A. RONTKE.

BINDING ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED APR. 29, 1909.

**1,008,563.**

**Patented Nov. 14, 1911.**

2 SHEETS—SHEET 1.

Fig. 1.

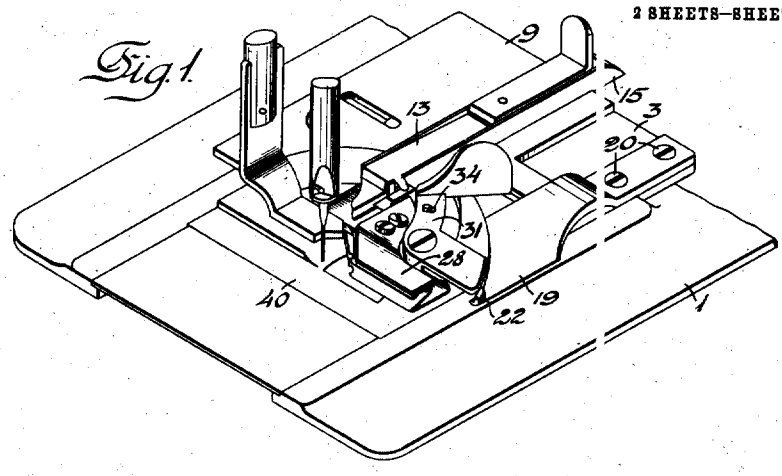



Fig. 2.

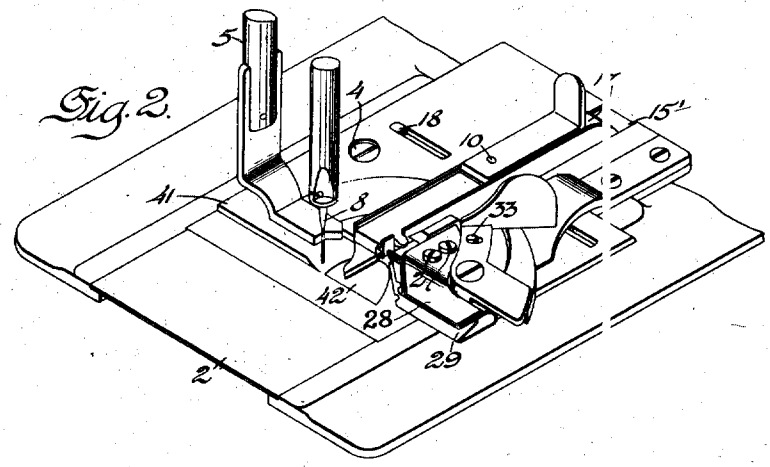
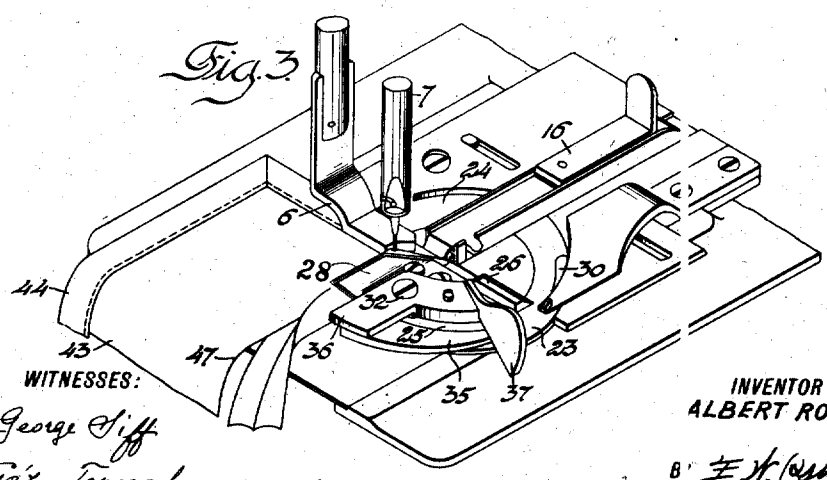



Fig. 3.

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2 SHEETS—SHEET 2.

Fig. 4.

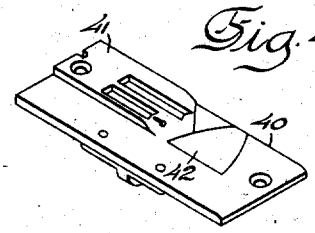



Fig. 5.

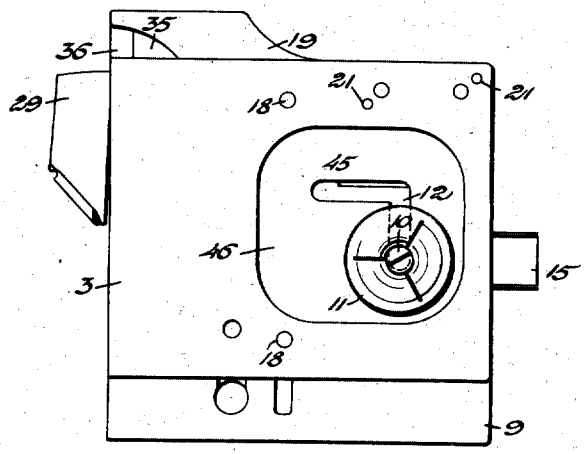
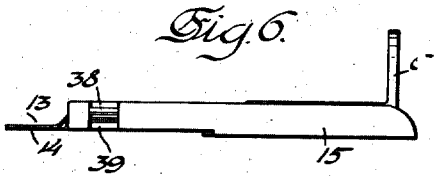



Fig. 6.

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# UNITED STATES PATENT OFFICE.

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## BINDING ATTACHMENT FOR SEWING-MACHINES.

1,008,563. Specification of Letters Patent. Patented Nov. 14, 1911.

Application filed April 29, 1909. Serial No. 492,916.

*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 binding attachments for sewing machines, and has for its object to improve the device represented by United States Patent No. 882,480, issued March 17th, 1908, to A. Rontke, wherein the delivery end of the binder-head, when positioned for binding the straight edge of the material, is located a sufficient distance from the vertical line of needle actuation to furnish the necessary length of binding for mitering the corner; and while such relationship of the binder-head and needle actuation is practical, it is desirable, especially when using bias binding of delicate texture, that the delivery end of the binder-head occupy a position in close proximity to the vertical line of needle actuation, which is the object attained by the present invention.

Referring to the accompanying drawings, in the several figures of which like parts are similarly designated, Figure 1 is a view in perspective of the improved mechanism, together with the cloth-presser, and a portion of the cloth-presser bar and the cloth or bed plate of the sewing machine, the binder-head being shown adjusted to its normal or operative position relatively to the vertical line of needle actuation. Fig. 2 is a view similar to Fig. 1, with the binder-head shown adjusted away from the vertical line of needle actuation sufficiently to furnish the necessary length of binding for mitering the corner. Fig. 3 is a view similar to Figs. 1 and 2, with the binder-head shown adjusted to the position for forming the miter folds in the binding. Fig. 4 is a view in perspective of the throat-plate. Fig. 5 is an underside view of the binding attachment, showing the parts adjusted to the positions shown in Fig. 1. Fig. 6 is a detail view later to be referred to.

1 represents the cloth or bed plate of the sewing machine, 2 the front slide-plate, 3 the back plate secured by screw 4 to the plate 1, 5 the presser-bar, 6 the cloth-presser, 7 the needle-bar, and 8 the needle carried by said bar.

The binder base-plate 9 is adjustably secured upon the plate 3 by a screw 10 which passes through the spring-washer 11, slot 12, folding blades 13 and 14, and frame 15, and is threaded into the adjusting bracket 16 mounted in a groove 17 formed in said frame, which latter is mounted to slide in the groove 15′ formed in the base-plate 9, pins 18, 18 secured in the plate 3 serving to guide said base-plate in its adjustments. A stationary bracket 19 is secured, by screws 20, 20 and pins 21, 21, to the back plate 3 and provided with a resistance member 22. The segmental slide 23 is seated in a similarly shaped guide-way 24 formed in the base-plate 9, and is provided with a plate 25 which terminates at its inner end in a wedge-shaped portion 26; and secured to said slide and plate, by screws 27, 27, is the binder bracket 28 carrying the binder-head 29.

30 represents a friction spring secured by screws (not shown) to the base-plate 9, said spring being constructed so that the surface overlapping the segmental slide 23 will bear upon said slide and act to hold it against accidental adjustment.

An adjusting lever 31 is pivoted by a screw 32 to the plate 25 and is limited in its movements by a pin 33 secured in said plate, said pin entering an elongated slot 34 formed in said lever. A cam bracket 35 is secured by suitable pins (not shown) to the underside of the arm 36 of the lever 31, which latter is also provided with a manipulating bracket 37.

38 and 39 represent lugs, later to be referred to, formed on the respective folding blades 13 and 14.

The throat-plate 40 is provided with the commonly-employed openings for the needle and feed-dog and is secured to the bed-plate 1 in the usual manner. The portion 41 of the throat-plate is raised or thickened so that its upper surface coincides substantially with the median horizontal plane of the binder-head.

42 represents a depression or clearance for the free end of the folding blade 14 when said blade is adjusted to the position shown in Fig. 2.

43 and 44 represent the main or body portion of the material and the binding, respectively.

In the operation of the device, supposing the parts to be adjusted to their positions for applying the binding to the straight edge of the material, as shown in Fig. 1, and it is desired to miter the corner, as shown in Fig. 3, the operator adjusts the plate 9 to the position shown in Fig. 2, thus moving the binder-head away from the needle a sufficient distance to furnish the necessary length of binding for mitering the corner, such adjustment carrying the screw 10 to a position in line with the portion 45 of the slot 12 formed in the back plate 3, said plate being provided with a countersunk portion 46 to accommodate the adjustment of the washer 11; next, the folding blades 13 and 14 carried by the frame 15 are adjusted as shown in Fig. 2, the free end of the blade 13 being located above and the free end of the blade 14 being located directly below the binding, after which the binder-head is adjusted to the position shown in Fig. 3, or at right angles to the position shown in Fig. 2, thus causing the miter folds to be laid about the corner of the material, as in the construction represented by United States Patent No. 882,480 previously referred to. After the parts and binding have been adjusted as shown in Fig. 3, the needle is caused to penetrate the material as shown in said figure, the presser-foot is raised, the folding blades returned to their normal positions, and the base-plate 9 returned to the position shown in Fig. 1, thus causing the material to be adjusted with its edge 47 in line with the feed movements of the feed-dog, or at right angles to its former position. In returning the parts from the positions shown in Fig. 3 to the positions shown in Fig. 1 the operator first adjusts the frame 15 to the position shown in the figure last referred to, followed by manipulating the bracket 37 which causes the free end of the cam bracket 35 to rotate in a line just inside the resistance member 22, thus causing the cam portion of said bracket to act against said resistance member. Thus it will be seen that the manipulation of the bracket 37 is the only manual control necessary for returning the plate 9 and segmental slide 23 and parts carried by the latter to their first-illustrated or normal positions. As the binder-head approaches its limit of adjustment, the wedge shaped portion 26 enters between the lugs 38 and 39 and separates the free ends of the folding blades, preparatory to adjusting the same into operative relationship with the binder-head as shown in Fig. 3.

From the foregoing it will be readily understood that when the parts are adjusted as shown in Figs. 1 and 5, the frame 15, carrying the folding blades 13 and 14, is locked against accidental adjustment upon the back plate 3 by the screw 10 occupying the position in slot 12 illustrated in the last mentioned figure, and that when the parts occupy the positions shown in Fig. 3 the base-plate 9 is held against adjustment upon said back plate by the adjustment of said screw 10 to the closed end of the slot 45.

Claims:—

1. In a binding attachment for sewing machines for mitering the folds of the binding about the corner of the fabric being acted on, a throat-plate, a cloth-presser and a base-plate carrying an adjustably mounted binder-head, the normal position of the latter being substantially in a line with the seam formation, said base-plate having adjustments in a line corresponding substantially to the line of seam formation to deliver through the binder-head the necessary length of binding for mitering the corner of said fabric, and means for adjusting said binder-head into operative relationship with the transversely arranged edge of the material next to be bound.

2. In a miter-binder for sewing machines for mitering the folds of the binding about the corner of the fabric being acted on, a throat-plate, a cloth-presser, a base-plate having adjustments in a line corresponding substantially with the line of seam formation and carrying an adjustable binder-head and folding blades, the latter coacting with said binder-head to form miter folds in the binding at the point of intersection of the transversely arranged edges of the fabric being bound.

3. In a binding attachment for sewing machines, a throat-plate, a cloth-presser, an adjustably-mounted base-plate, a binder-head and folding blades adjustably mounted upon said base-plate, in combination with a cam bracket and a resistance member for returning said base-plate to its normal position, substantially as described.

4. In a binding attachment for sewing machines, a throat-plate, a cloth-presser and a base-plate carrying an adjustably mounted binder-head, the normal position of the latter being substantially in line with the seam formation, said base-plate having adjustments in a line corresponding substantially to the line of seam formation to deliver through the binder-head the necessary length of binding for mitering the corner of said fabric, and means for adjusting

said binder-head into operative relationship with the transversely arranged edge of the material next to be bound, in combination with means for locking said base-plate against accidental adjustment when said folding blades are in operative relationship with said binder-head to fold the binding.

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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ABBIE M. DONIHEE.