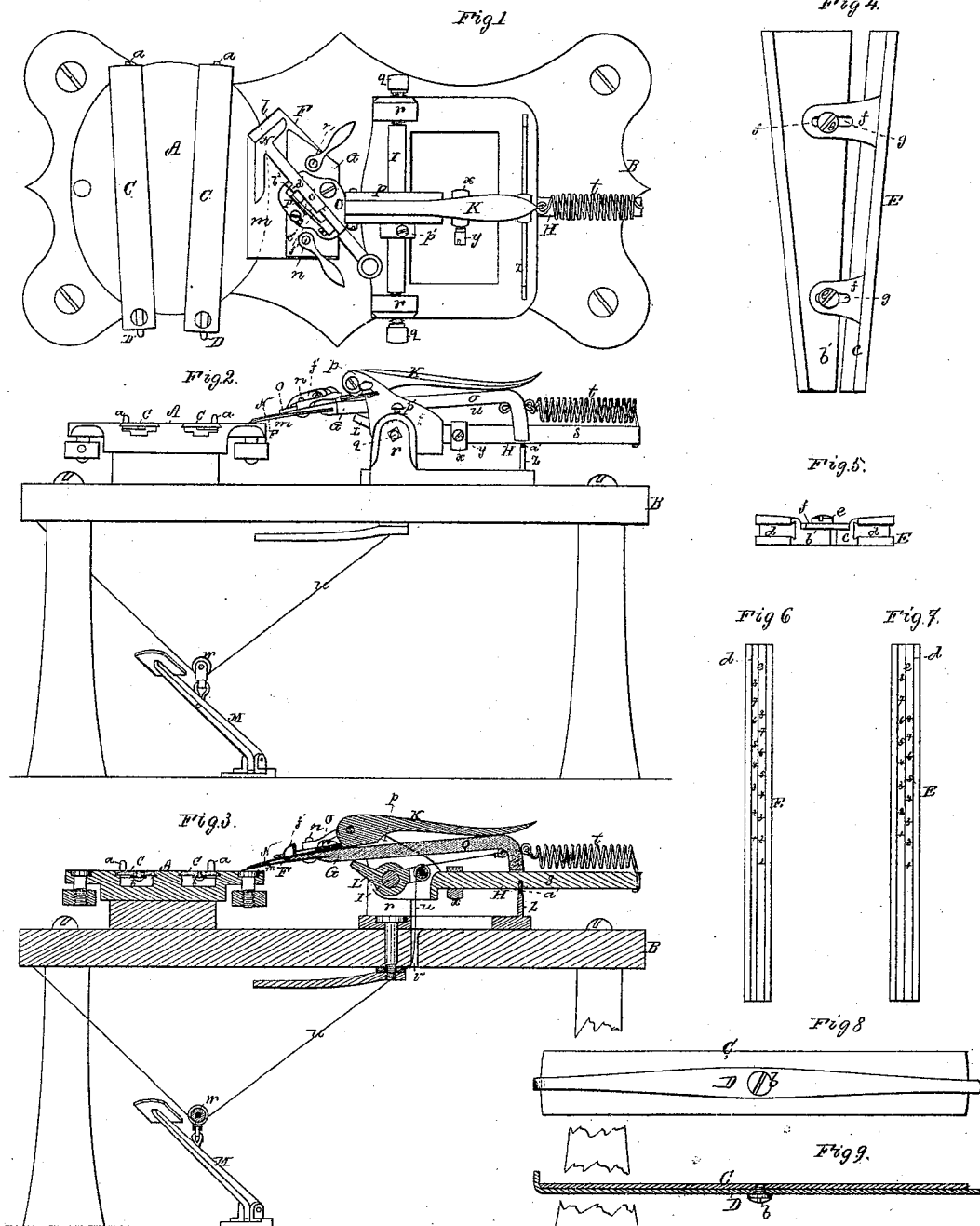


A. J. GOODWIN.
Machinery for Goring Shoe Uppers.

No. 141,642.

Patented August 12, 1873.



Witnesses.
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN MACHINERY FOR GORING SHOE-UPPERS.

Specification forming part of Letters Patent No. **141,642**, dated August 12, 1873; application filed April 11, 1873.

To all whom it may concern:

Be it known that I, ASAHEL J. GOODWIN, of Brookline, of the county of Norfolk and State of Massachusetts, have invented a new and useful Improvement or Improvements in Machines for Goring Shoes; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view of the table of a shoe-goring machine with my invention applied thereto. Fig. 2 is a front elevation, and Fig. 3 a longitudinal section, of the above. Fig. 4 is a top view, Fig. 5 an end view, and Figs. 6 and 7 opposite edge views, of the guide-pattern.

Such other figures as may be necessary to the complete illustration of my invention will be hereinafter referred to and described.

The present invention has reference to the machine described in Letters Patent No. 133,703, dated December 10, 1872, and granted to myself and James H. Gardiner, and is for the purpose of improving such machine, or rendering it more convenient and useful.

The guide-pattern shown in Figs. 4, 5, 6, and 7 is to be operated or raised and depressed in manner or by means substantially as described in the said patent with respect to the guide-pattern therein explained; but my present guide-pattern is so constituted as to admit of its being increased or diminished in width at either end, so as to vary the angular position of its opposite edges, whereas in the guide-pattern described in the patent, though capable of being increased or diminished in width, the opposite edges always maintained at their normal angle or the same angle with each other. The guide-pattern is also provided with grooves in its opposite edges to receive what are or may be termed "size slips." The table is furnished with adjustable slides and elastic lever-gages for fixing or determining the position of a gore on such table. Such table also has a lining gage-holder and certain mechanism connected therewith, as hereinafter described.

In the drawings the table is shown at A as fixed upon and extended above a platform, B. The gore and the parts with which it is to be connected by paste are to rest on the top of such table. The table is grooved lengthwise to receive two flat slides, C C, ar-

anged as shown, each of which, with its groove, is dovetailed in transverse section. The slide fits closely in or to the groove, and may have a spring or friction brake to hold it in position or prevent it from accidentally moving lengthwise out of place.

Fig. 8 is an under-side view of one of the said slides C, showing its spring-lever gage D, which is an elastic lever, bent up at its front end, as shown at *a* in Fig. 9, which is a section longitudinally through the slide C and the gage D. The latter is pivoted at *b* to the slide, and is sprung or bears closely against the bottom of the slide. By means of the slides and the gages the stops or rests *a a* may be adjusted to any desirable positions to indicate the points at which the upper corners of the gore are to be placed on the table.

The guide-pattern is shown at E as made in two parts, *b c*, each of which has a dovetail groove in its outer edge, as shown at *d*, to receive a slip of pasteboard, *e*, termed a size slip, which, fitted in the groove, has size figures and marks arranged upon it to indicate for setting the stops *a a* to different positions, as may be required for gores of different sizes, and especially what are termed right-and-left gores. The two parts *b c* are connected by clamp-screws *e e* and slotted arms *f f*, arranged as shown. The arms extend from the part *c* over the part *b*, and are provided with slots *g g* to receive the shanks of the screws, which pass through the slots and screw into the part *b*. The slots are either curved or made wider than the diameters of the screw-shanks in order to admit of the angle of the outer edges of the parts *b c* being varied, as occasion may require, to adapt the guide-patterns to the form of the gore. The lining gage and holder is shown at F as composed of two thin plates, *l m*, projecting from a T-piece or carrier, G, and fastened thereto by screw-clamps *n n*. The shank *o* of the carrier G extends through the shorter arm *p* of a lever, H, fitted to slide upon a fulcrum-shaft, I, and secured thereto by a clamp-screw, *p'*. The pivots *g g* of the said shaft are supported by a frame, *r*, erected on the platform, and shaped as shown. Furthermore, the said shank *o* slides on the longer arm *s* of the lever H, and is provided with a retractive spring, *t*, fixed to the shank and the lever. A lever-clamp, K, pivoted to the

head of the arm *p* of the lever *H*, serves to force the lining-gage *F* down upon the lining when on the table and preparatory to said lining being turned over and down upon the lining-gage. A line or band, *u*, fixed at one end to the shank *o*, passes along underneath such shank and down through the rear arm of a bent lever, *L*, formed and arranged within the arm *p*, as shown. The draft-line *u* from thence goes down through a slot, *v*, in the platform, and thence through a pulley, *w*, attached to a treadle, *M*; thence the draft-line is to continue and pass up through the platform and to and through another such lever, *L*, and to another carrier, *G*, to be arranged on the other side of the table. There is to be to the table a duplicate lining-gage and its operative mechanism, all being placed opposite to such, as hereinbefore described, both gages being worked or moved forward or toward each other simultaneously by one treadle, the extent of advance movement of each being regulated by an adjustable collar or stop, *x*, upon each of the arms *s*, and held thereto by a set-screw, *y*. The gage-carrier *G* brings up against the stop *x*, at the termination of the advance movement of such carrier.

On depressing the treadle the draft-line will not only advance the carrier *G*, but will so move the bent lever *L* as to force and hold the carrier upward, in order for the carrier to raise the lining-gage, during its advance, so high above the table as to keep such gage free from, and cause it to pass over, the piece of cloth or lining laid upon the table; the lining-gage being subsequently depressed upon the said lining by the lever-clamp *K*, moved by an attendant.

There extends up from the frame *r* a rail, *z*, arranged as shown, a screw, *a'*, being screwed into and through the arm *s* of the lever *H*. By means of the said rail and screw, the degree of pressure of the lining-gage upon the cloth may be regulated. There is to the lining-gage *F* what I term the lap-holder and gore-gage *N*. It serves not only to hold down the lap or part of the lining turned over and down upon the gage *F*, but as an additional gage or guide for determining the position of the gore. The lap-holder *N*, shaped as shown, slides lengthwise on the carrier of the lining-gage, and underneath a cap, *O*, fastened upon the carrier by screws, and formed as shown, it being provided with a small abutment or stop, *b'*, the cap *O*, with the stop *b'*, being adjustable on the carrier *G* in the direction of the shank *c'* of the lap-holder. From the said shank *c'* a small stud, *d'*, projects, as shown. It, by bringing up against the stop *b'*, determines the extent of advance of the lap-holder. While the stud is advancing, it rises up and over an inclined plane, *e'*, carried by an arm, *f'*, pivoted to the cap *O*.

Fig. 10 is an inner side view of such arm *f'* and inclined plane *e'*. The two I term the "dog *P*."

The stud and inclined plane thus serve to raise the lap-holder during its advance, in order that it may pass freely over the lining-lap, it being caused, by the elasticity of its shank, to fall down upon the lap as soon as the stud *d'* may have passed beyond the head of the inclined plane. On retracting the lap-holder, the stud *d'* will pass underneath the inclined plane and raise the dog.

With the above-described mechanism, the goring-machine may be adapted to gores of different sizes or styles, and be used to properly arrange the gore with the parts of the upper for which it is to be pasted, and, furthermore, the edges of the lining of the upper may be folded over or lapped, and preparatory to the gore being pasted to the upper, all of which will be readily understood by those who are accustomed to the making or using of the machines to which my invention or improvements appertain.

What I claim as my invention is—

1. The guide-pattern *E*, having its parts *b c* connected by slotted arms *f f* and clamp-screws *e e*, arranged as and for the purpose substantially as specified.

2. The guide-pattern *E*, provided with the size slip-receiving grooves *d d*, arranged in it as set forth.

3. The table *A*, provided with the slides *C C* and the elastic lever-gages *D D*, all constructed, arranged, and applied together substantially as specified.

4. The combination of the lining gage and holder *F* with the table *A* of a machine for goring shoes.

5. The combination of the lever *L*, the draft-line *u*, and carrier *G* of the lining gage and holder *F*.

6. The combination of the lever-clamp *K*, the carrier *G*, the lining gage and holder *F*, the lever *L*, and the draft-line *u*.

7. The combination of the lever *H*, (supported and provided with adjustments, as described,) the gage-carrier *G*, the lever *L*, and the clamp *K*, the said carrier being or to be furnished with the draft-line *u* and retraction-spring *t*, and the whole being arranged substantially in manner and to operate as explained.

8. The combination of the adjustable stop or collar *x* with the arm *s* and the gage-carrier *G*.

9. The combination of the lap-holder *N* with the lining gage and holder *F*.

10. The combination of the adjustable stop *b'*, the stud *d'*, and the movable dog *P* with the lap-holder *N*, combined with the lining gage and holder *F*, as set forth.

11. The combination and arrangement of the screw *a'* and the rail *z* with the lever *H*, combined with the lining-gage carrier *G*.

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Witnesses:

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J. R. SNOW.