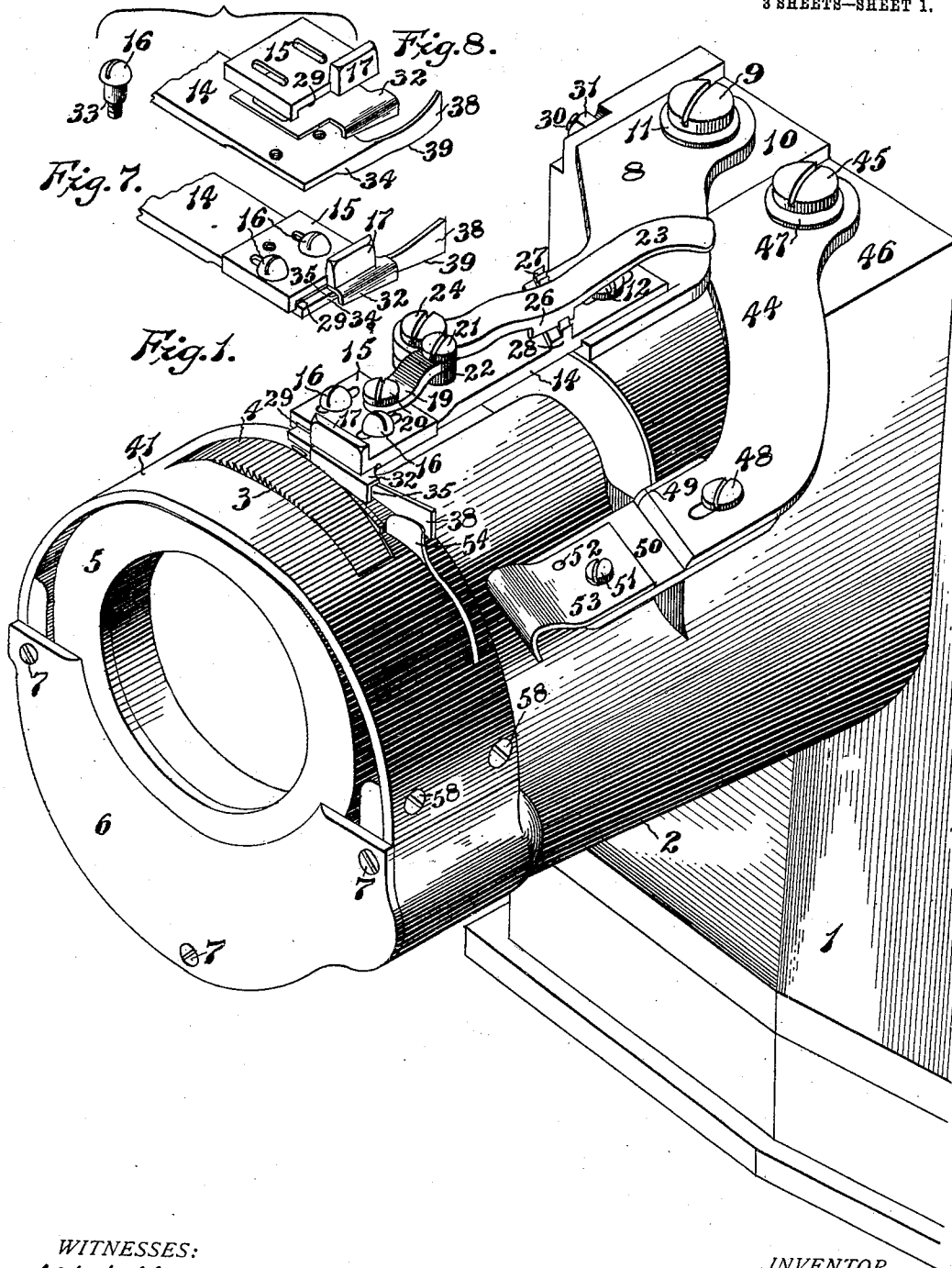


J. C. RINGE.
SEWING MACHINE GUIDE FOR HAT SWEATS.
APPLICATION FILED FEB. 6, 1908.

938,436.

Patented Oct. 26, 1909.

3 SHEETS—SHEET 1.



WITNESSES:
A. K. Williams, Jr.
S. A. K. K. K. K. K.

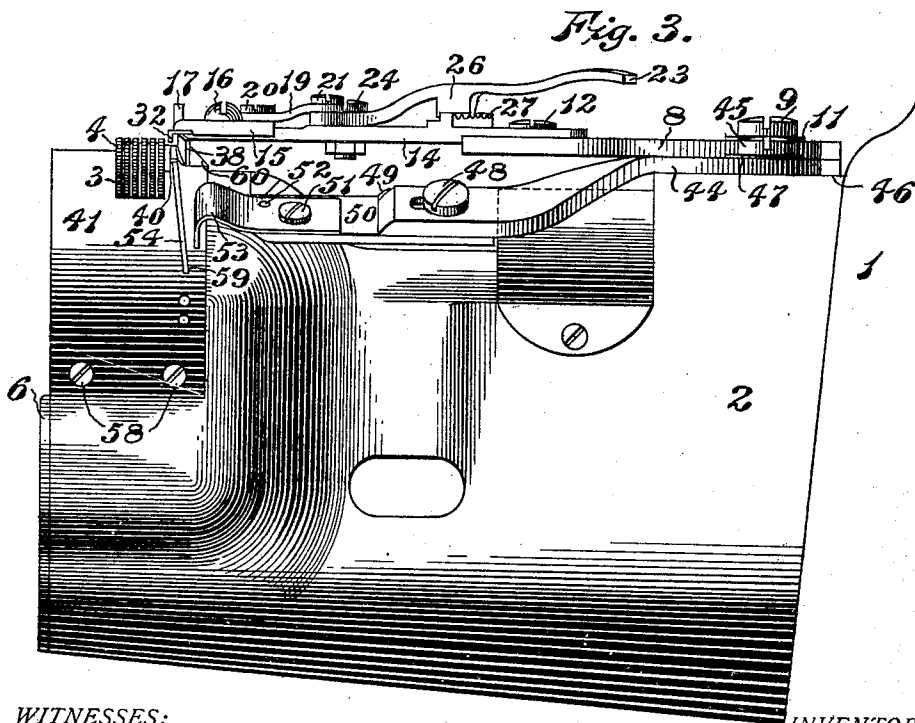
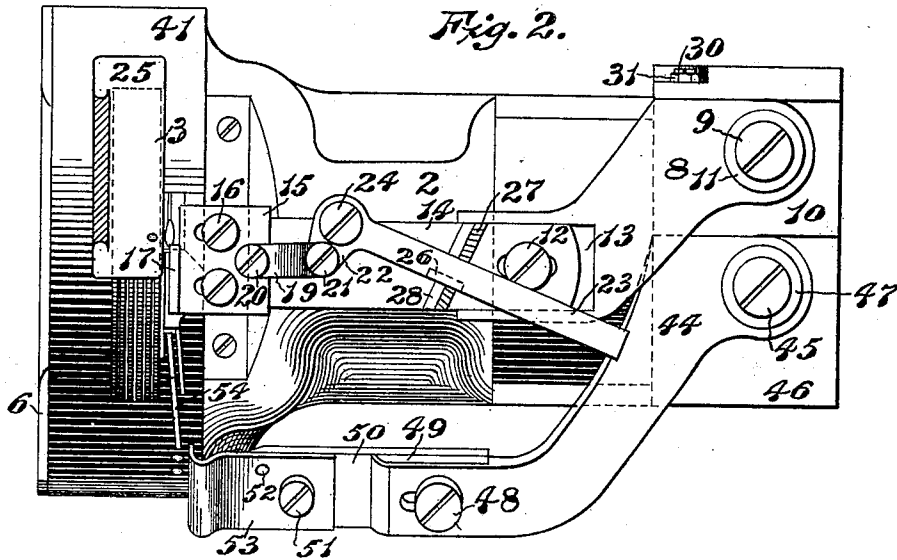
INVENTOR.
JOHN C. RINGE
BY
E. H. K. K. K.
ATTORNEY.

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WITNESSES:
A. K. Williams Jr.
H. K. Kummert

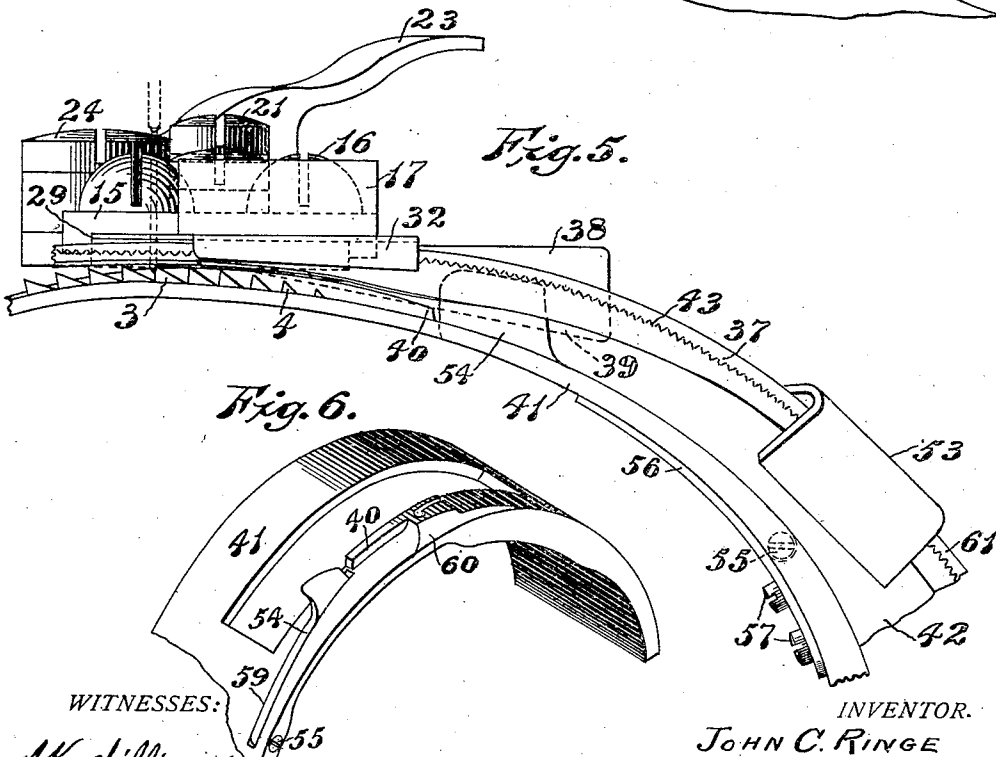
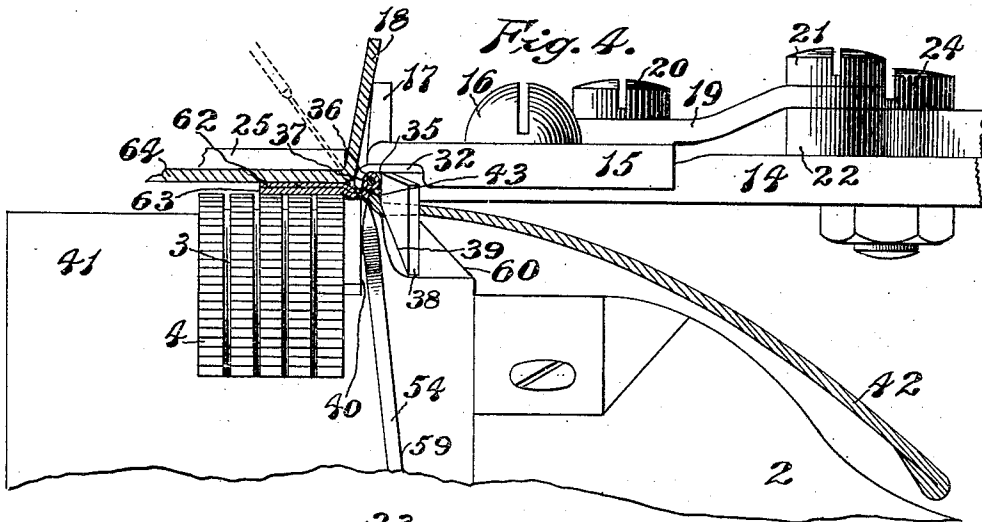
INVENTOR.
JOHN C. RINGE
BY
E. H. Paterson
ATTORNEY.

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3 SHEETS—SHEET 3.



WITNESSES:

A. H. Williams, Jr.
S. A. Koenemann.

INVENTOR.

JOHN C. RINGE

BY

E. W. Abner,
ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN C. RINGE, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE SINGER MANUFACTURING COMPANY, A CORPORATION OF NEW JERSEY.

SEWING-MACHINE GUIDE FOR HAT-SWEATS.

938,436.

Specification of Letters Patent.

Patented Oct. 26, 1909.

Application filed February 6, 1908. Serial No. 414,472.

To all whom it may concern:

Be it known that I, JOHN C. RINGE, a citizen of the United States, and a resident of Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Sewing-Machine Guides for Hat-Sweats, of which the following is a specification.

This invention relates to improvements in hat-sweat guides for sewing machines, and has for its object to provide a combination of coacting guiding members which, owing to their combined automatic and manual control, insure that the hat-sweat will be guided and stitched into the hat so that the bead formed by the reed will be secured in uniform relationship with the line of intersection of the surface of the hat body and the surface of the corresponding side of the hat brim.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a view in perspective of the lower arm or cylinder of a sewing machine equipped with my improved mechanism. Fig. 2 is a plan view of the cylinder and improved mechanism shown in Fig. 1. Fig. 3 is a front side elevation of Fig. 2. Fig. 4 is an enlarged front side elevation of the upper outer end portion of the cylinder and improved guiding mechanism, together with a view in section of a part of a hat and a portion of a hat-sweat, said materials being shown in the positions which they occupy relatively to the stitch-forming and cloth-feeding mechanisms. Fig. 5 is an enlarged front end elevation of the upper portion of the machine cylinder equipped with my improved mechanism, together with a portion of a hat-sweat, the latter being shown in the same position, relatively to the stitch-forming and cloth-feeding mechanism, as in Fig. 4. Fig. 6 is a view in perspective of the throat-plate and separator. Fig. 7 is a view in perspective of the hat-brim rest, reed guide and sweat-leather guide, together with their carrying arm. Fig. 8 is a view in perspective of the parts shown in Fig. 7 slightly separated to better illustrate their operative relationship.

In describing my improvement, I have shown only so much of the sewing machine as was deemed necessary for a proper under-

standing of the construction and application of my invention.

1 is the machine standard, 2 the cylinder, 3 the feed-wheel provided with the usual teeth 4 and mounted to rotate in the guide 5, and 6 is the cylinder cap secured by screws 7 to said cylinder.

8 is a swinging bracket arm pivotally secured by a screw 9 upon the surface 10 of the cylinder 2 and frictionally retained in its adjusted position by a spring washer 11. To the outer end of the arm 8 is secured, by screw 12 and guide slot 13, an adjustable extension 14 carrying at its free end a plate 15 slidably secured by screws 16, 16, said plate being provided with a hat-brim stay consisting of an upwardly extended portion 17 against which the hat-brim 18 rests as it is advanced under the needle.

19 is a link pivotally secured at one end to the plate 15 by a screw 20, its opposite end being pivotally attached, by a screw 21, to an arm 22 of an adjusting lever 23, which latter is pivoted by screw 24 upon the extension 14. Thus, through the manipulation of the hand lever 23, the rest 17 is moved into and out of operative relationship with the hat-brim, making it convenient for the operator to place the material to be acted upon beneath and remove the same from under the presser-foot 25.

In order that the rest 17 may be secured against accidental movement, I provide the lever 23 with a catch 26 which coacts with suitable teeth 27 formed upon a raised portion 28 of the extension 14, the lever 23 being constructed of spring metal to accommodate the adjustment of the catch 26, and to better insure that the movement of the plate 15 will be in a line parallel with the extension 14 the plate 15 is provided with a groove 29 which is slidably fitted to the outer end of said extension.

30 is an adjusting screw held in the desired adjustment by the nut 31, the inner end of said screw acting as a stop for the bracket arm 8 when said arm is moved to its operative position, as shown in the figures.

32 is one part of a reed guide secured, by shoulders 33 of the screws 16, upon the front end of the extension 14, the body portion of said screws being of sufficient length to permit of the adjustment of the plate 15 by the lever 23, but without any undue lost

motion between said plate and said extension, the oppositely arranged wall of said guide comprising the vertical end wall 34 of the extension 14, the part 32 in connection with the wall 34 forming a reed guide 35 through which the reed 36 and its covering 37 are guided to the action of the stitch-forming mechanism.

38 is a sweat-leather guide which, in the present instance, is formed integral with the extension 14 and constructed with a guiding edge 39 arranged at an incline relatively to the horizontal guiding surface of the guide 35, said guiding edge, owing to its position below the seam guiding edge 40 formed on the throat-plate 41, acting upon the sweat-leather 42 to draw the bead-forming seam 43, at the point where it is exposed between said leather and reed covering, against the seam guiding edge 40.

44 is a second swinging bracket arm pivoted by screw 45 upon the surface 46 of the cylinder 2, and frictionally retained in its adjusted position by a spring washer 47, said arm having secured to it, by screw 48 and side wall 49, an adjustable extension 50 which, in turn, has secured to it, by screw 51 and pin 52, an auxiliary sweat-band guide 53.

54 is a separator guide pivoted at 55 to the throat-plate 41 and acted upon by a spring 56, the latter being secured by screws 57 to the underside of said throat-plate which, in turn, is secured to the cylinder 2 by screws 58. The acting end of the guide 54 is constructed in the form of a blade which normally extends up through an opening 59 formed in the throat-plate. To better facilitate the passage of the sweat-leather past the line of needle actuation, the throat-plate is constructed with an incline 60.

In the operation of my device, the completed hat-sweat, consisting of the sweat-leather 42, reed 36 and covering 37, secured together by the line of stitching 43, is fed to the action of the needle, as illustrated in Figs. 4 and 5, with the sweat-leather 42 passing through the auxiliary guide 53 and beneath the guiding edge 39; the bead 61 of the hat-sweat passing over the separator guide 54 and seam guiding edge 40 and through the reed guide 35; and the free plies 62 and 63 of the reed covering 37 passing over the feed-wheel and beneath the hat-body 64, thus insuring that the sweat-leather will lay smoothly against the inner surface of the hat-body, and that the bead 61 of the sweat-band will be secured in uniform relationship with the line of intersection of the surface of the hat-body and the corresponding side of the hat-brim when the stitching has been completed.

While the several guides are illustrated as occupying their operative positions only, it is to be understood that they are capable of

adjustment into and out of operative relationship with the stitch-forming and cloth-feeding mechanisms in substantially the same manner as is common to hat-sweat guides generally; and that while the hat-brim stay 17, separator guide 54 and auxiliary guide 53 are advantageous in guiding the material, they are not essential, the more important features connected with my improvement consisting in the construction and coöperation of the guides 35, 38 and seam guiding edge 40; also that the employment of a yielding separator guide obviates the necessity of manually changing the adjustment of a given form of guide, or replacing such guide by one of different outline, to meet the requirements of variation in the thickness of the materials, size of the reeds, and all irregularities incident to the formation of the seam 43.

What I claim is:—

1. In a sewing machine guide for hat-sweats, the combination of a separator guide, a reed guide, a sweat-leather guide, and a seam guiding edge against which the bead of the hat-sweat is forced as said hat-sweat is advanced to the needle actuation.

2. In a sewing machine guide for hat-sweats, a separator guide, a reed guide, a sweat-leather guide, and a seam guiding edge against which the bead of the hat-sweat is forced by the action of said sweat-leather guide, in combination with a hat-brim stay, substantially as described.

3. In a sewing machine guide for hat-sweats, a reed guide, a sweat-leather guide, an auxiliary guide, and a seam guiding edge against which the bead of the hat-sweat is forced by the action of said sweat-leather guide, in combination with a yielding mounted separator guide, substantially as described.

4. In a sewing machine guide for hat-sweats, a separator guide, a reed guide and a sweat-leather guide, the latter provided with a guiding edge inclined to the horizontal plane of the guiding surface of said reed guide, in combination with a seam guiding edge against which the bead of the hat-sweat is forced by the action of said sweat-leather guide, substantially as described.

5. In a sewing machine guide for hat-sweats, an adjustably mounted reed guide, an auxiliary guide, a sweat-leather guide and a hat-brim stay, in combination with a yielding mounted separator guide, and a seam guiding edge against which the bead of the hat-sweat is forced by the action of said sweat-leather guide, substantially as described.

6. In a sewing machine guide for hat-sweats, a reed guide and a hat-brim stay arranged in superposed relationship and capable of adjustment into and out of operative relationship with the needle actuation, in

combination with a separator guide, a sweat-leather guide, and a seam guiding edge against which the bead of the hat-sweat is forced as said hat-sweat is advanced to the needle actuation.

5 7. In a sewing machine guide for hat-sweats, a separator guide, a guiding edge and a sweat-leather guide arranged in the same vertical plane, a reed guide and a hat-brim stay arranged in superposed relationship, in
10 combination with manually controlled means for adjusting said sweat-leather guide, reed guide and hat-brim stay into and out of operative relationship with the needle ac-
15 tuation.

8. In a sewing machine guide for hat-sweats, the combination of a hat-brim stay, a reed guide, a sweat-leather guide, a seam

guiding edge, a separator guide and an auxiliary guide, all constructed and ar- 20 ranged for the purpose specified, substantially as described.

9. In a sewing machine guide for hat-sweats, the combination of a reed guide, a sweat-leather guide, and a seam guiding edge 25 against which the bead of the hat-sweat is forced as said hat-sweat is advanced to the needle actuation.

Signed at Bridgeport, in the county of Fairfield, and State of Connecticut, this 3rd 30 day of February, A. D. 1908.

JOHN C. RINGE.

Witnesses:

J. S. FINCH,

A. M. DONIHU.