

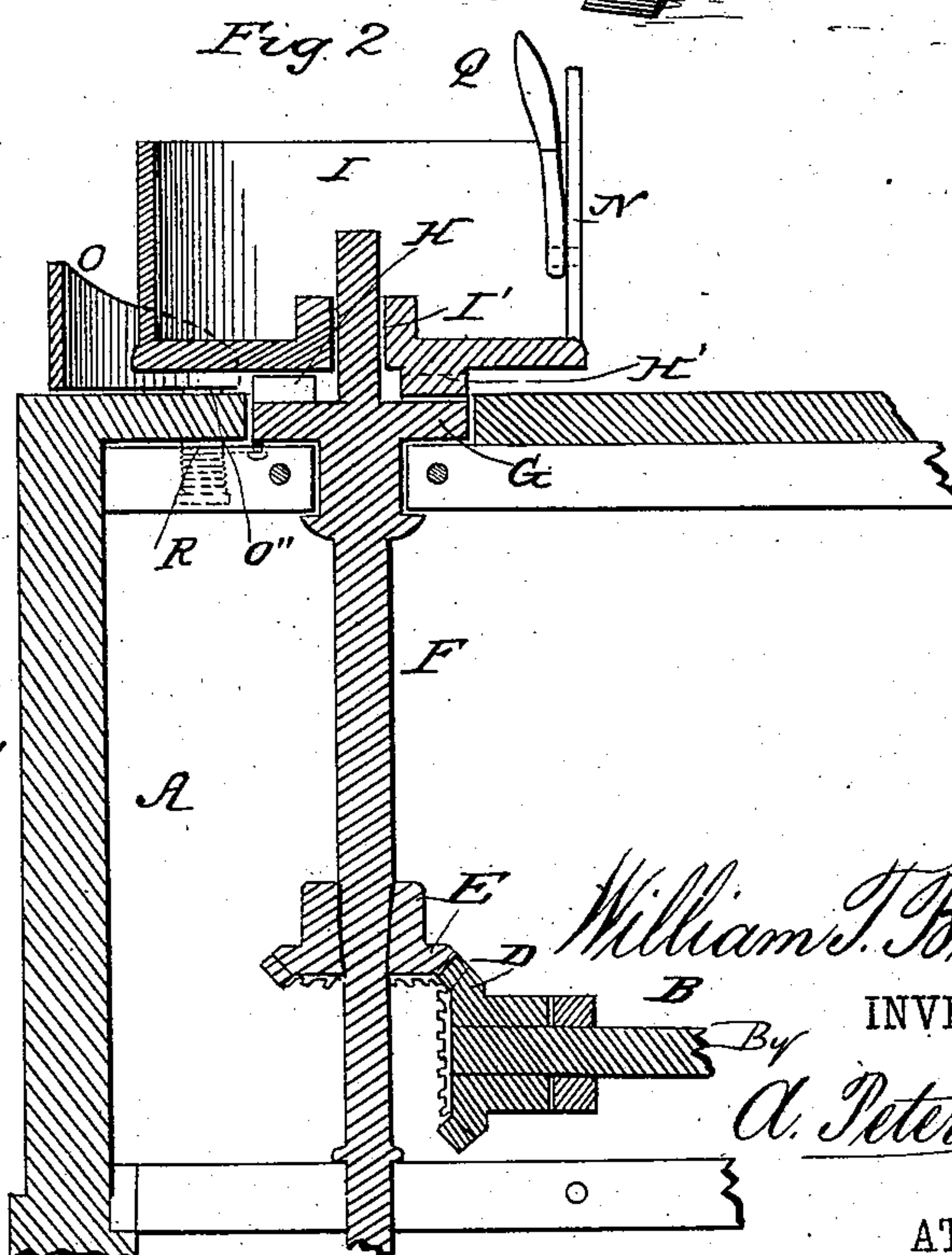
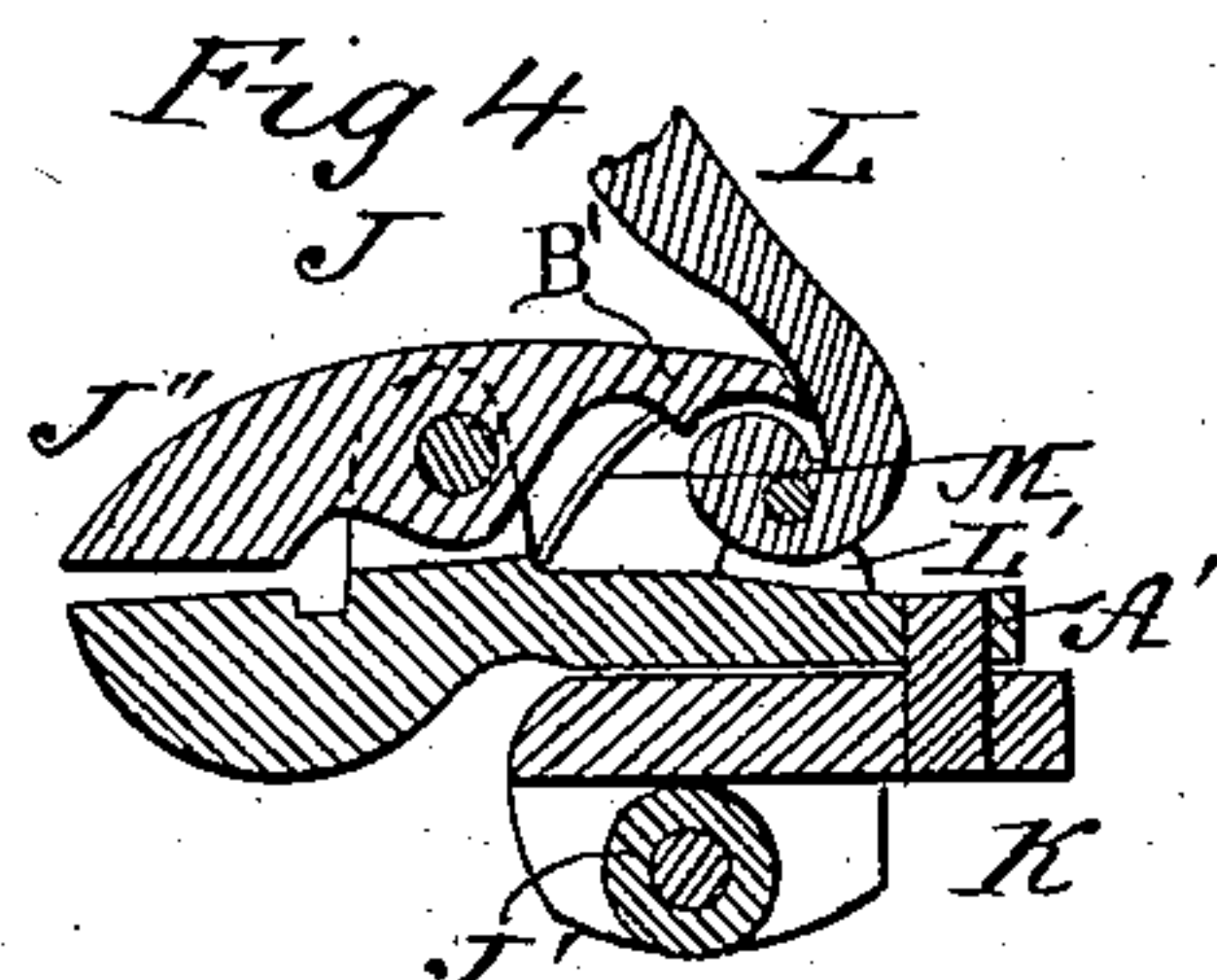
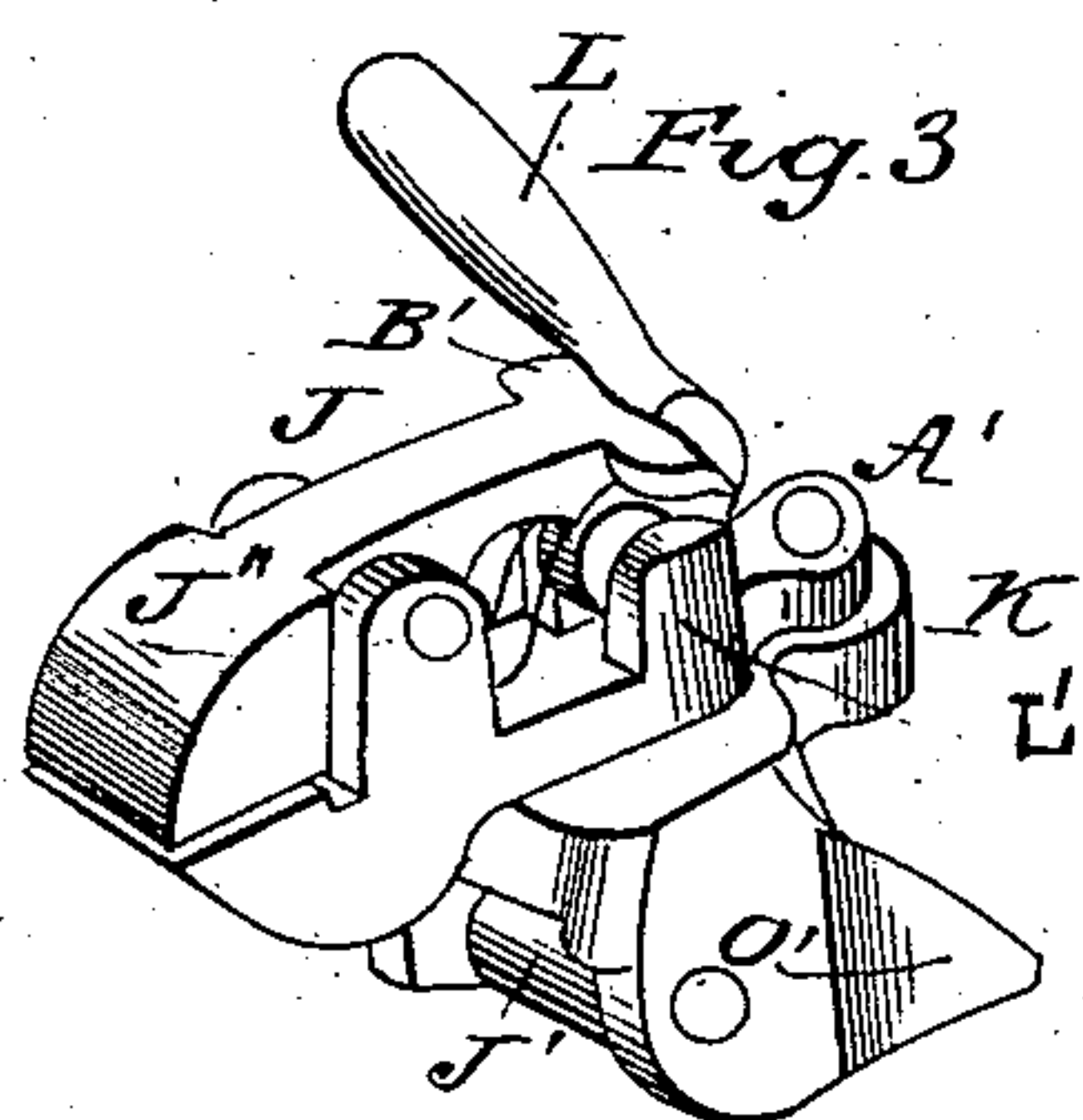
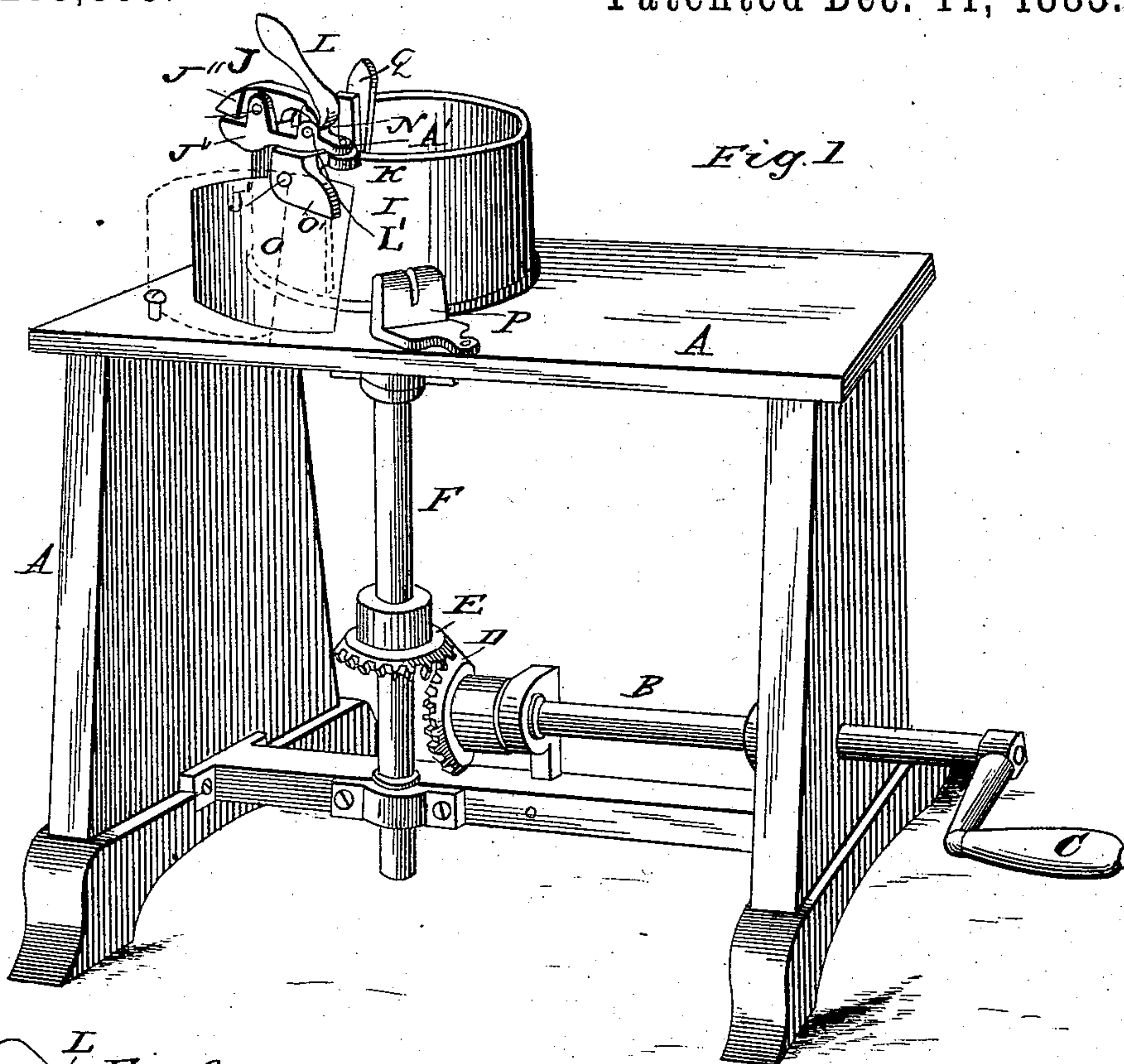
(Model.)

W. T. BRENNAN.

MACHINE FOR DRAWING WIRE.

No. 289,805.

Patented Dec. 11, 1883.



WITNESSES:

Ad. S. Dietrich
Arthur L. Morrell

William T. Brennan
INVENTOR.

By *A. Peterson & Co.*

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM T. BRENNAN, OF WORCESTER, MASSACHUSETTS.

MACHINE FOR DRAWING WIRE.

SPECIFICATION forming part of Letters Patent No. 289,805, dated December 11, 1883.

Application filed July 3, 1883. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM T. BRENNAN, of Worcester, in the county of Worcester and State of Massachusetts, have invented certain
5 new and useful Improvements in Machines for Drawing Wire; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable
10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved machine for drawing wire. Fig. 2 is
15 a sectional view on line *x x*, Fig. 1. Fig. 3 is a perspective detail view of the pinchers and the arm which supports them, and Fig. 4 is a longitudinal vertical sectional view of the pinchers.

20 Similar letters of reference indicate corresponding parts in all the figures.

In the accompanying drawings, A represents the frame or drawing-bench of my improved machine for drawing wire.

25 B indicates the drive-shaft, which is hung in suitable bearings on the lower cross-beam of the frame A, having upon its outer end, which projects through the side of the frame, a pulley wheel or crank, C, and upon the inner end a bevel-pinion, D, adapted to mesh
30 with a similar bevel-pinion, E, on the shaft F.

F indicates a vertical shaft, hung in suitable bearings in the upper and lower cross-beams of the frame A, and provided with a bevel-
35 pinion, E, and disk G, working in a circular opening in the top of the frame A, and having upon its upper face two or more lugs, H, adapted to engage with similar lugs, H', on the bottom of the removable drum or reel I, so as
40 to form a clutch by which the motion of the shaft is communicated to the drum I.

I represents the drum or reel, which is provided with a central opening, I', through which the end of the shaft F passes, and has on its
45 bottom the lugs H', adapted to engage with the lugs H on the disk G, as previously described.

J represents a pair of pinchers, the lower handle, A', of which is pivoted upon an arm,
50 K, which will be hereinafter described.

L indicates a handle, the flattened rounded

end of which is pivoted eccentrically between jaws L' on the lower handle of the pinchers, so that by depressing the handle L, the jaws of the pinchers will be closed, while by raising
55 the said handle and drawing it forward, its rounded side presses against the beveled end of the upper handle, B', of the pinchers, and thereby opens the jaws J'' of the pinchers. A
60 spring, M, is secured between the handles of the pinchers for the purpose of holding the jaws of the pinchers firmly together.

K indicates the arm upon which the pinchers J are pivoted, the arm being recessed on either side at about its center to adapt it to
65 slide freely in the vertical slot N in the side of the drum I, for the purpose hereinafter described.

O represents an inclined guide, which is pivoted at one end upon the top of the frame A.
70

P indicates the draw-plate, which is also secured upon the top of the frame A.

The operation of my improved machine for drawing wire is as follows: The end of the wire which is to be drawn is inserted through
75 the hole in the draw-plate P, and is then seized between the jaws of the pinchers J, the arm K to which the pinchers are attached resting on the bottom of the slot N. The drum I is then
80 revolved by turning the crank C. To the bottom of the end of the arm K, which projects outside of the drum I, is secured a roller, J', adapted to bear upon the upper edge of the inclined guide O and a guide-lug, O'. When
85 the drum I has made about one-third of a revolution, the roller J' on the bottom of the arm K will come in contact with the lower edge of the inclined guide O, and as the drum continues to revolve, the arm K, following the upward curve of the inclined guide, will raise the
90 pinchers J, and consequently the extremity of the length of wire being drawn to the upper part of the slot N in the side of the drum out of the way of the remainder of the wire as it is coiled around the lower part of the drum, a
95 spring-catch, Q, engaging the arm K when it reaches the highest point of the inclined guide O. As the drum continues to revolve the remainder of the length of wire being drawn will be coiled around the lower part of the drum
100 below the arm K, a spring, R, (shown in Fig. 2 of the drawings,) serving to swing the guide

O to one side of its pivot O'', so that it will not interfere with the arm K in the subsequent revolutions of the drum while the said arm is held in its raised position by the spring-catch

5 Q. When the first length of wire has been run out, the arm K may be released from the spring-catch by pushing the handle of the said catch a little to one side, when the arm K will fall down in the slot N until it rests upon the upper coil of the first length of wire, when the
10 extremity of a second length of wire may be secured between the jaws of the pinchers J, and the operation of drawing repeated as above, this operation being repeated until the entire
15 height or outer surface of the drum is covered with coils of wire, when the drawn wire is removed from the drum, and the arm K allowed to fall to the bottom of the slot N, as at first.

20 From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of my improved machine for drawing wire will readily be understood without requiring further explanation.
25 tion.

I prefer to make the pinchers J with removable steel jaws, so that when one pair of jaws become worn smooth they may be removed and another pair affixed in their place.

30 It will be seen that my improved machine is simple in construction, exceedingly convenient to use, and that it will effect a great saving in time.

Having thus described my invention, I claim
35 and desire to secure by Letters Patent of the United States—

1. The combination of the pair of pinchers J, consisting of the jaws J'', handle A', having upwardly-projecting jaws L', and handle

B', having its free end beveled, spring M, 40 adapted to hold the jaws of the pinchers in a closed position, and handle L, having its flattened, rounded end pivoted eccentrically between the jaws L', on the lower handle of the pinchers, and adapted to bear with its
45 rounded side against the beveled end of the handle B', substantially as and for the purpose shown and described.

2. The combination of the frame A, drive-shaft B, having crank C and beveled pinion D, 50 shaft F, having bevel-pinion E, adapted to engage with the bevel-pinion on the drive-shaft, and disk G, having lugs H, drum I, having lugs H', adapted to engage with the lugs H on the disk G, and provided with a vertical slot, 55 N, and spring-catch Q, draw-plate P, pivoted inclined guide O, provided with a spring, R, arm K, adapted to slide in the slot N, and provided with a roller, J', and guide-lug O', and pinchers J, pivoted to the arm K, and
60 consisting of the jaws J'', handle A', having upwardly-projecting jaws L', and handle B', having its free end beveled, spring M, adapted to hold the jaws of the pinchers in a closed
65 position, and handle L, having its flattened, rounded end eccentrically pivoted between the jaws L' on the lower handle of the pinchers, and adapted to bear with its rounded side against the beveled end of the handle B', all
70 constructed and combined substantially as and for the purpose shown and described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

WILLIAM T. BRENNAN.

Witnesses:

JOHN P. O'LEARY,
HENRY ENLETTO HILL.