R. R. HUGHES, Jr.

FOLDER FOR SEWING MACHINES.

APPLICATION FILED JULY 1, 1914.

1,194,023.

Patented Aug. 8, 1916.

2 SHEETS—SHEET 1.

Fig. 1.

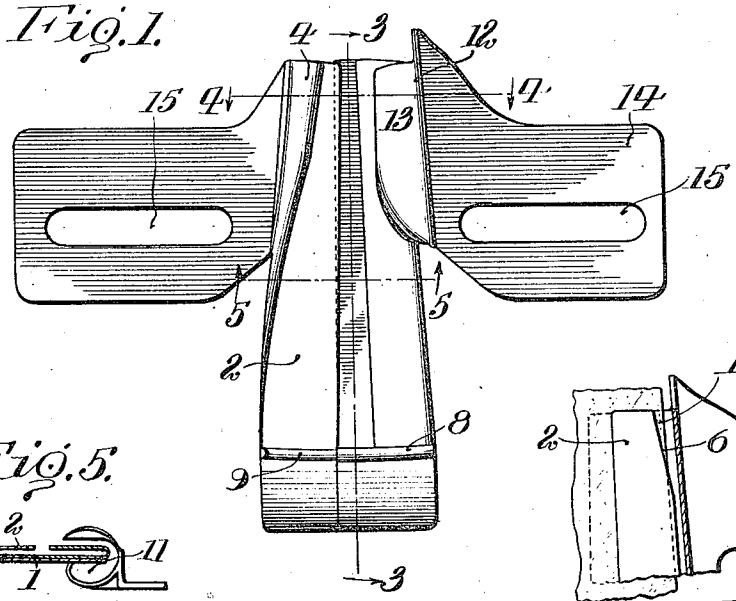


Fig. 5.

Fig. 6.

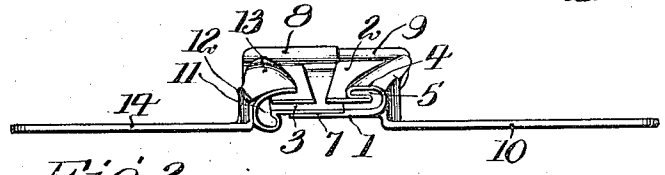


Fig. 2.

Fig. 3.

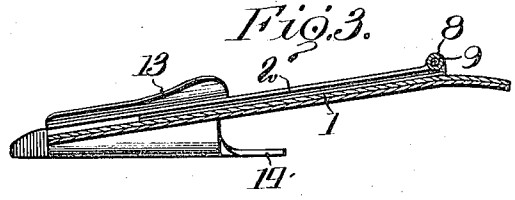


Fig. 4.

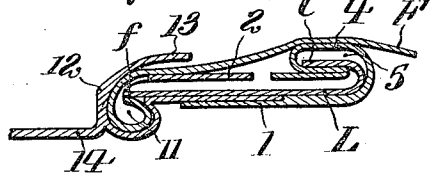
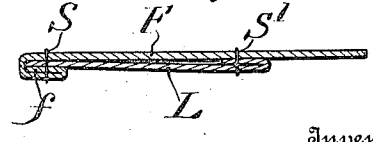


Fig. 7.



Witnesses

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2 SHEETS—SHEET 2.

Fig. 8.

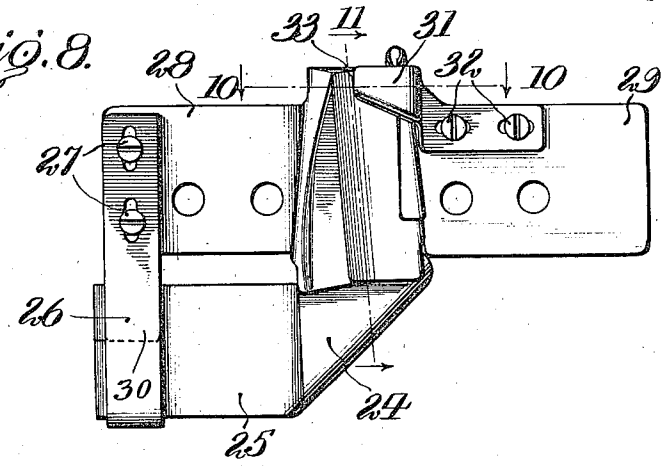


Fig. 9.

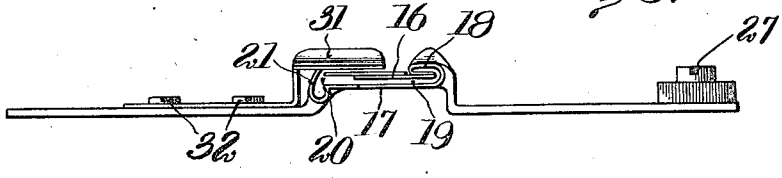


Fig. 10.

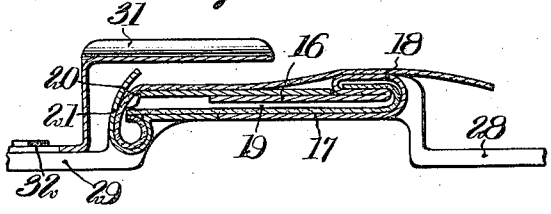


Fig. 12.

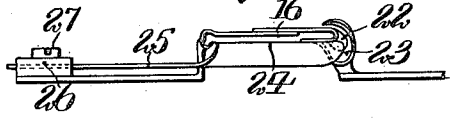


Fig. 13.

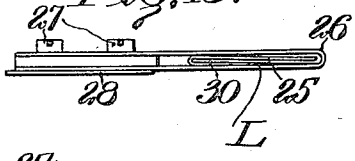
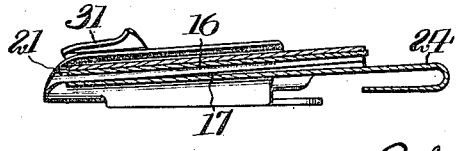


Fig. 11.



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UNITED STATES PATENT OFFICE.

ROBERT R. HUGHES, JR., OF NEW YORK, N. Y., ASSIGNOR TO UNION SPECIAL MACHINE COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

FOLDER FOR SEWING-MACHINES.

1,194,023. Specification of Letters Patent. Patented Aug. 8, 1916.

Application filed July 1, 1914. Serial No. 848,398

To all whom it may concern:

Be it known that I, ROBERT R. HUGHES, Jr., a citizen of the United States, residing at New York, in the county of New York, State of New York, have invented certain new and useful Improvements in Folders for Sewing-Machines, of which the following is a description, reference being had to the accompanying drawing and to the figures of reference marked thereon.

My invention relates to new and useful improvements in folders for sewing machines, and more particularly to a folder for forming the front plait of a shirt or other garment.

An object of the invention is to provide a folder wherein a lining strip may be utilized in forming the plait, which lining strip is so guided that one edge thereof is encircled by a folded edge of the garment, while the other edge of said lining strip is folded and stitched to the garment.

A further object of the invention is to provide a folder of the above character which may be readily adjusted for lining strips of different widths.

A still further object of the invention is to provide a folder of the above character, with means for directing and guiding the lining strip to the folder.

A still further object of the invention is to provide a guiding device which may be used to guide a strip in the garment, so that the same may be placed centrally of the formed plait.

These and other objects will in part be obvious, and will in part be hereinafter more fully disclosed.

In the drawings, Figure 1 is a plan view of a folder embodying my improvements; Fig. 2 is an end view of the same; Fig. 3 is a longitudinal sectional view on the line 3—3 of Fig. 1; Fig. 4 is a transverse sectional view on the line 4—4 of Fig. 1; Fig. 5 is a sectional view on the line 5—5 of Fig. 1; Fig. 6 is a detail showing the end of the guiding plates at the side wherein the lining strip is encircled by the body fabric; Fig. 7 is a sectional view showing a lining strip attached to a fabric; Fig. 8 is a plan view showing a slightly modified form of the folder; Fig. 9 is an end view thereof; Fig. 10 is a sectional view on the line 10—10 of Fig. 8; Fig. 11 is a sectional line on the line 11—11 of Fig. 8; Fig. 12 is a front end view of a portion of the folder; Fig. 13 is a side view showing the guide for the lining strip.

The folder consists generally in guiding plates which are placed one above the other, so that a lining strip for a plait may be guided between said plates. At one side of these plates a scroll is formed, which operates to fold the edge of the lining strip on to the upper surface thereof. At the other edge of said guiding plates, there is a scroll which extends from the under side to the upper face of said plates, so that the body fabric may be guided through the folder above said plates with its edge extending into said scroll, and this scroll will fold the edge of the body garment and cause the same to encircle the other free edge of the lining strip. These guiding plates are made in sections so they may be adjusted toward or from each other for varying the size of the plait which is formed.

Referring more in detail to the drawings, my improved folder as shown in Figs. 1 to 6 inclusive, consists of a lower guiding plate 1 and an upper guiding plate 2. These plates are joined together at their side edges, so as to form a guiding recess 3 between the plates. The upper and lower plates 1 and 2 at one side of the folder, are gradually turned into a scroll 4, which extends over on to the upper plate, so that when a strip is guided between the upper and lower plates, the edge of the strip will be carried around in the recess 5 formed by the scroll, and turn the edge of the strip on to its upper face, as it is delivered from the folder. The other side edges of the plates 1 and 2 are also connected at the receiving end of the folder, but at the delivery end of the folder these edges are cut away as indicated at 6, (see Fig. 6), so as to permit the lining strip indicated at L in said figure, to extend laterally between the plates.

The plates 1 and 2 are made in sections, and the lower sections overlap. The upper face of the underlying sections is cut away at 7, so as to receive the other section of the lower plate, and this forms a substantially smooth upper face of the joined sections of the lower plate.

The sections of the upper plate 2 are preferably spaced. One section, however, is provided with a sleeve 8, while the other carries a rod 9, which telescopes within the

sleeve, and this assists in supporting the plates and holding the same in alinement, so as to form a proper guiding recess 3 for the lining strip which passes between the upper and lower plates.

A base plate 10 is secured to one side of the plates 1 and 2, and supports the sections thereof on this side of the folder. An independent scroll 11 is secured to the under plate 1 at the other side thereof, and this scroll extends outwardly as at 12, thence upwardly and inwardly as at 13, so as to overlie the upper plate. This scroll is also secured to a supporting base plate 14. The base plates 10 and 14 are slotted as at 15, so they may be adjustably attached to the work plate of a sewing machine.

The lining strip indicated at L is guided between the upper plate 2 and the lower plate 1. The edge l of the lining strip is carried around into the recess 5, and is folded over on to the upper face of the lining strip as it is delivered from the folder. The body garment indicated at F extends over the top of the folder, and its edge is carried around by the scroll 11 to the under side of the plate 1. This scroll is also preferably so shaped as to fold in the rear edge of the fabric, as indicated at *f*. The lining strip extends to the cut-away section 6 of the guiding plates 1 and 2, and, therefore, this raw edge of the lining strip will be encircled by the hem or fold formed in the body fabric F by the scroll 11.

The folder is preferably used in connection with a two-needle machine, wherein the needles are so set as to form a line of stitches S which pass through the body garment, the edge of the lining strip and the folded edge of the body garment underneath the lining strip, while a second line of stitching S′ extends through the body garment and the folded-in opposite edge of the lining strip (see Fig. 7).

When it is desired to form a wider plait, the needles are properly adjusted and the folder is also adjusted so as to separate the sections of the plates 1 and 2. This is the only adjustment necessary. By this adjustment of the folder, a wider lining strip may be guided to the folder and stitched in precisely the same manner as above described.

In Figs. 8 to 13 of the drawings, I have shown a slightly modified form of folder. This folder is also provided with upper and lower guiding plates 16 and 17. These plates are joined at one edge and bent around to form a scroll 18. The plates are spaced to form a guiding recess 19, and this guiding recess extends around into the guiding recess of the scroll 18, so that as a lining strip passes between the plates, its edge will be folded as described in connection with the other figures of the drawings.

At the other side the plates are cut away at the delivery end as indicated at 20, and a scroll 21 secured to the lower plate extends upwardly and over the upper plate, in the manner above described. The edges of the plates 16 and 17 at the receiving end of the scroll 21 are provided with an enlargement 22, which serves to restrict and properly form a guiding recess 23, which directs the edge of the body garment which is to be folded.

The sections of the lower plate 17 are preferably arranged so as to be in alinement. The sections of the upper plate 16 are arranged so as to overlap, as shown in Fig. 10. The operation of this folder is precisely the same as described in connection with Fig. 1. One section of the lower plate is extended toward the front of the machine, and also laterally, so as to form a receiving guide 24, for the lining strip. This receiving guide is bent, so as to extend substantially at right angles to the longitudinal axis of the folder, as indicated at 25.

Coöperating with the feeding-in portion 25 of the guide is an adjustable guiding loop 26. This guiding loop is slotted and secured by screws 27 to the base plate 28 which supports one-half of the folder. The other half of the folder is supported by a base plate 29. The edge of the extension 25 is turned underneath at 30, so that the lining strip indicated at L in Fig. 13 is guided by this turned-over portion 30 of the extension 25, and the guiding loop 26. The lining strip passes along underneath the extension 25 and up around the curved portion thereof on to the guide 24 and from the guide 24 is led directly into the folder. This permits the lining strip to be fed into the folder at an angle, and smoothly turned, so as to enter the folder.

Attached to the supporting base plate 29 is a stripe guide 31. This stripe guide is secured to the base plate 29 by screws 32, so that it may be adjusted transversely of the folder. The end 33 of the stripe guide indicates the central position of the formed plait, so that when the garment has a stripe longitudinally thereof, this stripe may be guided by the stripe guide, so as to be placed centrally of the formed plait.

As above noted, the plate 16 is made in overlapping sections, one section being carried by the base plate 29 and the other by the base plate 28. The sections of the plate 17 are likewise carried respectively by the base plates 29 and 28. Therefore, by adjusting the base plates, the folder may be adjusted for different sized plaits. It is understood, of course, that in Figs. 9 and 10, the folders are set for a minimum sized plait.

It is obvious minor changes in the details of construction and arrangement of parts may be made without departing from the

spirit of the invention, as set forth in the appended claims.

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

1. A folder for sewing machines including spaced guiding plates, said guiding plates at one side thereof terminating in a folding scroll for folding over on to its upper face the edge of a lining strip guided between the plates, and a folding scroll extending about the other side edges of said plates for folding under the edge of a fabric passed over said plates.

2. A folder for sewing machines including spaced guiding plates, said guiding plates at one side terminating in a folding scroll for folding over on to its upper face the edge of a lining strip guided between the plates, and a folding scroll attached to the lower plate underneath the same and extending outwardly, upwardly and inwardly about the other side edges of said plates, whereby a body fabric may be guided over said plates and its edge directed into said scroll for forming a fold in the edge of the body garment which surrounds the raw edge of the lining strip.

3. A folder for sewing machines including spaced guiding plates, each of which is formed in sections, a supporting base plate for the sections at each side of said plates, said plates terminating at one side thereof in a folding scroll for folding a lining strip, and a folding scroll surrounding the other side edges of said plates for receiving a body garment guided over said folding plates and folding the edge thereof around the other edge of the lining strip.

4. A folder for sewing machines including spaced upper and lower guiding plates formed in sections, said lower guiding plate at one side thereof being gradually turned over on to the upper face of the upper plate, so as to fold the edge of a strip guided between the said plates on to the upper face of said strip, and an independent scroll at the other edges of said plates for receiving a body garment and folding the edge thereof underneath the other edge of said strip.

5. A folder for sewing machines including spaced guiding plates, said guiding plates at one side thereof terminating in a folding scroll for folding over on to its upper face the edge of a lining strip guided between said plates, a folding scroll at the other side of said plates for receiving the edge of the body fabric guided over said plates and folding the edge thereof underneath said plates, said lower plate having an extension bent at an angle, so as to direct a lining strip into the folder.

6. A folder for sewing machines including spaced guiding plates, said guiding plates at one side thereof terminating in a folding scroll for folding over on to its upper face the edge of a lining strip guided between said plates, a folding scroll at the other side of said plates for receiving the edge of the body fabric guided over said plates and folding the edge thereof underneath said plates, and a stripe guide attached to said folder and extending over the same, whereby a stripe may be located centrally of a formed plait.

7. A folder for sewing machines including spaced guiding plates, said guiding plates at one side thereof terminating in a folding scroll for folding over onto its upper face the edge of a lining strip guided between said plates, and a folding scroll extending about the other side edges of said plates for folding under the edge of the fabric passing over said plates, said guiding plates being formed in sections whereby said sections may be adjusted relative to each other for varying the size of said folder.

In testimony whereof, I affix my signature, in the presence of two witnesses.

ROBERT R. HUGHES, Jr.

Witnesses:
W. Blanchard,
R. J. Mitchell.