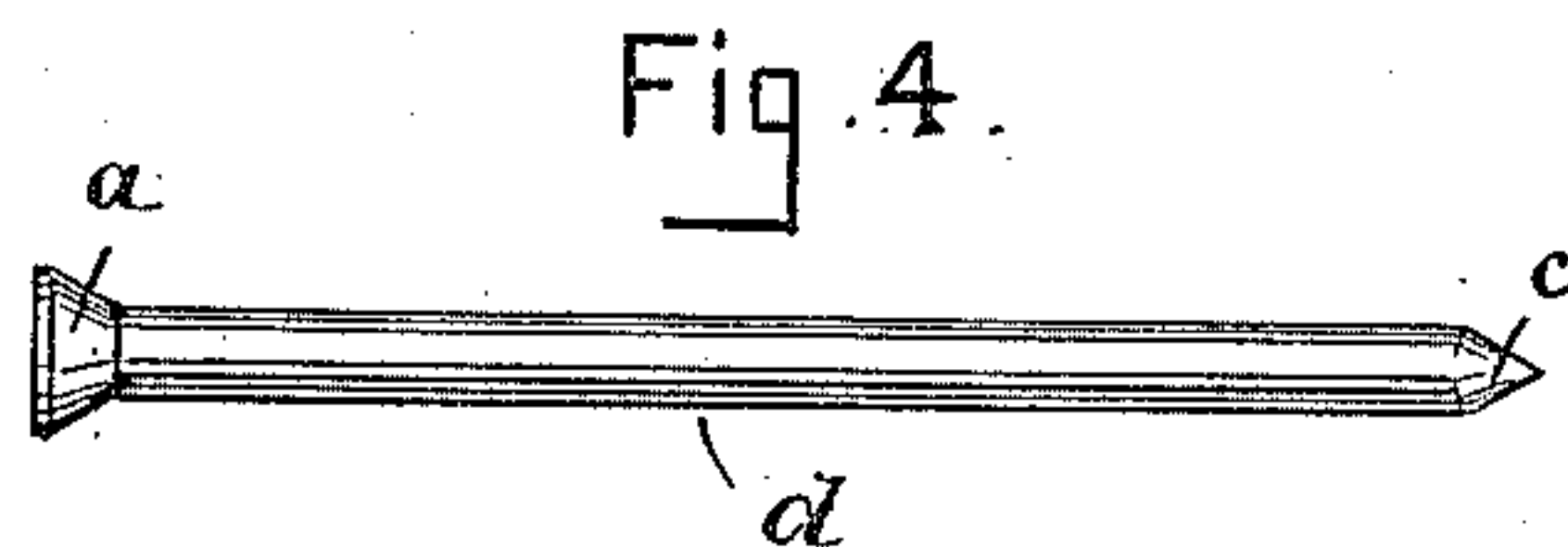
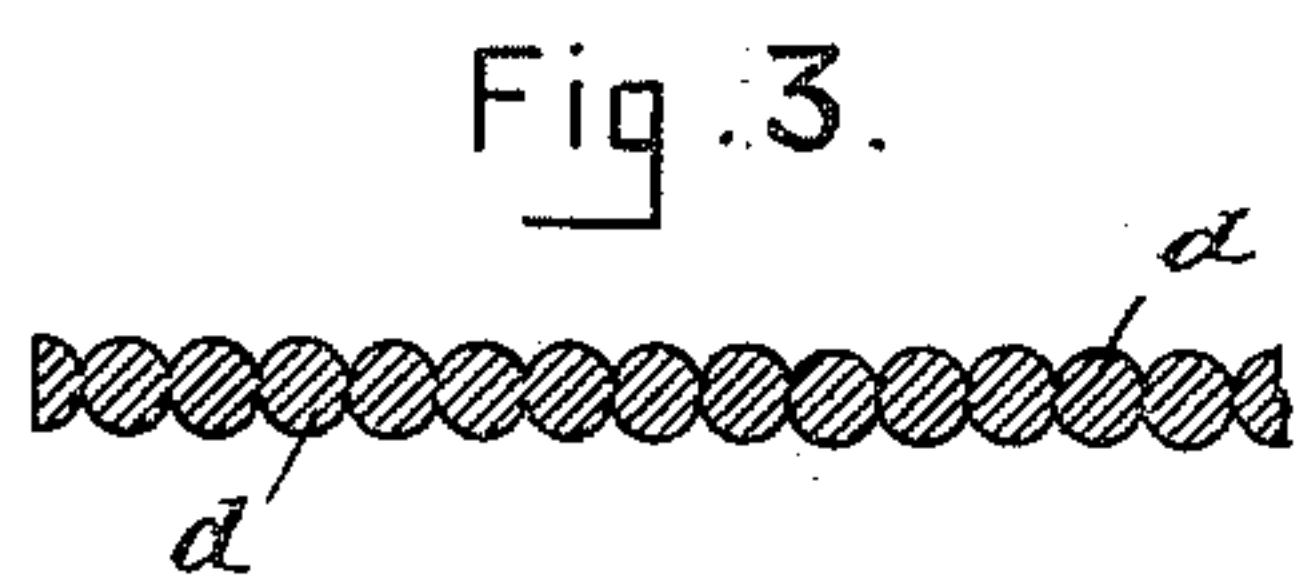
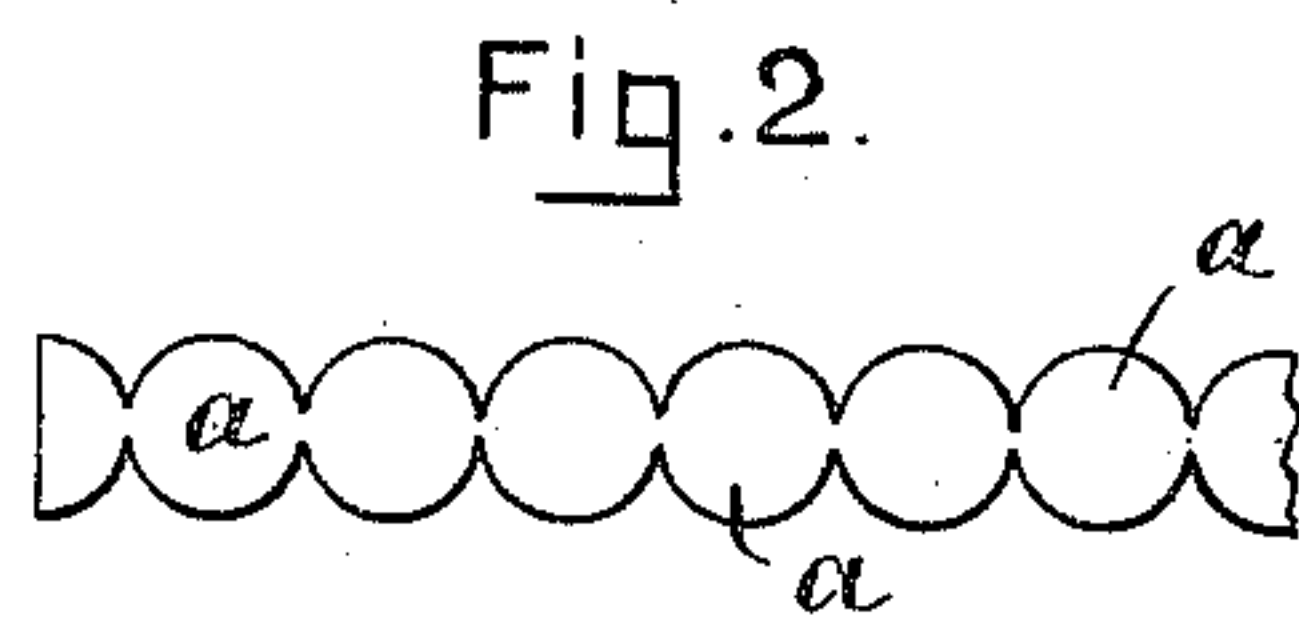
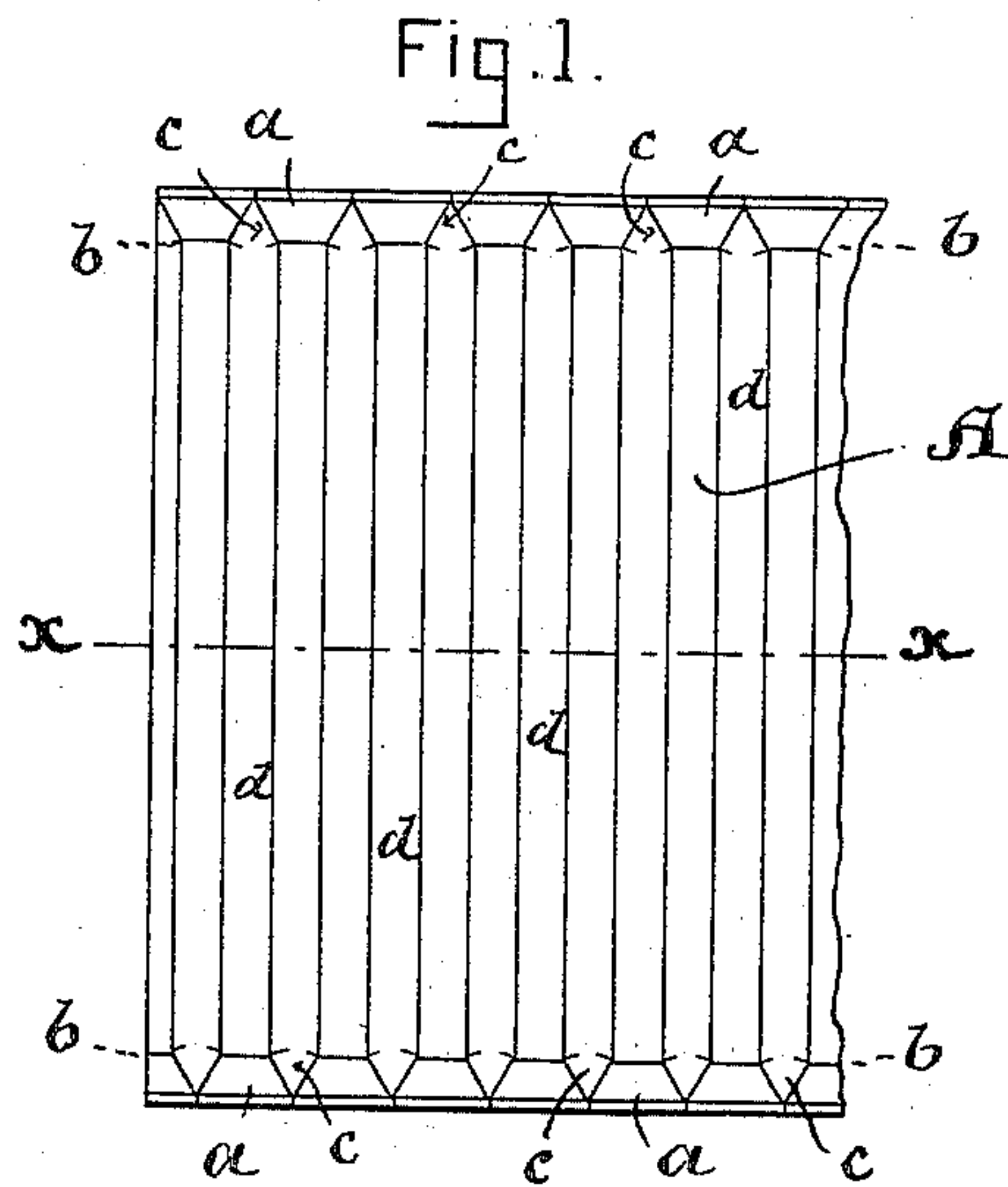


(No Model.)

M. CHASE.  
NAIL BLANK PLATE.

No. 411,278.

Patented Sept. 17, 1889.



Witnesses.  
J. George Peltzer  
Thos. W. Holday

Inventor.  
Milton Chase  
by Edwin Blanta  
Attorney.

# UNITED STATES PATENT OFFICE.

MILTON CHASE, OF HAVERHILL, MASSACHUSETTS.

## NAIL-BLANK PLATE.

SPECIFICATION forming part of Letters Patent No. 411,278, dated September 17, 1889.

Application filed January 11, 1889. Serial No. 296,054. (No model.)

*To all whom it may concern:*

Be it known that I, MILTON CHASE, a citizen of the United States, residing at Haverhill, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Nails and in Blanks for the Same, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to the manufacture of nails resembling what are generally known as "wire nails" and in blanks from which such nails are cut, whereby I am enabled to dispense with the use of wire and produce such nails quicker and cheaper than nails made from wire; and the invention consists in a blank rolled to partly form the nail and in the nails cut therefrom, all as hereinafter fully described, and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 represents a plan or top view of a nail-blank constructed according to my invention. Fig. 2 is an edge view showing the heads. Fig. 3 is a section taken on line  $x x$  of Fig. 1. Fig. 4 represents a nail cut from said blank.

In manufacturing nail-blanks according to my invention I take a sheet or bar of flat metal, and by rolls or other suitable means press it so as to produce an undulating surface on both sides, with an enlargement on each edge to form the heads.

A represents the nail-blank, which is of a width corresponding to the length of the nails to be cut therefrom, and at its outer edges is upset sufficiently to form the heads  $a$ . Between the points  $b b$  the plate is on each side formed with a series of semicircular projections or depressions transversely of the bar, so that

each side presents an undulating surface, as will be best seen by reference to Fig. 3. The points  $c$  of the nails come alternately between the heads  $a$  on one side and then on the other side, and the metal forming the heads is taken or upset from the portion that forms the points, so that if the bar is upset evenly along its edges there will be just sufficient metal to form the heads and points, while the central portion will form the body  $d$  of the nail.

Nails made according to my invention will have all the characteristics of the commercial wire nail and at the same time be much cheaper, by reason of not having to draw the metal into wire before using and in that the production can be greatly increased according to the size of the rolls and the nails to be produced.

What I claim is—

1. A nail-blank plate having an undulating surface on each side to form the body of the nail and upset on each of its edges to form the heads and points of the nails, substantially as set forth.

2. A nail-blank plate having an upset edge on each side to form the head and point of a round nail, the space between said edges being of undulating form, so that when each section is separated therefrom it will form a complete round nail, substantially as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 17th day of November, A. D. 1888.

MILTON CHASE.

Witnesses:

CHAS. STEERE,  
EDWIN PLANTA.