J. & A. B. Cain,

Lasting Machine,

No. 48,052. Patented June 6, 1865.

Fig. 1.

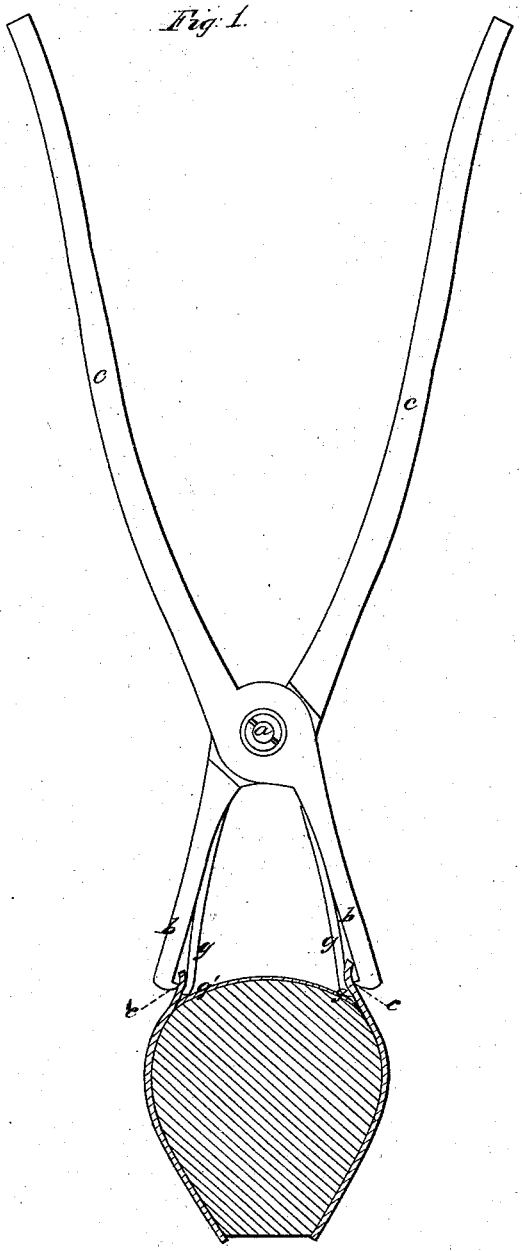


Fig. 2.

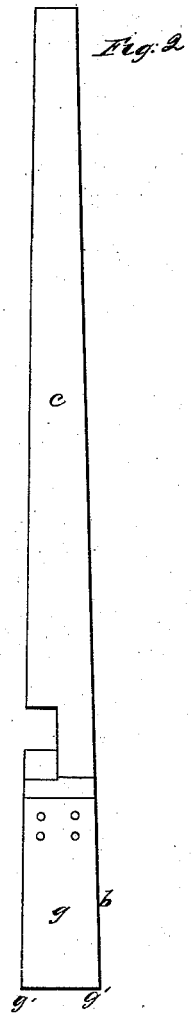
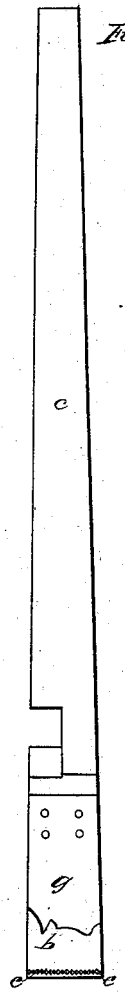


Fig. 3.



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UNITED STATES PATENT OFFICE.

JOHN CAIN AND A. B. CAIN, OF DUBUQUE, IOWA.

IMPROVED SHANK-LASTER.

Specification forming part of Letters Patent No. **48,052**, dated June 6, 1865.

To all whom it may concern:

Be it known that we, JOHN CAIN and ABSALOM B. CAIN, of Dubuque, county of Dubuque, State of Iowa, have invented a new and Improved Shank-Laster; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 shows the method of using our improved "shank-laster." Fig. 2 is a view of the inside of one of the levers. Fig. 3 is a view similar to Fig. 2, with the leather jaw partially removed to show the teeth on the metal jaw.

Similar letters of reference indicate corresponding parts in the several figures.

The object of our invention is to facilitate the work of "lasting" the "uppers" of boots or shoes preparatory to applying the "outer" sole by the employment of pinchers, which are so constructed that both edges of the upper can be firmly held and drawn over the "insole" or the "sole" of the last at one and the same operation, as will be hereinafter described.

To enable others skilled in the art to understand our invention, we will describe its construction and operation.

The method hitherto adopted by shoe-makers in lasting the uppers of boots and shoes is to draw the edges of the upper over the insole separately by means of pinchers, and then tack one edge of the upper to the insole, after which the opposite edge of the upper is drawn over and tacked in a similar manner.

One great objection to this method of lasting is the unequal stretching of the leather, particularly at the "shank" of the last, where the leather must be drawn tightly and held in such manner as to permanently adapt this portion of the shoe to fit the contracted or shank portion of the foot. Other objections attend the old method of lasting boots and shoes—such as the tearing of the leather and the unhandiness in applying the pinchers and firmly holding the leather during the act of attaching its edge to the insole.

The instrument which we have invented consists of two levers, which are crossed and jointed together at *a*, so as to form two jaws, *b b*, and two handles, *c c*. The jaws *b b* are flattened, and may be bent in such manner as to come together in planes parallel to each other, while the handles *c c* may be curved in any manner which will enable them to be grasped by the hands and moved together or separated for opening or closing the gripping jaws. These levers may be jointed together in a variety of ways; but the most simple plan is the joint shown in the drawings. The extremities of the jaws *b b* have lips or teeth formed on them by upsetting the metal at such points, as shown at *e*, Figs. 1 and 3, which are intended for giving a firmer bite or hold on the leather in the act of drawing it about the shank of the last than would be obtained if the ends of the jaws were smooth, as in an ordinary pair of iron-worker's tongs. On the inside surface of each jaw *b* we attach a strip of leather or other suitably-flexible substance, as represented by *g* in Figs. 1 and 2. These straps *g g* are secured to their respective jaws by rivets; or, if desirable, they may be secured by clamps or set-screws in such manner that when one piece of leather is worn out another piece may be readily substituted in its stead. The width of these strips *g* may be equal to the width of their jaws, and the length of the strips may be equal to the length of the jaws. The relative proportions shown in the drawings will be found to answer a very good purpose. The ends *g' g'* of the leather strips *g g* project beyond the open ends of their respective jaws, and slightly lap under these ends, as shown in Fig. 1.

The operation of our invention is as follows: The boot is first lasted with the ordinary pinchers to the balls from the toe. Then the balls of the last and the swell at the heel makes the upper-leather stand out from the shank. The boot or last is now turned bottom upward and the "laster" attached to each side or edge of the upper by introducing the edges between the metal jaws and leather strips or jaws. With the handles of the laster in both hands the shoe-maker presses the instrument down upon the insole, so as to grip the edges of the upper between their respective jaws. The jaws, which are now spread apart and the edges of the upper held firmly by them, are forced toward each other until the two handles of the laster can be held in the same hand, so as to allow the other hand freedom to fasten the upper to the insole. The leather inner jaws are employed to draw the upper-leather closer into the shank, which is exceedingly important in making narrow-shanked

boots. Another reason is that these leather jaws are soft and elastic, and therefore not so apt to tear the leather as the iron jaws. At the same time said jaws are sufficiently firm to prevent the leather from slipping during the stretching operation.

In practice we shall use a link over the levers of the instrument for confining the jaws, with the edges of the leather upper between them during the act of nailing the upper to the last. A piece of sole-leather cut in the form of a ring, or a metal ring or link will answer the purpose. This gives the shoe-maker free use of his hands to insert and tack the shank portion of the upper to its place.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The compound jaws *b b g g*, when the inner jaws are made of leather or other flexible substance, substantially as described.

2. Extending the edges of the jaws *g g* beyond the toothed or spurred ends of the jaws *b b*, substantially as described.

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