

(No Model.)

F. F. RAYMOND, 2d.

SLUG FOR HEEL NAILING.

No. 385,960.

Patented July 10, 1888.

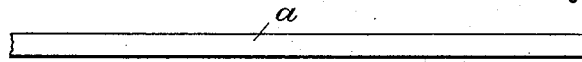


Fig. 1.



Fig. 2.

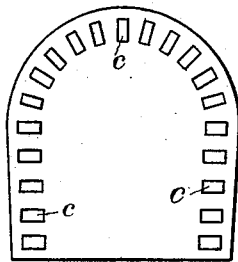


Fig. 11.



Fig. 3.



Fig. 4.



Fig. 5.

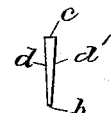
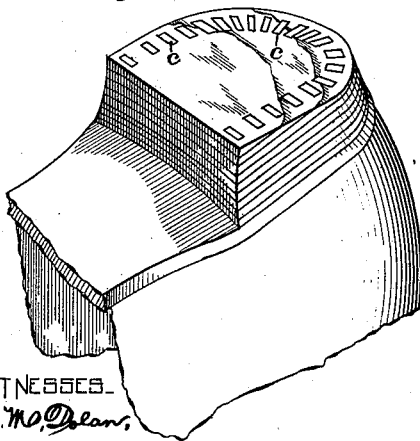


Fig. 6.

Fig. 12.



WITNESSES.

J. M. Dean,

E. P. Small.

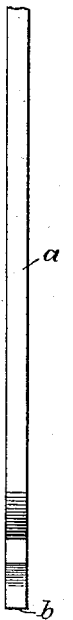


Fig. 7.



Fig. 8.



Fig. 9.

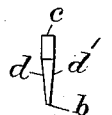


Fig. 10.

INVENTOR

F. F. Raymond.

UNITED STATES PATENT OFFICE.

FREEBORN F. RAYMOND, 2D, OF NEWTON, MASSACHUSETTS.

SLUG FOR HEEL-NAILING.

SPECIFICATION forming part of Letters Patent No. 385,960, dated July 10, 1888.

Application filed January 3, 1888. Serial No. 259,670. (No model.)

To all whom it may concern:

Be it known that I, FREEBORN F. RAYMOND, 2d, of Newton, in the county of Middlesex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Slugs for Nailing Heels and Soles, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature.

Heretofore slugs for driving into the soles and heels of boots or shoes have been provided with long heads and beveled edges, whereby a narrow point is formed, and in use as the slugs are worn the heads become shorter, and finally cannot be distinguished in the boot or shoe from an ordinary nail. The advantage of a slug is to provide an increased wearing-surface of metal, and it is desirable as the sole or heel of the boot or shoe wears that the head of the slug should still remain of the same length, not only to continue to provide substantially the same metal wearing-surface as at first, but also to still give the finish to the sole or heel, or either, which it first gave. To accomplish this purpose I have made a slug which has a head of the same length from its head to its driving end, and to enable it to be driven with ease I have tapered the sides.

I prefer to form the slug from a flat wire of iron, steel, brass, or any other suitable metal, as this provides all the thickness and the width of the slug, and only renders it necessary in order to completely form the slug to roll or otherwise form a bevel in its sides and to sever the formed slug from the remainder of the wire.

In the drawings, Figure 1 is a view in plan of the wire from which I prefer to make the slug. Fig. 2 is a cross section thereof. Fig. 3 is a view in elevation at the side of the wire and representing one slug as formed upon its end, but not severed therefrom, and another as partly formed. Fig. 4 is an edge view of the wire represented in Fig. 3. Fig. 5 is a view in side elevation. Fig. 6 is a view in end elevation of a complete slug. Figs. 7, 8, 9, and 10 are views which illustrate the formation of a slug having the beveled surfaces not extended to the head of the slug. Fig. 11 represents an unworn heel in which my im-

proved slugs have been driven. Fig. 12 represents a heel somewhat worn, showing the slugs, though worn, as still having the same length of head.

The wire *a*, it will be observed, is the width of the slug from its driving end to its head end, and is of substantially the thickness of the slug at its head end. To make the slug from wire it is necessary to sever therefrom a blank of the proper length and to submit it to a forming operation, either before or after it has been severed from the wire, whereby its driving end *b* is made somewhat thinner than its head end *c*, preferably by the bevels *d d'*, extending from the driving end towards the head, and to the head, if desired, as represented in Figs. 5 and 6. I prefer, however, for most purposes, that the bevels be not extended to the head, but only part of the way there, as represented in Figs. 9 and 10.

In Fig. 11 I represent the application of the slug to a heel which has not been worn, and in Fig. 12 I represent the heel as somewhat worn, but the slugs as still showing the same extent or length of wearing-surface.

I am aware that the patent to Small, No. 375,209, shows and describes an attaching-nail which is square in cross section, has a long shank and a tapering point; but such nail is more like an ordinary heel-attaching nail than a slug, and is not adapted for use as a slug which is not used for attaching, is much shorter than the ordinary attaching nail, and must have a much larger body of metal for its length than an attaching-nail; and my invention consists in so locating the amount of metal used in the slug that the wearing of the heel does not lessen the length of the metal wearing-surface of the slug, and this I consider to be new.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

As an improved article of manufacture, a shoe-slug having the long head *c*, the driving end *b*, of substantially the length of the head, and the wide beveled side or sides *d d'*, substantially as described.

FREEBORN F. RAYMOND, 2D.

In presence of—
J. M. DOLAN,
E. P. SMALL.