P. Shaw,

Crimping Leather,

No. 30,502. Patented Oct. 23, 1860.

Fig. 1

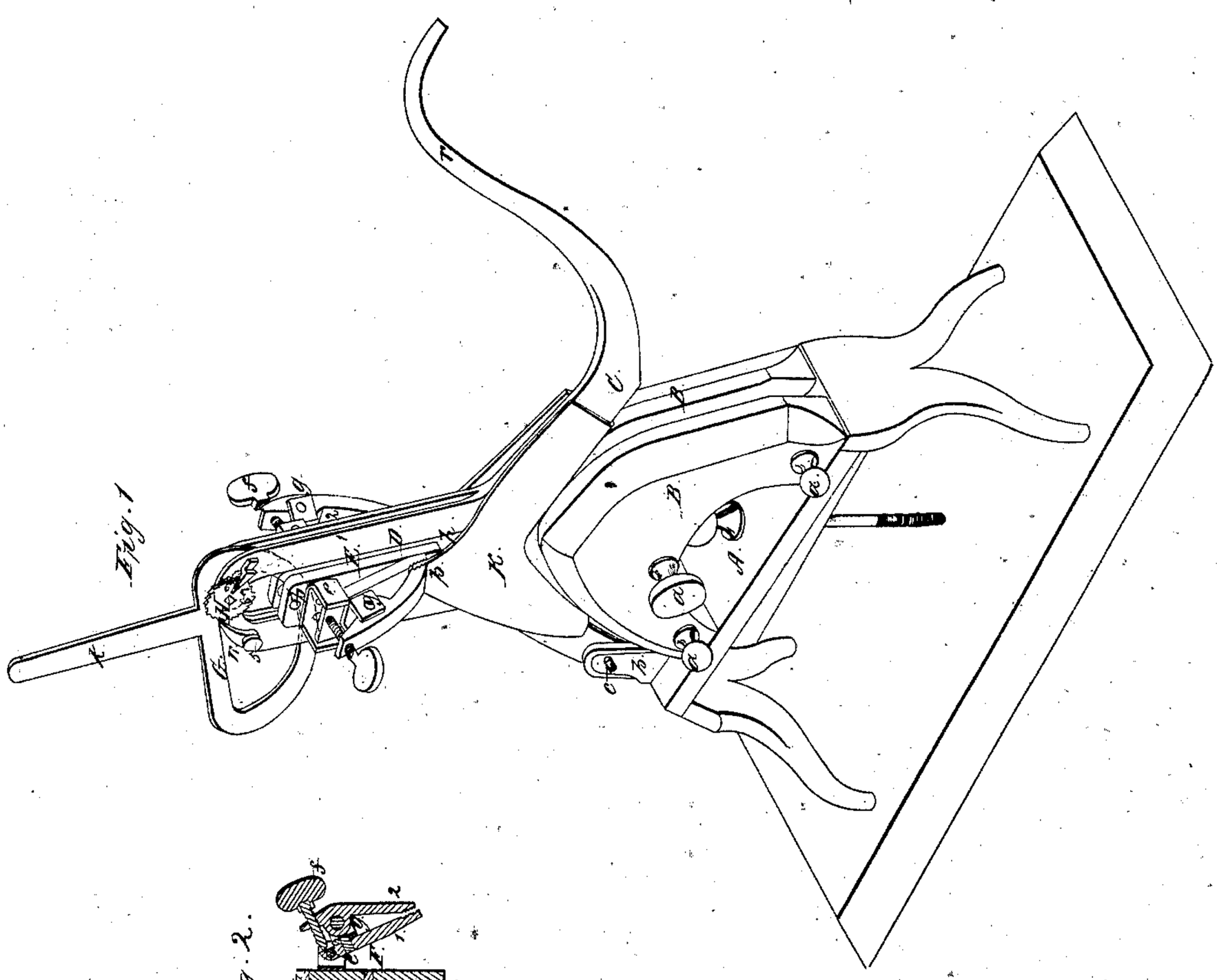


Fig. 2.

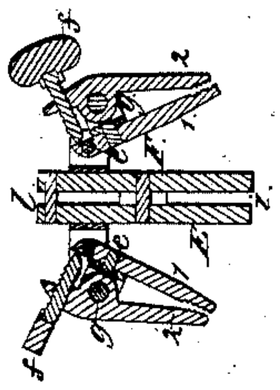
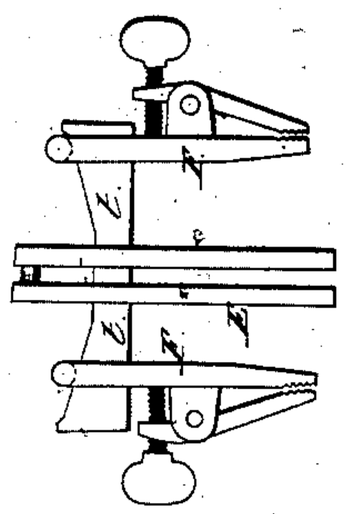


Fig. 3.



UNITED STATES PATENT OFFICE.

PHILANDER SHAW, OF ABINGTON, MASSACHUSETTS.

BOOT-CRIMPING MACHINE.

Specification of Letters Patent No. 30,502, dated October 23, 1860.

To all whom it may concern:

Be it known that I, PHILANDER SHAW, of Abington, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Boot-Crimping Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of a boot crimping machine with my improvements attached; Figs. 2 and 3, details to be referred to hereafter.

That others skilled in the art may understand and use my invention I will proceed to describe the manner in which I have carried it out.

In the said drawings A is the stand or bench to which are secured by means of slots and tenons the two jaws B, which may be adjusted in respect to their distance from each other by set screws *a*. A short standard *b* rises from the rear end of the bench A and has pivoted to it at *c* the brake C, over which the leather to be crimped is distended and by means of which it is forced between the jaws B. From the top of this brake rises a frame D, in which slides up and down a block E (detached in Fig. 2). To each side of this block is pivoted at *e* a pair of nippers F, the jaws 1 and 2 of which are closed by turning up the thumb screw *f*. The outer jaw 2 of the pair is pivoted at *g* and the screw *f* passes through its upper end and bears against the upper end of the other jaw.

The block E is formed of two pieces of metal bolted together, leaving a space *i* on each side which fits over a short way *h* on the inside of the frame D. This serves to guide the motions of the block E as it is raised and lowered within the frame D in a manner which will be presently described. The frame D above the ways *h* is formed of two pieces 1 and 2, between which is placed an eccentric cam G, having a handle *k* by which it is operated, this cam is pivoted on a bolt *m* passing through the top of the frame D which also keeps the two parts of the frame together. The curved part of the cam G passes between the two parts of the block E beneath a pin *l* in the top of the block, so that as the handle *k* is moved back or forward the cam G raises or lowers the block E and the jaws F connected therewith.

A ratchet wheel H is secured to the end of the bolt *m*, which bolt is also attached to the cam G, but turns in its bearings in the head of the frame D—this causes the ratchet wheel H to be revolved as the handle *k* is moved. A pawl *n* pivoted at 5 to the frame D engages with the teeth of the ratchet wheel H and holds the cam G as the block E is raised by it. An index hand *o* secured to the frame D points to figures 6, 7, 8, 9 on the ratchet wheel H and shows the height to which the block E is raised. This enables the operator to see at a glance whether the leather is stretched sufficiently to form the sized boot for which it is intended.

The following is the operation of this machine: The leather K, to be crimped is cut of the proper size and form and is placed under the brake C. The corners *p* are caught between the jaws of the nippers F, and are there secured by turning the screws *f*. The handle *r*, of the brake is then brought down and the leather is forced between the jaws B, (which have been adjusted.) As the crimping proceeds the slack of the leather is taken up, by moving the handle *k*, in the direction of its arrow, which moves the cam G under the pin *l*, and raises the block E. This draws up the corners *p* of the leather K, the figures on the ratchet wheel H showing when the leather has been drawn up far enough to form the sized boot intended to be made from it.

It is obvious that there are other methods by which the nippers may be suspended which will be but the equivalent of the one described above. For instance, they may be entirely detached from the supporting block and allowed to slide upon inclined arms *t*, projecting upon each side of it as represented in Fig. 3, or they may be suspended by a long link or chain, the object in each case being to allow them to be moved away from the block E for the insertion of the leather.

What I claim as new and useful, and desire to secure by Letters Patent, is—

1. In combination with the sliding block E, and nippers F, the eccentric arc G, (with its hand piece *k*) ratchet wheel H, and retaining pawl *n*, the whole arranged and operating as described for the purpose set forth.

2. The employment of an index on the ratchet wheel H, in combination with the stretching device substantially as described for the purpose set forth.

PHILANDER SHAW.

Witnesses:
THOS. R. ROACH,
THOS. L. GLOVER.