J. M. Cooper.

Making Nails.

No. 88,454. Patented Mar. 30, 1869.

Fig. 1.

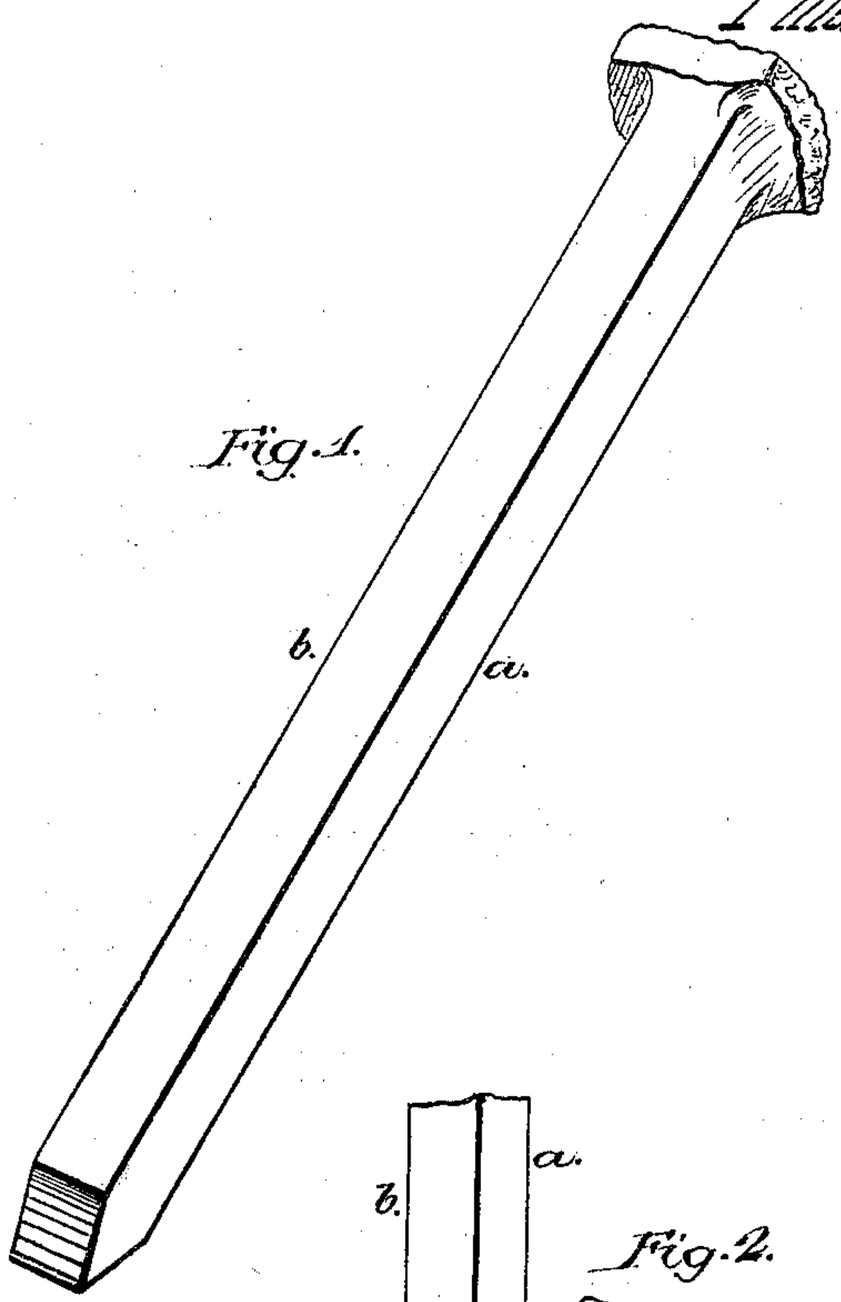


Fig. 2.

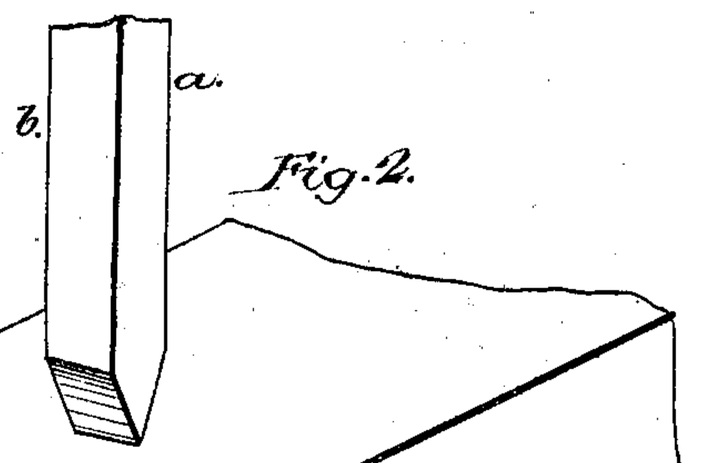


Fig. 3.

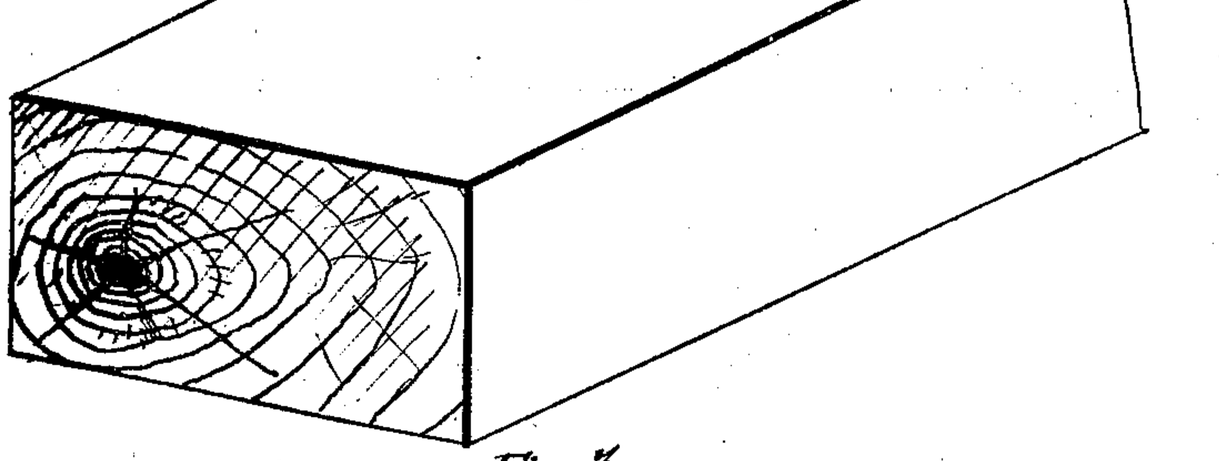


Fig. 4.

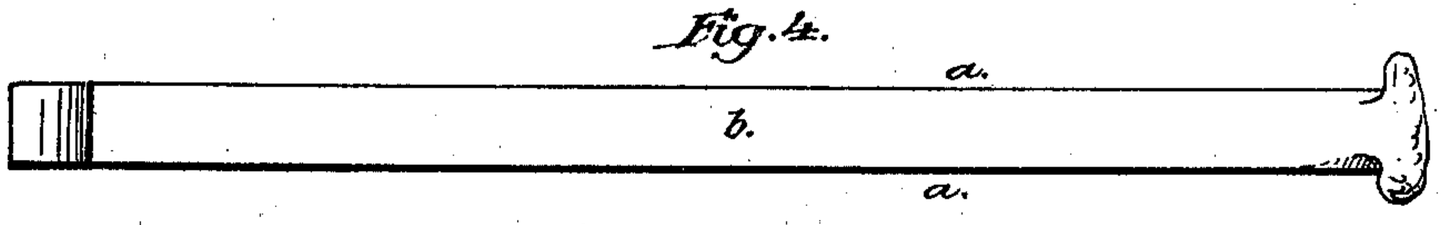
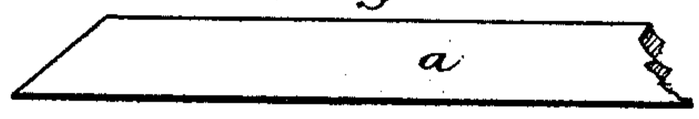


Fig. 5.



United States Patent Office.

J. MASLIN COOPER, OF PHILADELPHIA, PENNSYLVANIA.

Letters Patent No. 88,454, *dated March* 30, 1869.

IMPROVEMENT IN MAKING NAILS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, J. MASLIN COOPER, of Philadelphia, Pennsylvania, have invented an Improved Nail; and I do hereby declare the following to be a full, clear, and exact description of the same.

My invention consists in the making of cut-nails, with the sides all parallel, and the points bevelled from the rolled sides, by cutting the nails from a plate bevelled at one edge, to correspond to the bevel of the points of the nails, so that no turning of the plate, in feeding it to the machine, is required, and so that the nails produced may be superior to ordinary cut-nails, as regards easy penetration and permanency of retention in place.

In order to enable others skilled in the art to make and apply my invention, I will now proceed to describe its construction and operation, reference being had to the accompanying drawing, which forms a part of this specification, and in which—

Figure 1 is a perspective view of my improved nail.

Figure 2, also a perspective view, showing the position of the nail in respect to the grain of the wood, prior to driving.

Figure 3 is a view of the cut side of the nail;

Figure 4, a view of the rolled side; and

Figure 5, a modification.

The rolled sides of an ordinary cut-nail are parallel, while its cut sides are inclined, so as to render the nail wedge-shaped, and tapering toward the point, which taper, while it facilitates the introduction of the point in driving the nail, causes the resistance to constantly increase as the nail penetrates the wood.

Another objection to this form of nail is, that in order to taper its sides, the plates, when fed to the machine, must be turned for each nail, so as to present opposite faces alternately to the action of the shears. This renders the feeding of the machine, if performed by hand, laborious, and comparatively slow, while, if machinery be employed, it must necessarily, owing to the variety of motions demanded, be of a most complicated character.

My improved nail (plainly illustrated in fig. 1) has its cut sides *a* parallel to each other, and its rolled sides *b*, which are also parallel, are bevelled at the end, and thereby reduced to the chisel-shape shown.

The mode of making this nail is as follows:

The plates are first, previous to being fed to the nail-machine, passed between bevelled rolls, which incline them upon both sides of one edge, at a proper angle to give the desired chisel-shaped point to the nails.

After being thus bevelled, the plates are fed to the machine straight, and without turning, between the successive clips, and, consequently, the cut sides of the nail being parallel to each other, the head, and that portion of the nail adjacent to it, are formed in the ordinary manner and by the usual machinery.

The manner of adjusting the nail for driving is the reverse of that resorted to with ordinary nails, the cut sides being placed parallel with the grain of the wood, and the rolled sides across it; the wedge-shaped point, consequently, penetrates into the wood across its grain, and has no tendency to split. (See fig. 2.)

After the point has penetrated, the nail can be driven home with comparative ease, as there are no tapering sides to increase the resistance as the nail enters the wood.

The ordinary nail, when driven home, and accidentally started from its place, has, by reason of its tapering sides, a constantly-increasing tendency to draw out or become loose; while my improved nail, even if started, will still hold, as all its sides are straight and parallel.

Another advantage of my nail is the facility of its manufacture, for, as it is unnecessary to turn the plates in feeding them to the nail-machine, the operation, if performed by hand, will be much more rapid and less laborious than the old method, while it will be evident, as the drawing back and turning of the plate are dispensed with, that machinery of a most simple character can be adapted to the work.

In the modification of my invention, shown in fig. 5, the point of the nail is formed, as will be readily understood, by bevelling the edge of the plate upon one side only, instead of both.

I claim as my invention, and desire to secure by Letters Patent—

As an improved method of making improved cut-nails, cutting the same of equal breadth from end to end, of a plate of equal thickness, but of which an edge is bevelled on opposite sides, as described.

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

J. MASLIN COOPER.

Witnesses:

W. W. DOUGHERTY,

HARRY SMITH.