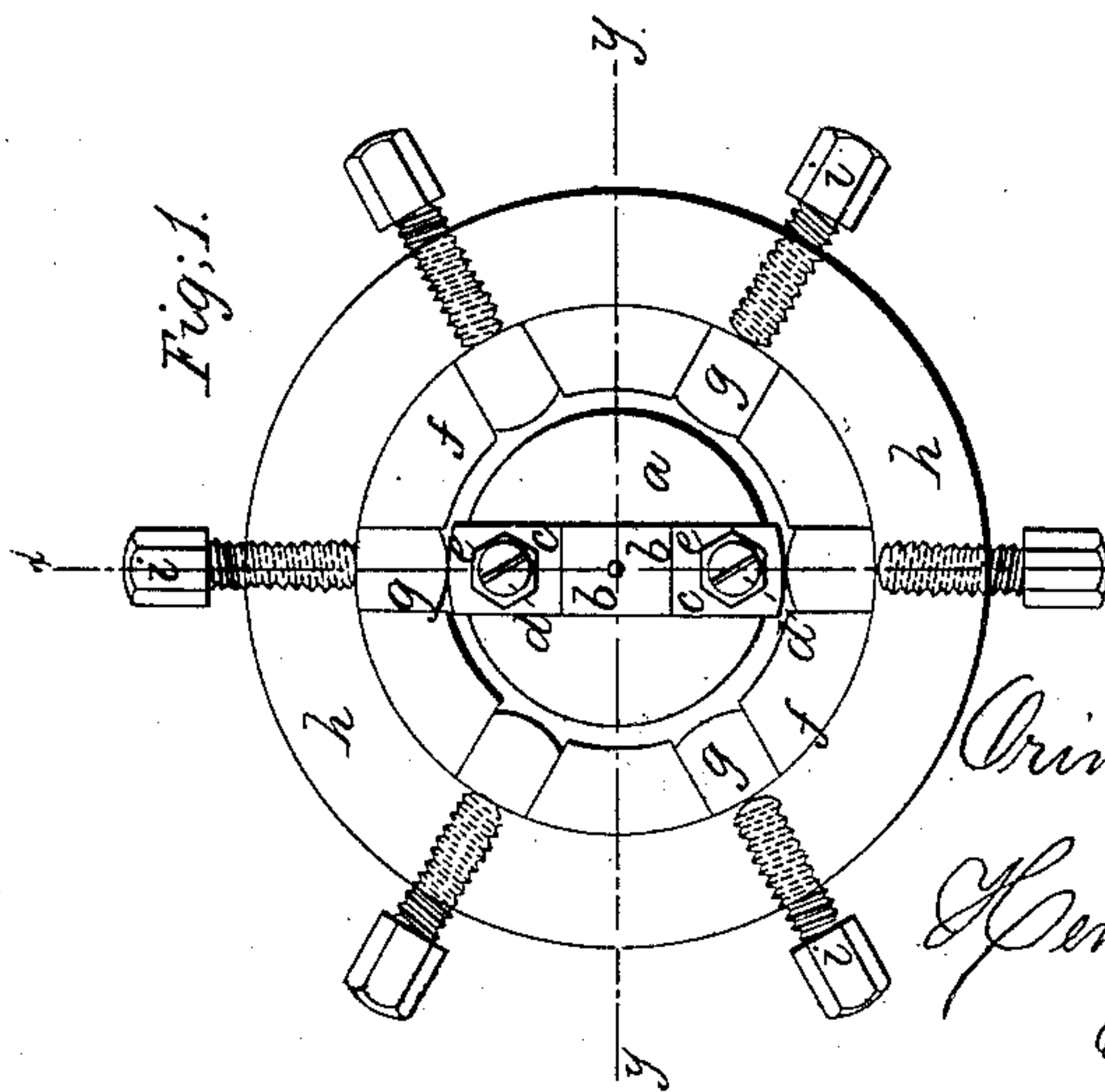
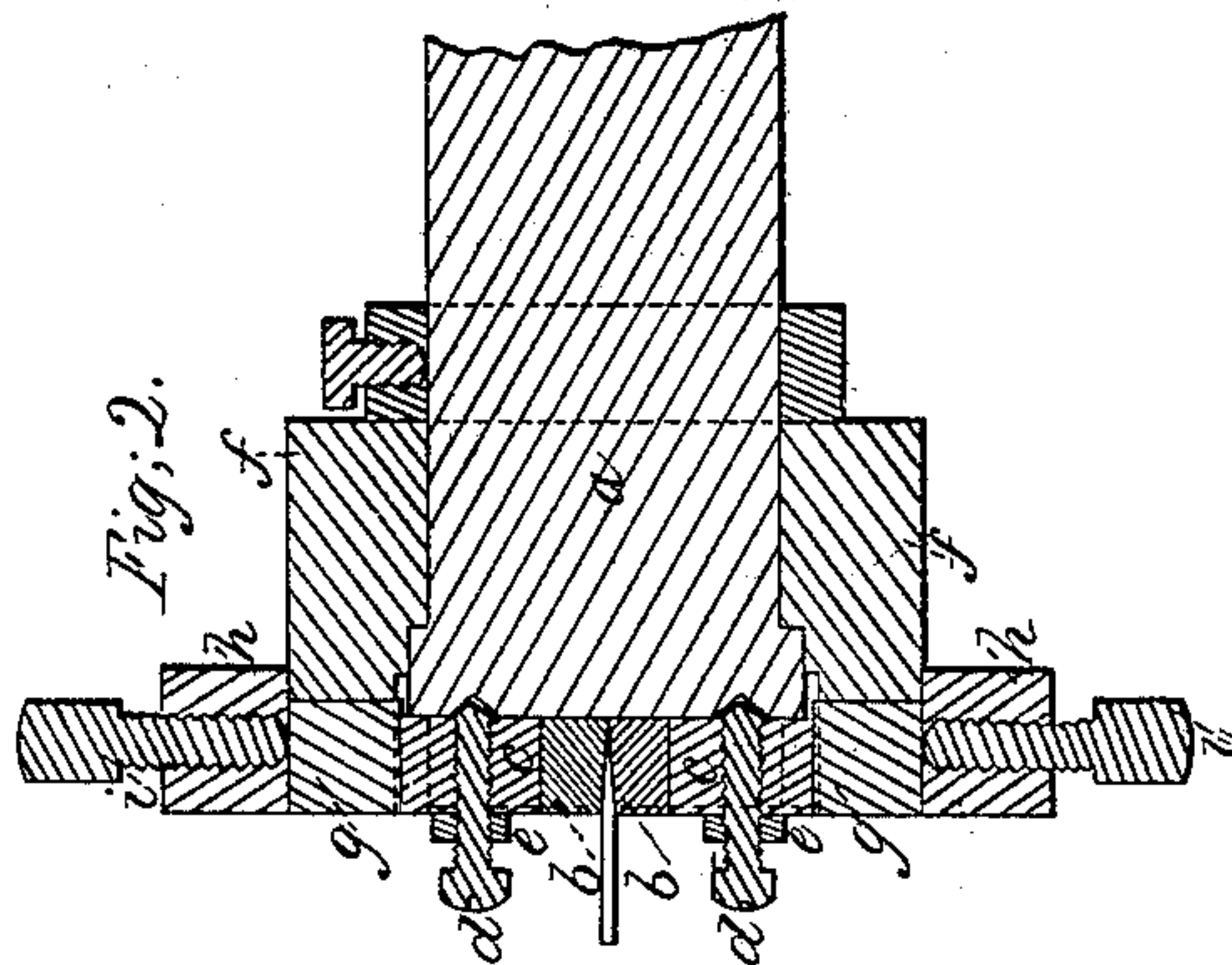
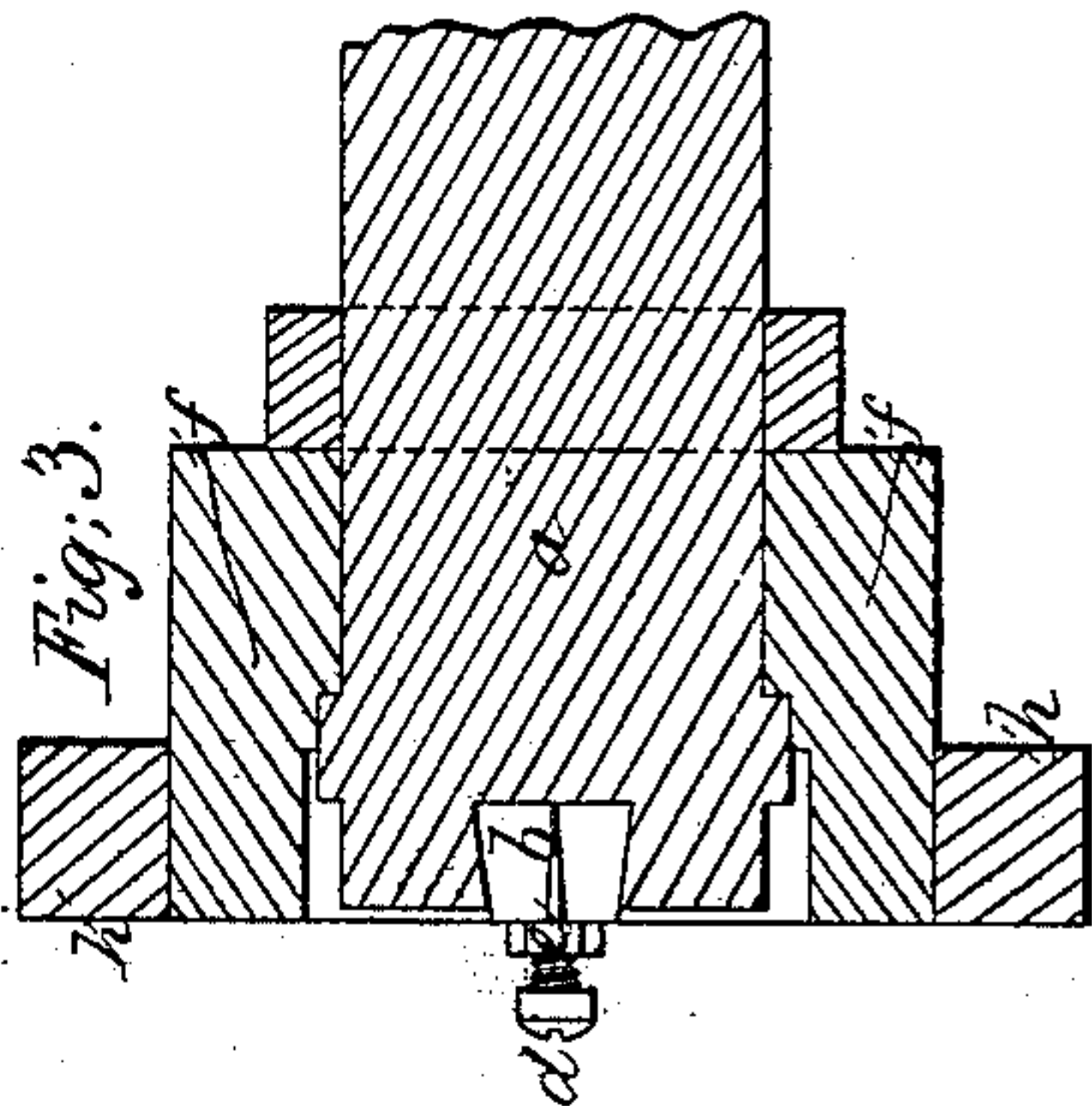


O. L. HOPSON & H. P. BROOKS.
MACHINERY FOR POINTING AND REDUCING WIRE.

No. 62,336.

Patented Feb. 26, 1867.



Inventor.

Witnesses.
Chas. H. Smith.
Geo. A. Warner.

Olin L. Hopson.
Herman P. Brooks.
per L. W. Sewell
Atty.

United States Patent Office.

O. L. HOPSON, OF WATERBURY, CONNECTICUT, AND H. P. BROOKS, OF
WOLCOTTVILLE, CONNECTICUT.

Letters Patent No. 62,336, dated February 26, 1867; antedated February 15, 1867.

IMPROVEMENT IN MACHINERY FOR POINTING AND REDUCING WIRE.

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

TO ALL WHOM IT MAY CONCERN:

Be it known that we, ORIN L. HOPSON, of Waterbury, in the county of New Haven, and State of Connecticut, and HEMAN P. BROOKS, of Wolcottville, in the county of Litchfield, and State of Connecticut, have invented, made, and applied to use, a certain new and useful Improvement in Machinery for Reducing or Pointing Wire, &c.; and we do hereby declare the following to be a full, clear, and exact description of the said invention, reference being had to the annexed drawing, making part of this specification, wherein—

Figure 1 is an end view of the dies and parts connected with their support and movement.

Figure 2 is a section at the line *x x*, longitudinally of the revolving shaft; and

Figure 3 is a similar sectional view at the line *y y*.

Similar marks of reference denote the same parts.

Our present invention is an improvement upon that for which Letters Patent were granted to us August 9, A. D. 1864, and reissued December 12, 1865, for machinery for pointing wire, &c.

The nature of the present invention consists in a pair of dies introduced at the end of a shaft within an undercut or dove-tailed cross-groove, said dies being regulated in the extent of their opening by the points of conical or tapering screws passing through them and into cavities in the bottom of said cross-groove, said screws being held from working loose by set-nuts. The dies are formed of four pieces of metal, two of which are formed with depressions to act on the metal to be reduced or pointed, and may be changed with facility, and the other two (called hereafter die-blocks) carry said adjusting screws. The dies are operated progressively around the article to be compressed or pointed, by being revolved in contact with stationary cams or tappets, the wire remaining stationary as in our aforesaid patent, or by the tappets and wire both revolving, the former rotating around the ends of the die-blocks.

In the drawing, *a* is the shaft, with a cross-groove at the end, undercut or formed as a dove-tail; *b b* are the dies, and *c c* the die-blocks, through which pass the adjusting screws *d d*, with tapering points entering cavities in the bottom of the groove in *a*, so that the wire, as pressed into the die or shape in the faces of *b b*, can only cause said dies to open the amount required for making the next and progressive reduction. *e e* are set-nuts, which we find necessary to prevent the screws *d d* becoming loose from the vibration or concussion. Around the shaft *a* is the tappet-holder *f*, carrying the tappets or cams *g g*; and *h* is a ring through which screws *i i* pass to adjust the tappets or cams. It will be understood that when the shaft *a* is revolved, (or the tappets and wire as aforesaid,) the dies are closed two or more times during each revolution, and act progressively around the wire or rod to give to it a round taper, or other form corresponding to that of the dies.

What we claim, and desire to secure by Letters Patent, is—

1. The dies *b b*, and die-holders *c c*, introduced in an undercut groove at the end of the shaft *a*, in combination with two or more pairs of tappets or equivalent mechanism for closing said dies two or more times each revolution, substantially as set forth.

2. We claim the tapering-pointed screws *d d*, and set-nuts *e e*, in combination with the dies and the tapering screw sockets in the shaft at the back of the dies, the parts being arranged substantially as and for the purposes set forth.

In witness whereof we have hereunto set our signatures this twenty-fourth day of April, A. D. 1866.

ORIN L. HOPSON,
HEMAN P. BROOKS.

Witnesses:

JOHN O'NEILL, Jr.,
D. G. PORTER.