

(No Model.)

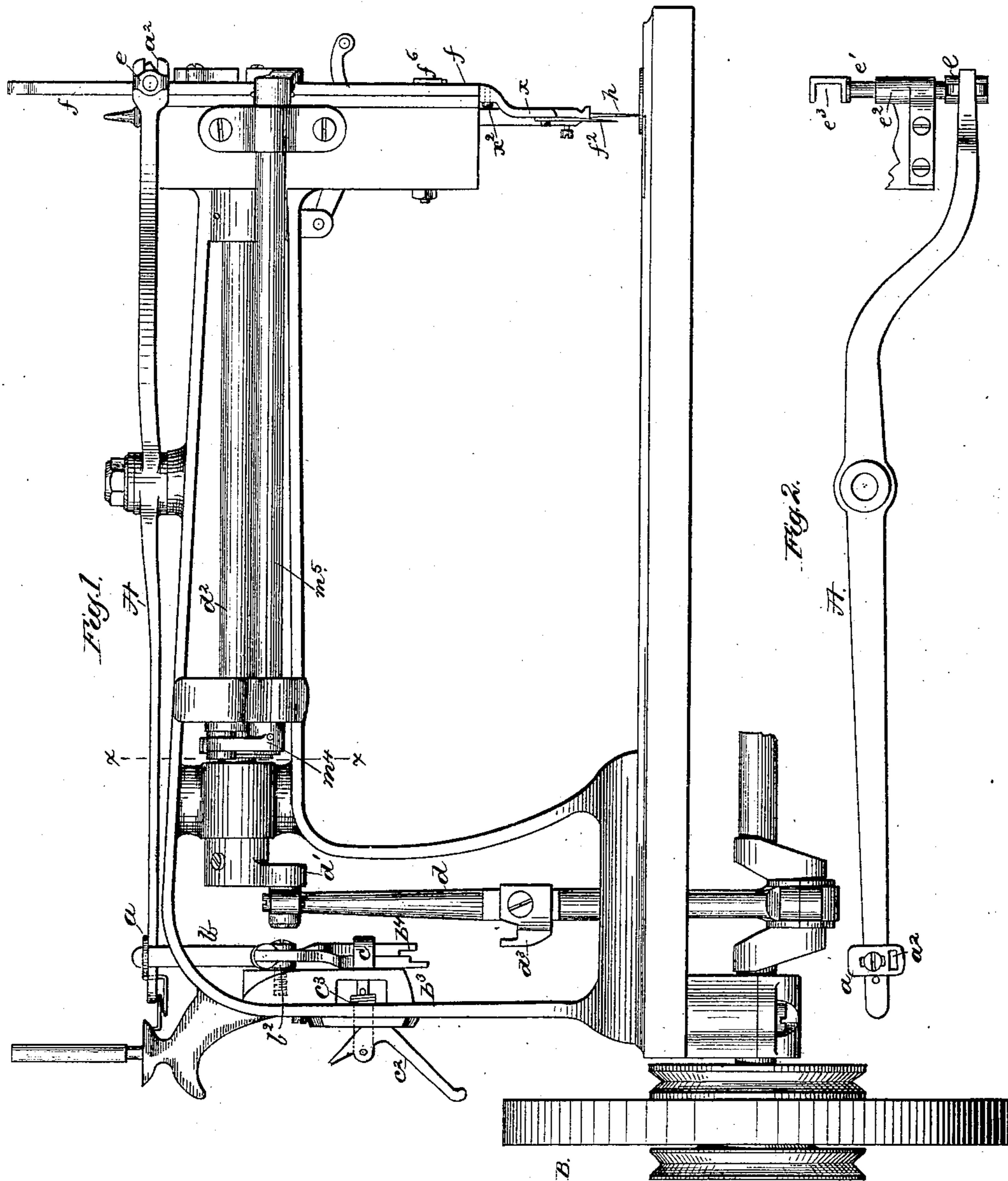
2 Sheets—Sheet 1.

L. H. ALLEN.

TRIMMING ATTACHMENT FOR SEWING MACHINES.

No. 246,859.

Patented Sept. 13, 1881.



Witnesses.  
John P. C. Prinkert  
L. J. Connor

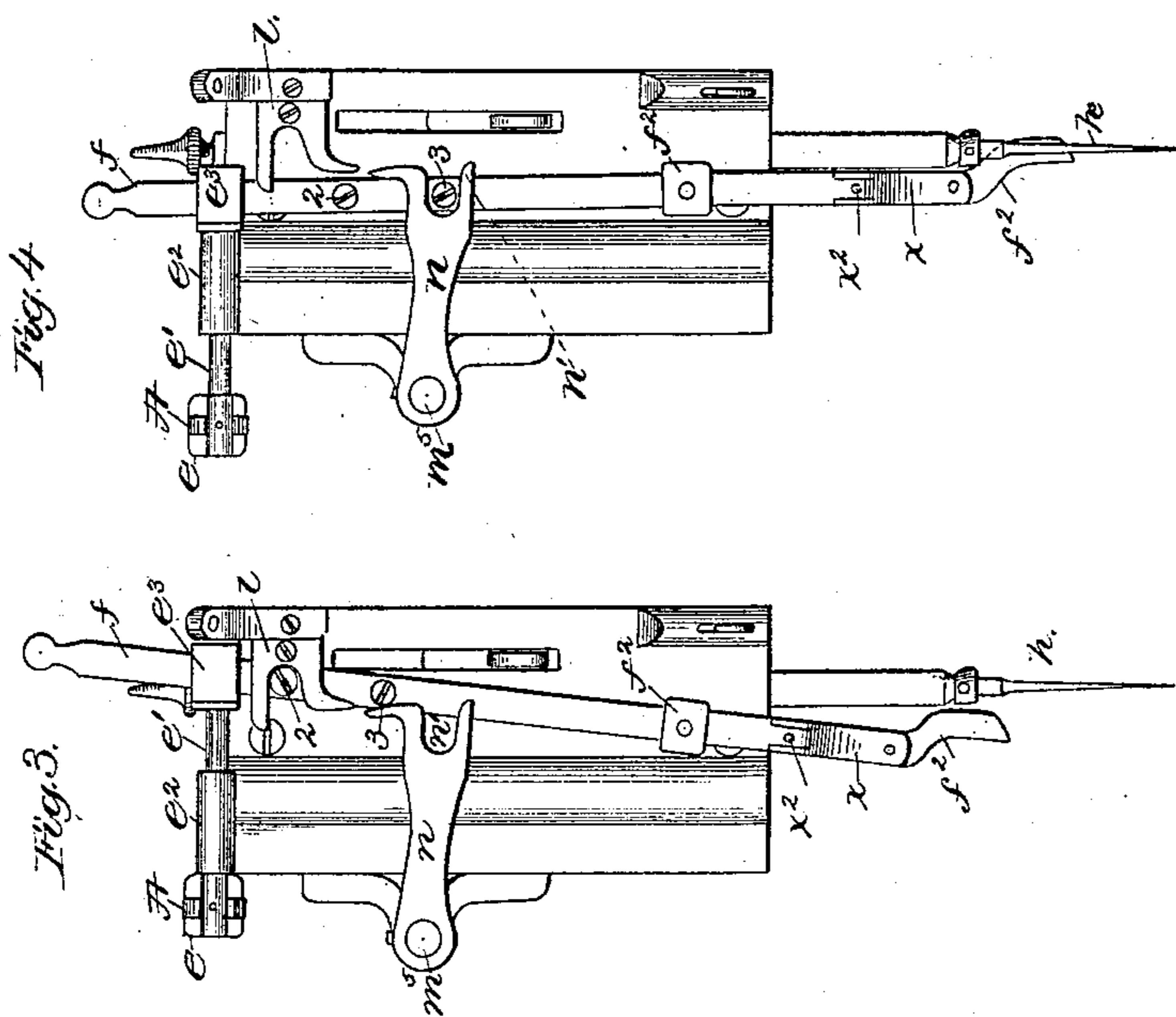
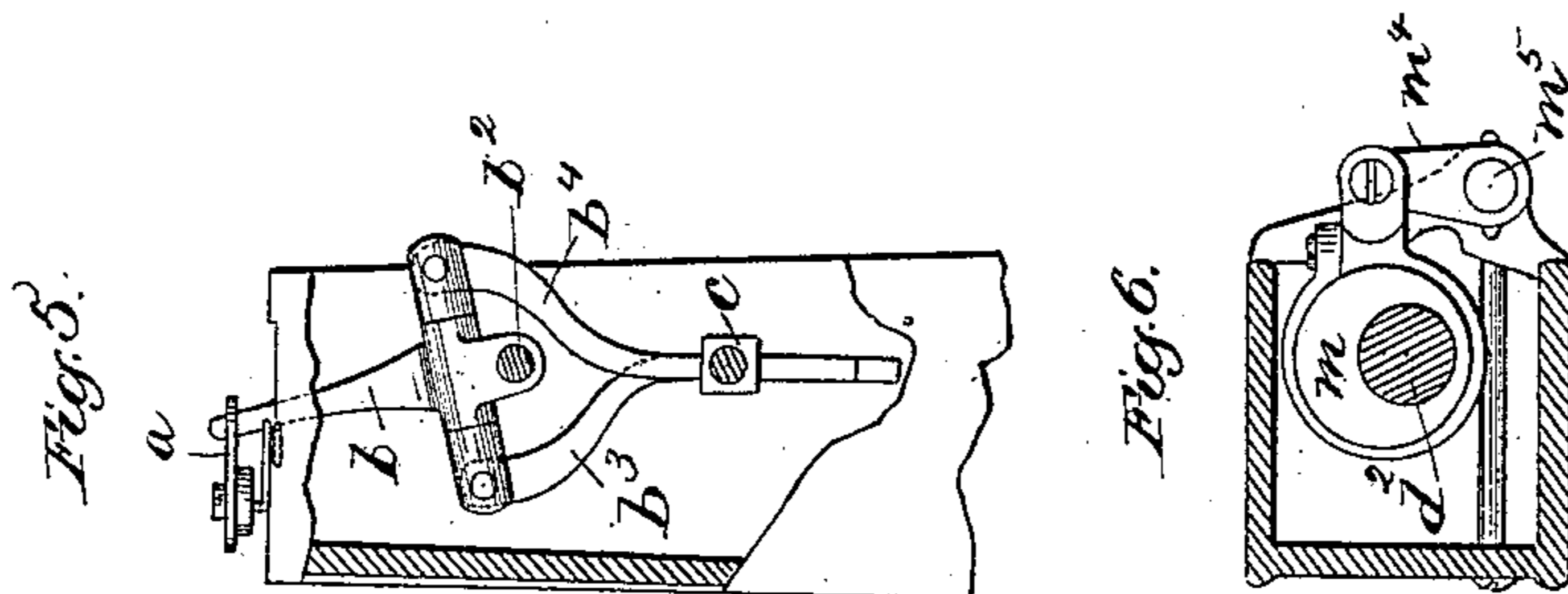
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# UNITED STATES PATENT OFFICE.

LESTER H. ALLEN, OF FARMINGTON, NEW HAMPSHIRE.

## TRIMMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 246,859, dated September 13, 1881.

Application filed July 11, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, LESTER H. ALLEN, of Farmington, county of Strafford, State of New Hampshire, have invented an Improvement in  
5 Edge-Trimming Attachments for Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification.

This invention relates to an improved trimming attachment for sewing-machines wherein  
10 the trimming knife or blade may be instantly thrown into or out of operative position and relation to the needle-bar. The blade-carrying bar is actuated positively independently of the  
15 needle-bar, and is adapted to slide in a horizontally-movable guide, which, by its change of position, places a pin on the blade-carrying bar either into the open notch of a stationary fork or into the open mouth of a fork at the  
20 end of a vibrating arm deriving its movements through a rock-shaft from a link and an eccentric on the needle-bar-actuating shaft.

This invention is an improvement on that shown in my application No. 32,275, filed April  
25 21, 1881, to which reference may be had.

Figure 1 represents a rear side elevation of a sewing-machine embodying my invention; Fig. 2, a detail showing a top view of the horizontally-vibrating lever at the top of the  
30 machine and the guide for moving the blade-carrying bar laterally; Fig. 3, a front view of the head of the machine with the blade-carrying bar thrown out of operative position; Fig. 4, a similar view with the blade-carrying bar  
35 in operative position; Fig. 5, a partial rear side elevation and section of Fig. 1, to show the three-armed lever which moves the horizontal lever at the top of the machine; and Fig. 6, a sectional detail on the dotted line  $xx$ ,  
40 Fig. 1.

The machine selected upon which to illustrate my invention is that known as the "G. F. No. 2," made by the Weed Sewing Machine Company. Upon the upper side of the arm  
45 of this machine I have pivoted the lever A, which, at its rear end, is provided with an adjustable loop,  $a$ , having a hole,  $a^2$ , to receive the upright arm of the three-armed lever  $b$ , pivoted at  $b^2$ . (See Figs. 1 and 5.) This lever  
50 has legs  $b^3$   $b^4$  pivoted at the ends of its short arms, which are extended downward through

the shifting block  $c$ , made horizontally movable by the hand-lever  $c^2$  and spiral spring  $c^3$ . The link  $d$ , which is connected with the crank-arm  $d'$  and actuates the needle-bar-operating  
55 rocker-shaft  $d^2$ , all as usual, has a striker,  $d^3$ , which, as the link rises, will strike the notched lower end of that one of the legs  $b^3$  or  $b^4$  which is in line with it, according to the position of  
60 the hand-lever  $c^2$  and guide  $e$ , moving the three-armed lever in one or the other direction on its pivot  $b^2$ , the three-armed lever also moving the lever A in one or the other direction. With the parts in position Fig. 1 the blade-carrying  
65 bar will be as in Fig. 4.

The front end of lever A is forked, as at  $a^2$ , Fig. 1, to embrace or engage a notched collar,  $e$ , on the slide-rod  $e'$ , fitted in the bearing  $e^2$ , and having at its other end the guide  $e^3$ , which  
70 receives and guides the upper portion of the blade-carrying bar  $f$ , it being provided at its lower end with the blade-holder  $x$  and cutting blade or knife  $f^2$ .

The lower bearing,  $f^6$ , for the bar  $f$  is pivoted so that it may turn axially as the said  
75 bar is changed from the position Fig. 3 to that of Fig. 4, or vice versa, by the longitudinal movement of the slide  $e'$  and guide  $e^3$ .

The lower end of bar  $f$  is provided with a removable blade-holder,  $x$ , bent or curved back-  
80 ward, and secured by screw  $x^2$  to the lower end of the blade-carrier, as shown in Fig. 1, to bring the blade  $f^2$  into the proper position with relation to the needle  $h$  of the sewing-machine, which needle is to co-operate in making a seam  
85 in the article to be trimmed parallel with the said seam. The bar  $f$  is provided at its front face with two pins, 2 3.

At the front of the head of the machine is fixed a forked block,  $l$ , having its fork open  
90 toward the bar  $f$ .

On the shaft  $d^2$ , I place an eccentric,  $m$ , which is embraced by an eccentric-strap, part of which is joined with the arm  $m^4$  of a  
95 rock-shaft,  $m^5$ , having at its front end an arm or crank,  $n$ , provided with an open fork,  $n'$ , into which the pin 3 of the bar  $f$  is thrown by the movement of the slide-rod  $e'$  and guide  $e^3$ , as in Fig. 4, when it is desired to operate the  
100 bar  $f$  and blade  $f^2$  to trim the article being sewed. This rock-shaft and arm  $n$  operate constantly, and work the bar  $f$  and blade  $f^2$ ,

except when the pin 2 of the said bar is thrown into the stationary fork *l*, as in Fig. 3, by the movement of the guide *e*<sup>3</sup>. The guide *e*<sup>3</sup> is shifted only when the arm or crank *n* is in its highest position, at which time the pin 2 on the bar *f* is opposite the fork *l*. In Fig. 3 the crank *n* is shown as having been moved down a little after the pin 2 was moved into the fork *l*.

The three-armed lever and the parts to actuate it are the same as in my application referred to, and are consequently not herein claimed, broadly.

By this attachment I can stop trimming or commence to trim at any stitch, and can consequently trim very sharp or pointed scallops, the lever *e*<sup>2</sup>, for controlling the position of the blade or cutter carrying bar, being located near the usual fly-wheel, *B*, to be quickly and readily moved.

It will be noticed that the upper end of the blade-holder is forked to embrace the blade-carrier *f*. This holder will be removed when it is desired to grind the small blade attached to its lower end.

I claim—

1. The blade-carrying bar provided with a pin and a forked arm or crank to engage the pin on and reciprocate the said bar, combined with a laterally-movable guide to place the pin of the said carrying-bar into or out of engagement with the said arm or crank, substantially as and for the purpose described.

2. The blade-carrying bar provided with pins

or projections, a stationary open fork, and a vibrating forked arm or crank, combined with a guide to move the said bar laterally to place the one or the other of the said pins into either the stationary fork or the fork of the arm or lever, substantially as described.

3. The cutting-blade, the blade-carrying bar held and adapted to reciprocate in an axially-pivoted bearing, and a horizontally-movable guide, and a vibrating forked arm or crank to at times engage and reciprocate the said bar, and a stationary fork, *l*, combined with a slide-bar, and means to reciprocate the same to place a pin of the blade-carrying bar into engagement with either the stationary fork or the forked arm or crank, substantially as described.

4. The rotating needle-bar-operating shaft, its eccentric, eccentric-strap shank, and rock-shaft actuated thereby, having an open forked arm at its front end, combined with a pivoted blade-carrying bar and laterally-moving guide, to hold and place the said blade-carrying bar into or remove it from the notch in the said arm, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

LESTER H. ALLEN.

Witnesses:

BYRON P. NUTE,  
ERI F. NUTE.