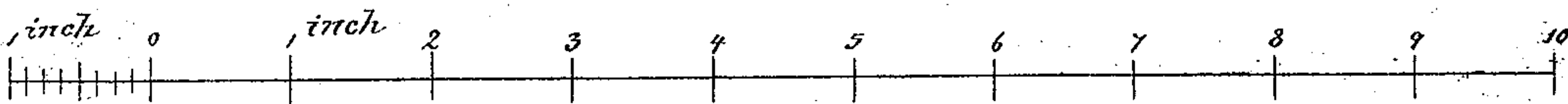
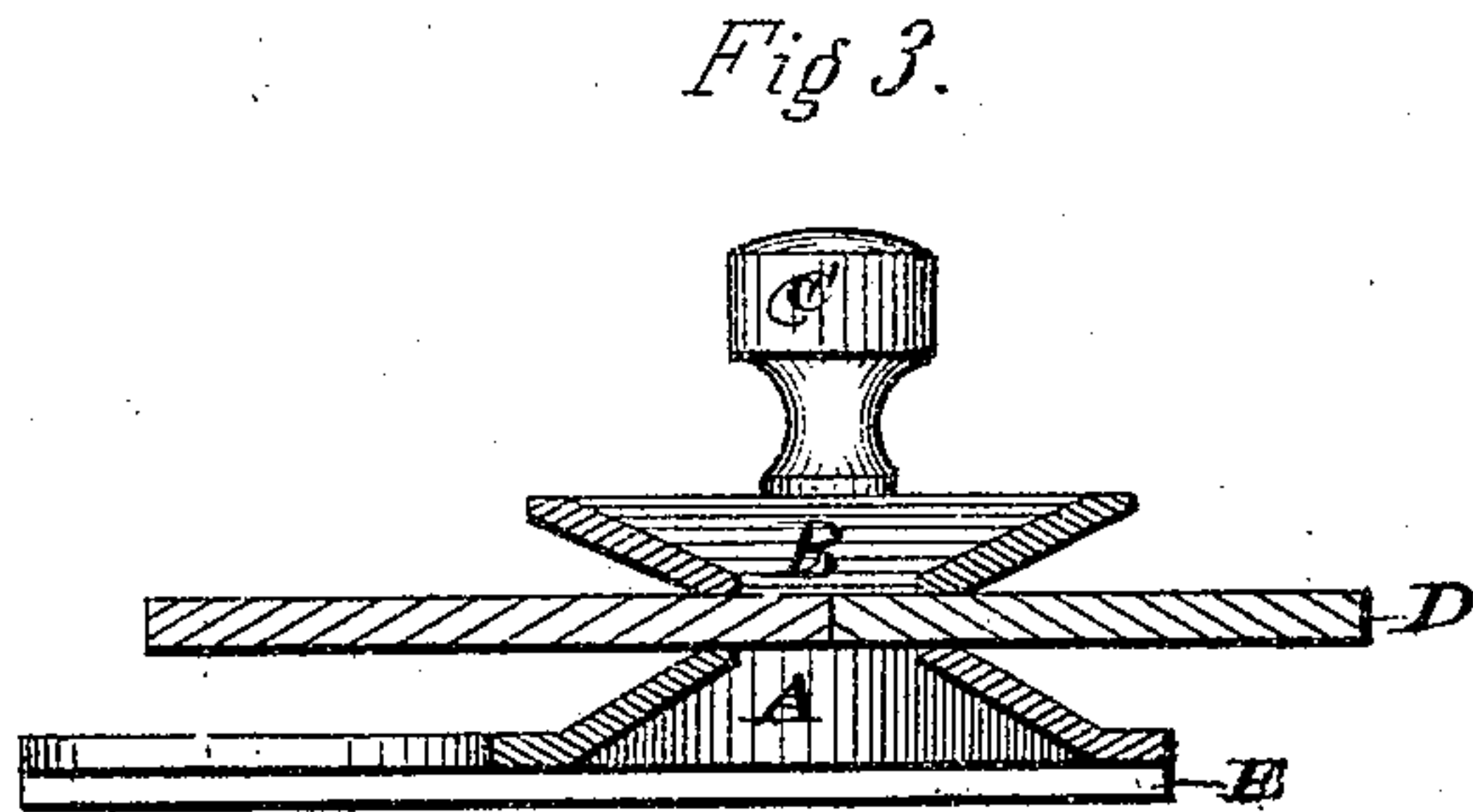
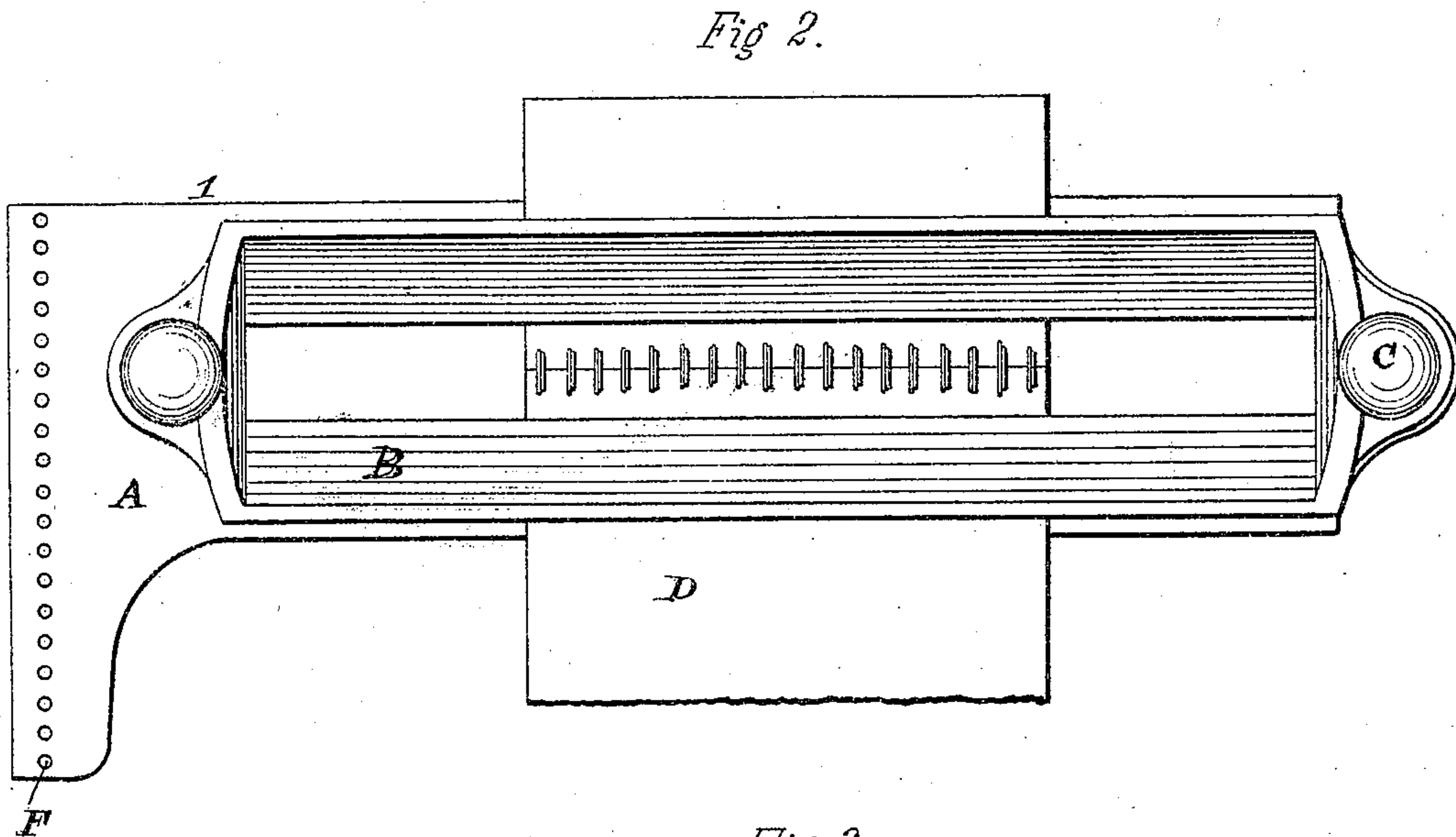
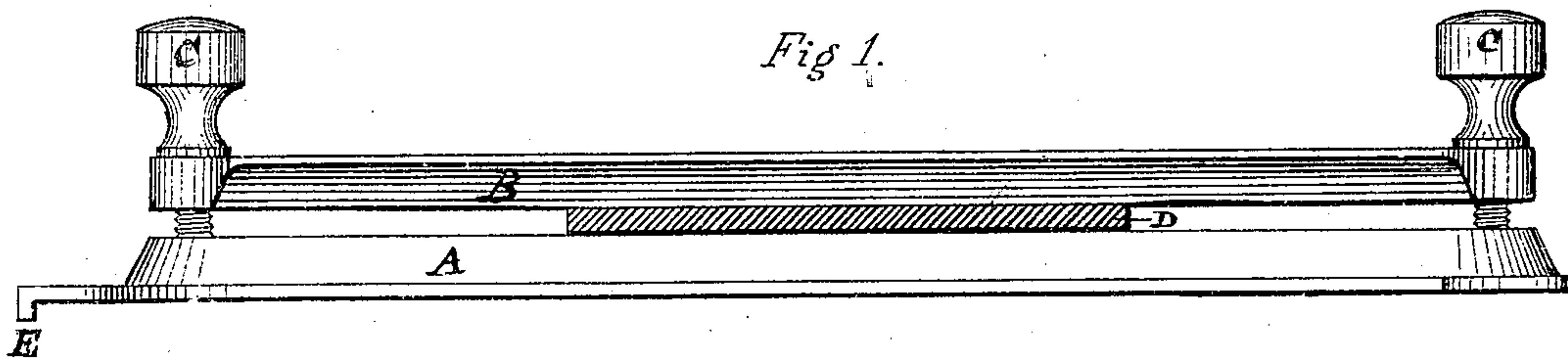


F. N. DU BOIS.

Tools for Use in Lacing Belts.

No. 138,740.

Patented May 13, 1873.



Addison Du Bois  
Geo W Spencer

Fred N Du Bois

# UNITED STATES PATENT OFFICE.

FREDERICK N. DU BOIS, OF NEW YORK, N. Y.

## IMPROVEMENT IN TOOLS FOR USE IN LACING BELTS.

Specification forming part of Letters Patent No. **138,740**, dated May 13, 1873; application filed February 26, 1873.

*To all whom it may concern:*

Be it known that I, FREDERICK N. DU BOIS, of the city, county, and State of New York, have invented an Improvement in Tool for Use in Lacing Belts, of which the following is a specification:

To enable others to understand and use my invention I proceed to describe it as follows:

The material I use to join the ends of belts is metal wire No. 22, annealed iron-wire being deemed preferable. To facilitate the application of this wire to the belt, and to enable it to be put in with ease and regularity, by a person having little skill, I make use of a set of tools, consisting of a spool of wire, an awl, a knife, a pliers, a templet, and clamp, the latter being more fully explained by reference to the accompanying drawing.

Figure 1 represents a side elevation. Fig. 2 represents a plan, holding a piece of belt in position to be laced with the wire. Fig. 3 represents an end elevation.

Corresponding letters refer to corresponding parts.

The plate A, with the lip E across its end on the under side, forms a ready square, to be used by pressing the lip against the edge of the belt, while the knife is drawn along the edge of the plate for the purpose of squaring the end of the belt. This being done the plate A is placed parallel with the belt, having the lip E hooked over and drawn back firm against the end of the belt, at the same time having edge 1 even with the edge of the belt. The awl is now put through the holes E in the templet A, and clear through the belt lying under it, thus making the holes the proper distance apart, and the proper distance from the end of the belt, to insure the greatest utility of the wire in making the joint. If the belt is wider than the row of holes will

reach across, the plate may be moved across the belt, so that the first hole in the plate corresponds with the last hole perforated in the belt; thus any width of belt can be perforated with a narrow templet. The two ends of the belt to be joined having been thus prepared, so that the holes in each corresponds with, or are opposite to, the other, are each placed in the clamp, as exhibited in Fig. 2, between the plates A and B, and are held firmly in that position by means of the thumb-screw C. A piece of the wire of suitable length is now taken, and commencing at either edge or in the middle, proceed to lace it the same as belts are usually laced with leather strings, having the strands parallel with the belt on the side next the pulley, and crossed on the other side, care being taken to have the holes well opened with the awl. Avoid all kinks in the wire and very short bends over the edge of the pliers, and in all cases draw the wire tightly in the holes, either by a jerk of the hand or with the pliers, so as to bring the butt ends of the belt firmly together. When the lace is completed the ends of the wire are twisted together with the pliers, and at the same time twisted off. One of the thumb-screws is now removed and the clamp slipped off the belt. The joint is now laid on any suitable hard surface and hammered down hard and flat, to imbed the wire into the belt, so it can scarcely touch the pulley.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the perforated templet A with the clamping-jaw B, as and for the purpose set forth.

FREDK. N. DU BOIS.

Witnesses:

ADDISON DU BOIS,  
GEO. W. SPENCER.