(No Model.)

G. W. COFFIN.

BUFFING MACHINE.

No. 271,222. Patented Jan. 30, 1883.

Fig. 1.

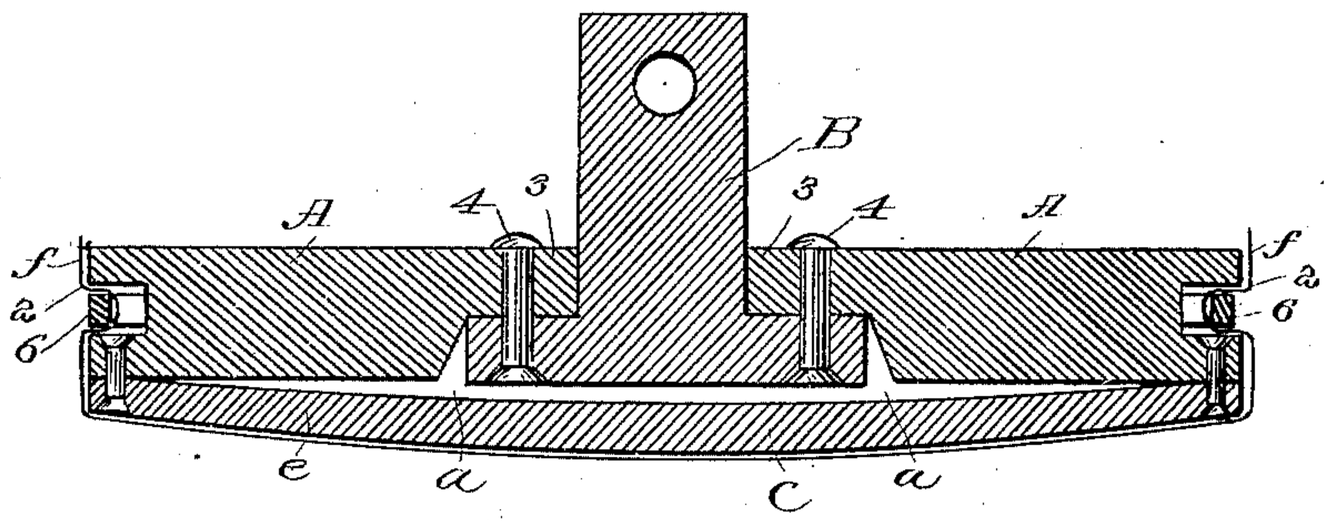


Fig. 2.

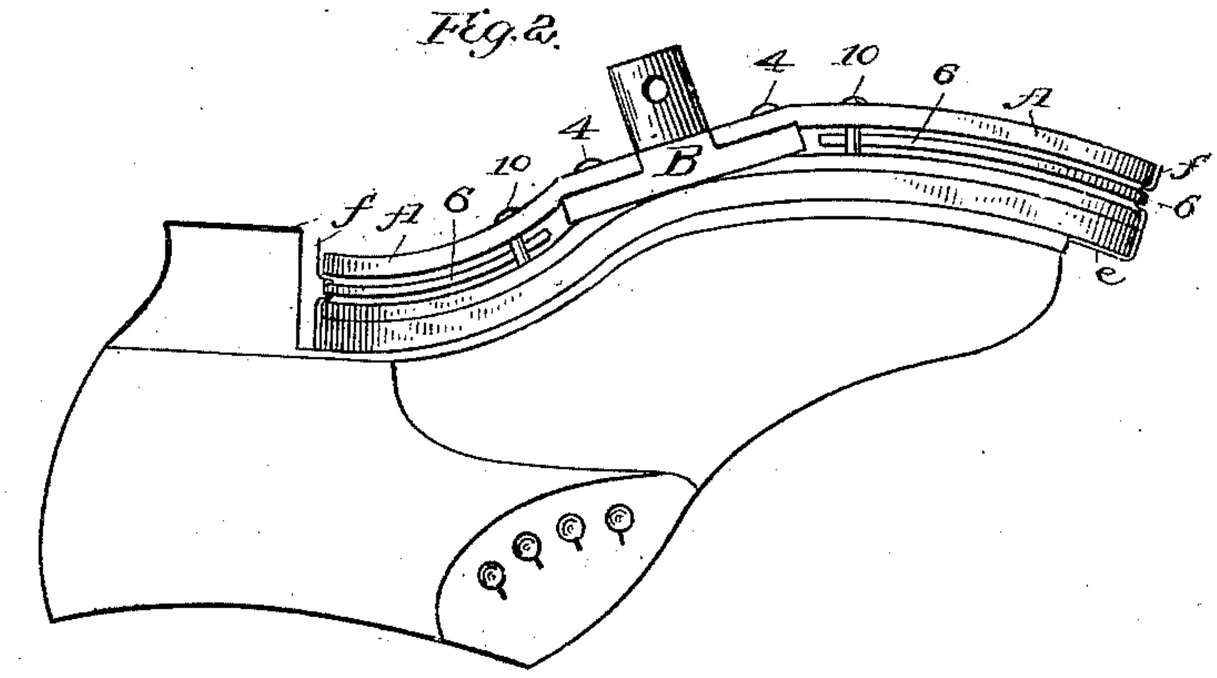
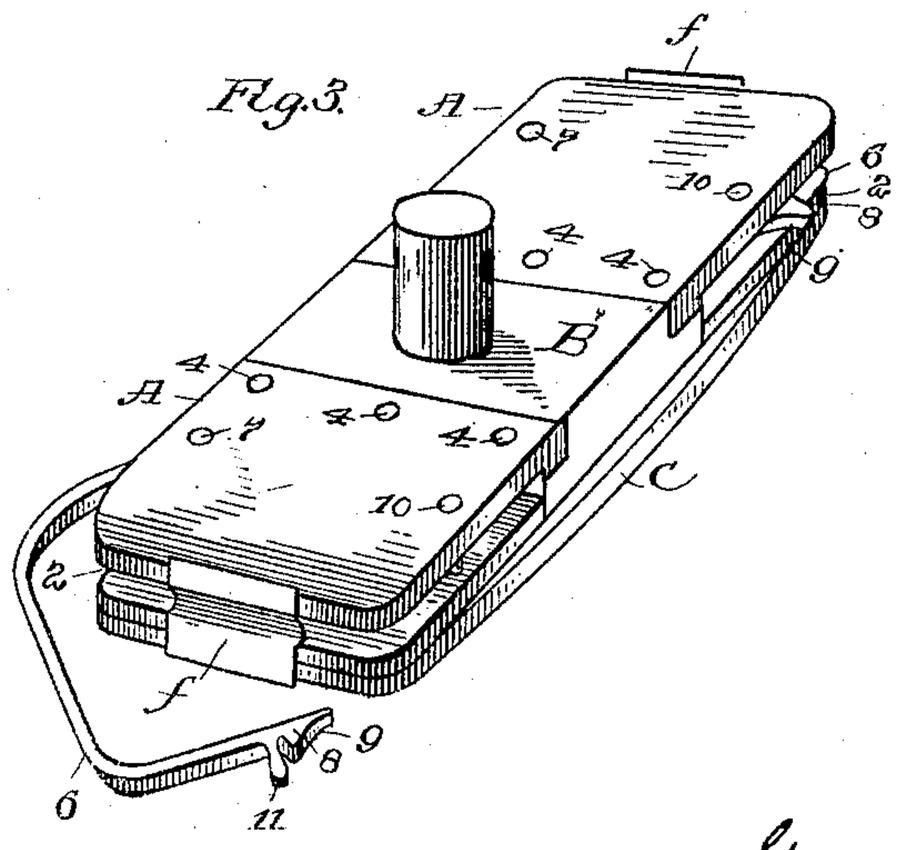


Fig. 3.



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UNITED STATES PATENT OFFICE.

GEORGE W. COFFIN, OF LYNN, MASSACHUSETTS.

BUFFING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 271,222, dated January 30, 1883.

Application filed June 12, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. COFFIN, of Lynn, in the county of Essex and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Buffing-Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to an improvement in boot and shoe sole buffing machines, and is specially applicable to the machine for which Letters Patent of the United States have already been allowed to me.

The invention consists in a novel foot to receive the abrasive material, which acts directly upon the sole, and also in certain matters of construction, more fully described hereinafter, and specifically pointed out in the claims.

In the accompanying drawings, Figure 3 is a perspective view of my invention. Fig. 2 is a side view of the same applied to the sole of a shoe, and exhibits the position of the tool in operation. Fig. 1 is a longitudinal section of the tool.

The end blocks, A A, are preferably composed of rubber, as this permits of being molded to the shape substantially as shown, (see Fig. 3,) and is also slightly flexible, which greatly facilitates the operation of the foot; but a block of stiff felt or other elastic substance may be used as well, though not so economical as the rubber. Said blocks A are each provided with a projecting lip, 3, on one end thereof, whereby the block is secured, by means of rivets 4, to the central block, B, the joints *a a* being left slightly open to facilitate the downward bending of the lip 3. Said blocks A are each further provided with grooves 2, adapted to receive the tongue 6, which tongue 6, being shaped substantially as shown in Fig. 3, is arranged at one end to turn on the rivet-pin 7, so as to permit of being opened outward to introduce or remove the ear-piece *f* of the abrasive pad *e*, as shown in said Fig. 3. Said tongue is also provided on its opposite end with a hook, 8, having an inclined end face, 9, and is sufficiently flexible so that when the tongue is pressed into the groove 2 the inclined face 9, coming in contact with the pin 10, allows the hook 8 to pass the same, whereupon the tongue expands to engage the hook 8 and pin 10, so as to prevent the tongue from opening until released by the operator by pressing upon the pin 11 in an obvious manner. On the bottom of the foot is a facing, C, composed of a piece of thick felt, which forms a yielding support or backing for the abrasive pad, and which is attached to the foot only at the outer ends thereof, so as to permit a slight endwise movement relatively to the center block, B, which center block, B, is provided with a tang for securing the foot to the operating shaft or arm of the machine, in an obvious and well-known manner. To the foot so constructed is applied an abrasive pad, *e*, composed of cloth or other fibrous material, made or coated on one side with glass, emery, or other equivalent abrasive material. Said pad is large enough to cover the entire bottom face of the foot, and is provided on each end with an ear-piece, *f*, adapted to be turned up over the end of the foot and clamped in between the block A and tongue 6 to prevent it from slipping while operating on the sole.

In operation the buffer is given a short but rapid rotative reciprocating movement, and the sole of the shoe is borne upward against the abrasive surface of the foot, and moved about to present all parts of the sole to the tool. The elastic properties of the lips 3 enable one end of the foot to be turned up, and the inelastic property of the felt C tends at the same time to draw the opposite end of the foot downward, thereby compelling the foot to take the shape substantially as shown in Fig. 2, in which position it covers almost the entire surface of the sole and produces a greater contact-surface than it is possible to obtain with the common style of foot.

What I claim, and desire to secure by Letters Patent, is—

1. In a buffing-machine, the foot composed of the central block, B, the end blocks, A, having flexible connection therewith, and the felt facing C, attached to the foot at its ends only, the whole being adapted to receive an abrasive covering, substantially as described.

2. The combination, with the foot composed of the central block, B, the end blocks, A, and the felt covering C, arranged and combined as

set forth, of the abrasive cover or pad *e*, having ear-pieces *f*, adapted to turn up over the ends of the foot, and the flexible tongues 6, adapted to close into the grooves 2 in the end of the foot, substantially as described.

3. Combined with the foot having the grooved end pieces, the abrasive pad *e*, composed of fibrous material, as cloth, having one side faced with abrasive material, such pad also being provided with ear-pieces *f*, as set forth.

In testimony whereof I have signed this specification in the presence of two witnesses.

GEORGE W. COFFIN.

Witnesses:

C. B. TUTTLE,

H. A. THURLOW.