No. 639,502. Patented Dec. 19, 1899.

W. H. BECK.

TRIMMING ATTACHMENT FOR MACHINES FOR SEWING LOOPED FABRICS.

(Application filed May 12, 1898.)

(No Model.)

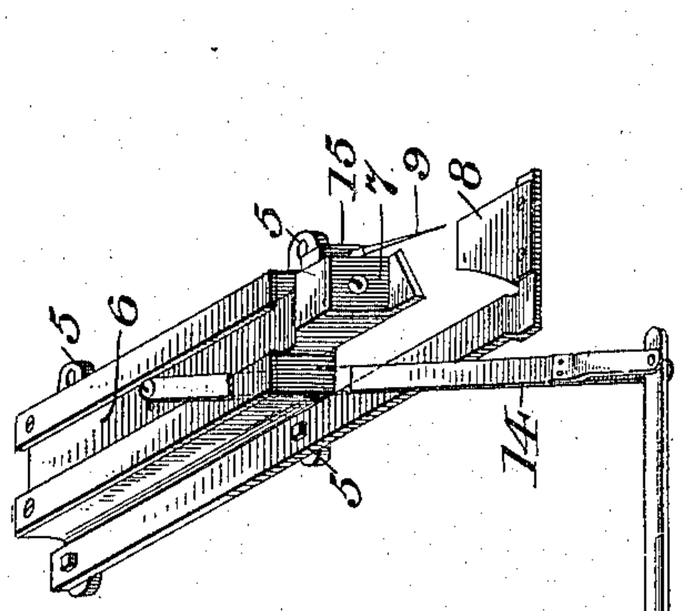

Fig. 2.

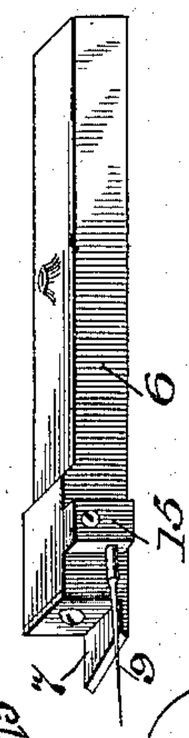

Fig. 3.

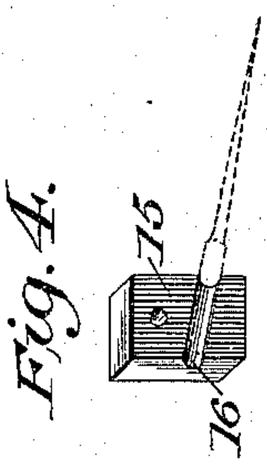

Fig. 4.

Fig. 1.

Witnesses
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By his Attorneys,
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UNITED STATES PATENT OFFICE.

WILLIAM H. BECK, OF CRESSONA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO CHARLES F. BECK, OF SAME PLACE.

TRIMMING ATTACHMENT FOR MACHINES FOR SEWING LOOPED FABRICS.

SPECIFICATION forming part of Letters Patent No. 639,502, dated December 19, 1899.

Application filed May 12, 1898. Serial No. 680,470. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BECK, a citizen of the United States, residing at Cressona, in the county of Schuylkill and State of Pennsylvania, have invented a new and useful Trimming Attachment for Machines for Sewing Looped Fabrics, of which the following is a specification.

When finishing hosiery and after the parts forming the toe portion have been united by a looping-machine in the ordinary manner, it is necessary to ravel the toe portion in order to secure a neat and close seam and obviate projecting edge portions. This raveling process consumes time and adds materially to the cost of manufacture.

The purpose of the present invention is to devise a trimming attachment to be applied to a looping-machine, thereby obviating the necessity for raveling the parts of the looped fabric when united in order to secure a neat and snug seam or joint.

While the attachment is specially designed for use in connection with machines for sewing the toe portion of hosiery, it is to be understood that it is capable of general application with machines for sewing looped fabrics or knitted goods of every variety.

For a full understanding of the merits and advantages of the invention, reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a top plan view of a machine for sewing looped fabric of ordinary construction, showing the trimming attachment in position. Fig. 2 is a detail perspective view of the attachment. Fig. 3 is a detail view in perspective of the bar carrying the needle and the movable cutter. Fig. 4 is a detail view of the cap-plate for securing the needle to its carrying-bar.

Corresponding and like parts are referred to in the following description and indicated in the views of the drawings by the same reference characters.

The machine illustrated is of the variety commonly used for sewing looped fabrics and is illustrated to indicate the relative arrangement of the trimming attachment and its actuating mechanism. The bed-plate 1 supports the operating mechanism, and the table 2 receives the rotary work-holder or pin-plate 3, which is intermittently actuated from the main shaft 4 in the usual manner.

The trimming attachment comprises a base-plate 5, a bar 6, mounted to reciprocate in guideways of the plate 5, a cutting mechanism comprising an upper cutter 7 and a lower cutter 8, a pick-up needle 9, and means for imparting a reciprocating movement to the bar 6.

As shown, an eccentric 10 is applied to the main shaft 4, and a rod 11 is mounted upon the eccentric 10 and has its outer end connected with one end of a lever or oscillatory bar 12, mounted intermediate of its ends upon a post 13, secured to the table or part to which the bed-plate 1 is affixed. A link 14 connects the opposite end of the lever 12 with the bar 6 and transmits motion thereto.

The base-plate 5 is bolted or attached in any desired manner to the table 2, and the lower cutter 8 is secured to its outer end, and its cutting edge inclines so as to operate by a shear or draw cut action. The upper cutter 7 is of angular form, consisting of a plate bent at an intermediate point, so as to throw its end portions relatively at a right angle to each other. This cutter is secured to the outer end of the reciprocating bar 6, and its active edge inclines in an opposite direction to the active edge of the cutter 8.

The pick-up needle 9 inclines with reference to the bar 6 so as to bring its projecting portion as close as possible to the plane of the cutter 8, thereby enabling the trimming to be effected as close to the seam as possible, which is desirable, so as not to provide or leave a welt or ridge which would injure the foot or cause pain and inconvenience to the wearer. The cap-plate 15, by means of which the pick-up needle is secured to the bar 6, is formed upon its inner side with an obliquely-disposed groove or seat 16, in which

the shank of the pick-up needle is received, thereby giving the proper inclination to said needle. The pick-up needle is secured to the front side of the bar 6, and as a consequence operates at one side of the cutters and in advance of the cutting mechanism, so as to pick up the loops prior to the trimming of the fabric.

An important feature of the present invention is the oblique or inclined disposition of the pick-up needle, whereby the latter is enabled to pick up the first loop above the loop on the looper-needles in advance of the cutting or trimming action of the knives, and in this connection it is to be observed that said pick-up needle and the cutters operate independently of the looper sewing-needle.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In a trimmer attachment for machines for sewing looped fabrics, the combination with a slide, of a fixed cutter, a second cutter secured to the slide and coöperating with the first-mentioned cutter, and an inclined pick-up needle secured directly to said slide for movement therewith and having its working end extending beyond the second cutter, said pick-up needle being arranged at one side of the cutters, substantially as described.

2. In a trimming attachment for machines for sewing looped fabrics, the combination with a fixed cutter, a reciprocating bar provided with a cutter to coöperate with the fixed cutter, a cap-plate secured to the reciprocating bar and having an oblique groove, and a pick-up needle seated in said groove, and held therein to move with the reciprocating bar, substantially as described.

3. In a trimming attachment for machines for sewing looped fabric, the combination with a fixed cutter, of a sliding bar provided with a cutter at one end to coöperate with said fixed cutter, a pick-up needle adapted to be carried forward with the bar, a cap-plate having an oblique groove forming a seat for the shank of the pick-up needle, means for securing said cap-plate to the sliding bar, and means for causing the movement of said bar in a straight path, substantially as described.

4. In a trimming attachment for machines for sewing looped fabrics, the combination with a fixed cutter, of a sliding bar provided with a cutter at one end to coöperate with said fixed cutter, a pick-up needle adapted to be carried forward with the bar, a cap-plate having an oblique groove forming a seat for the shank of the pick-up needle, means for securing said cap-plate to the sliding bar, a rocking lever, a link joined to the sliding bar and to one end of said lever, and means acting against the opposite end of said lever for reciprocating the same, substantially as described.

5. In a trimming attachment for machines for sewing looped fabrics, a fixed cutter arranged upon one side of the fabric to be cut, and a reciprocating cutter located upon the other side of said fabric and acting jointly with the fixed cutter, in combination with a pick-up needle mounted to move with the reciprocating cutter and having its active portion wholly in advance of and in a higher plane than the cutters and obliquely disposed so as to incline toward the plane of the edges of said cutters.

6. In a trimming attachment for machines for sewing looped fabrics, the combination of a fixed cutter having a straight edge, a reciprocating bar, a second cutter applied to the reciprocating bar and projecting therefrom and having its active edge inclined, and a pick-up needle secured to the front side of the reciprocating bar in advance of and in a higher plane than the said cutters and inclining to the plane of their cutting edges.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

WM. H. BECK.

Witnesses:
ALBERT KAERCHER,
GEO. S. SEITZ.