

UNITED STATES PATENT OFFICE.

RUFUS CHANDLER, OF NEW YORK, N. Y.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **139,368**, dated May 27, 1873; application filed April 1, 1873.

To all whom it may concern :

Be it known that I, RUFUS CHANDLER, of the city and county of New York, in the State of New York, have invented certain Improvements in Sewing-Machines, of which the following is a specification :

My invention relates to a device applied to act upon the presser-foot of a sewing-machine so as to automatically raise the said presser-foot at certain intervals of the work—that is to say, when sewing fancy designs or figures, the operator may set the device so that, after the machine has made the number of stitches desired before turning the work, the presser-foot of the machine will be raised automatically so that the work may be readily turned in any direction without stopping the machine, which is of great importance in doing all kinds of fancy-work, especially where the work has to be turned at a sharp angle. When the operator does not wish the device to act, it is only necessary to set the indicator upon the cipher on the graduated scale. If it is desired that it should act at every stitch, set the indicator on the figure 1; if at every other stitch, set the indicator on the figure 2; if at every third stitch, it should be set on the figure 3; and so on to any number desired. The device may be readily adapted to all sewing-machines.

The following is a full and exact description of my invention, reference being had to the accompanying drawings and to the letters of reference marked thereon, in which corresponding letters represent corresponding parts.

Figure 1 is a side elevation of a sewing-machine having my improvement attached, in which A is an arm, which is pivoted to the frame of the sewing-machine, the opposite end being pivoted to the presser-bar. B is a rod pivoted to the arm A and reaching down through the bed-plate and resting on the plate C. Said plate C has a rib upon its under side, which in this instance is pivoted and bears between the threads of a screw, D, on the shaft H. The screw D has a cam, G, at one end that, as the shaft H is revolved, draws the plate C back, the rib playing between the threads of the screw D, and when the rib on the plate C has been drawn back far enough to rest on the cam G, then the

cam lifts the plate C and frees it from the screw, when it immediately flies back against the gage F. The raising of the plate C necessarily raises the presser-foot of the sewing-machine, and when the plate C springs back against the gage F the spring on the presser-bar of the sewing-machine, pulling down upon the arm A, presses the rod B down upon the plate C, which forces the rib again between the threads of the screw D. A spring, K, is fastened to the plate C, its opposite end being fastened to the bed of the sewing-machine, for the purpose of drawing the plate C back against the gage F. The number of stitches that the sewing-machine will make before the presser-foot automatically rises, is governed by the number of threads on the screw D, over which the plate C passes before being raised by the cam G, and may be regulated by loosening the thumb-screw E, which holds the gage F in position, and moving said gage backward or forward, fastening it in place again by tightening the thumb-screw E. I provide a graduated scale upon the bed-plate, or anywhere on the machine most convenient, and attach a pointer to the thumb-screw E, so that the device may be readily set by the operator. Fig. 2 is a view of the under side of a sewing-machine with the device attached ready for work. Fig. 3 is an end view of a sewing-machine with the invention attached.

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

1. The screw D, plate C, cam G, and spring K, when combined and arranged as and for the purpose set forth.
2. The screw D, cam G, plate C, spring K, rod B, and arm A, when combined and arranged as and for the purpose set forth.
3. The gage F, spring K, screw D, plate C, and cam G, with the thumb-screw E and graduated scale upon the bed-plate of the machine, when combined as and for the purpose set forth.

RUFUS CHANDLER.

Witnesses :

JOHN W. DAVIS,
CHRISTR. R. KING.