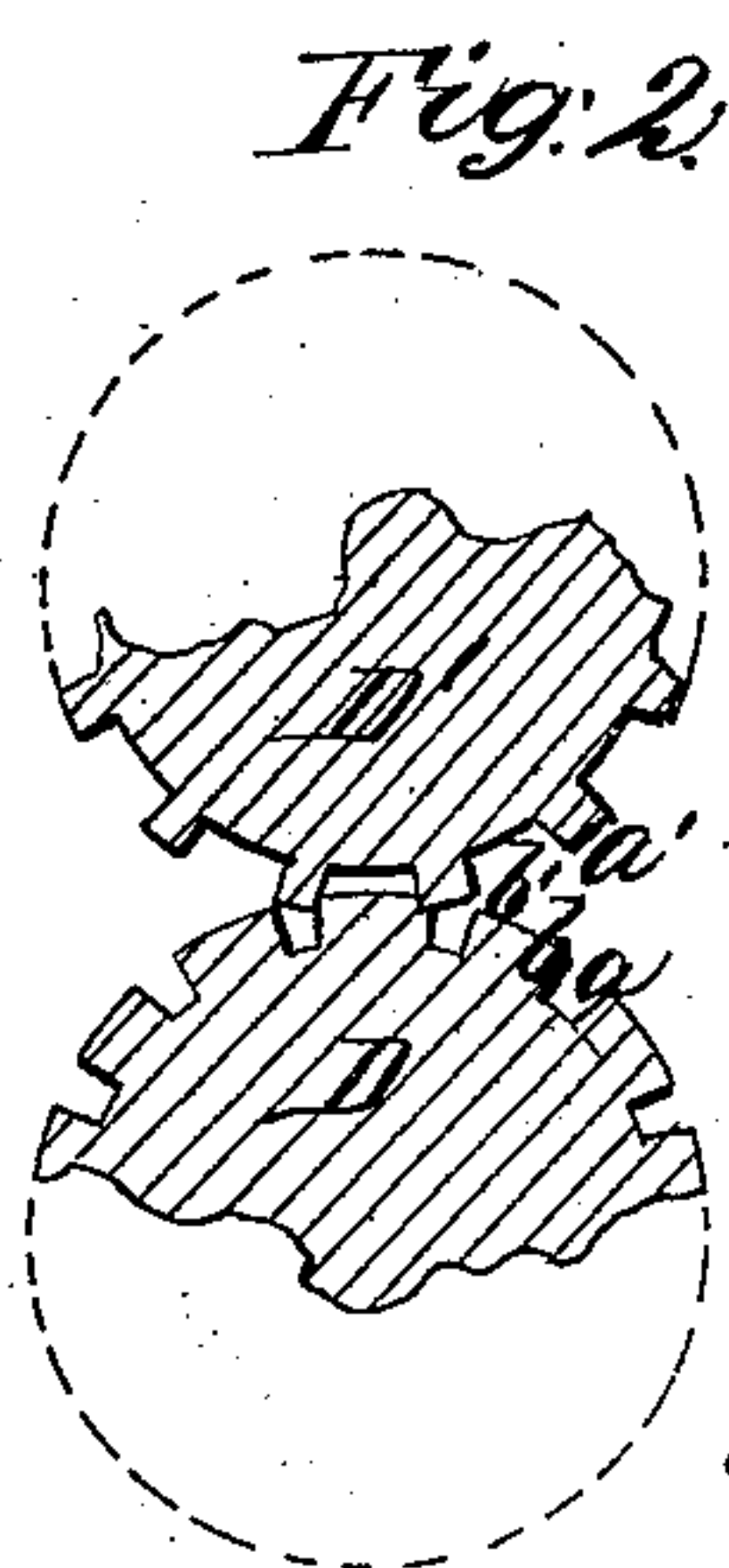
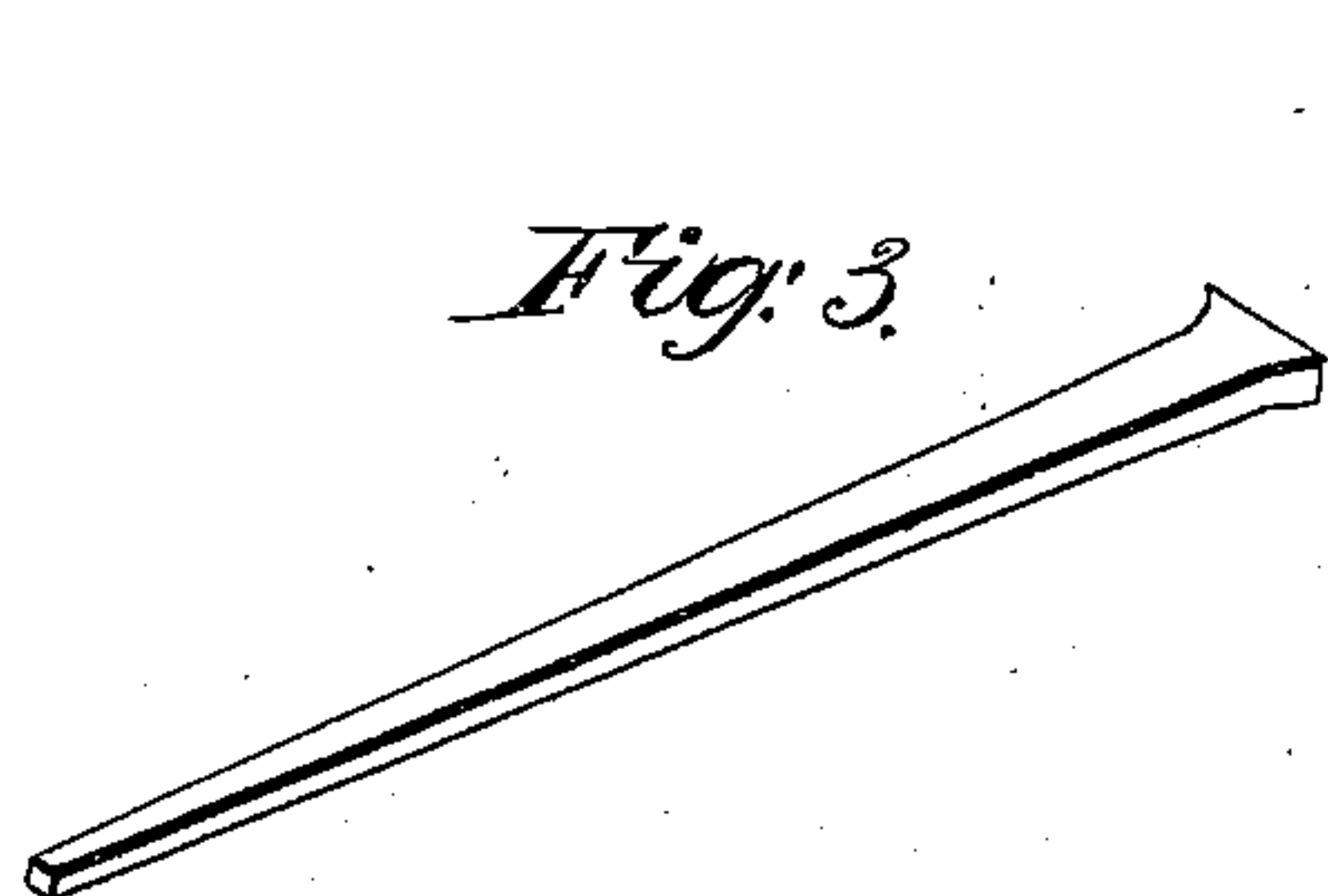
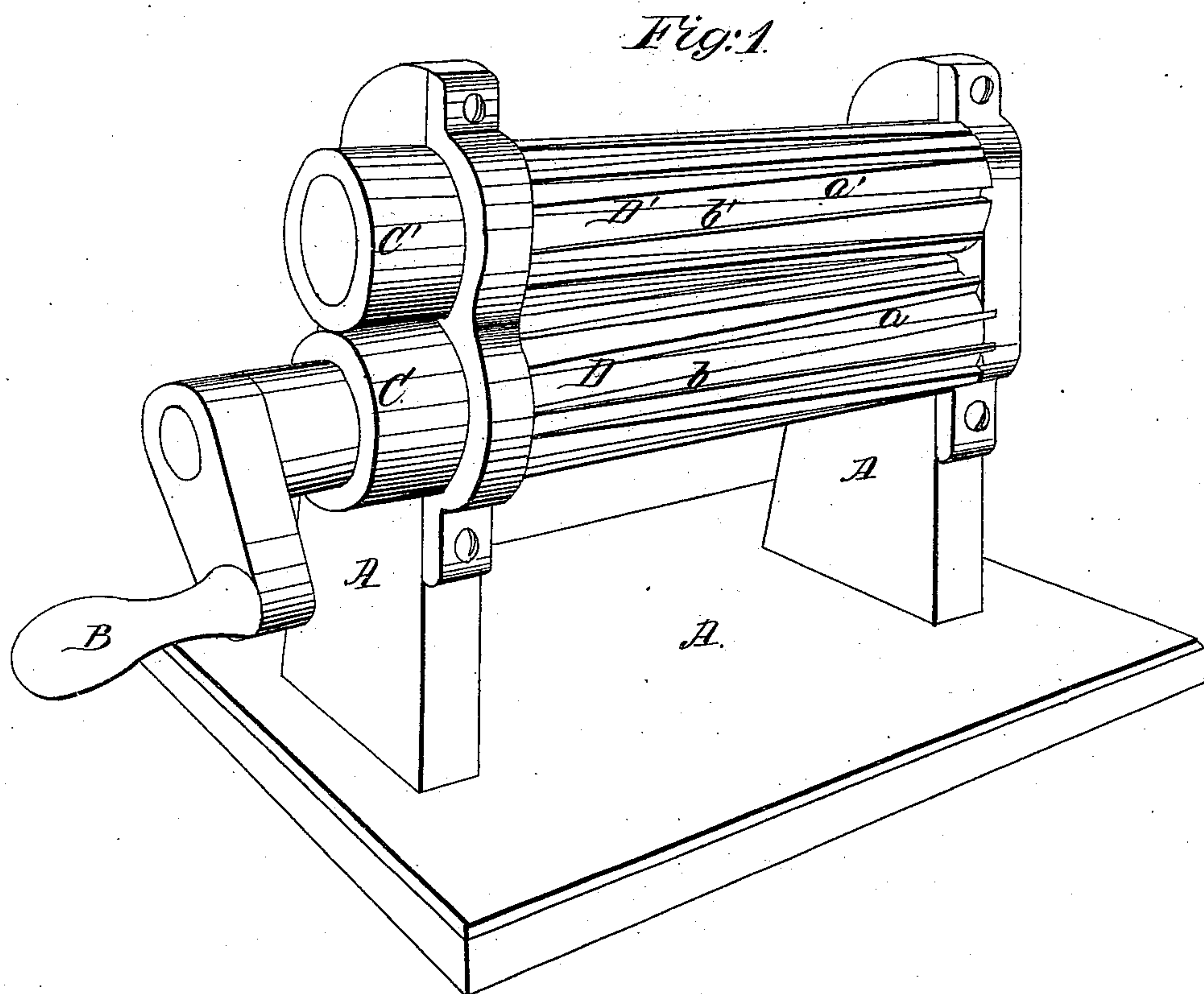


J. M. Allen,
Nail-Cutting Machine,
No 70,496, Patented Nov. 5, 1867.



Witnesses;
William C. Cleveland
Charles P. Gouly

Inventor;
John M. Allen
By his Attorney,
Chas. F. Fausbury

United States Patent Office.

JOHN M. ALLEN, OF CAMBRIDGE, MASSACHUSETTS.

Letters Patent No. 70,496, dated November 5, 1867.

IMPROVED NAIL MACHINE.

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, JOHN M. ALLEN, of Cambridge, in the State of Massachusetts, have invented an Improved Nail Machine; and I do hereby declare the following to be a full and correct description of the same, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of the machine.

Figure 2 is a vertical section of the rollers.

Figure 3 is a view of the nail cut by the machine.

The same letter marks the same part wherever it occurs.

The nature of this invention consists in the construction of a machine for cutting nails without waste from plate or sheet metal, in which the ribs and recesses, which constitute the nail-cutting dies, are formed longitudinally on the surfaces of a pair of rollers, occupying the whole of those surfaces, the rib on one roller corresponding to the recess on the other, so as to cut up the whole of the plate into nails; the dies being arranged head to point, and a recess for forming the heads of the nails being left at either end of the rollers, all as hereinafter more specifically set forth.

To enable others to make and use my improved nail machine, I will proceed to describe its construction and operation.

In the accompanying drawing A marks a stout frame of iron, in which the rollers are hung in the usual way; B marks a winch, which indicates the point of application of the power of any suitable prime mover; C C' are friction or gear-wheels on the ends of the journals of the rollers, and by which they are driven. D D' are the rollers, on whose surfaces are formed longitudinally, as shown, the ribs and recesses *a a' b b'*, which constitute the nail-cutting dies, the recesses being of such depth that when the rollers come together, at any given point, there is just room for a finished nail between the face of the rib and the bottom of the recess, as shown in fig. 2. The rollers are of steel or chilled iron, and the edges of the ribs are made sharp to act like shears in cutting up the metal. A recess at either end of each roller is provided for the heads of the nails, which are divided by chisels fixed in the end recesses for that purpose.

The plate or sheet to be cut into nails is of the width equal to the length of the rollers, and, being passed in between them, is, by their rotation, cut into nails without waste.

I am aware that nails have been formed in dies on the surfaces of a pair of rollers, as in Schuebly's machine; but the dies are arranged in entirely a different manner, and do not operate on the same principle as in my machine.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

A machine for cutting nails, without waste, from plate or sheet metal, in which the dies are formed longitudinally on the surfaces of the rollers, in the manner and for the purpose described.

The above specification of my said invention signed and witnessed at Boston this 9th day of August, A. D. 1867.

JOHN M. ALLEN.

Witnesses:

CHAS. F. STANSBURY,

WILLIAM C. CLEVELAND.