

L. DeLARIO.  
SPIKE-POINTING MACHINES.

No. 195,208.

Patented Sept. 18, 1877.

Fig 1

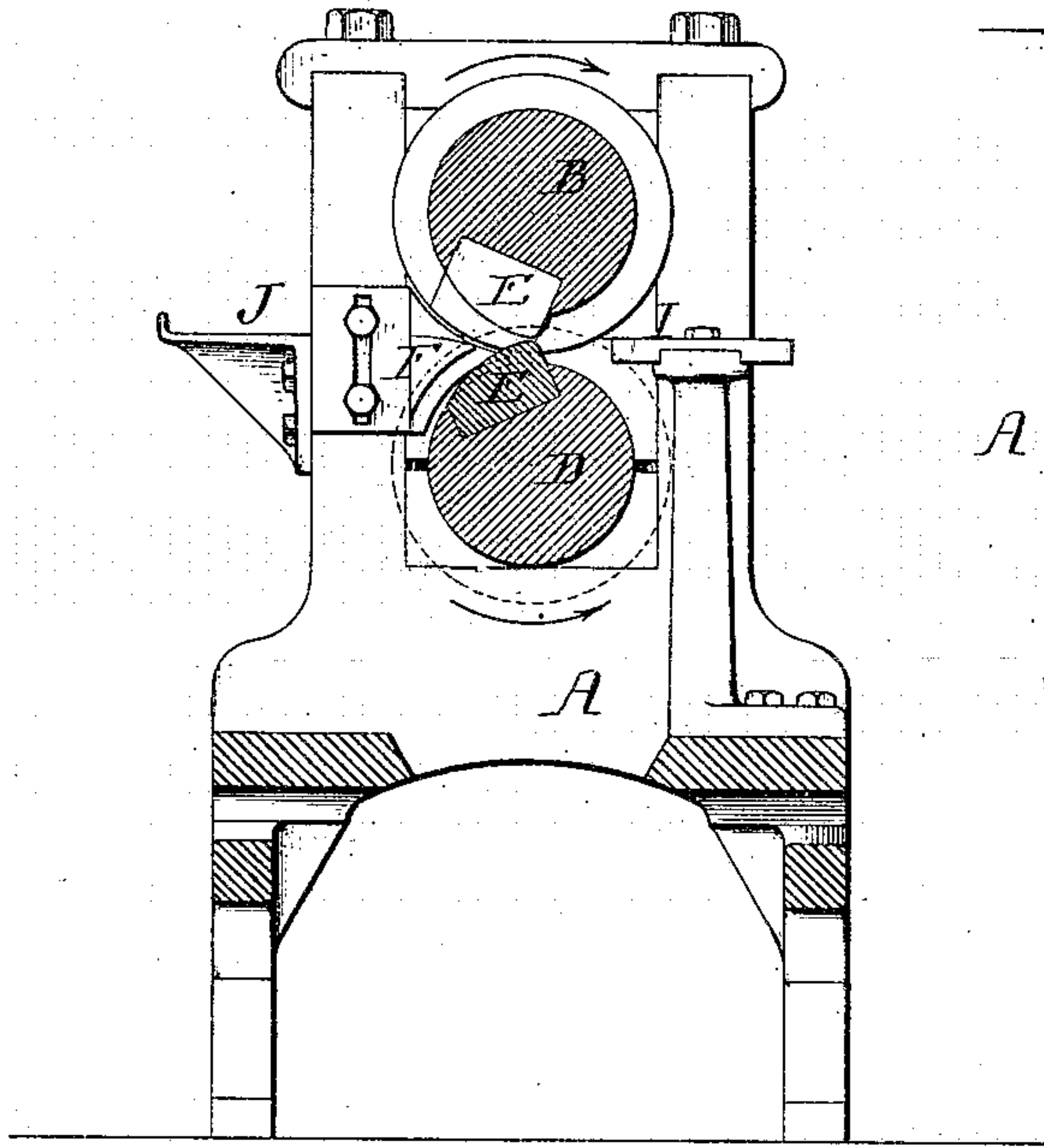


Fig 2

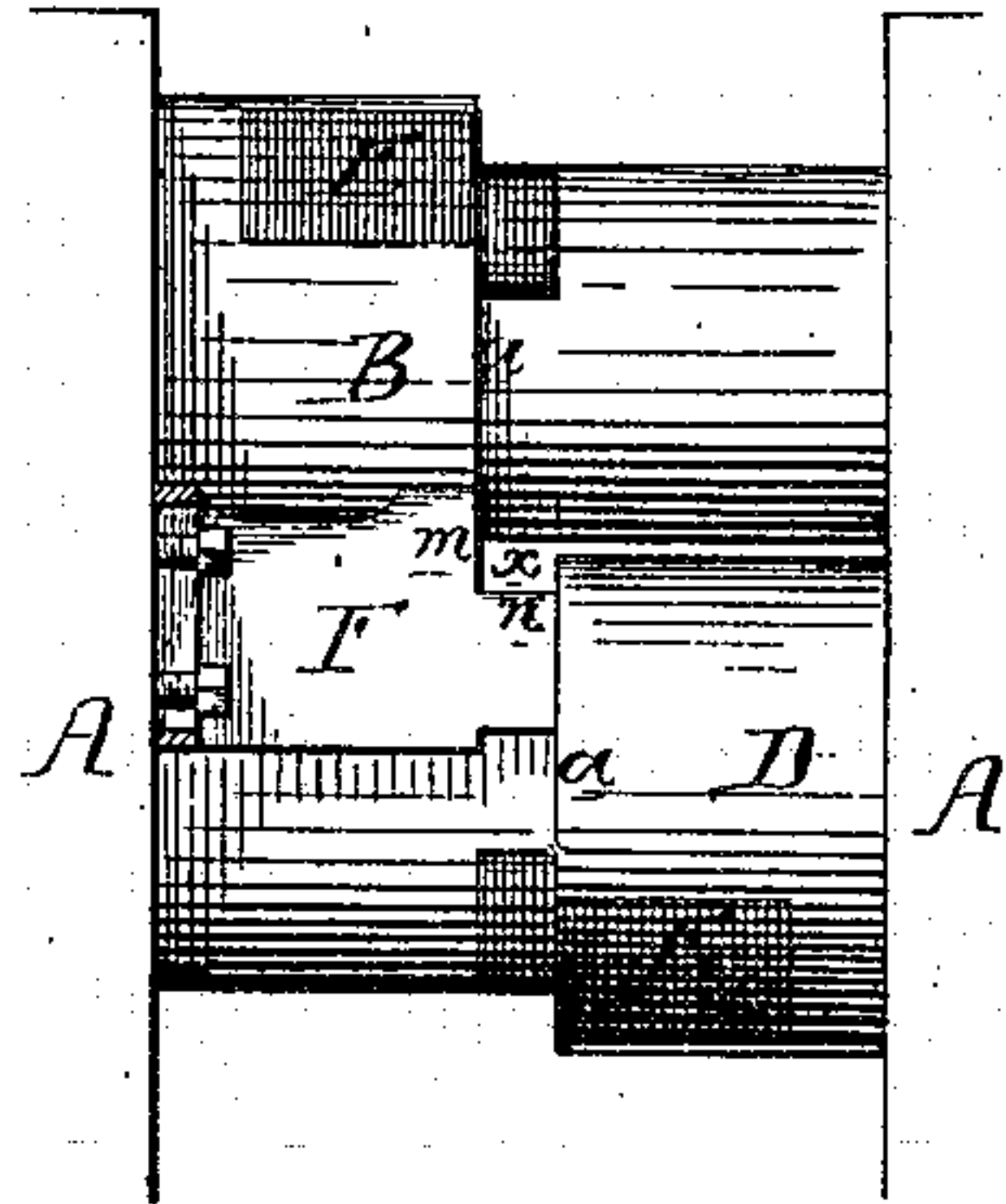


Fig 3

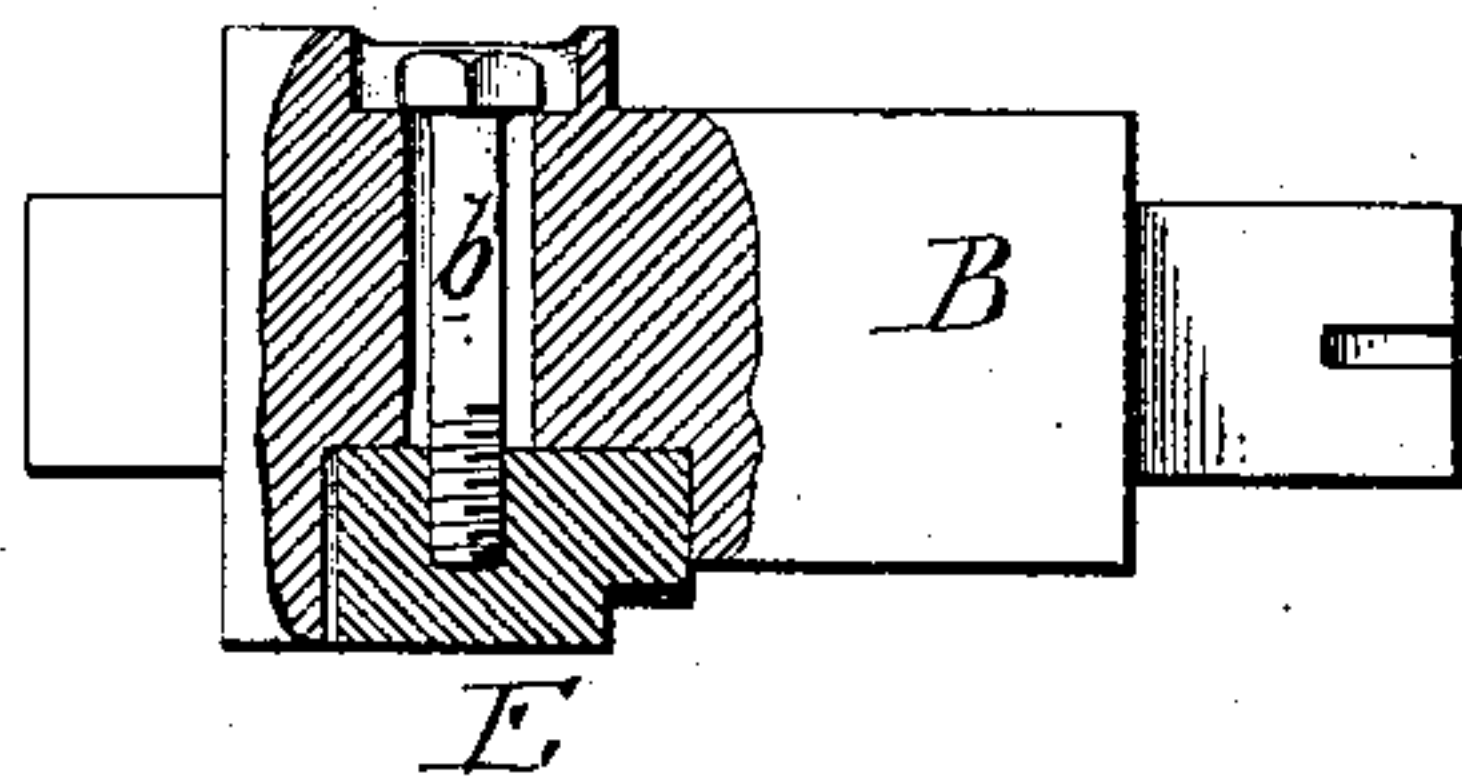


Fig 4

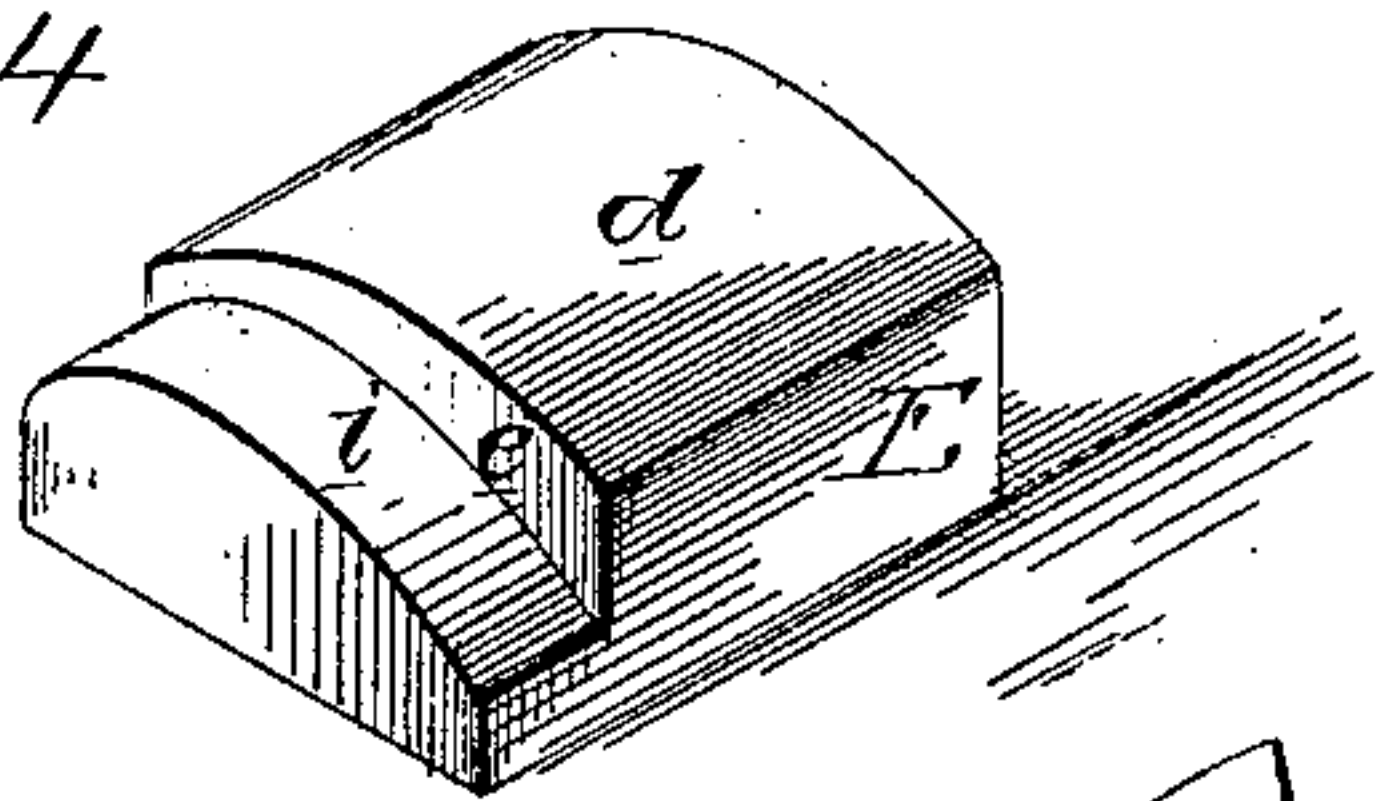


Fig 5.

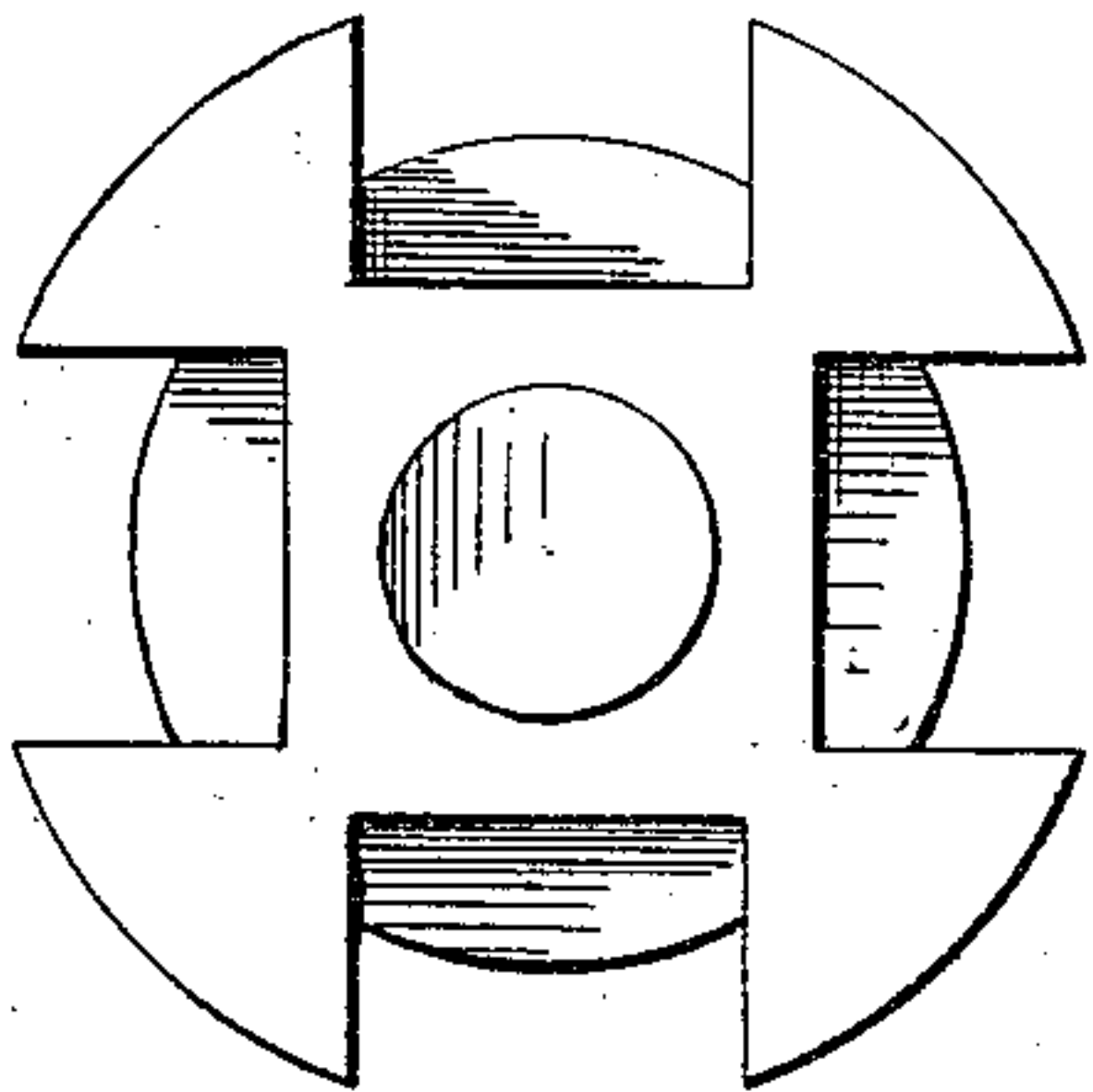
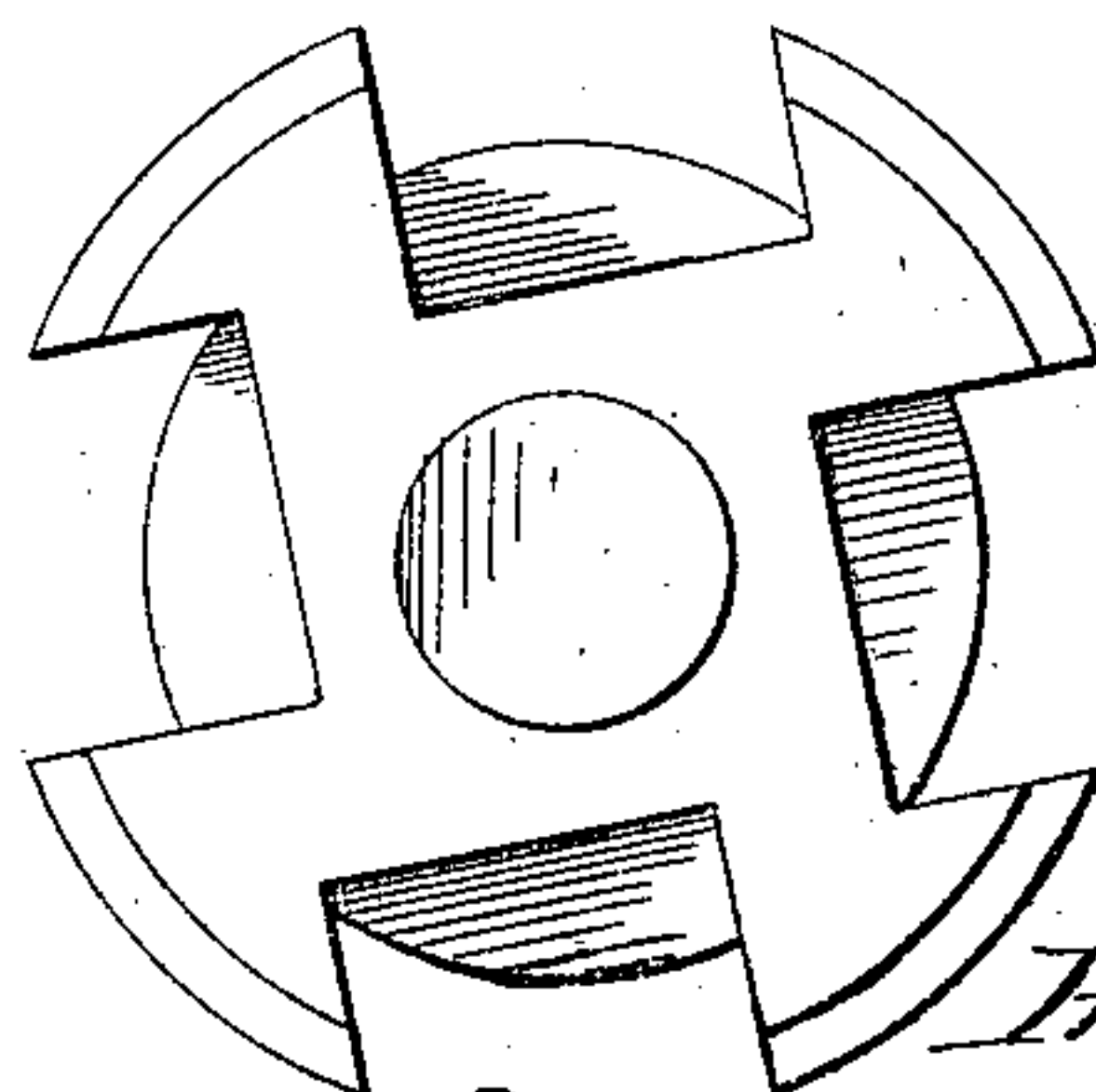


Fig 6.



Witnesses

John M. Deemer.  
Harry Smith

Inventor  
Louis DeLario  
by his Attorneys  
Howson & Son



# UNITED STATES PATENT OFFICE.

LOUIS DE LARIO, OF ALLENTOWN, PENNSYLVANIA.

## IMPROVEMENT IN SPIKE-POINTING MACHINES.

Specification forming part of Letters Patent No. **195,208**, dated September 18, 1877; application filed February 2, 1877.

*To all whom it may concern:*

Be it known that I, LOUIS DE LARIO, of Allentown, Lehigh county, Pennsylvania, have invented a new and useful Improvement in Spike-Pointing Machines, of which the following is a specification:

The object of my invention is to construct a cheap and compact machine for rapidly pointing spikes; and this object I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of my improved spike-pointing machine; Fig. 2, a front view of a portion of the same; Fig. 3, a view, partly in section, of one of the rolls; Fig. 4, a view of the die; and Figs. 5 and 6, views of the chucks for forming the faces of the die.

A is the frame of the machine, in the opposite sides of which are formed bearings for an upper roll, B, and lower roll D, the former being enlarged in diameter near one end, and the latter near the opposite end, the enlarged portions of the rolls being such that the shoulders *a* formed by these enlargements are at some distance apart.

To a recess in each roll is adapted a die, E, preferably made of steel, each die being secured in place by a bolt, *b*, Fig. 3, adapted to a slot in the roll, so that the die can be adjusted both radially and longitudinally to compensate for wear.

The dies E are secured to the rolls B and D in the position shown in Figs. 2 and 3, and each die is of the peculiar form shown in Fig. 4, the body of the die having a face, *d*, concentric with the enlarged portion of the roll, but being cut away at one end, so as to form a face, *e*, flush with the shoulder *a* of the roll, and a face, *i*, projecting from the reduced portion of the roll, and eccentric to the same, as shown in Fig. 1, the rolls being so geared together that the dies coincide with each other as the rolls revolve.

In front of the rolls is a guide-plate, F, secured to one side of the frame of the machine, so as to be adjustable vertically thereon, and this guide-plate is recessed at the front, so as to form two faces, *m* and *n*, which serve to properly guide the spike into the space *x* formed by the reduced portions of the rolls and the shoulders *a* of their enlarged portions.

In the rear of the roller is a laterally-adjustable gage, I, which governs the extent to which the spike-blank can be inserted, and thus determines the length of the point produced.

The operation of the machine is as follows: The unpointed spike, as it comes from the machine, is laid on a table, J, at the front of the same, and is seized by the attendant and thrust, point-end foremost, into the space *x* between the rolls, and then released, being supported partly by the lower roll and partly by the guide-plate F.

As the rolls revolve, the dies E gripe the end of the spike, and the eccentric faces *i* of the dies gradually squeeze the metal out into a point, the faces *e* of the dies preventing the lateral spreading of the same. On the further movement of the rolls the pointed spike is released from the dies and falls into a suitable receptacle, another unpointed spike being then inserted into the space *x*, and the operation being repeated as before.

As shown in the drawing, the machine is arranged for producing spikes having points straight on the edges and evenly tapered on both sides; but by raising or lowering the guide-plate F the taper may be increased on one side and diminished on the other, while, by properly inclining the faces *e* of the dies E, spikes, pointed on all four sides, may be produced.

The dies shown and described are easily made in the first instance, and readily trued when they become worn, by the use of the chucks, (shown in Figs. 5 and 6,) that shown in Fig. 5 being used to turn the concentric faces *d*, and that shown in Fig. 6 to turn the eccentric faces *i*, a number of dies being thus acted on simultaneously.

I am aware that spike-making rolls have been constructed with eccentric faces and shoulders to retain the blank; but in my machine I make these faces on adjustable and detachable dies, each of which can be separately set up laterally as well as radially, to make up for wear.

I claim as my invention—

1. The combination of the rolls of a spike-machine with the detachable dies E, each having an eccentric face, *i*, and the face or shoulder *e*, and being adjustable, both ra-

dially and laterally, as and for the purpose set forth.

2. The combination of the rolls B and D, and their eccentric dies E, the adjustable gage I, and the guide-plate F, as specified.

3. The combination of the rolls B and D, and their eccentric dies E, with the guide-plate F, rendered adjustable vertically, as described.

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

LOUIS <sup>his</sup> + DE LARIO.  
mark.

Witnesses:

GEORGE DE CELL,  
HENRY K. MULL.