(No Model.) 2 Sheets—Sheet 1.

A. LAUBSCHER.

TUCKING GUIDE FOR SEWING MACHINES.

No. 385,560. Patented July 3, 1888.

Fig. 1.

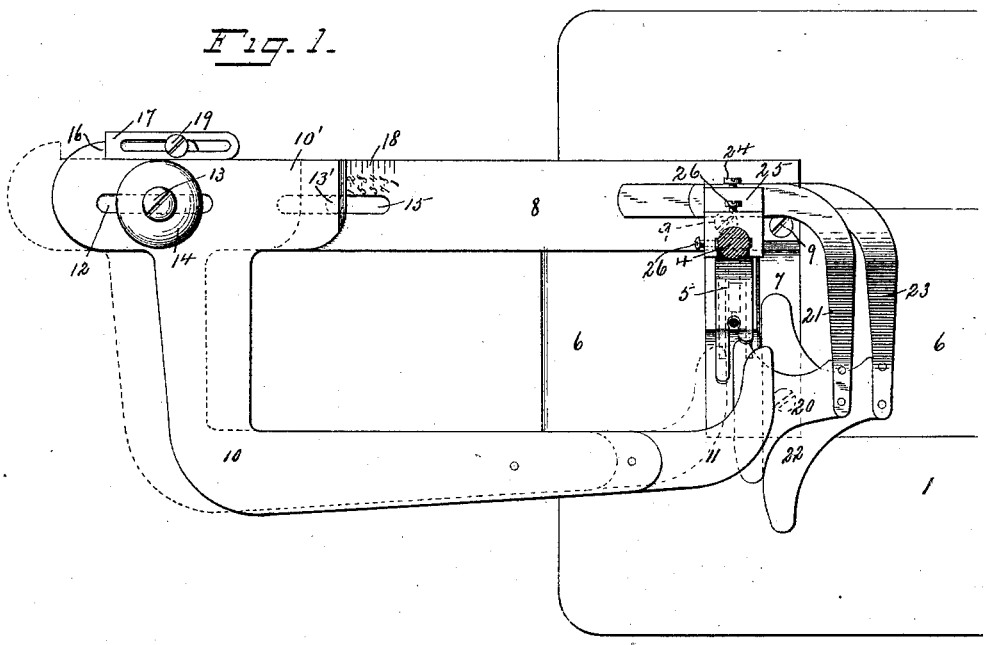
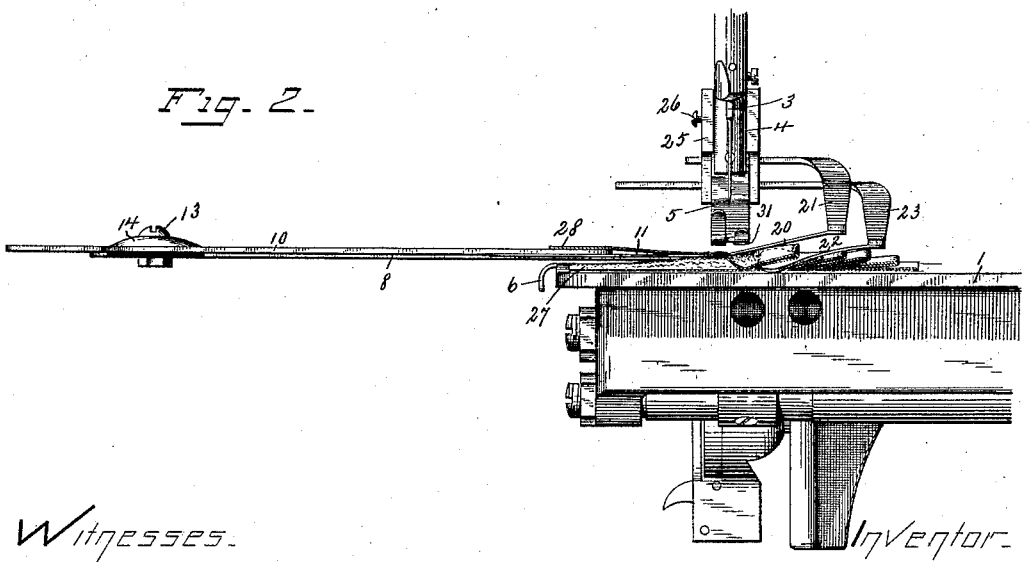


Fig. 2.



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(No Model.) 2 Sheets—Sheet 2.

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Fig. 3.

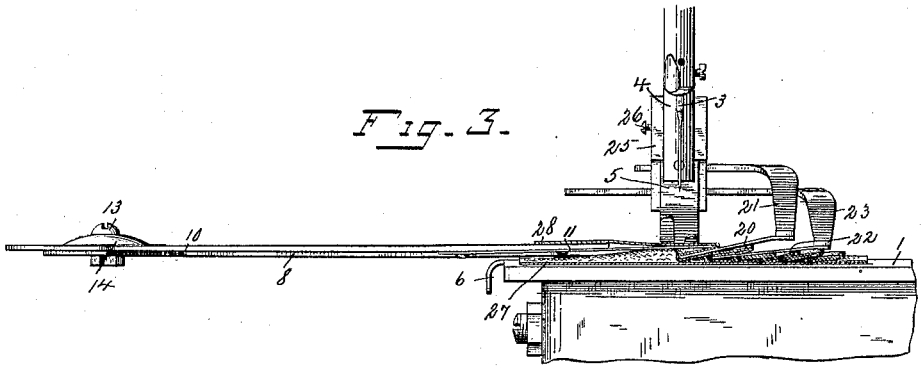


Fig. 4

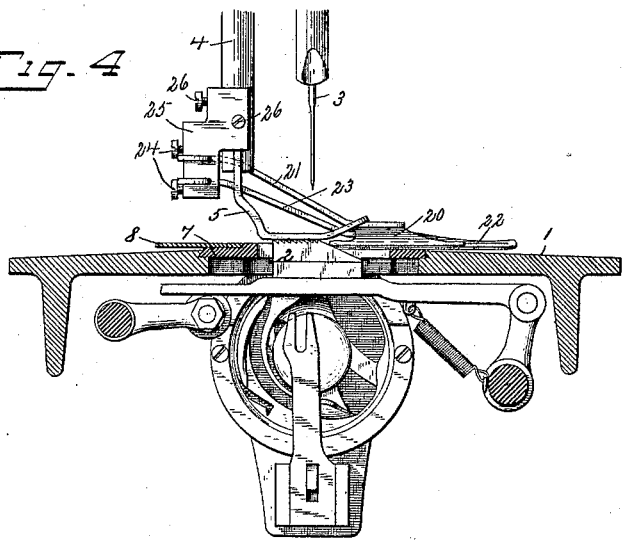


Fig. 5.

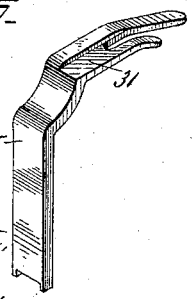
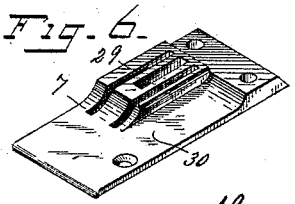


Fig. 6.



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UNITED STATES PATENT OFFICE.

ALEXANDER LAUBSCHER, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE WHEELER & WILSON MANUFACTURING COMPANY, OF SAME PLACE.

TUCKING-GUIDE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 385,560, dated July 3, 1888.

Application filed June 9, 1887. Serial No. 240,682. (No model.)

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 Plaiters; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the manufacture of plaiters, and has for its general objects to simplify and cheapen their construction, and at the same time to greatly improve their mode of operation in use.

With these ends in view I have devised the simple and novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to denote the several parts.

Figure 1 is a plan view of a portion of the bed of the machine, showing my improved plaiter in operative position thereon, the needle and presser-foot bar being in section, the retracted position of the folding-gage being shown in dotted lines; Fig. 2, a front elevation, the needle and presser-foot bar being raised and the folding-gage in the retracted position; Fig. 3, a similar view, the folding-gage being in the operative position and the presser-foot down; Fig. 4, an end elevation illustrating the stitching mechanism, the bed, throat-plate, and certain operative parts of the machine, the plate of the attachment being in section; Fig. 5, an inverted perspective of the presser-foot detached, and Fig. 6 is a perspective of the throat-plate detached.

1 denotes the bed of the machine; 2, the feed-point; 3, the needle; 4, the presser-foot bar; 5, the presser-foot; 6, the slides, and 7 the throat-plate.

It will of course be understood that my improved plaiter is applicable to all makes and styles of sewing-machines. In the present instance I have illustrated it in connection with the stitch-forming mechanism of a Wheeler & Wilson No. 12 sewing-machine. I shall omit, however, all description of the stitch-forming mechanism, as that forms no portion of my invention, with the exception that I have made changes in the shape of the throat-plate, presser-foot, and feed-point. These changes do not affect the operation of the machine upon ordinary work and have special relation to the working of my improved plaiter. They will presently be described at length.

8 denotes the base-plate of the attachment, which I ordinarily secure to the throat-plate by screws 9. Plate 8 extends outward from the bed of the machine, as clearly shown, and to the outer end thereof is secured the shank 10 of folding-gage 11. At the outer end of the part 10′ of shank 10 is a slot, 12. A guide-screw, 13, passes through this slot and through the plate and is secured by a nut on the under side. A spring-washer, 14, bearing against the surface of the shank, provides sufficient friction to hold the shank firmly in position, but at the same time will permit it to slide in or out freely. A guide-pin, 13′, on the under side of the shank, passes through a slot, 15, in the plate to prevent lateral movement of the shank and folding-gage.

At the outer end of the shank is a shoulder, 16, which is adapted to engage an adjustable stop, 17, secured to the plate 8. The forward end of the part 10′ of the shank 10 is preferably beveled, as shown, so as to serve as an index to the graduated scale 18 upon the plate 8, by which the width of the plaits is regulated. Suppose that the greatest width of plait is desired, the said beveled edge is pushed to the last gage-mark to the right on the scale. If a narrower plait is desired, said edge is pushed to such mark toward the left as will produce the width desired. Having adjusted the folding-gage, stop 17 is locked in position against shoulder 16 by set-screw 19. It will be noticed in the drawings that the shank of the folding-gage extends forward from the plate and then inward toward the machine. The shape of the shank, however, is not an essential feature of my invention.

The folding-gage proper, which I have indicated by 11, may be made integral with the shank; but as it is necessarily made thin I preferably make it in a separate piece and rivet it to the shank, as clearly shown.

20 denotes the stitching or seam gage, hav-

ing a shank, 21, and 22 the spacing-gage, having a shank, 23. The shanks of these gages extend backward and upward and then inward, and are adjustably secured by set-screws 24 in slots in a block, 25, which is itself secured to the presser-foot or presser-foot bar by set-screws 26.

It will be noticed that the stitching-gage does not extend quite back to the needle. In use the edge of this gage is so adjusted relatively to the needle as to carry the inner or turned-under edge of the plait that is to be stitched slightly to the left of the needle, so that the line of stitching will be just over said inner edge of the plait, as is clearly indicated in Fig. 3. The spacing-gage in use is so adjusted as to give any desired space between the seams—that is, between the inner ends of the plaits.

It should be noted as a very important feature of my novel construction that it enables me to lay and stitch the plaits with an evenness never before attained, whether a lining is used or not. If a lining is used, the plaits are stitched to it at the same time that they are made. In the use of other attachments for this purpose the material to be folded has to pass through the attachment, which is a source of great embarrassment in handling the work.

In operating my improved device the material is left wholly free, so that no difficulty results from the width of the piece of material or the use of a lining.

In Figs. 2 and 3, 27 denotes the lining and 28 the piece of cloth from which the plaits are formed, the device being equally well adapted for every kind and quality of material that may be required to be folded and stitched.

The operation is as follows: Having completed a plait, the needle and presser-foot are raised, the work is brought to the front and the folding-gage moved outward to the left, as indicated in dotted lines in Fig. 1, and as shown in Fig. 2. In inserting the work for a new plait the spacing-gage lies under the last plait, the edge of the gage being close against the seam. The stitching-gage lies over piece 28 and the folding-gage under piece 28, but over piece 27, as shown in Fig. 2. The folding-gage is then pressed to the right until shoulder 16 comes in contact with stop 17. This forms a new plait of the piece 28 of material by folding it over the stitching-gage, which lies at the base of the new plait. It will thus be seen that the distance between the folding-gage in its position toward the right and the stitching-gage determines the width of the plaits, and the distance between the spacing-gage and the stitching-gage determines the space between the plates. The presser-foot is then lowered and the stitching of the new plait may be commenced. The position of the parts at this instant is clearly shown in Fig. 3, the operations, as described, being continuously repeated.

In order that the spacing, stitching, and folding gages may be entirely out of the way in use—that is to say, that they will be so located as not to act as a drag upon the piece of goods to be plaited—I have removed metal from the top of the throat-plate at the front and left thereof, leaving a raised portion, 29, and a depressed portion, 30, at the right and front of the raised portion. I furthermore so construct the feed-point that the operation of the teeth is from the operator backward—that is to say, the feed is entirely a draw-feed. It will be seen, furthermore, from Fig. 3 that in use there are two more thicknesses of the piece of material that is being plaited between the presser-foot and the feed-point upon the right of the needle than there are upon the left. In order to compensate for this additional thickness and provide that there shall be no dragging of the piece from which the plaits are formed under any circumstances, I remove metal from the under side of the presser-foot at the right of the needle, leaving a depressed portion, 31, as clearly shown in Fig. 5. These details of construction I have found of great value in perfecting the operation of the attachment.

It will of course be understood that the various details of construction may be greatly modified without departing from the principle of my invention.

I claim—

1. In a sewing-machine plaiter, the combination, with the base-plate 8, having the slot 15, of the folding-gage 11, the shank 10, by which said gage is carried and which is provided with the part 10', sliding on said base-plate and having the guide-pin 13' and the slot 12, the guide-screw 13, passing through said slot 12, and provided with a spring-washer and a set-nut, and stitching and spacing gages to co-operate with said folding-gage.

2. In a sewing-machine plaiter, the combination, with the base-plate 8, having the slot 15, of the folding-gage 11, the shank 10, by which said gage is carried and which is provided with the part 10', sliding on said base-plate and having the guide-pin 13', the slot 12, and the stopping-shoulder 16, the stop 17, adjustably secured to said base-plate in line with said shoulder, the guide-screw 13, passing through the said slot 12 and provided with a spring-washer and a set-nut, and stitching and spacing gages to co-operate with said folding-gage.

3. In a sewing-machine plaiter, the combination, with the base-plate 8, having the slot 15, of the folding-gage 11, the shank 10, by which said gage is carried and which is provided with the part 10', sliding on said base-plate and having the guide-pin 13' and slot 12, the guide-screw 13, passing through said slot 12 and having a spring-washer and set-nut, the block 25, having means for attachment to the presser foot or bar, and the stitching and spacing gages 21 and 23, secured to said block.

4. The combination, with the presser-foot 5, provided with the depression or recess 31, of the block 25, attached to the presser foot or bar, the stitching-gage 20, extending beneath

the recess of said presser-foot and having a shank attached to said block, the adjustable spacing-gage 22, also having a shank attached to said block, a plaiter base-plate, as 8, and a sliding folding-gage supported by said base-plate to co-operate with the said stitching and spacing gages.

5. The combination, with block 25, having means for attachment to a sewing-machine presser-foot and the stitching and spacing gages carried thereby, of a plate, 8, having a graduated scale, 18, a sliding folding-gage carried by said plate, and a spring-washer bearing upon the surface of said gage.

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

ALEXANDER LAUBSCHER.

Witnesses:

A. M. WOOSTER,

O. E. RUGGLES.