(No Model.)

F. H. CHILTON.

EMBROIDERING ATTACHMENT FOR SEWING MACHINES.

No. 262,003. Patented Aug. 1, 1882.

Fig. 1.

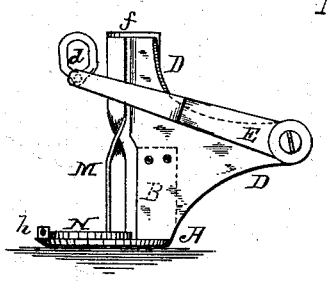


Fig. 2.

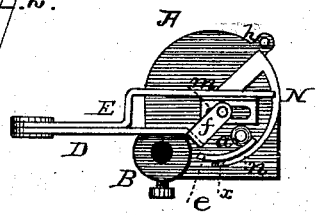


Fig. 4.

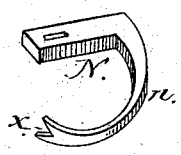
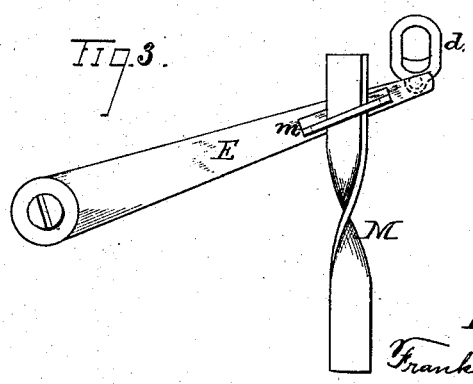


Fig. 3.



Witnesses;
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Hermann Gustow

Inventor;
Franklin H. Chilton,
By his Attorney
Bowland & Co.

UNITED STATES PATENT OFFICE.

FRANKLIN H. CHILTON, OF NEW YORK, N. Y., ASSIGNOR TO THE EMPRESS EMBROIDERER COMPANY, OF SAME PLACE.

EMBROIDERING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 262,003, dated August 1, 1882.

Application filed January 30, 1882. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN H. CHILTON, of New York, in the county of New York and State of New York, have invented a new and useful Improvement in Embroidering Attachments, of which the following is a specification, reference being had to the accompanying drawings.

The invention has relation to an improvement in embroidering attachments for sewing-machines.

The particular nature of my invention will appear from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a side view of an attachment embodying the elements of the invention. Fig. 2 is a top view of same. Fig. 3 is a detached enlarged view of the lever and spiral shaft, and Fig. 4 is a detached view of the thread-carrier.

A represents the foot of the attachment, which, in the present instance, consists simply of a plain flat disk or piece having an aperture, *a*, for the passage of the needle, and attached to the lower portion of a sleeve, B, by which the embroiderer is attached to the presser-bar of a sewing-machine in the customary manner.

Upon the side of the sleeve B is secured the bracket D, in the rear portion of which is pivoted the rear end of the lever E, which passes forward and has pivotally secured in its front end the loop *d*. When the attachment is in use the loop *d* is arranged over the screw which secures the needle in place. Thus the lever has an oscillating motion corresponding with the movement of the needle-bar.

Upon the foot A is secured the stationary thread-detainer *e*, being a small projection or bar arranged to extend partially in front and to one side of the aperture *a*.

At about the center of the foot A is set the lower end of the vertical spiral or twisted shaft M, the upper end of which is held in a horizontal extension, *f*, of the bracket D. The spiral shaft M is arranged to have a free rotary movement when actuated, and carries upon its lower portion, close to the upper surface of the foot A, the thread-carrier N, which consists of a shank and a circular hook-shaped portion, *n*, the point of the hook-shaped portion *n* being notched, as indicated at *x*, forming two lips, the lower one being somewhat longer than the upper.

Upon the inner side of the front end of lever E is the shoulder or extension *m*, having an elongated aperture of sufficient width to move readily over the spiral shaft M, the object of the movement being to cause the shaft to rotate in the customary manner.

At the extremity of the upward movement of the lever E the point of the thread-carrier will come opposite to the eye *h*, in proper relation to catch the embroidering-thread, which extends from the eye *h* into the aperture *a*, and to draw it at the succeeding upward movement of the lever E around the thread-detainer, and to a point in rear of the vertical line of the sewing-needle, as indicated in Fig. 2, whereby a loop is formed, which is drawn to the proper size and sewed down at the next following stroke of the needle-bar and lever E.

The principal feature of my invention is in operating the spiral shaft by a lever, by which arrangement I accomplish various objects which have been thought to be impossible in attachments where the thread-carrier is operated by a spiral shaft.

Among other advantages I gain in driving the spiral shaft by a lever is the adaptability of the attachment to any of the machines now in use. It is well known that the spiral shaft driven by a traveler or fixed connection can be applied to but few machines, owing to the fact of the needle and presser bars being too close together to permit of the spiral shaft being inserted between them and the interference of the head of the needle-screw, thread-cutters, &c. By the use of the lever for the purpose described the spiral shaft may be thrown out from the needle-bar and operated without interference and with ease and rapidity.

A further and very important fact to be mentioned is that by employing the lever having a loop, *d*, the attachment may be applied to machines varying in the stroke of the needle-

bar without altering the length of the spiral shaft, the difference in stroke being regulated by the lost motion in the loop.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The thread-detainer and thread-carrier adapted to be operated from the spiral shaft, in combination with the lever by which motion is imparted to the shaft, substantially as set forth.

2. The leve F, having the loop *d* and extension *m*, in combination with the shaft M and with a thread-carrier and thread-detainer, substantially as set forth.

In testimony that I claim the foregoing improvement in embroidering attachments, as above described, I have hereunto set my hand this 23d day of January, 1882.

FRANKLIN H. CHILTON.

Witnesses:

CHAS. C. GILL,

HERMAN GUSTOW.