

Sheet 1-2, Sheets

W. Wyfield,
Boot Tree,

N^o 17,947.

Patented Aug. 4, 1857.

Fig. 1.

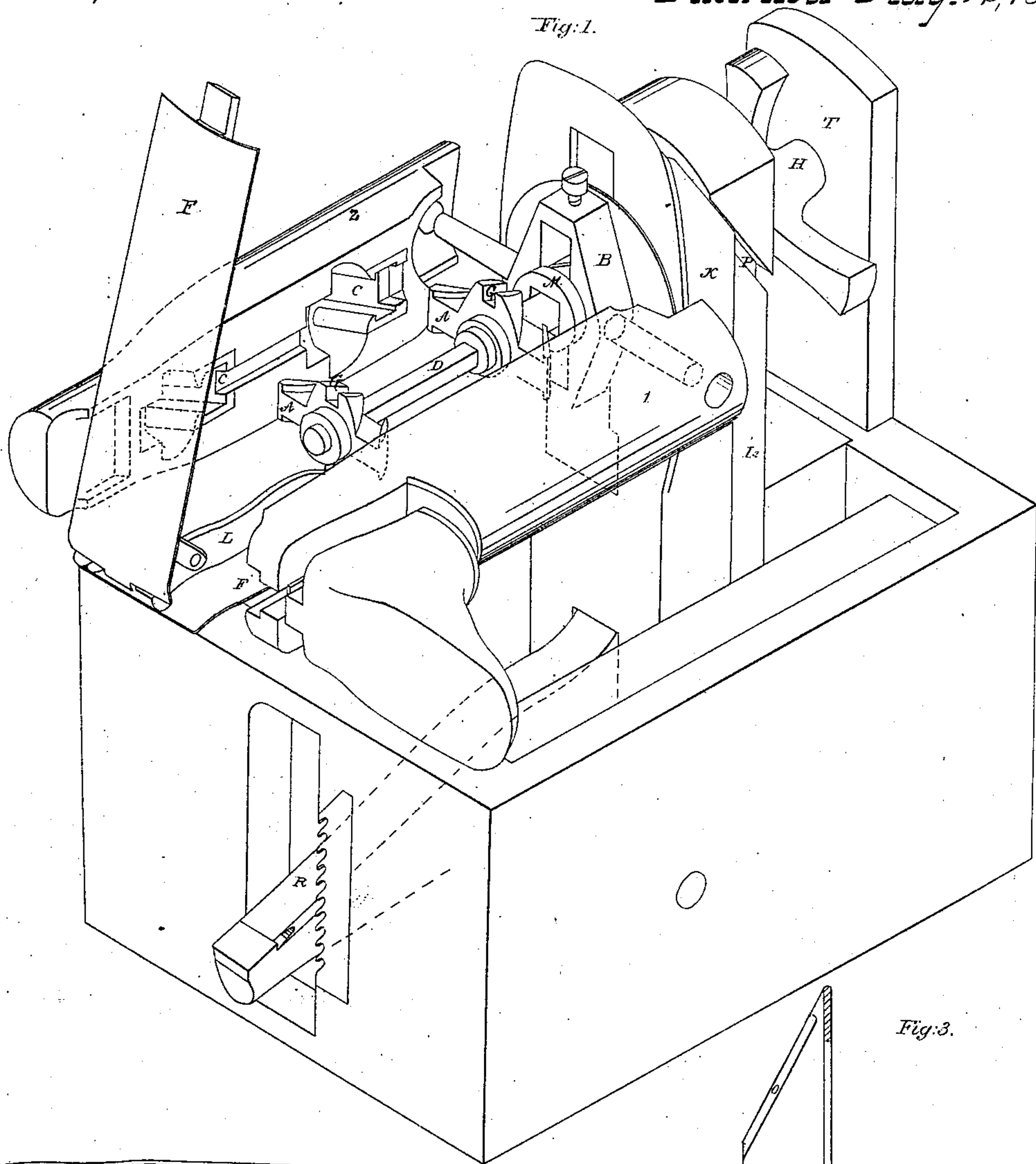
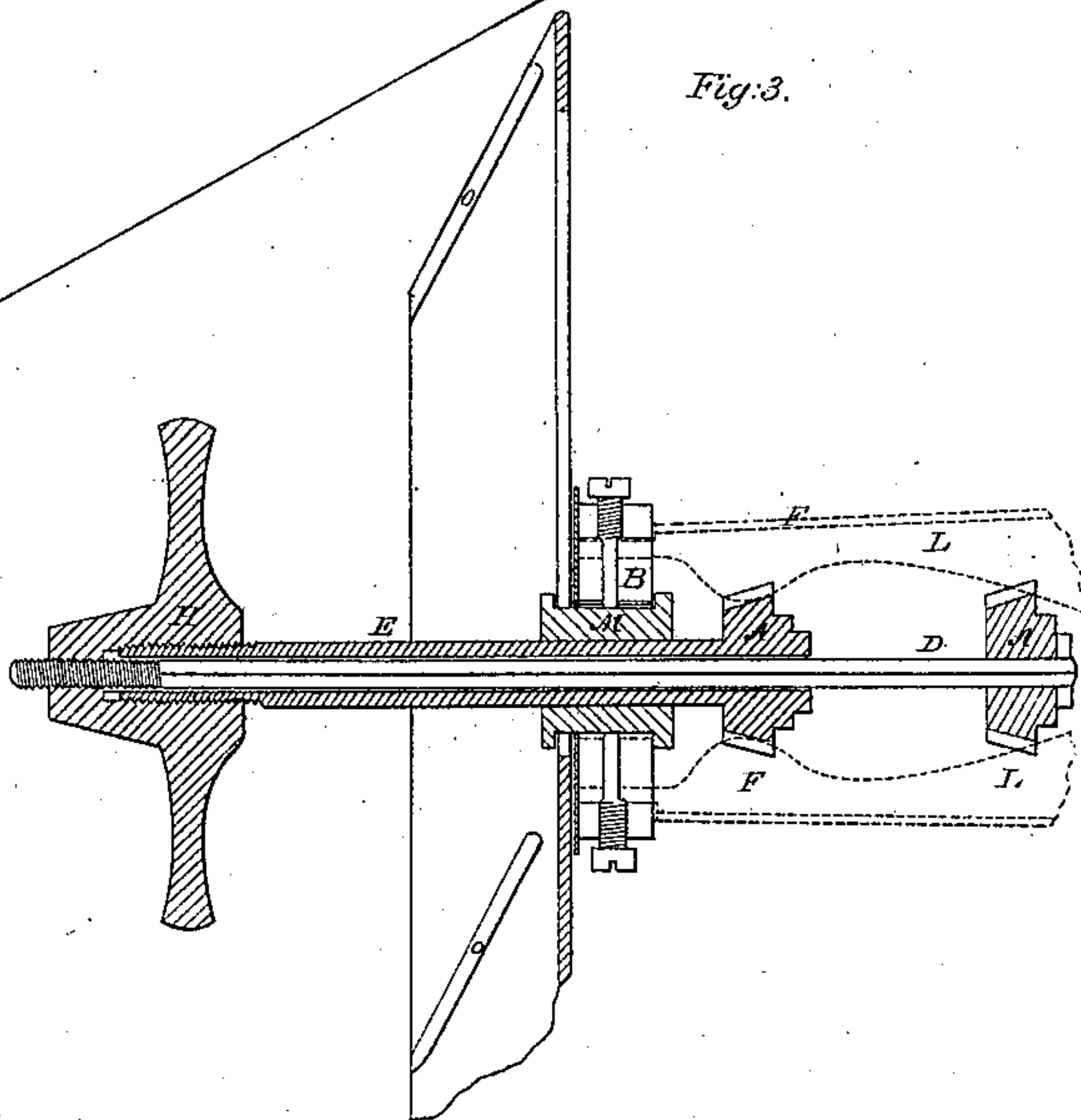
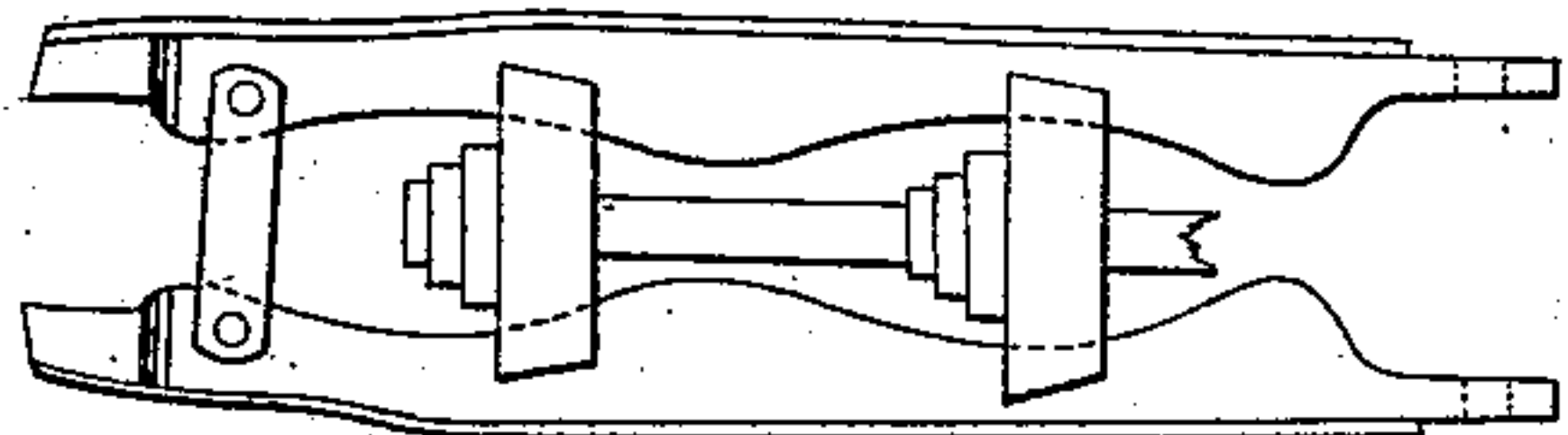


Fig. 3.



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Fig: 2.

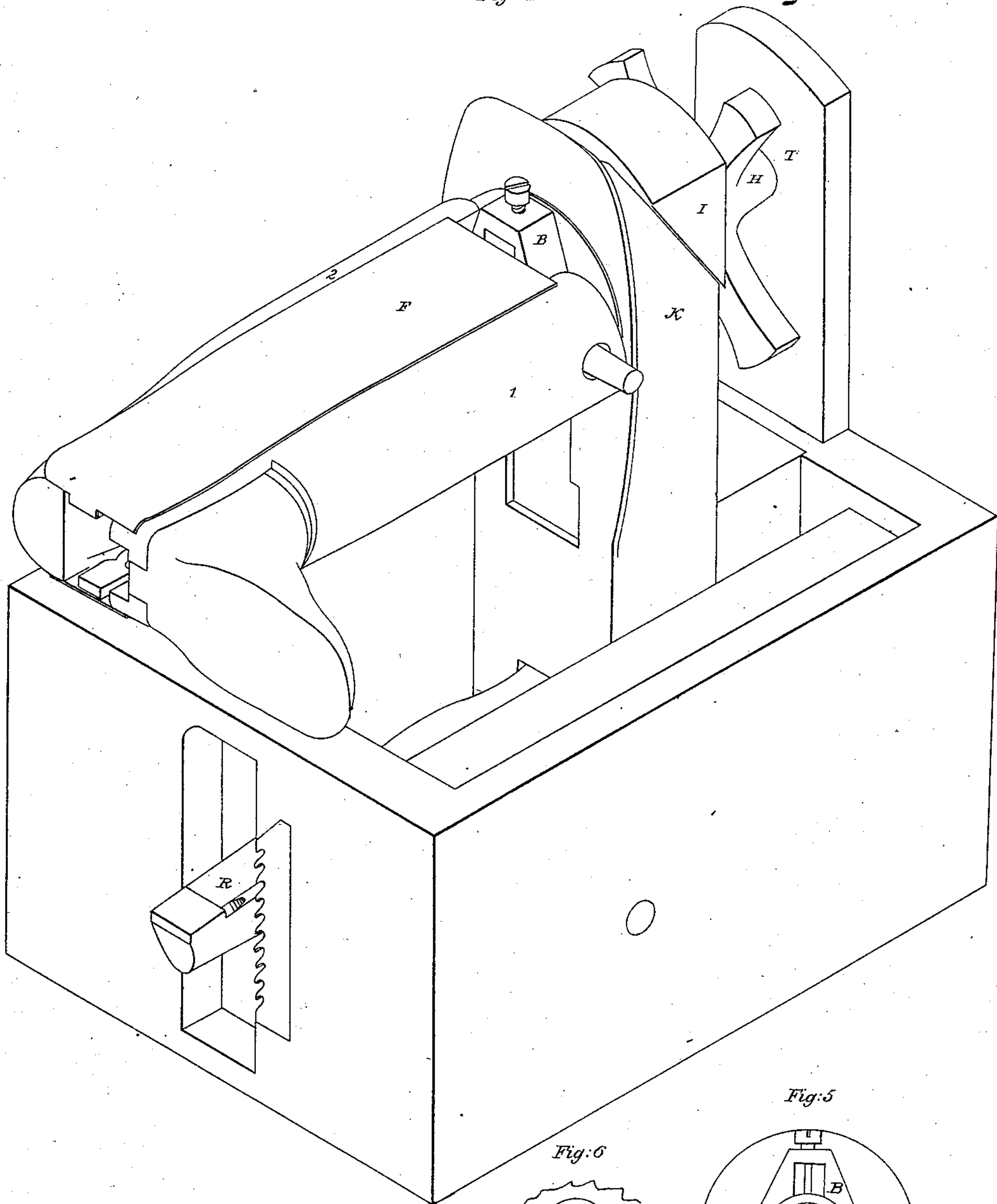


Fig: 5

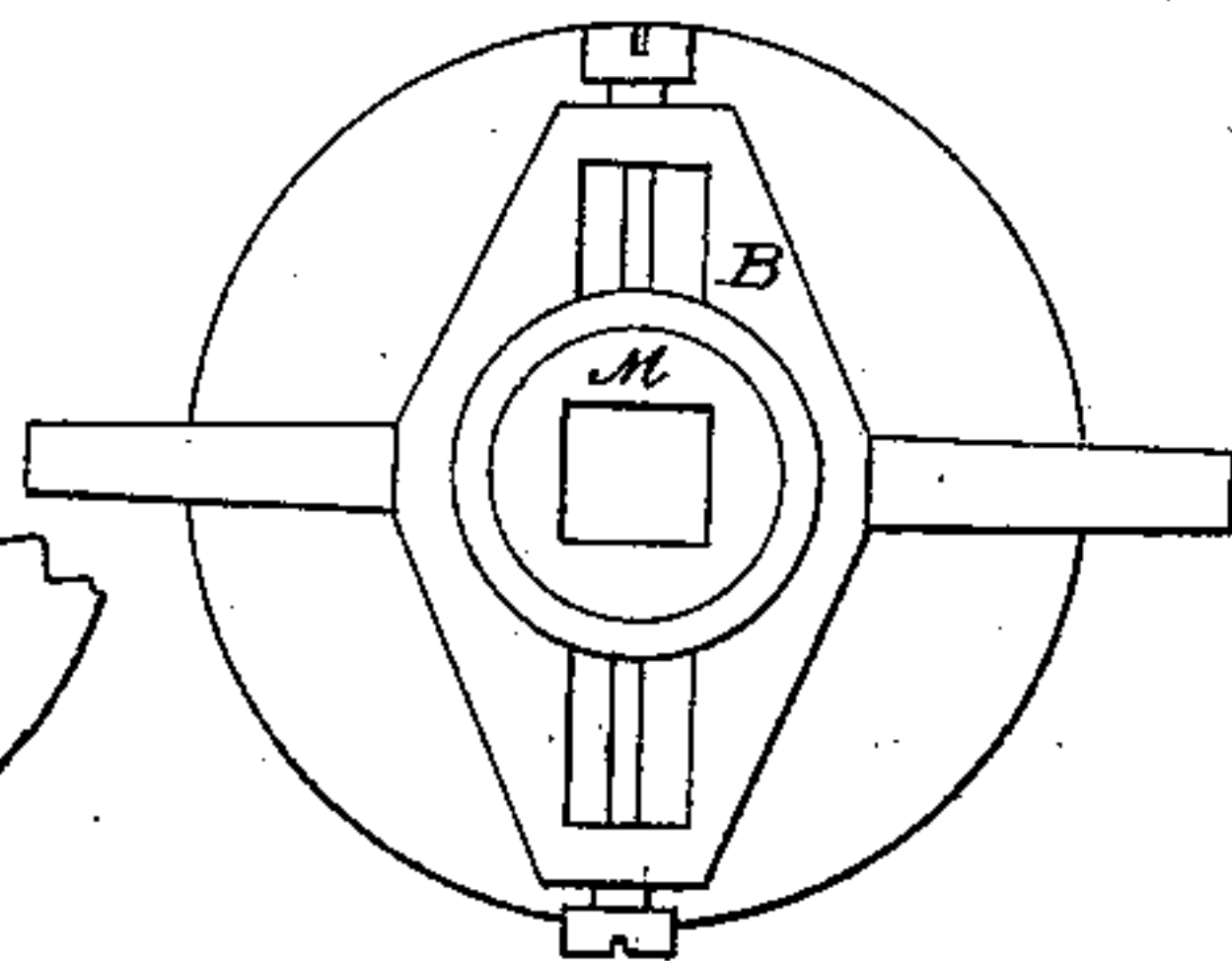
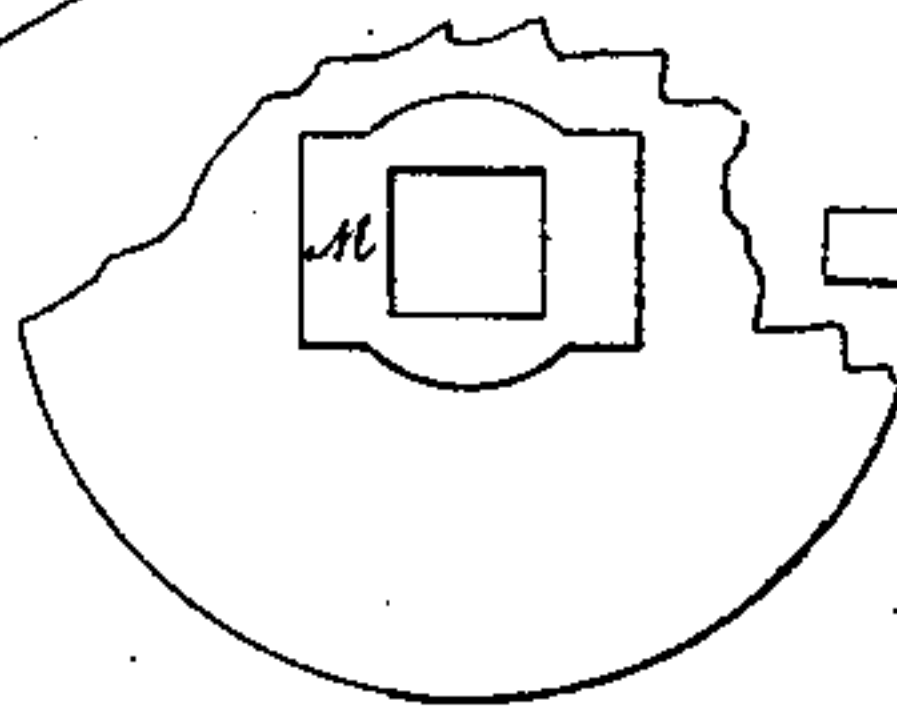


Fig: 6



UNITED STATES PATENT OFFICE.

WILLIAM UPFIELD, OF LANCASTER, OHIO.

BOOT-TREE.

Specification of Letters Patent No. 17,947, dated August 4, 1857.

To all whom it may concern:

Be it known that I, WILLIAM UPFIELD, of Lancaster, in the county of Fairfield and State of Ohio, have invented a new and useful Improvement in Boot-Trees; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

My aim in this invention is the construction of boottrees whereby the process of lasting may be perfectly and conveniently applied to every part of the boot and in such a manner as to produce a uniform tension of leather throughout.

In the accompanying drawings Figure 1 is a perspective view exhibiting the parts opened or spread out. Fig. 2 is a perspective view of the same in the closed form. Fig. 3 is an axial section through the wedge advancing mechanism exhibiting the interior connection and application of the several parts therein referred to. Fig. 4 is a sectional view of side pieces F, F, with inclined planes L, L. Fig. 5 is a sectional view exhibiting sleeve M, secured to block B. Fig. 6 exhibits the opposite end of sleeve M, by which it is secured to wedge K, as seen in Fig. 3.

The wedges A, A, and inclined planes C, C, are of similar form to those described in my patent dated June 25, 1850. On opposite sides of these wedges A, A, I cut grooves G, G, to support and to expand side pieces F, F, extending the whole length on each side of the upper and lower sections 1 and 2, of the boottree. Near to each end of these side pieces F, F, and on the interior surface of each I make inclined planes L, L, which play in grooves G, G, by means of which in boottreeing the width of the boottree as well as the depth is enlarged.

K is a wedge casting made hollow with three sides. On the interior of two opposite sides I make tongues O, O, which play in grooves P, P, made on two opposite sides of post I each having an inclined plane corresponding to each other. By means of which in connection with wedges A, A, or either of them. Treadle R being applied to wedge K, the boottree is expanded and held to any required expansion by a ratchet. Wedge K may be made without tongues by having a groove or grooves in one or two sides of the same with inclined

planes and suspended on an equal number of screws or rivets in post I.

B is a block casting with two arms extending in opposite directions and with a round hole through the center which hole has a square slot or notch on each side between each of the arms. Near to each of the upper ends of the upper and lower sections 1 and 2 of the boottree I make a round hole and secure each respectively to an arm of block B.

Side pieces F, F, are made at their upper ends in the form of an oblong square and with a round hole through each by means of which when put into the square slots above described in block B, they are secured in them by a screw made in each end of block B, opposite to each of the slots giving room to play in the slots to accommodate the expansion of the side pieces F, F, in the width of the boottree. Side pieces F, F, are fastened together at their lower ends with a give and take rivet. Coverings are attached to side pieces F, F, to cover the gap on each side of the boottree, occasioned by the expansion or separation of the upper and lower sections 1 and 2 when in use.

M is a sleeve casting made with a square hollow and an oblong collar at one end by which it is secured to wedge K, in the practical use of the boottree by being made to play in a groove in the front side of wedge K. The balance of the exterior surface of sleeve M is round which is put through the center hole of block B and secured thereto by a collar by which the upper and lower sections 1 and 2 being secured to the arms of block B, as above described.

The boottree is closed by raising up the treadle R, the same being applied to wedge K. Or wedge K may be made heavy enough to fall back on the inclined planes in post I and close the boottree without using treadle R, for that purpose. And also to obviate the necessity of having wedge K made to extend the whole length down post I the same may be connected with treadle R by a bar of iron forming a joint or the joint may be made of wood. H is a nut casting with three arms extending from the center which are to be used to turn the nut around. Through the center I make a right and left screw each one half way through. In wedge

A, which plays on the lower inclined planes C, C, in the upper and lower sections 1 and 2 I make a round hole and fasten the same rectangularly to one end of shaft D on the opposite end of shaft D. I make a left screw in wedge A which plays on the upper inclined planes C, C, in the upper and lower sections 1 and 2 I make a round hole and fasten the same rectangularly to one end of shaft E, on the opposite end of shaft E I make a right screw. In the place of the right and left screw being made in one nut as described above in nut H, two separate nuts may be made for that purpose, one with a right screw and one with a left screw, in which case they may be used separately and independently of each other or together as may be required. The purpose and object of this arrangement is to secure shaft D and shaft E or either of them so as to locate the wedges A, A, or either of them to any position required on the inclined planes C, C, and at the same time to have the advantage of changing the position of one or either or both of the wedges A, A, on one or either or both of the inclined planes C, C, as circumstances may require in boottreeing to so regulate the relative size of the upper and lower parts of the boottree to agree with the relative size of the boot to be treed thereon.

Having thus far described the several parts, the manner of putting the same together is as follows: Sleeve M being secured to wedge K and the latter to post I as above described shaft D is inserted within shaft E and shaft E is inserted within sleeve M, and then in a socket in post I. Nut H being put in between post I and post T with the right screw next to post I is then turned left handed until nearly the whole of the screw on shaft D is taken up in the same. Nut H is then reversed and turned right handed until one half of the screw on shaft E is taken up in the same which will place the wedges A, A, in a position to be received on the inclined planes C, C, in the upper section 1, in which the inclined planes are longer than those in the

lower section 2. By the application of treadle R, wedge K is then raised upon the inclined planes in post I to a position which will admit of placing the wedges A, A, whose base have an angle corresponding to the angle of the inclined planes C, C, in the upper section 1 when the said upper section 1 is secured to an arm of block B. Wedge K is now put back a little on post I which will place the wedges A, A, in a position to be received on the inclined planes C, C, in the lower section 2 which is then secured to the other arm of block B. Wedge K being now put back on the inclined planes in post I the sections 1 and 2 will be closed and secured to the wedges A, A, by tongues on each side of the wedges A, A, made to play in grooves on each side of the inclined planes C, C, similar to those described in my patent dated June 25, 1850, as above referred to. Side pieces F, F, are now put into the grooves G, G, in wedges A, A, and their upper ends secured in the slots of block B, by a screw as before described, the boottree will then be ready for use.

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

1. The grooves G, G, cut in wedges A, A, the side pieces F, F, with inclined planes S, S, substantially in the manner and for the purposes specified.

2. I claim wedge K, in combination with post I and wedges A, A, or their equivalents in the manner and for the purposes above set forth.

3. I claim nut H, the right and left screw, shaft D and E, wedges A, A, or their equivalents when arranged, combined and operating substantially in the manner and for the purposes above described.

4. And lastly I claim in this connection sleeve M, in combination with block B, in the manner and for the purposes above specified.

WILLIAM UPFIELD.

Witnesses:

NEWTON SCHLEICH,
JNO. B. MCNEILL.