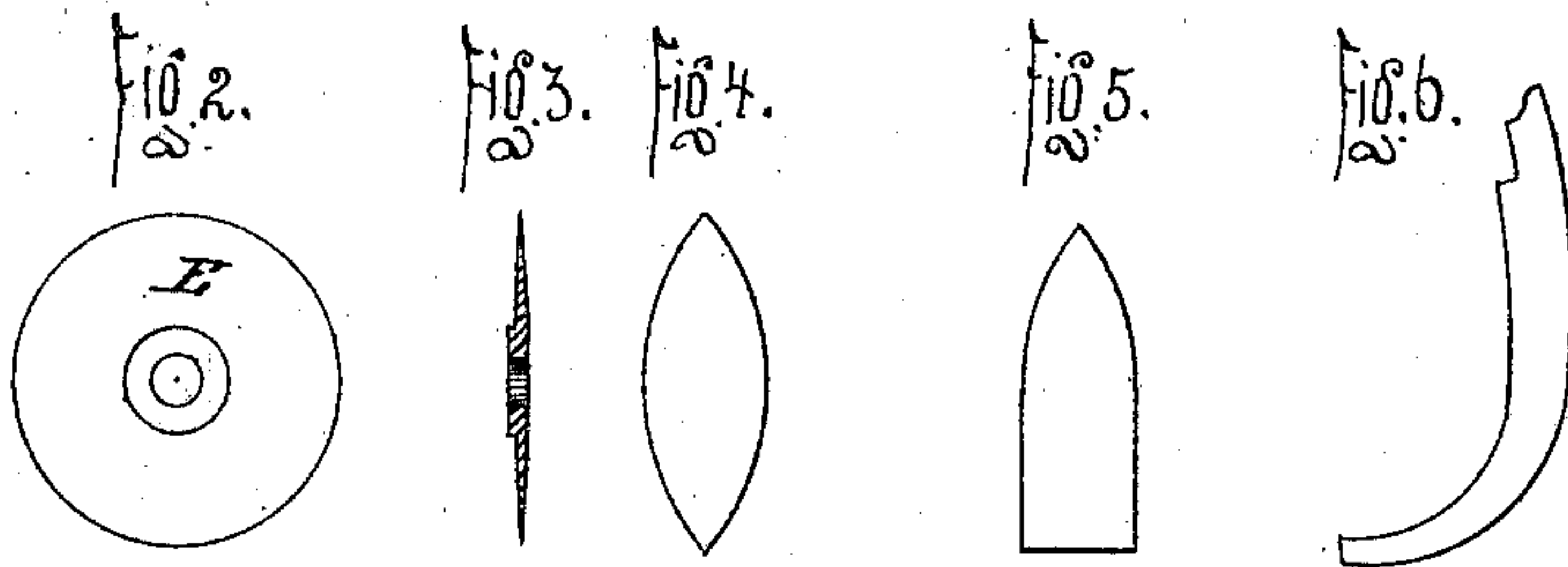
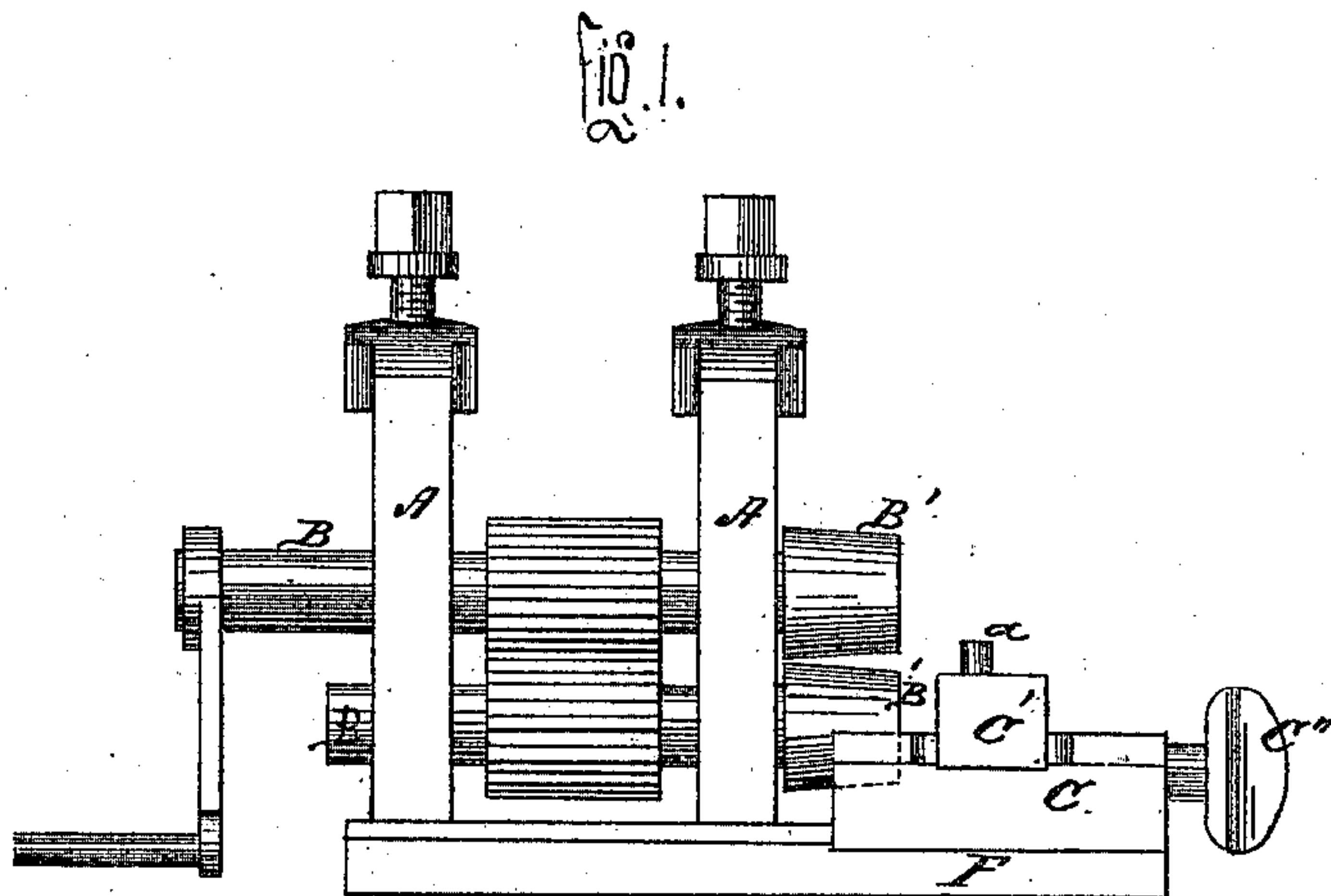


W. H. SINGER.
MACHINE FOR ROLLING METALS.

No. 97,450.

Patented Nov. 30, 1869.



Witnesses:

Victor Hagmann
Chas. A. Petit

Inventor:

W. H. Singer
per *[Signature]*
Attorneys.

United States Patent Office.

W. H. SINGER, OF PITTSBURG, PENNSYLVANIA.

Letters Patent No. 97,450, dated November 30, 1869.

IMPROVED MACHINE FOR ROLLING METALS.

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, W. H. SINGER, of Pittsburg, in the county of Allegheny, and State of Pennsylvania, have invented a new and improved Rolling-Machine; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side elevation of the machine, and

Figures 2, 3, 4, and 5, are detached views of the product.

This invention consists in placing tapering rolls upon shafts, for the purpose of producing bevelled edges upon agricultural and other tools, such edges having heretofore been produced by hammering or grinding; and in combining with such tapering heads a sliding rest for supporting the blanks while going through the bevelling-operation.

In the drawings—

A A are ordinary roll-housings.

B B are the shafts, whose journals are placed in boxes in the housings, and which project beyond the housings at one end, to receive the motor-connection, and at the other end to sustain the tapering rolls B' B', the connection between the shafts and rolls being such that the latter may be easily removed when desired.

The rolls taper from the ends next to the housing to their opposite ends, so as to leave a wedge-shaped space between them; or, but one of the rolls may taper, and the other be straight-sided, when it is required that the product should have but one bevelled side.

A guide-rest, C, projects upward from the foundation-plate F, and is so placed, with reference to the tapering rolls, that the transverse rest C', which slides lengthwise of the rest C, under the action of the screw-bolt C'', may be made to approach near enough

to the ends of the tapering rolls B', to carry the edge of the blank which it bears, into the wedge-shaped space between them, where such blank at once takes the taper of the rolls along its edge, and is fed up by the screw C'' as fast and far as necessary.

If the blank be of the circular coulter E of a plow, it is to be placed on the vertical shaft *a*, stepped in the sliding rest, the blank having an orifice at its centre, concentric with its periphery.

The blank revolves on the shaft, under the bite of the rolls upon its edge.

In bevelling edges curved, but not circular, the shaft *a* is removed, and the blank held by hand or gauges between the heads.

To produce any desired shape, I employ formers of corresponding form. A straight-sided blank, on suffering compression through the length of one of its edges, between the heads B', comes out curved, if there is no former to make it run straight, as shown in the corn-cultivator, fig. 5.

The ordinary products of my improved rolling-machine have thus far been the circular plow-coulter, fig. 2, the shovel-plow or cultivator-tooth, figs. 3 and 4, and the corn-cultivator, fig. 5, all having rolled bevelled edges.

I perceive, however, that other implements than these can easily be turned out of this apparatus, and hence, I set no limit to its capacity.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

The tapering rolls B' B', combined with the sliding rest C, substantially in the manner and for the purpose set forth.

To the above specification of my improvements, I have set my hand, this 1st day of October, 1869.

Witnesses:

W. H. SINGER.

CHAS. A. PETTIT,
SOLOMON C. KEMON.