

No. 704,457.

Patented July 8, 1902.

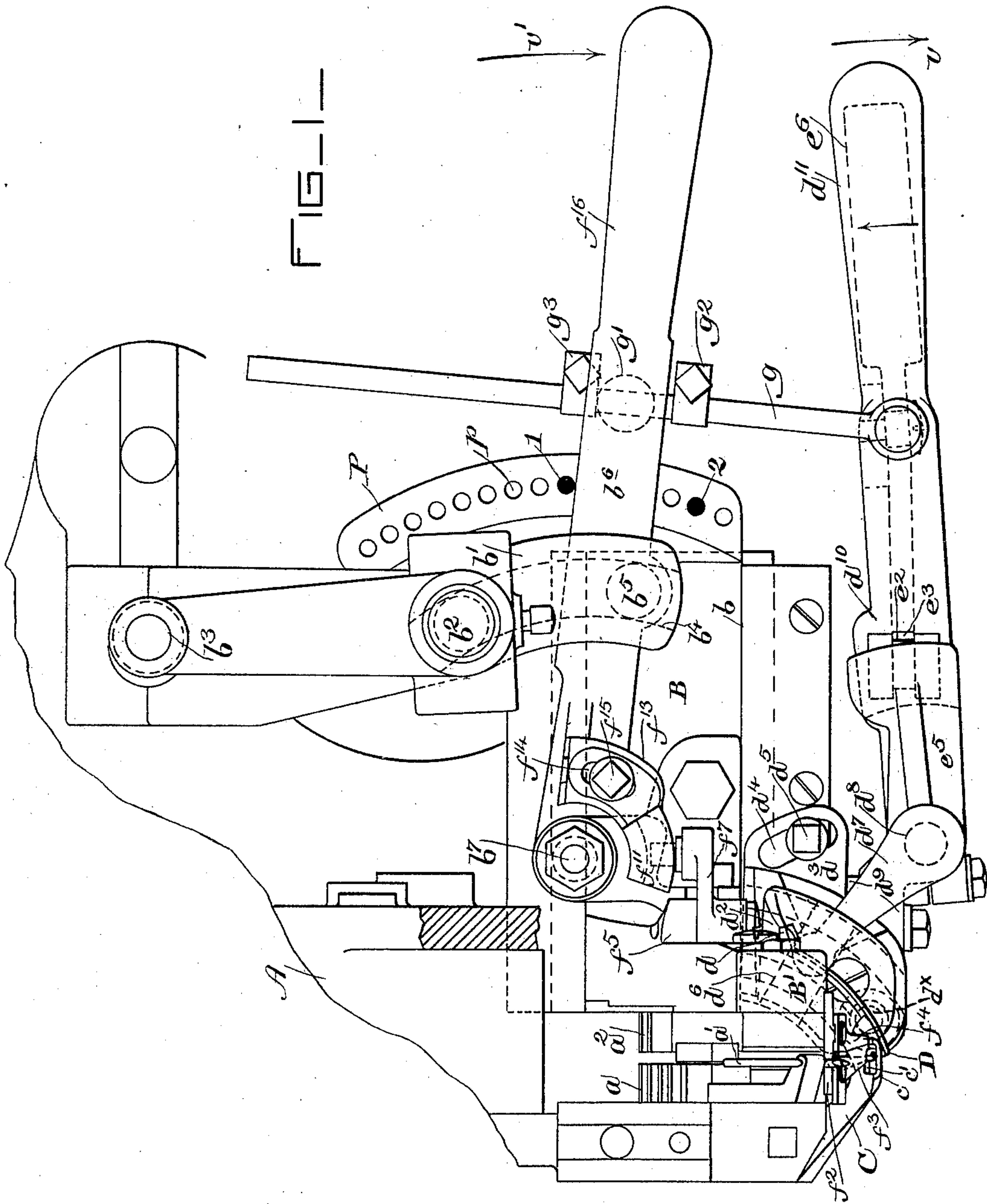
J. B. HADAWAY.

SHOE SEWING AND WELT BEVELING MACHINE.

(Application filed June 3, 1898.)

(No Model.)

3 Sheets—Sheet 1.



WITNESSES

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le. Kitching-

INVENTOR

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By his attorneys,
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Fig. 6.

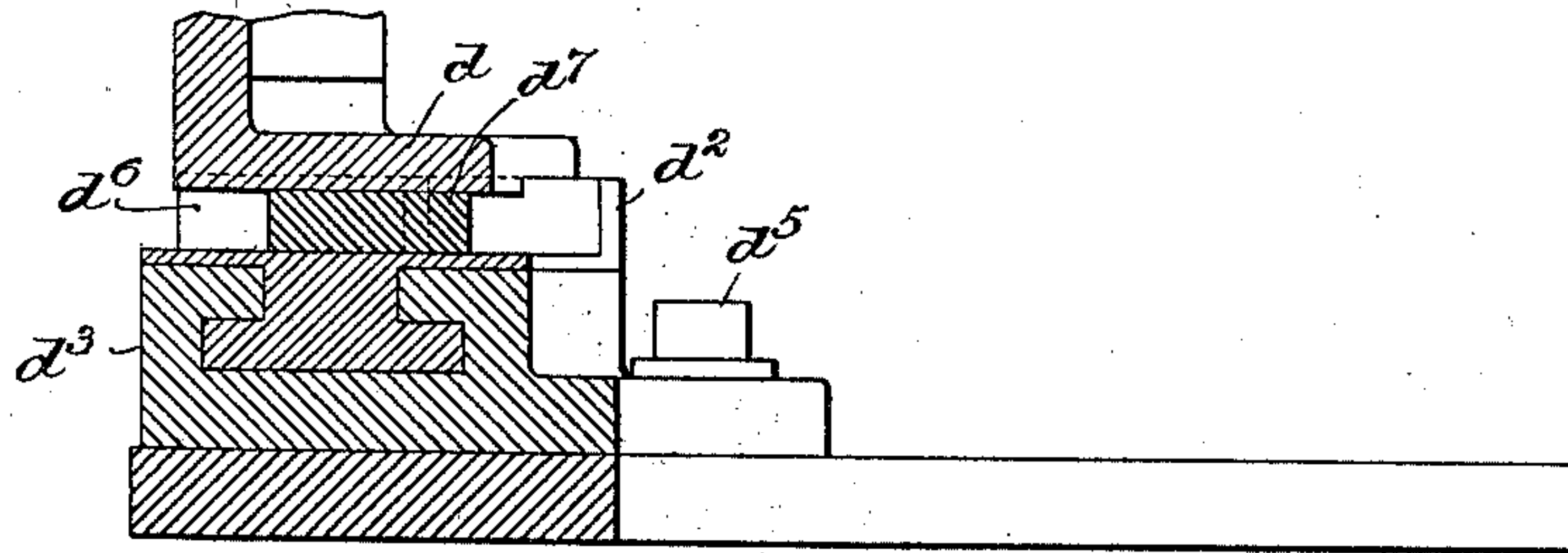


Fig. 7.

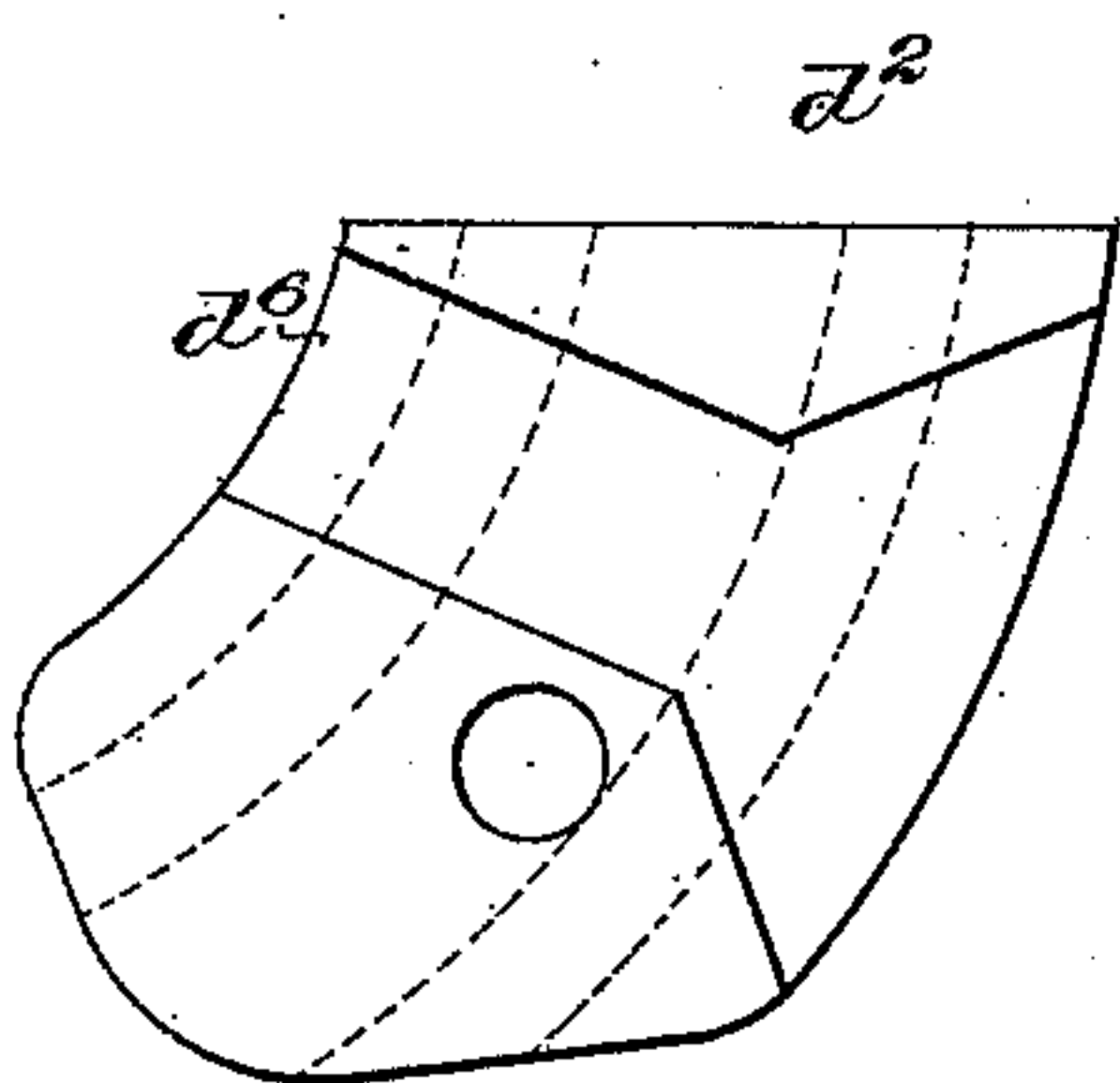
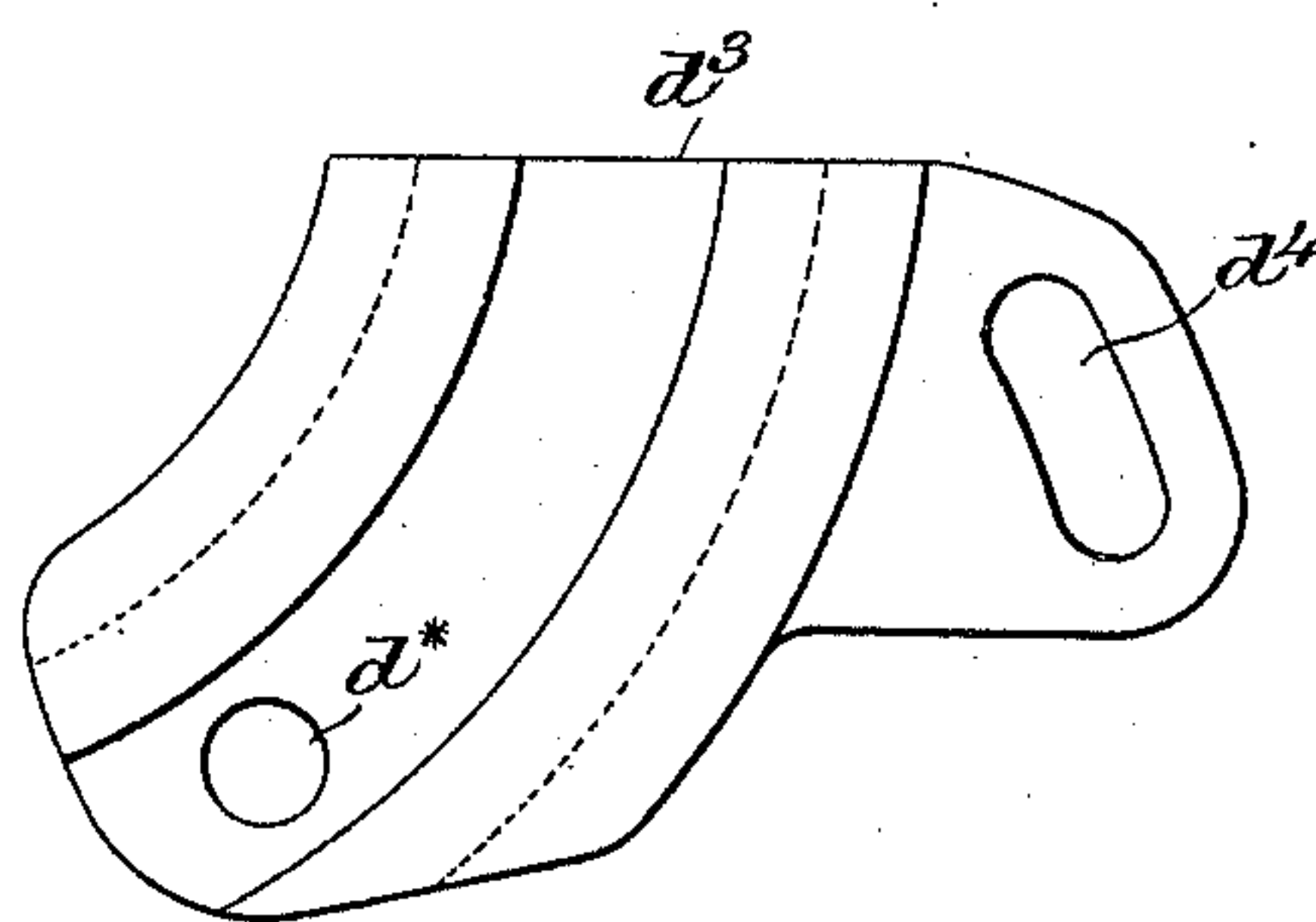


Fig. 8.



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UNITED STATES PATENT OFFICE.

JOHN B. HADAWAY, OF BROCKTON, MASSACHUSETTS.

SHOE-SEWING AND WELT-BEVELING MACHINE.

SPECIFICATION forming part of Letters Patent No. 704,457, dated July 8, 1902.

Application filed June 3, 1898. Serial No. 682,438. (No model.)

To all whom it may concern:

Be it known that I, JOHN B. HADAWAY, a citizen of the United States, residing at Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Shoe-Sewing and Welt-Beveling Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to shoe-sewing machines employed to unite the outsole to the welt and lasted upper and insole of welted boots and shoes. In some shoes the welt and outsole project varying distances beyond the upper, as in the so-called "Baltimore-edge" shoes, wherein the shank portions of the welt and outsole are set in close to the upper, forming a "close shank," as it is called, common to most boots and shoes, and wherein the edge of the welt and outsole is wider at the outer ball portion than it is at the inner ball portion and around the toe of the shoe. The ordinary outsole-sewing machine of the prior art has a fixed work-support which enters the crease between the upper and the welt and acts as a gage to guide the shoe during the sewing operation. Inasmuch as this work-support is always maintained in a fixed position, it has been very difficult to properly position the shoe or the edge of the sole with relation to the line of oscillation of the needle in those shoes where the sole and welt extends varying distances.

In uniting outsoles to the welts of welted shoes it is the custom to place the stitches of the outseam at the shank portion at a slightly-greater distance from the edge of the shoe-sole and welt than around the ball and toe portion. While stitching the shank portion of the shoe-sole to the welt, the fixed work-support is sufficient to properly guide the shoe with relation to the needle to position the stitches closely within the groove formed by the welt and upper; but, as before stated, it is difficult with the fixed gage to position accurately shoes wherein the sole and welt project varying distances.

One object of the present invention is to provide a shoe-sewing machine of the class indicated with an auxiliary movable gage ar-

ranged to be brought into action by the operator when required to guide the shoe while sewing around the fore part of the shoe-sole, said gage being arranged to be projected more or less, as desired, to move the shoe farther away or closer to the line of oscillation of the needle, according as the edge of the sole projects more or less beyond the upper. I have also combined in the present invention a welt-beveling mechanism of the type disclosed in Reissue Letters Patent of the United States issued to me December 8, 1897, No. 11,578. The machine of said patent contains a welt-beveling knife mounted upon and actuated by the feed-slide, which is arranged to cut a beveled shaving from the edge of the welt adjacent to the line of stitches as said stitches are formed. It is not desirable in all cases to bevel the edge of the welt entirely around the shoe, the most common practice being to bevel the edge of the welt around the ball and fore part only, leaving the shank part with a sharp or angular edge present in the usual welt. In said patented machine, however, there is no provision for beveling one portion of the welt and leaving the other portion in its original condition.

In the machine of the present application I have provided means under the control of the operator whereby he can at will throw the welt-beveling mechanism into and out of operation. I have also combined the welt-beveling mechanism with the work-feeding mechanism, whereby as the feed of the work is increased at the shank portion of the shoe, as is now common practice in sewing shoes, the welt-beveling mechanism will be thrown out of action, and as the feed is decreased while stitching around the ball and fore part the welt-beveling mechanism will be thrown into action, all of which will be hereinafter described and claimed.

The present invention therefore consists of the devices and combinations of devices which will be hereinafter described and claimed.

The present invention is illustrated in the accompanying drawings, wherein I have illustrated it as applied to the Goodyear sole-sewing machine shown and described in Letters Patent of the United States, No. 473,870, issued to the Goodyear Shoe Machinery Com-

pany as the assignee of Zachary T. French and William C. Meyer, April 26, 1892, to which patent reference may be had for any information relating to parts of the sewing-machine not shown in the accompanying drawings.

Figure 1 shows a fragmentary portion of such machine, the parts being illustrated in plan view with my invention applied thereto. Fig. 2 shows in front elevation the feed-slide of said machine with my improved welt-beveling mechanism applied thereto removed from the machine. Fig. 3 represents a side elevation of the feed-slide, showing details of construction looking toward the right in Fig. 2. Fig. 4 shows a side elevation, parts in section, looking toward the left in Fig. 2. Fig. 5 represents a fragmentary front elevation of the actuating-lever for the auxiliary guide, and Figs. 6, 7, and 8 illustrate in vertical section and plan views parts of the gage-actuating mechanism to be referred to.

Similar characters of reference will be used to designate corresponding parts throughout the specification and drawings.

In the drawings, A represents a small portion of the fixed frame of the machine, in which is set a stud upon which is mounted the needle-segment a , carrying the usual curved hook-needle a' , all as is fully described in the Letters Patent No. 473,870, hereinbefore referred to.

B represents the feed-slide, which is fitted to reciprocate horizontally in a suitable guide-way b by means of a lever b' , which is fulcrumed at b^2 to a fixed part of the frame and which at its rear end carries a cam-roll b^3 , engaging a suitable cam, (not shown,) by means of which the said lever will be oscillated about its fulcrum b^2 . At its forward end the lever b' is provided on its under face (see dotted lines, Fig. 1) with a groove b^4 , which receives a pin or stud b^5 , projecting from a lever b^6 , which at its rear end is fulcrumed at b^7 to the feed-slide B. By swinging the lever b^6 around its fulcrum b^7 , so as to adjust the stud b^5 along the groove b^4 nearer to or farther away from the fulcrum b^2 of the lever b' , the reciprocations of the feed-slide B will be shortened or lengthened, and for the purpose of swinging the lever b^6 it is extended or provided with a handle f^{16} . The shifting of the lever b^6 must be quickly performed by the operator as the sewing progresses, and in order that said lever may be accurately positioned at the desired points without much care the machine is provided with the usual segmental plate P, which extends beneath the lever b^6 and is provided with holes p , which receive stop-pins 1 and 2, which are placed in the desired holes p to limit the movement of the lever b^6 in both directions. It will thus be seen that by the mechanism just described the feed-slide B will have imparted to it a reciprocating movement toward and from the needle-segment a and needle a' , and by means of the awl, (not shown,) which is carried by

the awl-segment a^2 , fulcrumed to a stud a^3 in a vertical arm or standard B' of the feed-slide B, the shoe will be fed toward the needle, all as usual in the machine of the Patent No. 473,870.

C represents the fixed work-support, which support may be and preferably is similar in construction to the work-support of the machine of Patent No. 473,870, and said work-support is fixedly secured to a fixed portion of the machine and projects upwardly and forwardly, as usual in such machines, and at its upper and outer end it is rounded, as shown at c , and provided with a slot or aperture c' , through which the needle and awl pass as they are oscillated. As hereinbefore stated, while sewing along the shank portions of the shoe-sole the outer curved face c of the work-support C is received within the crease formed by the welt and upper, and at such shank portions the gaging effect of the work-support C is usually sufficient to properly position the edge of the shoe-sole with relation to the path of oscillation of the needle and awl. As the work progresses toward the fore part of the shoe and the sole becomes wider and projects farther out from the upper it is necessary that the shoe be moved farther away from the outer curved face of the work-support C in order that the edge of the wider part of the shoe-sole may be positioned at the desired point with relation to the line of oscillation of the needle and awl.

To secure the above-suggested result in the machine of the drawings, I have provided an auxiliary movable gage, which at the desired times is projected and interposed between the curved outer face of the work-support C and the upper of the shoe. In an application filed by me on the 14th day of May, 1898, No. 680,703, patented November 5, 1901, No. 685,836, I have shown, described, and claimed a shoe-sewing machine provided with an auxiliary work-gage and automatic means for projecting and retracting such automatic gage, whereby as the sewing progresses the edge of the shoe-sole will be automatically positioned with relation to the line of oscillation of the needle and awl. As hereinafter noted, the auxiliary gage of the machine of the drawings is constructed and arranged in substantially the same manner as the auxiliary gage of the machine of the application referred to, the main difference between the present invention and the invention of said application being that in the present case the auxiliary gage is arranged to be projected and retracted by hand-operated mechanism instead of by automatic means.

The auxiliary gage is shown at D and is curved, as shown in Fig. 1, at its upper end to move in a curved path in front of the fixed support C. The auxiliary gage D is fixedly secured to a vertical standard carried by the upper member d of a gage-carrier d^2 . The gage-carrier d^2 is connected by a suitable curved T rib or projection, which has a slid-

ing movement in a curved T groove or guideway (see dotted lines, Figs. 1 and 8, and also Fig. 6) in a gage-carrier block d^3 , which is, by means of the slot d^4 and bolt d^5 , arranged to be adjusted about the pivot d^x , which passes through the hole d^* , all as set forth in the application referred to.

For the purpose of imparting a sliding movement to the gage-carrier d^2 to project or retract the auxiliary gage D, I have provided the gage-carrier d^2 with a recess d^6 , (see Figs. 1 and 7,) into which projects an arm d^7 , being fixedly secured to the upper end of a stud d^8 , (see dotted lines, Fig. 1,) which is mounted in a bracket d^9 , fixedly secured to the front of the machine. To the lower end of the stud d^8 is adjustably secured one end of a lever d^{10} , the opposite end of said lever being provided with a suitable handle d^{11} , whereby as said lever is moved back and forth the arm d^7 will be caused to move the gage-carrier d^2 and cause the auxiliary gage D to move in a curved path in front of the work-support C.

As shown in Fig. 1 of the drawings the auxiliary gage D is in its intermediate position and the machine is arranged for stitching along the inner ball portion and around the toe of the shoe, and by a movement of the handle d^{11} of the lever d^{10} in a backward direction or in the direction of the arrow on the handle of said lever the auxiliary gage D will be caused to move forward in front of the work-support C or to its advanced position.

With the auxiliary gage D moved outwardly a short distance or to its intermediate position, as shown, a considerable portion of the shoe-sole may be sewed—that is, from the inner side of the ball portion around the toe to a point about an inch removed from the point of the toe—after which the gage is gradually projected until it extends outward beyond the work-support C a sufficient distance to accommodate for the widest part of the shoe-sole, which is at the outer ball portion. It will therefore be seen that in operating upon a shoe the auxiliary gage D assumes three positions. It is retracted and remains retracted while stitching along the shank, while stitching at the inner side of the ball portion around the toe, the auxiliary gage would be in an intermediate position, and while stitching the remainder or outer side of the ball portion the auxiliary gage will be further projected, and as the shank portion on the outer side of the shoe is reached said gage will be again retracted.

For the purpose of holding the auxiliary gage in its intermediate position I have provided a suitable latching or locking device, which consists of a lever e , fulcrumed at e' to a projection upon the under side of the lever d^{10} , which is provided at one end with an up-turned arm e^2 , which passes through an aperture e^3 in the lever d^{10} and which is arranged to engage a notch e^4 , (see Fig. 5,) formed in the under face of a projection e^5 , projecting from the bracket d^9 , which supports the fulcrum d^8 of the lever d^{10} . At its opposite end the lever e is provided with a finger-piece e^6 (see dotted lines, Fig. 1) and is acted upon by a leaf-spring e^7 , (see dotted lines, Fig. 5,) by means of which the arm e^2 may be held in engagement with the slot e^4 in the projection e^5 , which will maintain the auxiliary gage D in its intermediate position.

The welt-beveling mechanism in the present machine is, like the machine of Patent No. 11,578, hereinbefore referred to, mounted upon and actuated to produce the cut by the feed-slide B, and, as hereinbefore set forth, said welt-beveling mechanism is arranged to be thrown into and out of operation by mechanism under the control of the operator.

To secure the above-suggested results in the illustrated embodiment of the present invention, the standard or arm B' is cut out upon the face adjacent the needle, as shown at f , Fig. 3, forming a guideway in which is arranged a slide f' . At the upper end the slide f' is provided with a laterally-extending plate or arm f^2 , to which is secured the angular welt-beveling knife f^3 and the angular guard f^4 .

As shown in Figs. 1 and 4 of the drawings, the work-support C is cut out upon its upper face, as shown at x , and in the cut-out portion the knife and guard f^3 and f^4 reciprocate during the operation of beveling the edge of a welt.

When it is desired to bevel the edge of a welt, the slide f' is moved upwardly along the guideway f , so as to raise the knife f^3 to such a position that its point or lower end will approximate the upper surface of the highest point of the work-support, and when it is desired to stop the beveling operation the slide f' will be moved downward in order to depress the knife f^3 below the surface of the work-support and into the recess.

Any suitable means may be provided for actuating the slide f' ; but as illustrated in the drawings the mechanism for raising and lowering the slide f' is constructed and arranged as follows: Projecting outwardly to the right, as shown in Figs. 1 and 2 of the drawings, from the standard B' is a bearing f^5 , to which is fulcrumed by means of the stud f^6 a two-armed lever f^7 , one arm of which projects through an aperture f^8 in the standard B' and is provided with a head f^9 , which engages an opening f^{10} , formed in the slide f' . The opposite arm of the lever f^7 carries an eccentric stud f^{11} , which engages a cam-groove f^{12} , formed in the front face of the bracket f^{13} , which by means of a slot f^{14} and a bolt f^{15} is adjustably secured to the link b^6 . The said link b^6 is extended beyond its connection with the lever b' and provided with a handle f^{16} , by means of which the link b^6 may be moved back and forth and by means of the cam-groove f^{12} and the bracket f^{13} oscillate the lever f^7 and impart a sliding move-

ment to the slide f' in the guideway f to raise and lower the welt-beveling knife. The stud f^{11} is an eccentric stud, as before stated, and it is adjustably secured by means of a screw f^{17} in the split end f^{18} of the lever f^{17} . By releasing the screw f^{17} and turning the stud f^{11} the throw of the lever f^7 may be adjusted to adjust the throw of the slide f' and the knife f^3 to compensate for various heights of work-supports or to provide for the wear of parts and for variations in the depth of cut which it is desired to make.

It will of course be understood that the movement of the slide f' to place the knife f^3 in and out of operative position will be very slight. Perhaps it is well to state at this point that it is now the common practice in sewing soles to the welts of boots and shoes to increase the feed of the machine while working along the shank portion of the shoe to increase the length of stitch, and it will therefore be noted that by connecting the devices which throw into and out of operation the welt-beveling mechanism with the means for adjusting the reciprocations of the feed-slide and the feed when the lever b^6 is shifted in the direction of the arrow v' (shown in Fig. 1) to lengthen the feed while sewing along the shank portion of the shoe the welt-beveling mechanism will be thrown out of operation while working along this portion of the shoe and that when it is desired to shorten the feed when working around the fore part of the shoe and the lever b^6 moved backwardly in a direction opposite to the arrow v' (shown in Fig. 1) the welt-beveling mechanism will be thrown into operation and will bevel the welt at that part of the shoe where it is desired. It is to be further noted that where it is desired to adjust the length of stitches to the minimum length required in the piece of work in hand said adjustment can be accomplished and the times of throwing the welt-beveling mechanism into and out of operation adjusted to accord with the desired adjustment of the feed by loosening the nut f^{15} and adjusting the bracket f^{14} on the lever b^6 to thus secure the desired synchronism of action between the welt-beveling mechanism and the feeding mechanism.

It has never been proposed, so far as I am aware of the state of the art, to provide a sole-sewing machine with a welt-beveling mechanism which can be thrown into and out of operation during the continued operation of the machine, nor has it been proposed to connect the welt-beveling mechanism with the feed-adjusting mechanism, so as to obtain the adjustment of the feed at the same time that the welt-beveling mechanism is thrown into and out of operation, and I do not, therefore, consider that my present invention is limited to the illustrated embodiment thereof, but consider it to be broadly novel.

It is desirable in many cases to connect the auxiliary gage D with the welt-beveling and feed-adjusting mechanism to vary the posi-

tion of the gage D and simultaneously shift the welt-beveling mechanism out of operative position and change the feed of the machine by the movement of a single device, to accomplish which in the machine of the drawings I have pivotally secured to the lever d^{11} a link or bar g , which passes through a swiveled guide g' on the under side of the lever b^6 , and the bar g is provided with suitable adjustable stops g^2 and g^3 , which are arranged to engage the swiveled guide g' at times as the lever d^{11} is moved and impart a movement to the lever b^6 and also at other times to impart a movement to the lever d^{11} as the handle f^{16} of the lever b^6 is moved, as will be hereinafter set forth.

The operation of the invention of the drawings is as follows: As shown in the drawings, the mechanism is set with the auxiliary gage D in an intermediate position or in the position for stitching around the greater part of the shoe-sole—namely, from a point at the inner shank portion along the inner ball portion and around the toe to a point about one inch removed from the toe on the outer side of the fore part of the shoe. In beginning the sewing of the outsole of a right shoe the lasted upper, with the outsole temporarily attached thereto, is held by the operator in an inverted position, with the outsole uppermost, and the sewing is commenced at a point which would mark the beginning of the shank portion at the outer side of the shoe. Before presenting the shoe in position the welt-beveling mechanism is thrown out of operation, the feed lengthened, and the auxiliary gage retracted by a movement of the lever d^{11} in the direction of the arrow v (shown in Fig. 1) until the lever b^6 comes in contact with the stop-pin No. 2, said lever b^6 , as hereinbefore described, being moved in the direction of movement of the lever d^{11} by means of the stop g^3 , which at such time will be in contact with the swiveled block g' . With the parts in this position and the shoe guided by the work-support C the sewing progresses along the outer shank portion, the stitches being relatively longer than the stitches around the fore part and positioned somewhat farther away from the edge of the shoe-sole, the welt being left with an angular edge or corner. As the outer ball portion of the shoe is reached it is necessary to shorten the feed, and thereby shorten the stitches, and at the same time throw into operation the welt-beveling mechanism and advance the auxiliary gage to move the shoe away from the fixed work-support and position the edge of the sole, which at this point projects some distance beyond the upper, in proper relation to the path of oscillation of the needle and awl. At this time the operator grasps the lever d^{11} and moves it back in the direction of the arrow on said lever, thus throwing out the auxiliary gage, and it will be obvious that by thus moving the lever this gage will be moved to its intermediate position before the stop

g^2 is brought into contact with the swiveled block g' to impart a movement to the lever b^6 to shorten the stitch and throw the welt-beveling mechanism into operation; but inasmuch as the operator at this time desires the auxiliary gage D to be projected to its advanced position he continues to push back upon the lever d^{11} after the stop g^2 comes in contact with the swiveled block g' , and thereafter simultaneously advances the gage D and throws the welt-beveling mechanism into operation and shortens the stitch by the movement of the lever b^6 backward until it is brought in contact with the stop-pin 1, it being understood that during this movement of the lever d^{11} the operator holds the lever e against the tension of spring e^7 to prevent the latch e^2 from engaging the recess e^4 . The sewing now continues with the auxiliary gage advanced and with the feed mechanism adjusted for the shortened stitch and the welt-beveling mechanism in operation until the widest part of the outer ball portion of the shoe has been stitched, after which the operator by means of the lever d^{11} gradually retracts the auxiliary gage D until it assumes its intermediate position, at which time the sewing has progressed to a point upon the outer side of the shoe-sole about one inch removed from the point of the toe, and this retracting of the auxiliary gage takes place without affecting the feed and without displacing the welt-beveling mechanism by reason of the fact that the stop g^3 when the lever d^{11} was pushed back to advance the gage D moved to a point a short distance beyond the block g' ; but as the gage D reaches the intermediate position the stop g^3 will have been by the forward movement of the lever d^{11} as the gage D was retracted to its intermediate position brought up substantially in contact with the block g' . The parts now remain in the position to which they were last moved while the outsole is stitched to the welt around the toe and along the inner ball portion until a point is reached at the beginning of the inner shank portion, at which time the lever d^{11} will be grasped by the operator and moved forward in the direction of the arrow v , thus retracting the auxiliary gage D and by means of the rod g and the stop g^3 draw forward the lever b^6 until it is in contact with the stop-pin No. 2, thus lengthening the feed and throwing the welt-beveling mechanism out of operation, and with the parts thus positioned the inner shank portion of the sole is sewed.

In stitching the left shoe, assuming that the parts are in the position in which they were left at the completion of stitching the right shoe, they will be in position to stitch the shank portion of the inner side of the left shoe, and as the inner ball portion of the left shoe is reached it becomes necessary to project the auxiliary gage D to its intermediate position, to throw into operation the welt-

beveling mechanism, and to shorten the feed, and thereby shorten the stitch, all of which can be done by grasping the handle f^{16} of the lever b^6 and moving it back as far as possible or against the stop No. 1, and inasmuch as the stop g^3 when the gage is retracted and the stitch lengthened will be in contact with the swiveled block g' it is obvious that the backward movement of the handle f^{16} and lever b^6 will draw back the lever d^{11} to its intermediate position. The sewing then continues around the inner ball portion and around the toe to a point upon the outer side of the shoe-sole about one inch removed from the point of the toe, at which time it becomes necessary to gradually move the auxiliary gage outward to its advanced position, which is accomplished by grasping the lever d^{11} and releasing the latch e^2 and gradually moving the lever backward until the stop g^2 comes in contact with the swiveling block g' , thus projecting the auxiliary gage D to provide for the extended outer ball portion, and as the outer shank portion is reached the gage will be retracted, the stitch shortened, and the welt-beveling mechanism thrown out of operation by a quick movement of the lever d^{11} in a forward direction or in the direction of the arrow v' , which will by means of the rod g and the stop g^3 draw forward the lever b^6 and lengthen the feed and depress the welt-beveling mechanism.

I have in the foregoing specification and in the following claims referred to the welt-beveling mechanism as being thrown into and out of operation, and by this I desire to be understood as defining not only the illustrated embodiment of my invention wherein the welt-beveling mechanism is thrown into and out of position to bevel the edge of the welt and wherein it is constantly moved during the operation of the machine by reason of its location on the feed-slide, but also any equivalent construction and also any form and arrangement of combined sole-sewing and welt-beveling mechanism having provision for operating the welt-beveling mechanism to bevel a portion only of the edge of the welt of a boot or shoe and leave a portion thereof not beveled.

It will be observed that in the operation of sewing the sole to the welt it is desirable to throw the welt-beveling mechanism and the movable gage into and out of operation and to change the feed adjustment at the same times and that providing a sole-sewing machine with these mechanisms secures advantages apparent to those skilled in the art, conduces materially to the simplicity of the machine, and increases the speed at which the machine may be successfully operated. Furthermore, additional and obvious advantages flow from the combining of these mechanisms, so that the welt-beveling mechanism and the movable gage or the welt-beveling mechanism and the feed-adjusting means, or all three, may be actuated by one lever. I believe I

am the first to combine these mechanisms in the manner above described and hereinafter particularly defined in the claims.

It is to be noted that wherever in the claims
 5 the movable gage is not specifically limited to a gage which engages the crease between the upper and the welt that the gage contemplated is any form of gage adapted to change the position of the seam which unites the sole
 10 and welt with relation either to the upper or the edge of the sole.

Having thus described my invention and its mode of operation, I claim as novel and desire to secure by Letters Patent of the United
 15 States—

1. In a sole-sewing machine, the combination with stitch-forming mechanism, of welt-beveling mechanism and means for throwing the welt-beveling mechanism into and out of
 20 operation during the continued operation of the machine, substantially as described.

2. In a sole-sewing machine, the combination with stitch-forming mechanism, of welt-beveling mechanism, a movable gage, means
 25 for throwing the welt-beveling mechanism into and out of operation during the continued operation of the machine, and means for throwing the movable gage into and out of operation, substantially as described.

3. In a sole-sewing machine, the combination with stitch-forming mechanism, of welt-beveling mechanism, a movable gage and connected means for throwing the welt-beveling mechanism and the movable gage into
 30 and out of operation, substantially as described.

4. In a sole-sewing machine, the combination with stitch-forming mechanism, feeding means and feed-regulating means, of welt-
 40 beveling mechanism and connected means for

throwing the welt-beveling mechanism into and out of operation and operating the feed-regulating means, substantially as described.

5. In a sole-sewing machine, the combination with stitch-forming mechanism, feeding
 45 means and feed-regulating means, welt-beveling mechanism, a movable gage, and connected means for throwing the welt-beveling mechanism into and out of operation and operating the movable gage and the feed-regulating means, substantially as described.
 50

6. In a sole-sewing machine, the combination with stitch-forming mechanism, of welt-beveling mechanism, a movable crease-gage, means for throwing the welt-beveling mechanism into and out of operation, and means
 55 for throwing the movable crease-gage into and out of operation, substantially as described.

7. In a sole-sewing machine, the combination with stitch-forming mechanism, of welt-beveling mechanism, a movable crease-gage and connected means for throwing the welt-beveling mechanism and the movable crease-gage into and out of operation, substantially
 60 as described.

8. In a sole-sewing machine, the combination with stitch-forming mechanism, feeding means, and a feed-regulating means, of welt-beveling mechanism, a movable crease-gage and connected means for throwing the welt-beveling mechanism into and out of operation and operating the movable crease-gage and the feed-regulating means, substantially
 65 as described.

In testimony whereof I affix my signature
 70 in presence of two witnesses.

JOHN B. HADAWAY.

Witnesses:

T. HART ANDERSON,
 HORACE VAN EVEREN.