(No Model.)

C. W. GLIDDEN.

APPARATUS FOR ASSEMBLING HEEL LIFTS.

No. 414,040. Patented Oct. 29, 1889.

Fig: 1.

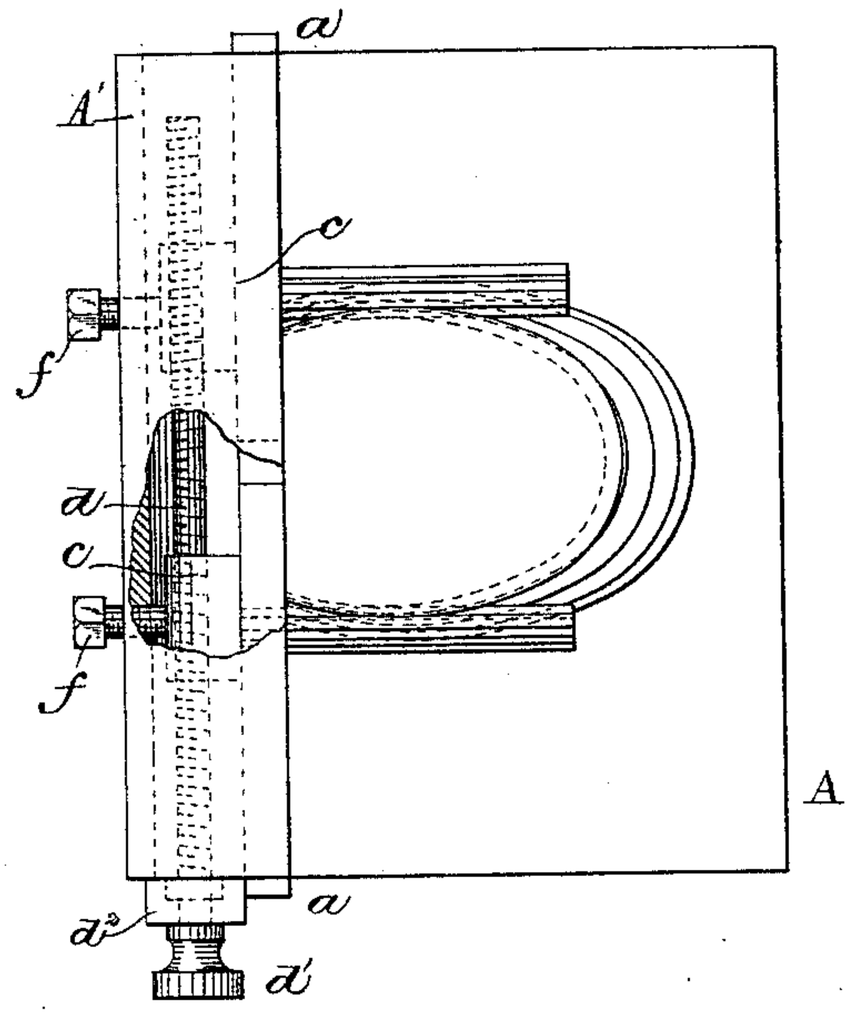


Fig: 2.

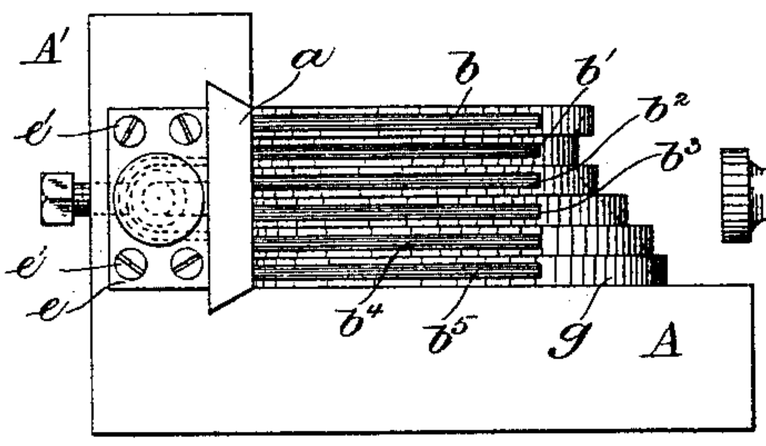
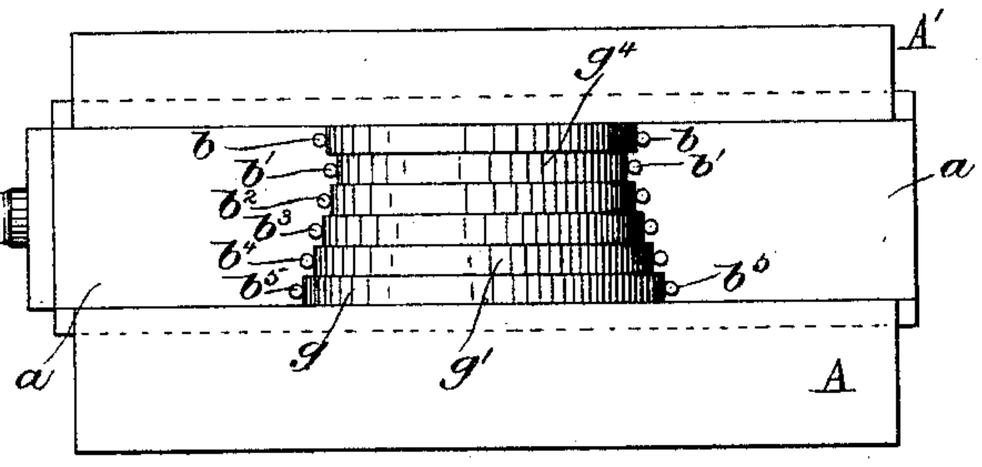


Fig: 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

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APPARATUS FOR ASSEMBLING HEEL-LIFTS.

SPECIFICATION forming part of Letters Patent No. 414,040, dated October 29, 1889.

Application filed July 15, 1889. Serial No. 317,535. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. GLIDDEN, of Lynn, county of Essex, State of Massachusetts, have invented an Improvement in Apparatus for Assembling Heel-Lifts, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In the production of heels for boots or shoes wherein the heel varies considerably in diameter between the top lift and seat end the lifts used are died out of different sizes to thereby save stock, and these lifts have to be piled into heel form, the operator laying one upon the other to thus place them in proper central position in the pile, to be thereafter nailed together preparatory to applying the heel to a boot or shoe. To facilitate this operation of assembling the lifts into a pile, and to also secure greater accuracy in piling the lifts, I have devised a gage whereby when set in position each lift will be properly centered or laid into the pile, notwithstanding the varying diameters of the lifts, and lifts of only the right size can be used at any given point in the heel, and a lift of any size may be immediately moved horizontally into place.

My invention consists, essentially, in a gage composed of a support for the heel-pile and edge-gages located at different distances apart to correspond with the different sizes of the lifts to be used in the production of the heel. I have made these edge-gages adjustable horizontally toward and from the center of the heel-pile.

Figure 1 in top or plan view represents an apparatus for assembling heel-lifts embodying my invention, sufficient lifts for a heel being in place; Fig. 2, a side elevation of Fig. 1, and Fig. 3 a view from the right of Fig. 1.

The base-plate or support A, on which is laid the pile of blanks in the formation of the heel, is represented as extended upwardly, as at A′, to form a guideway for the shanks *a a* of the edge-gages, the said shanks having a series of gaging surfaces or stops, shown as wires *b b′ b² b³ b⁴ b⁵*, located one above the other in a line corresponding with the shape of the heel-pile to be built, the separate stops of each pair of stops, as *b b*, being separated horizontally from each other for different distances, according to the particular size of lift which is to be permitted to come into the heel-pile at that point.

I do not desire to limit my invention to the exact shape of the stops shown, as the gist of my invention consists in a series of stops so constructed and located as to enable the lifts to be pushed in horizontally between them, the said stops being preferably adjustable with relation to each other.

The slides *a*, preferably of dovetail shape in cross-section, are shown as provided with nuts *c*, through which, as shown, is extended a right-and-left-hand-threaded adjusting-screw *d*, provided at one end with a milled or other head *d′*, by which to turn the said screw when it is desired to adjust the said slides and stops carried by them for lifts of different size, the said screw or the said nut having an annular groove or projection to cooperate with a projection of a plate *e*, attached by suitable screw, as *e′*, to the upright part A′, the said adjusting-screw *d* having only a movement of rotation. The upright is shown as provided with set-screws, as *f f*, by which the nuts *c* may be held in fixed position as desired.

In the drawings it will be seen that the largest lift *g*, or the lift to come against the sole of the boot or shoe, is laid upon the support A and between the stops *b⁵ b⁵*, and the next smallest lift *g′* between the stops *b⁴ b⁴*, each lift filling the space between the like stops at each edge of the lifts in the pile. The series of stops may be placed in any desired order and more or less out of a vertical line, according to the shape desired for the heel.

The curved dotted line in Fig. 2 shows the shape of the heel after it has been trimmed.

It will be noticed that the stops are made to extend horizontally from the slides to which they are attached, and that the lifts are free to be inserted between them by a horizontal movement, singly or two or more together, and as the space between the said stops is open, as shown, it is possible to arrange the said stops in an irregular line and yet enable a

lift of the proper size to be inserted by a horizontal movement at the proper place—as, for instance, the lift between the stops b' is smaller than the lift on either side of it, and if the stops were connected at their outer ends, instead of being open, as shown, then the lifts shown as below the lift g^4 could not be inserted.

I claim—

1. In an apparatus for assembling heel-lifts in the production of heels, a support for the lifts, and slides forming a stop for the breast end of the lifts, combined with a series of edge-stops located at different distances apart upon said slides and projecting at right angles therefrom to receive between them and correctly position the said lifts on both sides as they are being laid in a pile, substantially as described.

2. The support and slides having edge-stops arranged in a projecting series upon each slide to form opposite parallel pairs, combined with means to adjust the said slides simultaneously toward and from each other, substantially as described.

3. The support for the lifts and slides having edge-stops arranged in a projecting series upon each slide to form opposite parallel pairs, as shown, combined with means to hold the said slides in adjusted position, substantially as described.

4. A support for lifts, combined with edge-stops arranged in pairs for the different lifts of the heel, the said stops being open, as described, to permit the introduction of the said lifts horizontally into position between the said stops, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CHARLES W. GLIDDEN.

Witnesses:
GEO. W. GREGORY,
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