

UNITED STATES PATENT OFFICE.

JOHN W. BLODGETT, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN BUTTON-HOLE ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **214,613**, dated April 22, 1879; application filed December 21, 1878.

To all whom it may concern:

Be it known that I, JOHN W. BLODGETT, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Button-Hole Attachments for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention consists in the construction and arrangement of an overseaming, embroidery, and button-hole attachment for sewing-machines, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side view of part of a sewing-machine embodying my invention. Fig. 2 is a front view of the same, and Figs. 3 and 4 are detail views of parts thereof.

A represents the head of a sewing-machine, with the vertically-reciprocating needle-bar constructed and operating in any of the known and usual ways.

B is the needle-bar, the lower end of which is cut out, as shown, forming on one side a slight shoulder, *a*, and on the opposite side a recess, *b*, with lug *d* at the bottom.

C is the needle-carrier, made of a single piece, with a central slot or opening for the passage of the lug *d* at the lower end of the needle-bar. When the end of the needle-bar is passed through the slot in the carrier, a plate, *h*, is passed into said slot against the shoulder *a* on the bar, which brings the opposite part of the carrier into the recess *b*, where it is held by means of two screws, *e e*, passing through the front of the carrier against the plate *h*.

Through the bottom of the lug *d* are passed two screws, *i i*, which bear against the under side of the carrier, for the purpose of holding said needle-carrier as tight as may be required.

D is the needle, fastened in the carrier by a screw, *f*. On the front of the carrier, and pivoted thereto, is a tappet, F, and underneath the same is a spring, *m*, fastened to the carrier by a screw at each end. This spring is for the purpose of holding the long point of the tappet past a central vertical line in either direction.

To the head A of the machine is attached a spring or spring-finger, I, which projects sufficiently far inward to come on the side of the tappet F as the needle-bar moves up and down.

The operation is as follows: At the upward stroke of the needle-bar the spring-finger I comes in contact with one side of the tappet F, and causes the needle-carrier to move, after which the finger turns the tappet, and as the needle-bar descends the tappet remains stationary, ready for the next upward stroke of the needle-bar, when it receives the finger on its other side and the movement is reversed.

The stroke or travel of the needle-carrier is regulated by means of screws *n n* at each end of the carrier. By tightening both of these screws the carrier becomes rigid, and the machine can then be used for ordinary sewing, there being no necessity for removing the carrier. The finger I is, however, to be removed from the head of the machine in such case.

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

The combination of the needle-bar B, provided with shoulder *a*, recess *b*, and lug *d*, the needle-carrier C, plate *h*, fastening-screws *e e i i*, and the regulating-screws *n n*, all constructed and arranged to operate substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN WESLEY BLODGETT.

Witnesses:

GEO. P. BLAIR,
JASON R. PRINDLE.