

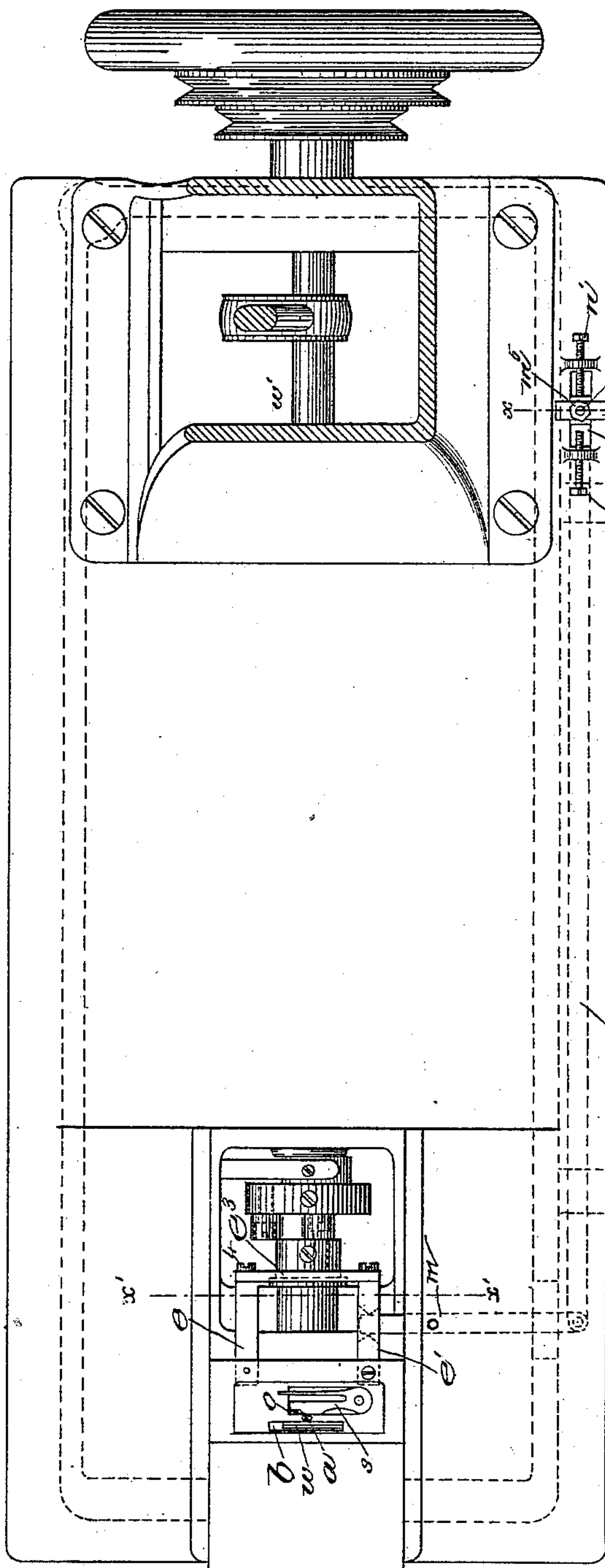
(No Model.)

W. A. NEELY.

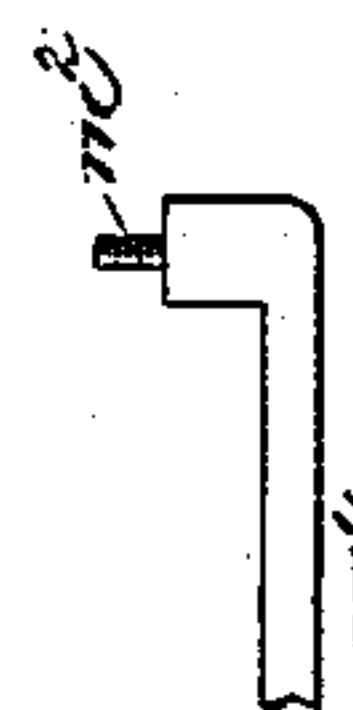
TRIMMING MECHANISM FOR SEWING MACHINES.

No. 379,410.

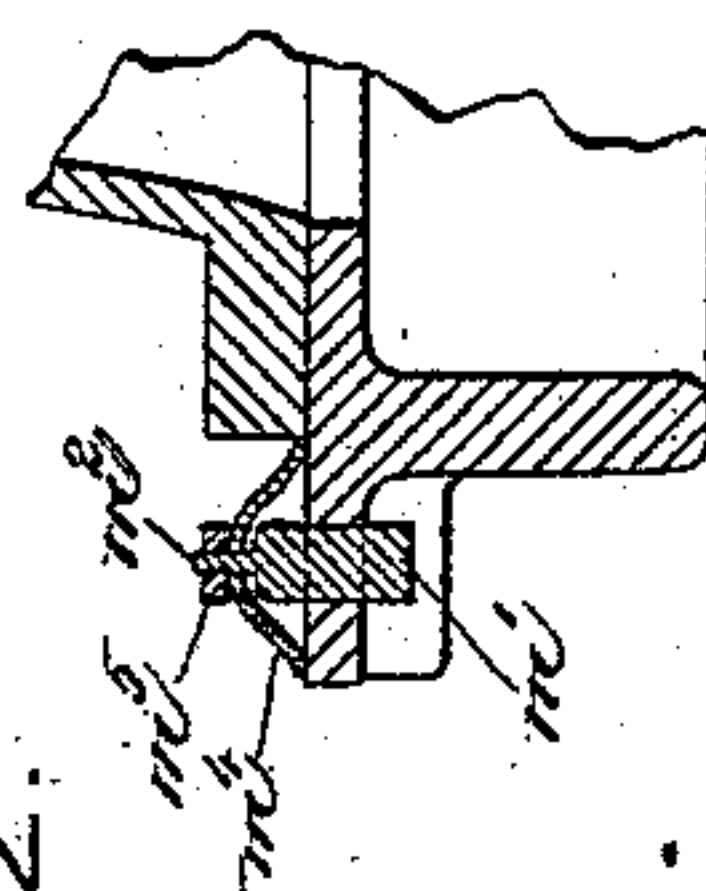
Patented Mar. 13, 1888.



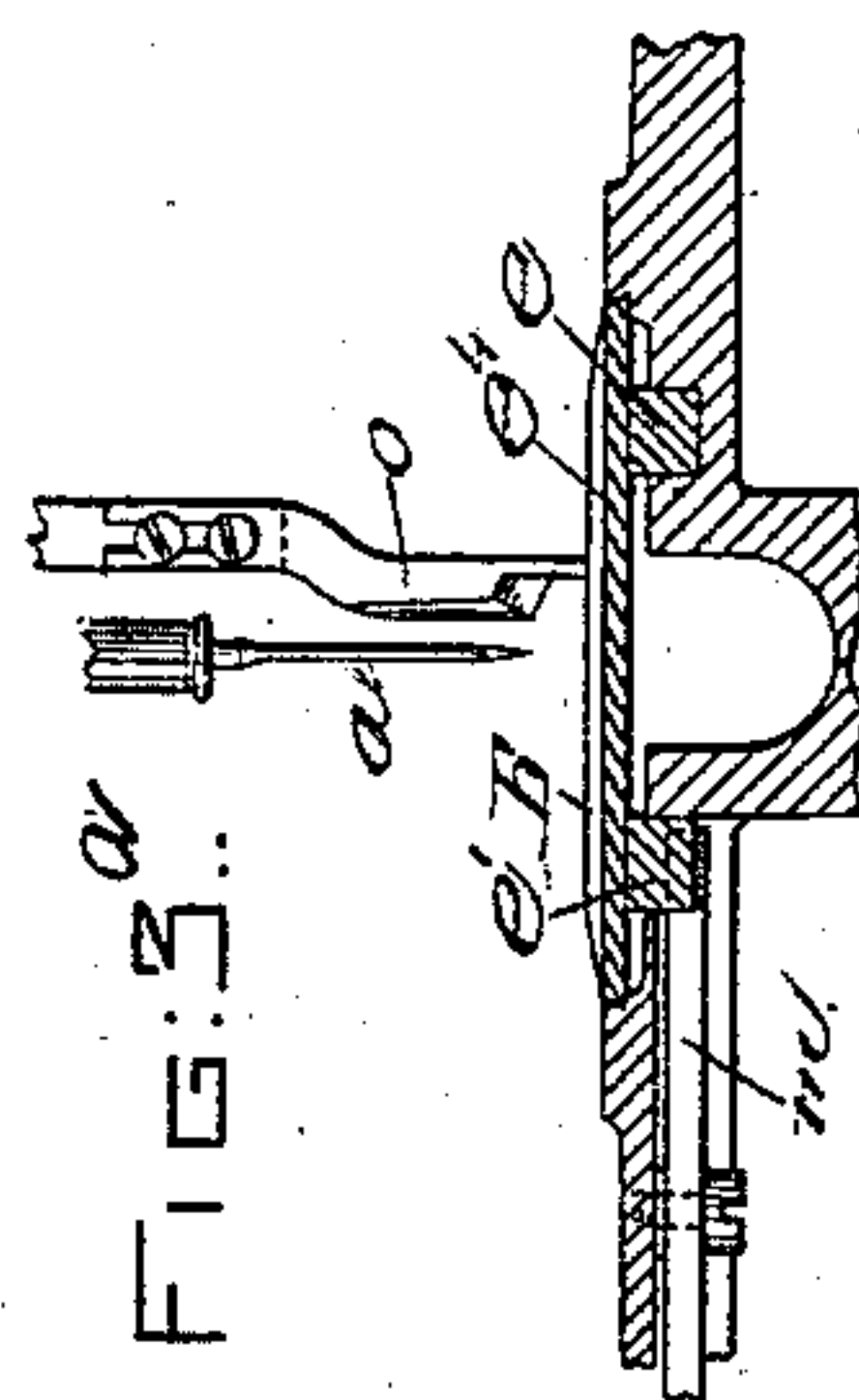
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WITNESSES.

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UNITED STATES PATENT OFFICE.

WILLIAM A. NEELY, OF LYNN, MASSACHUSETTS, ASSIGNOR TO THE WHEELER & WILSON MANUFACTURING COMPANY, OF BRIDGEPORT, CONNECTICUT.

TRIMMING MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 379,410, dated March 13, 1888.

Application filed May 13, 1887. Serial No. 238,103. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. NEELY, of Lynn, county of Essex, and State of Massachusetts, have invented an Improvement in Trimming Mechanisms for Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

In trimming mechanism used in connection with stitching mechanism it is customary to employ either a trimming throat-plate which is removable but not adjustable, or a throat-plate adjustable only by the hand of the operative applied directly thereto, and in the former class of machines, so far as I am aware, when it is desired to trim farther from the edge, a new throat-plate has to be applied, it having a slot at the desired distance from the usual needle hole, or the head of the machine has to be adjusted longitudinally on the bed-plate, and frequently, for nice adjustments, both these things have to be done. In the latter class of machines the adjustment cannot be made speedily, accurately, and positively, as the movement of the throat-plate must be exceedingly slight.

In accordance with my invention the throat-plate, having a trimming slot and needle-hole, is itself made adjustable in the direction of the length of the machine whenever it is desired to change the width of the material beyond the stitching, such adjustment being made convenient and possible by combining with the throat-plate an adjusting device whereby it may be quickly, positively, and accurately adjusted to the greatest nicety when it is desired to leave a wider or narrower edge beyond the seam.

Figure 1 is a top or plan view of a part of the bed-plate of a sewing-machine provided with my improvements, the slide or cover plate at the right of the trimming throat-plate being withdrawn. Fig. 2 is a partial section of Fig. 1 in the line *x*; Fig. 3, a detail of the end of the slide-bar, and Fig. 3^a shows the lower end of the needle-bar and attached cutter in position with relation to the throat.

The bed-plate A, throat-plate B, having the needle-hole *a*, feed-slot *b*, and trimming-slot *c*,

provided at one side with the spring plates, and the cutting-blade *o*, are all as now commonly used in connection with the Wheeler & Wilson machine, style No. 10, the cutting-blade *o* being the same as that designated by like letter in United States Patent No. 272,519, wherein is shown suitable mechanism for actuating the said blade; but I desire it to be understood that the blade may be actuated by any other suitable well-known mechanism without departing from my invention.

The trimmer throat-plate has connected to it a suitable shank, herein shown as composed of two arms, *e e'*, preferably of rectangular shape in cross-section, as in Fig. 3, the said arms entering correspondingly-shaped grooves in the frame-work of the machine, the arms being covered by the inner slide-plate, *e'*, commonly employed in the Wheeler & Wilson machine at the right of the needle throat-plate. The portion *e'* of the shank of the throat-plate has combined with it a lever, *m*, forming part of an adjusting mechanism, whereby the throat-plate may be quickly adjusted to effect the trimming of the material more or less distant from the line of stitching, the other member of the adjusting mechanism, as shown in Fig. 1, being a connecting rod or bar, *m'*. This connecting-rod, extended to the rear of the machine, has a screw-stud, *m*², which is passed up through a slot, *m*³, in the bed-plate, the said screw above the bed-plate receiving upon it a suitable friction-washer, as *m*⁴, and a thumb-nut, as *m*⁵.

The thumb-nut serves as a projection by which to move the connecting-rod longitudinally, the spring-washer holding the bar in the position in which it is left by the operator.

In the manufacture of ladies' gaiter and button boots, wherein the tops are lined with silk or other fabric liable to fray out easily, it is necessary to carry the stitching in farther from the edge, in order to get a sufficient hold upon the lining, and when this is done it is customary to throw the trimmer-blade out of action, stitching, but not cutting, the edge along that part which is lined with silk or other light fabric, and thereafter the portion of the top not trimmed by the machine is trimmed by hand. Herein I have provided the bed-plate at each

end of the slot through which the screw m^2 passes with adjustable stops, (shown as screws n n'), against which the upturned end or portion of the bar or rod m' may be pushed and stopped.

5 The portion of the stop n' will determine the distance of the stitching along that portion of the shoe where the stitching is to be nearest the edge, and the stop n the distance of the stitching at the other parts of the shoe where, 10 for instance, the lining is of silk or other easily-fraying material.

The thumb-screw or projection of the bar m' may be pushed against either stop quickly to instantly change the width of the edge be- 15 yond the line of stitching.

The lower end of the blade o always remains in the slot in the throat-plate, it springing sufficiently to permit such adjustment. The needle a is of such diameter with relation to the 20 width of the needle-hole and throat-plate that the needle is always operative in any position in which the throat-plate is adjusted. The lever m has its fulcrum at m^{10} . (See Fig. 1.)

The ends of the arms $e e'$ are joined together

by a bar, e^3 , attached to the said arms, as herein 25 shown, by screws, as at 4 4.

My improvement may be easily applied to machines now in use.

The feed-bar w and lower shaft, w' , are common to the Wheeler & Wilson machine, rota- 30 tion of the said shaft effecting the movement of the feed-bar and a short shaft (not shown) called the "hook-shaft."

I claim—

In a sewing-machine, a trimming-blade, o , 35 and a throat-plate having a feed-slot, a trimmer-slot, and a needle-hole, combined with an adjusting-lever suitably connected to the throat-plate, and means for giving the said lever a predetermined throw, substantially as 40 described.

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

WILLIAM A. NEELY.

Witnesses:

BERNICE J. NOYES,
C. M. CONE.