

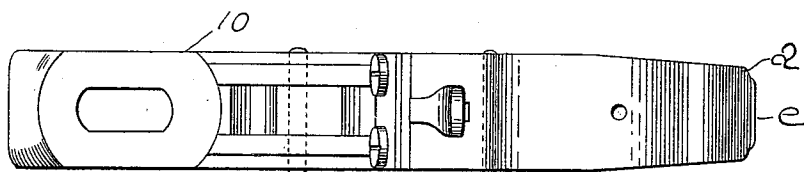
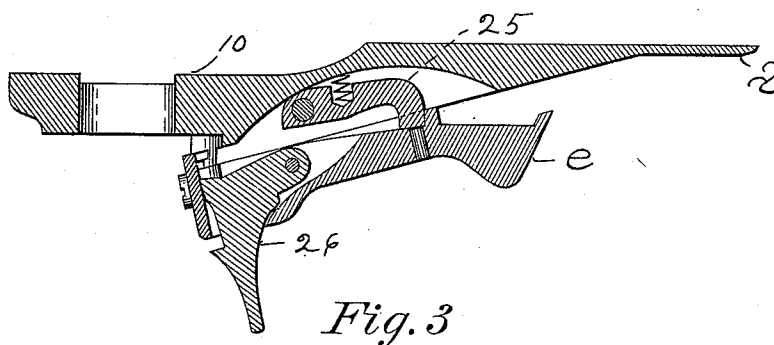
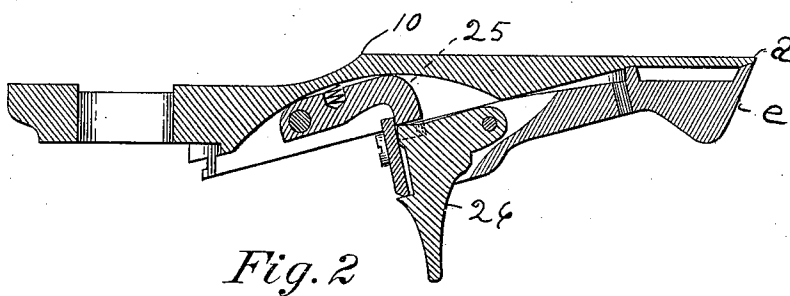
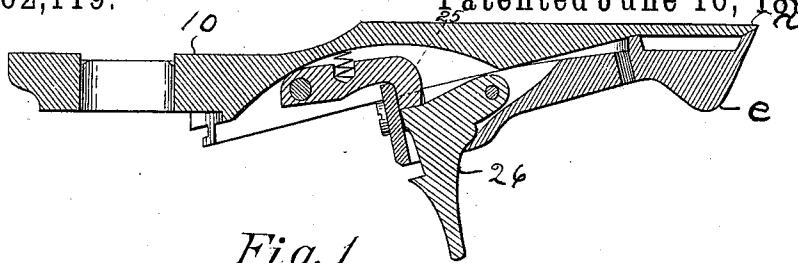
(No Model.)

2 Sheets—Sheet 1.

G. W. CARTER.
LASTING MACHINE.

No. 562,119.

Patented June 16, 1896.



Witnesses.

M. C. Mann
A. M. Tuttle

Inventor
Geo. W. Carter
by C. B. Tuttle
Attorney

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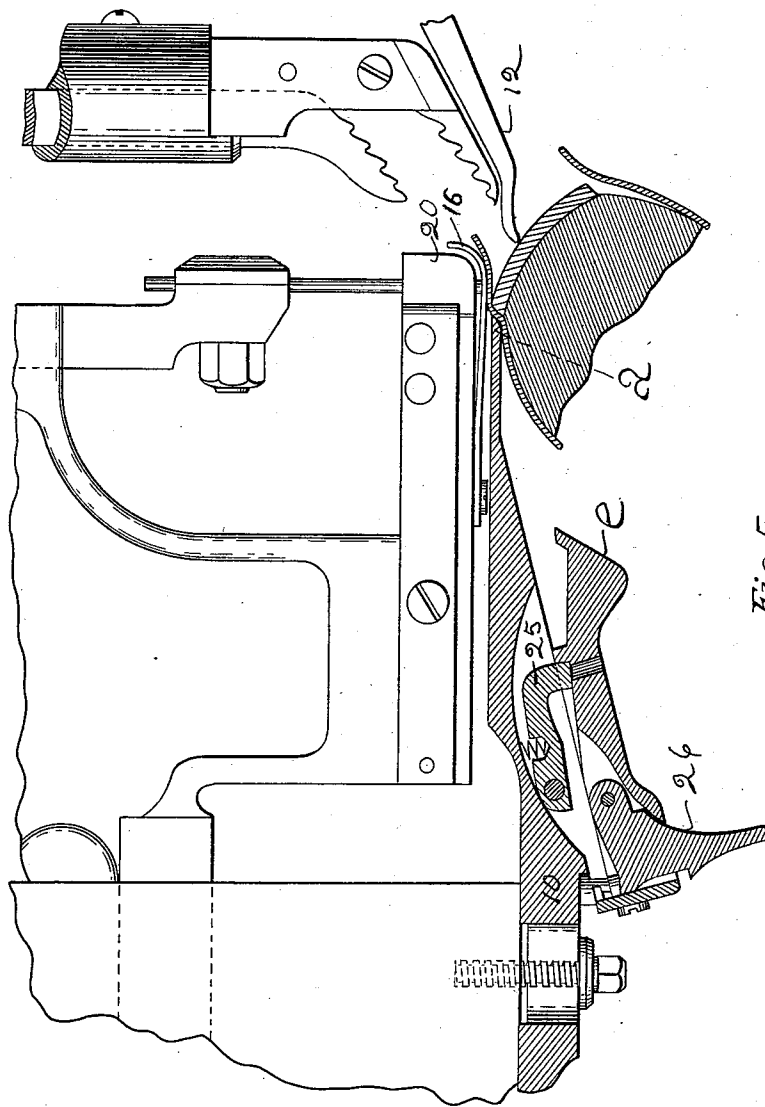


Fig. 5

Witnesses.

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UNITED STATES PATENT OFFICE.

GEORGE W. CARTER, OF HAVERHILL, MASSACHUSETTS, ASSIGNOR TO
THE CONSOLIDATED HAND METHOD LASTING MACHINE COMPANY,
OF NASHUA, NEW HAMPSHIRE.

LASTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 562,119, dated June 16, 1896.

Application filed April 2, 1895. Serial No. 544,164. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. CARTER, a citizen of the United States, residing at Haverhill, in the county of Essex and Commonwealth of Massachusetts, have invented certain Improvements in Lasting-Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

This invention is represented in the present instance as applied to that class of machines described originally in Letters Patent of the United States, numbered 423,922, only such parts of the mechanism being here represented as constitute the present invention and illustrate its combination with the other coöperative parts.

In the drawings, Figure 1 is an elevation of a longitudinal vertical section. Figs. 2 and 3 are similar views, representing the parts in different positions. Fig. 4 is a plan of Fig. 1. Fig. 5 is an elevation showing a section of the machine with this my present invention applied thereto.

The machine, it will be understood, comprises a pincers mechanism, Fig. 5, and operating devices therefor, by means of which the pincers are caused to seize the upper, draw it over the last, and lay it in position for receiving the fastening-tack. The shoe is prepared for lasting by first putting the upper onto the last, drawing it over at the toe and preferably at the sides also, and there securing it with tacks, or other fastening devices, usually one tack being employed in each of said places, whereby the upper is held in position on the last. It is then taken in hand by the workman, held up to the machine, supported and turned about to present the various parts thereof successively to the pincers mechanism, as required for completing the lasting process.

In order that the shoe may be easily held in position during the action of the pincers and driving of the tacks, a rest or downhold 12 is provided, Fig. 5. Said rest is held by suitable connections to the machine-head and drops down to the position desired, relatively to the pincers. To further assist the workman, an edge-gage 10 is employed, being sup-

ported by a suitable connection with the machine-head and projecting forwardly relatively to the pincers and rest 12, so that when the shoe is held with the last bearing upwardly against the rest 12, and the edge thereof, with the upper, is pressed laterally against the edge-gage 10, the upper will be in position for the pincers to come forward and grasp the inturned edge thereof for stretching and otherwise manipulating it over the last.

The lasting process, it will be understood, is completed as a whole by a series of movements of the lasting devices applied successively to different parts of the upper at different times. Each part acted upon, when held in position upon the inner sole, is secured thereto by a suitable fastening mechanism preliminary to the next lasting operation of the lasting devices.

Additional to the service of assisting the workman to position the last relatively to the mechanism the edge-gage 10 is made to further assist the workman in smoothing the upper over the inner sole. To this end the edge-gage has its end face smoothly finished, whereby to present a work-bearing surface, against which the upper is tightly pressed by the workman, while the wiper 16 and the pincers at times strain and smooth the upper forwardly over the inner sole. Said wiper, as represented in Fig. 5, is secured in the present instance to the bottom of the forwardly and backwardly moving tack-carrier block 20. It is located just above the edge-gage and is moved forwardly over the edge of the upper while bearing thereupon and wiping the upper smoothly forward, acting in this respect much after the manner of a workman's thumb as employed in the operation of hand-lasting. In practice it has been found that this auxiliary function of the edge-gage depends in its result somewhat upon the formation of the bearing-surface presented by the edge-gage to the upper. At the heel portion of the shoe, for example, the work is performed most satisfactorily by an edge-gage provided with a work-bearing surface that extends broadly downward to hold the upper material smoothly pressed against the last for a considerable distance, while at the shank part of

the shoe, and sometimes at other places, the work is performed more satisfactorily by an edge-gage provided with a much narrower work-bearing surface. Therefore it is found
 5 desirable to have a convenient means for modifying the work-bearing surface of the edge-gage, so that during the continuous operation of the machine it may be changed by the workman for yielding the quantity of
 10 bearing-surface most desired. It is mainly for the attainment of this object that my present invention has been devised.

To that end this invention comprises an edge-gage made in two parts, the part *a*, which
 15 is independent in character, and the part *e*, made auxiliary thereto. The part *a* is secured to the framework of the machine, or other suitable support and projects forwardly. Its outer end face, being smoothly finished,
 20 is of a comparatively thin or narrow surface, suitable for performing the work that requires a limited work-bearing surface. This member of the edge-gage is fixed in its position and is used at times independently of the
 25 auxiliary member *e*. The member *e* is provided also with a smoothly-finished end face or work-bearing surface of a considerably larger vertical area than the member *a*. It is supported beneath the member *a* by a tongue-
 30 and-groove connection therebetween, which permits the member *e* being moved forwardly and backwardly from a position of work relation to the member *a*, as shown in Fig. 1, to a position of disuse, or non-work relation, as
 35 shown in Fig. 3.

The members *a* *e* have their ends or work-bearing surfaces formed with relation therebetween so as when positioned in work relation, as shown in Fig. 1, the end surfaces
 40 thereof stand in alinement and practically contiguously one with the other, whereby is presented a work-bearing surface equal to the combined end surfaces of the two members. In this position the members are locked by a
 45 spring-actuated lever 25, said lever being pivotally supported in the member *a* to enter a suitable cavity in the member *e*, as shown in Fig. 1. Connected with the member *e* is a pivoted member 26, whereby the lever 25 is
 50 lifted from its cavity in the member *e* preliminary to the backward movement of the member *e*. Said backward movement is effected by the workman, who, to that end, grasps the lever 26, pushing it backwardly. The force
 55 exerted first operates to lift the locking-lever 25, and thereby release the member *e*, after which the force being continued operates to move the member *e* backwardly to its position of disuse, as shown in Fig. 3.

60 Particularly I would have it understood that the spirit of this my present invention requires the edge-gage members to have work-bearing surfaces formed so as to permit being positioned in alinement contiguously. By
 65 such construction and arrangement a work-bearing surface is presentable which is prac-

tically a continuation of the work-bearing surface of the independent member. In operation, this extended work-bearing surface is a means where against the last and upper
 70 material may be pressed, with force, at times, without marring the finish of the upper material, and whereby a holding force is presented to the upper material of a character sufficiently extensive to prevent displacement
 75 of the material while each portion thereof is worked over the inner sole. Particularly is this quality of use desirable while performing the work of lasting around the heel portion or at other parts of the boot or shoe where
 80 it is desirable to make a sharp bend in the upper material. When not desired for use, the member *e* is readily moved rearwardly to a position of non-use, as shown in Fig. 3.

Having thus described my invention, I
 85 claim and desire to secure by Letters Patent—

1. An edge-gage for lasting-machines and the like comprising an independent member having a work-bearing surface, an auxiliary
 90 member having a work-bearing surface which is a continuation of the work-bearing surface of the independent member and lies in the same line therewith, means for holding the auxiliary member against the independent
 95 member in such position that the work-bearing surfaces have contiguous alinement, and means for removing the auxiliary member from its position of contiguous alinement with the independent member, whereby the
 100 independent member can be used alone or the independent member and the auxiliary member can be used as one; substantially as described.

2. In a lasting-machine, the combination of
 105 an edge-gage including an independent member adapted for use separately, also a member located beneath the independent member for use auxiliary thereto, said auxiliary member having its end face adapted to permit
 110 alinement contiguously with the end face of said independent member, whereby to form therewith a work-bearing surface substantially contiguous between the members, and a tongue and groove, supporting connection
 115 between the members, having provision to allow movement of the auxiliary member forwardly and backwardly, substantially as described.

3. In a lasting-machine, the combination of
 120 an edge-gage including an independent member adapted for use separately, also a member located beneath the independent member for use auxiliary thereto, said auxiliary member having its end face adapted to permit
 125 alinement contiguously with the end face of said independent member, whereby to form therewith a work-bearing surface substantially contiguous between the members, and a tongue and groove, supporting connection
 130 between the members, having provision to allow movement of the auxiliary member for-

wardly and backwardly, and means for holding the auxiliary member fixed in position forwardly, substantially as described.

4. In a lasting-machine, the combination of
5 an edge-gage, including an independent member adapted for use separately, also a member located beneath the independent member for use auxiliary thereto, said auxiliary member having its end face adapted to permit
10 alinement contiguously with the end face of said independent member, whereby to form therewith a work-bearing surface substantially contiguous between the members, and a tongue and groove, supporting connection

between the members, having provision to allow movement of the auxiliary member forwardly and backwardly, and a locking connection for holding the auxiliary member in position of work relation, adapted to be released by a movement in the line of movement incident to the auxiliary member, substantially as described.

Signed at Haverhill this 18th day of January, A. D. 1895.

GEO. W. CARTER.

Witnesses:

ELISHA M. CHANDLER,
A. HUTCHINSON.