

July 12, 1949.

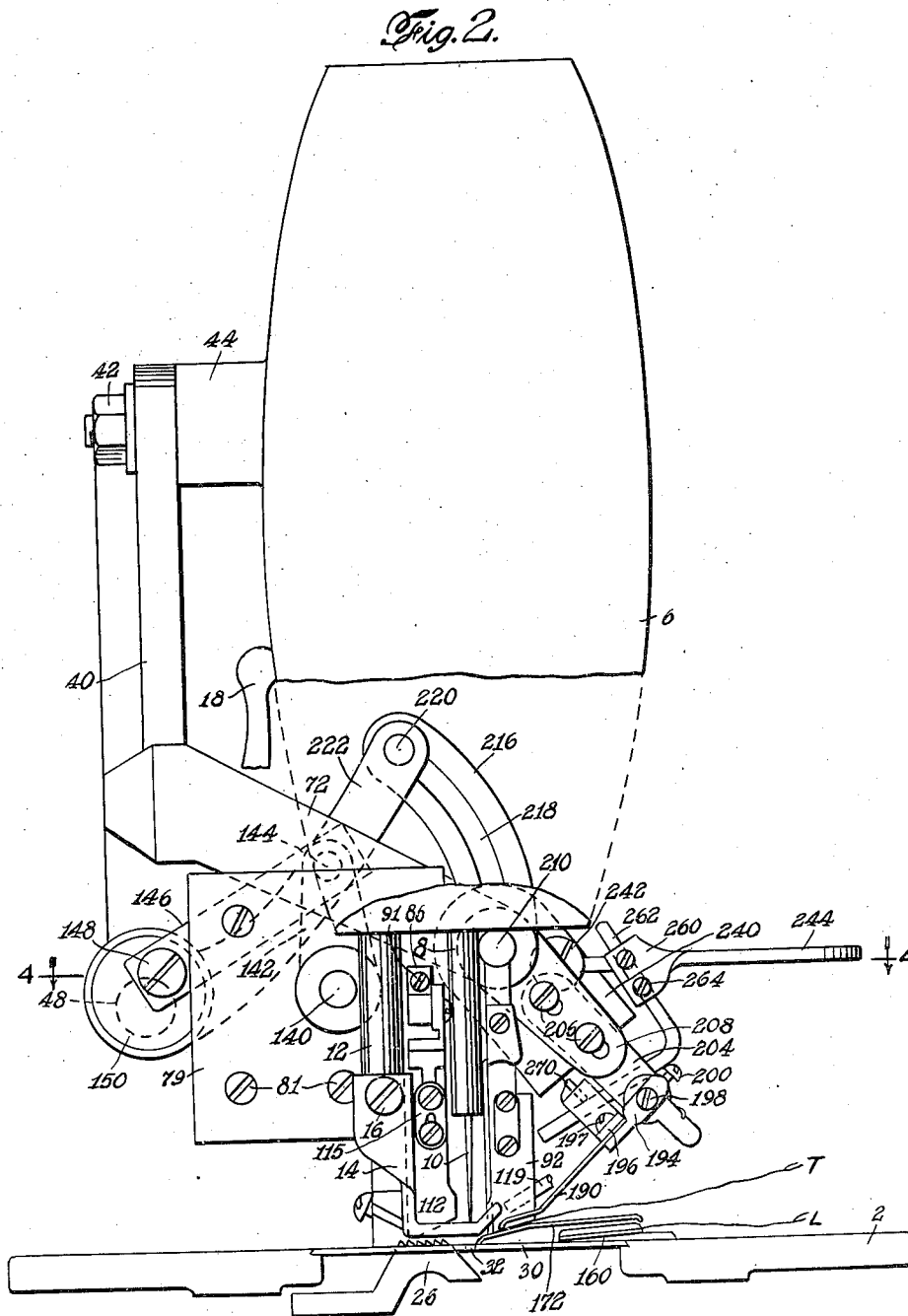
C. SEAMAN

2,475,759

SEWING MACHINE AND ATTACHMENT THEREFOR

Filed July 21, 1947

6 Sheets-Sheet 2



INVENTOR.
CHARLES SEAMAN

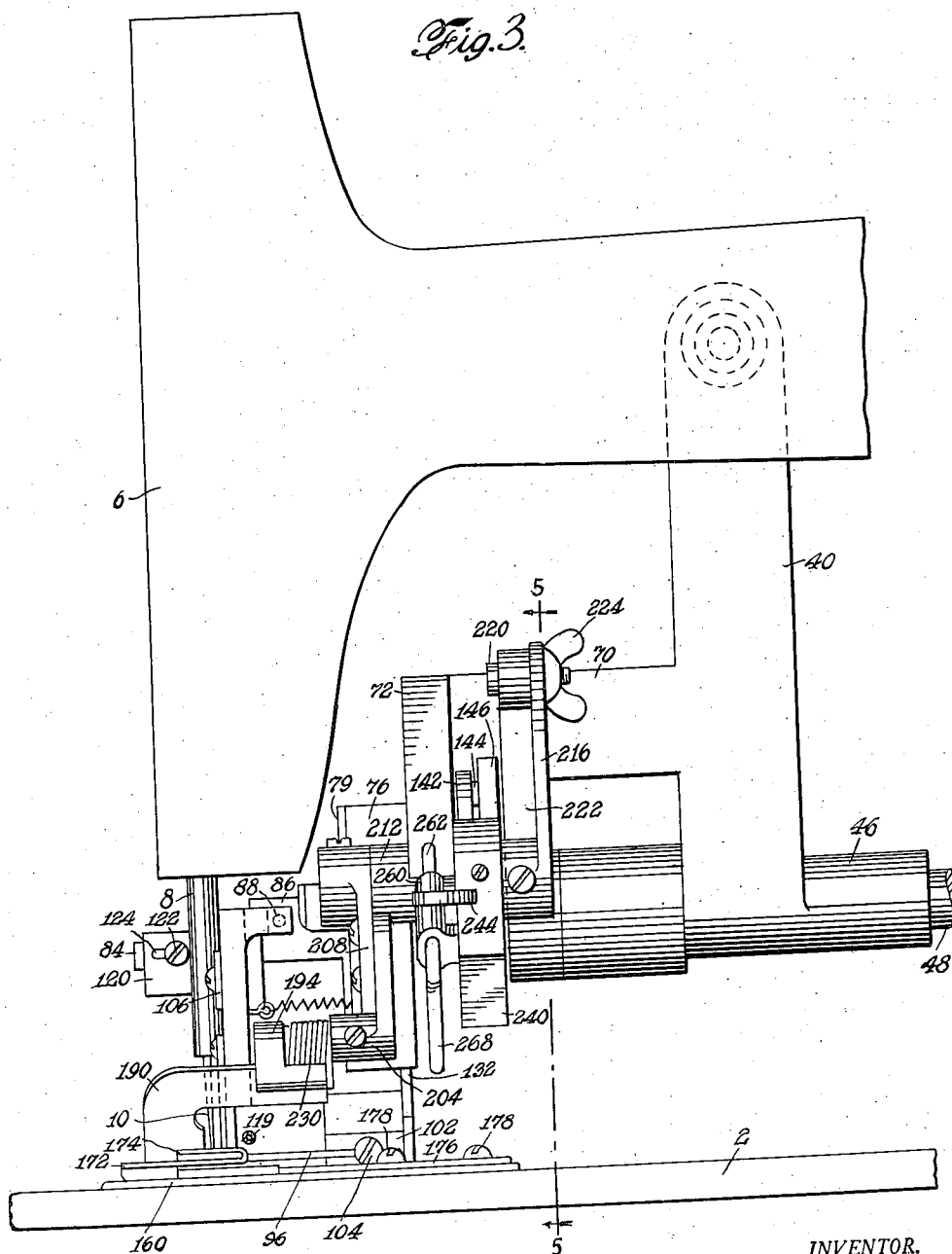
BY
Wm. S. Pritchard

ATTORNEY:

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SEWING MACHINE AND ATTACHMENT THEREFOR

6 Sheets-Sheet 3



INVENTOR.
CHARLES SEAMAN
BY *Wm. L. Pritchard*
ATTORNEY.

Filed July 21, 1947

SEWING MACHINE AND ATTACHMENT THEREFOR

6 Sheets-Sheet 4

Fig. 4.

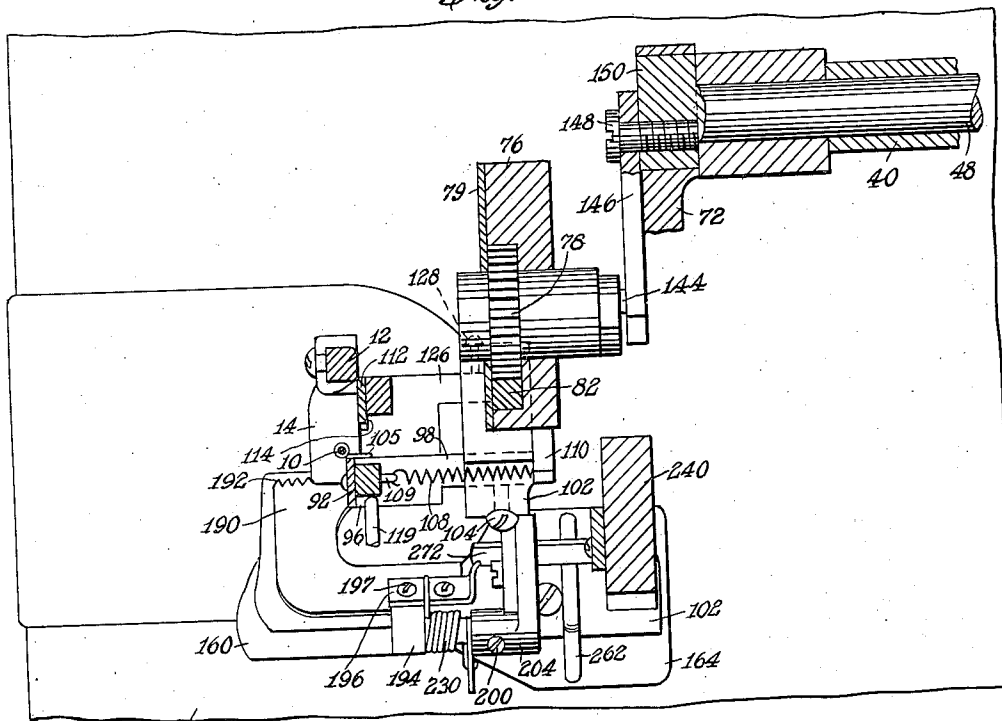
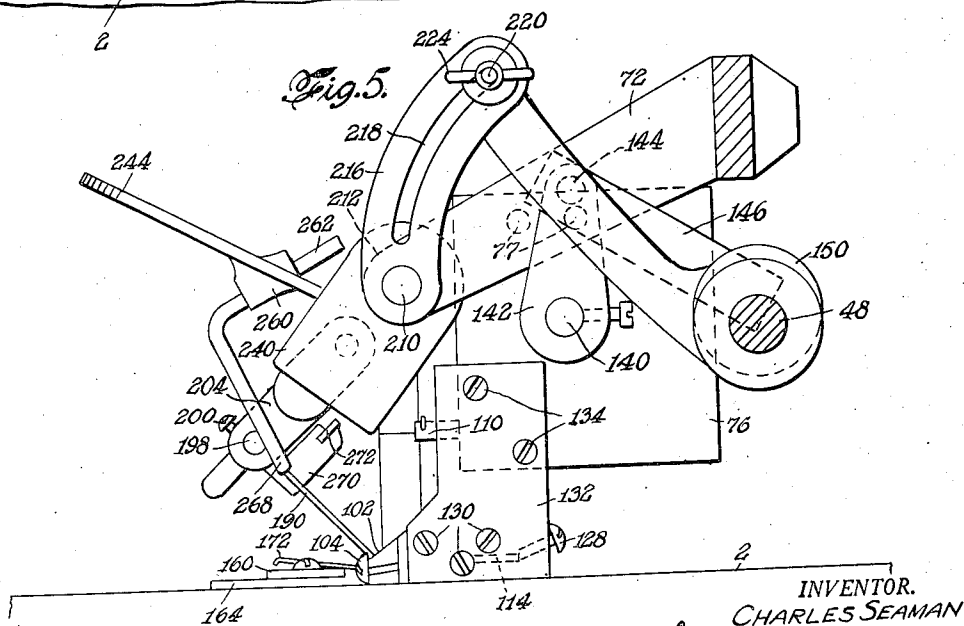


Fig. 5.



INVENTOR.
CHARLES SEAMAN

BY

BY *Wm. L. Pritchard*

ATTORNEY.

July 12, 1949.

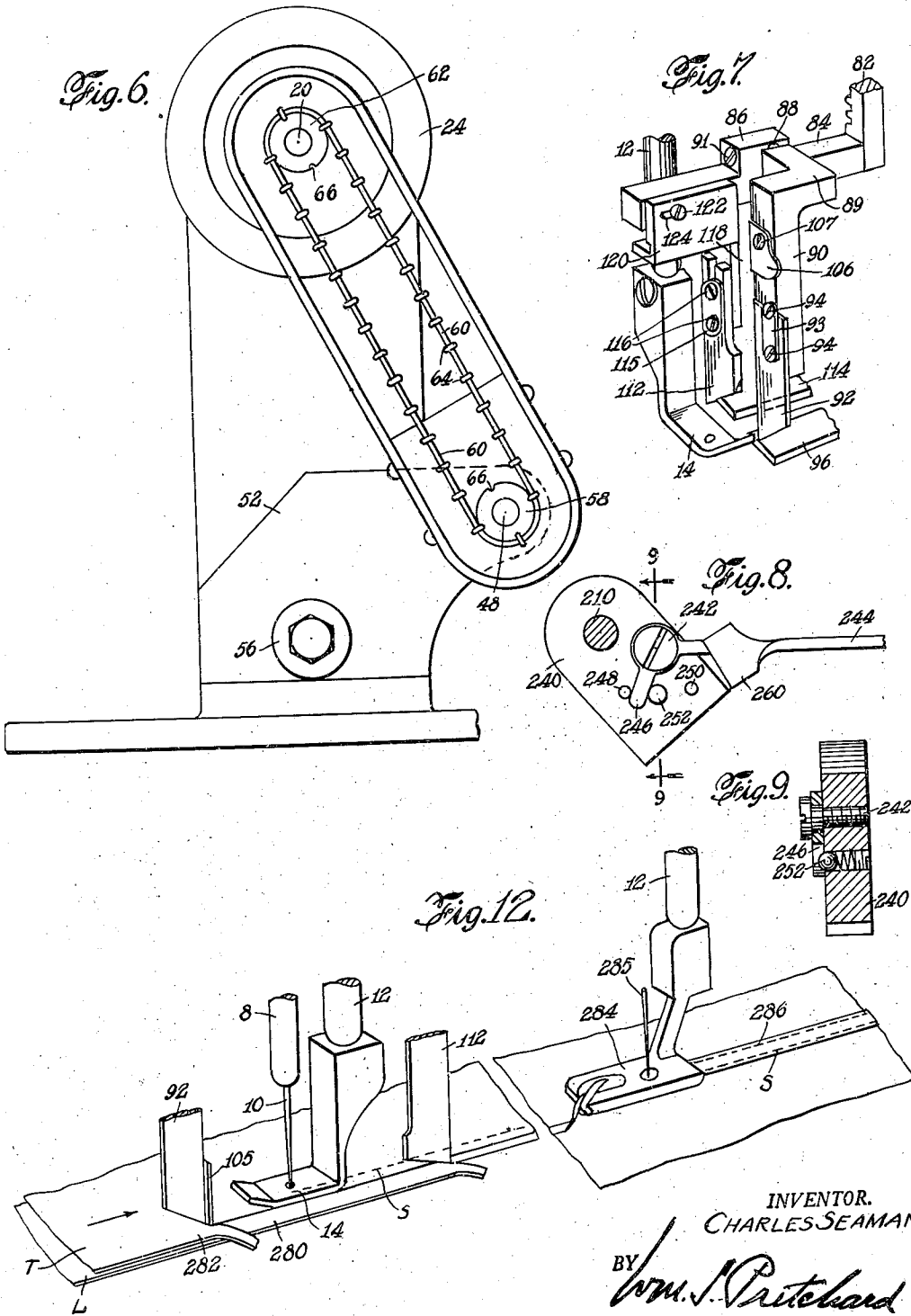
C. SEAMAN

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SEWING MACHINE AND ATTACHMENT THEREFOR

Filed July 21, 1947

6 Sheets-Sheet 5



INVENTOR.
CHARLES SEAMAN

BY *Wm. S. Pritchard*
ATTORNEY.

July 12, 1949.

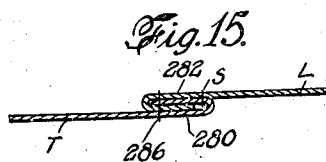
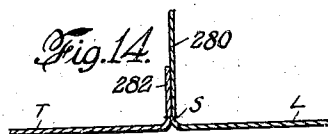
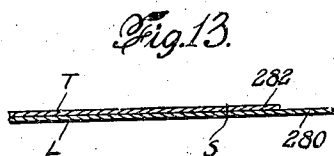
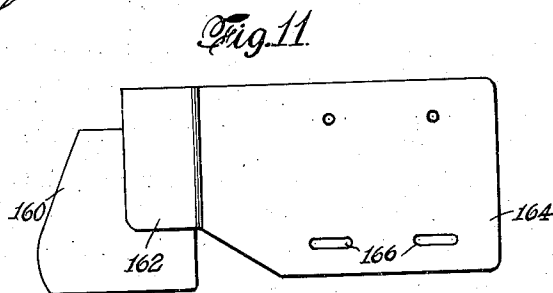
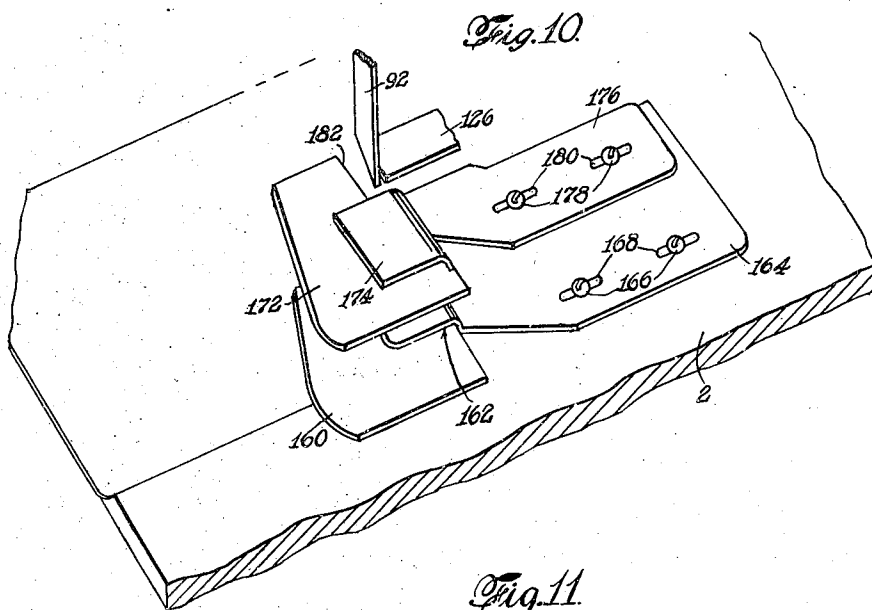
C. SEAMAN

2,475,759

SEWING MACHINE AND ATTACHMENT THEREFOR

Filed July 21, 1947

6 Sheets-Sheet 6



INVENTOR.
CHARLES SEAMAN

BY *Wm. S. Pritchard*

ATTORNEY

UNITED STATES PATENT OFFICE

2,475,759

SEWING MACHINE AND ATTACHMENT THEREFOR

Charles Seaman, Jamaica Estates, N. Y.

Application July 21, 1947, Serial No. 762,367.

13 Claims. (Cl. 112-127)

1

This invention relates to sewing machines and attachments therefor.

The nature and objects of the invention will become apparent hereinafter.

In general, and in accordance with the principles of this invention, two base materials, arranged in superimposed relationship with the longitudinal edge of the lower base material extending beyond the longitudinal edge of the upper base material, are passed through the zone of action of a vertically reciprocating needle of a standard sewing machine where said materials are secured together with a single line of stitches, which is in spaced relationship to the longitudinal edge of the upper base material, to produce a stitched material in which the two base materials are superimposed and the edge portion of the upper material extending from the line of stitches is narrower than the edge portion of the lower material extending from said line of stitches and, after disposing the two base materials so that the body portions thereof extend in opposite directions relative to the row of stitches, folding the wider edge portion under and over the narrow edge portion, and finally stitching through the two plies of the edge fold and the base material on which it is disposed.

In the preferred embodiment, the two base materials are passed through individual guides whereby they are arranged in superimposed relationship with their longitudinal edges in alignment and, prior to the stitching operation, the assembly is passed beneath a cutting mechanism which longitudinally severs only the upper base material. After the stitching operation, the stitched material passes beneath a second cutting mechanism which longitudinally severs only the lower base material. Both of the cutting mechanisms are adjustable, with the result that the extensions of the respective base materials beyond the line of stitches are made of the desired widths.

Each cutting mechanism is preferably a reciprocating knife cooperating with an adjustable fixed knife. As will hereafter appear, the first set of knives, which sever only the upper base material, is positioned adjacent and preferably in advance of the toe of the presser foot of a sewing machine; and the second set of knives, which sever only the lower base material, is positioned adjacent the heel of the presser foot. Both sets of knives are vertically reciprocated during operation of the sewing machine through means driven from the pulley end of the machine.

2

Means are provided to feed the upper base material into the zone of action of the vertically reciprocating needle at the same speed as the lower base material. This means includes a reciprocating pusher blade which is adapted to engage and advance the upper base material to the presser foot, and the reciprocation thereof is effected by means driven from the pulley end of the machine. Means are also provided to render the blade for feeding the upper base material inoperative whenever this is desired.

The two sets of knives and the means for feeding the upper base material, as well as the respective actuating mechanisms therefor, are mounted on a bracket to constitute a sewing machine attachment which can be easily secured and quickly removed from a sewing machine.

The invention will be more clearly understood by reference to the following detailed description when taken in connection with the accompanying drawings, in which:

Figure 1 is a plan view of the attachment in position on a sewing machine head, the sewing machine head being broken away for clarity;

Figure 2 is an elevation of the needle end of the machine shown in Figure 1, with the head broken away;

Figure 3 is a front elevation of the attachment with part of the machine head and the driving means omitted;

Figure 4 is a section taken on the line 4-4 of Figure 2;

Figure 5 is a section taken on the line 5-5 of Figure 3;

Figure 6 is an end view of the pulley end of the machine;

Figure 7 is a perspective view showing the arrangement of the knives relative to the presser foot;

Figure 8 is a side elevation of the mechanism for positioning the means for feeding the upper base material;

Figure 9 is a section taken on the line 9-9 of Figure 8;

Figure 10 is a perspective view of the guides for the two base materials and the first set of knives;

Figure 11 is a plan view of the guide for the lower base material;

Figure 12 is a perspective and exaggerated schematic view to show the sequence of the steps of the operation;

Figure 13 is a section of the stitched material after the first stitching operation;

Figure 14 is a section showing the stitched ma-

terial after the two base materials have been spread apart so as to extend in opposite directions; and

Figure 15 is a section of the finished seam.

Referring now to the drawings, wherein like reference numerals designate like parts, the reference numeral 2 designates the base of a standard sewing machine head having an overhanging arm 4. On one end (see Figures 2 and 3), the arm 4 is secured to a needle head 6 which carries a needle bar 8 in which a needle 10 is secured in the usual manner. The head 6 also carries a presser foot bar 12 on which there is removably secured a presser foot 14 by means of the screw 16. A manually operated lever 18 is provided to elevate the presser foot bar 12 when desired, as, for example, to provide clearance for inserting or removing the work. The needle bar 8 is driven in the usual manner by a drive shaft 20, which is actuated by a belt pulley 22 on the other end of the arm 4 and driven in the usual manner. The machine is also provided with the usual hand wheel 24. The presser foot 14 cooperates with the usual type of feed dogs 26, which are actuated in the known manner. The feed dogs 26 are positioned in slots in a plate 30 which is also provided with a needle hole 32.

The sewing machine head and appurtenant parts just described are of standard construction and include the usual stitching mechanism. However, only so much of the sewing machine head has been described as is necessary to an understanding of the present invention.

The attachment is carried by a bracket 40, the upper end of which is secured by a bolt 42 on a boss 44 on the rear of the overhanging arm 4, as shown in Figures 2 and 3. The bracket 40 is provided at its lower end with a journal 46 in which a shaft 48 is rotatably mounted. The shaft 48 is disposed at the back of the machine and is rotatably mounted in a boss 50 carried at one end of a bracket 52 which is secured to the machine head on the pulley side by a bolt 56 (see Figures 4 and 6). The shaft 48 carries a pulley 58 engaging a belt 60 which is driven by a pulley 62 attached to the drive shaft 20. The belt 60 may comprise a standard type of drive belt, such as, for example, a belt having a plurality of cross wires 64 engaging slots 66 in the pulleys 58 and 62 so as to provide a positive drive.

As shown in Figure 3, the bracket 40 is provided with a lateral arm 70 which at the end thereof carries a forwardly, downwardly inclined arm 72. A block 76 is secured to the arm 72 by means of countersunk screws 77. The block 76 is shaped so as to receive a pinion 78. The pinion 78 is adapted to cooperate with a rack 82 disposed in a vertical groove in the block 76. The block 76 is provided with a cover plate 79 which is secured in position by screws 81.

The rack 82 is secured at one end of an arm 84 which extends transversely in the direction toward the needle and presser foot of the machine. The arm 84 is provided with a block 86 in which there is adjustably secured a pin 88 which is secured in a head 89 at the top of a vertically downwardly extending knife support 90. A screw 91 secures the pin 88 in adjusted position in the block 86. A knife 92 is adjustably secured onto the outer side of the knife support 90 by means of a clamping member 93 and screws 94. The head 89 is of a form and shape so that the knife holder 90 will dispose the knife 92 laterally of and adjacent the up-turned toe of the presser foot 14. The toe of the presser foot may

be slotted or cut away in order to provide clearance for the knife 92 during the reciprocation thereof, as will hereafter be more fully explained. It is to be noted that the end of the knife support 90 terminates in spaced relationship to the cutting edge of the knife 92.

The knife 92 is adapted to cooperate with a stationary knife 96 whereby any material passing therebetween will be cut. The stationary knife 96 (see Figure 4) is carried at one end of an arm 98 which is adjustably (slidably) mounted in a block 102 and secured in adjusted position by the screw 104.

In order to prevent the material cut by the knives 92 and 96 from being carried into the zone of action of the needle, a clearer blade 105 is positioned on the rear face of the knife holder 90 and disposed at right angles to the knife 92. The clearer blade 105 is provided with an ear 106 bent at right angles to said blade and which is secured onto the knife support 90 by means of a screw 107. If desired, a nozzle 109, appropriately positioned adjacent the knife 92 and connected to a suitable air supply, can also be used to remove severed material.

In order to reduce vibration of the knife 92 to a minimum, one end of a spring 108 is secured to a pin 109 on the knife support 90, and the other end is secured to a pin 110 on the block 76.

A second knife 112 cooperating with a stationary knife 114, whereby any material passing therebetween will be cut, is adjustably mounted by a clamping plate 115 and screws 116 on a leg 118 of a second knife support 120. The knife support 120 is adjustably mounted by means of screws 122 and slots 124 on the arm 84. The second knife support and the arm 84 are of such shape so that the second knife 112 will be disposed laterally of and adjacent the heel of the presser foot 14.

The stationary knife 114 which cooperates with the knife 112 is carried at one end of an arm 126 which is adjustably (slidably) secured in the block 102 by screws 128.

It is manifest that each of the stationary knives 96 and 114 can be separately adjusted laterally toward and away from the presser foot and each of such stationary knives can be secured in adjusted position.

For reasons which will become apparent hereinafter, the knives 112 and 114 are positioned so that the cut edge resulting in the material passing therebetween extends beyond the edge of the material passing between the knives 92 and 96.

The block 102 which carries the stationary knives 96 and 114 is secured by screws 130 to a plate 132 which, in turn, is secured by screws 134 to the block 76.

The knives 92 and 112 are adapted to be reciprocated, relative to their respective stationary knives to effect the cutting operations, by the action of the oscillatory movement of the pinion 78 and the rack 82 cooperating therewith. The drive means for effecting oscillatory movement of the pinion 78 will now be described.

The pinion 78 is oscillated by a pinion shaft 140 secured to one end of a rock lever 142. The other end of the rock lever 142 is secured to a rock shaft 144 carried at one end of an arm 146. The other end of the arm 146 is secured, as by a screw 148, to an eccentric 150 on the shaft 48. Thus, upon rotation of the shaft 48 from the drive end of the machine, the rack 82 will be reciprocated whereby each of the knives 92 and 112 will be reciprocated independently.

In accordance with the invention, two base materials are fed through the machine and stitched together. The lower base material L is fed over a plate 160 which is provided with an edge guide 162. The plate 160, together with the edge guide 162, is carried on one end of an arm 164 which is adjustably secured by screws 166 and slots 168 on the base 2 of the machine. As shown in Figure 11, the plate 160 is cut away adjacent its forward end. The top base material T is fed over a plate 172 which is provided with an edge guide 174. The plate 172, together with the edge guide 174, is carried on one end of an arm 176 which is adjustably mounted by screws 178 and slots 180 on the plate 164. As shown in Figure 10, the plate 172 is cut away at the forward end thereof and beyond the mouth of the edge guide 174, as indicated by the reference numeral 182. The plate 172, together with its edge guide 174, is positioned in the machine so that when the top base material T passes from the edge guide 174, it will pass over the (first) stationary knife 96 whereby, upon reciprocation of the knife 92, the top base material T only will be severed. In other words, the fixed knife 96 extends in the cut-out 182 of the plate 172 and the reciprocating knife 92 cooperating therewith is adjusted on its support so as to sever only the top base material T. The second stationary knife 114 is positioned so that after the two materials have passed through the zone of action of the needle 10, the extension of the lower material will pass over the stationary knife 114 whereby, upon reciprocation of the knife 112, such material will be cut.

Means are provided in order to feed the base material T to the presser foot at the same rate that the base material L is fed thereto. This is important since if the materials are elastic, such as knit goods, stretching is avoided and a smooth flat seam is obtained. In the form shown, such means comprises a reciprocating pusher blade 190 provided with a front serrated edge 192 adapted to engage and advance the base material T over the plate 172 into the zone of action of the presser foot. The blade 190 is secured at its other end on a bracket 194 by a clamping member 196 and screws 197. The bracket 194 is carried on a pin 198 secured by screws 200 to one end of an arm 204 which, in turn, is adjustably secured by screws 206 and slots 207 to an oscillating arm 208 secured onto a rock shaft 210. The rock shaft 210 is carried in a journal 212 at the forward end of the arm 72 of the bracket 40 and is secured to one end of an arcuate arm 216. The arcuate arm is provided with an arcuate slot 218 which is adapted to cooperate with a pin 220 carried on one end of a link 222, the opposite end of which is journaled about the eccentric 150. A wing nut 224 is adapted to secure the pin 220 in adjusted position in the slot 218.

A spring 230, having one end 232 thereof cooperating with the bracket 194, urges the bracket downwardly whereby the blade 190 is urged downwardly. The blade 190 is adapted to be disposed in inoperative position so that it will not engage the top material T. In the form shown, this is accomplished by the means now to be described.

A block 240, secured to the journal 212, is provided with a screw 242 (see Figures 8 and 9) about which a lever is pivotally mounted. The lever is provided with a handle 244 and a finger 246. The finger is adapted to cooperate with stop members 248 and 250 provided on the block 240. A spring-pressed detent 252 carried by the block 240

secures the finger in position either with the stop 248 or 250 depending on the direction of actuation of the handle 244.

The handle 244 is formed with a block 260 in which a rod 262 is secured by means of screws 264. The rod 262 is bent as shown in Figure 2, and the leg 268 thereof is adapted to extend beneath an arm 270 carried by the clamping member 196. The arm 270 carries a member 272 which is adapted to be engaged by the leg 268 when the handle 244 is moved clockwise in Figure 2, whereby the bracket 194 will be moved about the pin 198 to elevate the blade 190. When the lever 244 is operated in the other direction, the arm 270 will be released by the leg 268, and the action of the spring 230 on the bracket 194 will move the latter about the pin 198 whereby the blade will be urged into operative position on the plate 172.

In operation, a base material T is threaded over the plate 172 and through the edge guide 174, and a second base material L is threaded over the plate 160 and through the edge guide 162, whereby the longitudinal edges of the base materials T and L are in contact with the edges of the edge guides 174 and 162 respectively. As the base material T passes from its edge guide, it passes over the fixed knife 96 and, due to the reciprocation of the knife 92, the longitudinal edge of the base material T only will be cut, as diagrammatically shown in Figure 12. The two materials T and L are then passed beneath the presser foot and through the zone of action of the reciprocating needle 10 whereby the two materials are stitched together by a single straight line of stitches S. It is to be noted that the base material T is fed over the plate 172 by the reciprocating action of the blade 190 into the zone of action of the presser foot. The reciprocating movement of the pusher blade is such that the material T is fed to the zone of action of the needle at the same speed as the material L, whereby a flat stitched material is obtained. If the action of the blade is too fast, the feed of the material T can be restrained by the operator. After the stitched material leaves the presser foot, the base material L passes over the stationary knife 114 which cooperates with the reciprocating knife 112 to longitudinally sever and trim the material L. At the end of this operation, the stitched material is as shown in Figure 13. It is to be noted that the edge portion 280 of material L extends beyond the edge portion 282 of material T. The two materials T and L are then separated and spread apart so that they extend in opposite directions from the line of stitches S, as shown in Figure 14. The edge portions 280 and 282 are then passed through a folder of a known construction, generally designated by the reference numeral 284, wherein the edge portions 282 and 280 are bent over the material T and then the edge portion 280 turned in and under the edge portion 282. It is to be noted that the edge portion 280 forms a two-ply fold and the edge portion 282 extends therebetween, with the result that an interlocking, with the free edges concealed, is obtained. The material is then fed beneath a reciprocating needle 285 which stitches the two plies of the fold 280, adjacent the bend thereof, to the material T by a single row of stitches 286. In the form shown, the fold 282 is not stitched by the stitches 286. However, by making the edge portions 280 and 282 of appropriate widths, the top ply of the fold 282 disposed between the plies of the

fold 280 can also be secured by the stitches 286. In Figure 12, the folder 284 is part of a presser foot. However, since the details of construction of such folder and presser foot are well known and form no part of this invention, further description thereof is unnecessary.

The seam in the form shown in Figure 15 is flat and consists of interlocked folds, with the free edges of the materials extending in opposite directions, and two rows of stitches S and 286, the line of stitches 286 passing through both plies of the fold 280 and also through the material T, and the other row of stitches S passing through the material L and only the top ply of the fold 282. If desired, the stitches 286 can also pass through the ply of fold 282 located intermediate the plies of fold 280. In the product, the stitches S and 286 are visible on one side while on the opposite side only the stitches 286 are visible. The seam is strong and rugged and when utilized with knit goods the seam is also elastic and does not crack. Due to the construction of the seam and the manner in which it is produced, it is smooth and flat but not bulky. The invention is particularly useful in the seaming of material in which the edges have a tendency to ravel or are rough.

Since it is obvious that various changes and modifications may be made in the above description without departing from the nature or spirit thereof, this invention is not restricted thereto except as set forth in the appended claims.

I claim:

1. In a sewing machine having a vertically reciprocating needle, feed dogs and a presser foot, means to guide two materials disposed one above the other to said presser foot, a stationary knife adjacent the toe of said presser foot and positioned so that only the longitudinal edge portion of the upper material passes thereover, a reciprocating knife cooperating with said stationary knife, a second stationary knife adjacent the heel of said presser foot and positioned so that only the longitudinal edge portion of the lower material passes thereover, and a second reciprocating knife cooperating with said second stationary knife.
2. In a sewing machine having a vertically reciprocating needle, feed dogs and a presser foot, means to guide two materials disposed one above the other to said presser foot, means to feed the upper material at substantially the same speed as the lower material, a stationary knife adjacent the toe of said presser foot and positioned so that only the longitudinal edge portion of the upper material passes thereover, a reciprocating knife cooperating with said stationary knife, a second stationary knife adjacent the heel of said presser foot and positioned so that only the longitudinal edge portion of the lower material passes thereover, and a second reciprocating knife cooperating with said second stationary knife.
3. In a sewing machine having a vertically reciprocating needle, feed dogs and a presser foot, means to guide two materials disposed one above the other to said presser foot, a stationary knife adjacent the toe of said presser foot and positioned so that only the longitudinal edge portion of the upper material passes thereover, a reciprocable knife adapted to cooperate with said stationary knife, means to reciprocate said reciprocable knife, means to actuate said reciprocating means from the pulley end of the machine, a second stationary knife adjacent the heel of said presser foot and positioned so that only the longi-

tudinal edge portion of the lower material passes thereover, a second reciprocable knife adapted to cooperate with said second stationary knife, means to reciprocate said second reciprocable knife, and means driven from the pulley end of the machine to actuate the reciprocating means for said second reciprocable knife.

4. In a sewing machine having a vertically reciprocating needle, feed dogs and a presser foot, means to guide the edges of two materials disposed one above the other in their passage to said presser foot, a stationary knife adjacent the toe of said presser foot and positioned so that only the longitudinal edge portion of the upper material passes thereover, a reciprocable knife adapted to cooperate with said stationary knife, a second stationary knife adjacent the heel of said presser foot and positioned so that only the longitudinal edge portion of the lower material passes thereover, a second reciprocable knife adapted to cooperate with said second stationary knife, an arm, means mounting both of said reciprocating knives on said arm, a vertical rack on one end of said arm, a pinion cooperating with said rack, and means actuated from the pulley end of the machine to oscillate said pinion.
5. In a sewing machine having a vertically reciprocating needle, feed dogs and a presser foot, means to guide the edges of two materials disposed one above the other in their passage to said presser foot, the means for guiding the edge of the upper material including a plate over which said material passes, a pusher blade adapted to engage and advance the material on said plate, means to reciprocate said blade, a stationary knife adjacent the toe of said presser foot and positioned so that only the longitudinal edge portion of the upper material passes thereover, a reciprocable knife adapted to cooperate with said stationary knife, a secondary stationary knife adjacent the heel of said presser foot and positioned so that only the longitudinal edge portion of the lower material passes thereover, a second reciprocable knife adapted to cooperate with said second stationary knife, an arm, means mounting both of said reciprocating knives on said arm, a vertical rack on one end of said arm, a pinion cooperating with said rack, and means actuated from the pulley end of the machine to oscillate said pinion.
6. In a sewing machine having a vertically reciprocating needle, feed dogs and a presser foot, means to guide the edges of two materials disposed one above the other in their passage to said presser foot, the means for guiding the edge of the upper material including a plate over which said material passes, a pusher blade adapted to engage and advance the material on said plate, means to reciprocate said blade, means driven from the pulley end of the machine to actuate said blade-reciprocating means, a stationary knife adjacent the toe of said presser foot and positioned so that only the longitudinal edge portion of the upper material passes thereover, a reciprocable knife adapted to cooperate with said stationary knife, a second stationary knife adjacent the heel of said presser foot and positioned so that only the longitudinal edge portion of the lower material passes thereover, a second reciprocable knife adapted to cooperate with said second stationary knife, an arm, means mounting both of said reciprocating knives on said arm, a vertical rack on one end of said arm, a pinion cooperating with said rack, and means actuated

9

from the pulley end of the machine to oscillate said pinion.

7. An attachment for a sewing machine having a head, a vertically reciprocating needle, feed dogs, a presser foot and means to guide two materials disposed one above the other to said presser foot, said attachment comprising a bracket adapted to be secured on the back of said head and carrying a stationary knife adapted to be disposed adjacent the toe of said presser foot in position to permit only the longitudinal edge portion of the upper material to pass thereover, a reciprocable knife adapted to cooperate with said stationary knife, means to reciprocate said reciprocable knife, means adapted to be driven from the pulley end of the machine to actuate said reciprocating means, a second stationary knife adapted to be disposed adjacent the heel of said presser foot in position to permit only the longitudinal edge portion of the lower material to pass thereover, a second reciprocable knife adapted to cooperate with said second stationary knife, means to reciprocate said second reciprocable knife, and means adapted to be driven from the pulley end of the machine to actuate the reciprocating means for said second reciprocable knife.

8. An attachment for a sewing machine having a head, a vertically reciprocating needle, feed dogs, a presser foot and means to guide two materials disposed one above the other to said presser foot, said attachment comprising a bracket adapted to be secured onto the back of said head and carrying a stationary knife adapted to be disposed adjacent the toe of said presser foot in position to permit only the longitudinal edge portion of the upper material to pass thereover, a reciprocable knife adapted to cooperate with said stationary knife, a second stationary knife adapted to be positioned adjacent the heel of said presser foot in position to permit only the longitudinal edge portion of the lower material to pass thereover, a second reciprocable knife adapted to cooperate with said stationary knife, an arm, means mounting both of said reciprocating knives on said arm, a vertical rack on one end of said arm, a pinion cooperating with said rack, and means adapted to be actuated from the pulley end of the machine to oscillate said pinion.

9. An attachment for a sewing machine having a head, a vertically reciprocating needle, feed dogs, a presser foot and means to guide two materials disposed one above the other to said presser foot, said attachment comprising a bracket adapted to be secured on the back of said head and carrying means adapted to feed the upper material at substantially the same speed as the lower material, a stationary knife adapted to be disposed adjacent the toe of said presser foot in position to permit only the longitudinal edge portion of the upper material to pass thereover, a reciprocable knife adapted to cooperate with said stationary knife, means to reciprocate said reciprocable knife, means adapted to be driven from the pulley end of the machine to actuate said reciprocating means, a second stationary knife adapted to be disposed adjacent the heel of said presser foot in position to permit only the longitudinal edge portion of the lower material to pass thereover, a second reciprocable knife adapted to cooperate with said second stationary knife, means to reciprocate said second reciprocable knife, and means adapted to be driven from the pulley end of the machine to

actuate the reciprocating means for said second reciprocable knife.

10. An attachment for a sewing machine having a head, a vertically reciprocating needle, feed dogs, a presser foot, and means to guide two materials disposed one above the other to said presser foot, said attachment comprising a bracket adapted to be secured onto the back of said head and carrying means adapted to feed the upper material at substantially the same speed as the lower material, a stationary knife adapted to be disposed adjacent the toe of said presser foot in position to permit only the longitudinal edge portion of the upper material to pass thereover, a reciprocable knife adapted to cooperate with said stationary knife, a second stationary knife adapted to be positioned adjacent the heel of said presser foot in position to permit only the longitudinal edge portion of the lower material to pass thereover, a second reciprocable knife adapted to cooperate with said stationary knife, an arm, means mounting both of said reciprocating knives on said arm, a vertical rack on one end of said arm, a pinion cooperating with said rack, and means adapted to be actuated from the pulley end of the machine to oscillate said pinion.

11. An attachment for a sewing machine having a head, a vertically reciprocating needle, feed dogs, a presser foot and means to guide two materials disposed one above the other to said presser foot, said attachment comprising a bracket adapted to be secured on the back of said head and carrying a reciprocable pusher blade adapted to engage and advance the upper material, means adapted to be actuated from the pulley end of said machine to reciprocate said blade, a stationary knife adapted to be disposed adjacent the toe of said presser foot in position to permit only the longitudinal edge portion of the upper material to pass thereover, a reciprocable knife adapted to cooperate with said stationary knife, means to reciprocate said reciprocable knife, means adapted to be driven from the pulley end of the machine to actuate said reciprocating means, a second stationary knife adapted to be disposed adjacent the heel of said presser foot in position to permit only the longitudinal edge portion of the lower material to pass thereover, a second reciprocable knife adapted to cooperate with said second stationary knife, means to reciprocate said second reciprocable knife, and means adapted to be driven from the pulley end of the machine to actuate the reciprocating means for said second reciprocable knife.

12. An attachment for a sewing machine having a head, a vertically reciprocating needle, feed dogs, a presser foot, and means to guide two materials disposed one above the other to said presser foot, said attachment comprising a bracket adapted to be secured onto the back of said head and carrying a reciprocable pusher blade adapted to engage and advance the upper material, means adapted to be actuated from the pulley end of said machine to reciprocate said blade, a stationary knife adapted to be disposed adjacent the toe of said presser foot in position to permit only the longitudinal edge portion of the upper material to pass thereover, a reciprocable knife adapted to cooperate with said stationary knife, a second stationary knife adapted to be positioned adjacent the heel of said presser foot in position to permit only the longitudinal edge portion of the lower material to pass thereover, a second reciprocable knife adapted to cooperate with said stationary knife, an arm, means

11

mounting both of said reciprocating knives on said arm, a vertical rack on one end of said arm, a pinion cooperating with said rack, and means adapted to be actuated from the pulley end of the machine to oscillate said pinion.

13. An attachment for a sewing machine having a head, a vertically reciprocating needle, feed dogs, a presser foot and means to guide two materials disposed one above the other to said presser foot, said attachment comprising a bracket adapted to be secured on the back of said head and carrying a stationary knife adapted to be disposed adjacent the toe of said presser foot in position to permit only the longitudinal edge portion of the upper material to pass thereover, a reciprocable knife adapted to cooperate with said stationary knife, means to reciprocate said reciprocable knife, means adapted to be driven from the pulley end of the machine to actuate said reciprocating means, means to prevent the severed material from passing beneath said presser foot, a second stationary knife adapted to be disposed

12

adjacent the heel of said presser foot in position to permit only the longitudinal edge portion of the lower material to pass thereover, a second reciprocable knife adapted to cooperate with said second stationary knife, means to reciprocate said second reciprocable knife, and means adapted to be driven from the pulley end of the machine to actuate the reciprocating means for said second reciprocable knife.

CHARLES SEAMAN.

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