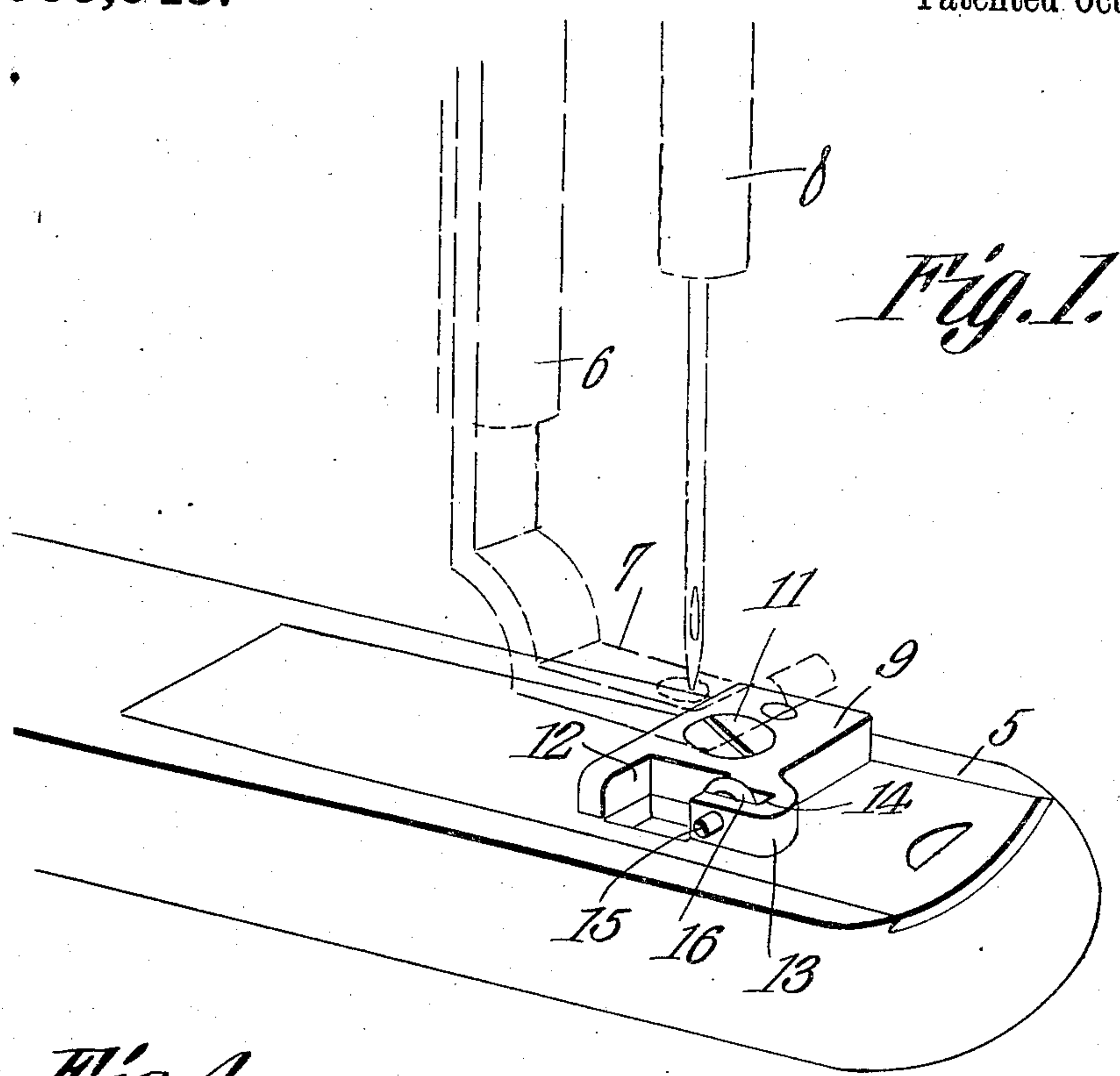


M. H. SULLIVAN.  
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 APPLICATION FILED JAN. 12, 1909.

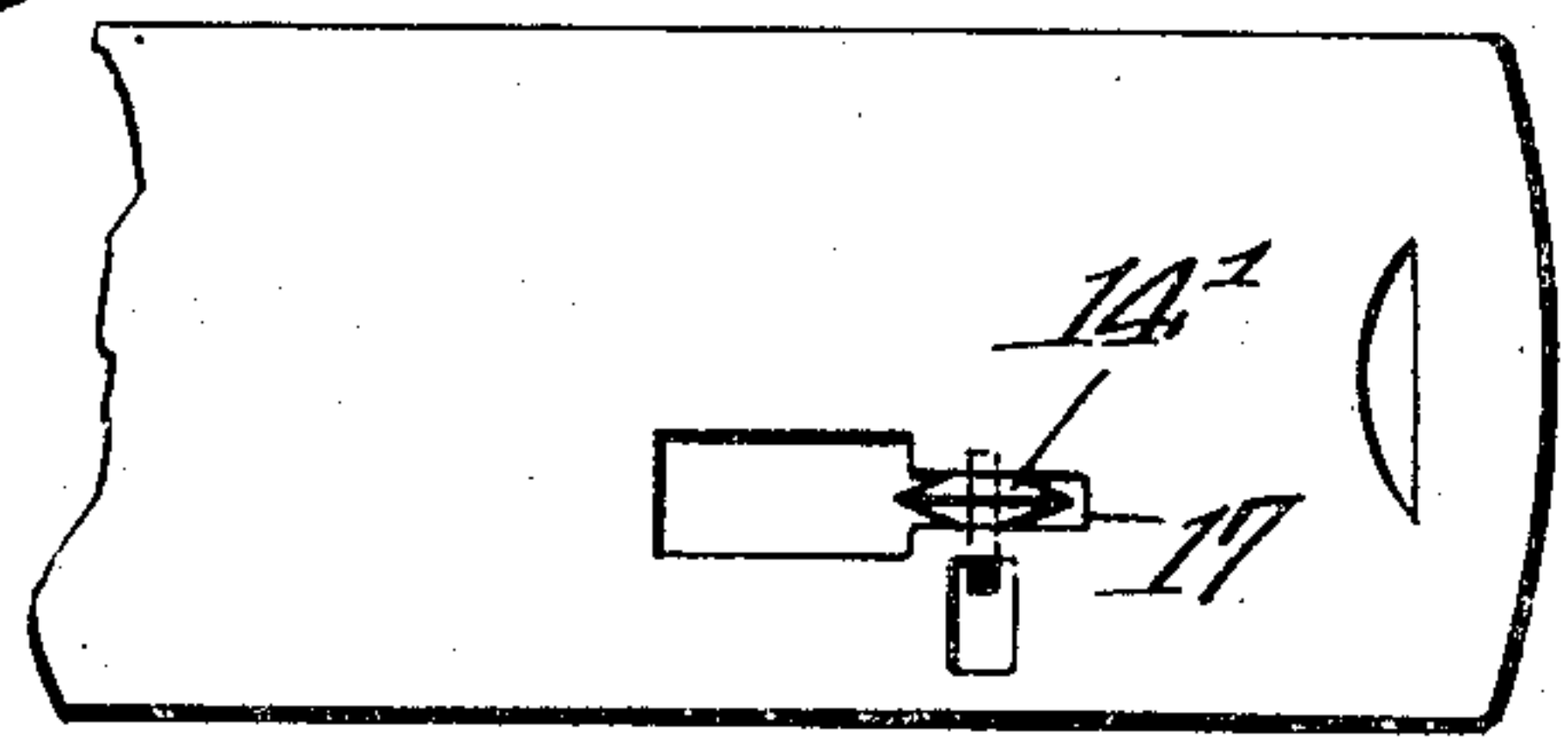
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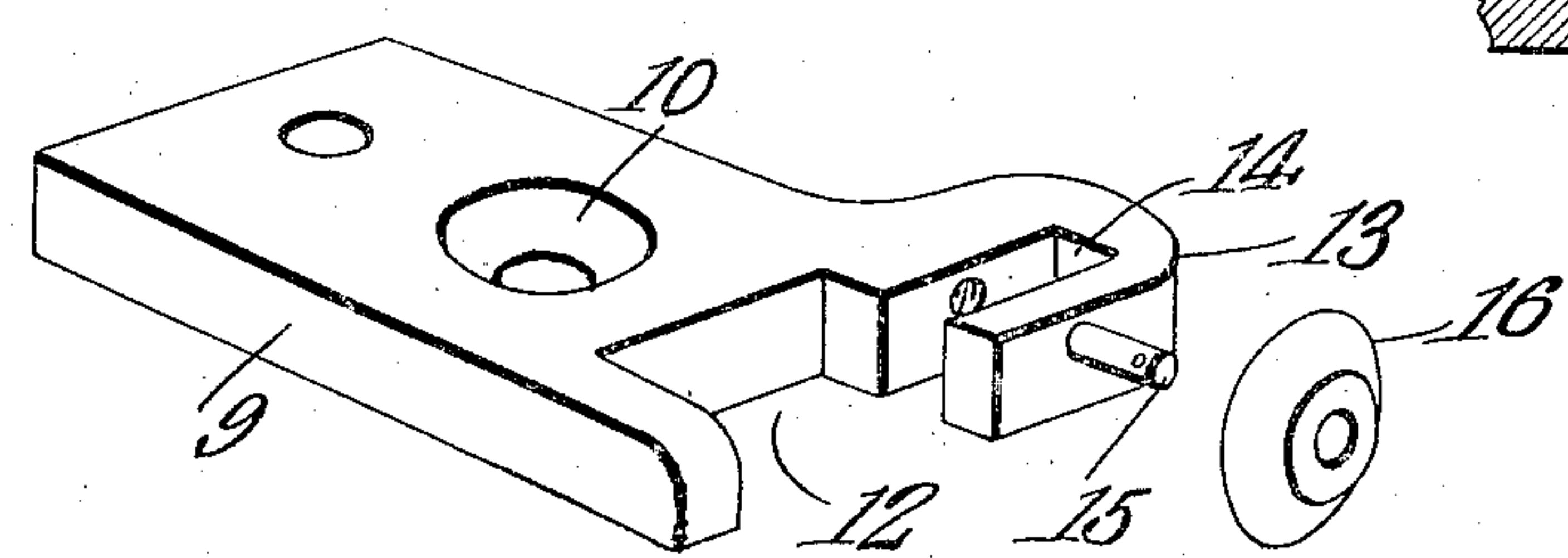
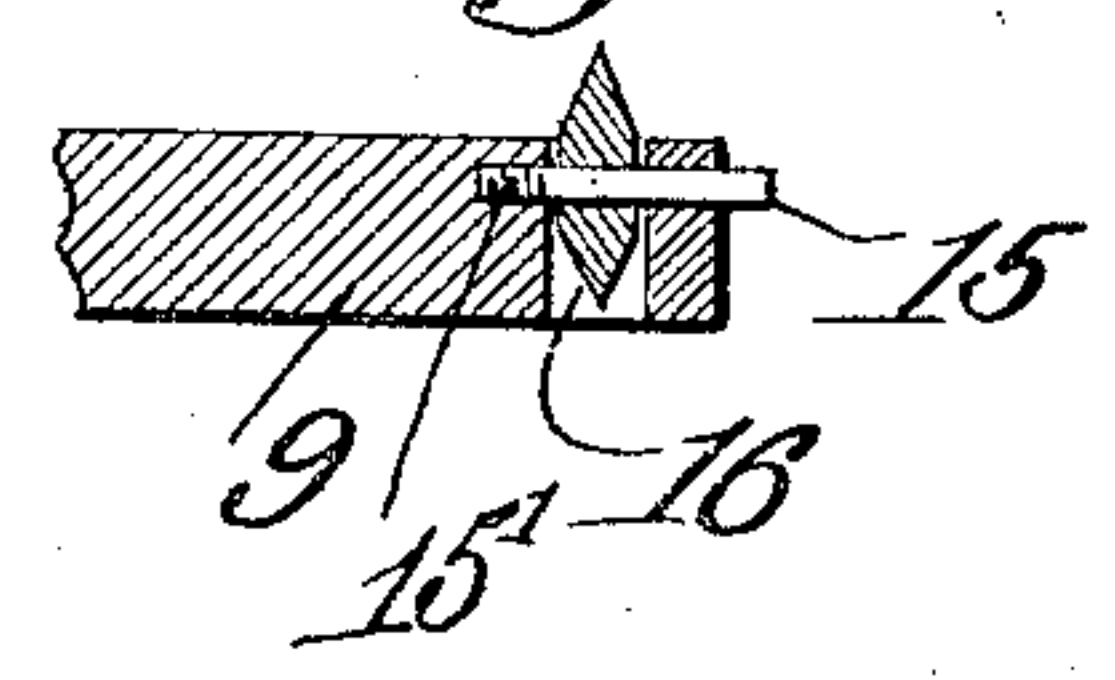


*Fig. 1.*

*Fig. 4.*



*Fig. 3.*



*Fig. 2.*

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Witnesses

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# UNITED STATES PATENT OFFICE.

MICHAEL H. SULLIVAN, OF CARBONDALE, PENNSYLVANIA.

ATTACHMENT FOR SHOE-SEWING MACHINES.

935,945.

Specification of Letters Patent.

Patented Oct. 5, 1909.

Application filed January 12, 1909. Serial No. 471,917.

*To all whom it may concern:*

Be it known that I, MICHAEL H. SULLIVAN, a citizen of the United States, residing at Carbondale, in the county of Lackawanna and State of Pennsylvania, have invented a new and useful Attachment for Shoe-Sewing Machines, of which the following is a specification.

This invention relates to boot and shoe machinery and more particularly to a rotary cutter for producing a groove in the outer sole of a shoe adapted to receive and house the stitches when sewing the outer sole to the welt.

The object of the invention is to provide a plate for attachment to the bed of a sewing machine and having a rotary cutter journaled thereon and adapted to form a groove in the leather in advance of the needle.

A further object is to journal the rotary cutter on the body portion or plate in such a manner as to permit the same to be readily detached when it is desired to stitch the sole to the welt without first forming a groove in the outer sole.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency as well as to reduce the cost of manufacture.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification:—Figure 1 is a perspective view of a groove-forming attachment for leather sewing-machines constructed in accordance with my invention showing the same in position on the bed-plate of the machine. Fig. 2 is a perspective view of the device detached. Fig. 3 is a transverse sectional view of Fig. 1. Fig. 4 is a plan view illustrating a modified form of the invention.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved device forming the subject matter of the present invention is principally designed for use in connection with that class of boot and shoe machinery employed for sewing the outer sole of the shoe

to the welt thereof and by way of illustration is shown in connection with such a machine in which 5 designates the bed-plate, 6 the presser-bar carrying the presser foot 7, and 8 the needle bar.

The device comprises a flat substantially rectangular plate or body portion 9 preferably formed of a single piece of metal having a central perforation 10 formed therein for the reception of a screw or similar fastening device 11, whereby the plate may be rigidly secured on the bed 5 of a sewing-machine.

The walls of the opening 10 are preferably countersunk, as shown, so as to allow the upper surface of the screw or fastening device 11 to lie flush with the upper surface of the plate 9 and thus offer no obstruction to the passage of the shoe when operating upon the latter.

One end of the plate 9 is formed with a substantially rectangular shaped opening 12 which registers with the needle-receiving opening in the bed-plate 5 and is designed to accommodate the needle as the latter reciprocates.

Extending laterally from one longitudinal edge of the plate 9 and preferably formed integral therewith is an enlargement 13 having a transverse slot 14 formed therein and communicating with the recess 12.

Extending transversely through the slot 14 is a pin 15 having its inner end threaded at 15' for engagement with a correspondingly threaded opening in the plate 9, whereby the pin may be readily removed when desired.

That portion of the pin 15 between the opposite walls of the slot 14 is devoid of threads, and mounted for rotation on the smooth portion of the pin is a rotary cutter 16 preferably circular in shape, as shown and having its peripheral edge inclined or beveled in opposite directions to produce a cutting edge adapted to form a groove in the lower face of the sole in advance of the needle, said groove serving to receive and house the stitches and thus prevent the same from coming in contact with the ground when walking.

Attention is here called to the fact that by making the pin 15 detachable the cutter may be readily removed when it is desired to secure the sole to the welt without forming a groove in the sole for the reception of the stitches.



In Fig. 3 of the drawings there is illustrated a modified form of the invention in which the plate 9 is dispensed with, the cutter 14' being mounted for rotation in a slot 17 formed directly in the bed-plate of the sewing-machine.

The devices may be made in different sizes and shapes and different styles of cutters may be used in connection therewith for forming stitch-receiving grooves of different depths.

Having thus described the invention what is claimed is:—

1. The combination with a sewing-machine bed plate provided with a needle opening, of a mounting secured adjacent said opening and having a slot therein forming a continuation of said needle-opening, and a rotary cutter journaled in said mounting adapted to engage the work before the same is acted on by the needle.

2. An attachment for sewing-machines comprising a plate having means for attachment to the bed of a sewing-machine and provided with an opening for the reception

of the sewing-machine needle, there being a slot formed in the plate and communicating with the needle-receiving opening, and a groove forming cutter mounted for rotation in the slot.

3. An attachment for sewing machines including a plate having an opening formed therein for the reception of a fastening device and provided at one end with a needle-receiving opening, there being an enlargement extending laterally from one longitudinal edge of the plate and provided with an opening communicating with the needle-receiving opening, a pin extending transversely through one of said openings and threaded in the plate, and a groove forming cutter mounted for rotation on said pin.

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

MICHAEL H. SULLIVAN.

Witnesses:

GEO. B. PITTS,  
C. R. HARDY.