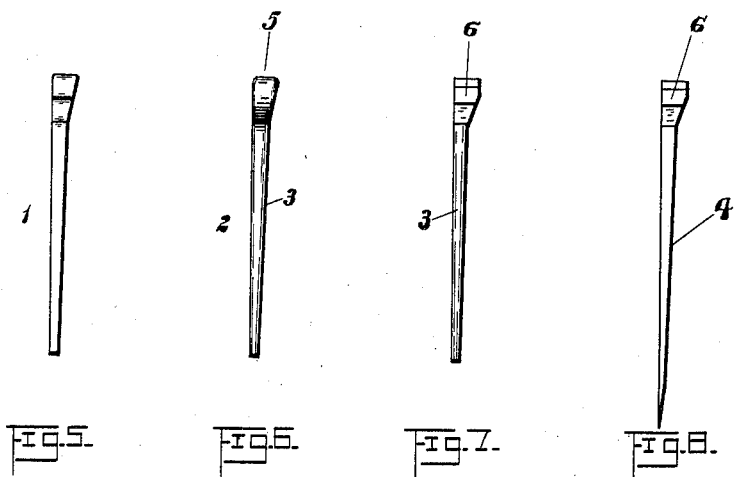
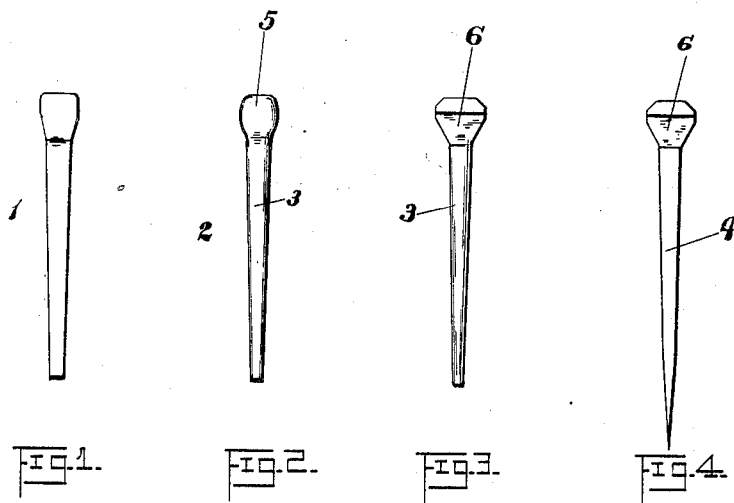


A. MOLLER.
 PROCESS OF MAKING HORSESHOE NAILS.
 APPLICATION FILED APR. 14, 1908.

1,006,585.

Patented Oct. 24, 1911.



WITNESSES

Fredrick Lunnam Jr.
John W. Kamper.

INVENTOR

August Moller,
 BY
Russell M. Everett,
 ATTORNEY.

UNITED STATES PATENT OFFICE.

AUGUST MOLLER, OF NEW YORK, N. Y., ASSIGNOR OF ONE-HALF TO CHRISTIAN MOLLER, OF NEW YORK, N. Y.

PROCESS OF MAKING HORSESHOE-NAILS.

1,006,585.

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed April 14, 1908. Serial No. 426,936.

To all whom it may concern:

Be it known that I, AUGUST MOLLER, a citizen of the United States, residing at New York city, in the borough of Manhattan, State of New York, have invented certain Improvements in Processes of Making Horseshoe-Nails, of which the following is a specification.

The objects of this invention are to secure in a horseshoe nail a hot-forged head which is cold-finished; to thus combine with the softness and toughness of a hot-forged head, the shape and finish of a cold-finished head; to secure a neat appearance of the nail head and exactness of fit of the same; to thus secure maximum holding qualities in the nail, and to obtain other advantages and results as may be brought out in the following description.

Referring to the accompanying drawings in which like numerals of reference indicate corresponding parts in each of the several figures: Figure 1 shows in side view a horseshoe nail blank as forged; Fig. 2 is a similar view of the same after being tumbled or polished; Fig. 3 is a similar view of the blank with its head shaped by cold-finishing, and Fig. 4 is a similar view after the shank of the nail has been shaped and pointed, and the nail is complete; Figs. 5-8, inclusive, are edge views of the successive forms of the blank which are illustrated in side view in Figs. 1, 2, 3 and 4, respectively.

In carrying out my invention, nail blanks 1, as shown in Figs. 1 and 5, are produced in the usual manner by forging from a rod or bar at white heat, preferably in a forging machine. These blanks are then tumbled or polished in the ordinary manner, resulting in the form of nail blank shown at 2 in Figs. 2 and 6.

Heretofore it has been usual to finish the shaft or shank 3, of the polished nail blank shown in Figs. 2 and 6 by cold rolling and shearing the same to the form and appearance of the shank 4 shown in Figs. 4 and 8 of the drawings, leaving the head just as it was polished or as shown at 5 in Figs. 2 and 6. This gave a soft hot-forged head and a hard cold-rolled shaft or shank, as was thought desirable, the head being left untouched after tumbling or polishing. It will be understood, however, that in form-

ing the nail blank 1 shown in Figs. 1 and 5, hot-forged, no very sharp edges or exact form could be given it, and moreover these edges were still further rounded in tumbling or polishing, as shown in Figs. 2 and 6. The head of the finished nail made in this old way was therefore not at all exact in shape or form, and unless it were hammered forcibly enough into the nail groove or seat of the horseshoe to shape it to the same, it would not contact well at its sides therewith. Different nail heads would be of slightly different shapes or forms, according as they were forged and according to the amount of stock removed in tumbling or polishing. These differences were not apparent to the horseshoer as he rapidly drove the nails, and hence he did not give to each the special hammering which it needed, but would hammer them all alike. Consequently, the nails would not be seated all alike, and some would become loose. In my improved method of making the nails, however, I subject the head 5 of the polished nail blank as shown in Figs. 2 and 6, to pressure while cold, and thus give to it a proper uniform shape. This is preferably done by a machine, not shown herein, since its exact construction forms no part of the present invention, which exerts sufficient pressure on the head, while cold as stated, to give it the correct uniform shape shown at 6 in Figs. 3 and 7. It is thus insured that the nail heads will fit the seats or grooves in the horseshoes accurately and without the need of being hammered so forcibly. Obviously, any detail configuration can be given to or impressed upon the sides of the nail head in imparting to it the die-finish thus described, in practicing my new process of manufacture. The shank 3 of the nail is then rolled cold and sheared into the form shown in Figs. 4 and 8, as usual, and the nail is complete. If desired, this rolling and shearing of the shank, which is commonly called pointing, might be done previous to cold-finishing the head as described, without affecting the invention.

Having thus described the invention, what I claim as new is:—

The hereindescribed process of making a horseshoe nail, consisting in heating a rod, forging a headed nail blank from said rod

while hot, cooling and tumbling said blank, shaping in dies the head only of said blank while cold to the square-cornered shape of the pritchel-hole of a horseshoe, and cold-
5 rolling the nail shank and shearing its point independent of the said head, whereby a hot-forged nail with a soft die-finished

head and a hard cold-rolled shank is obtained.

AUGUST MOLLER.

In the presence of—

CHRISTIAN MOLLER,
RUSSELL M. EVERETT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."