

(No Model.)

H. F. MURRAY.
NAIL.

No. 374,549.

Patented Dec. 6, 1887.

Fig. 1.

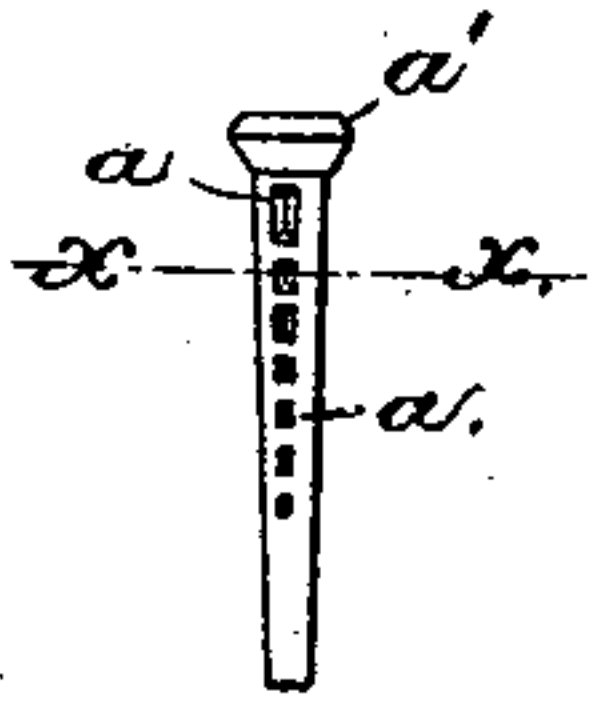


Fig. 2.



Witnesses.
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UNITED STATES PATENT OFFICE.

HENRY F. MURRAY, OF LAWRENCE, ASSIGNOR TO JAMES W. BROOKS, PRINCIPAL TRUSTEE, OF CAMBRIDGE, AND FRANK F. STANLEY, ASSOCIATE TRUSTEE, OF BOSTON, MASSACHUSETTS.

NAIL.

SPECIFICATION forming part of Letters Patent No. 374,549, dated December 6, 1887.

Application filed December 7, 1886. Serial No. 220,885. (No model.)

To all whom it may concern:

Be it known that I, HENRY F. MURRAY, of Lawrence, county of Essex, and State of Massachusetts, have invented an Improvement in Nails, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to produce a novel and efficient nail especially adapted to be used in the manufacture of boots and shoes.

Prior to my invention nails for boots and shoes have been provided with corrugations to prevent the nail when driven into the leather from being easily loosened, the corrugations serving to grasp or hold the leather or other stock.

In accordance with my present invention the nail is formed by suitable dies with its central portion for the greater part of its length countersunk or compressed, to render the nail stiffer in the body portion, so that less material will be required to obtain a nail having equal strength to that now employed, the end of the nail being preferably uncompressed, so that the end of the nail, when the latter is driven into the stock, may be turned or bent to clinch in the stock, and thus prevent the nail from being easily loosened or displaced.

My invention therefore consists, essentially, in a tapering nail having longitudinal countersinks in its shank extending from its head and disappearing before reaching the point, and indentations or serrations in said countersunk portions.

Figure 1 is a side elevation of a nail embodying my invention; Fig. 2, a section of Fig. 1 on line *xx*.

In the practice of my invention the metal blank, rod, or wire from which my improved nail is made, and which may be round, square, or of other form in cross-section, is upset to form the head of the nail, and is then fed between dies which are of such shape as to countersink or compress the body of the nail longitudinally on two or more of its sides for a portion of its length. The point of the nail may be of any usual shape and be made in usual manner.

Referring to Fig. 1, I have shown one form of nail with two of its sides sheared or cut to form the point of the nail. The sheared or cut sides are countersunk or compressed, as at *a*, in the direction of their length, the countersunk portions commencing near the head *a'* and extending toward the point of the nail. The bottom of the longitudinal countersunk portions in the shank of the nail is indented or serrated in Fig. 1, to thus increase the holding power of the nail. By countersinking or compressing the body of the nail longitudinally, as described, from its head downward for a considerable distance toward its point increased stiffness or rigidity is imparted to the body portion of the nail, while that portion of the nail between the end of the compression *a* and the point of the nail is uncompressed and left softer, the uncompressed or softened portion when driven into the leather or other stock turning or curling, so as to form a clinch and retain the nail therein. Countersinking or compressing the sides of the nail, as described, also gives a more extended holding area in cross-section, and so, also, the countersinking by compression expands the nail in cross-section. Further, I am enabled by countersinking or compressing the sides of the nail from its head toward its point to effect a considerable saving in stock, producing from a given weight of stock a greater number of nails than if the said nails were not countersunk or compressed. This result is accomplished by compressing the body portion of the nail, rendering it very stiff.

I claim—

A tapering nail having longitudinal countersunk portions in its shank extending from its head and disappearing before reaching the point, and indentations or serrations in said countersunk portions, substantially as described.

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

HENRY F. MURRAY.

Witnesses:

BERNICE J. NOYES,
F. L. EMERY.