

(No Model.)

2 Sheets—Sheet 1.

H. M. GOODHUE.
LASTING MACHINE.

No. 488,998.

Patented Jan. 3, 1893.

Fig. 1.

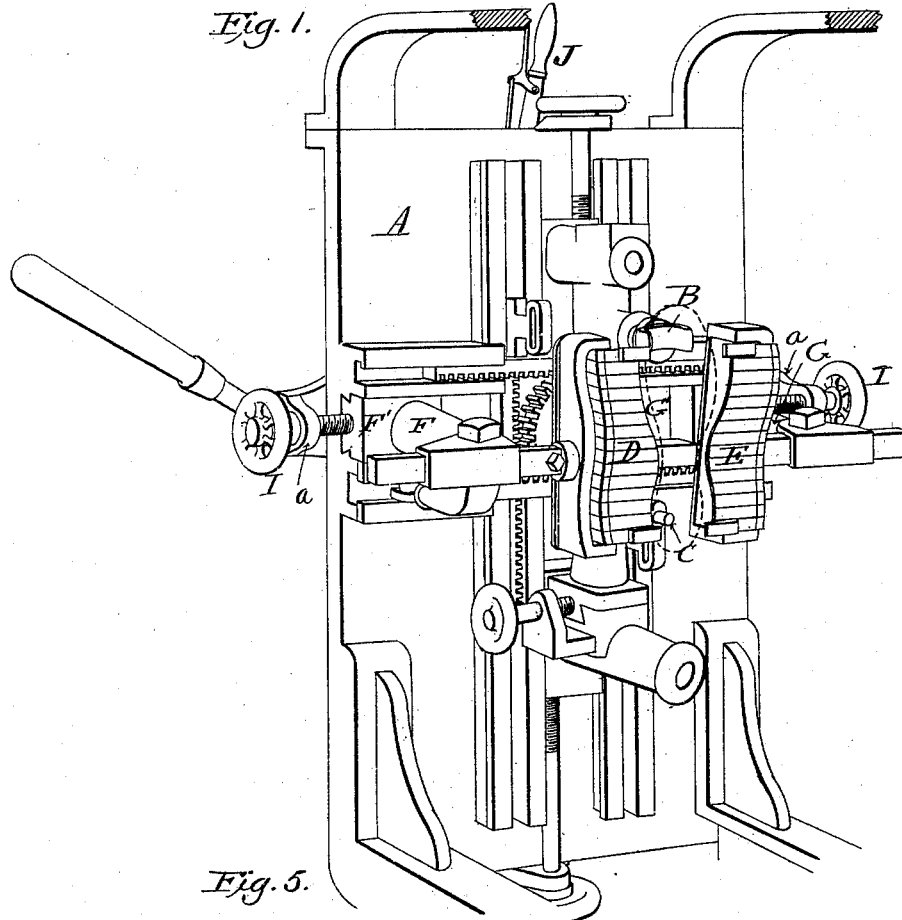
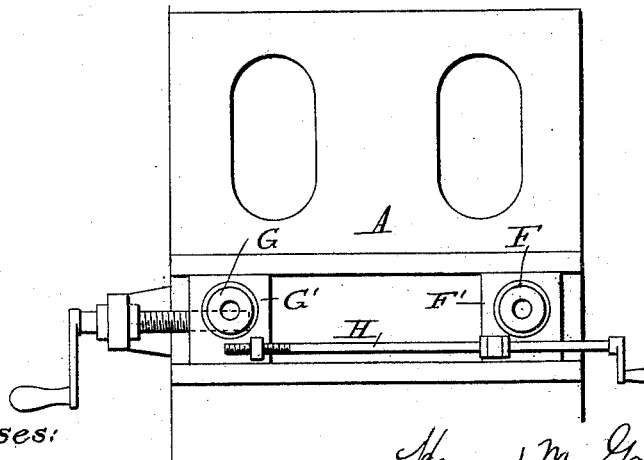


Fig. 5.



Witnesses:

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Horace A. Dodge.

Inventor:
Henry M. Goodhue,
by Dodge & Sons,
Attys.

(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

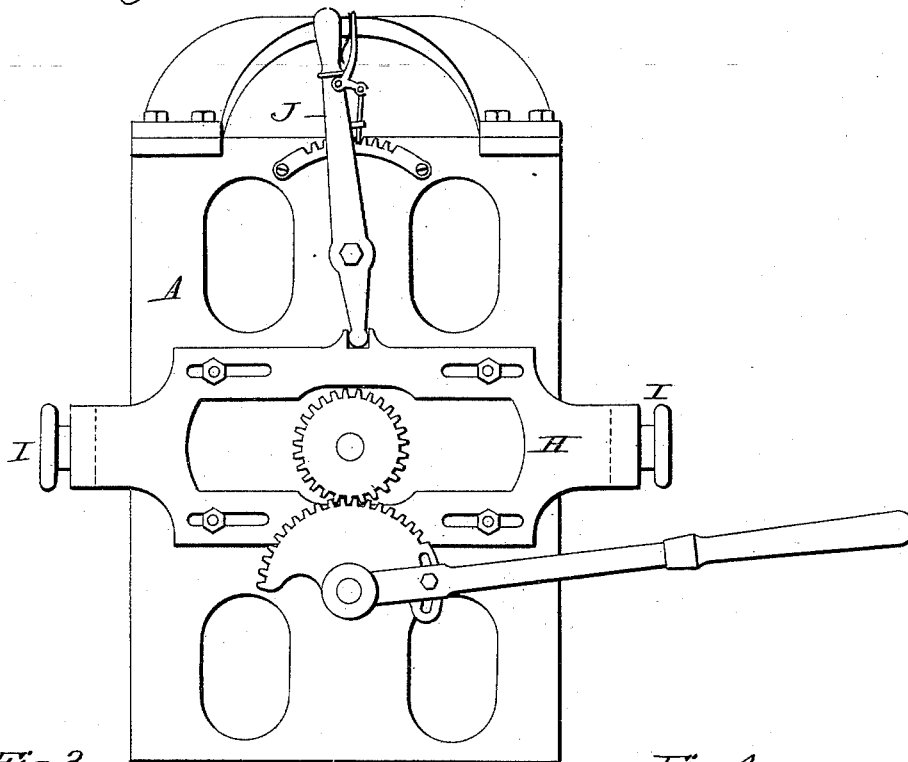
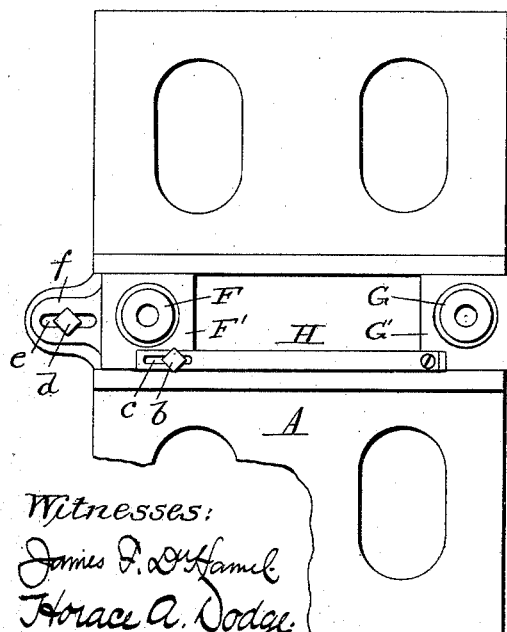
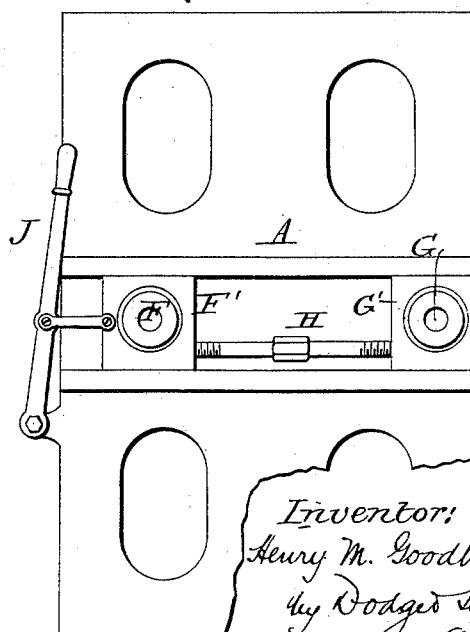


Fig. 3.



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James D. O'Hamel
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Fig. 4.



Inventor:
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by Dodge Lane,
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UNITED STATES PATENT OFFICE.

HENRY M. GOODHUE, OF ROCHESTER, NEW YORK, ASSIGNOR TO WILLIAM S. KING, OF MINNEAPOLIS, MINNESOTA.

LASTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 488,998, dated January 3, 1893.

Application filed August 25, 1888. Serial No. 283,704. (No model.)

To all whom it may concern:

Be it known that I, HENRY M. GOODHUE, of Rochester, in the county of Monroe and State of New York, have invented certain new and useful Improvements in Lasting-Machines, of which the following is a specification.

My invention relates to lasting machines, and particularly to that class for which Letters Patent were issued to Paine, Gray, and Pettie, bearing date the 7th day of August 1888, and numbered 387,366, though applicable to other machines also.

The invention consists in a novel construction and arrangement of supports which carry the lasting jaws, whereby they may be readily shifted laterally without necessarily varying their relation to each other,—in order to adapt them for operation in connection with a right or a left last, as required. Heretofore it has been customary to adjust and fasten the supports independently, a plan which involves considerable loss of time, and much care in adjusting the parts. My invention is designed to meet these points of objection to former machines.

In the accompanying drawings,—Figure 1 is a perspective view of so much of a lasting machine as is necessary to illustrate the invention; Fig. 2 is a rear elevation of a lasting machine embodying my invention, and Figs. 3, 4, and 5, are vertical sectional views illustrating modifications.

A indicates the framework of a lasting machine, which may be of any usual style and construction; B, C, the last supports; D, E, the lasting jaws and F, G, the supports which carry the jaw-shanks or racks,—these parts being here represented in the forms used in the machine patented to Paine, Gray, and Pettie, August 7th 1888, No. 387,366, in which I more particularly contemplate using the present improvements. The mechanism for actuating the jaws, and other parts of the machine are fully described in said patent, to which reference may be made for such parts as are not necessary to or involved in the present invention and therefore not described herein.

H indicates a cross bar or rod connecting the two posts F, G, which connection may be either in front or in rear of the upright back

plate of frame A. Figs. 1 and 2 show the connection in rear of said back plate,—while Figs. 3, 4 and 5 show it in front. When the rear connection is used the blocks F' G' upon which the posts F, G, are carried, are connected with the cross bar H by screws I, swiveled in ears or lugs, *a*, at the ends of said cross bar, and screwing into the blocks F', G', as indicated. The screws thus arranged, not only connect the blocks F', G' with the cross bar, but they also afford means for independent and relative adjustment of the blocks and posts, which is sometimes required. The connected parts are moved across the back plate of frame A by any suitable device, a lever J for this purpose being represented in Fig. 2.

When it is desired to shift the side lasting jaws from one position to the other, that is from the position proper for a right last to that for a left, or vice versa, it is only necessary to throw lever J in the proper direction. The lever or the cross bar may, if necessary, be locked in its adjusted position, though this is not ordinarily required.

In Fig. 3 the cross bar H is represented as attached permanently to block G' and having an adjustable connection with block F' through a tap bolt, *b*, passing through a slot *c* in the cross bar and into the block. A similar bolt, *d*, passing through a slot *e* in a lug or ear *f* of the block F' serves to hold the connected parts wherever adjusted, while permitting them to be adjusted as a whole when required.

In Fig. 4 the connecting bar is represented as in the form of a right and left screw, entering correspondingly-threaded holes or sockets in the blocks F', G', and a hand lever J, is shown for moving the blocks thus connected.

Fig. 5 shows the cross bar or connection in the form of a rod, swiveled in one of the blocks F' G' and screwing into the other,—a screw being shown for moving the connected blocks.

Under each and all of these modifications, either block may be adjusted independently of the other, and both may be moved simultaneously and equally.

Various other modifications, the mechanical equivalents of the foregoing will readily sug-

gest themselves to the mechanic. It is also apparent that instead of the lever or the screw shown for moving the connected post-blocks, a cam, wedge, or other well known equivalent may be employed as a shifting-device.

It is to be observed that under the construction above set forth, the supports in which are carried the jaw-shanks or racks, are so connected that they may be moved in unison or as though they were one integral body,—in which case they maintain a given relation one to the other, but are varied as to their relation to the intermediate last support. It will likewise be seen that the adjustability of the connection between the said jaw-supports, permits the distance between them to be varied, and thereby enables the operator to adjust the machine to lasts of varying width,—the play of the jaws remaining the same in extent, but the starting and stopping points being changed by change in adjustment of their supporting posts.

The term "jaw" is used throughout in the sense in which it is commonly used in connection with this class of machines, and means the stock, body, or head which carries the blades, wipers, or fingers, and does not mean the blades or fingers themselves.

The invention is to be readily distinguished from that class of lasting machines in which, by the use of cords and pulleys, "equalizers," and shifting driving gear the separate lasting blades or fingers of each jaw, and the jaws at the opposite sides of the last are enabled to move variable distances, determined by the contour of the last or any other obstacle with which they may chance to come into contact. The movements of the jaws under any given adjustment, are uniform and certain under my construction.

Having thus described my invention what I claim is,—

1. In a lasting machine, the combination with a last-support, of jaw-supports connected with each other and adapted to be moved

simultaneously and equally toward and from the last-supports, and lasting jaws movable upon and relatively to their supports.

2. In a lasting machine, the combination with a last-support, of lasting-jaw-supports connected one with the other, a shifting device connected with one of the jaw-supports and serving to move the same toward and from the last-support, and lasting-jaws movable relatively to their supports.

3. In a lasting machine, the combination with a last-support, of movable lasting-jaw-supports, an adjustable connecting bar extending from one support to the other, and lasting-jaws movable relatively to their supports all substantially as shown, whereby the jaw-supports may be moved in unison or adjusted independently toward or from the last-supports as desired.

4. In a lasting machine, the combination with a last-support, of lasting-jaw-supports capable of independent adjustment toward and from the last-supports, a connecting bar extending from one jaw-support to the other, a shifting device adapted to move the connected supports, and lasting-jaws movable relatively to their supports.

5. In combination with the frame of a lasting machine, a last support, side lasting jaws D, E, supports F F' and G G' for said jaws, connecting bar H extending from one support to the other, and lever J connected with and serving to move the parts, substantially as set forth.

6. In a lasting machine the combination of a last, lasting-jaw-supports capable of adjustment toward and from the last, and lasting-jaws movable in and relatively to the supports, substantially as set forth.

In witness whereof I hereunto set my hand in the presence of two witnesses.

HENRY M. GOODHUE.

Witnesses:

S. WHITE PAINE,
E. S. COMBS.