

N. Adams,

Nail Extractor,

N^o 59,535.

Patented Nov. 13, 1866

Fig. 3.

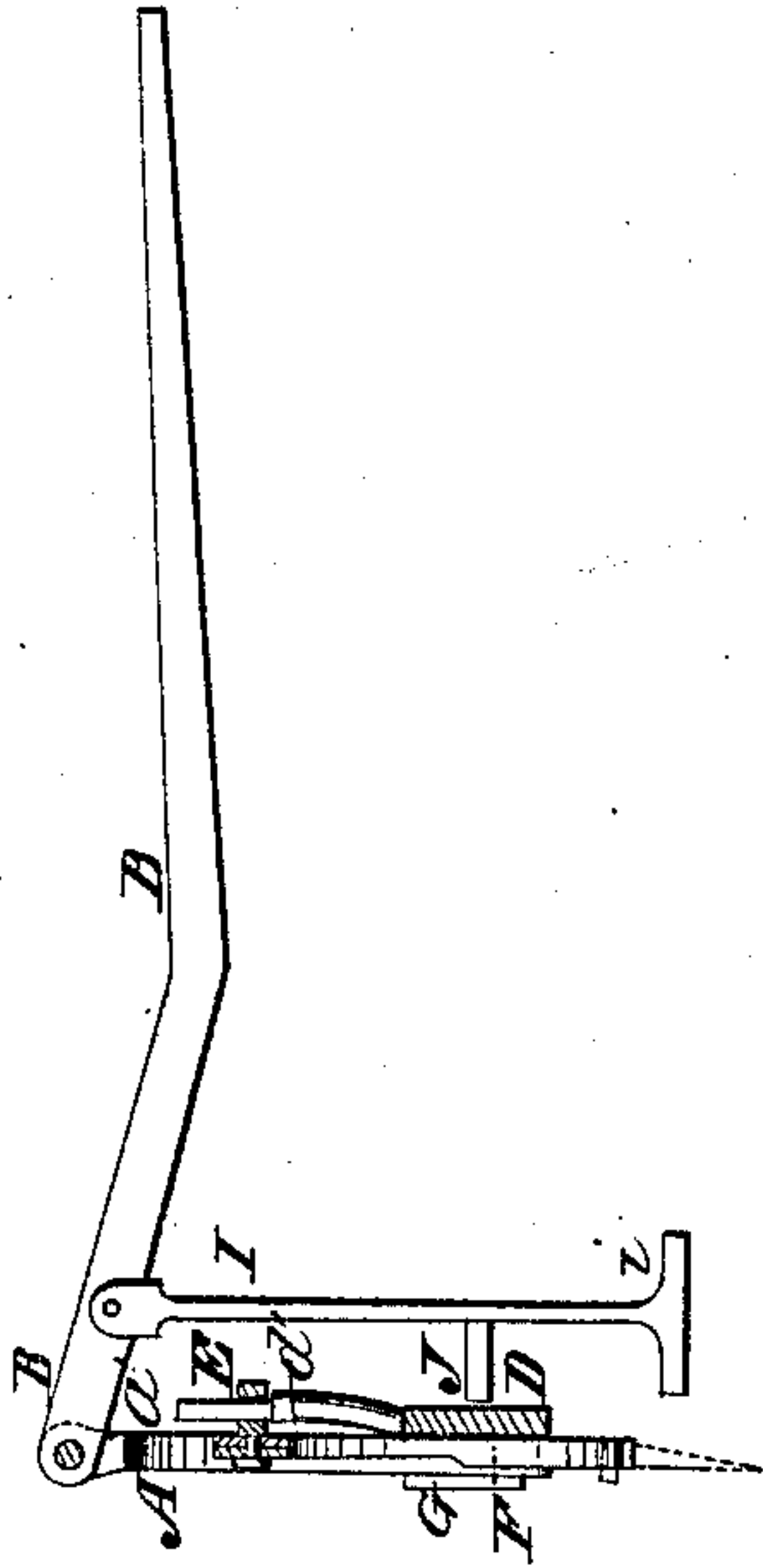


Fig. 2.

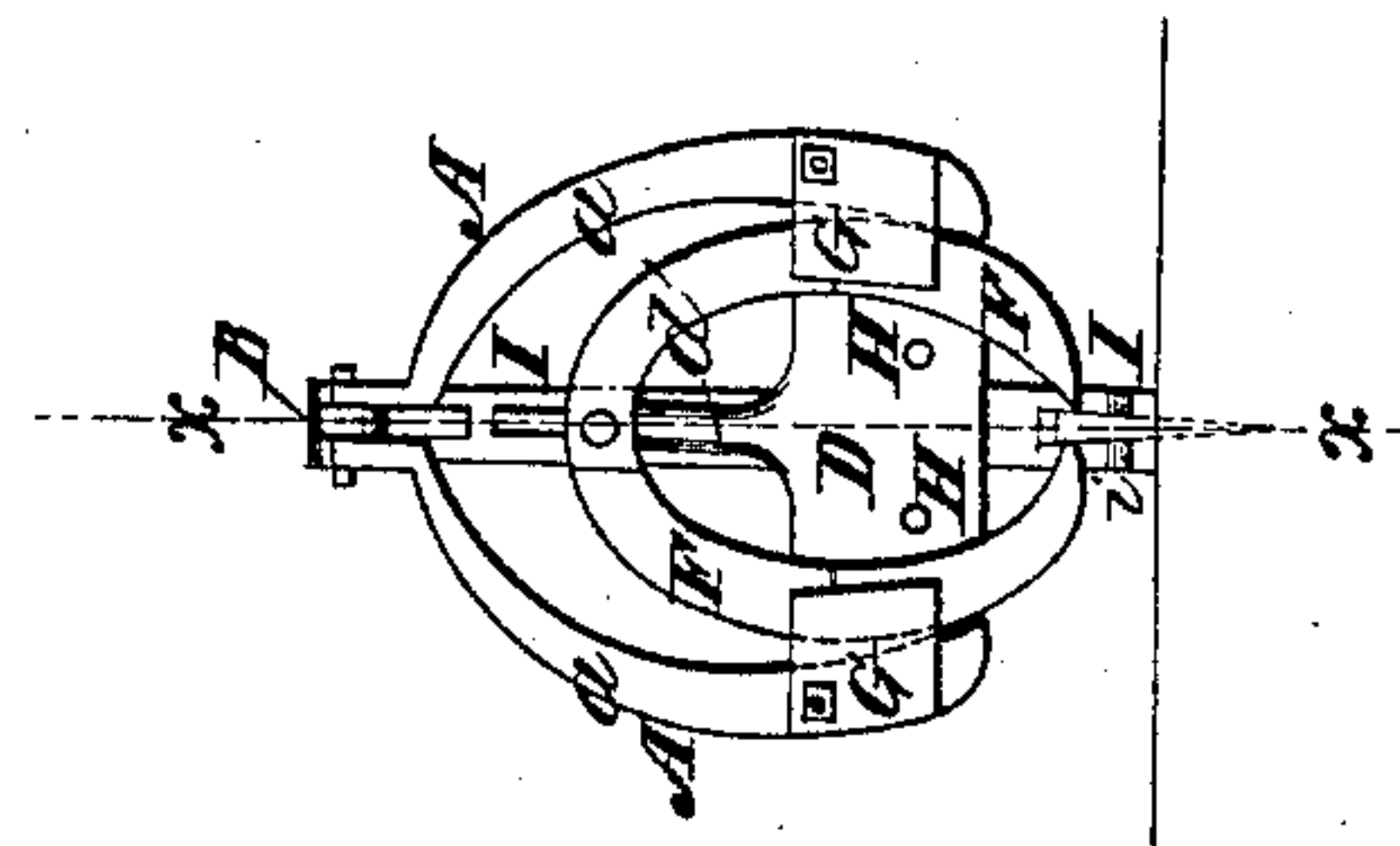
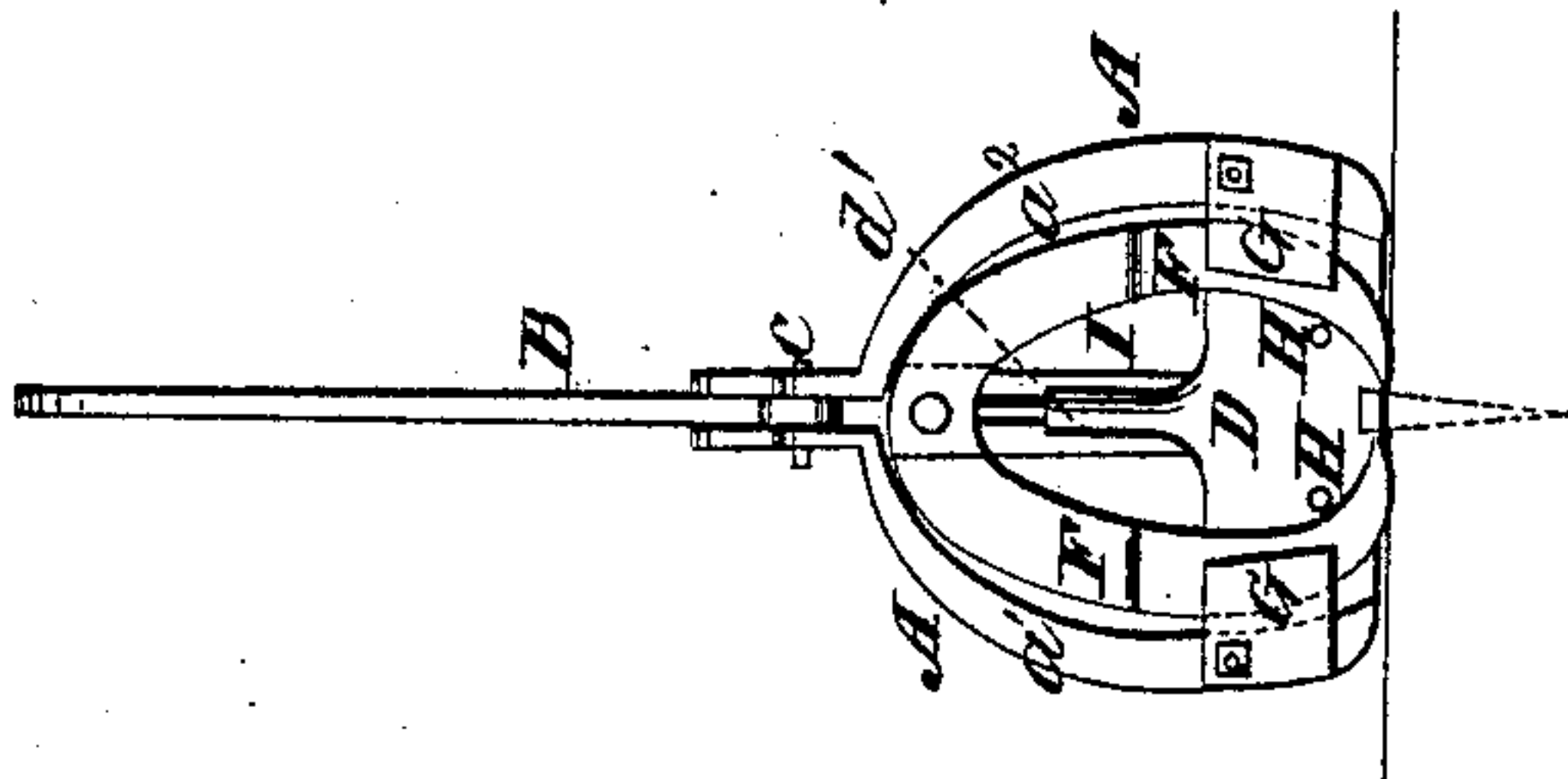


Fig. 1.



Witnesses:

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UNITED STATES PATENT OFFICE.

NATHAN ADAMS, OF ALTOONA, PENNSYLVANIA.

IMPROVEMENT IN MACHINES FOR DRAWING SPIKES.

Specification forming part of Letters Patent No. 59,535, dated November 13, 1866.

To all whom it may concern:

Be it known that I, NATHAN ADAMS, of Altoona, Blair county, and State of Pennsylvania, have invented a new and useful Improvement in Spike-Drawing Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front view of my improved machine, the lever being raised to open the jaws to receive the spike. Fig. 2 is the same view as Fig. 1, the lever being lowered to close the jaws and raise the spike. Fig. 3 is a vertical section of the same, taken through the line *x x*, Fig. 2.

Similar letters of reference indicate like parts.

My invention has for its object to improve the construction of my spike-drawing machine, patented September, 1865; and it consists of the combination of the lever, fulcrum-post, and guide-pin with the stock, guide-plate, and jaws or nippers, as hereinafter more fully described.

A is the stock of the machine, which consists of two curved arms, *a*¹ and *a*², the upper ends of which are pivoted to the end of the lever B by a bolt, *c*, as shown in the drawings, and their lower ends are bolted fast to the guide-plate D. This plate is made in the form represented in Figs. 1 and 2, and its upper edge is extended into a guide-rod, *d*', upon which works the eye E, to which the upper ends of the jaws or nippers F are pivoted, as shown in Fig. 3.

G are small plates attached to the forward side of the lower ends of the stock A, so as to form a channel in which the said jaws may move up and down.

H are two pins projecting from the forward side of the plate D, which, when the jaws F rise in the stock A, come in contact with the inner edges of the said jaws and force them apart to receive the head of the spike to be drawn.

I is the fulcrum-post, the lower end of which terminates in a rectangular foot, *i*, and to its upper end is pivoted the lever B, as shown in Fig. 3.

J is a guide-pin projecting forward from the fulcrum-post I, and against the forward end of which the plate D rests when the machine is operated, so that the jaws may move vertically in drawing the spike and not bend it.

In using the machine the foot *i* of the fulcrum-post I is set upon a tie in such a position that the jaws may be suspended directly above the spike to be drawn. Then, by raising the free end of the lever B, the stock A and jaws F descend until the lower ends of the said jaws come in contact with the sill from which the spike is to be drawn. This pushes the jaws up into the stock A, the pins H forcing them apart to receive the head of the spike. Then, by lowering the lever B, the spike is started from the sill, and by raising and lowering the lever a few times the spike is withdrawn vertically from the sill without being bent or otherwise injured.

I claim as new and desire to secure by Letters Patent—

The combination of the lever B, fulcrum-post I, and guide-pin J with the stock A, guide plate and rod D, and jaws or nippers F, substantially as described, and for the purpose set forth.

NATHAN ADAMS.

Witnesses:

E. B. McCrum,
S. WINTERS.