(No Model.)

C. & C. MIEHLING.

SEWING MACHINE ATTACHMENT FOR PLACING AND EJECTING BOBBINS.

No. 310,955. Patented Jan. 20, 1885.

Fig. 1.

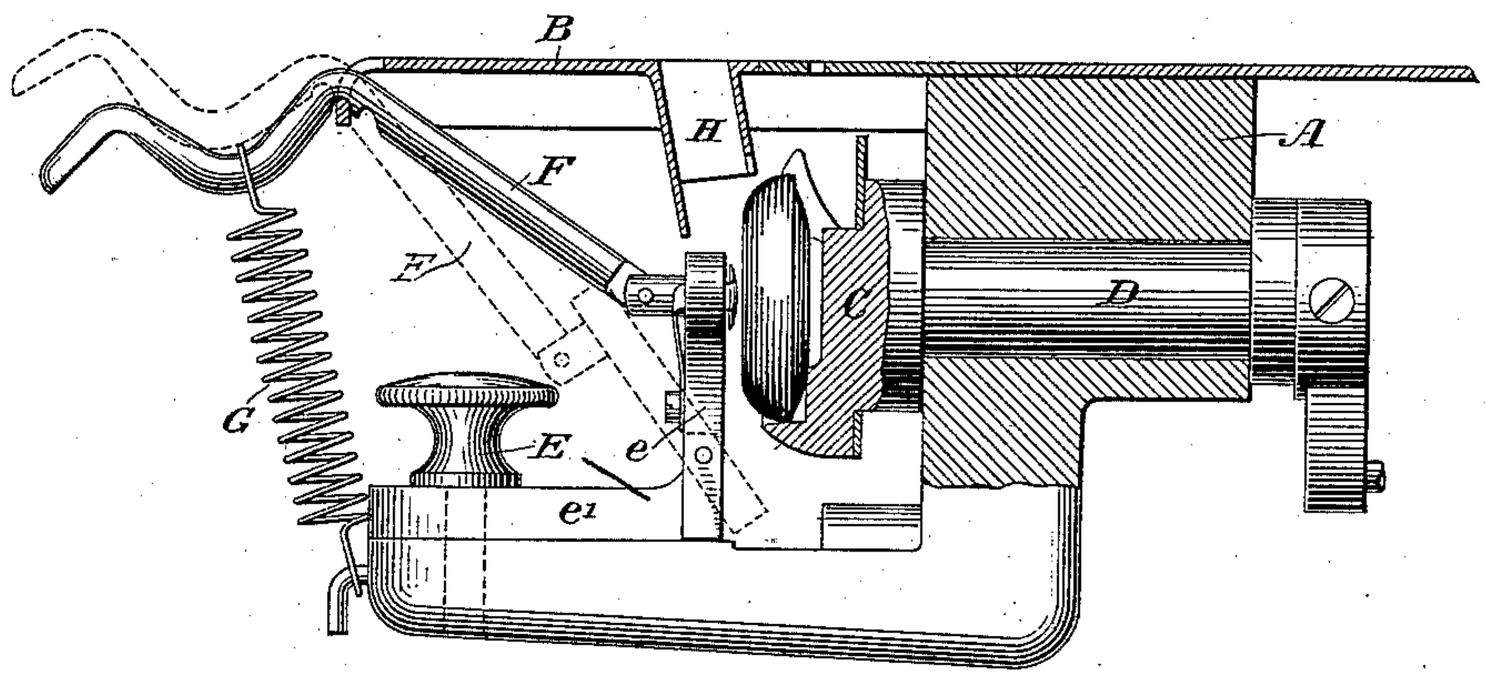
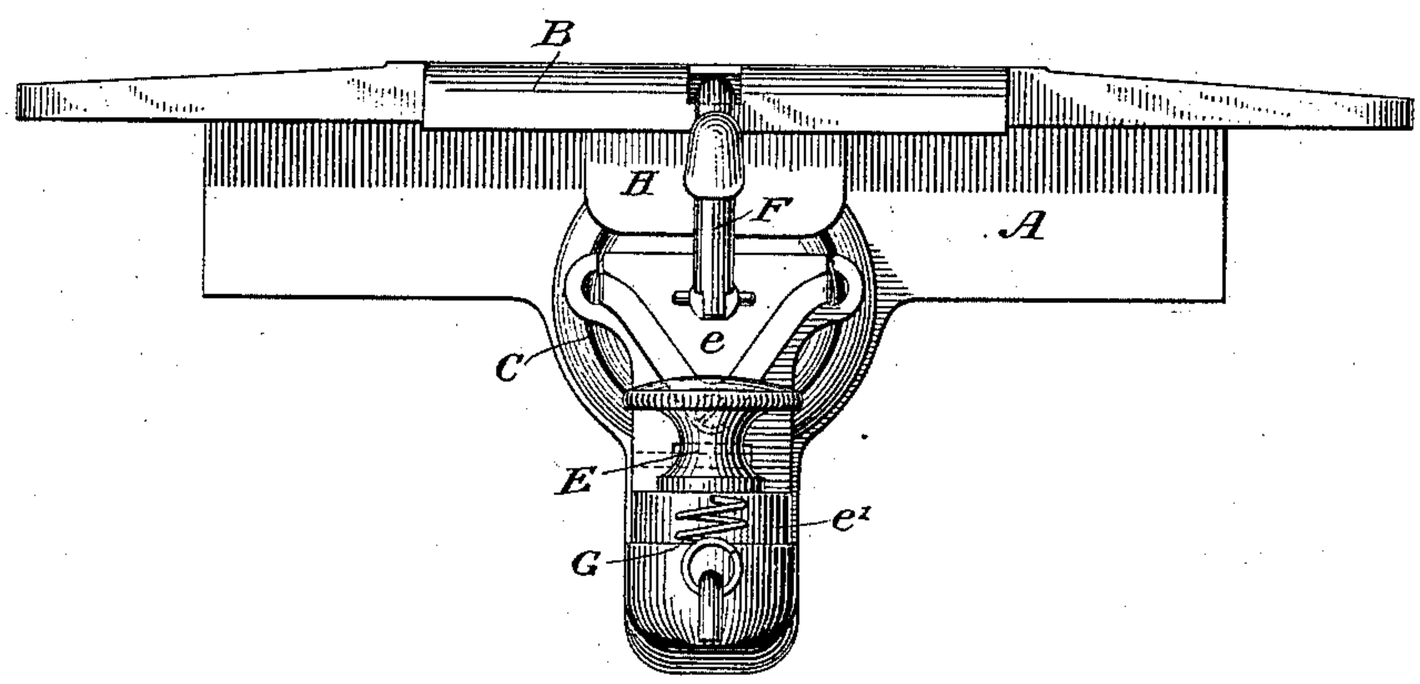


Fig. 2.



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CHARLES MIEHLING AND CHARLES MIEHLING, OF NEW YORK, N. Y.

SEWING-MACHINE ATTACHMENT FOR PLACING AND EJECTING BOBBINS.

SPECIFICATION forming part of Letters Patent No. 310,955, dated January 20, 1885.

Application filed June 25, 1884. (No model.)

To all whom it may concern:

Be it known that we, CHARLES MIEHLING and CHARLES MIEHLING, both citizens of the United States, and both 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 we 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 parts of the machine employed in placing, holding, and ejecting 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 and securely held in sewing-machines that employ disk-bobbins like the bobbins used in the Wheeler & Wilson sewing-machine, and that employ bobbin-holders like the bobbin-holders of the Wheeler & Wilson machine.

The invention consists of the mechanisms hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of part of a machine showing my improvement, and Fig. 2 is a front elevation of the same, partly broken away.

Like letters of reference indicate like parts.

Fig. 1 shows in full and in dotted lines the two positions of the parts assumed in use.

A is the bed-plate of the machine, 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 pivoted bobbin-holder or drop *e* is hinged to the block *e'* in the usual way, and adapted to drop forward, permitting the introduction or removal of a bobbin. This pivoted bobbin-holder has heretofore been held up in place against the confined bobbin by a spring-catch and lever adapted to be directly operated by the hand when the removal or introduction of a bobbin was desired, or to be operated through intervening levers and links, such as are shown in application No. 131,560, filed by us May 23, 1884. Our present improvement does entirely away with this means of operating the pivoted bobbin-holder *e*, substituting therefor the apparatus about to be described.

F is a bent rod. At one end it is pivoted to the upper part of the bobbin-holder *e*. At the other end it passes through an opening cut in the slide B, as shown, after which it is bent downward sharply, and terminates in any convenient form to be handled. The inner curve of the bend referred to has two deep notches cut in it, so placed that when the pivoted bobbin-holder *e* is in its vertical position the rod F will rest upon the plate B at one of these notches, and when the pivoted bobbin-holder *e* has fallen forward and is in its lowest position the rod F will rest upon the plate B at the other of these notches. The effect of the notches is to lock the rod F, and so the pivoted bobbin-holder *e*, in either of its two positions, as desired, when the rod F is held down with its lower or notched surface in contact with and resting upon the slide-plate B. The rod F is so held down, in the form of apparatus shown in the drawings, by the coiled spiral spring G. Any spring may be used that will accomplish the purpose, and the device will operate, though not as reliably, without any spring at all, particularly if the opening in the slide-plate B is made small and the notches in the rod F are cut deep. I prefer, however, the form of spring shown, as being the most convenient in use, and as reliably locking the pivoted bobbin-holder in place. The slide B has a hole cut in it large enough to permit of the easy passage of the bobbins, and has a funnel, H, to guide the bobbins into place against the hook.

The operation of our improved device is as follows: When it is desired to open the bobbin-holding device either to eject an empty bobbin or to introduce a full one, the rod F is raised at its outermost extremity by the finger of the operator. This throws the pivoted bobbin-holder forward, opening the bobbin-holding device. When it is desired to close the same, the end of the rod F is struck a light blow downward and a little in toward the plate by the hand of the operator. The pivoted bobbin-holder will be found to be

driven up into place and locked by the notch in the rod F, and the machine will be ready to run. Care should be taken to open the bobbin-holding device when the needle is in its lowest position and to introduce a new bobbin through the funnel H only when the needle is in its highest position.

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

1. In a sewing-machine, the notched rod F, passing through an opening in the plate, and the pivoted bobbin-holder *e*, in combination with the revolving hook and bobbin, substantially as and for the purposes set forth.

2. In a sewing-machine, the notched rod F, passing through an opening in the plate, the pivoted bobbin-holder *e*, and the spring G, in combination with the revolving hook and bobbin, substantially as and for the purposes set forth.

3. In combination with the revolving hook and bobbin of a sewing-machine, the notched rod F and pivoted bobbin-holder *e*, and the plate B and funnel H, substantially as and for the purposes set forth.

4. In combination with the revolving hook and bobbin of a sewing-machine, the notched rod F and pivoted bobbin-holder *e* and spring G, and the plate B and funnel H, substantially as and for the purposes set forth.

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