A. LAUBSCHER.

FOLDER FOR SEWING MACHINES.

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1,005,238.

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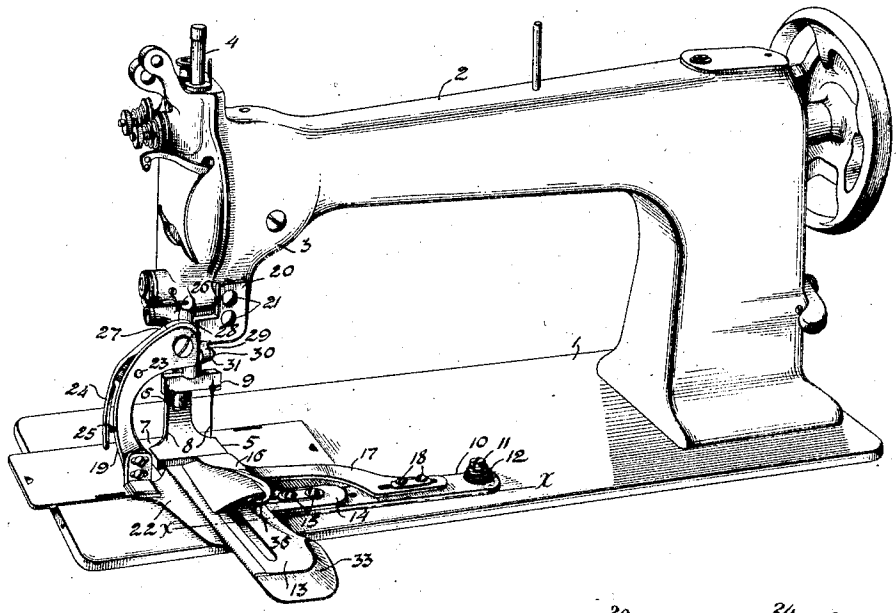
Fig. 1.



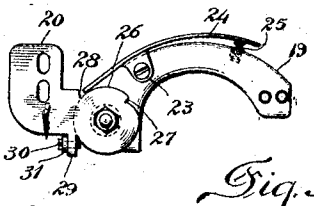


Fig. 3.

Fig. 2.

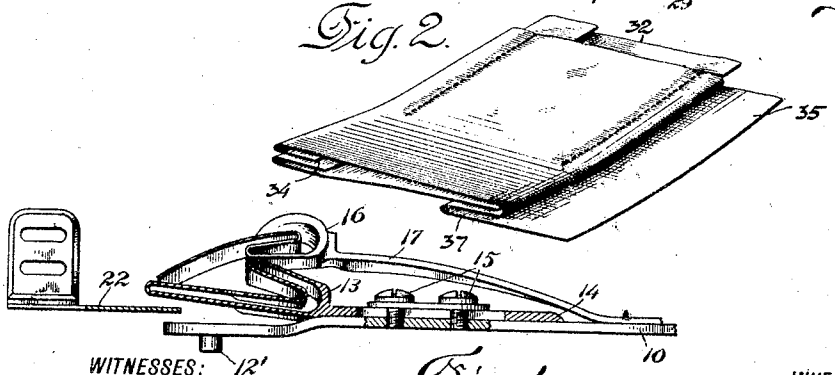


Fig. 4.

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FOLDER FOR SEWING-MACHINES.

1,005,238. Specification of Letters Patent. **Patented Oct. 10, 1911.**

Application filed March 4, 1910. Serial No. 547,261.

To all whom it may concern:

Be it known that I, ALEXANDER LAUBSCHER, 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 Folders for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to improvements in folders for sewing machines, and has for its object to improve that class of devices commercially termed "shirt front folders."

In the manufacture of men's shirts it is the common practice to provide a box plait in which the buttonholes for closing the bosom portion of the shirt are formed, and it is desirable that such plait be provided with a reinforcing strip and that the superposed plies of material will be so arranged that no edge of a single ply will be exposed on either side of the finished product and in a manner to expose the folds of both the body fabric and lining strip at the free or buttonhole edge of the box plait; and to this end there is provided a combination of plait-folder, edge-folder and strip-folding guide, the latter two of which are adjustably secured to the bed-plate of the sewing machine, the former being attached to a swinging carrier depending from the free end of the overhanging arm.

The sewing machine may be of any suitable construction, one form of which is shown in the drawings, but need not be specifically described herein since it is well understood, and as the parts are very similar in all sewing machines employing a vertically-actuated needle-bar, the invention can be attached to any of them with little or no change.

In the accompanying drawings illustrating the invention, in the several figures of which like parts are similarly designated, Figure 1 is a perspective view of a sewing machine fitted with the improved mechanism, the latter being shown adjusted into operative relationship with the stitch-forming mechanism, Fig. 2 a like view showing the relationship of the superposed plies of material as they leave the delivery ends of the folders, Fig. 3 is a rear side view of the swinging lever, the bracket upon which said lever is pivoted, together with the catch-lever for holding said swinging lever in effective position, and Fig. 4 is a view in section on the line *x x* Fig. 1.

1 represents the bed-plate of the sewing machine, in which are mounted suitably-actuated loop-takers and the cloth-feeding mechanism, the latter of which is not shown.

2 is the overhanging arm or arm bracket in the free end 3 of which is mounted the needle-carrying bar 4 operatively connected with its driving shaft (not shown), which latter is mounted in the usual bearings formed in said arm bracket.

5 represents one form of commonly-employed cloth-presser secured by a suitable screw to the presser-carrying bar 6 which, in turn, is mounted in the free end of said bracket in a manner common to sewing machines generally.

7 is the throat-plate, 8, 8 the needles, and 9 the needle bracket suitably secured to the lower end of the needle-carrying bar 4.

10 represents an attachment base which is secured at one end, by pivot screw 11, to the bed-plate 1 and yieldingly held down upon said bed-plate by a spring 12 encircling said pivot screw, said base being provided at its opposite end with a commonly-employed downwardly-extended dog pin 12′ which coacts with a suitable opening (not shown) in the bed-plate to hold said base and the parts carried by it against rotary adjustment on said pivot screw, except at the convenience of the operator.

13 represents a strip-folding guide carried by a bracket 14 which is adjustably secured by screws 15, 15 to the upper side of the base 10, and 16 is an edge-folder carried by an arm 17 which is adjustably secured to said base by screws 18, 18.

19 represents a swinging carrier pivoted at its upper end to a bracket 20 which is adjustably secured by screws 21, 21 to the free end of the arm bracket, the lower end of said carrier being provided with an adjustably secured plait-folder 22 which may be secured in or out of operative relationship with said edge-folder and strip-folding guide, as will now be explained.

To the carrier 19 is pivoted at 23 a catch-lever 24, and interposed between the lower end of said lever and said carrier is a spring 25 which acts to hold the opposite end of said lever pressed toward the rounded portion 26 of the bracket 20 provided with the

notches 27 and 28. 29 represents a bracket formed integral with the bracket 20 and provided with an adjusting screw 30, which, in connection with the notch 27 and catch-lever 24, acts to lock said carrier in effective position, the notch 28 in connection with said catch-lever, acting to hold said carrier in its elevated or ineffective position, the nut 31 serving to hold said screw against accidental adjustment.

It has not been deemed necessary to illustrate the outward or inoperative position of the carrier 19 carrying the attached plait-folder 22, as the relationship of the notches 27 and 28 with respect to the upper end of the catch lever 24 fully discloses convenient means for effecting such adjustments.

The operation of the device is as follows: Supposing the plait-folder 22 to be adjusted to its outward or inoperative position, the strip 32 is passed through the folding scroll 33 of the strip-folding guide 13, the free edge 34 of the main or body portion of the material 35 is positioned in the folding scroll 36 of the edge-folder 16, and the plait-folder is adjusted to its operative position, as shown in Fig. 1, which causes the fold 37 to be formed in said main or body portion and the several plies of material to be superposed as they are advanced to the action of the stitch-forming mechanism, as shown in Fig. 2.

Claims:—

1. In a folder for sewing machines, the combination of an edge-folder, an adjustably mounted plait-folder, an intermediately located strip-folding guide, and means for securing said plait-folder in operative relationship with said edge-folder and strip-folding guide for effecting a box plait having at one side an exposed division of the superposed fabrics.

2. In a folder for sewing machines, the combination of an edge-folder, a plait-folder, an intermediately located strip-folding guide, and means for adjusting said edge-folder and strip-folding guide relatively to each other and to said plait-folder for effecting a box plait having at one side an exposed division of the superposed fabrics.

3. In a folder for sewing machines, the combination of an edge-folder carried by the bed-plate of the sewing machine, an adjustably secured plait-folder depending from the free end of the sewing machine arm bracket, and a strip-folding guide carried by said bed-plate and located between said edge-folder and plait-folder for effecting a box plait having at one side an exposed division of the superposed fabrics.

4. In a folder for sewing machines, the combination of an attachment base adjustably mounted on the bed-plate of the sewing machine, an edge-folder provided with an arm for adjustably securing said folder to said base, a strip-folding guide carried by said base and located in vertical alinement with said edge-folder, and a swinging carrier depending from the sewing machine arm bracket and carrying at its free end a plait-folder for effecting a box plait having at one side an exposed division of the superposed fabrics.

5. In a folder for sewing machines, the combination of an edge-folder, a strip-folding guide and a plait-folder arranged in vertical superposition; a swinging carrier pivotally attached to a bracket secured to the overhanging arm and to which said plait-folder is adjustably attached; and a catch lever mounted on said arm and coacting with said bracket to hold said carrier and its attached folder in operative relationship with said edge-folder and strip-folding guide for effecting a box plait having at one side an exposed division of the superposed fabrics.

6. In a folder for sewing machines, the following instrumentalities in combination: an attachment base carried by the bed-plate of the sewing machine; an edge-folder provided with an arm and a strip-folding guide provided with a bracket adjustably mounted on said base; a bracket secured to the overhanging arm; a carrier pivotally mounted on said bracket and provided with a plait-folder; and a spring-controlled catch lever pivoted upon said carrier and coacting with the bracket attached to the overhanging arm to hold said plait-folder either in or out of operative relationship with said edge-folder and strip-folding guide for effecting a box plait having at one side an exposed division of the superposed fabrics.

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

ALEXANDER LAUBSCHER.

Witnesses:
THOMAS CAMPBELL,
ABBIE M. DONIKEE.