

(No Model.)

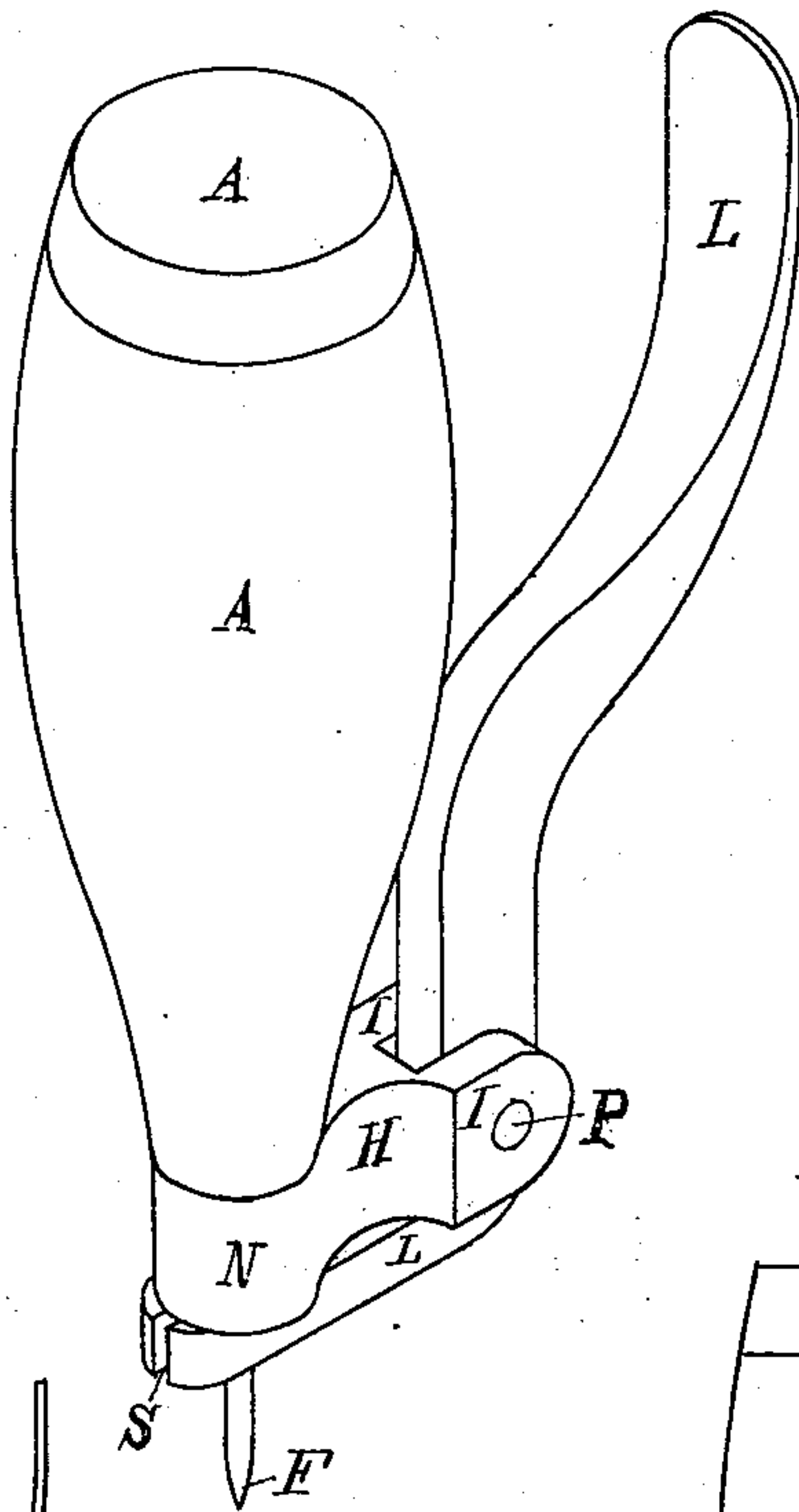
T. H. LOGAN.

AWL.

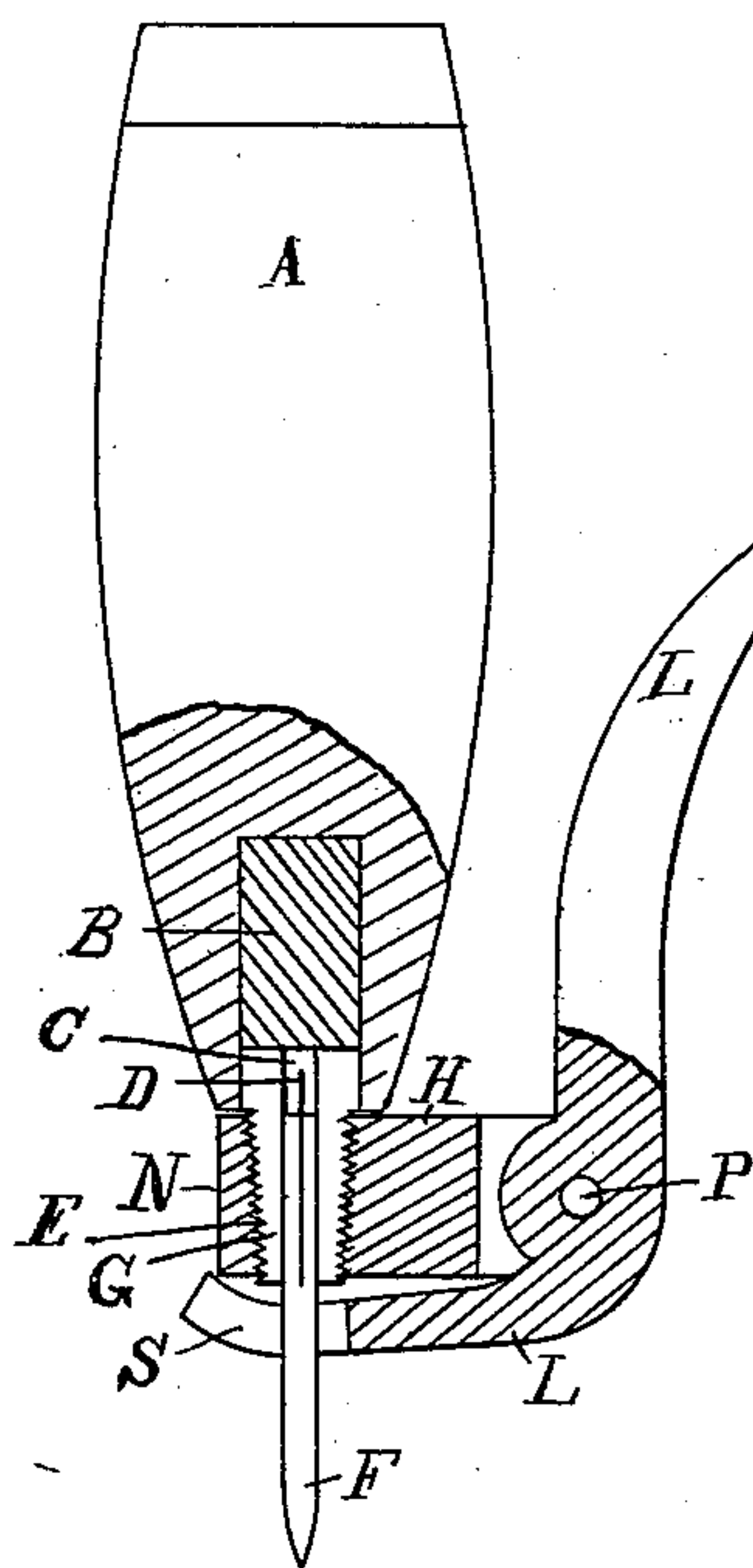
No. 253,729.

Patented Feb. 14, 1882.

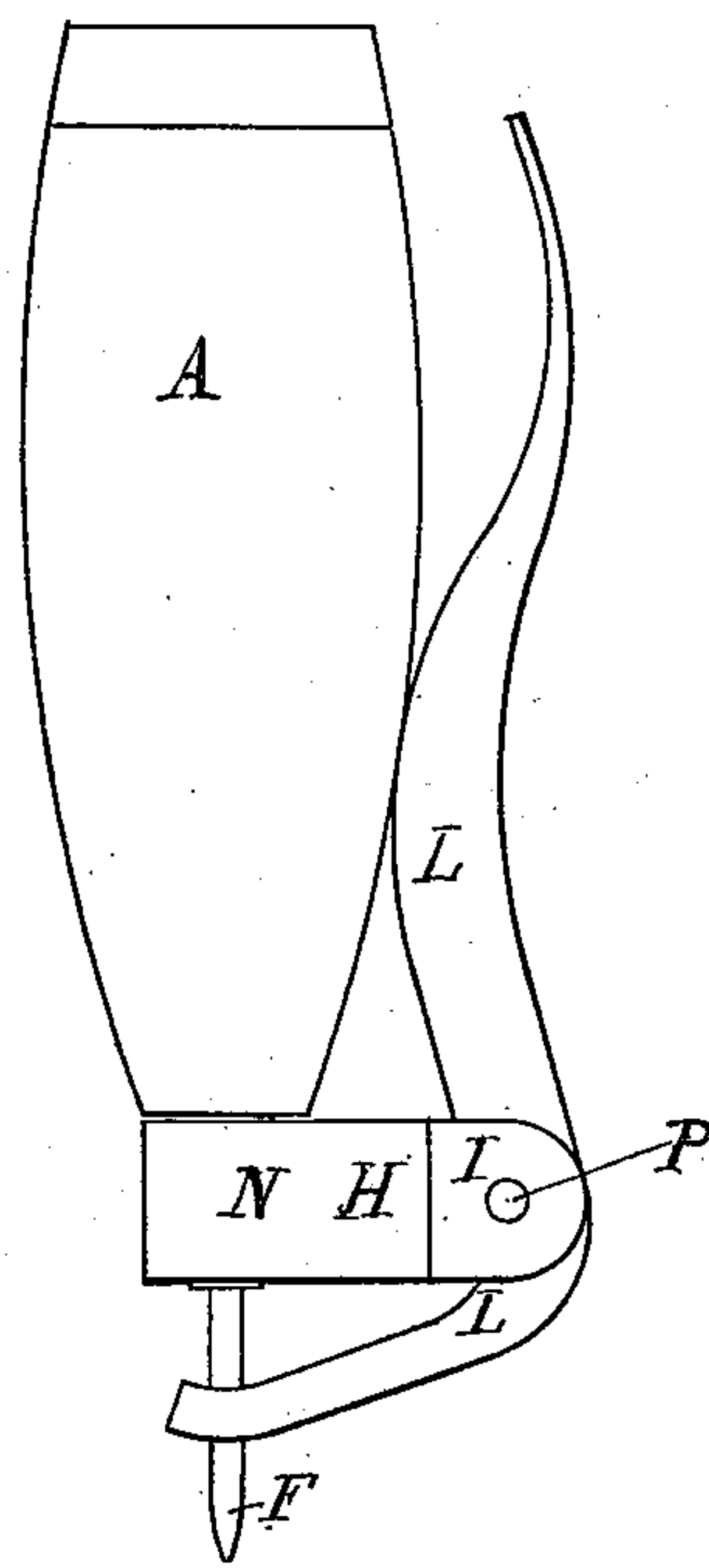
*Fig 1*



*Fig 2*



*Fig 3*



Witnesses -  
Irving S. Porter,  
Simeon G. Lyford.

Inventor -  
Thomas H. Logan,  
By Albert M. Moore,  
His Attorney.

# UNITED STATES PATENT OFFICE.

THOMAS H. LOGAN, OF LOWELL, MASSACHUSETTS, ASSIGNOR OF ONE-HALF  
TO FREDERICK TAYLOR, OF SAME PLACE.

## AWL.

SPECIFICATION forming part of Letters Patent No. 253,729, dated February 14, 1882.

Application filed December 10, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS H. LOGAN, of Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Awls, of which the following is a specification.

My invention relates to means of withdrawing the awl from the work and to means of tightening the nut of such awl.

In the accompanying drawings, Figure 1 is an isometric view of a pegging-awl to which my invention is applied. Fig. 2 is a side view of the same, a part of the handle proper, chuck, nut, and lever being in section, and the lever being in the position it occupies when the awl is driven into leather or other work. Fig. 3 is a side view of the awl, handle, and lever, the latter being pressed up against the handle to lift the awl out of the work.

A is the handle proper of a pegging-awl for the use of shoemakers, and is commonly held in the left hand and driven by a hammer held in the right hand. In the lower end of said handle is a chuck, B, being a metallic rod firmly secured and prevented from turning in said handle, and provided with a hole, C, and two slits, D, at right angles, so that the lower part of the chuck has four spring-jaws, G, which, being tapered at the lower end, are provided with a screw-thread, E.

The awl F is four-sided at and near its upper end, the four corners of said awl entering the slits D between the jaws G, so that when the jaws are closed upon the awl the latter can be turned by turning the handle, and can thus be loosened in the work and more easily removed therefrom. It would be very difficult and almost impossible to remove the common pegging-awl from very heavy work by the use of the left hand in its customary position without so turning the awl.

The parts above described are in common use, and are all, except the awl, embraced in the term "handle," which also includes a nut to close the jaws.

The jaws are made to pinch the awl by a conical nut being turned onto the screw-thread E, and this nut is usually made with two flat sides, in order that it may be tightened or loosened by a wrench (sold with such awls) provided with a slot having two parallel sides and of the width of the flattened part of the nut. The nut N used by me is also conical on the inside, but is provided with an arm or pro-

jecting part, H, by which it may be turned without the use of a wrench. The arm H also serves to support the lever L, being forked at its outer end, I, to admit said lever.

The lever is preferably of the form shown, the upper part being nearly parallel with the handle A, in order to be grasped by the same hand which holds the awl, and the lower part of said lever reaching under said handle and chuck, so that pressing the handle and lever above the fulcrum P together will cause the lower end of said lever to press upon the leather and lift the awl out of the same, or so nearly out that the awl may be removed with slight exertion. It is better to have the lower end of said lever slotted or forked, as at S, in order that it may press upon the leather on both sides of the awl and avoid bending the awl and raising the top thickness of leather from those under it. The fulcrum of the lever is a pin, P, which passes through said lever and through the fork I. To remove the awl from the work as awls have hitherto been made requires a strong hand, and makes it necessary to twist the awl (with the danger of breaking it) and to jerk it out with such force that the upper layer of leather is likely to be moved slightly on the layer below, and thus break the continuity of the hole made by the awl.

It is evident that the lever L may be supported upon an arm standing out from the handle above the nut, or projecting from a ring encircling the handle; but the construction above described is the best where a nut is used to close jaws upon the awl.

I claim as my invention—

1. The combination of the handle A and the lever L, having its fulcrum P on said handle, as and for the purpose specified.

2. The combination of the handle A and the lever L, provided with the slot S, and pivoted to said handle, as and for the purpose specified.

3. The combination of the chuck B and the nut N, provided with the arm H, as and for the purpose specified.

4. The combination of the handle A, the chuck B, the nut N, provided with the arm H, and the lever L, pivoted to said arm H, as and for the purpose specified.

THOMAS H. LOGAN.

Witnesses:

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