

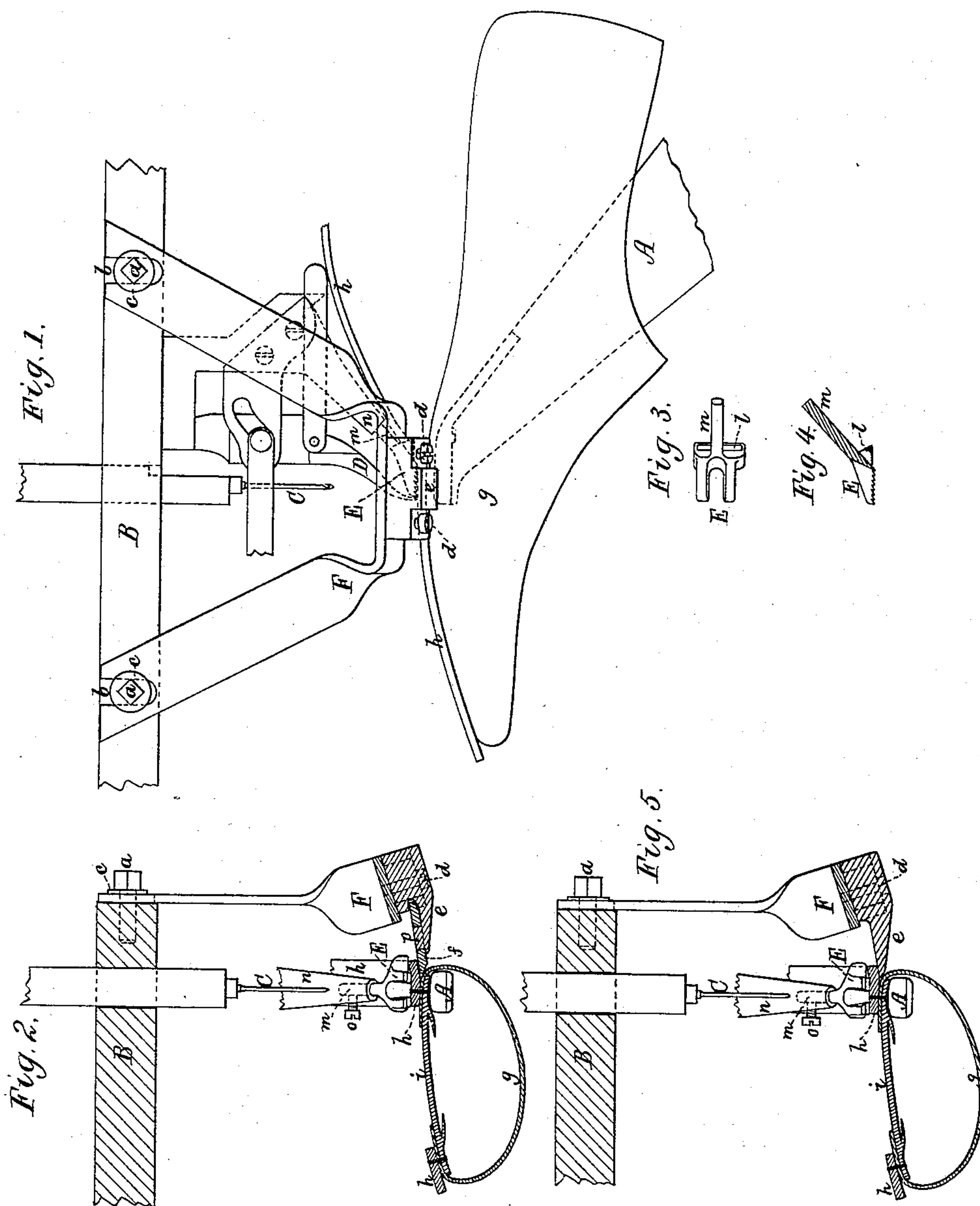
(No Model.)

E. F. ARNOLD.

MACHINE FOR SEWING WELTS TO SHOE INSOLES AND UPPERS.

No. 329,426.

Patented Nov. 3, 1885.



Witnesses.
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UNITED STATES PATENT OFFICE.

EDWARD FRANCIS ARNOLD, OF NORTH ABINGTON, MASSACHUSETTS.

MACHINE FOR SEWING WELTS TO SHOE INSOLES AND UPPERS.

SPECIFICATION forming part of Letters Patent No. 329,426, dated November 3, 1885.

Application filed May 13, 1885. Serial No. 165,286. (No model.)

To all whom it may concern:

Be it known that I, EDWARD FRANCIS ARNOLD, of North Abington, in the county of Plymouth, of the Commonwealth of Massachusetts, have invented a new and useful Improvement in Machines for Sewing Welts to Shoe Insoles and Uppers; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a side elevation, and Fig. 2 a transverse section, of my improvement and certain of the parts of a "McKay sewing-machine," with which it is connected and operates. Fig. 3 is a top view, and Fig. 4 a vertical and longitudinal section, of the presser-foot of the machine. Fig. 5 is like Fig. 2, with the exception of the change in the construction of the gage, as hereinafter explained.

In sewing a welt to a connected shoe insole and upper by a McKay sewing-machine an attendant, while holding the shoe upon the horn, has been obliged to depend on the horn as a means of guiding the shoe in its movements thereon in order to have the line of sewing parallel to the edge of the insole. Owing to the flexibility of the leather of the upper, it often becomes a difficult matter to keep the insole from more or less slipping laterally out of place on the horn, whereby the line of sewing is apt to be more or less tortuous or irregular and out of parallelism with the edge of the insole.

My improvement is to effect the properly and automatically guiding of the shoe upon the horn in order for the line of sewing to be essentially parallel to the edge of the insole. To this end I use a gage, which, as shown, is a beveled arm or a conical roller for the welt to lap on. Such roller, without overlapping the lap of the upper on the welt, operates to press the upper against the edge of the insole.

In the drawings the upper portion of the horn of a McKay sewing-machine is shown at A, the base-plate over such at B, the needle at C, the feed-point at D, and the presser-foot at E.

In carrying out my invention I fix to the edge of the base-plate B, by means of clamp-screws *a a*, a stirrup, F, the prongs of the

said stirrup having slots *b b* made vertically in them, to receive the shanks of the said screws *a a*, which pass through such slots, and also through washers *c c*, encompassing the shanks. The slots enable the stirrup to be adjusted vertically to carry the gage to its proper height. To the bottom of the stirrup there is fixed by clamp-screws *d d* an arm, *e*, having the gage or conical wheel *f* pivoted to it, so as to be capable of freely revolving on the pivot *p*, such gage being arranged as represented in Fig. 2. The clamp-screws *d d* pass through slots in the arm, to enable the said gage to be adjusted either toward or from the path of the needle, as the thickness of the upper may require.

In Figs. 1 and 2 a shoe-upper is shown at *g*, a welt at *h*, and an insole at *i* as properly arranged relatively to the horn and the gage for being sewed. The welt passes down through an opening, *l*, in the heel of the presser-foot E, thence forward under the presser-foot, which is furcated, as represented, so as not to interfere with the needle or the feed-point. The presser-foot has a projection, *m*, extending upward from it into a hole in the shank or carrier *n* of such foot. A screw, *o*, is screwed into the carrier and against the projection, in order to clamp the foot to the carrier and enable the foot to be adjusted in height as occasion may require. As the shoe is intermittingly fed along on the horn, the latter and the gage *f* will guide the shoe around so as to cause the line of sewing to be in rear of and parallel with the edge of the insole.

In place of a wheel applied to the gage-supporting arm, a beveled arm may be made to serve the purpose of a gage, and to extend, like the wheel, against the upper over its bearing on the edge of the insole. The wheel is preferable, on account of it allowing the shoe to be moved against it with less friction. The change is shown in Fig. 5.

I claim—

1. The combination of the presser-foot provided with the welt-passage extending through it in its heel or rear part, as described, with the shoe-supporting horn, and with the rotary and conical gage, substantially as set forth,

arranged above the said horn, and for use there-
with as specified.

2. The combination, with a McKay sewing-
machine, of the rotary conical gage *f* and its
5 adjustable sustaining-arm and the adjustable
stirrup of the latter, such stirrup being ap-
plied to the base-plate of the machine, and the

rotary gage being arranged above the horn, in
manner and to operate therewith substantially
as set forth.

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