



# UNITED STATES PATENT OFFICE.

JOHN W. FRIES, OF SALEM, NORTH CAROLINA.

IMPROVEMENT IN BUTTON-SEWING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **175,688**, dated April 4, 1876; application filed January 7, 1876.

*To all whom it may concern:*

Be it known that I, JOHN W. FRIES, of Salem, Forsyth county, North Carolina, have invented a new and Improved Button-Sewing Attachment for Sewing-Machines, of which the following is a specification:

My invention consists of a clamp for holding the buttons under the needle arranged on a shifting plate, which is worked to right and left alternately with the operation of the needle by a little vibrating cam on an elbow lever worked by the needle-bar, and which is itself vibrated by the plate which carries the clamp, all as hereinafter described.

Figure 1 is a sectional elevation of the attachment taken on line *x x*, Fig. 2. Fig. 2 is a plan view, and Fig. 3 is a horizontal section taken on line *y y*, Fig. 1.

Similar letters of reference indicate corresponding parts.

A and B are the clamp for holding the work, which is fixed so as to vibrate freely on the pivot C, which is also the clamp-screw by which the work is secured. D is the vibrating cam for shifting the clamp by swinging alternately against the opposite sides of the triangular piece E, said cam being pivoted on the arm F of a bell-crank, G, whose other arm is lifted by the needle-bar at the proper time. The cam is shifted on the lever so as to change to the opposite side of piece E every time by its heels H striking in the angles I of the plate B of the clamp, which shifts so as to alternately operate the cam, and thus cause its

action alternately on the different sides of the angle-piece E. This piece E is shifted along plate B by the clamp-screw J, to regulate the throw of the clamp according to the distances between the holes of the buttons.

To regulate the clamp for work of different thicknesses the clamp-nut K is made of two adjustable spiral sections, one of which is a washer, by which it lengthens and shortens so as to avoid screwing the nut as much as would otherwise be required. A jam-nut, L, is used to secure the clamp-nut.

There is a recess in the under side of the shifting-plate to avoid interference with the feeder of the sewing-machine. This attachment can be fitted for use on any sewing-machine, and may be used for hooks and eyes, buckles, &c.

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

1. The combination of the lever F G and vibrating cam D with the vibrating clamp A B and the angle-piece E, substantially as specified.

2. The combination of the vibrating clamp-plate B, having angles or corners I, with the vibrating cam D, provided with heels H, substantially as herein specified.

JOHN W. FRIES.

Witnesses:

B. F. WATKINS,  
A. F. PFOHL.