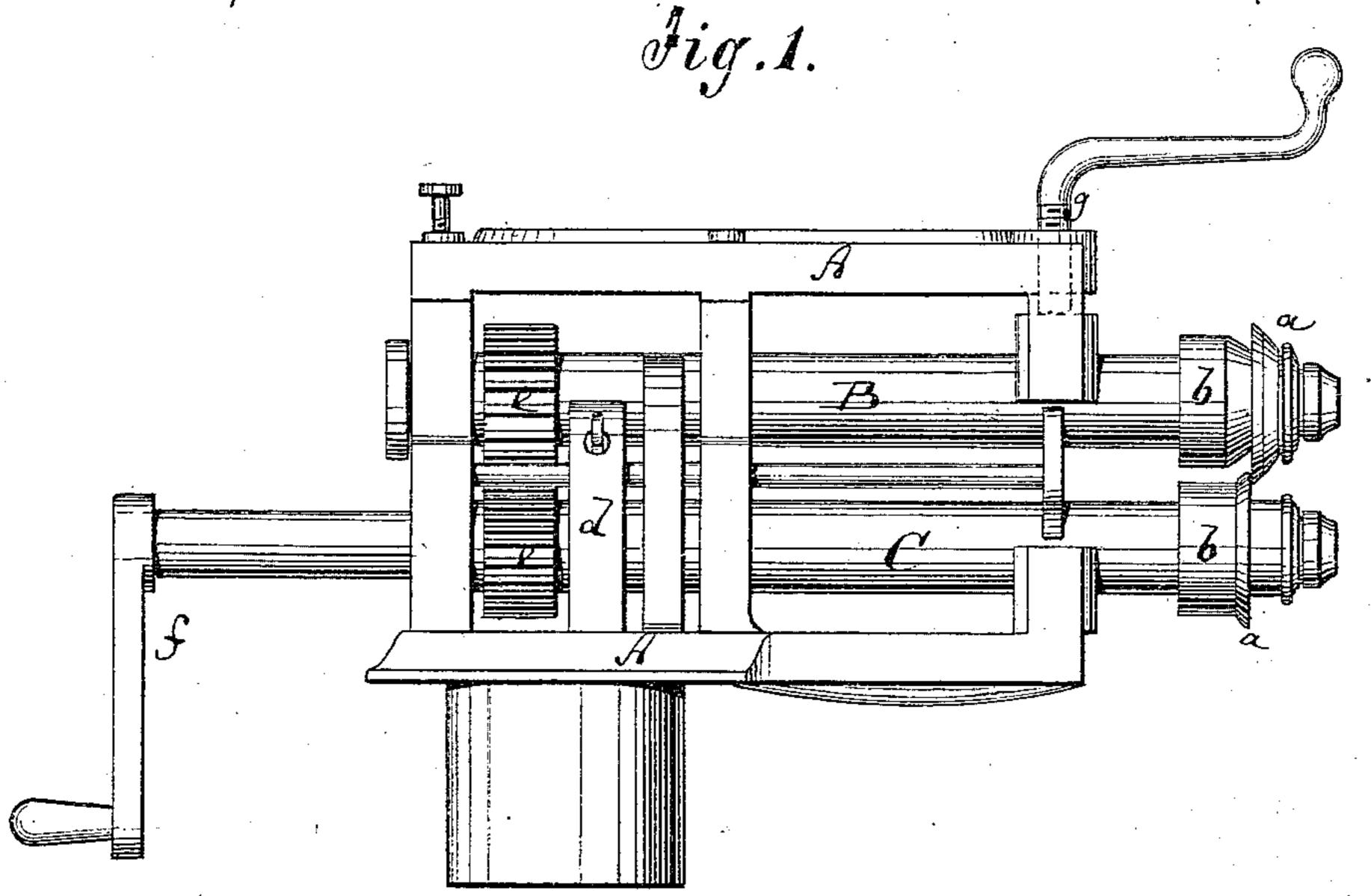
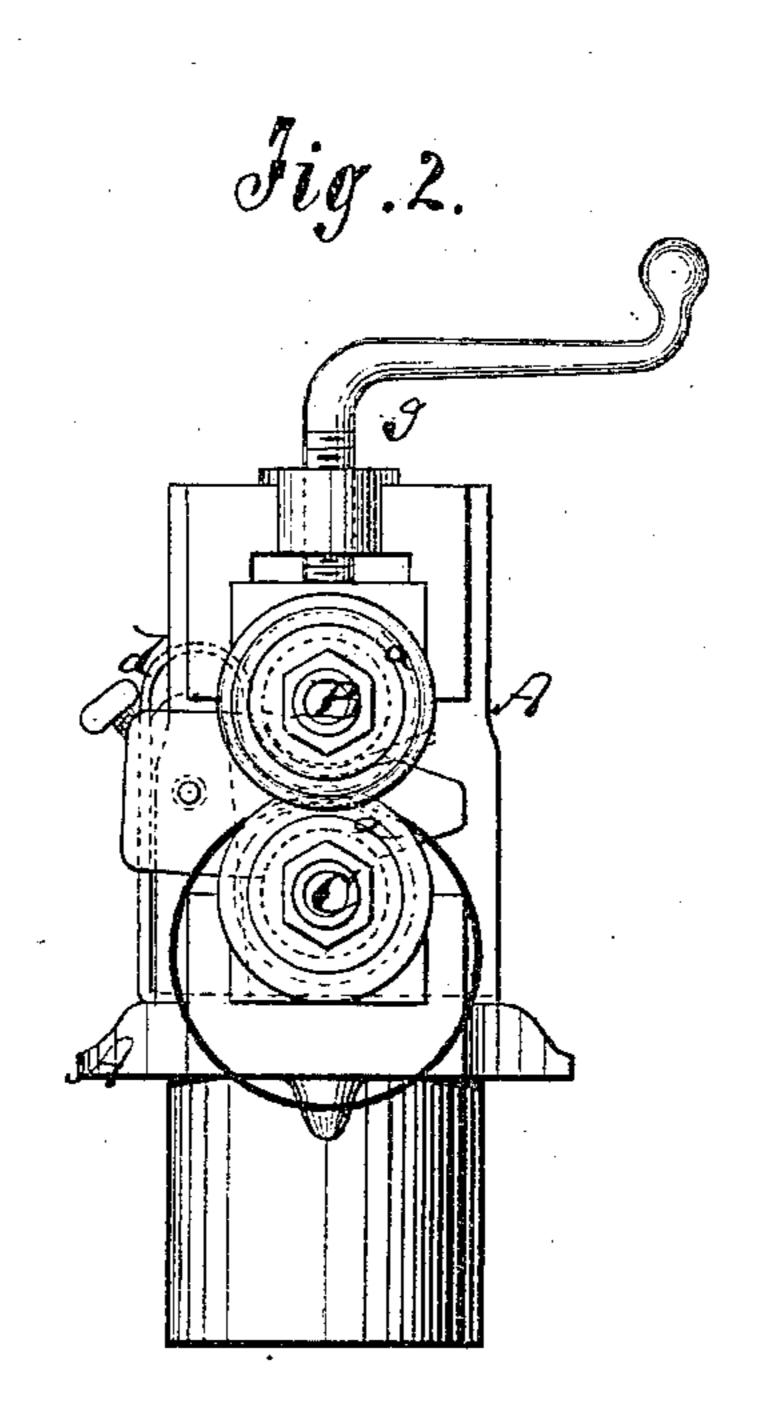
## A. S. BUNKER.

Improvement in Metal-Cutting Machines.

No. 126,179.

Patented April 30, 1872.





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Semmementont. Ges M. Mabee a. S. Runkes.

Attorneys.

## UNITED STATES PATENT OFFICE.

AUGUSTUS S. BUNKER, OF LAWRENCE, MASSACHUSETTS.

## IMPROVEMENT IN METAL-CUTTING MACHINES.

Specification forming part of Letters Patent No. 126,179, dated April 30, 1872.

Specification describing a new and Improved Metal-Cutting Machine, invented by Augustus S. Bunker, of Lawrence, in the county of Essex and State of Massachusetts.

Figure 1 represents a side elevation of my improved metal-cutting machine. Fig. 2 is an end view of the same.

Similar letters of reference indicate corre-

sponding parts.

The invention relates to machinery for cutting metal with rotary knives; and consists in the improvement hereinafter fully described

and pointed out in the claim.

A in the drawing represents the frame of the machine. B and C are two horizontal shafts hung in the frame, and carrying at their front ends circular cutters a a, which overlap each other to cut shear fashion. Behind each cutter is mounted upon or formed on each shaft a ring, b, the two rings serving to feed the ma-

terial that is being cut. The shaft B can be adjusted up or down by means of a screw, g, to adapt the machine to material of greater or less thickness. d is a friction-spring bearing against the upper shaft B. e e are the pinions mounted upon the shafts B C to transmit the motion, which is imparted to one by means of a crank-handle, f.

Having thus described my invention, I claim as new and desire to secure by Letters Pat-

ent—

In metal-cutting machinery, the combination of lapping circular knives a a and feed-rolls b, arranged on the same pair of shafts, as and for the purpose described.

AUGUSTUS S. BUNKER.

Witnesses:

CALEB SAUNDERS, CHAS. D. MOORE.