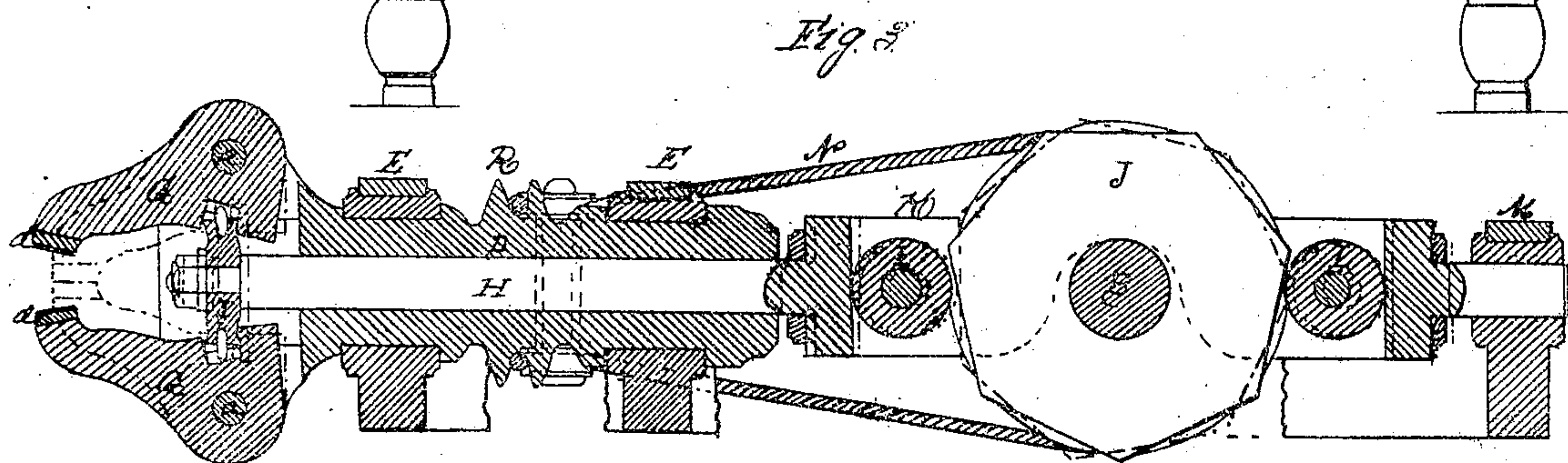
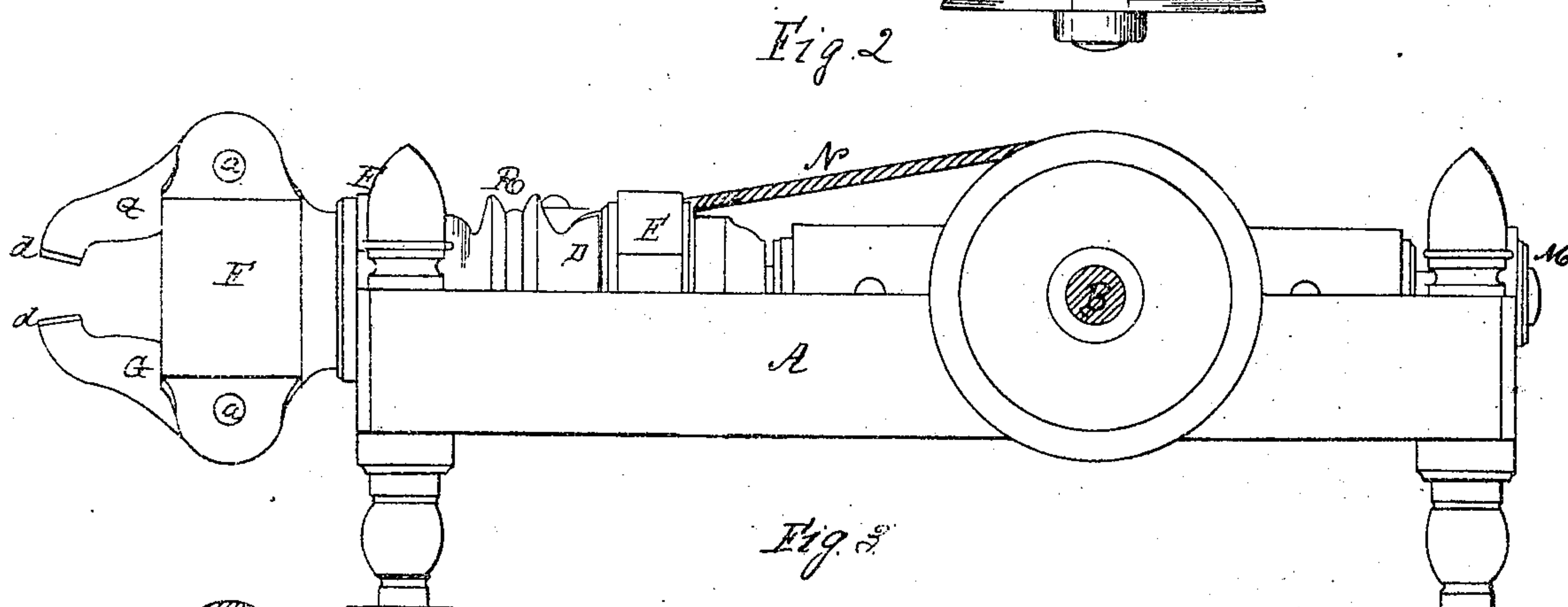
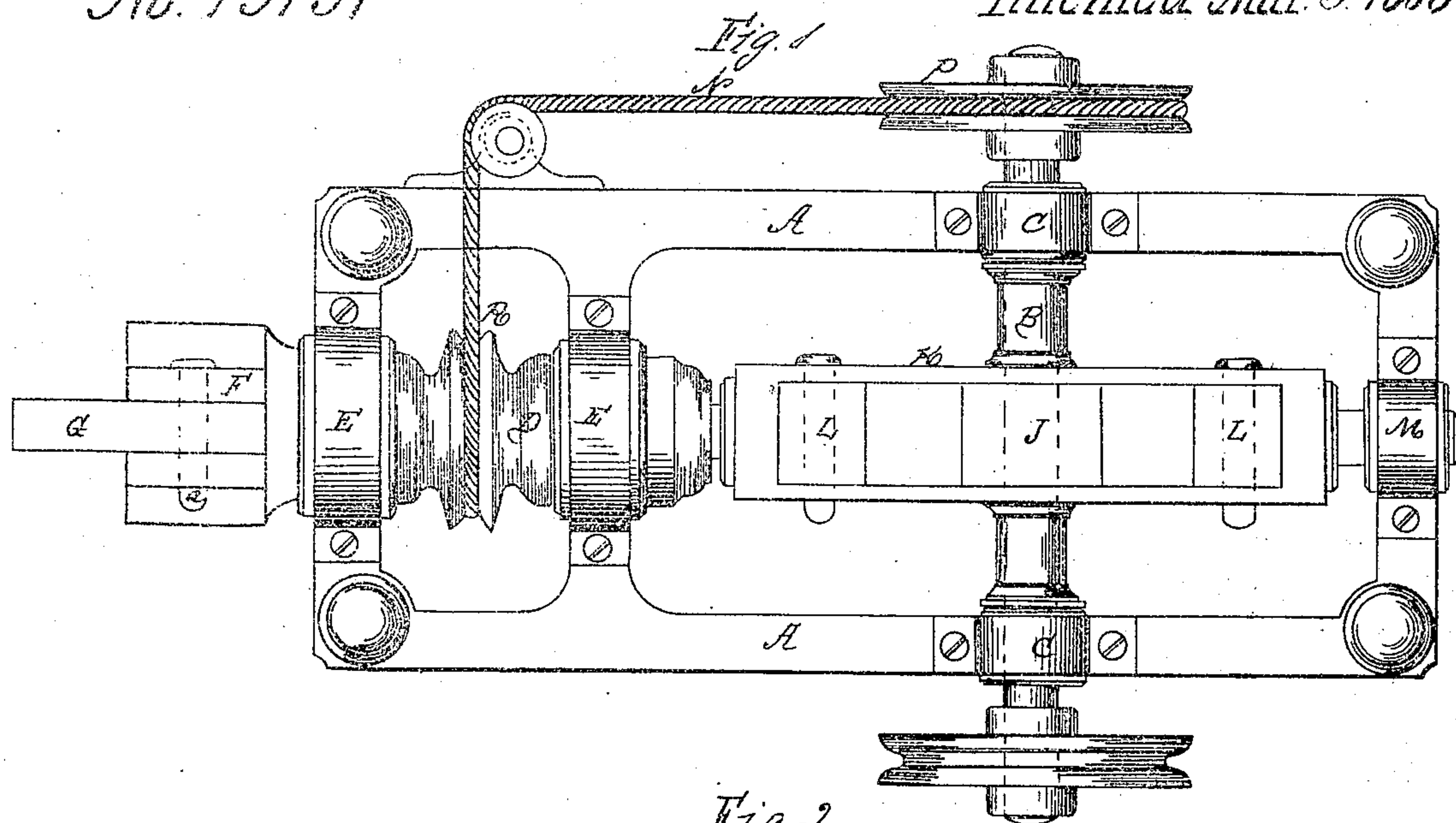


T. B. DeForest

Pointing Wire

No. 75131

Patented Mar. 3 1868



Witnesses

John H. Shumway
A. J. Tibbitts

I T B D F
T. B. DeForest
By his Attorney

J. M. Earle

United States Patent Office.

THOMAS B. DE FOREST, OF BIRMINGHAM, CONNECTICUT.

Letters Patent No. 75,131, dated March 3, 1868.

IMPROVEMENT IN MACHINE FOR REDUCING AND POINTING 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 I, THOMAS B. DE FOREST, of Birmingham, in the county of New Haven, and State of Connecticut, have invented a new Improvement in Machines for Reducing or Pointing Wire; and I do hereby declare the following, when taken in connection with the accompanying drawings, and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a top view,

Figure 2 a side view, and in

Figure 3 a longitudinal central section.

This invention relates to an improvement in that class of machines used for reducing or pointing wire, and consists in the arrangement of vibrating jaws, the said vibrating jaws revolving, thus having the double motion, that is to say, rotary and vibratory.

To enable others skilled in the art to construct and use my improvement, I will proceed to describe the same as illustrated in the accompanying drawings.

A is the frame upon which the mechanism is placed; B, the driving-shaft, supported in bearings, C, and driven by the application of power thereto in any convenient manner. D is a hollow shaft supported in bearings E, and so as to revolve freely therein, and lying at right angles and nearly in the plane with the driving-shaft B. In the outer end or head, F, of the said driving-shaft are arranged two or more jaws, G and G', pivoted at a, and each two or corresponding jaws being opposite each other, (I prefer but two practically.) These jaws carry in their outer end a die, g, and vibrate upon their pivots, as from the position in fig. 3 to the position in red, or closed, in same figure; and the jaws are thus caused to vibrate by the arrangement of a rod, H, passing through the hollow shaft D; and upon its outer end is fixed a head, I, and over which head the jaws are notched, as in fig. 3, or otherwise connected, so that the jaws will revolve around the said head I. On the driving-shaft B is arranged a cam, J, which I make of many sides, so as to get several operations to each revolution, and the said cam operates within a stirrup, K, and within the said stirrup are arranged rolls, L, at the front and rear of the cam; and extending back, the stirrup is supported in a bearing, M, upon the frame.

When the cam J revolves, one of the projections striking the front roll will force the rod H forward. Then a projection upon the opposite side of the cam striking the rear roll, forces the rod H back, thus moving back and forth, as denoted in red, fig. 3; and this reciprocating movement of the head I, by the action of the cam J working in the notches or connections in the jaws, causes the vibration of the jaws; that is to say, the forward movement of the head I opens the jaws, and the rear movement opens the jaws. Combined with this movement, a rotary movement is given to the hollow shaft D, carrying with it the jaws, and this is conveniently done by a band, N, from a pulley, P, on the driving-shaft, to a pulley, R, on the hollow shaft D, or in other manner. Thus I combine a rotary and rapid vibratory movement of the jaws, and I do this in a very simple manner, avoiding the multiplication of joints and parts, and so as to produce a durable and useful machine, the operation of which is as follows:

The dies d are constructed so as to give to the material to be reduced or pointed the desired form; then, power being applied, and the jaws caused to move, as before described, the wire or metal to be reduced is inserted between the vibrating dies, and quickly reduced or pointed, as the case may be.

It will be readily seen that the same, or nearly the same, result may be produced by having but one vibrating jaw, the other being firmly and solidly fixed in the head; but, for obvious reasons, I prefer two or more vibrating corresponding jaws.

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

1. The combination of the two jaws G and G' with the revolving shaft D, when constructed and arranged so as to receive from the said shaft a rotary motion, and further combined with the cam J and shaft H, so that the said jaws receive therefrom a vibratory movement, and when both the jaws are movable, or the one fixed and the other movable, substantially as herein set forth.
2. The hollow shaft D, carrying the vibrating jaws G, having combined therewith a head, I, and cam J, with its stirrup-connection, so as to operate in the manner herein described.

Witnesses:

JOHN E. EARLE,
C. B. RICHARDS.

THOS. B. DE FOREST.