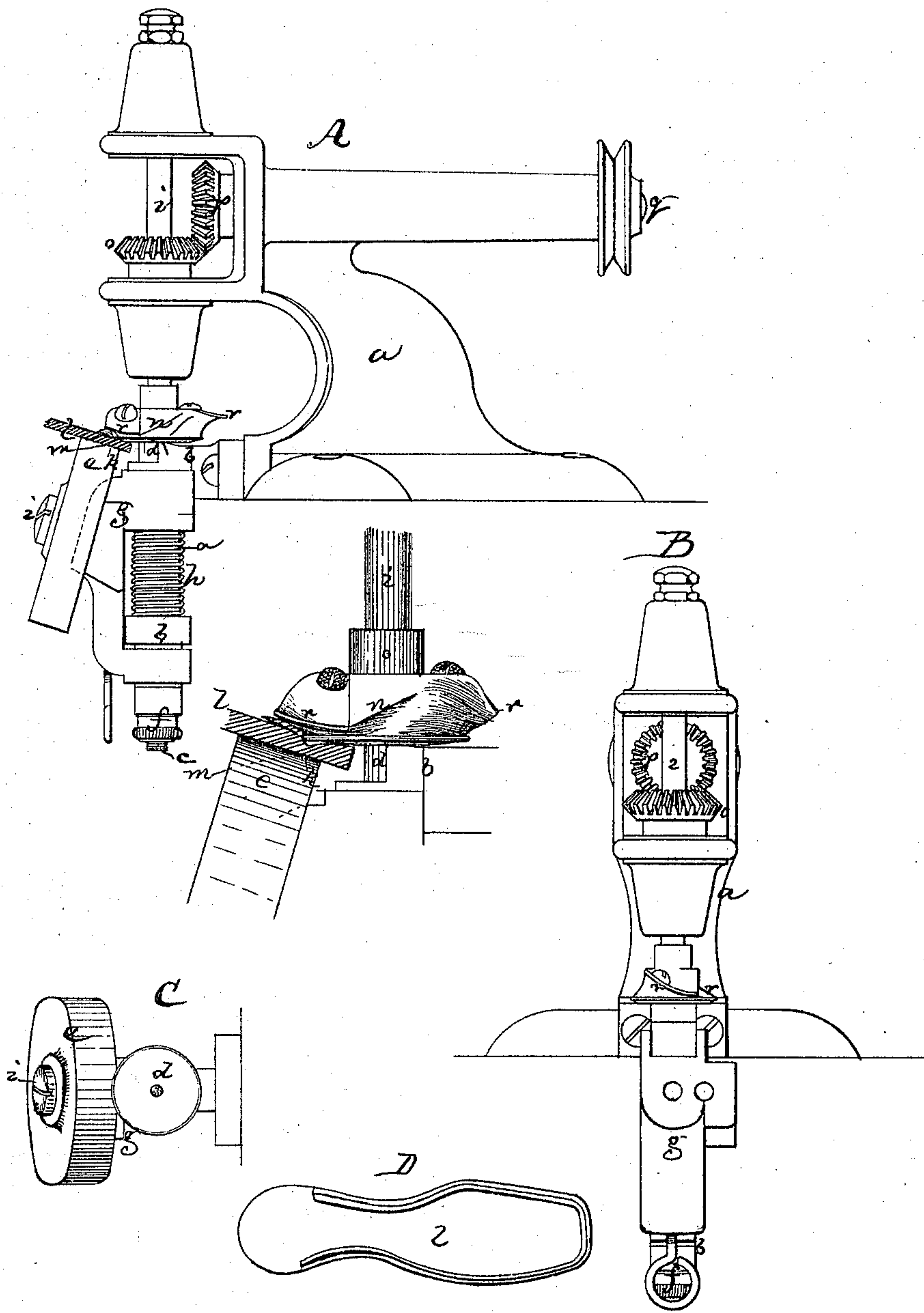


W. E. FISCHER.

Machine for Turning Channel-Flaps for Boots and Shoes.

No. 128,610.

Patented July 2, 1872.



WITNESSES.

M. W. Frothingham.
L. H. Prater.

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UNITED STATES PATENT OFFICE.

WILLIAM E. FISCHER, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINES FOR TURNING CHANNEL-FLAPS FOR BOOTS AND SHOES.

Specification forming part of Letters Patent No. 128,610, dated July 2, 1872.

To all whom it may concern:

Be it known that I, WILLIAM E. FISCHER, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improvement in Turning Channel-Flaps of Boot and Shoe Soles; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

In the manufacture of that class of boots and shoes in which the soles are united to the uppers or vamps by fastenings inserted from the outer finished surface of the sole it is customary to use channeled soles, a flap being formed in channeling, which flap is turned over and pressed down so as to leave the channel open for reception of the fastenings, the flap being turned back again to its first position after the soles and vamp are united. The flaps are generally bent over and pressed down by hand, requiring much labor and being not very quickly or perfectly accomplished.

In my invention I use a machine for opening or raising and turning over and pressing down the flaps; and my invention consists in a combination of devices by which this is effected as the edge of the sole is drawn or fed to their action.

In carrying out the invention, I prefer to use a small horizontal disk-wheel, between which and the periphery of a front roll or wheel (which is set at a vertical angle) the edge is passed, the inner surface of the sole resting upon this periphery and the edge of the wheel entering the angle of the flap and main portion of the sole, thus leaving the flap on top of the disk-wheel, in which position it is acted upon by rotating blades extending from a wheel at the foot of a vertical shaft, these blades passing under the flap, and, by their rotation, turning it over and pressing it down.

The drawing represents a machine embodying my invention.

A shows the machine in side elevation. B is a front view of it. C is a plan of the guide-wheel and the support-wheel. D shows the sole.

a denotes a frame, at the front of which are bearings *b*, in which is mounted a vertical shaft or pin, *c*, said pin having upon its top a disk-wheel, *d*. The pin turns freely in its bearings and the disk is adjusted as to height and with reference to the periphery of a roll, *e*, over one edge of which the edge of the disk-wheel extends, by a screw threaded shank on the pin, and a nut and collar, *f*. By turning up the nut the disk is drawn down to set it nearer to the wheel, and vice versa. The edge-supporting wheel *e* is made yielding, being for this purpose mounted on a pin, *i*, extending from the frame *g*, which frame slides upon the post *a*, in which the pin *c* turns, the wheel being pressed up by the stress of a spring, *h*, and yielding to the inequalities in thickness of the sole, the wheel setting at an angle, as seen at A, and the edge *k* of the sole *l* resting upon it and passing between it and the edge of the disk-wheel *d*, the edge of the wheel being in the angle *m* formed by the flap. Over the disk-wheel *d* is the rotary flap-binding wheel *n*, which wheel is at the foot of a vertical shaft rotating in suitable stationary bearings, and has fixed upon it a bevel-gear, *o*, driven by a bevel-gear, *p*, on a horizontal shaft, *q*. From the wheel *n* extend the bender-blades *r*, each set in inclined position and so formed and set as to act upon the flap as they pass it, bending the flap over and pressing it down, as shown at A. The wheel *n* and the disk-wheel may either or both be positively rotated to feed the sole, but I prefer to draw it through by hand, as being the more practical manner of presenting the flap.

The machine thus organized may be used not only for raising the flap and turning it over and pressing it back, but for closing the flap again.

I claim—

In combination with an edge-supporting device, an edge-roll or disk for entering the channel and a rotary presser for laying down the flap, substantially as shown and described.

WM. E. FISCHER.

Witnesses:

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M. W. FROTHINGHAM.