

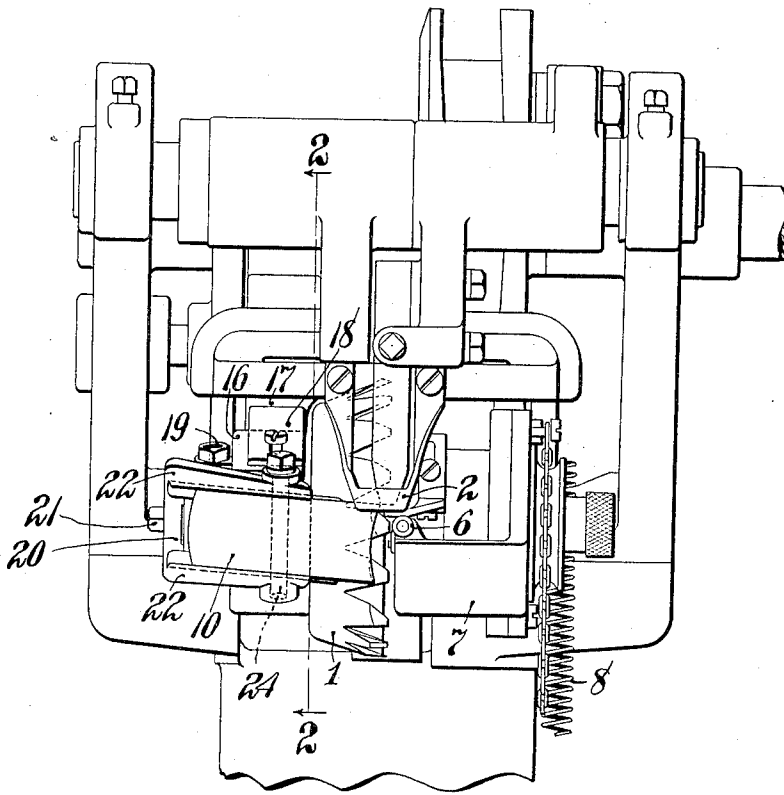
E. COEY.
INSEAM TRIMMING MACHINE.
APPLICATION FILED MAY 4, 1912.

1,089,533.

Patented Mar. 10, 1914.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses:

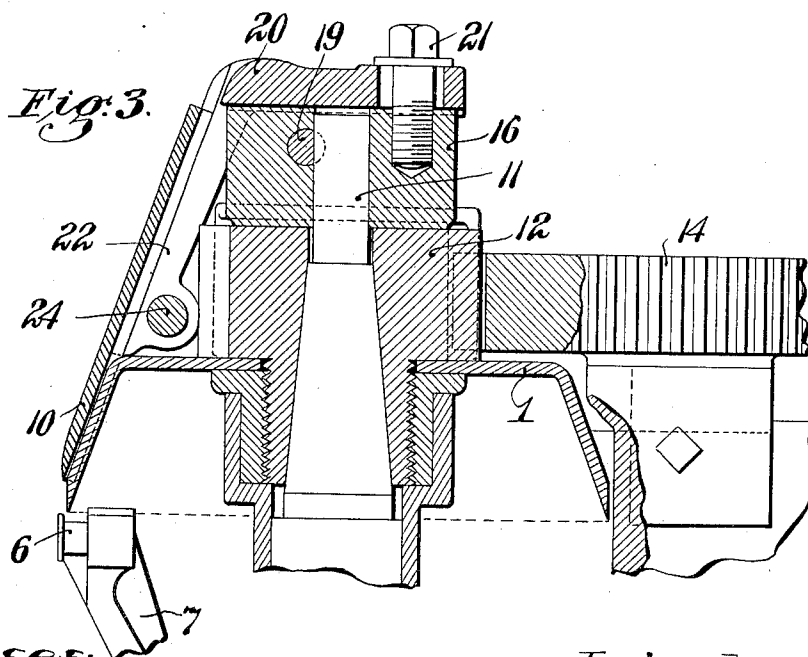
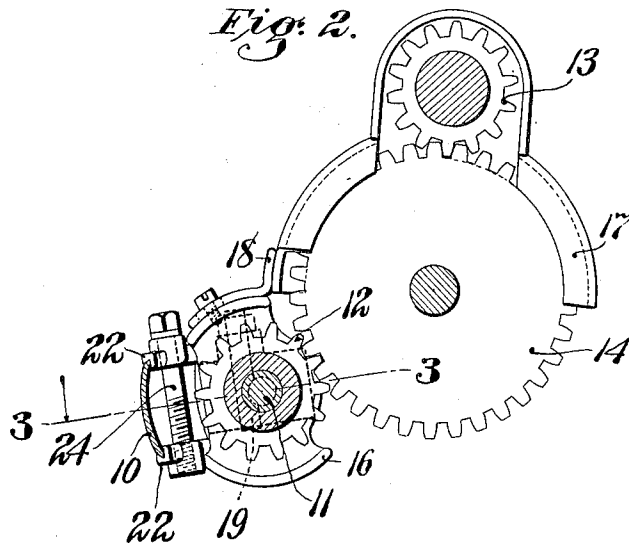
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Inventor:

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1,089,533.

2 SHEETS-SHEET 2.



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UNITED STATES PATENT OFFICE.

EDWARD COEY, OF ST. LOUIS, MISSOURI, ASSIGNOR TO UNITED SHOE MACHINERY COMPANY, OF PATERSON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

INSEAM-TRIMMING MACHINE.

1,089,533.

Specification of Letters Patent.

Patented Mar. 10, 1914.

Application filed May 4, 1912. Serial No. 695,095.

To all whom it may concern:

Be it known that I, EDWARD COEY, a citizen of the United States, residing at No. 543 Rosedale avenue, St. Louis, Missouri, have invented certain new and useful Improvements in Inseam-Trimming Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The present invention relates to inseam trimming machines, and more particularly to machines of the type shown and described in the patent to Johnson, 956,971, May 3, 1910.

The object of the present invention is to provide certain improvements in machines of this type which shall minimize the liability of the knife cutting into and injuring any other portion of the shoe than that to be trimmed, and otherwise increase the efficiency of the machine.

With this object in view, the various features of the invention consist in certain novel features of construction, combinations and arrangements of parts hereinafter described and claimed, the advantages of which will be obvious to those skilled in the art from the following description.

In the accompanying drawings illustrating the preferred form of the invention; Figure 1 represents a front elevation of an inseam trimming machine embodying the several features of the invention in their preferred forms; Fig. 2 is a detail illustrating a section taken upon the line 2—2 of Fig. 1; and Fig. 3 is a detail illustrating a section taken upon the line 3—3 of Fig. 2.

The machine shown in the illustrated embodiment of the invention is provided with a trimming knife 1 of a substantially cylindrical form, a crease guide 2, and with a four-motion feed consisting of two feed jaws arranged to feed the work by engagement with opposite sides of the welt as illustrated in the patent above referred to. A yielding channel guide is arranged below the crease guide to engage the lip of the insole and cooperate with the crease guide during the passage of the shoe through the machine. The channel guide consists of a small roll 6 carried upon a support 7 which is pivoted to rock about the axis of the trimming knife and is forced in a direction

to press the roll firmly against the lip of the insole by a spring 8. The channel and crease guides cooperate to prevent sufficient inward movement of the sole to carry the stitches of the seam into the path of the trimming knife and these two guides virtually constitute guards for preventing injury to the shoe by the trimming knife.

In addition to supporting the shoe as above described, however, it is found very desirable to support the shoe sole beyond the edge of the trimming knife in order to prevent the engagement of any portion of the shoe other than that to be trimmed with the cutting edge of the knife. To this end, a guard 10 is fixedly secured in the line of feed beyond the cutting edge of the knife. This guard is arched to conform to the curvature of the knife and is supported in close proximity thereto as indicated clearly in Fig. 3 in order that the projecting portion of the inseam may be trimmed closely to the shoe bottom.

From an inspection of Fig. 1, it will be obvious that the guard 10 cooperates with the channel guide to support the shoe bottom upon opposite sides of the cutting edge of the knife and the provision of these two guards serves to effectually prevent the shoe sole from contacting with the knife edge but at the same time allows the inseam which projects between the crease guide and channel guide to be engaged by the knife edge and trimmed uniformly.

The knife shown in the illustrated embodiment of the invention is journaled upon a knife shaft 11 and is secured to a gear 12 which is continuously rotated by a driving pinion 13 through an intermediate gear 14 as is usual in this type of machine. The guard 10 is supported upon the knife shaft by means of a collar 16 secured to one end of the knife shaft and having projecting curved flanges which cover the exposed faces of the gear 12 and form a guard therefor. The driving gears 13 and 14 are inclosed and protected by a guard 17 which determines the angular position of the collar 16 through an adjustable guide piece 18 secured to the upper side of the collar and bearing against the guard 17. The collar is locked in any adjusted position by a recessed cross bolt 19 operating in the usual manner to clamp the collar to the knife shaft. The guard 10 is carried by an L-shaped arm 20 which is at-

tached to the collar 16 and has provision for a transverse adjustment relative to the collar by a bolt and slot connection indicated at 21. The arm 20 is provided with a pair of recessed guide members 22 which engage opposite edges of the guard 10 and are drawn together to clamp the guard in position by a threaded bolt 24. With this construction, the guard may be adjusted both transversely and longitudinally of the knife in order to position the guard in any desired relation to the knife edge and to vary the depth of cut made by the knife.

While it is preferred to employ the specific construction and arrangement of parts shown and described, it will be understood that this construction and arrangement is not essential except so far as specified in the claims, and may be changed or modified without departing from the broader features of the invention.

The invention having been described, what is claimed is:

1. An in-seam trimming machine having, in combination, a trimming knife, means for feeding the shoe past the knife, and guiding devices for the shoe including a guard supported in the line of feed beyond the cutting point and having provision for adjustment in the line of feed, substantially as described.

2. An in-seam trimming machine having,

in combination, a trimming knife, means for feeding the shoe past the knife, and guiding devices including a guard supported in the line of feed beyond the cutting point and having provision for adjustment both in the line of feed and to vary the depth of cut made by the knife, substantially as described.

3. An in-seam trimming machine having, in combination, a knife shaft, a cylindrical trimming knife journaled upon the shaft, means for feeding the shoe past the knife, a crease guide, a channel guide, and a guard supported upon the knife shaft and having provision for adjustment both transversely and lengthwise of the shaft, substantially as described.

4. An in-seam trimming machine comprising a knife shaft, a cylindrical trimming knife journaled thereon, a collar secured to the knife shaft, an L-shaped arm attached to the collar and having provision for adjustment transversely thereof, and a guard supported upon the arm and having provision for adjustment lengthwise of the knife to maintain the guard in close proximity to the knife edge, substantially as described.

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Witnesses:

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