

(No Model.)

2 Sheets—Sheet 1.

C. MIEHLING.

SEWING MACHINE ATTACHMENT FOR PLACING AND EJECTING BOBBINS.

No. 310,954.

Patented Jan. 20, 1885.

Fig. 1.

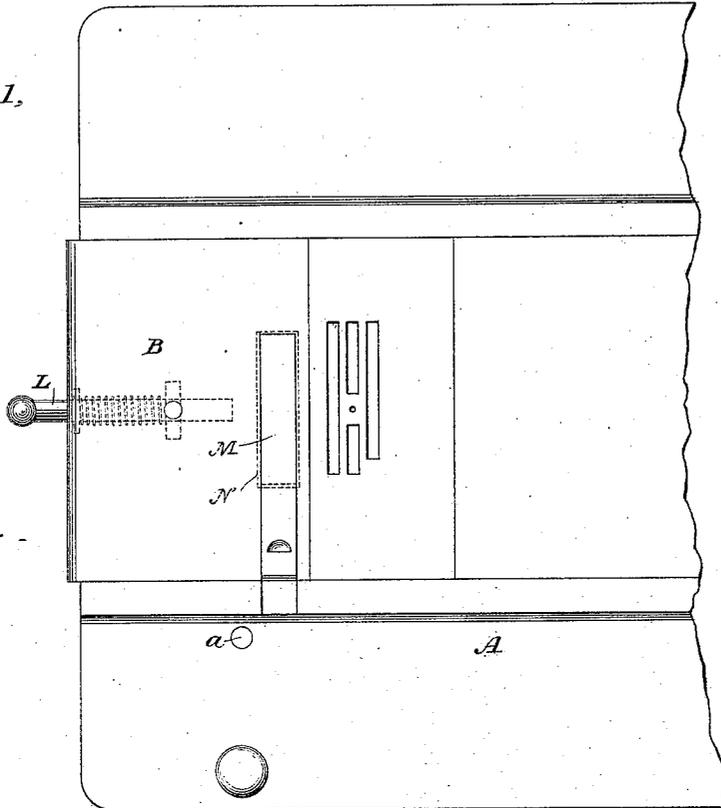
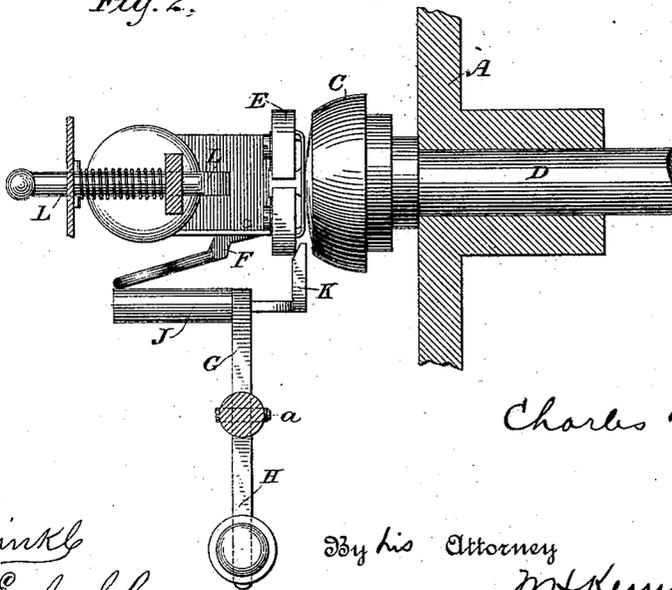


Fig. 2.



Witnesses

Wm A. Sinkle
 Carrie E. Ashley

Charles Miehlings
 Inventor

By his Attorney

W. H. Kenyon

(No Model.)

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Fig. A₂

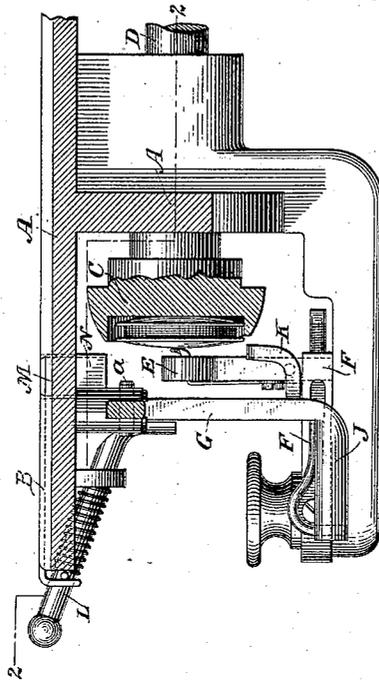
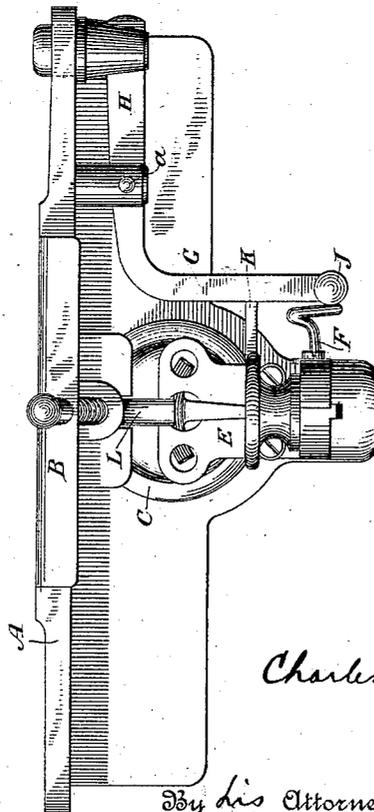


Fig. 3.



Witnesses

Wm A. Skinkle.

Carrie E. Ashley.

Charles Miebling
Inventor

By his Attorney M. Kenyon

UNITED STATES PATENT OFFICE.

CHARLES MIEHLING, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND CHARLES MIEHLING, OF SAME PLACE.

SEWING-MACHINE ATTACHMENT FOR PLACING AND EJECTING BOBBINS.

SPECIFICATION forming part of Letters Patent No. 310,954, dated January 20, 1885.

Application filed May 23, 1884. (No model.)

To all whom it may concern:-

Be it known that I, CHARLES MIEHLING, a citizen of the United States, residing in New York city, in the county and State of New York, have invented a new and useful Improvement in Sewing-Machine Attachments for Placing and Ejecting Bobbins, of which I declare the following to be a full, clear, and exact description, such as will enable any one skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The invention relates to the placing and ejecting of the bobbin, and has for its object to provide simple means by which an empty bobbin may be removed from the bobbin-holder and a full bobbin introduced in sewing-machines that employ disk-bobbins like the bobbins used in the Wheeler & Wilson sewing-machine, and hold those bobbins in bobbin-holders like those of the Wheeler & Wilson machine. The invention consists of the mechanisms hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a plan of the bed-plate of a sewing-machine embodying my invention, seen from above. Fig. 2 is a plan on the line 2 2 of Fig. 4. Fig. 3 is a front elevation, and Fig. 4 a side elevation, partly in section, of the front of the machine.

Like letters of reference indicate corresponding parts in the several figures.

A is the bed plate or frame, having the usual front slide, B.

C is the hook carried on the shaft D.

E is the bobbin-holding block and drop carried on the usual slide of the frame, and secured by the usual set-screw, and having the usual spring to bear against and hold the revolving bobbin. The drop is hinged to the block in the usual way and adapted to drop toward the front, permitting of the introduction or removal of a bobbin. This drop is held up in place against the confined bobbin by the usual spring-catch and lever, F.

G is a lever hung in the frame or plate at a, having an operating-arm, H, terminating in a button moving freely up and down through the plate and normally projecting a little above the plate. The button is preferably made wide, and with rounded edges, so as not to catch the goods that are being sewed. The other end of the lever G has an arm, J, which is adapted to take against the lever or latch F and to press the latter inward and allow the bobbin-holding drop to fall forward whenever the arm H of the lever G is depressed. Thus the bobbin-holding drop may be caused to fall without the operator doing anything more than simply pressing down the button H. This falling of the drop permits of the removal or introduction of a bobbin. A partial turning of the shaft D will now generally suffice to throw out the bobbin; but I prefer to attach to the lever G a second arm, K, adapted to be projected a short distance into the space between the hook and the drop when the button H is depressed, thereby insuring the ejection of the bobbin when the button H is depressed, and also insuring the fall of the drop when it is released from the hold of the spring-catch by the arm J pressing against the lever F, the arm K being so arranged as to drive the drop forward.

L is an arm having a button projecting slightly above the plate and moving freely through it. The lower end of this arm is so placed that the drop falls forward upon it, and when the button L is depressed the drop is thereby forced up into its vertical position again, and the catch F snaps over it and holds it in place, and the parts are in position to hold the bobbin at its work in the usual way. The arm L has a spring constantly pressing it upward, and a shoulder which takes against the under side of the plate and prevents the arm being thrown too far up through the plate by the spring. The spring yields readily to the pressure of the finger when the button L is depressed for the purpose of throwing the drop up into its working position.

M is an opening cut in the plate just above the bobbin-holding devices described, and of

suitable size to permit the free passage of the bobbin. This opening has a short funnel, N, which guides the bobbin into its proper place between the hook and the drop. The opening may be covered by any convenient slide.

The operation of my device is as follows: When the bobbin is emptied of thread, the operator presses the button H, which throws out the empty bobbin. A full bobbin is then dropped through the opening M, and the button L is depressed, which places and secures the bobbin in proper place for work between the hook and the drop. This operation may proceed while the machine is running as well as while it is standing still. It is thus evident that my improvement enables me to open the bobbin-holder to eject or introduce a bobbin, and to close the bobbin-holder again without removing the frontside of the plate. The spring connected with the latch F should be strong enough to throw both the latch F back and the button H up when the pressure of the finger is removed from the button, or a suitable additional spring should be connected with the lever G, which, like the spring connected with the arm L, shall operate to keep the arm H in its highest position

except when pressed down by the finger of the operator.

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

1. In combination with the revolving hook and bobbin of a sewing-machine, the lever G, having arms H and J, and the hinged block and drop E and catch F, substantially as and for the purposes set forth.

2. In combination with the revolving hook and bobbin of a sewing-machine, the lever G, having arms H and J and K, and the hinged block and drop E and catch F, substantially as and for the purposes set forth.

3. In combination with the revolving hook and bobbin of a sewing-machine, the arm L and the hinged block and drop E, substantially as and for the purposes set forth.

4. In combination with the revolving hook and bobbin of a sewing-machine, the arm L, the hinged block and drop E, and the plate A, having opening M and funnel N, substantially as and for the purposes set forth.

CHAS. MIEHLING.

Witnesses:

W. H. KENYON,
ALAN D. KENYON.