

W. C. MEYER.
SHOE SEWING MACHINE.
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1,048,719.

Patented Dec. 31, 1912.

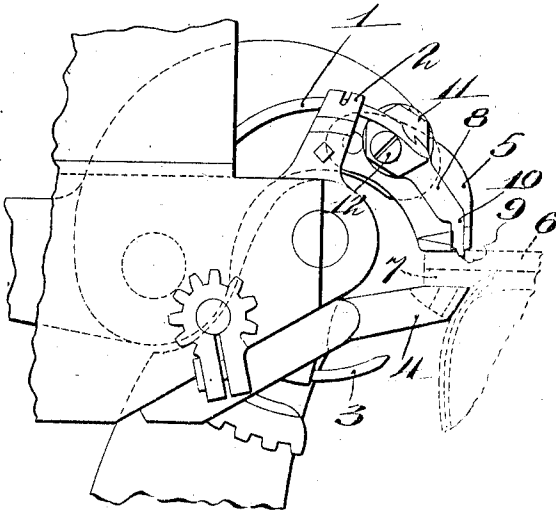


Fig. 1.

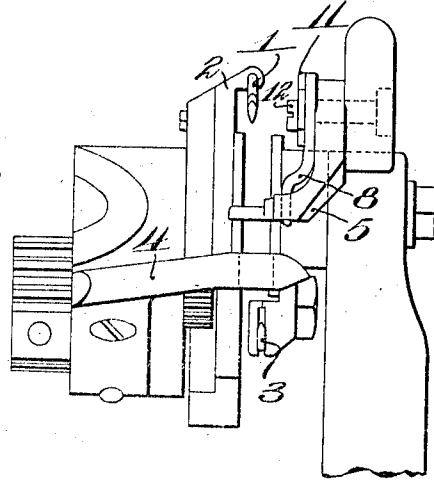


Fig. 2.

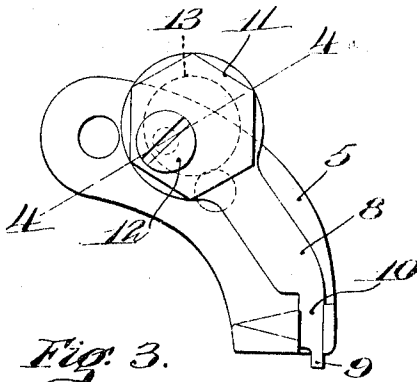


Fig. 3.

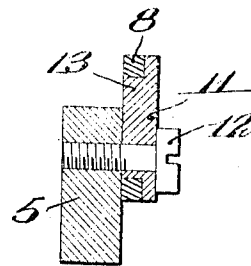


Fig. 4.

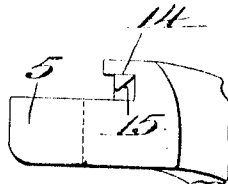


Fig. 5.

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UNITED STATES PATENT OFFICE.

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SHOE-SEWING MACHINE.

Specification of Letters Patent.

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1,048,719.

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To all whom it may concern:

Be it known that I, WILLIAM C. MEYER, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Shoe-Sewing Machines, of which the following description, in connection with the accompanying drawings, is a specification, like reference characters on the drawings indicating like parts in the several figures.

The present invention relates to an improved channeling device for outsole shoe sewing machines by which a slot or groove of the desired shape and depth may be cut in the tread surface of the sole in advance of the needle to receive the stitches.

The invention is designed primarily to form a slot or channel in the sole but it is to be understood that certain features of the invention may be embodied in a device or devices which remove a strip of leather from the sole to form a groove, and where in the claims the term channel is used, it is to be understood that this term, unless otherwise qualified, designates any form of groove, incision or channel which may be cut in the sole to receive the stitches.

The objects of the present invention are to provide, in an outsole shoe sewing machine, a channeling device which is simple and compact in construction, which is efficient in operation, which is durable and free from liability to get out of order and which can be adjusted vertically to cut a channel of the desired depth, to provide an outsole shoe sewing machine with a channeling device which can be adjusted vertically and which is securely held from lateral displacement, and to provide a sole sewing machine with a channeling device which will not interfere with the proper manipulation of the shoe by the operator but which will tend to move the work into the machine into the proper position to receive the stitches.

With the above objects in view a feature of the present invention contemplates the provision in an outsole shoe sewing machine provided with a presser foot engaging the tread surface of the sole, of a channeling knife secured to the presser foot so as to be capable of vertical adjustment and in a position to cut a channel in the tread surface of the sole in advance of the needle to receive the stitches.

To hold the channeling knife securely against lateral displacement a feature of the invention contemplates mounting the channeling knife in a vertical guideway which guides the knife during its adjustment and which holds it firmly against lateral displacement. To adjust the knife vertically, an adjustable eccentric is preferably secured to the presser foot and connected to the knife. This construction affords a simple and efficient means by which the knife can be easily and quickly adjusted with accuracy to cut a channel of the desired depth and constitutes a feature of the invention which is considered of value although it is to be understood that broadly considered any suitable means may be provided for permitting or causing a vertical adjustment of the knife on the presser foot.

To cause the channeling knife to force the work inwardly into the correct position to receive the stitches, a feature of the invention consists in the provision of a channeling knife the outer lateral surface of which extends in the direction of feed and the inner lateral surface of which extends at an angle to the direction of feed.

The several features of the present invention will be clearly understood from an inspection of the accompanying drawing in which—

Figure 1 is a view in side elevation of a portion of a well known form of outsole shoe sewing machine with the preferred form of the present invention applied thereto. Fig. 2 is a view in front elevation of the parts illustrated in Fig. 1. Fig. 3 is a view in side elevation on an enlarged scale of the presser foot and channeling knife. Fig. 4 is a detail sectional view taken on the line 4—4, Fig. 3, and Fig. 5 is a bottom plan view of the presser foot and channeling knife.

As illustrated in the drawing, the invention is shown as applied to the outsole shoe sewing machine disclosed in the patent to French & Meyer, No. 473,870, 1 indicating the curved hook needle, 2 the needle guide, 3 the awl, 4 the work support and 5 the presser foot. In Fig. 1 a portion of a shoe is indicated in dotted lines with the outsole and welt between the presser foot and work support, the outsole of the shoe being indicated at 6 and the welt at 7. As indicated in the drawing the work support engages the welt of the shoe while the

presser foot is arranged to bear against the tread surface of the sole.

In the illustrated embodiment of the invention the channeling knife, indicated at 5 8, consists of a flat plate or bar secured at its upper end to the presser foot and provided at its lower end with a cutting blade 9 projecting below the lower surface of the foot. Above the blade 9 the channeling 10 knife is provided with a straight sided portion 10 which is fitted to slide in a vertical guideway formed in the presser foot, which guideway holds the knife rigidly against outward lateral displacement. The upper 15 portion of the channeling knife fits snugly against the side of the upper portion of the presser foot, as is clearly shown in Figs. 2 and 3 and is secured to the presser foot by a clamping disk 11 and screw 12. To enable the knife to be readily adjusted accurately so as to cut a channel of the desired 20 depth, the disk 11 is provided with a cylindrical portion 13 arranged eccentric to the axis of the screw 12 and this eccentric portion is fitted into a corresponding hole in the upper end of the channeling knife. The 25 portion of the disk 11 overlapping the channeling knife is made hexagonal in form so that the disk may be readily turned about the axis of the screw 12 when the screw is loosened. Tightening of the screw 12 30 clamps the channeling knife between the overlapping portion of the disk 11 and the presser foot and securely holds the knife in adjusted position.

The knife blade 9 is located in advance of the needle in position to cut a channel in the tread surface of the sole to receive 40 the line of stitches as will be apparent from an inspection of Figs. 1 and 2. To obviate the tendency of the knife to force the shoe outwardly so as to bring the line of stitches too close to the edge of the shoe sole and to assist the operator in keeping the shoe 45 in the proper position with relation to the needle and other stitch forming devices, the outer lateral surface of the knife blade is arranged to extend in the direction of the feed as indicated at 50 14, Fig. 5, and the inner lateral surface of the knife blade is arranged to extend at an angle to the direction of feed as indicated at 15. With the lateral surfaces of the knife blade arranged in this manner the surface 55 15 tends to force the shoe inwardly and keep the sole edge in the required position to receive the stitches.

The nature and scope of the present invention having been indicated and the preferred embodiment of the invention having been specifically described, what is claimed is:—

1. An outsole shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a work support arranged to engage the welt of a shoe, a presser foot arranged to engage the tread surface of the sole on both sides of the line of the seam, and provided with a guideway and a channeling knife mounted on the 70 presser foot so as to be capable of vertical adjustment in said guideway and arranged to cut a channel in the tread surface of the sole in advance of the needle to receive the stitches.

2. An outsole shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a work support arranged to engage the welt of a shoe, a presser foot arranged to engage the tread 80 surface of the sole on both sides of the line of the seam, a channeling knife mounted to slide vertically in a guideway in the presser foot and held against lateral displacement by said guide, and means for securing the channeling knife to the presser foot, said knife being located in advance of the needle in position to cut a channel in the tread surface of the sole to receive the stitches.

3. An outsole shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a work support arranged to engage the welt of a shoe, a presser foot arranged to engage the tread surface of the sole on both sides of the line 95 of the seam, a channeling knife mounted on the presser foot in advance of the needle in position to cut a channel in the tread surface of the sole to receive the line of stitches, and an eccentric adjustably secured to the presser foot and engaging the channeling knife for adjusting the channeling knife vertically.

4. An outsole shoe sewing machine, having, in combination, stitch forming devices 105 including a needle, a work support arranged to engage the welt of a shoe, a presser foot engaging the tread surface of the sole, and a channeling knife mounted on the presser foot in advance of the needle in position to cut a channel in the tread surface of the sole to receive the stitches, said knife having its outer lateral surface extending in the line of feed and its inner lateral surface extending at an angle to the direction of feed 115 whereby the knife tends to force the sole inwardly over the work support.

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

WILLIAM C. MEYER.

Witnesses:

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JAMES R. HODDER.