

H. BLAND.  
Machine for Sewing Straw-Braids.

No. 221,505.

Patented Nov. 11, 1879.

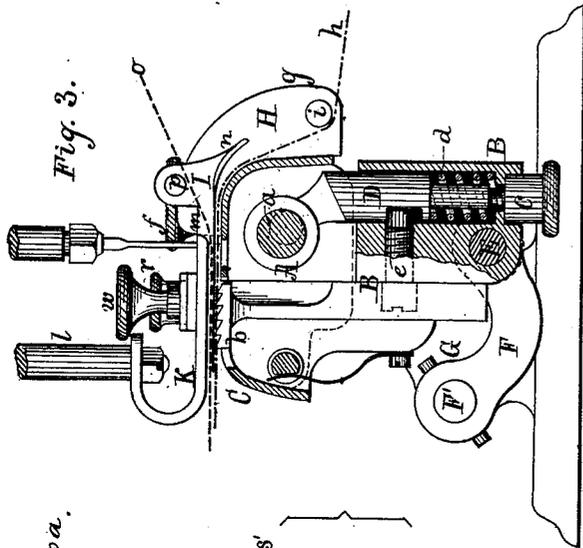


Fig. 3a.

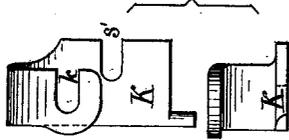


Fig. 6.



Fig. 4.



Fig. 7.

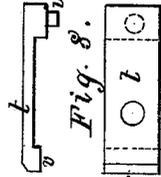


Fig. 8.

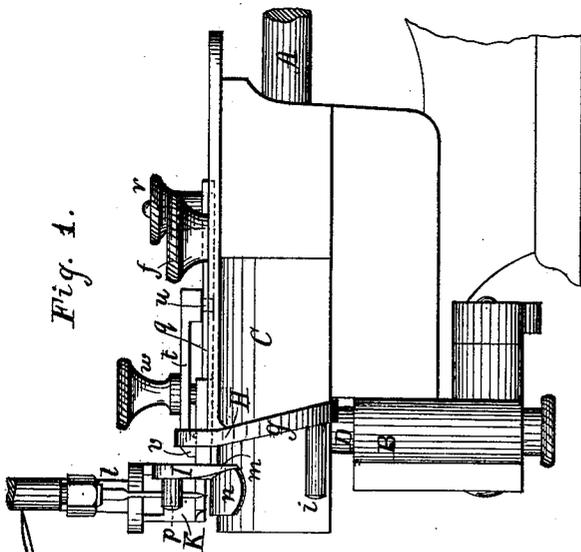
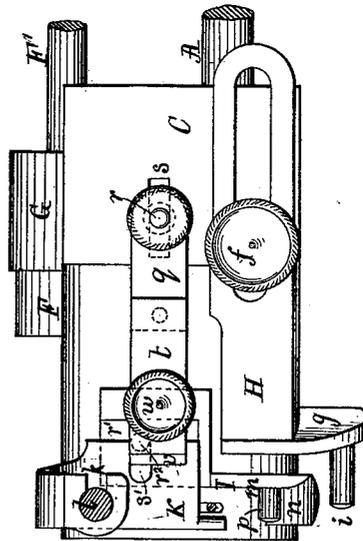


Fig. 1.

Fig. 2.



Witnesses:

*H. Bland*  
*C. J. Dick*

Inventor:  
Henry Bland by  
*A. Pollock* his attorney

# UNITED STATES PATENT OFFICE.

HENRY BLAND, OF LUTON, COUNTY OF BEDFORD, ENGLAND, ASSIGNOR TO  
WILCOX & GIBBS SEWING MACHINE COMPANY.

## IMPROVEMENT IN MACHINES FOR SEWING STRAW BRAIDS.

Specification forming part of Letters Patent No. 221,505, dated November 11, 1879; application filed  
October 17, 1878.

*To all whom it may concern:*

Be it known that I, HENRY BLAND, of Luton, in the county of Bedford, England, engineer, have invented Improvements in Machines for Sewing Straw Braids, of which the following is a specification.

My invention relates chiefly to a simple and cheap construction of sewing-machine and accessories thereto, adapted more particularly for use in the manufacture of straw hats, bonnets, or other similar articles; but parts of my improvements are also applicable to sewing-machines to be employed for other purposes.

The various improvements which form the subject-matter of my said invention may be applied to sewing-machines of various classes; but they are especially adapted for use in combination with the machine known as the "Willcox & Gibbs Sewing-Machine;" and I shall therefore, for the sake of convenience, select this type of machine with my invention applied thereto, for the purpose of describing the nature of the invention and the mode of carrying it into effect.

In the accompanying drawings, Figure 1 represents a side elevation of a portion of a Willcox & Gibbs sewing-machine with the improvements which form the subject of my invention applied thereto. Fig. 2 is a plan, and Fig. 3 is a transverse section, of the same, both corresponding to Fig. 1. Figs. 4, 5, 6, 7, and 8 are detail views of an edge-guide for the entering plait or braid, hereinafter referred to, Fig. 4 being a side elevation, Fig. 5 a plan, and Fig. 6 a front elevation, of one part of the said guide, and Fig. 7 a side elevation, and Fig. 8 a plan, of another part of the said guide. Fig. 8<sup>a</sup> is a detail of the presser-foot.

A is the driving-shaft of the machine with its crank-pin or eccentric *a* for operating the feed-block. B is the feed-block proper, with its feed-surface *b*, working through a slot in the table C of the machine. This feed-block is fitted on a carrier-pin, D, which is mounted loosely on the eccentric *a*, and is provided with a threaded extremity carrying a nut, *e*, by operating which the feed-block may be raised or lowered on the carrier-pin D, in order to vary the height of the feed-surface *b* as required. A spring, *d*, having a tendency to

force the feed-block downward, is fitted in a recess therein, while a tightening-screw, *e*, is provided for the purpose of maintaining the feed-block in any adjusted position.

The lower part of the feed-block is carried by the pin E of a vibrating lever-arm, F, fast on a rocking shaft, F', which has its bearings in the frame G of the machine parallel to the driving-shaft A.

The feed-block, as thus constructed and arranged, is substantially similar to the feed-block described in the specification filed with another application for Letters Patent, now pending in the United States Patent Office, filed October 19, 1877, with the exception that in the present case a single feed-surface only is used.

I employ an adjustable edge-guide, H, for the entering plait or braid of straw, and an adjustable edge-guide, I, for the body of the work being sewed.

The edge-guide H consists of a slotted bar attached by means of a screw, *f*, to the table C, so as to admit of its adjustment, and is provided with a plate, *g*, against which the edge of the entering plait or braid *h* bears, the said plate carrying a pin or projection, *i*, for the purpose of facilitating the guiding of the plait or braid.

The adjustable edge-guide I for the work (shown in the general views, Figs. 1, 2, and 3, and also in the detail views, Figs. 4, 5, 6, 7, and 8) is employed in combination with the presser-foot K, which is provided with a slot, *k*, through which the presser-bar *l* passes, so as to admit of the foot K being adjusted on the bar *l*. The guide I proper consists of an edge, *m*, against which the work bears, the said edge carrying a separator-plate, *n*, for maintaining the work *o*, which passes above or over the plate *n* separate from the entering-plait *h* below, the work and the plait both passing together under the same presser-foot K. The edge *m*, which is also provided with a pin or finger, *p*, for the purpose of preventing the work from rising, is carried by a bar, *q*, secured by a screw-pin, *r*, to the table C, which latter is formed with a slot, *s*, so as to enable the edge-guide I to be adjusted as required.

The bar  $q$  is recessed at  $r'$  for the reception of the foot K, (shown in detail in Fig. 8<sup>a</sup>.) and is provided with a pin,  $r^2$ , which enters a slot,  $s'$ , in the said foot. The bar  $q$  and the foot K are connected together by a saddle-piece,  $t$ , carrying at one end a projection,  $u$ , which engages in a hole,  $u'$ , in the bar  $q$ , and provided at its other end with a projection,  $v$ , which bears on the presser-foot K, the presser-bar and the presser-foot being secured together by a tightening-screw,  $w$ , so as to admit of their being raised and lowered together bodily by the usual means of operating the presser-foot while allowing of the adjustment of the edge  $m$  relatively to the presser-foot and to the edge-guide H, to suit a variation in the degree of lap when the screw  $w$  is slackened.

It will be seen that by the arrangement of this compound presser-foot and edge-guide considerable advantages are obtained. For example, there is a great facility for adjustment, the presser-foot being adjustable on the presser-bar, and the edge-guide being adjustable on the presser-foot. The guide may also be readily detached from the presser-foot and removed, and when so removed the presser-foot is available for ordinary work, as shown in the detail, Fig. 8<sup>a</sup>. The screw-pin  $r$  also acts as a steadying-pin, reducing the strain upon the presser-bar in the act of raising and lowering the compound foot and guide.

I would observe that although I have shown, as the best construction I know of, the edge-guide adjustable with reference to the needle, yet for work of uniform width or distance of plait, the edge-guide might be made permanently rigid with the presser-foot or adjustable with reference to the needle to a limited extent—for instance, by setting the presser-foot, together with the edge-guide, upon the foot-bar more or less in advance of the needle, or by using, in connection with the same machine, a number of presser-feet adapted specially for various widths of plaits.

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

1. In a sewing-machine, of otherwise ordinary or suitable construction, as an attachment to or part of the presser-foot, an edge-guide and separator, combined with means for permitting them to be adjustably secured with reference to the needle-hole of the sewing-machine, substantially as described.

2. The combination, with the presser-bar and presser-foot, of the laterally-adjustable edge-guide and separator, movable with said presser foot and bar, substantially as described.

3. The combination of the separator-plate and edge-guide, attached to and made adjustable upon the presser-foot of the machine, as set forth.

4. The combination, with the presser-bar and presser-foot, of the holding-down pin or finger and laterally-adjustable edge-guide and

separator, movable with said presser bar and foot, substantially as described.

5. The combination, with the presser-bar and the laterally-adjustable presser foot, of the edge-guide, movable therewith, substantially as described.

6. The presser-bar, presser-foot, and attached guide for the edge of the upper braid, combined with the separator and holding-down pin or finger, substantially as and for the purpose described.

7. The presser-bar and the laterally-adjustable guide for the upper braid, movable with said bar, combined with the presser-foot, made adjustable upon said bar and with reference to the guide, substantially as and for the purpose described.

8. The combination, in a sewing-machine, of otherwise ordinary or suitable construction, of the presser-foot and the edge-guide and separator, with the means substantially described, for securing in position, with reference to the needle-hole, the edge-guide and separator, whereby the presser-foot may be used in connection therewith or as an ordinary presser-foot when the said edge-guide and separator are removed, as set forth.

9. In a braid sewing-machine, the combination, with the throat-plate and a guide for the braid being delivered to be stitched, and means to adjust such guide laterally with relation to the needle-hole, of a guide movable with a presser-bar and made laterally adjustable with reference to the presser-foot and needle-hole, the adjustment of the upper and lower guides with relation to the needle-hole and each other, regulating the distance of the sewing from the edge, and the amount of laps of the braid being delivered under the edge of the superimposed braid already stitched, to form a part of the head covering, substantially as described.

10. The presser-bar, presser-foot, and the laterally-adjustable guide, movable therewith, to govern the edge of the upper piece of braid, and the independently-adjustable guide movable over the bed-plate to control the under braid, combined with a separator, to keep the two braids apart just in advance of the point where the needle penetrates through them, substantially as described.

11. The combination, with the presser-foot and the edge-guide and separator-plate carried by said presser-foot and laterally adjustable thereon, of a plait edge-guide independently adjustable with reference to the presser-foot and its appurtenances, substantially as described.

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

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