

H. W. JOHNSON.
SEWING MACHINE.

No. 564,379.

Patented July 21, 1896.

Fig. 2.

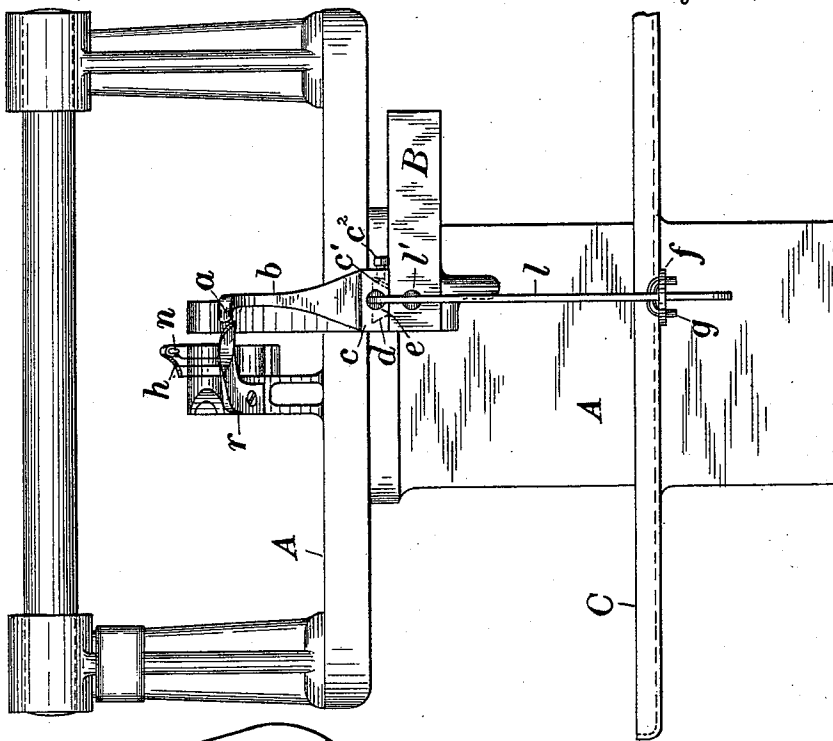
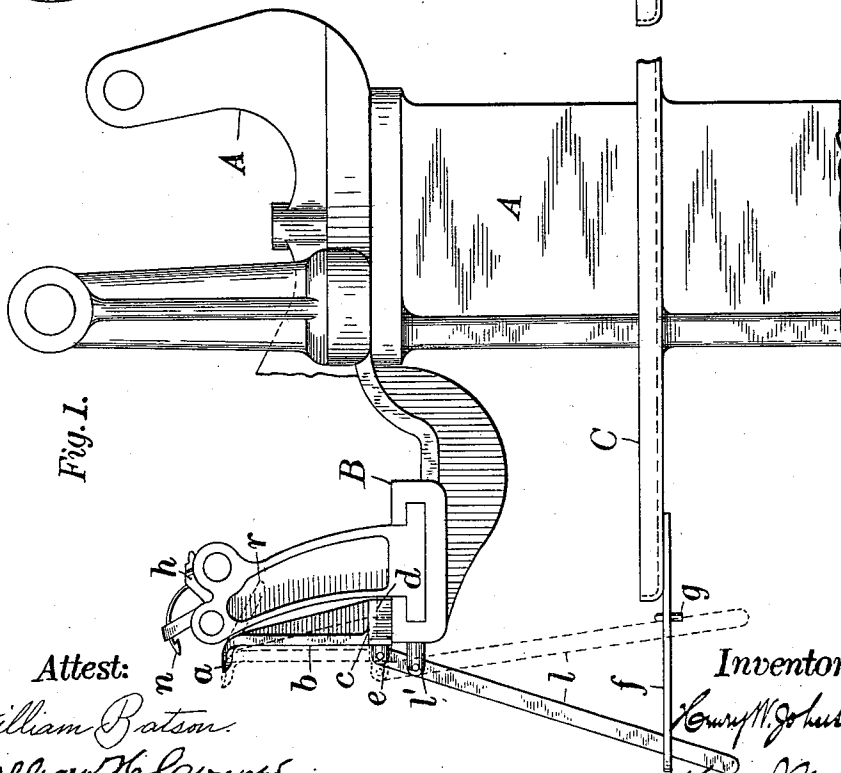


Fig. 1.



Attest:

William Batson.
Melrose Hall

Inventor.

Henry W. Johnson, per
Henry J. Miller, atty

(No Model.)

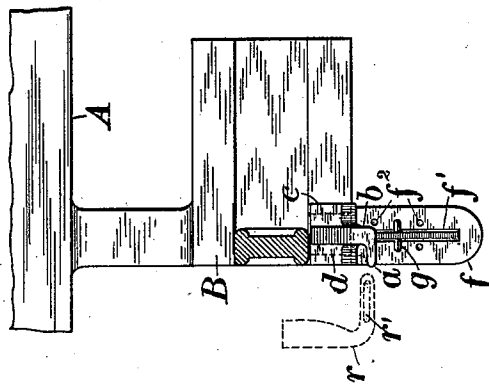
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Fig. 3.



Attest:

Sheodon Ferris.
William Batson.

Inventor.

Henry W. Johnson,
per Henry J. Miller, atty.

UNITED STATES PATENT OFFICE.

HENRY W. JOHNSON, OF BLOOMFIELD, NEW JERSEY, ASSIGNOR TO THE
GOODYEAR SHOE MACHINERY COMPANY, OF PORTLAND, MAINE.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 564,379, dated July 21, 1896.

Application filed November 9, 1894. Serial No. 528,318. (No model.)

To all whom it may concern:

Be it known that I, HENRY W. JOHNSON, a citizen of the United States, residing at Bloomfield, Essex county, New Jersey, have
5 invented certain new and useful Improvements in Shoe-Sewing Machines, described and represented in the following specification and the accompanying drawings, forming a part of the same.

10 This invention relates to machines of the above class, and more particularly to machines for stitching the outsole to the welt, which has previously been united to the lasted upper, commonly called "sole-sewing
15 machines."

Machines of this class, as heretofore constructed, have been provided with a rest or support, commonly called a "work-table," arranged to enter the angle of the welt with
20 the upper and to support the shoe during the stitching operation. Such rest or support is commonly stationary, being secured to a fixed support.

The present invention consists, essentially, in the combination of stitch-forming mechanism, a stationary table adapted to receive upon it and externally support the projecting edge of the welt of a lasted boot or shoe, a crease-guide adapted to continuously en-
30 gage and externally guide said boot or shoe, and movable toward and from the stitch-forming mechanism, the top of said guide being substantially flush with the top of the table and also receiving upon it the welt.

35 The invention further consists of the form and arrangement of the movable gage or crease-guide and its connected mechanism, as hereinafter more fully set forth and claimed.

40 The present invention has for its object to provide in machines of this class a device whereby the machine is adapted to stitch the outsole to the welt of shoes in which the distance of the line of stitching, commonly
45 called the "outseam," from the joint of the welt with the upper, commonly called the "inseam," is variable.

The accompanying drawings illustrate my invention as applied to the sole-sewing machine shown and described in Letters Patent
50 to Z. T. French and W. C. Meyer, No.

473,870, April 16, 1892; but I desire to say that I do not consider this invention limited to its application to said machine, as with slight modifications in details of construction,
55 involving no departure therefrom, it can readily be adapted to other forms of sole-sewing mechanism.

In the drawings, Figure 1 is an end elevation showing a portion of the machine-frame
60 carrying the work-table and the attachments embodying my improvement adjacent to the latter. Fig. 2 is a front elevation, and Fig. 3 a plan, of the same.

Similar letters of reference refer to similar
65 parts throughout the views.

The machine is shown provided with a needle-holder *h*, carrying the needle *n*, and with the stationary work support or rest *r* having the aperture *r'* for the passage of the needle,
70 and adapted to enter the angle of the welt with the upper of the shoe to support the latter in the operation of stitching the sole to the welt.

The form and arrangement of the needle-
75 holder *h* and the needle *n* and the work-supporting table *r* are similar to that of similar parts shown and described in the said patented machine, the same forming no part of the
80 present invention.

In addition to the rest *r* is shown a gage or crease-guide *a* with a shank *b* and foot-piece
85 *c*, mounted upon the bracket *B* of the frame *A*, the said gage occupying a position normally adjacent to and with its front or bearing edge in line with the rest *r*. The under
90 side of the foot *c* is formed with a longitudinal dovetailed groove or channel fitted to a block *d* of similar shape fixed upon the top of the bracket *B*.

A shift-lever *l*, fulcrumed upon a suitable stud *l'*, projected from the bracket *B* below the block, is pivoted at its upper end to a stud
95 *e* upon the front end of the foot *c*, with its opposite end inserted in a longitudinal slot *f'* in the plate *f*, projected from a shelf *C*, formed upon the frame *A*. The said plate *f* is provided upon both sides of the slot *f'* with a row of holes *f''*, into any pair of which, at opposite
100 sides of the slot, may be inserted the double-pointed stop pin *g*, for checking the movement of the lever *l* at the desired point.

In operating the machine with the attachment above described for shoes in which the sole projects uniformly beyond the joint of the upper and the welt, the shift-lever is set in the position required to project the gage the desired space in advance of its normal position, (in line with the rest r), and the shoe is then fed along with the edge of the gage projected into the angle of the welt with the upper until the row of stitching is completed. Where an additional row of stitching is desired to produce a double row upon the sole, it is necessary merely to reset the gage by means of the shift-lever, after which the sewing operation is repeated with the gage applied to the seam of the shoe in a precisely similar manner. To apply a line of stitching to a sole and welt projecting variably beyond the upper, where it is desirable also to vary the position of the line of stitching thereon, the operator holds the shoe in position with one hand in the usual manner and with the other hand operates the shift-lever to actuate the gage and move the shoe transversely to the feed, and thereby varies the distance from the line of stitching to the joint of the welt with the upper until the line of stitching is brought into the desired position upon the projecting sole and welt.

It will be observed that, the movable gage lying normally in line with the rest r and being shifted always in advance of the same when moved from such position by the actuation of the lever l , the shoe is retained during the stitching operation continuously in external engagement with the movable gage or guide, so as to vary and control the position of the shoe with relation to the stitch-forming mechanism independently of the rest r , and that said rest operates solely to sustain the shoe during such stitching operation without offering any additional guiding means to that afforded by the said movable gage.

I am aware that others have proposed to construct a machine for operating upon the soles of boots and shoes having two separate and relatively-movable guiding members adapted to work, respectively, along the shank and fore-part portions of the boots and shoes; and I hereby disclaim, therefore, the combination, in a machine for operating upon the soles of boots and shoes, of two independent guides, one working along the shank portion and the other around the fore part.

I also disclaim the combination, in a sole-sewing machine, of stitch-forming mechanism and two guides acting externally upon a lasted boot or shoe, one acting to guide the boot or shoe along the shank portion and the other acting to guide the boot or shoe around the fore part.

The holes f^2 on opposite sides of the slot f' in the plate f are preferably disposed at suitable intervals to set the gage at distances in advance of its normal position corresponding to a given standard of widths for the projecting edges of the welt and sole, and by setting

the pin g in the proper holes for any desired degree of projection of the edge it serves as a stop to limit the motion of the shift-lever l in setting the gage for the corresponding style of shoe. It will be observed that the forward end of the slot acts as a stop for the lever in setting the gage in its normal position.

In order to prevent the accidental shifting of the gage by reason of the wear upon its foot-piece and the block d , a wearing-piece c' is applied within the groove upon one side of the block, and screws c^2 are applied to the outer face of such wearing-piece to adjust its pressure upon the block in order to determine its frictional resistance to sliding and thereby check any tendency to displacement without the positive actuation of the shift-lever.

It will be observed that in the form of my invention shown in the drawings the rest r and the movable gage a are sustained at substantially the same elevation or level adjacent to the path of the needle and that the arrangement of the block d and the dovetailed groove in the foot c is such that a motion of reciprocation may be imparted to the gage a in the direction transverse to the direction of the feed, such arrangement enabling the gage a to engage the shoe upon the rest r and to move the entire shoe transversely to the direction of the feed, thereby varying the distance between the outseam and the inseam. I desire, however, to say in this connection that I do not consider my invention as limited to the details of the form and arrangement of parts as above noted, for it is evident that the movable gage may be arranged to engage the shoe and move it transversely to the feed by other mechanism differently formed and arranged without departure from the essential nature of my invention.

I am aware that it has been proposed heretofore to construct machines of this class with an external rest or support and a movable external guide for shifting the boot or shoe thereon during the operation of the stitch-forming mechanism, and I hereby disclaim, broadly, the combination, with stitch-forming mechanism, of a rest for externally supporting the shoe and upon which the sole or the welt may be placed, and a guide for continuously and externally engaging and guiding the boot or shoe, said guide being movable during the operation of the stitch-forming mechanism, whereby to vary and control the position of said boot or shoe with relation to the stitch-forming mechanism.

I therefore claim as novel and desire to secure by Letters Patent—

1. In a sole-sewing machine, the combination of stitch-forming mechanism, the stationary table adapted to receive upon it and externally support the projecting edge of the welt of a lasted boot or shoe, the crease-guide adapted to continuously engage and externally guide said boot or shoe, and movable toward and from the stitch-forming mechanism

ism, the top of said guide being substantially flush with the top of the table and also receiving upon it the welt, substantially as described.

5 2. The combination, with a sole-sewing machine having a fixed rest or support fitted to enter the angle of the welt with the upper, of a movable gage sustained at the level of such rest or support and similarly adapted to enter the angle of the welt with the upper, and means applied to the said gage for shifting its position at such level, as and for the purpose set forth.

15 3. In a sole-sewing machine, the combination, with a frame carrying suitable sewing mechanism, and a fixed external support or rest for the outer edge of the sole fitted to enter the angle of the welt with the upper, of a gage sustained upon the said frame at the level of such support or rest similarly adapted to enter the angle of the welt with the upper of the shoe and formed with a foot-piece mounted in a suitable guide or guides transverse to the feed of the machine and adapted to slide therein, and a shift-lever fulcrumed upon the frame and pivoted to the said foot-piece of the gage, substantially as herein shown and described.

25 4. In a sole-sewing machine, the combination, with a frame carrying suitable sewing mechanism, and a fixed external support or rest for the outer edge of the sole, fitted to enter the angle of the welt with the upper, of

a gage sustained upon the said frame at the level of such support or rest similarly adapted to enter the angle of the welt with the upper of the shoe and formed with a foot-piece mounted in a suitable guide or guides transverse to the feed of the machine and adapted to slide therein, a shift-lever fulcrumed upon the frame and pivoted to the said foot-piece of the gage, and a stop beyond the normal position of the said lever for limiting its throw, substantially as herein set forth.

5. In a sole-sewing machine, the combination, with a frame carrying suitable sewing mechanism, of a gage adapted to enter the angle of the welt with the upper of the shoe and formed with a foot-piece secured movably upon the said frame, a shift-lever fulcrumed upon the said frame and pivoted to the said foot-piece of the gage, a plate projected from the frame beneath the said foot-piece of the gage and provided with a slot to receive the free end of the lever, and a pin adapted to be set upon the plate across the slot to serve as an adjustable stop for the lever, substantially as herein set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

HENRY W. JOHNSON.

Witnesses:

HENRY J. MILLER,
WILLIAM BATSON.