

R. ZEIDER.

Improvement in Machines for Turning Axles.

No. 130,782.

Patented Aug. 20, 1872.

Fig. 1.

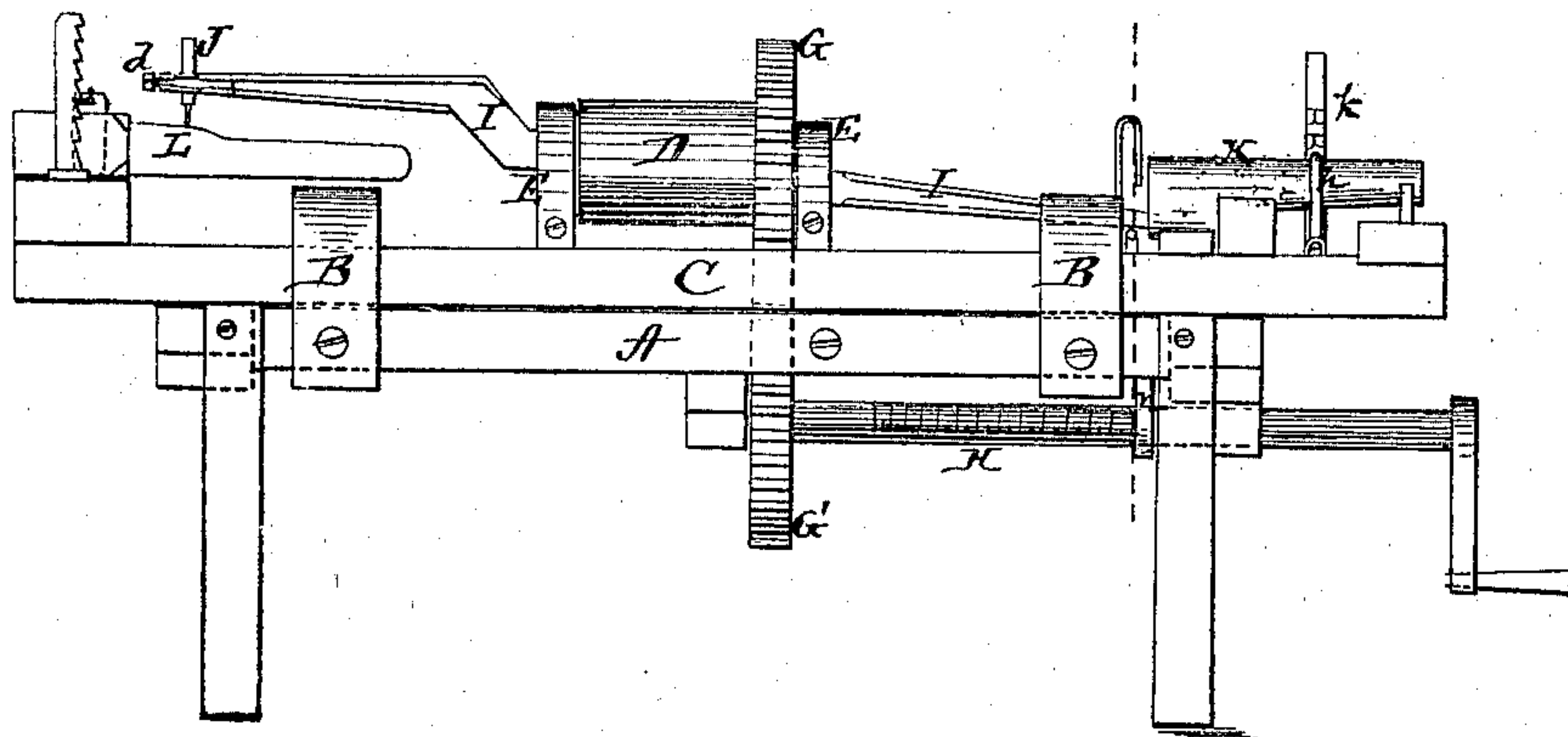


Fig. 2.

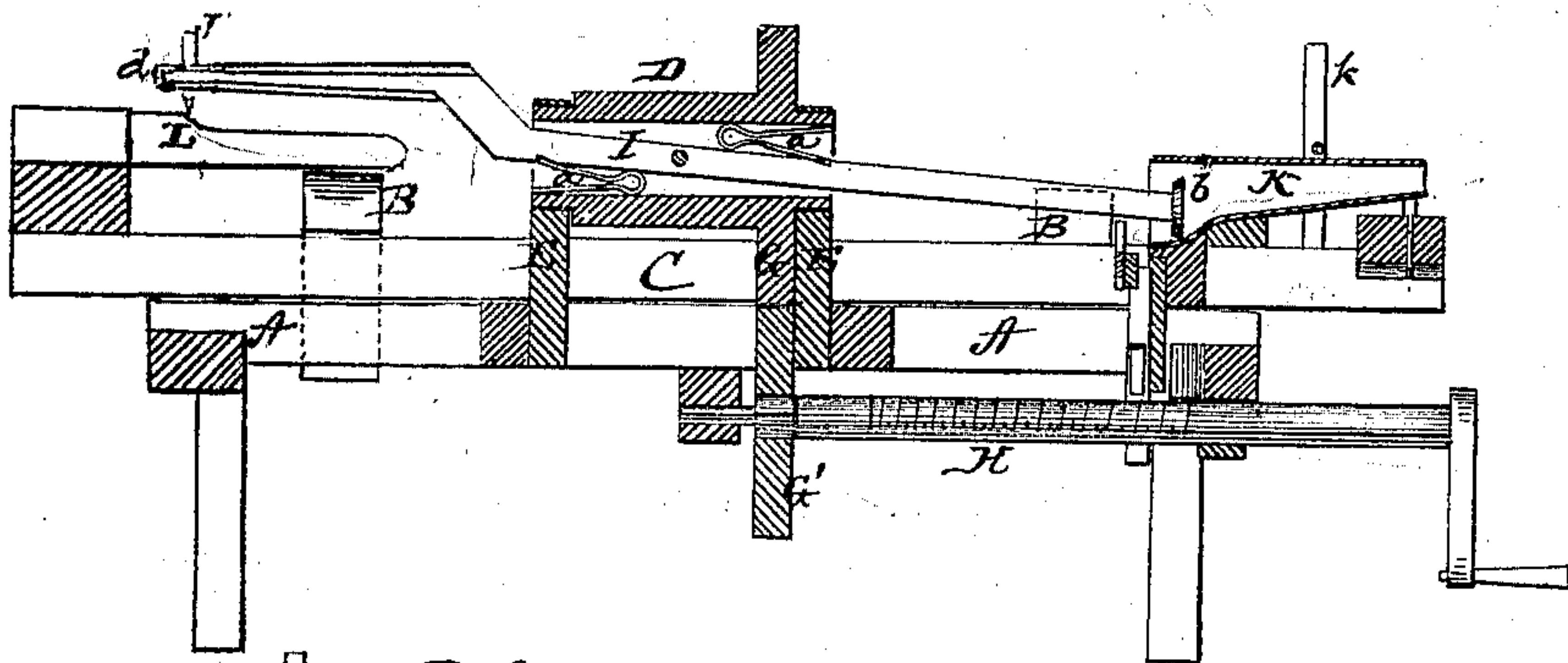


Fig. 3.

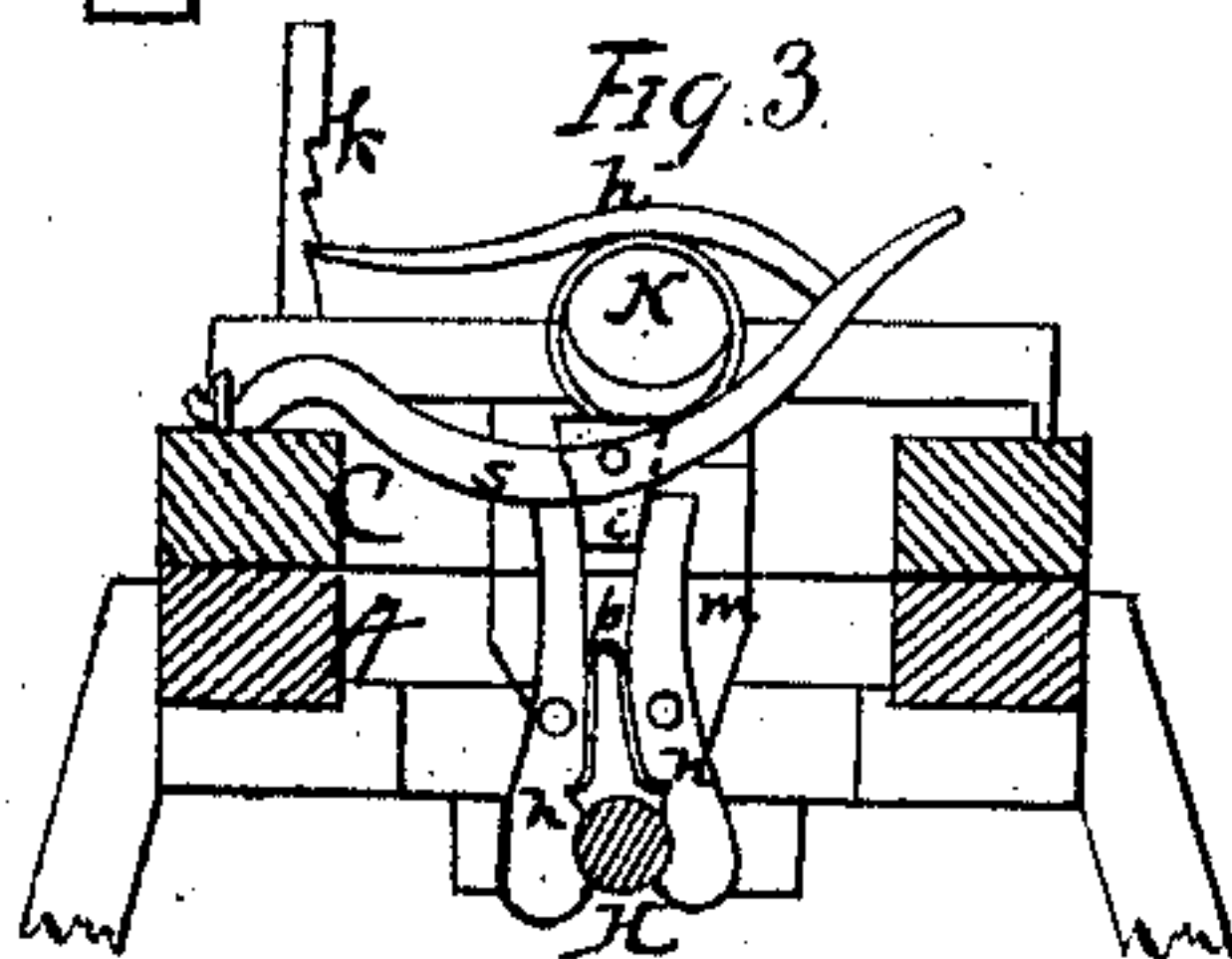
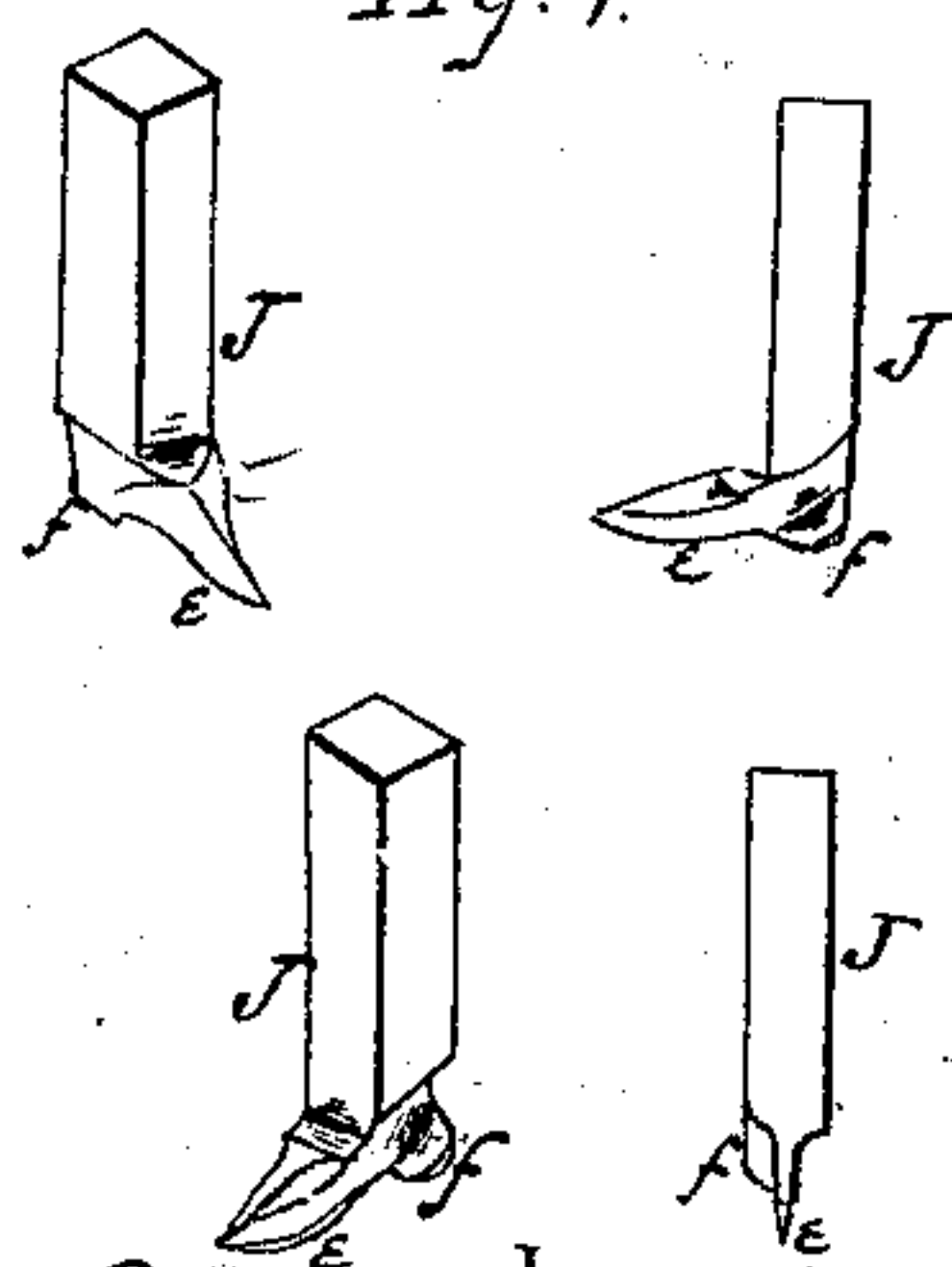


Fig. 4.



Witnesses:

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# UNITED STATES PATENT OFFICE.

REUBEN ZEIDER, OF EL PASO, ILLINOIS.

## IMPROVEMENT IN MACHINES FOR TURNING AXLES.

Specification forming part of Letters Patent No. 130,782, dated August 20, 1872.

*To all whom it may concern:*

Be it known that I, REUBEN ZEIDER, of El Paso, in the county of Woodford and in the State of Illinois, have invented certain new and useful Improvements in Machines for Setting Thimbles on Axles; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in the construction and arrangement of a machine for setting thimbles on the axles of lumber-wagons, by cutting the axle automatically the exact shape of the thimble, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a side elevation, and Fig. 2 a longitudinal vertical section, of my machine. Fig. 3 is a transverse vertical section through line *x x*, Fig. 1; and Fig. 4 represents the cutter.

A represents the frame of my machine, upon which, in guides B B, is placed the movable frame C. In the center of the main frame A, supported by and attached to suitable cross-bars in the same, are two standards or posts, E E, in which a hollow drum, D, has its bearings. This drum is provided with a cog-wheel, G, which gears with a similar wheel, G', upon the inner square end of a screw-shaft, H, having suitable bearings under the main frame A, and operated by means of a crank or other convenient power. Through the hollow drum D passes the cutting-bar I, which is bent, as shown in Figs. 1 and 2, and is pivoted in the center of said drum. In each end of the drum D is inserted a spring, *a*, secured in the same by a small notch in the cutting-bar, as shown in Fig. 2, said springs acting upon the cutting-bar at the ends in opposite directions. Upon the straight end of the cutting-bar I is a friction-roller, *b*, and through a mortise in the bent end of said bar passes the stem or shank of a cutter, J, which is adjusted and held at any desired point by means of a set-screw, *d*, passing into this end of the cutting-bar. The cutter is constructed as shown in Fig. 4, being somewhat in the shape of a foot, with the cutting-edge *e* at the bottom, and at the heel it

has a projecting cutting-lip, *f*. K represents the thimble, placed bottom side up on one end of the movable frame C and held firmly by a lever, *h*, one end of which is pivoted to said frame and the other end fastened by a catch, *k*. The end of the cutting-bar having the roller *b* is inserted in this thimble, and the cutter J, at the other end of the bar I, works upon and around the outside of the axle L, which is placed on the opposite end of the movable frame C, and held in the same manner as the thimble.

The screw-shaft H revolving causes the cutter J to traverse around the axle, and said cutter being properly adjusted it cuts the axle to correspond exactly with the size and shape of the thimble; and as the frame C is moved, by means hereinafter described, the thimble K moves further up on the end of the cutting-bar having the roller *b*, and the axle L moves from under the cutter, so that the axle will be formed to suit the thimble the entire length of said thimble.

The frame C is moved back and forth by the following means: Upon a plate, *m*, attached to a cross-bar of the frame C, are pivoted two bars, *n n*, the lower ends of which are so shaped as to form, when brought together, a nut around the screw-shaft H, thus causing, when the screw revolves, the frame to move. The lower ends of the bars *n n* are thrown apart by means of a spring, *p*, and they are closed by means of a wedge, *i*, inserted between their upper ends, said wedge being attached to a lever, *s*, hinged or pivoted to the frame, so that by this means the movement of the frame C can be instantaneously controlled.

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

The combination of the main frame A, movable frame C, hollow drum D, gears G G', screw-shaft H, bent bar I, roller *b*, springs *a*, cutter J, bars *n*, and at each end of the frame C a lever, *h*, and catch *k*, all constructed and arranged to operate substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 2d day of January, 1872.

REUBEN ZEIDER. [L. S.]

Witnesses:

J. F. ZINER,

CHARLIE MOORE.