No. 840,600. PATENTED JAN. 8, 1907.

W. ARBETTER.

ATTACHMENT FOR BLINDSTITCH SEWING MACHINES.

APPLICATION FILED MAR. 1, 1905.

Fig. 1.

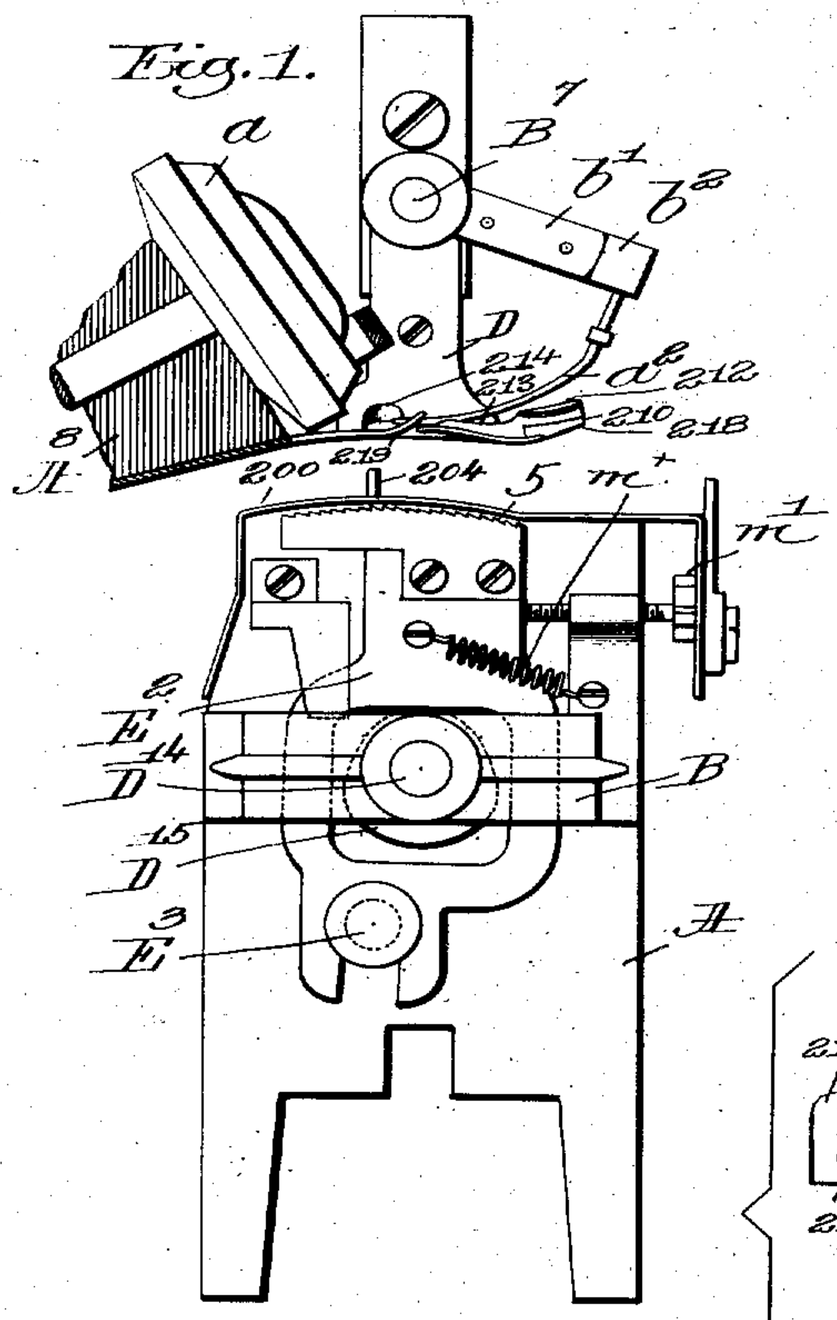


Fig. 2.

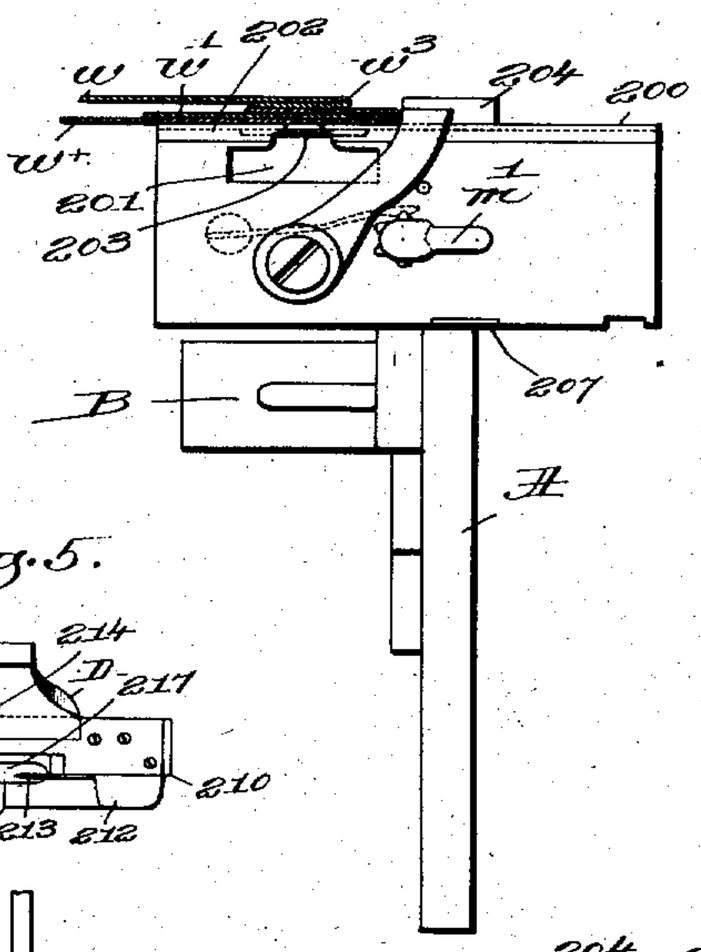


Fig. 5.

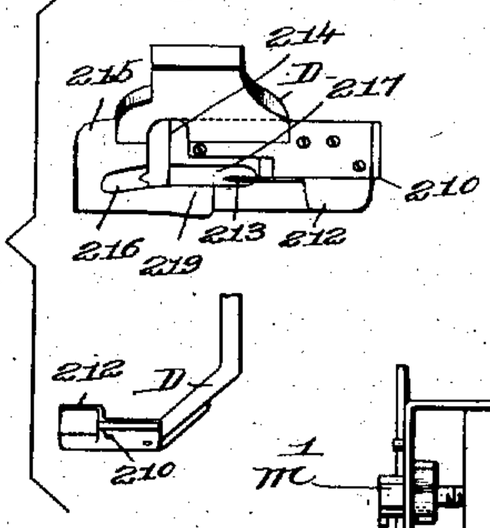


Fig. 3.

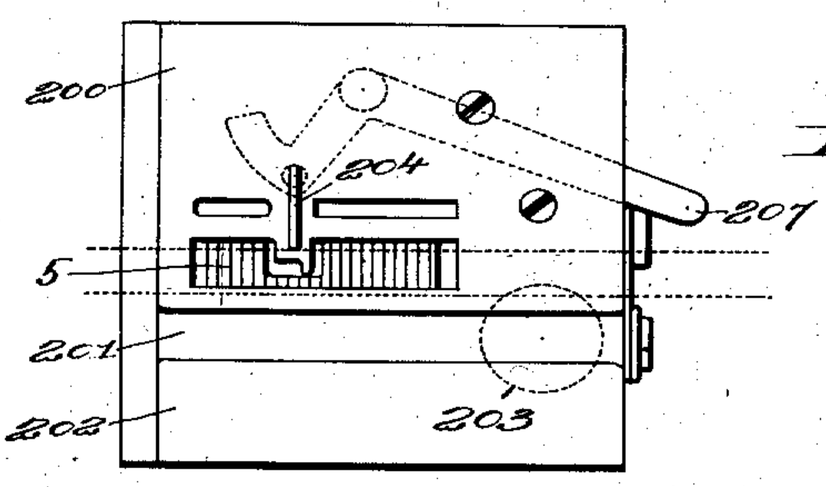
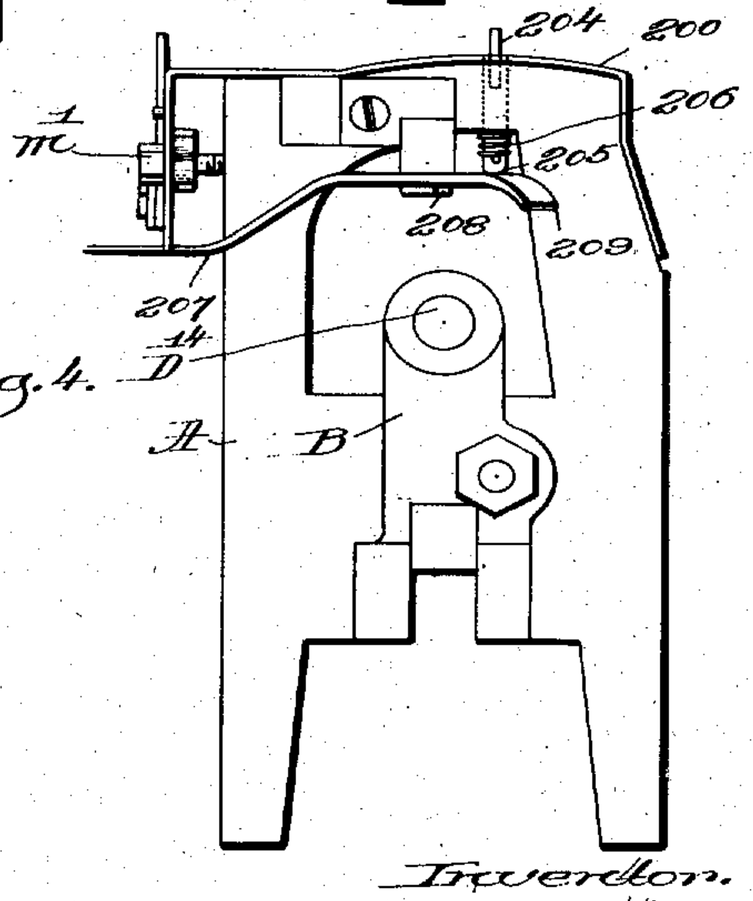


Fig. 4.



Witnesses:
Fred. S. Grumbach.
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Inventor.
Wolf Arbetter.
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UNITED STATES PATENT OFFICE.

WOLF ARBETTER, OF CHELSEA, MASSACHUSETTS, ASSIGNOR TO ARBETTER FELLING MACHINE COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

ATTACHMENT FOR BLINDSTITCH SEWING-MACHINES.

No. 840,600. Specification of Letters Patent. Patented Jan. 8, 1907.

Application filed March 1, 1905. Serial No. 247,836.

To all whom it may concern:

Be it known that I, WOLF ARBETTER, a citizen of the United States, and a resident of Chelsea, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Attachments for Blindstitch Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like characters on the drawings representing like parts.

This invention has for its object the production of a machine especially devised for felling facings or linings onto waistbands after the buttons have been stitched in place thereon, thus enabling this class of work, which has always been done by hand, to be done by machinery.

Figure 1 in front elevation shows a sufficient part or a sewing-machine, such as illustrated in application, Serial No. 227,218, filed October 5, 1904, with my improvement added to enable my invention to be described. Fig. 2 is a right-hand side elevation of the parts shown in Fig. 1. Fig. 3 is a top or plan view. Fig. 4 is a rear side view of the parts shown in Fig. 1, and Fig. 5 shows a plan and end view of the presser-foot detached.

In the drawings, A represents part of the framework of the machine, it having a suitable bearing B, that sustains the end of a feed-actuating shaft D^{14}, said shaft, the feed-cam D^{15} thereon, the feeding device E^2, provided with a serrated surface 5, the regulating device m' for controlling the length of the feed-stroke, and consequently of the stitch, the stud E^3, embraced by the lower end of the feeding device, the spring $m^\times$ for lowering and returning the feeding device to its starting position, the needle a^2, carried by the arms b^2 n', extended from a needle-carrying shaft B^7, the complementary second thread-carrier, represented as a loop-taker a, sustained in a frame A^8, are and may be all substantially as described in said application. Herein the stitch made by the stitch-forming mechanism will be as provided for in said application, and the stitch-forming mechanism will be actuated as fully described therein.

The parts herein to be described have been devised to enable facing to be stitched to a waistband automatically instead of by hand, as usual. The waistband is always provided with buttons, which are attached to the body thereof by hand prior to stitching the facing to the waistband, and consequently to enable the facing to be stitched to the band by a machine a space must be provided through which the buttons may travel and not interfere with the stitching operation. It will be understood that it is necessary for the material acted upon by the feed and passing between the cloth-plate and the presser-foot to be moved in a straight line, and a button could not come between the presser-foot and the work-support without destroying the operation of the machine. Instead, therefore, of the work-support shown in said application I have provided a work-support composed of a main plate 200 and an auxiliary plate 202, the edges of the plate being so located with relation one to the other as to present a button passage-way or slot 201. The slot 201 is open in the direction of the length of the feed, (preferably shown in Fig. 2,) and the buttons travel below the work-support as the feeding-device 5, in engagement with the work, moves the same over the work-support, the edges of the main and auxiliary plates entering the space between the buttons and waistband in the line of the attachment of the buttons to said waistband and close to the stitches employed to connect the buttons to the waistband.

The work-support sustains the waistband at each side the line in which the buttons are attached thereto. The work-support has a slot in which moves the serrated upper end 5 of the feeding device, it engaging the outer side of the waistband near its top edge, or that part of the waistband above the line of buttons when the pantaloons are being worn, said edge being guided by contact with an edge-gage 204, (shown as occupying its operative position above the work-support,) the acting edge of said gage being substantially opposite the point where the point of the needle enters the inturned or folded edge w^3 of the waistband or facing w, which folded edge is engaged underneath by the needle a^2 and stitched to the waistband by the needle-thread and the complementary thread device, shown as a loop-taker containing a bobbin-case having a bobbin in which is a second

thread, all as provided for in said application and also in United States Patent No. 690,385, dated January 7, 1902, and granted to me.

The edge-gage is carried at the upper end of a shank 205, provided below said work-support with a spring 206, the lower end of the spring being shown as resting on a pin in said shank. The lower end of the shank rests on a gage-controller 207, shown as a lever pivoted at 208 and having a cam-shaped end 209. When the controller stands in the position shown in the drawings, the gage is lifted into its operative position; but when turned into the dotted-line position, Fig. 3, the spring referred to retracts the gage into its inoperative position, said gage being then withdrawn, so that its top is substantially flush with the work-support, said gage occupying its inoperative position when the stitching has been carried along the upper edge of the facing to within about an inch or so from the front end of the waistband, where the facing ends and where the line of stitching is to be then carried across the end of the facing and across the waistband and down parallel with the inner edge of the usual buttonhole piece or fly. Withdrawing the edge-gage, as described, permits the position of the work to be changed sharply about the needle that the work may be fed in a direction at right angles to the direction in which it was being fed when the edge of the waistband contacted with the edge-gage.

During the stitching of the infolded edge of the material or facing *w* to the waistband said edge will run against the guiding edge 210 of the presser-foot, (herein marked D,) which differs somewhat from the presser-foot of said application. The presser-foot has an overhanging lip 212, provided with a finger 213, that is extended forwardly, one side of said finger forming a continuation of the edge-gage 210. The presser-foot has a cross-slot 214 to receive the edge-gage 204 when the latter occupies its operative position above the work-support. At the rear of the slot 214 the heel 215 of the presser-foot is provided at its upper side with an inwardly-tapering groove 216, said groove and the groove 217 in the top of the front part of the presser-foot receiving the curved needle as it approaches the material that its point may enter the material $w^{\times}$, passing under the presser-foot at one thrust, a bender, fully described in said application, being then raised and at the next thrust, which is a diagonal thrust, entering the edge w^{3} of the material *w*. The bottom of the presser-foot has a wing 218, that projects (see Fig. 1) beyond the edge-gage 210 far enough to separate the infolded edge w^{3} of the facing from contact with the material $w^{\times}$, thus enabling the under side of the infolded material to travel over said wing out of contact with the material $w^{\times}$ as the material to be stitched is being moved to the point where the needle attacks it. The rear part of the presser-foot has a forwardly-projecting toe 219, that somewhat overlaps the end of the wing 218 and retains the infolded edge of the material *w* down on the end of the wing during the action of the needle.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a sewing-machine, a curved needle and coöperating second thread-carrier, combined with a work-support comprising two plates with a slot between their opposed edges, one of said plates having a feed-opening parallel with and at one side of the edge of its plate forming part of said slot, said plates sustaining a waistband with the buttons attached to its side resting on said plates, said buttons traveling below the plates, the edges of the plates entering the space between the buttons and the waistband to which they are attached.

2. In a sewing-machine, a work-support having a feed-opening, a slot parallel with said feed-opening and an opening for an edge-gage combined with a feeding device working through said feed-opening, an edge-gage located in said edge-gage opening, and means to withdraw said edge-gage into the work-support into its inoperative position.

3. In a sewing-machine, a work-support comprising a plate having a feed-opening therein parallel with the edge of the plate, and a button passage-way or slot provided with an edge parallel to the feed-opening, said edge being adapted to enter the space between a button and the fabric to which it is attached, combined with a feeding device to engage and move said fabric over the work-support, the attached buttons traveling under the work-support and being guided by the edge thereof.

4. In a sewing-machine, a work-support comprising a plate having a feed-opening therein, a button passage-way or slot having an edge parallel to said feed-opening, said edge being adapted to enter the space between a button and the fabric to which it is attached, combined with a feeding device to engage and move said fabric over the work-support, the attached buttons traveling under the work-support and being guided by the edge thereof, and an edge-gage.

5. In a sewing-machine, a work-support comprising a plate having a feed-opening therein parallel with the edge of the plate, said edge being adapted to enter the space between a button and the fabric to which it is attached, combined with a feeding device to engage and move said fabric over the work-support, the attached buttons traveling under the work-support and being guided by the edge thereof, combined with an edge-gage sustained by said work-support, and a

presser-foot having a gage for the internal edge of the material of the waistband superimposed on material passing under the presser-foot and guided by said edge-gage.

6. In a sewing-machine, stitch-forming mechanism comprising a curved needle and a coacting second thread-carrier; a feeding device, and a work-support having a feed-opening, and a parallel slot in which buttons may be moved as the material is being fed by the feeding device, combined with a presser-foot having a gage for the inturned edge of the material superimposed upon material traveling over the work-support and under the presser-foot, said foot having a wing projecting beyond the gage referred to and interposed between the inturned edge of said material and the material sustained on the work-support.

7. In a sewing-machine, stitch-forming mechanism comprising a curved needle and a coacting second thread-carrier; a feeding device, and a work-support having a feed-opening, and a parallel slot in which buttons may be moved as the material is being fed by the feeding device, combined with a presser-foot having a gage for the inturned edge of the material superimposed upon material traveling over the work-support and under the presser-foot, said foot having a wing projecting beyond the gage referred to and interposed between the inturned edge of said material and the material sustained on the work-support, and a lip overlapping said wing.

8. In a sewing-machine, stitch-forming mechanism comprising a curved needle and a coacting second thread-carrier; a feeding device, and a work-support having a feed-opening, and a parallel slot in which buttons may be moved as the material is being fed by the feeding device, combined with a presser-foot having a gage for the inturned edge of the material superimposed on the material traveling over the work-support and passing under the presser-foot, said foot having a wing interposed between the inturned edge of said material and the material passing under the presser-foot, and a toe connected with said presser-foot and extending over the inner end of said wing.

9. In a sewing-machine, stitch-forming mechanism comprising a curved needle and a coacting second thread-carrier; a work-support, means for feeding the work over the work-support, a presser-foot having an edge-gage, a lip and a wing, and provided at its upper side with a groove in which the needle works, a slot at right angles to the length of the foot to expose the material to be entered by the needle, and an edge-gage movable vertically with relation to said work-support and entering the transverse groove in the presser-foot.

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

WOLF ARBETTER.

Witnesses:
GEO. W. GREGORY,
ELIZABETH R. MORRISON.

Correction in Letters Patent No. 840,600.

It is hereby certified that in Letters Patent No. 840,600, granted January 8, 1907, upon the application of Wolf Arbetter, of Chelsea, Massachusetts, for an improvement in "Attachments for Blindstitch Sewing-Machines," an error occurs in the printed specification requiring correction, as follows: In line 1, page 3, the word "internal" should read *inturned;* and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 22d day of January, A. D., 1907.

[SEAL.]

F. I. ALLEN,
Commissioner of Patents.

presser-foot having a gage for the internal edge of the material of the waistband superimposed on material passing under the presser-foot and guided by said edge-gage.

6. In a sewing-machine, stitch-forming mechanism comprising a curved needle and a coacting second thread-carrier; a feeding device, and a work-support having a feed-opening, and a parallel slot in which buttons may be moved as the material is being fed by the feeding device, combined with a presser-foot having a gage for the inturned edge of the material superimposed upon material traveling over the work-support and under the presser-foot, said foot having a wing projecting beyond the gage referred to and interposed between the inturned edge of said material and the material sustained on the work-support.

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