United States Patent Office.

CHARLES H. TRASK, OF LYNN, MASSACHUSETTS.

Letters Patent No. 107,981, dated October 4, 1870.

IMPROVEMENT IN MACHINES FOR LASTING SHOES.

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, CHARLES H. TRASK, of Lynn, of the county of Essex and State of Massachusetts, have invented a new and useful Machine for Lasting Shoes; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a top view;

Figure 2, a front elevation;

Figure 3 is a vertical and longitudinal section; and

Figure 4 is a vertical and transverse section of it.

In the drawing—

A denotes a prismatic box or frame, mounted on a stand, B, in such manner as to be capable of being turned around horizontally on a tubular pivot, *a*, projecting upward therefrom, a couple of nuts, *b c*, being screwed on the pivot, in order to keep the box in connection with it and the stand.

From the upper part of the box A two standards, C D, are projected upward, in manner as represented.

Two last-supporters, E F, are screwed upon the upper parts of the standards C D.

One of these supporters, viz., that marked E, is cylindrical, and provided with a shoulder, *d*.

The other supporter, F, is notched in opposite directions from its middle, as shown at *e f*. These supporters, by being screwed on the upper ends of the standards C D, are rendered capable of being adjusted to different altitudes, as occasion may require, to adapt them to receive and support a shoe-last, the toe-part of which is to rest on the supporter F, while a cylindrical socket in the ankle-part of the last receives the supporter E.

These supporters are disposed between a pair of heel and toe-jaws or lasters, G H, which, formed as represented, are fastened to the upper arms of two levers, I I, by means which will admit of the adjustment of each jaw to different altitudes, and its fixation at any one of such.

To this end, each jaw or laster G H is secured to its lever by two clamp-screws *g g*, going through a long slot, *h*, made in the lever, and being screwed into the tail of the jaw.

At their lower ends the two jaw-levers I I are jointed to two toggles, K K, arranged as represented, such toggles, at their inner ends, being jointed to the upper part, *i*, of a vertical pitman, L, whose other part, *k*, extends down through the tubular pivot *a*, and is connected with a pedal, M, pivoted to the stand B, and arranged therewith in manner as represented.

The rod *k* should be so applied to the pedal as to be capable of being revolved horizontally, in order to effect the connection of such rod with the foot *i* of the pitman, into which it is screwed, the same serving to enable the pitman to be lengthened or shortened, as occasion may require.

The lower portion, *k*, of the pitman is provided with an elevating-spring, *n*, and slides freely through a horizontal cross-head or bar, *l*, from which four, or any other suitable number of pairs of springs, *m m*, are extended upward, and arranged in manner as represented.

At their upper ends the springs of each pair are jointed to a pair of lateral jaw-levers *m' m'*.

There is to the machine a series of pairs of such jaw-levers, each pair being arranged within one of a number of movable sliders or boxes, N N N N, arranged on the top of the box B.

The pair of jaw-levers cross one another, and rest on the upper edges of the ends of their box N, such jaw-levers being formed more particularly as represented in Figures 5 and 6, which are side views, and in Figures 7 and 8, which are top views of them.

Each of the jaw-levers *m' m'* is surmounted by a lateral jaw, O, formed as represented, and applied to the jaw-lever in manner as shown in Figure 9, which denotes a vertical section of the jaw and lever.

From the foot of the jaw a tenon, *o*, projects into a mortise, *p*, made in the lever.

A screw, *q*, projected downward from the base of the jaw, receives a shouldered nut, *r*, which rests upon the jaw-lever, and is kept in place by a cap, *s*, fastened to the jaw-lever by screws *t t*, the whole being as shown in the drawing.

By revolving the nut *r* the jaw may be elevated or depressed, so as to properly adjust its upper portion of the sole of a last, when such last may be in position on the last-supporters E F.

From opposite ends of the several boxes or slides N, studs *v v* are extended into oblique slots *w w*, formed through the opposite sides or bars of a yoke, P, formed as shown in top view in Figure 10, and in other respects as represented in Figures 11 and 12, which are opposite side elevations of such yoke.

The said yoke is supported by adjusting-screws *x x*, which screw into brackets *y y*, extended from opposite sides of the box A, the whole being so as to enable the yoke to be elevated or depressed by the adjusting-screws.

While the yoke is being raised, its oblique slots operating on the studs of jaw-lever slides or boxes N N N N, will cause such boxes simultaneously to move apart from one another, the pairs of jaws being, at the same time, so moved.

A downward movement of the yoke will cause reverse motion of the several pairs of lateral jaws; that is, they will be moved toward each other.

TROWBRIDGE & JONES.

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No. 107,982. Patented Oct. 4, 1870.

Fig. 1.

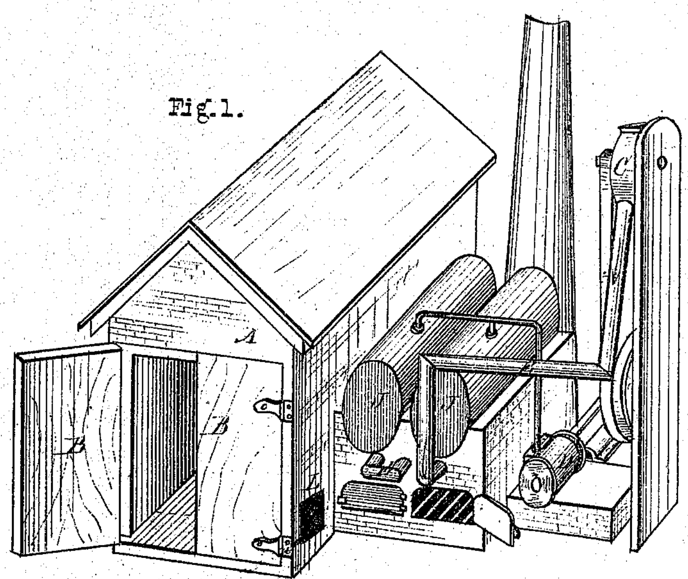


Fig. 2.

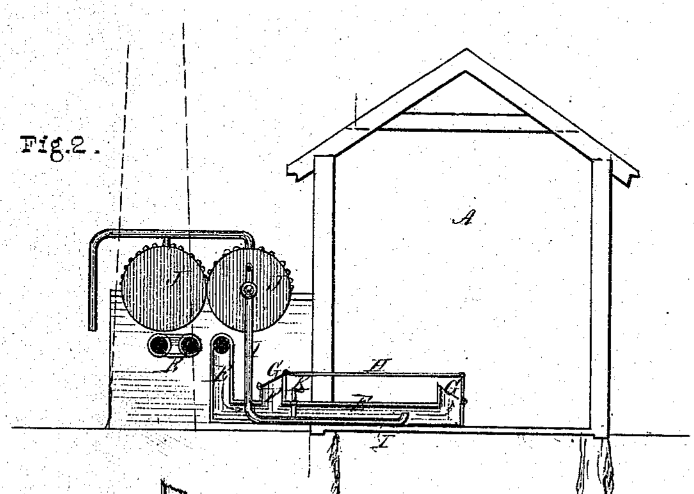
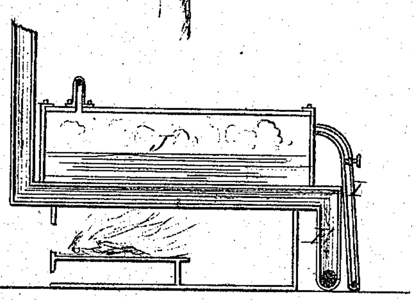


Fig. 3.



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