(No Model.)

W. B. ARNOLD.

MECHANISM FOR CLOSING THE CHANNELS OF BOOT AND SHOE SOLES.

No. 248,836. Patented Nov. 1, 1881.

Fig. 1.

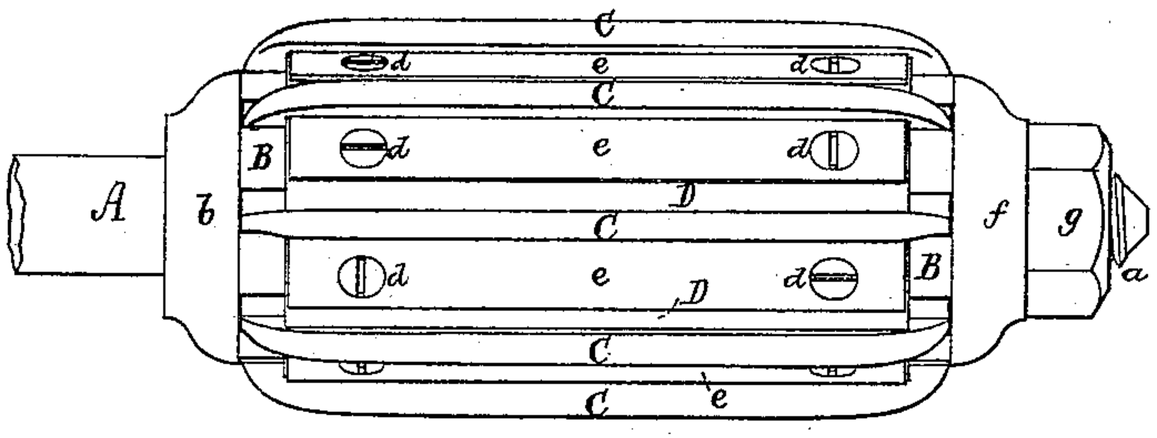

Fig. 2.

Fig. 4.

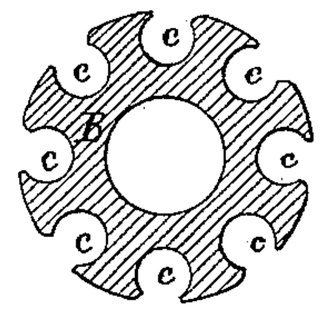

Fig. 3.

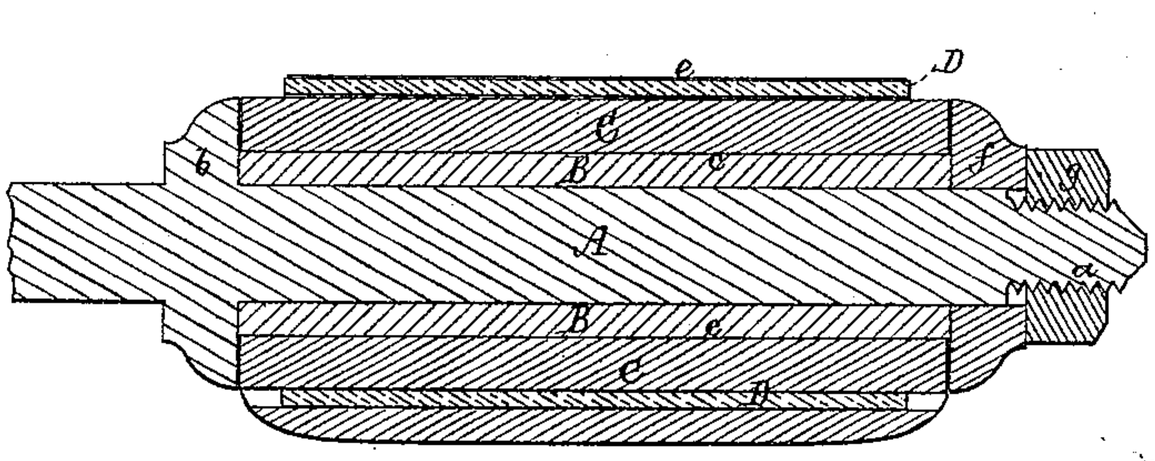

Fig. 5.

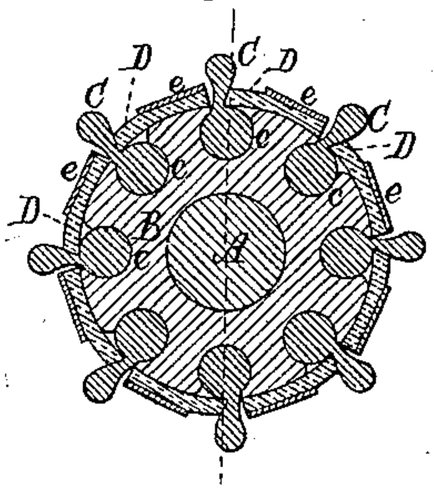

Fig. 6.

Witnesses.

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UNITED STATES PATENT OFFICE.

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MECHANISM FOR CLOSING THE CHANNELS OF BOOT AND SHOE SOLES.

SPECIFICATION forming part of Letters Patent No. 248,836, dated November 1, 1881.

Application filed August 22, 1881. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM B. ARNOLD, of North Abington, of the county of Plymouth and State of Massachusetts, have invented a new and useful Improvement in Mechanism for Closing the Channels of Boot or Shoe Soles; 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 top view, Fig. 2 a longitudinal section, and Fig. 3 a transverse section, of a sole-channel finisher or closer containing my invention, the nature of which is defined in the claims hereinafter made. Fig. 4 is a transverse section of the cylinder for supporting the rubbers, to be described. Fig. 5 is a side view, and Fig. 6 a transverse section, of one of the said rubbers.

After the sole of a shoe may have been channeled, and in the channel stitches have been laid by a McKay or other sewing-machine, in connecting the sole to an insole and upper it has been customary to turn down the lip of the channel, so as to cover the stitches and smooth and finish the sole. To accomplish this with great rapidity and in a very perfect manner is the object of my invention.

In the drawings, A denotes a shaft or spindle, provided at one end with a screw, *a*, and at a suitable distance therefrom a shoulder, *b*. On this shaft and against the said shoulder there is a placed concentrically with the shaft a head or cylinder, B, having a transverse section, as shown in Fig. 4, by which it will be seen that such cylinder has in it a series of cylindrical grooves, *c*, arranged at equal distances apart, near and opening through the periphery of the cylinder, in manner as shown. In each of these grooves is inserted a rubber, C, formed as represented, the said rubber at its lower part being cylindrical to enter and fit the cylindrical groove, and to be capable of being moved a little transversely therein. Against each rubber, where it projects beyond the cylinder or head, is a spring or elastic abutment or strip of vulcanized india-rubber, D, secured to the cylinder by screws *d* and a clamp-plate, *e*, the screws going through the plate and the strip of rubber, and being screwed into the cylinder. The said cylinder is held in place on the spindle by means of the shoulder or metallic washer *f* and a nut, *g*, arranged as represented, the nut fitting to the screw of the spindle. The object of thus constructing the head B and each of its rubbers is to enable the latter to be readily removed from or applied to the head, as occasion may require, and to turn or play transversely therein against the spring or strip of rubber.

In case of a rubber becoming by use worn down to an extent to render it necessary to remove it from the head and supply its place with a fresh or unworn rubber, such can easily be accomplished.

The shaft with the head and series of rubbers being put in rapid revolution by suitable means, if a sole be brought into contact with and pressed against the rubbers and properly moved across such, they will effectually close down the lip of its channel and accomplish such almost instantaneously, thereby saving a great amount of labor as usually heretofore expended in effecting such closing of the channel.

What I claim as my invention is as follows, viz:

1. The sole-channel closer consisting of the head B and the series of rubbers C, pivoted thereto and supported by springs, substantially in manner and to operate as and for the purpose specified.

2. The spindle A, provided with the screw and shoulder and nut, as described, in combination with the washer, the head B, and series of rubbers C, and their supporting or elastic abutment-spring, all being adapted and to operate substantially as and for the purpose explained.

WILLIAM B. ARNOLD.

Witnesses:
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