A. RONTKE.

BINDING ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED APR. 18, 1910.

1,137,665. Patented Apr. 27, 1915.

Fig. 1.

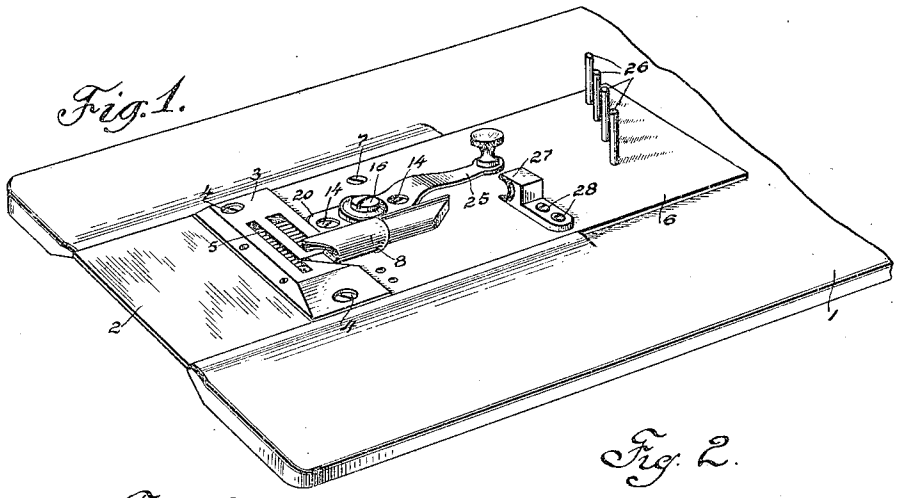


Fig. 2.

Fig. 6.

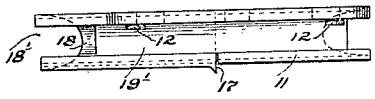


Fig. 4.

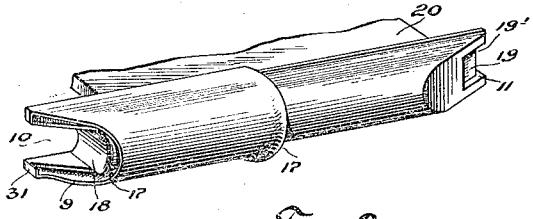
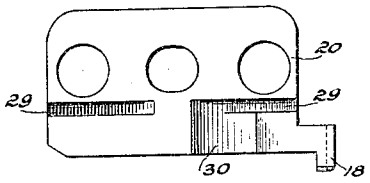


Fig. 3.



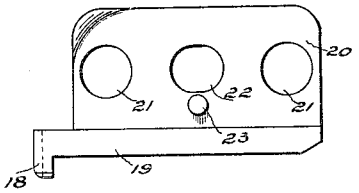
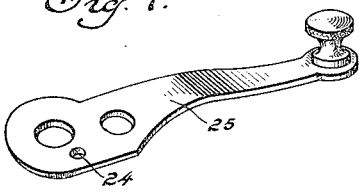
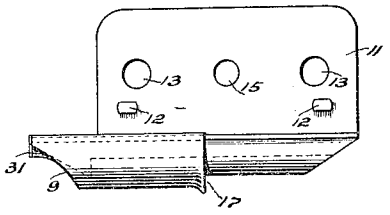


Fig. 5.

Fig. 7.





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UNITED STATES PATENT OFFICE.

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BINDING ATTACHMENT FOR SEWING-MACHINES.

1,137,665. Specification of Letters Patent. Patented Apr. 27, 1915.

Application filed April 18, 1910. Serial No. 556,108.

To all whom it may concern:

Be it known that I, ALBERT RONTKE, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Binding Attachments for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in binding attachments for sewing machines, and has for its object to improve that class of devices represented by U. S. Patent to W. Pretty, Jr., No. 273,602, dated March 6, 1883.

In the use of binders of the character herein referred to, more or less difficulty is experienced on account of the binding varying slightly in width and texture, which frequently makes it necessary to provide a specially constructed binder head; and the purpose of this invention is to provide a given design of binder which may be adjusted to meet the requirements of such variations in the width and texture of the binding.

Referring to the accompanying drawings, in the several figures of which like parts are similarly designated, Figure 1 is a reduced perspective view of the front end portion of the bed-plate of a sewing machine with the improved binding mechanism secured in operative relationship with the sewing machine cloth-feeding mechanism, together with the throat-plate, feed-dog and the front slide plate. Fig. 2 is an enlarged perspective view of the binder-head and a portion of the adjustably mounted plate carrying the concaved braid-guiding member. Fig. 3 is a plan view of the upper side of the adjustably mounted plate partially shown in Fig. 2. Fig. 4 is an underside view of the plate shown in Fig. 3. Fig. 5 is a plan view of the elements shown in Fig. 2. Fig. 6 is an edge view of Fig. 5. Fig. 7 is a perspective view of the lever for effecting the adjustment of the plate carrying the concaved braid-guiding member.

1 represents the bed-plate of the sewing machine, 2 the front slide plate, 3 the throat-plate secured by screws 4, 4, 5 the feed-dog and 6 the braid-tension plate secured by screw 7 to the sewing machine bed-plate and upon which the binding attachment and supplemental binding guide are mounted.

8 represents the binder-head which is provided with an obliquely arranged delivery end 9, notch 10, base or securing plate 11 provided with guide pins 12, 12, openings 13, 13 for the passage of the securing screws 14, 14 which are threaded into the plate 6, opening 15 into which the pivot screw 16 is threaded, and the convexed braid-guiding element 17 arranged at an agle to the direction of the feed of the material.

18 represents a concaved braid-guiding member disposed at right angles to the braid-guiding element 17 and parallel with the line of feed of the material. The braid-guiding member 18, which forms the back wall of the notch 10, is arranged at one end of a bar or rib 19 carried by a slide plate 20 and adjustably mounted in a groove or guide-way 19′ formed in said binder-head, said plate being provided with openings 21, 21 through which the screws 14, 14 loosely pass and an opening 22 through which the pivot screw 16 loosely passes. The plate 20 is also provided with a pin 23 which loosely enters an opening 24 in the adjusting lever 25 to adjust the braid-guiding member 18 with respect to the notch 10 of the binder-head, said lever being pivoted upon the screw 16.

The tension plate 6 is provided with the commonly employed tension pins 26, and the supplemental binding guide 27 secured to said plate by screw 28. The guide pins 12, 12 carried by the plate 11 enter the guide slots 29, 29 formed in the plate 20 to control the line of adjustment of the braid-guiding element 18. 30 represents a concaved portion which is provided for convenience in assembling.

31 represents an under edge guide which is provided for directing the under edge of the binding so as to maintain a positive relationship between it and the line of seam formation, and while the use of such guide is not essential it is advantageous, and especially so when it is desired to place the line of stitching extremely close to the edge of the binding.

In the operation of the device, the braid-guiding member 18 is given its full adjustment to the right, thus giving to the binder-head its greatest capacity, the binding is

then passed from the supply, between the tension pins 26, through the supplemental guide 27 and through the braid-guiding element 17 when it is guided transversely to its last direction with the curved central portion of the binding in engagement with the braid-guiding member 18 and its free end passed beneath the commonly employed cloth-presser and in engagement with the feed-dog. After the machine has been set in operation, if it is found that the braid or binding is slightly under the capacity of the binder-head, the braid-guiding member 18 is adjusted forward or toward the seam sufficiently to meet the requirements of the binding, the edge guide 31 insuring that the under free edge of the binding will be guided in uniform relationship with the line of seam formation.

It is believed that the device of the application is the first to provide means for changing the capacity of the binder-head by an adjustment of the braid-guiding member 18 with respect to its coacting trasversely-arranged guiding element 17; and while the preferred manner of affecting the relative adjustment of said guiding member and guiding element has been herein shown, it is to be understood that modifications might be made in the means for effecting such adjustment without departing from the intended scope of the appended claims.

Claims:—

1. In a binding attachment for sewing machines, a binder-head provided with a convexed braid-guiding element, in combination with a braid-guiding member having its guide-wall arranged transverse to the guide-wall of said braid-guiding element and adjustable with respect to and in the direction of the length of the latter for varying the capacity of said binder-head, said braid-guiding member being located at the delivery end of said binder-head and between the oppositely arranged guide-walls of said braid-guiding element.

2. In a binding attachment for sewing machines, a binder-head provided with a convexed braid-guiding element, in combination with a concaved braid-guiding member having its guide-wall arranged transverse to the guide-wall of said braid-guiding element and adjustable with respect to and in the direction of the length of the latter for varying the capacity of said binder-head, said braid-guiding member being located at the delivery end of said binder-head and between the oppositely arranged guide-walls of said braid-guiding element.

3. In a binding attachment for sewing machines, a binder-head provided with a convexed braid-guiding element having at its delivery end an edge-guide, in combination with a braid-guiding member having its guide-wall arranged transverse to the guide-wall of said braid-guiding element and adjustable with respect to and in the direction of the length of the latter for varying the capacity of said binder-head, said braid-guiding member being located at the delivery end of said binder-head and between the oppositely arranged guide-walls of said braid-guiding element.

4. In a binding attachment for sewing machines, a binder-head notched at its delivery end and provided with a guiding element having its delivery end formed obliquely with respect to its length, and a guiding member arranged transversely with respect to said guiding element and adjustable with respect to and in the direction of the length of the latter for varying the capacity of said binder-head, said braid-guiding member being located between the oppositely arranged guide-walls of said guiding element.

5. In a binding attachment for sewing machines, a binder-head comprising a convexed guiding element for guiding the binding in a direction transverse to the line of feed of the material being bound, the delivery end of said guiding element being formed obliquely with respect to its length, said binder-head being notched for the passage of the binding in a direction corresponding with said line of feed, and a guiding member mounted in said notch and adjustable with respect to and in the direction of the length of said convexed guiding element and coacting with the latter for varying the capacity of said binder-head.

6. In a binding attachment for sewing machines, a base-plate carrying a binder-head, the latter comprising a convexed guiding element for guiding the binding in a direction transverse to the line of feed of the material being bound, the delivery end of said guiding element being formed obliquely with respect to said line of feed, said binder-head being notched for the passage of the binding in a direction corresponding with the direction of said line of feed, and a slide plate carrying a guiding member, the latter being mounted in said notch and adjustable with respect to and in the direction of the length of said convexed guiding element and coacting with the latter for varying the capacity of said binder-head.

7. In a binding attachment for sewing machines, a base-plate carrying a binder-head provided with a guide-way extending in the direction of the length of said binder-head, said binder-head comprising a convexed guiding element for guiding the binding in a direction transverse to the line of feed of the material being bound, the delivery end of said guiding element being formed obliquely with respect to said line of feed, said binder-head being notched

for the passage of the binding in a direction corresponding with the direction of said line of feed, and a slide plate carrying at one edge a rib provided with a guiding member, said slide plate and parts carried by it having adjustments in the direction of the length of said convexed guiding element for varying the capacity of said binder-head.

8. In a binding attachment for sewing machines, a base-plate carrying a binder-head, the latter comprising a convexed guiding element for guiding the binding in a direction transverse to the direction of the feed of the material being bound, the delivery end of said guiding element being formed obliquely with respect to said line of feed, said binder-head being notched for the passage of the binding in a direction corresponding with the direction of said line of feed, and a slide plate carrying a guiding member located in said notch, and an adjusting lever pivoted upon said base-plate and coacting with said slide plate for giving to said guiding member adjustments in said notch for varying the capacity of said binder-head.

9. A folder comprising spaced U-shaped guiding walls having the delivery end thereof arranged at an acute angle to the longitudinal axis of the folder, a U-shaped guide mounted on said folder and extending in a direction substantially at right angles to the longitudinal axis of the folder, said guide being located at the delivery end of the folder for guiding the fold in said strip, and means whereby said guide may be adjusted longitudinally of the folder, said guide having a shank provided with a convex surface conforming in curvature to the inner guiding wall, whereby when said guide is adjusted, said shank forms an extension of the inner guiding wall.

10. In a folding device, spaced curved walls for guiding the material and having the delivery end of said spaced walls arranged at an acute angle to the longitudinal axis of the spaced walls, a guiding device coöperating with the inner wall and extending at right angles thereto said guiding device being located in the curved portion of the inner wall.

11. In a folding device, U-shaped spaced walls for guiding a binding strip having one end of said spaced walls arranged at an angle to the longitudinal axis of said walls, an angular formed guide adjustable in the space within the inner U-shaped wall at one side of said walls and having two guiding faces, one of which is at a right angle to the other.

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

ALBERT RONTKE.

Witnesses:
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."