

(No Model.)

W. W. MINER.
HORSESHOE NAIL.

No. 266,868.

Patented Oct. 31, 1882.

Fig:1.

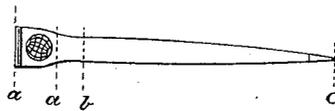


Fig:2.



WITNESSES.

Arthur Reynolds
Bonnie J. Hayes

INVENTOR-

William W. Miner
by Lewis & Gregory Atty.

UNITED STATES PATENT OFFICE.

WILLIAM W. MINER, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO GLOBE NAIL COMPANY.

HORSESHOE-NAIL.

SPECIFICATION forming part of Letters Patent No. 266,868, dated October 31, 1882.

Application filed October 25, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM W. MINER, of Boston, in the county of Suffolk, State of Massachusetts, have invented an Improvement in Horseshoe-Nails, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to improvements in horseshoe-nails; and it has for its object the production of a nail which shall have a body sufficiently stiff to drive properly, a hardened head, and a neck softer than either the body or head, such a nail being less liable to break at the neck in the line of the junction of the shoe and hoof.

In the Palsey patent, No. 92,355, dated July 6, 1869, the blank is cut from a hot-rolled ribbed plate, and is then cold-rolled from a point just at the under side of the head to the small end of the blank, which gives a nail with a stiff or hard body and neck and quite soft head, which can be hammered down into and be made to fill the pritchel-holes; but such soft-headed nails easily wear away on pavements, and the hard necks are objectionable, as they break in the line between the shoe and hoof.

It has been found desirable in practice to have the heads of the nails harder than would be the case were the stock in the heads left in the condition of hot-rolling the plate, and to produce such nails the heads of the blanks have been rolled both by plain and figured rollers, thus making the heads of sufficient hardness.

To avail myself of the hard head and obviate the disadvantages of the hard neck and secure the soft neck, which is very desirable, I have so grooved or made the rolls (such as are shown in United States Patent No. 121,511, or the die-grooves therein) as to first act upon and somewhat compress and thus harden the heads

of the blanks, they being cold. Below the head-engaging portions the dies are cut out, so that they fail to act upon the necks of the blanks, consequently leaving the said necks soft, or in the condition of hot-rolling the plate; but the dies in the rolls are shaped to engage the shanks or bodies of the blanks just below their necks, and elongate or stiffen their bodies or shanks below their necks, as in Patent No. 121,511, the said blanks being at the same time beveled by the dies, and subsequently sheared and pointed in the usual manner.

Figure 1 represents in top view a horseshoe-nail made in accordance with my invention; Fig. 2, a side elevation thereof.

The head is comprised between the dotted lines *a a*, the soft or unrolled neck between the lines *a b*, and the shank or body and point between the lines *b c*, the neck, unrolled by the usual dies, being softer than the body or shank part of the nail.

I claim—

1. As an improved article of manufacture, a horseshoe-nail having a hardened head and shank and a soft neck, as and for the purpose described.

2. A horseshoe-nail having that portion of it which when driven lies at and near the junction of the shoe and hoof in that condition of softness which results from hot-rolling the plate from which the blank is cut and having its body or shank from thence to the point in the condition of hardness produced by cold-rolling, substantially as set forth.

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

WILLIAM W. MINER.

Witnesses:

G. W. GREGORY,
ARTHUR REYNOLDS.