

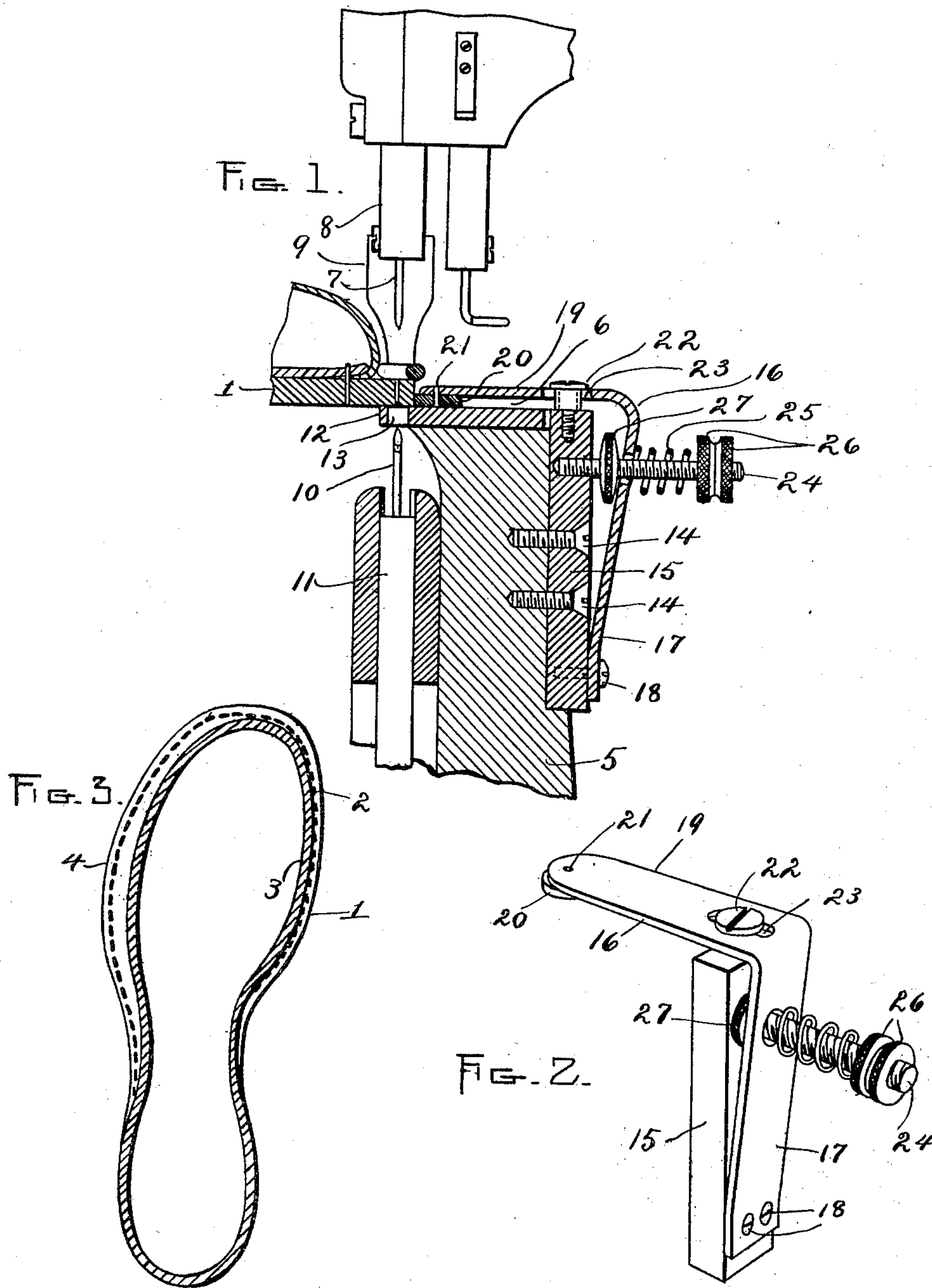
No. 695,972.

Patented Mar. 25, 1902.

E. F. TURNER.
GAGE FOR SEWING MACHINES.

(Application filed June 3, 1901.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

EDWARD F. TURNER, OF BROCKTON, MASSACHUSETTS.

GAGE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 695,972, dated March 25, 1902.

Application filed June 3, 1901. Serial No. 62,884. (No model.)

To all whom it may concern:

Be it known that I, EDWARD F. TURNER, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Sewing-Machine Gages, of which the following is a specification.

This invention relates to fair-stitch sewing-machines most commonly employed in applying the outer line of stitching around the sole edges of McKay-sewed shoes.

It consists in a novel form of gage, substantially as hereinafter described.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a vertical section through the work-plate and adjacent parts of a sewing-machine provided with my improvement, said view also showing the work in position. Fig. 2 represents a perspective view of the gage removed from the other parts of the machine. Fig. 3 represents a horizontal section of the work.

In fair-stitching shoes no particular difficulty is experienced by the operator in properly guiding the line of stitching when this line runs in from the edge of the sole close to the upper, but on so-called "extension soles," where it is common to run the line of stitching out from the upper at a considerable distance close to the extension edge, the operator having nothing to guide him but his eye will frequently "run off"—that is, will run the line of stitching completely off the sole—and thus spoil or injure the work.

In Fig. 3, 1 represents a sole in which the inner marginal portion or extension part of the sole is of moderate width only and the stitching 2 runs close to the upper 3; but on the outer side of the sole this marginal portion is much wider, as represented at 4, and the stitching 2 departs quite a distance from the upper. It is on the portion 4 that the greatest difficulty is experienced by the operator in guiding the line of stitching, and this difficulty is greater on high-speed machines, such as the ordinary chain-stitch fair-stitching machines, than it is on a machine having a slower speed, such as the Goodyear machines for sewing soles on welted shoes.

I am aware that it has been proposed to employ a gage or guide on a machine of the Goodyear type to engage the lasted upper,

such gage being moved in and out by manually-operated mechanism, so as to vary the distance of a line of stitching from the upper, and I do not claim such construction.

5 represents the post of the sewing-machine, the same carrying at its upper end a work-supporting plate 6, above which are shown the awl 7 and its bar 8 and the presser-foot 9, and below which are shown the needle 10 and its bar 11, said needle cooperating with a cast-off, which is not shown. The plate 6 has the usual free edge 12, close to which is a hole 13, through which the awl and needle operate. The work 1 is shown in position to be operated upon in Fig. 1.

At the back of the post 5 I affix, by means of screws 14 14, a block 15, forming a base to which is attached a flexible arm 16, having a substantially vertical portion 17, secured by screws 18 18 to said block, and a substantially horizontal portion 19, overlying the plate 6 and provided at its forward or outer end with a roller 20, journaled on a pin 21. A stud 22, fixed to the upper end of the block 15 and occupying an elongated slot 23 in the horizontal portion 19 of the arm 16, affords an abutment for resisting the lateral movements of said arm. Projecting rearwardly from the block 15 is a threaded stem or spindle 24, surrounded by a spring 25, bearing against the rear side of arm 16 and engaged by adjusting-nuts 26 26 on said spindle, whereby its tension may be regulated. Screwed on the spindle 24, in front of the arm 16, is a nut 27, forming an abutment or stop to limit the forward movement of said arm under the influence of the spring 25.

When the operator wishes to stitch in close to the upper, he forces the work inwardly or to the right in Fig. 1 and displaces the roller 20 and arm 16 rearwardly against the tension of the spring 25. The roller 20 rolls in continuous contact with the edge of the sole as the shoe is fed along, and when the line of stitching is to come out away from the upper toward the edge of the sole the operator decreases his inward pressure upon the shoe and allows the roll 20, under the influence of spring 25, to push or carry the work outwardly. When the arm 16 abuts against the nut 27, the roll will be carried no farther, and the operator is enabled to accurately gage the dis-

tance of the line of stitching from the edge of the sole by maintaining the sole edge against the roller 20 at its outward adjustment. By manipulating the nut 27 the line of stitching can be accurately located at any desired minimum distance from the edge of the sole.

I believe myself to be the first to provide a sewing-machine with a gage adjacent to the stitching mechanism and yieldingly projected toward said mechanism in a lateral direction, said gage having means for positively adjusting the operative distance of the gage from the stitching mechanism between two extremes, and I accordingly claim such organization of parts broadly, irrespective of the particular mechanical construction in which it is embodied.

I claim—

1. A sewing-machine comprising a work-support, stitching mechanism, a laterally-yielding gage above the work-support adja-

cent to the stitching mechanism and yieldingly impelled toward the latter, and means for positively adjusting the operative position of said gage with respect to the stitching mechanism between two extremes.

2. A sewing-machine comprising a work-support, stitching mechanism, a gage-roller above said support adjacent to the stitching mechanism, a holder for said roller free to move against spring-pressure in a direction to retract the gage-roller from the stitching mechanism, a spring device to move said holder in the opposite direction, and an adjustable stop to positively limit the movement of said holder between two extremes.

In testimony whereof I have affixed my signature in presence of two witnesses.

EDWARD F. TURNER.

Witnesses:

C. F. BROWN,
E. BATCHELDER.