMITH.