M. SALDIN.

ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED JUNE 27, 1908.

955,439. **Patented Apr. 19, 1910.**

2 SHEETS—SHEET 1.

Fig: 1.

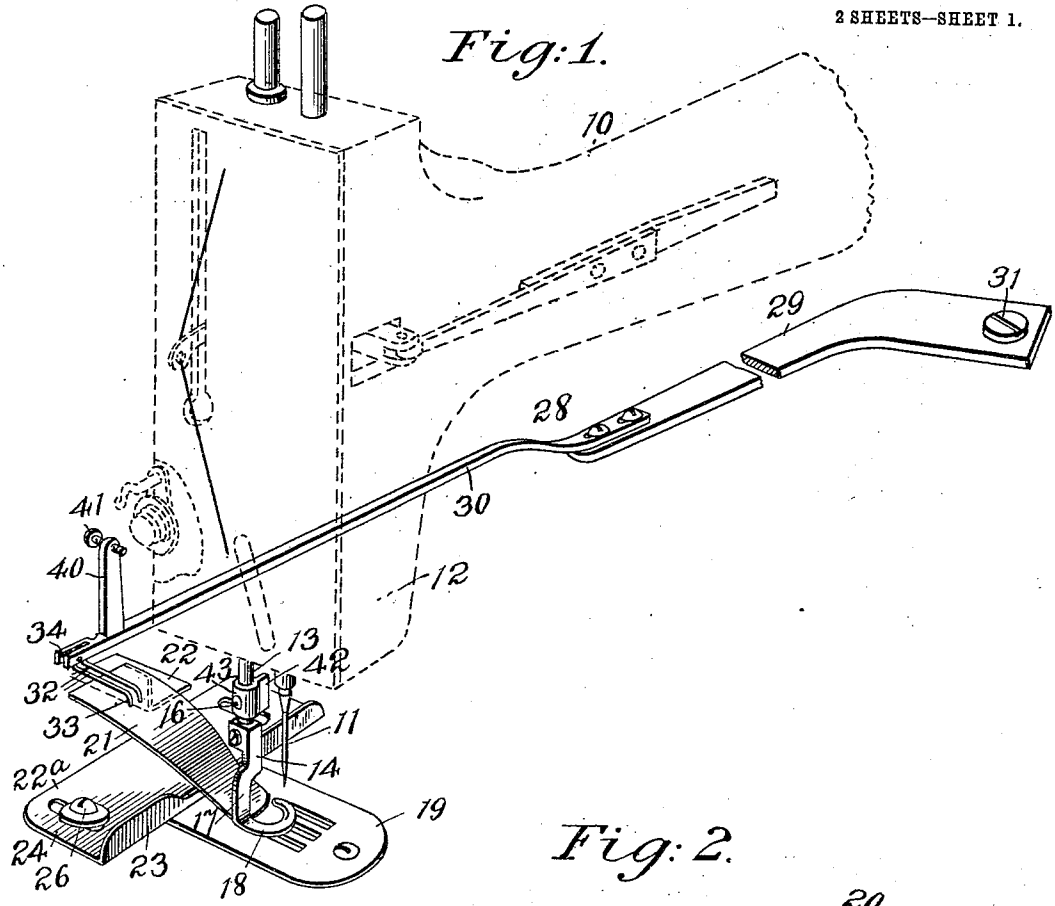
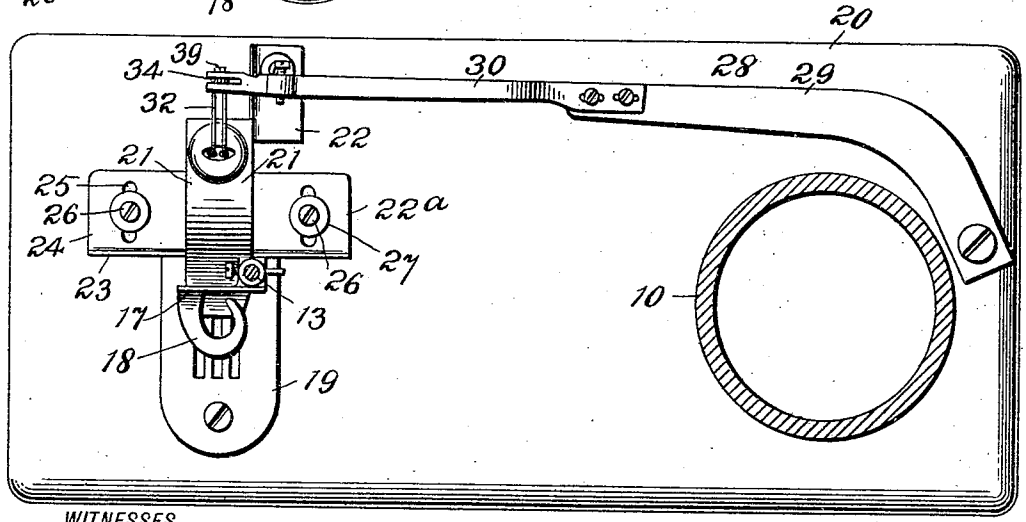


Fig: 2.



WITNESSES

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2 SHEETS—SHEET 2.

Fig: 3.

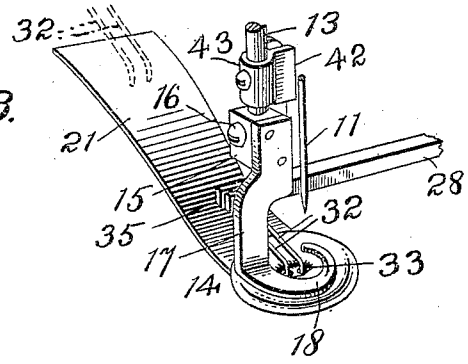


Fig: 4.

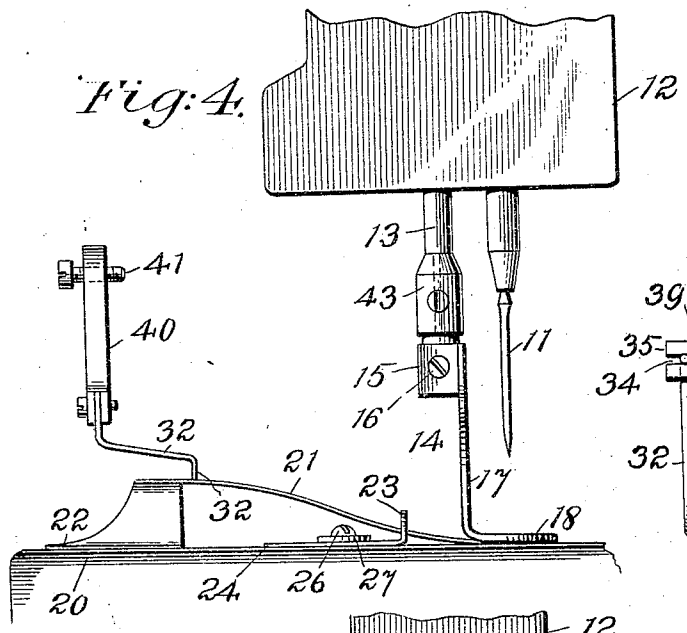


Fig: 6.

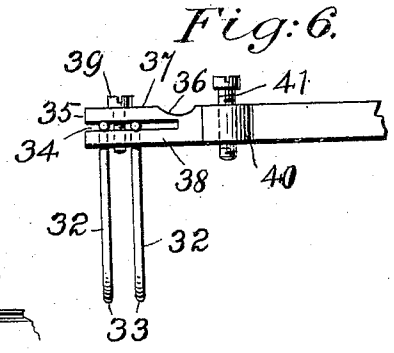
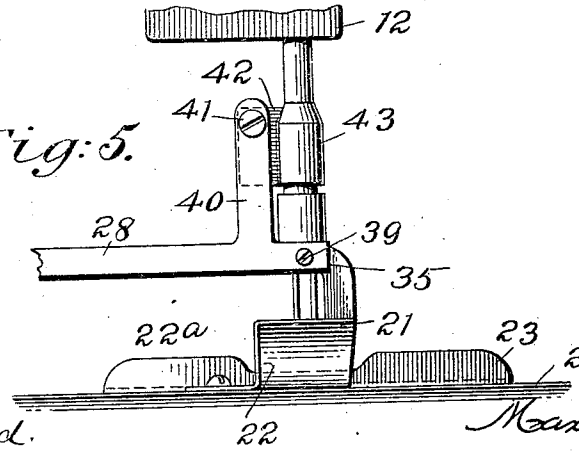


Fig: 5.



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ATTACHMENT FOR SEWING-MACHINES.

955,439. Specification of Letters Patent. Patented Apr. 19, 1910.

Application filed June 27, 1908. Serial No. 440,714.

To all whom it may concern:

Be it known that I, MAX SALDIN, a citizen of the United States, and a resident of New York, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Attachments for Sewing-Machines, of which the following is a full, clear, and exact description.

This invention relates more particularly to an attachment for registering and properly holding buttons to place the eyes or holes thereof in exact alinement with the needle preparatory to being sewed to an article.

The primary object of the invention is to provide simple and efficient means for holding the button to be sewed in such a way that the same may be positively moved adjacent to and in alinement with the sewing machine needle and there held in position for the needle to sew the same to the article without handling the buttons at all, except to place the same in engagement with a part of the attachment, thereby overcoming the objection to the usual method in which the button has to be placed in position for sewing with great care to avoid breaking the needle, which requires considerable experience to accomplish by the ordinary method with any amount of speed.

A further object of the invention is to provide simple means which will adapt one button to be placed in position to be registered with the needle while the machine is being operated to sew a button previously alined and held by the attachment, thus materially saving time in placing the button in position and permitting an inexperienced hand to operate the machine after a few minutes' instruction.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings which form a part of this specification, and will then be pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a detail perspective view of one form of attachment showing the same applied to a sewing machine, the latter being shown partly in dotted lines and partly in full lines. Fig. 2 is a sectional plan view through the neck of a sewing machine, showing in plan the attachment with the button ready to be placed in sewing position. Fig. 3 is a detail perspective view of a part of the attachment with the button properly positioned to be sewed on the article. Fig. 4 is an end elevation of the attachment and part of the sewing machine. Fig. 5 is a fragmentary rear elevation; and Fig. 6 is a detail view showing how the registering fingers may be adjusted to adapt the same for different sizes of buttons.

While I have shown the invention as applied to a machine known as a Singer zig-zag sewing machine, it will be understood that the invention may be applied to machines of various makes, and that the construction thereof may be changed to adapt the same for use in connection with different makes of sewing machines.

The neck 10 of the sewing machine may have the usual form of needle-operating and thread-supplying mechanism, and any suitable means whereby a reciprocatory and zig-zag movement may be imparted to a needle to adapt it to pass from one hole or eye of a button to the other as is usual in machines of this character. As shown a needle 11 is suitably supported in the head 12, and adjacent to the needle is arranged a rod 13 which may be raised and lowered in any suitable way, and to said rod is held a foot-piece 14. This foot-piece 14 is provided with a collar part 15 which may be adjustably or otherwise held to the rod 13 by means of a screw 16. The foot-piece is adapted to rest upon the button to be sewed on the article, as for example a sweater, or other article of wearing apparel, and said foot-piece has an angularly arranged body or stem portion 17 and a presser foot 18. The foot 18 extends in substantially a horizontal plane at an angle with respect to the part 17 and is made in substantially a hooked form so as to provide a space within the same for the eyes of the button as shown best in Fig. 3. A plate 19 is suitably supported on the machine table 20 both of which may be of the usual construction and to the rear of the foot-piece is arranged a button guide plate 21 which extends rearwardly and upwardly from the foot-piece, and is provided with a bracket, as at 22, by which the said guide plate or member may be held to the machine table. The guide plate or member 21 may be of very thin sheet metal, and has its inner end

normally arranged under the path of movement of the foot-piece 14, and is adapted to rest under the button when the latter is placed in position, but not so as to project far enough to interfere with the sewing of the button on to the article. A guide or member 22ª is adjustably held upon the machine table 20, and this guide is adapted to position the article on which the buttons are to be sewed, as a sweater, the edge of the article being adapted to abut or rest against the upwardly-extending part or lip 23 of the guide which is arranged at substantially right angles to the base part 24. This base part 24 is provided with slots 25, and passing through said slots are the screws 26, or other fastening means, under the head of which are washers 27 by which the said guide 22 may be adjusted relatively with respect to the needle so that the buttons may be properly positioned the desired distance from the edge of the article.

To aline the button and to hold the same for placing the button under the foot-piece 14 in position for the eyes or holes therein to be placed properly under the sewing needle to adapt the same to pass from one eye to the other successively as is usual I provide a swinging arm, member or device 28. This arm or member 28 may comprise two parts 29 and 30 which may be rigidly and adjustably held together, and said member is pivoted as at 31 to the machine table at one edge thereof, and at the outer end of the member 28 is arranged a plurality of devices or fingers 32. As shown there are two fingers which are arranged in substantially parallel relation, and have their outer ends, as at 33, extending downward and their inner ends held in a slot 34 formed in the outer end of the arm or member 28. The end 35 of the arm 28, in which is the slot 34, is cut away, as at 36, to make one member as 37 yielding with respect to the member 38, and passing through the members or parts 37 and 38, forming a bifurcated end, is a screw 39, or other device, by which the members 37 and 38 may be forced together to clamp and rigidly hold the inner bent ends of the fingers 32, the slot 34 being slightly recessed if desired on each side of the screw 39 to form a seat for the inner ends of the fingers or devices 32. The fingers as thus held may have their outer ends 33 moved toward or from each other to adjust the same to buttons in which the eyes or holes are different distances apart thus adapting the attachment for handling different sizes of buttons. A part 30 of the arm 28 is provided with an outwardly extending part or bracket 40 in which is arranged an adjustable abutment or screw 41 which is adapted to engage a stop 42 projecting outward from a collar 43 located on the presser-foot bar or rod 13. The screw serves to engage the stop and limit the inward movement of the arm 28 on its pivot and thereby places the ends 33 of the fingers 32 in alinement and directly under the sewing needle 11.

The button is placed on the guide plate 21 so that the inner ends of the fingers will enter the eyes or holes in the buttons while in the position shown in Figs. 1, 2 and 4. The arm 28 is so pivoted at 31 that it may have a vertical movement as well as a lateral movement, and when forced inward as shown in Fig. 3 it will carry the button inward and downward along the guide 21 under the foot 18 of the foot-piece 14, the said foot-piece being manually or otherwise raised or lowered as is usual. This movement of the arm will be arrested by the screw 41 engaging the stop 42 and will place the button properly to cause the needle to enter the eyes, after which the presser-foot is forced downward so as to engage the button and hold the same to the article, the edge of which rests against the part 23 of the guide 24. The fingers 32 may now be released from the button and restored to the position shown in Fig. 1, and while the button previously placed under the foot-piece is being sewed on to the article another button may be placed in engagement with the fingers, thus permitting a second button to be placed in sewing position immediately that the previous one has been sewed to the article.

From the foregoing it will be seen that a simple and efficient attachment is provided whereby buttons may be sewed to sweaters or other articles and the buttons placed in alinement with the needle without any handling or adjustment whatever except to place the button in engagement with a part of the attachment; that said attachment is so made that various sizes of buttons may be registered with the sewing mechanism; that said device or attachment is simple in construction and may be readily placed in connection with various forms of sewing machines; that while one button is being sewed on to the article another button may be placed in position to be registered with the sewing mechanism as soon as the one previously held has been sewed to the article; and that said attachment permits very rapid adjustment of the buttons thus materially saving in the time required for registering the buttons with the sewing mechanism, and also effecting a saving in the breakage of the needles.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. An attachment for sewing machines comprising a member constructed to engage a button and carry the same to the sewing position, a presser foot for holding said button in the sewing position, an adjustable

abutment carried by said member, and a stop carried by said presser foot arranged to engage said abutment.

2. An attachment for sewing machines comprising a movable arm constructed to be attached to a sewing machine, a plurality of fingers carried by said arm, and constructed to engage a button whereby said button will move with said arm, means for adjusting said fingers relatively to each other, and a presser foot constructed to retain said button when said arm returns to its normal position.

3. The combination with a presser foot of a sewing machine, of a pivotally held arm movable laterally with respect thereto, a bracket carried by said arm, a screw adjustably held in the bracket, a stop located adjacent to the presser foot, said arm being slotted at one end, and two fingers having downwardly-extending ends adapted to engage the eyes of a button and to force the same under the presser foot.

4. The combination with a presser foot of a sewing machine, of a device movable laterally with respect thereto, a bracket carried by said device, a screw adjustably held in the bracket, a stop located adjacent to the presser foot, said device being slotted at one end, and two fingers having downwardly-extending ends adapted to engage the eyes of a button and to force the same under the presser foot.

5. The combination with a presser foot of a sewing machine, an arm pivoted at one end and movable laterally with respect to said presser foot, a bracket carried by the free end of said arm, a stop located adjacent to the presser foot for engagement with the bracket, and a plurality of relatively adjustable fingers having downwardly-extending ends adapted to engage the eyes of a button and to force the same under the presser foot.

6. The combination with a presser foot of a sewing machine, of a pivotally held device, a screw carried by the device, a stop located adjacent to the presser foot for engagement with the screw, said device being slotted at one end, and two fingers having downwardly-extending ends adapted to engage the eyes of a button and to force the same under the presser foot.

7. The combination with a presser foot of a sewing machine, of a pivotally held arm movable laterally with respect thereto, said arm being slotted at one end, and two fingers held in said end and having downwardly-extending ends adapted to engage the eyes of a button and to force the same under the presser foot, said fingers being relatively adjustable.

This specification signed and witnessed this 24th day of June A. D. 1908.

MAX SALDIN.

Witnesses:
M. TURNER,
A. REDMOND.