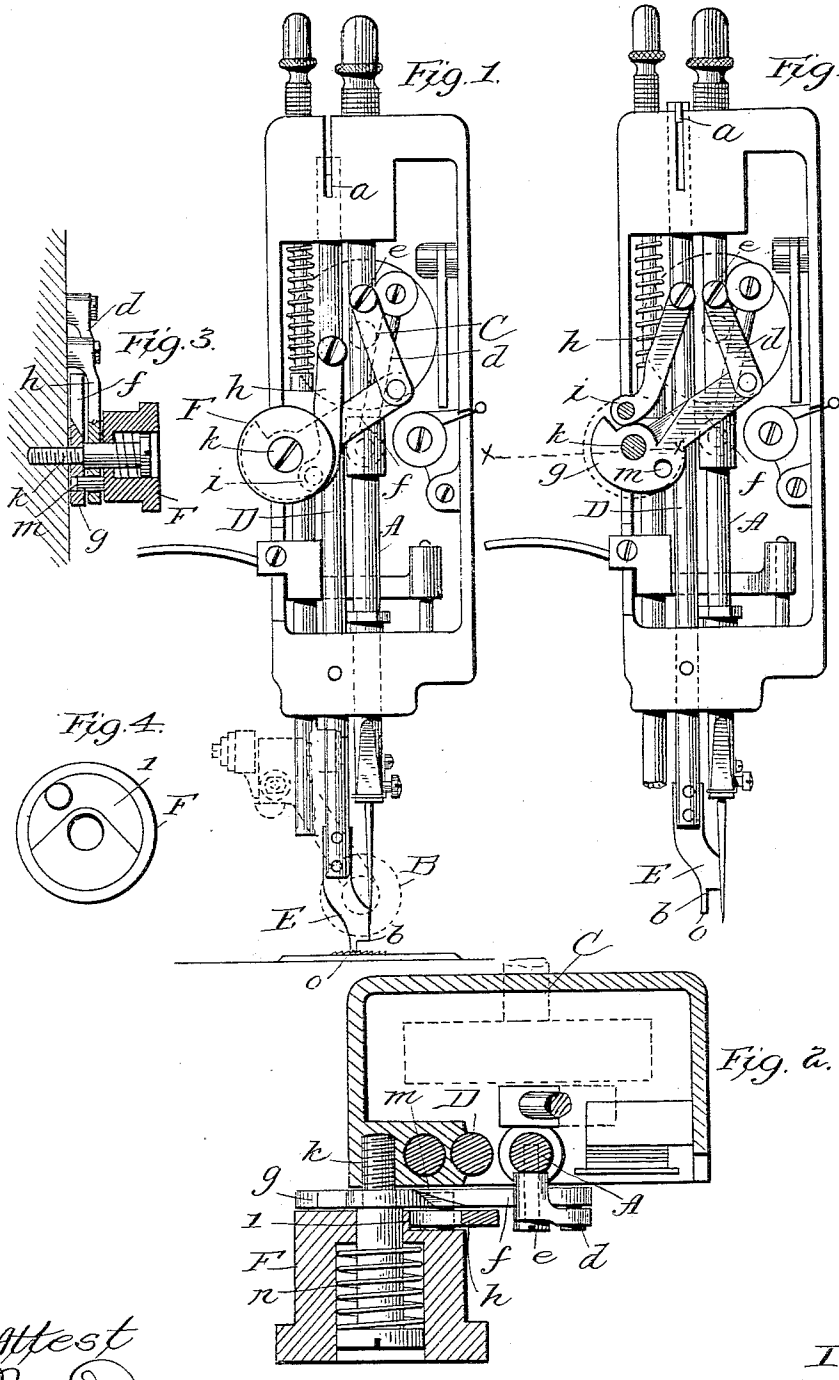
(No Model.)

A. O. VERY.

TRIMMER FOR SEWING MACHINES.

No. 476,339. Patented June 7, 1892.



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TRIMMER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 476,339, dated June 7, 1892.

Application filed January 13, 1892. Serial No. 417,960. (No model.)

To all whom it may concern:

Be it known that I, ALPHA O. VERY, a citizen of the United States of America, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Attachments for Sewing-Machines, of which the following is a specification.

My invention is an improvement in trimming-machines of that class used as an attachment for sewing-machines where the material operated upon requires to be trimmed by the removal of the rough or uneven edge, leaving an even and uniform margin between the line of stitches and the edge. Heretofore, so far as I am aware, these trimming attachments have been connected to the driving mechanism by a complex connection, not only adding greatly to their cost, but requiring a great deal of time to attach and put into and out of operation, it being understood that my aim in the present case is to provide the trimmer as an attachment, so that when desired the trimmer may be thrown out of operation and the machine used to stitch only.

My invention is designed to provide a very simple connection between the needle-bar and trimmer-bar to operate the latter, which is not only not expensive, but which may be thrown into or out of action in a moment of time. This connection is made between the trimmer-bar and needle-bar, is very simple and compact, inexpensive as an attachment, and easily and quickly operated.

In the accompanying drawings, Figure 1 is an elevation of the end of the machine containing the operating parts with the front plate removed. Fig. $1^{\times}$ is a view similar to Fig. 1 with the thumb-piece removed. Fig. 2 is a sectional view through the thumb-piece on line $x\ x$ of Fig. $1^{\times}$, with parts shown in plan. Fig. 3 is a sectional view in detail of the operating-button for engaging or disengaging the operating devices with the trimmer-bar. Fig. 4 is a detail view of the under face of the thumb-piece.

In the drawings I have shown the machine known as the "Standard," which is provided with all the ordinary attachments which, as they do not relate to the present invention, are not herein described.

The needle-bar is shown at A, and the rolling presser at B. The needle-bar is reciprocated in the ordinary manner from the main shaft C of the machine, which is provided at its end with a disk having a wrist-pin set eccentrically on its outer face and which is connected to the needle-bar by a pitman encircling the wrist-pin and pivoted at its other end to a pin on a collar secured to said needle-bar, and thus reciprocating movement in a vertical direction is imparted to the said needle-bar.

Extending parallel to the needle-bar is a vertically-arranged bar D, which has bearings in the frame, this bar being cylindrical, with a projecting feather at its upper end, as at *a*, extending into a corresponding slot in the frame, and thus preventing any turning or tendency to turn of the said bar. It carries at its lower end a trimmer E, which is of ordinary construction, having a cutter *b* and a depending guiding projection *o*. The cutter is arranged alongside of the needle and operates in a plane parallel therewith.

My invention relates principally to the means for operating the trimmer-bar, and I utilize the reciprocation of the needle-bar to impart a like movement to the trimmer-bar. To the needle-bar I pivot a link *d* upon a screw *e*, with its free end projecting downwardly, and this is connected to a second link *f*, which terminates at its other end in a disk *g*, which is pivoted by a central pivot to the edge of the frame.

In the ordinary operation of the machine this connection is without effect; but it serves to transmit to the trimmer-bar the reciprocation of the needle-bar through the medium of a link *h*, pivoted to the trimmer-bar by its screw, the lower end of said link being enlarged and perforated, as at *i*. Upon the pivot-screw *k*, which serves, also, as the pivot of the disk *g*, I mount a thumb-piece F, which is cylindrical in cross-section, with a part of its inner face cut away, as at *l*, in the detailed figure. A pin projects from this cut-away portion and is adapted to enter the perforation in the link *h*, thus connecting said link to the thumb-piece or button. The disk *g* has a perforation *m* to the right of its pivot and below the same. By turning the button to the right after first pulling it out from the frame against the pressure of a coiled spring

n, located in a recess in the button and encircling the pivot-pin, the end of the link *h* will be moved across the face of the disk *g* until the pin on the inner face of the button registers with the perforation *m*, when the pin will enter said perforation and thus connect the link *h* to the disk between the pivot of said disk and the needle-bar, and thus as the needle-bar is reciprocated this reciprocation will be communicated to the trimmer-bar through the connections described. The connection can be disconnected immediately by withdrawing the button against the pressure of the spring, so that its pin will be withdrawn from the perforation in the disk *g*, and in then swinging the button around to the left until the pin registers with the cut-away portion of the disk, which permits the reciprocation of the needle-bar and the oscillation of the links *d* and *f* without imparting movement to the trimmer-bar. This cut-away portion of the disk *g* is necessary for the reason that the pin is of a length equal to the thickness of the link *h* and the disk *g* combined, so as to engage the two.

It will thus be seen that the connection is very simple and the connection or disconnection of the trimmer requires simply the turning of the operating-button.

I claim as my invention—

1. In combination with the needle-bar, a pivoted connection between said bar and the frame, said connection being jointed, a trimmer-bar, a link carried by the trimmer-bar, and means detachably connecting said link to the jointed connection, substantially as described.

2. In combination with the needle-bar, a jointed and pivoted connection between said bar and the frame, a trimmer-bar, a link carried by the trimmer-bar, a button operating said link and forming connecting means between said link and the jointed connection, substantially as described.

3. In combination with the needle-bar, a pivoted and jointed connection between the same and the frame, a trimmer-bar, a link carried by the trimmer-bar and having its lower end pivoted upon a pin, said pin being carried by a spring-button, a perforation in the jointed connection between its pivot on the frame and its connection with the needle-bar, and means for connecting the link of the trimmer-bar and the button to the said jointed connection by means of the pin entering the perforation, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

A. O. VERY.

Witnesses:
JOHN D. ALLEN,
C. H. WELCH.