Dec 27, 1938. J. P. WEIS 2,142,079

DEVICE FOR SEWING MACHINES

Filed May 15, 1934 2 Sheets-Sheet 1

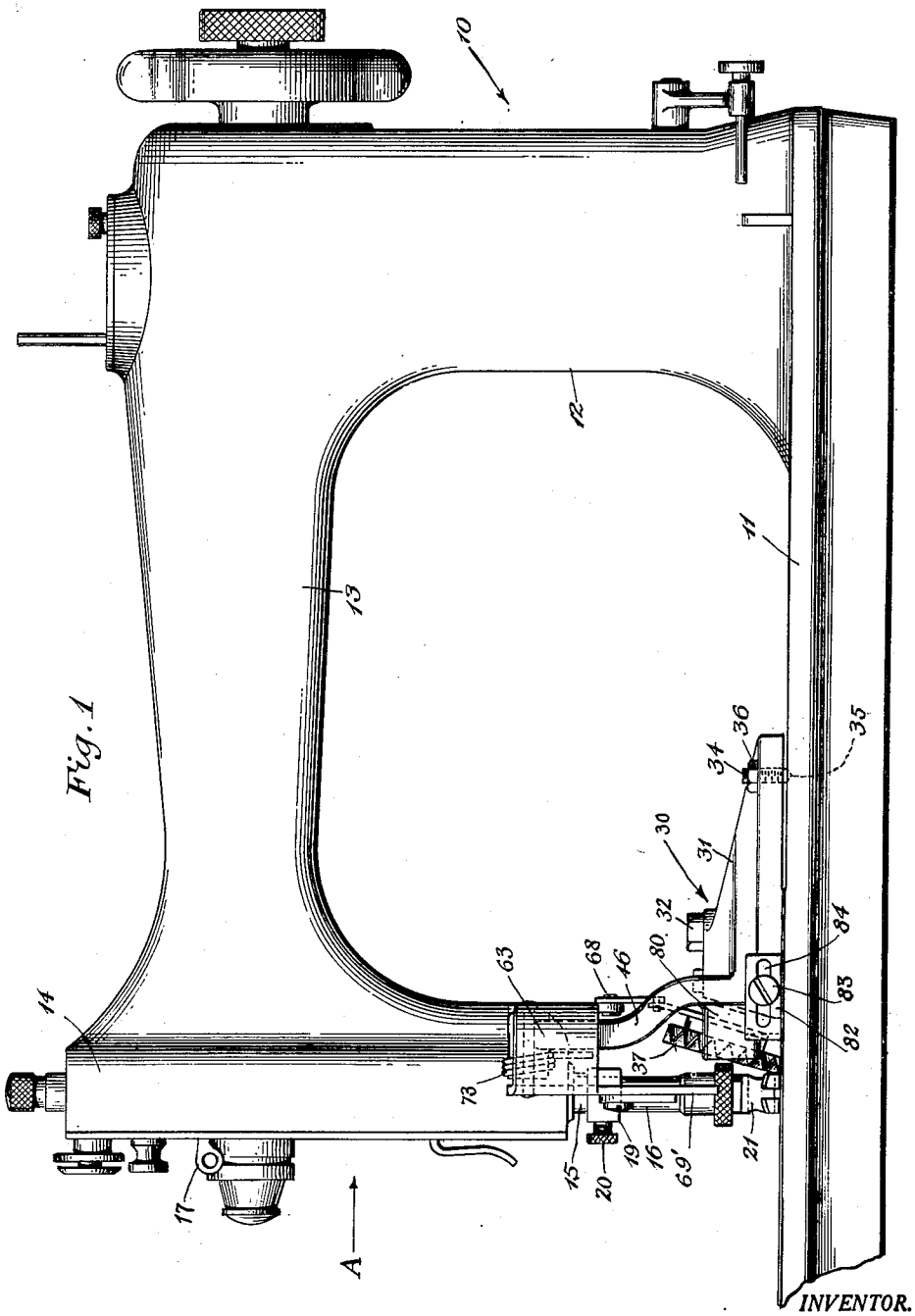


Fig. 1

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Fig. 4

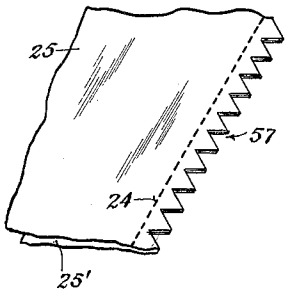


Fig. 3

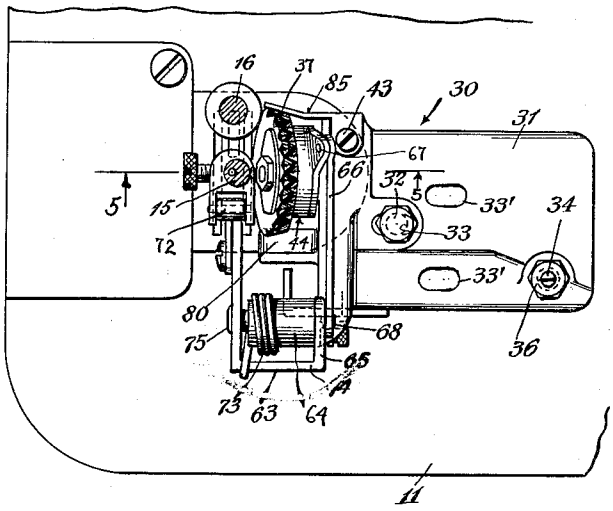


Fig. 7

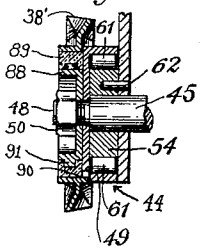
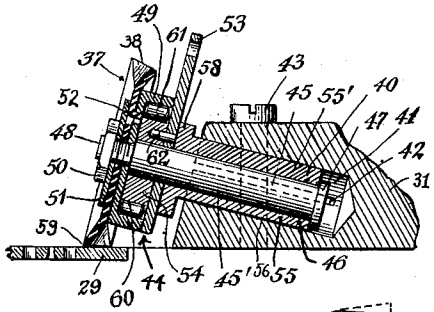


Fig. 2

Fig. 5



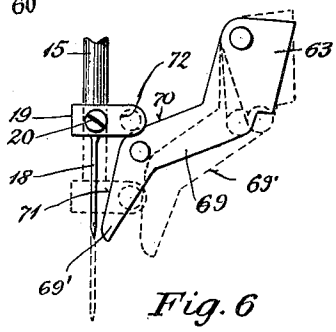


Fig. 6

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Patented Dec. 27, 1938

2,142,079

UNITED STATES PATENT OFFICE

2,142,079

DEVICE FOR SEWING MACHINES

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Application May 15, 1934, Serial No. 725,689

29 Claims. (Cl. 112—124)

This invention relates to sewing machines and particularly to combination trimming and feeding devices therefor, preferably in the form of an attachment, adapted to feed and simultaneously trim or design-cut the edge beyond the seam as the stitching proceeds.

Machines have previously been developed to simultaneously trim and sew a seam (for example those disclosed in my United States Patent Nos. 1,946,514; 1,946,556; and 1,946,557) but most of these developments were large and costly structures since they were intended primarily for heavy-duty commercial use. Further, most of these previous developments did not lend themselves readily for use with home or family sewing machines, and especially to those machines already in use in the field.

Prior to this invention it was common practice in home or family sewing to design-cut edges adjacent seams with a separate machine, subsequent to the seam forming, usually on a hand-crank actuated machine. The use of this machine and method, and other equivalent ones in general use caused a considerable loss of time and caused an uneven or out-of-line margin between the seam and the design-cut edge.

It is an object of the present invention to provide a trimming device that may be applied to any sewing machine, especially machines used in homes, so that a pinked or design-cut edge may be formed simultaneously with the ordinary stitching operations and in addition to those operations performed by folding and other well-known attachments that accompany such machines. In this objective it is contemplated to have the trimming device arranged to be attached and detached and operated in as simple a manner as the other attachments regularly furnished.

Another object is to provide an efficient, inexpensive pinking attachment that can be quickly attached or detached to any of the sewing machines without change in construction or adjustment.

A further object is to have the attachment located on a line with the needle to the right thereof, enabling it to stitch around curves, angles or corners so that the pinked trimmed edge will always be at a uniform distance from the line of stitches.

A still further object of the present invention is to provide a simple pinking attachment with means for guiding the untrimmed edge of the work prior to the trimming, so arranged as to permit the surplus or irregular portions of the seams to be cut away from the garment so that all seams, stitched and pinked, will present a uniform, sightly appearance and improve the product made on the machine.

Another object is to provide means whereby the speed at which the pinking cutter operates may be varied so that its cutting action and extent of movement will synchronize with the regular feed acting upon and feeding the work, and so that a differential effect may be obtained.

Yet another object is to provide a trimming device for home machines adapted to design-cut an edge with variable marginal spacing between the line of stitching and cut edge.

Further, home sewing machines are designed primarily to feed thin plain fabrics and difficulty is often experienced in feeding rough, thick or multi-ply fabrics.

It is an object of the present invention to provide an auxiliary feed to move the work either during and with the trimming operation or without trimming according to requirements.

Features of the present invention include a novel mechanism for moving the cutter transversely relative to the line of stitching in order to obtain various size margins; a simple guide for accurately directing the work to the trimming cutter; guards to protect the operator's fingers from the needle and the trimming cutter while directing materials thereto; a novel stripper for clearing trimmed materials from the cutter; a simple positive drive for the cutter; a novel mechanism for controlling and for varying the peripheral feed of the circular cutter relative to regular feed; a trimmer operable coordinately with the regular feeding and stitching apparatus driven by the reciprocating needle bar; and a simple mechanism forming an auxiliary feed operable with or without the trimming operation.

Other features and advantages will appear hereinafter.

In the drawings:

Figure 1 is a front view of a sewing machine for use in homes, with the present invention applied thereto (the conventional electric motor drive is not shown).

Fig. 2 is an end view of the sewing machine and of the apparatus of the present invention, viewed in the direction of the arrow A in Fig. 1.

Fig. 3 is a top view of the trimming and feeding device of the present invention and includes a fragmentary sectional showing of the work table and stitching mechanism.

Fig. 4 is an illustration showing pieces of work stitched together having the pinked edge.

Fig. 5 is a sectional detail view of the trimming and feeding device, taken on line 5—5 in Fig. 3.

Fig. 6 shows details of the operating lever and the needle bar for giving movement to same.

Fig. 7 is a sectional view of a modified form of combined trimming and feeding wheel.

In the detailed description which follows, the present invention is for illustration shown applied to a conventional form of home sewing machine, but it will be understood that it is capable of application to other home machines, to machines used by dressmakers, and to existing or standard sewing machines in industrial establishments for trimming and for auxiliary feeding in a nonheavy duty manner.

The sewing machine shown herein comprises a frame 10 with a work support 11. Above the work support the frame is provided with an integral vertical trunk 12 and overhanging arm 13 with a head 14 in which a needle bar 15, presser bar 16, thread take up 17 and related conventional operating mechanism are contained. A needle 18 is carried by the needle bar and is held in place by a needle clamp 19 and set screw 20. The presser bar also operating in the head in the usual way carries a presser foot 21.

Below the work support the machine is provided with a loop-taker hook 22 carrying the usual bobbin 23 and operable in the usual way with the needle 18 to make a well-known two-thread lock stitch, for example, seam 24 on plies 25 and 25' of material. Also, the machine is provided with a main feed 26 including an operating mechanism 27 of usual four-motion type and a feed dog 28 which operates through a throat plate 29, a part of the work support, and coacts with the presser foot 21 to feed the material.

Because stitching, pressing, and feeding mechanisms are well known and because the present invention is equally applicable with divers types of such mechanisms, detailed description has been omitted for the purpose of simplicity.

The trimming and feeding device 30 of the present invention in its present preferred form, is in the form of an attachment comprising a base 31 secured to the work support 11 by a bolt 32 through a hole 33, or through similar holes 33', to align with pre-tapped holes in the work support of other standard sewing machines. A locating, leveling and positioning screw 34 bights into the support 11 at 35 to securely position the device and when properly positioned, is securely locked in place by a nut 36. This base 31 forms the main support for a rotatory trimming cutter 37 with any desired design-cutting edge 38, and operating mechanism 39 therefor. Preferably the holes 33 and 33' are elongated to allow a major shifting and adjustment of the complete device relative to the needle and line of stitching.

Finer adjustment and support of the trimming cutter 37 transversely relative to the needle 18 and to the line of stitching 24 and vertically relative to the work support 11 and materials 25 operated upon, is accomplished with a particularly novel mechanism provided by the present invention. In its present preferred form this mechanism comprises a novel eccentric bushing 40 having a rotatory and a sliding fit in an angularly disposed bore 41 of the base, which is held in adjusted position therein as by a saw slot 42 and clamp screw 43.

The cutter 37 and an operating clutch 44 therefor, are held in association with the eccentric bushing 40 and thereby in the base 31 by a shaft 45 in an eccentric bore 46 by having a head 47 engaging the inner end of the bushing 40 and having at its other end a reduced threaded portion 48 adapted to receive and lock thereon the cutter 37 and cupped clutch member 49 when a nut 50 and washer 51 are tightened. A pin 52 between the cutter and cupped member prevents relative rotation between these parts.

The shaft 45 also supports a crank arm 53 and driver clutch member 54 for rotation on a main shank 45'. Thickness of the parts on the outer end of the shaft are proportioned to prevent endwise movement of the shaft 45 and associated parts in the eccentric bushing 40 after the nut 50 is tightened.

Adjustment of the trimming cutter 37 transversely relative to the line of stitching, is accomplished by merely loosening the screw 43 so that the eccentric bushing 40 may be turned and moved endwise in the bore 41. In order to have the cutter spaced close to the needle 18 and to the line of stitching 24, a thin wall 55 of the eccentric bushing 40 is moved toward the bottom wall 56 of the bore 41 as shown in Fig. 5, whereupon the bushing and associated cutter 37 must be moved outwardly relative to the bore 41 and base 11 to a position closely adjacent the needle 18 in order to bring the cutter into proper pressure and operating relationship with the work support 11 and the materials thereon. The term "work support" herein is intended to mean either the large bottom or cloth plate integral with the frame 10, throat plate 29, or any other plate on the main frame 10 or on the base 31 supporting the work and underlying the trimmer cutter 37. Similarly, by moving a thick wall 55' of the eccentric bushing 40 near the bottom wall 56 of the bore, the cutter is moved clear of the work support and consequently may be moved deeper into the bore to move the cutter laterally away from the needle and to increase the margin of pinking relative to the line of stitching to any desired degree, whereupon the eccentric bushing is again turned to bring the cutter into proper relation with the materials and the work support; then the holding screw 43 is tightened.

Thus, it is possible to obtain any desired margin between the line of stitching 24 and the trimmed edge 57 through a considerable range with the present mechanism. Also, this same angular and eccentric arrangement provided by the present invention makes it possible to easily and quickly change the spacing of the trimming cutter 37 above the work support 11 for various thicknesses and qualities of material without changing the spacing relative to the needle 18, by merely grasping the flange 58 and rotating the eccentric bushing 40 in the bore 41 without moving it angularly or axially therein.

By providing the flange 58 with holes to receive a rod, or providing it with flats to receive a wrench, it is possible to turn the eccentric bushing 40 while it is snug in the bore 41, and while the machine is operating.

The cutting takes place at 59 (see Fig. 5) where the zig-zag cutting surface 38 of the cutter 37 acts with considerable pressure on the materials carried by the work support 11. With most materials a severance occurs even though the cutting edge is spaced slightly from the work support.

The driver clutch member 54 is provided with a plurality of flats 60, each adapted to support a roller 61 backed by a spring in the usual manner, and arranged, in the well known manner

for clutches of this sort, to move the rollers ineffectively relative to the cupped member 49 as the crank arm 53, through a pin 62, moves the driver member 54 in a counter-clockwise direction as viewed in Fig. 2, and cause the rollers 61 to bight the cupped member 49 and move the interconnected cutter 37 in the direction of the arrow B when the crank arm 53 and associated driven member 54 are moved in a clockwise direction.

Feed of material relative to the trimming cutter 37 is accomplished by the cutter itself and consequently it is desirable to have a positive feed thereof in time and space relationship with the feed dog 28 and other operating parts of the machine. In order to facilitate assembly and use of the present type device with home machines, the present invention provides a simple driving connection 39 associated with the reciprocatory needle bar 15 rather than with the less accessible operating parts below the work table. This arrangement also facilitates the finer final operating adjustments.

Rotation of the trimming cutter 37, in synchronism and desired peripheral extent with the regular feed mechanism 26 and feed dog 28 is accomplished through the provision of a lever 63 pivotally mounted on a stud on the upper end of an arm extension 64 of the base and having an integral short arm 65 near the back of the extension as viewed in Fig. 2, which through a link 66 and through pivots 67 and 68 is connected to the crank arm 53, and at the front thereof having an integral long arm 69 with inclined edges 70 and 71 adapted to co-operate with the needle bar 15 preferably through a roller 72 supported on the needle clamp 19. The relationship of the lever 63 and needle bar 15 is best seen in Figs. 2 and 6. A spring 73 supported by the extension 64 and at one end engaging a boss 64' on the extension, and at its other end engaging a yoke section 74 of the lever 63, normally tends to move the lever in a clockwise direction around a pivot 75 as viewed in Fig. 2, maintaining it in the raised position shown therein and shown in solid lines in Fig. 6 and yieldingly permitting the lever to be moved into the dotted position 69' shown in Fig. 6 as the roller 72 moves over the inclined edges 70 and 71.

As the lever 63 is moved in a counter-clockwise direction, from the solid line to the dotted line position shown in Fig. 6, the short arm 65 pulls the link 66 in a right-hand direction and moves the interconnected crank arm 53 and member 54 in a clockwise direction causing the enclosed rollers 61 to bight the cupped member 49 and thereby rotate the interconnected trimming cutter 37 in the direction of the arrow B. Upon return of the needle bar 15 and roller 72 into the upper position again, the spring 73 moves the lever 63 in a clockwise direction again and thereby moves the interconnected crank arm 53 in a counterclockwise direction whereupon the clutch rollers 61 move ineffectively relative to the driven clutch member 49.

Adjustment of peripheral feed of the cutter 37 relative to feed of the dog 28 is accomplished through the provision of a plate 76 pivoted on a stud 77 and clamped with a holding screw 78 passing through an elongated slot 79. A maximum feed is obtained when the plate is in the low position shown in Fig. 2; however, when it is moved upwardly relative to the arm 69 it changes the angle of the inclined edge 70 by forming an adjustable inclined edge 70' and moves the other inclined edge 71 forwardly or farther away from the needle bar 15 so that the amount of pivotal movement of the lever by the needle bar is reduced and a proportionate reduction of the amount of crank arm, clutch, and cutter movement is obtained.

When it is desired to have the feed ineffective without disconnecting any of the main parts, it is merely necessary to move and lock the plate 76 in the upper position with the screw 78, whereupon the edge 70' is on a plane with the edge 71 and no oscillation of the lever 63 occurs.

Convex and concave effects may also be accomplished on the materials operated upon through use of the device of the present invention by adjusting the peripheral speed of the trimming cutter 37 so that it is greater or less respectively than the feed of the dog 28. These desirable effects are made possible through the structure of the present invention including the trimming cutter 37 immediately adjacent the needle 18 transversely relative to the line of stitching; viz, these effects could not be accomplished satisfactorily if the driving mechanism of the trimming cutter necessitated placing the trimming cutter ahead of, or behind the needle relative to the line of stitching.

Operation of the device, as will be apparent from the foregoing, consists of simply feeding the materials, for example the plies 25 and 25' of cloth to the main feeding mechanism 26 in proper relation to the needle 18 and trimming cutter 37 whereupon the main feeding mechanism advances the work relative to the needle in order to form the line of stitching 24, and at the same time the needle bar in its reciprocation rotates the trimming cutter in proper or desired peripheral ratio with the main feed mechanism in order to form the design-cut edge 57 conforming with the particular shape of the cutting edge 38 of the trimming cutter and the toothlike design of the cutter teeth at the same time serves to advance the materials at the line of pinking.

It is within the purview of this invention to adjust the trimming cutter 37 vertically relative to the work support 11 in such manner that it will merely press against and, as it rotates, pull the material through the machine without cutting it, thus forming a supplementary feeding device which is particularly advantageous when sewing extra thick materials in which the load is heavy on the main feeding mechanism 26 or where the materials are such that the feed dog teeth tend to catch and impede regular feeding.

In order to safeguard the fingers of the operator from injury by the cutter, a guard 80 is provided which may be an integral part of the base 31 or may be secured thereto. A downwardly extending finger 69' also forms a guard and is arranged to move forwardly of the machine to push an operator's hand away from the needle 18 as the needle bar is moved downwardly.

A suitable adjustable guide 81 including a right angle plate 82, is attached to a front wall of the base by a screw 83 passing through an elongated slot 84. To prevent trimmed fabrics from following around the cutter 37, the present invention provides a stripper blade 85, of flat spring stock, held in place against the back-up running surface of the cutter 37, and on the base by the screw 43. This stripper also prevents the trimmings or threads from travelling around or winding upon the cutter.

In Fig. 7 there is shown a modified form of combination circular cutter and feeder 37' including a hub 88, outer member 38' and resilient

support 89. The resilient support allows the outer member to yield and ride over seams to facilitate feeding and cutting. Lug and slot connections 90 and 91 insure the clutch 44 rotating the shaft 45.

Although the present invention is shown as an attachment applied to a regular sewing machine, and one of the main advantages of the invention is that it may be easily applied to standard sewing machines and machines previously sold and used, it should be understood that it may in its essential details be made integral with the sewing machine.

Also, the present invention may be used independently of a sewing machine, or on the sewing machine independently of the stitching. In the former connection the work support would preferably be made integral with the base 31 and the crank arm 53 would be provided with a hand knob on the pivot 67, and in the latter connection the needle 18 or the thread thereto, or the looper 22 and cooperating thread may be removed. Thus, the present invention may be used to design-cut one or more plies of material previous to the stitching so that these design-cut materials may be in parallel marginally spaced relation to each other at the time of stitching, and may be used to trim subsequently or previously to the time of stitching in order to obtain narrow and wide spaced margins relative to the seam and other desirable effects.

From the foregoing, it will be understood that the present invention provides a very simple, inexpensive pinking attachment that may be applied to many of the machines now in use, and that it will efficiently cut or trim with a zig-zag or other form or pattern, all kinds of fabrics, that pinking cutters of different designs may be interchangeably used not only for pink-trimming the edges of the goods, but will also be useful in feeding the goods without trimming. It should also be understood that feed wheels with roughened or smooth surfaces can be substituted for the cutter when it is desired to feed bindings, strips or cords, or any other materials, to the stitching mechanism.

Other variations and modifications may be made within the scope of the present invention and portions of the improvements may be used without others.

I claim:

1. A trimming device, for sewing machines having a stitching mechanism including a needle bar, comprising a base with a bore; a work support; a rotatable circular cutter; and an eccentric bushing turnable and endwise movable in the bore, adapted to locate and support the circular cutter relative to the work support and laterally relative to the needle bar and to the line of stitching.

2. A trimming device, for sewing machines having a stitching mechanism including a needle bar, comprising a base with a bore; a work support; a rotatable circular cutter; an eccentric bushing turnable and endwise movable in the bore, adapted to locate and support the circular cutter relative to the work support and laterally relative to the needle bar and to the line of stitching; and operating mechanism associated with the needle bar adapted to rotate the circular cutter.

3. A trimming device, for sewing machines having a needle bar, comprising a base; a circular cutter on the base; a clutch associated with the cutter; a crank arm associated with the clutch; a link on said crank arm; and a lever pivotally mounted on the base having a connection with the link and engagement with the needle bar, adapted to translate reciprocatory movement of the needle bar into rotatory movement of the circular cutter.

4. A trimming device, for sewing machines having a needle bar, comprising a base; a circular cutter; an intermittent feeding mechanism associated with the circular cutter; a link attached to said feeding mechanism; and a lever pivotally mounted on the base having a connection with the link and engagement with the needle bar, adapted to translate reciprocatory movement of the needle bar into rotatory movement of the circular cutter.

5. A trimming device, for sewing machines having a stitching mechanism including a needle, comprising a base; a work support; a rotatable circular cutter; an eccentric and angularly disposed bushing in the base adapted to locate and support the cutter relative to the work support and laterally relative to the line of stitching; and operating mechanism associated with the stitching mechanism adapted to rotate the cutter in the angular and eccentric support with the plane of the axis of the cutter intersecting the needle at substantially a right angle to the line of stitching.

6. A trimming and feeding device, for sewing machines having a stitching mechanism including a needle, comprising a base; a work support; a rotatable circular cutter; eccentric means adapted to locate and support the cutter above the work support and laterally relative to the line of stitching; and operating mechanism associated with the stitching mechanism adapted to rotate the cutter in said eccentric means with the plane of the axis of the cutter intersecting the needle at substantially a right angle to the line of stitching.

7. A trimming and feeding device, for sewing machines having a stitching mechanism including a needle and a needle bar, comprising a base; a work support; a rotatable circular cutter; eccentric means adapted to locate and support the cutter relative to the work support and laterally relative to the line of stitching; and operating mechanism associated with the needle bar adapted to rotate the cutter in said means with the plane of the axis of the cutter intersecting the needle at substantially a right angle to the line of stitching.

8. In a trimming device, for sewing machines including a reciprocating needle bar and needle, the combination of a base; a circular cutter; means including a lever connecting said reciprocating needle bar and circular cutter, to impart step by step rotation to the latter; and a guard on the lever adapted to move an operator's fingers out of the path of the reciprocating needle bar and needle.

9. A trimming device for sewing machines having a stitching mechanism including a needle bar and needle, the combination of a base; a circular cutter; means connecting said stitching mechanism and circular cutter, adapted to impart rotatory movement to the cutter; and a movable guard associated with said means adapted to move an operator's fingers out of the path of the needle bar and needle.

10. A trimming device, for sewing machines having a reciprocating needle bar, comprising a base; a rotatable circular cutter on the base; operating mechanism for imparting rotatory movement to the circular cutter; a lever in said

operating mechanism having an inclined face engaging the needle bar and adapted to be arcuately moved by the needle bar during its reciprocation.

11. A trimming device, for a sewing machine having a reciprocating needle bar, comprising a base; a rotatable circular cutter on the base; operating mechanism for imparting rotatory movement to the circular cutter; a lever in said operating mechanism having an inclined face engaging the needle bar and adapted to be arcuately moved by the needle bar during its reciprocation; and means adapted to change the relationship of the inclined face relative to the needle bar for controlling the extent of rotatory movement of the cutter.

12. A trimming device, for a sewing machine having a needle bar, comprising a base; a rotatable circular cutter on the base; operating mechanism for imparting rotatory movement to the circular cutter; a lever in said mechanism having an inclined face engaging the needle bar and adapted to be arcuately moved by the needle bar during its reciprocation; and means adapted to space the last named lever relative to the needle and thereby to vary the rotatory movement of the circular cutter.

13. A trimming device, for a sewing machine having a needle bar, comprising a base; a rotatable circular cutter on the base; operating mechanism for imparting rotatory movement to the circular cutter; a lever in said mechanism having an inclined surface engaging the needle bar and adapted to be arcuately moved by the needle bar during its reciprocation; a fixed inclined face on the lever; and an adjustable plate on the lever forming a secondary face on the lever adapted, with the fixed inclined face, to impart a variable extent of movement to the cutter through the main operating mechanism.

14. A trimming device, for sewing machines having a needle bar, comprising a base; a circular cutter; operating means for the circular cutter including an arcuately movable lever with an inclined face; and a roller on the needle bar engaging the inclined face and adapted to impart arcuate movement to the lever as the needle bar reciprocates.

15. A trimming device, for sewing machines having a needle bar, comprising a base; a circular cutter; operating means for the circular cutter; and an inclined face in said operating means engaging the needle bar and adapted to allow substantially greater relative needle bar travel and to translate reciprocatory movement of the needle bar into rotatory movement of the circular cutter.

16. A trimming and feeding device, for sewing machines having a stitching mechanism including a needle bar, comprising a base with an angularly disposed bore; a work support; a rotatable circular cutter; and an eccentric bushing, turnable and endwise movable in the angularly disposed bore, adapted to locate and support the circular cutter above the work support and laterally relative to the needle bar and to the line of stitching.

17. A trimming device for sewing machines, having a needle bar, comprising a base; a circular cutter on the base; a clutch associated with the cutter; a crank arm associated with the clutch; a link on said crank arm; and a U-shaped lever pivotally mounted on the base having a connection with the link and engagement with the needle bar, adapted to translate reciprocatory movement of the needle bar into rotary movement of the circulate cutter.

18. A trimming device, for sewing machines, having a needle bar, comprising a base; an extension on the base; a circular cutter; an intermittent driving mechanism associated with the cutter; a shaft supporting the cutter for rotation in the base; a clutch on the shaft; a crank arm associated with the clutch; a link on the crank arm; and a U-shaped lever pivotally mounted on the extension and having a short arm pivotally connected to the link and having a long arm with an inclined face engaging the needle bar, adaptd to be oscillated by the needle bar and through the associated link and clutch to impart peripheral movement to the circular cutter.

19. In a trimming device for sewing machines, including a reciprocating needle bar and needle, the combination of a base; a circular cutter; means connecting said reciprocating needle bar and circular cutter to impart step by step rotation to the latter; and a reciprocating guard in said means adapted to move an operator's fingers out of the path of the reciprocating bar and needle.

20. A trimming device, for sewing machines having a movable needle carrier, comprising a base; a rotatable circular cutter on the base; operating mechanism for imparting step by step rotatory movement to the circular cutter; means in said operating mechanism having a substantially angular face engaging the needle carrier and adapted to be moved thereby during movement of the needle carrier.

21. A trimming device, for sewing machines, having a movable needle carrier, comprising a base; a rotatable circular cutter on the base; operating mechanism, actuated by the movable needle carrier, adapted to impart step by step rotation to said circular cutter; and means including an adjustable and substantially angular face engaging the needle carrier for altering the relation between said operating mechanism and said needle carrier to vary the extent of step-by-step rotation imparted to the circular cutter.

22. A sewing machine having in combination a work-support, an overhanging bracket-arm rising from said work-support, a needle-bar actuating shaft journaled in said overhanging arm, a needle carrying bar actuated thereby, a loop-taker located below the work-support, a frame fixed to said work-support, an eccentric bushing carried by said frame, a shaft carrying a cutting wheel mounted in said bushing, means for imparting an intermittent one-way motion to said cutting wheel, said last-named means including adjustable means for varying the movement imparted to said cutting wheel.

23. A sewing machine having in combination a work-support, a sewing mechanism, a frame on said work-support, an eccentric bushing carried by said frame, a shaft carrying a cutting wheel mounted in said bushing, means for imparting an intermittent one-way motion to said cutting wheel concurrently with the operation of the sewing mechanism, and means for locking the eccentric bushing in divers positions.

24. A sewing machine having in combination a work-support, a sewing mechanism, a frame on said work-support, an eccentric bushing carried by said frame, a shaft carrying a cutting wheel mounted in said bushing, means for imparting an intermittent one-way motion to said cutting wheel concurrently with the operation of the sewing mechanism and including adjustable means for varying the movement imparted to the cut-

ting wheel, and means for locking the eccentric bushing in divers positions.

25. A trimming and feeding device, for sewing machines having a stitching mechanism including a needle, comprising a base; a work support; a rotatable cutter; eccentric means adaped to locate and support the cutter relative to the work support; and operating mechanism adapted to rotate the cutter in said eccentric means in timed relation to the operation of the stitching mechanism.

26. A trimming and feeding device, for sewing machines having a stitching mechanism including a needle, comprising a base; a work support; a circular cutter; eccentric means adapted to locate and support the cutter above the work support and laterally relative to the line of stitching; and operating mechanism adapted to rotate the cutter in said eccentric means in timed relation to the operation of the stitching mechanism.

27. In a trimming device, for sewing machines including a needle, the combination of a base; a circular cutter; means including a lever for operating the circular cutter; and a guard on said lever adapted to move an operator's fingers out of the path of the needle.

28. A trimming device, for sewing machines having a stitching mechanism including a needle, the combination of a base; a circular cutter; means for operating said circular cutter; and a movable guard associated with said means adapted to move an operator's fingers out of the path of the needle.

29. A trimming device, for sewing machines having a movable needle carrier, comprising a base; a rotatable circular cutter on the base; operating mechanism associated with said movable needle carrier for imparting rotatory movement to the circular cutter; and means in said operating mechanism including a substantially angular face engaging the needle carrier for changing the extent of rotatory movement of the cutter.

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