

(No Model.)

2 Sheets—Sheet 1.

M. H. RYDER.

MACHINE FOR SEWING STRANDS OF BRAID.

No. 287,393.

Patented Oct. 23, 1883.

Fig. 1.

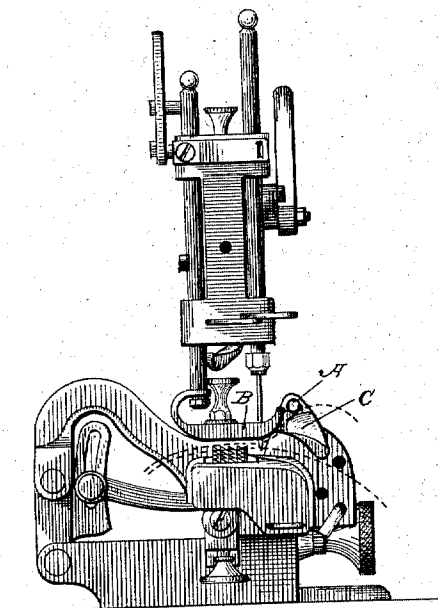


Fig. 2.

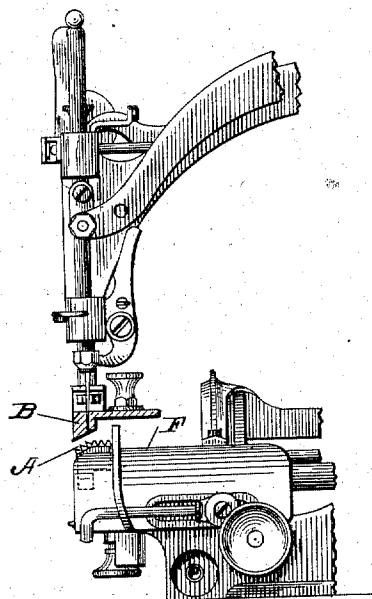


Fig. 3.

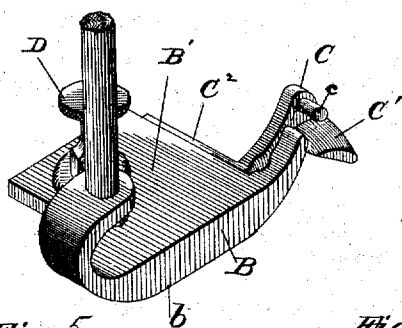


Fig. 4.

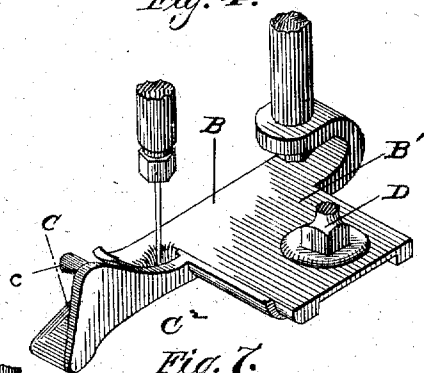


Fig. 5.

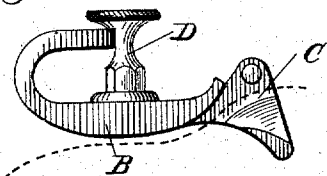


Fig. 6.

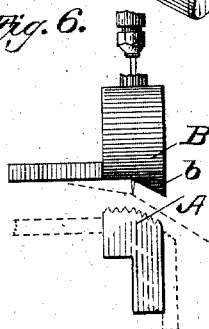
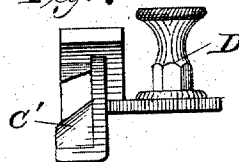


Fig. 7.



Witnesses:  
W. W. Mortimer  
S. S. Williamson

Inventor:  
Martin H. Ryder,  
by Wooster and Smith  
Attys

(No Model.)

2 Sheets—Sheet 2.

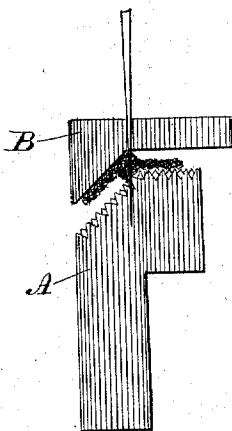
M. H. RYDER.

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*Fig. 8.*



*Witnesses*

*S. S. Williamson*  
*A. M. Wooster*

*Inventor*

*Martin H. Ryder*  
*By Master Smith*  
*Attys.*

# UNITED STATES PATENT OFFICE.

MARTIN H. RYDER, OF STAMFORD, CONNECTICUT, ASSIGNOR OF ONE-HALF  
TO ELIZA A. WHITE, OF SAME PLACE.

## MACHINE FOR SEWING STRANDS OF BRAID.

SPECIFICATION forming part of Letters Patent No. 287,393, dated October 22, 1883.

Application filed June 4, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, MARTIN H. RYDER, a citizen of the United States, residing at Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Machines for Sewing Strands of Braid; 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 machines for sewing strands—as, for instance, straw braid—and has for its object to sew the pieces or strands together in such a manner that the sewing is concealed, or nearly so, on the right side of the fabric.

With this end in view my invention consists in the construction and combination of elements, as hereinafter fully described, and then specifically designated by the claims.

In order to enable those skilled in the art to which my improvement relates to make and use my invention, I will proceed to describe the same, referring by letters to the accompanying drawings, forming part of this specification, in which—

Figure 1 is an end elevation of the machine. Fig. 2 is a front elevation. Figs. 3 and 4 are perspective views of the presser-foot and beveled guide. Fig. 5 is an end elevation of the presser-foot and guide enlarged. Fig. 6 is a back view of the beveled presser-foot, beveled feeding device, and the needle, and Fig. 7 is a front view of the beveled guide. Fig. 8 is a view on an enlarged scale, showing the strands as they are being passed beneath the needle.

Similar letters of reference indicate like parts in all the figures of the drawings.

My invention is applicable to any class of sewing-machines; but in my drawings I have shown it as applied to the ordinary Willecox & Gibbs straw-braid sewing-machine, the ordinary working parts of which it is not necessary to describe in detail, but I shall confine my description to my own invention.

A is the feeding device, which is laterally beveled downward and outward from about the central line, so that the outer portion of

the feeding-surface is at an obtuse angle to the inner portion.

B is the presser-foot, which is provided with a lip, *b*, upon its outer edge, the inner edge of said lip being beveled upwardly and inwardly to correspond with the downward and outward bevel of the feeding device.

C is the beveled guide, which is provided with a plate, *C'*, and is attached by set-screw D to plate B', which projects inward from the presser-foot. A slot (not shown) in the plate B' permits the adjustment of the guide relatively to the needle.

*c* is a pin in the guide, which prevents the strand from slipping out.

*C'* is the inclined block upon which the upper strand or the outer strand of the completed portion rests while in use, and which serves to tilt or incline said strand at an angle corresponding substantially with the angle of the presser-foot and feeding device, so that as the strand passes under the needle the edge thereof, just below the upper surface, is presented to the needle, which passes into said strand diagonally and out on the under side some distance from the edge thereof, then through the under strand, which ordinarily lies flat on the surface of the needle-plate F, which is beveled downward and outward, as shown at *f*. The lower strand, in fact, is stitched directly through in the ordinary manner, the great advantage being that no stitching is visible on the right side of the goods, the stitches being visible only in the edge of the strand, below the upper surface thereof.

The position in which the strands pass to the needle is clearly shown by dotted lines in Fig. 1. The lower dotted line represents the new strand—that is to say, the strand which is being sewed on. This strand passes under the guide and lies flat on the needle-plate of the machine. The upper dotted line represents the old strand—that is to say, the portion which has been sewed. The outer edge of this portion rests upon the block *C'*, and is tilted or inclined thereby, and in this position is caught, held, and fed forward in the usual manner.

In the ordinary manner of stitching it is

necessary for the strands to overlap each other sufficiently to allow the stitching to pass directly through both strands and take firm hold, the stitch being always visible on the right side.

- 5 It should be observed that, owing to the inclined position in which the upper strand is held in my improved device, the needle, although it does not touch the upper surface, and only enters the edge below said upper surface, does not  
10 pass directly out, but passes diagonally into the strand and out on the lower side, some distance from the edge thereof, so that the seam necessarily takes firm hold upon the upper strand and renders tearing out practically an  
15 impossibility.

No claim is herein made to the method of uniting strands of straw braid or other material which consists in sewing through the outer edge of the upper strand and into and  
20 through the lower strand from top to bottom, such broad claim being reserved to my application for Letters Patent filed July 8, 1882, Serial No. 66,174, of which this application is a division.

- 25 Having now fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with a sewing-machine-feeding device having two working faces or  
30 portions, one of which is arranged at an obtuse angle to the other, of means, adapted to act in planes parallel to the said faces, for holding the strands of braid against the same, substantially as described.

- 35 2. In a sewing-machine, the combination,

with a feeding device having two working faces or portions, one of which is beveled, so as to form an obtuse angle to the other portion, of a presser-foot having two working-faces corresponding to the faces of the feeding device, 40 substantially as described.

3. The combination, with a feeding device having two working faces or portions, one of which is beveled, so as to form an obtuse angle to the other, of a presser-foot having two work- 45 ing-faces beveled to correspond to the faces of the feeding device, and an inclined or beveled guide arranged in front of said feeding device and presser-foot, substantially as described.

4. The combination, with the needle-plate 50 provided with a beveled portion, *f*, of a feeding device and presser-foot, each having two working-faces, which are arranged at obtuse angles to each other, and an inclined or beveled guide arranged in front of said feeding 55 device and presser-foot, substantially as described.

5. The combination, with the feeding device A and presser-foot B, each having two working-faces, which are arranged at an obtuse an- 60 gle to each other, of the needle-plate F, provided with a beveled portion, *f*, and the adjustable guide C, having the inclined or beveled block C', substantially as described.

In testimony whereof I affix my signature in 65 presence of two witnesses.

MARTIN H. RYDER.

Witnesses:

JAMES WALLACE,  
A. M. WOOSTER.

Correction in Letters Patent No. 287,393.

It is hereby certified that in Letters Patent No. 287,393, granted October 23, 1883, upon the application of Martin H. Ryder, of Stamford, Connecticut, for an improvement in "Machines for Sewing Strands of Braid," an error appears requiring correction as follows: The reference letter "f" should be inserted in figure 2 of the drawing to indicate the bevel at the edge of the needle plate; and that the patent should be read with this correction therein to make it conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 6th day of November, A. D. 1883.

[SEAL.]

M. L. JOSLYN,  
*Acting Secretary of the Interior.*

Countersigned:

BENJ. BUTTERWORTH,  
*Commissioner of Patents.*