

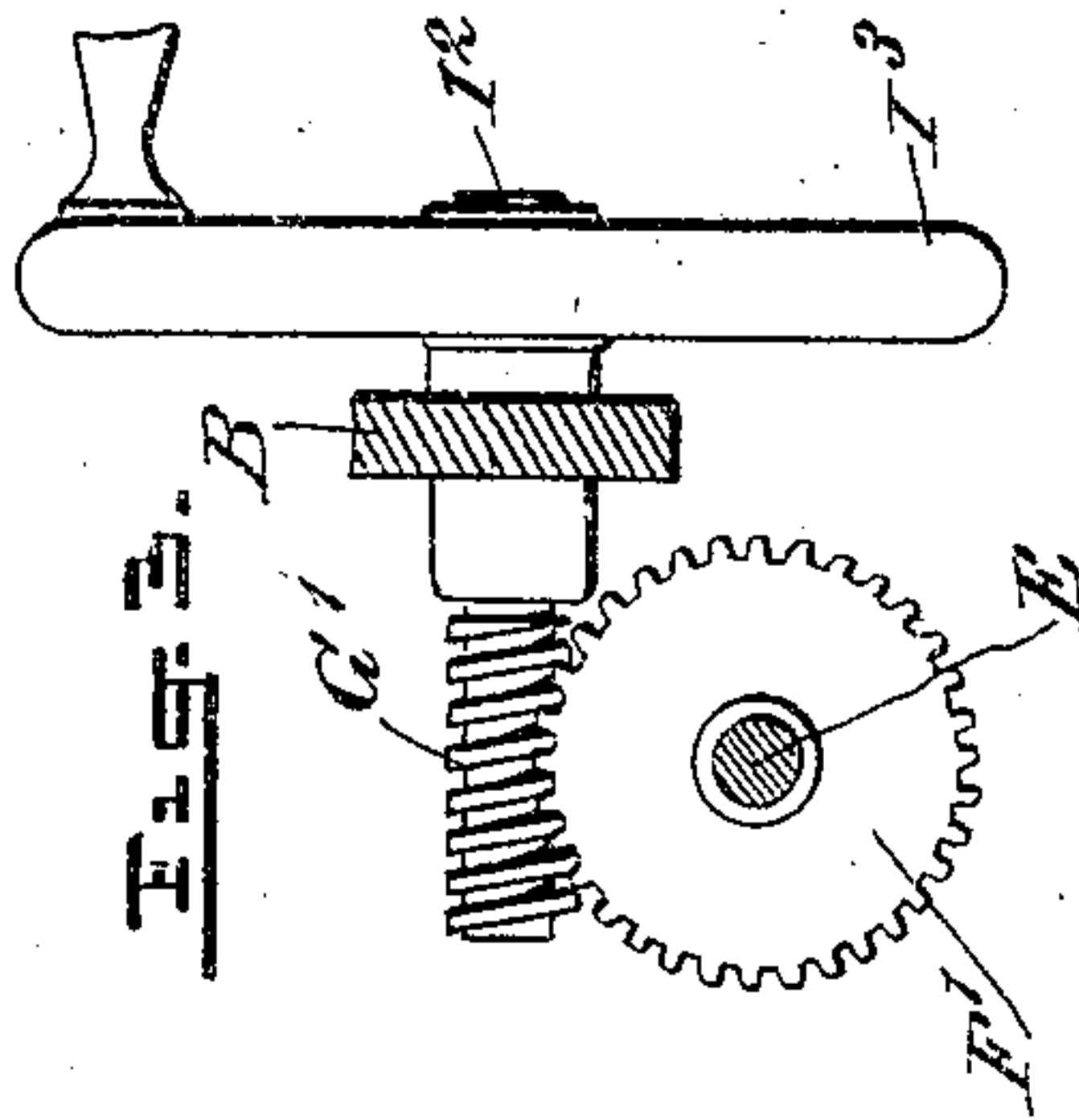
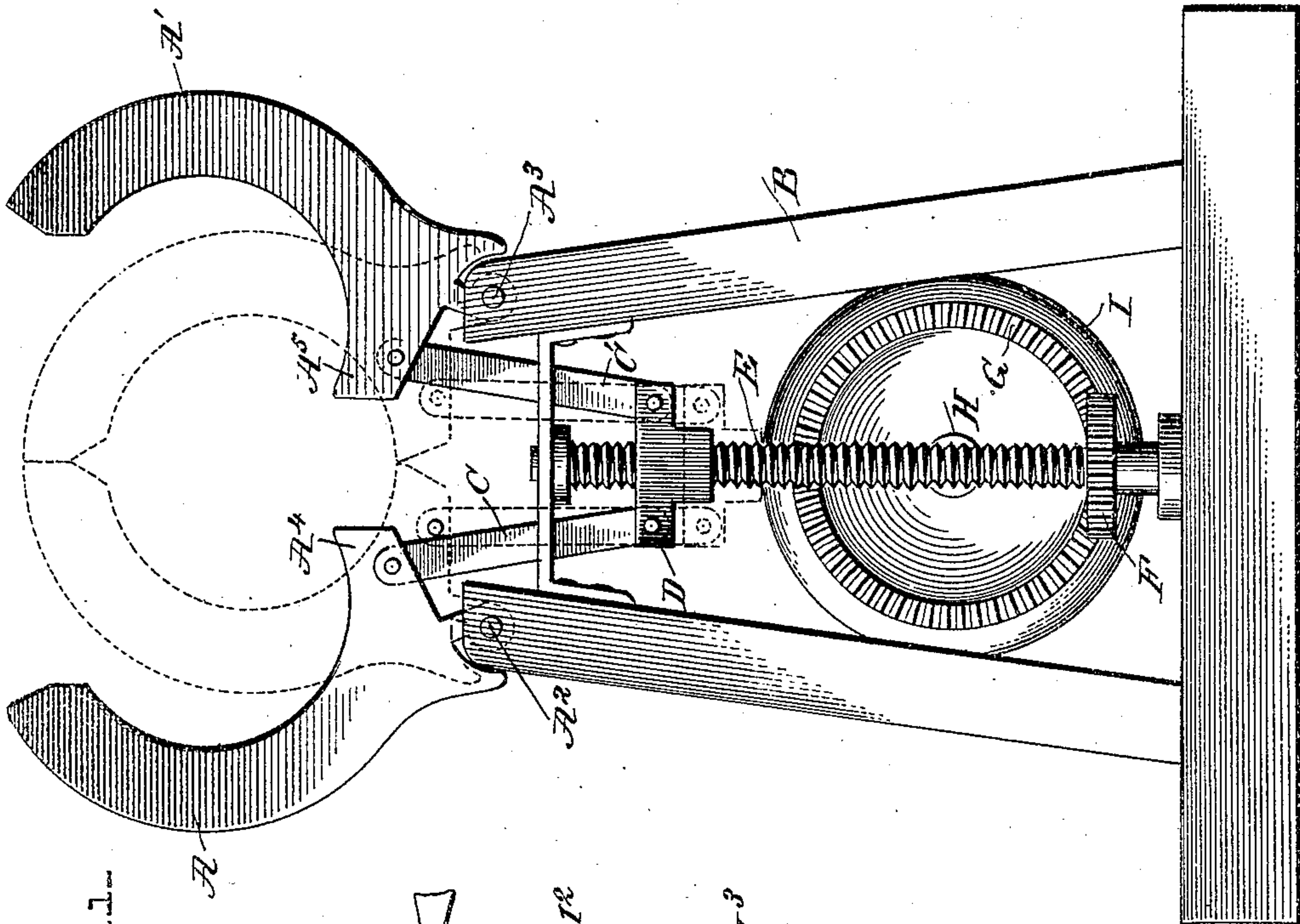
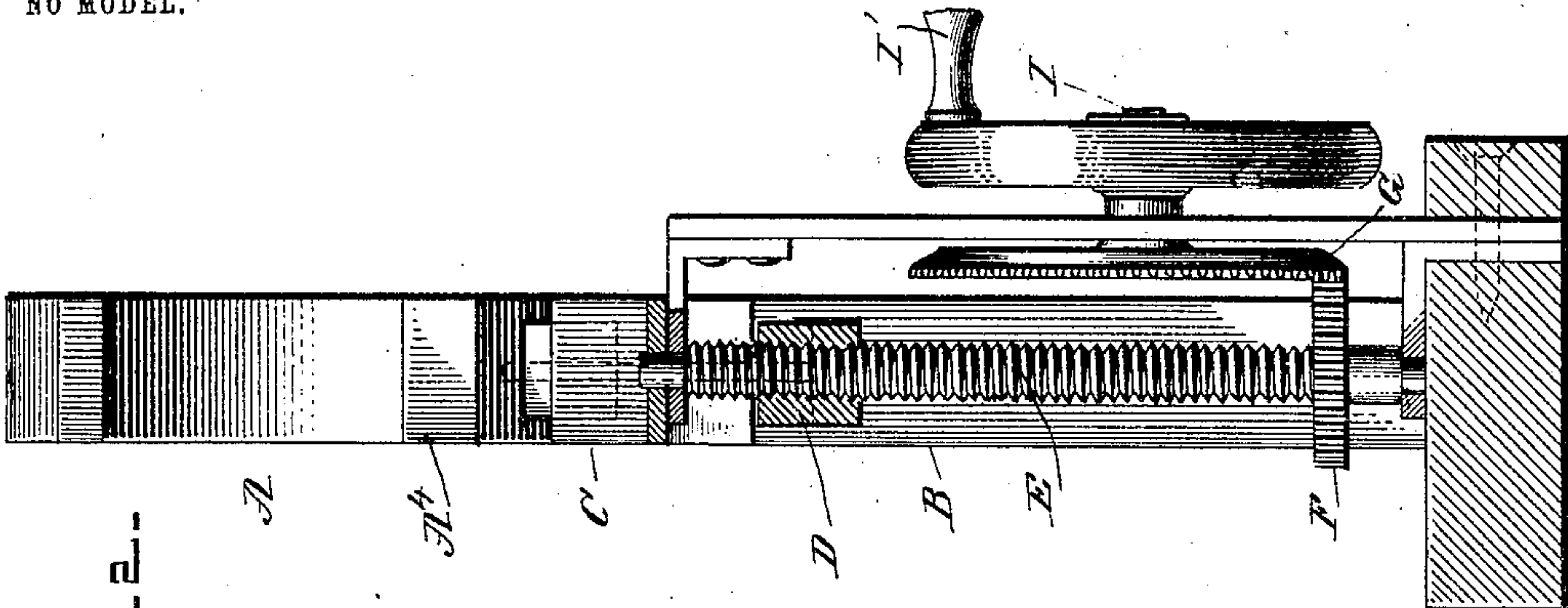
No. 774,563.

PATENTED NOV. 8, 1904.

E. CLARK.
VISE.

APPLICATION FILED JAN. 25, 1902. RENEWED SEPT. 30, 1904.

NO MODEL.



WITNESSES:

Geo. M. Wagon
Geo. J. Wagon

INVENTOR
Emmitt Clark
BY *Mum*
ATTORNEYS

UNITED STATES PATENT OFFICE.

EMMITT CLARK, OF DOVER, DELAWARE, ASSIGNOR TO CHARLES W. BARGER, OF DOVER, DELAWARE.

WISE.

SPECIFICATION forming part of Letters Patent No. 774,563, dated November 8, 1904.

Application filed January 25, 1902. Renewed September 30, 1904. Serial No. 226,634. (No model.)

To all whom it may concern:

Be it known that I, EMMITT CLARK, a citizen of the United States, and a resident of Dover, in the county of Kent and State of Delaware, have invented a new and Improved Vise, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved vise arranged to permit the operator to conveniently and quickly open and close the jaws to firmly grip or release the article under treatment.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all of the views.

Figure 1 is a side elevation of the improvement. Fig. 2 is a transverse section of the same, and Fig. 3 is a sectional plan view of a modified form of driving-gear.

The jaws A and A', of segmental or other suitable shape, are pivotally connected at their lower ends, at A² and A³, on a frame or support B, and the pivotal ends of the said jaws are provided with inwardly-extending arms A⁴ A⁵, pivotally connected with links C C' pivoted to a block D in the form of a nut screwing on a screw-rod E, mounted to rotate in suitable bearings on the frame or support B. On the screw-rod E, preferably at the lower end thereof, is secured a pinion F, in mesh with a bevel gear-wheel G, secured on a shaft H, mounted to rotate in suitable bearings carried by the frame or support B, and on the outer end of the said shaft H is secured a hand-wheel I, having a handle I' under the control of the operator for turning the hand-wheel, and consequently the shaft I and bevel gear-wheel G. The rotary motion of the bevel gear-wheel G is transmitted by the pinion F to the screw-rod E, so that the block D moves up or down on the screw-rod, according to the direction in which the hand-wheel I is turned. When the block D moves upward, the links C and C' impart a swinging motion to the jaws A and A' to simultane-

ously open the same, and when the block D moves downwardly the links cause the jaws to swing into a closed position, and thereby firmly grip the article placed between the jaws.

From the foregoing it is evident that the operator can very quickly open and close the jaws to allow of conveniently inserting the article to be treated and to firmly grip the same while undergoing the desired treatment.

As shown in Fig. 3, the screw-rod E may be rotated by a worm-wheel F' and worm G', secured on a shaft I², carrying a hand-wheel I³ under the control of the operator.

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

1. A vise, comprising a support, jaws pivoted to the support, a block having an internal screw-thread, links connecting the said block with the said jaws, a screw-rod mounted to turn in the support and screwing in the said block, and a manually-controlled gearing for the said screw-rod to rotate the latter, as set forth.

2. A vise, comprising a support, jaws pivoted to the support, a block having an internal screw-thread, links connecting the said block with the said jaws, a screw-rod mounted to turn in the support and screwing in the said block, a pinion on the said screw-rod, a shaft mounted in the support, a bevel gear-wheel on the shaft and in mesh with the said pinion, and a hand-wheel under the control of the operator and secured on the shaft of the said bevel gear-wheel, as set forth.

3. A vise comprising a frame, jaws pivoted to the frame and provided with inwardly-extending arms at their pivoted ends, a screw-rod mounted to turn in the frame, an internally-screw-threaded block screwing on the screw-rod, links connecting the block with the arms of the jaws, a shaft provided with a handle for turning it, and gearing for operating the screw-rod from the said shaft, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two witnesses.

EMMITT CLARK.

Witnesses:

CHARLES W. BARGER,
GEORGE E. COFFIN.