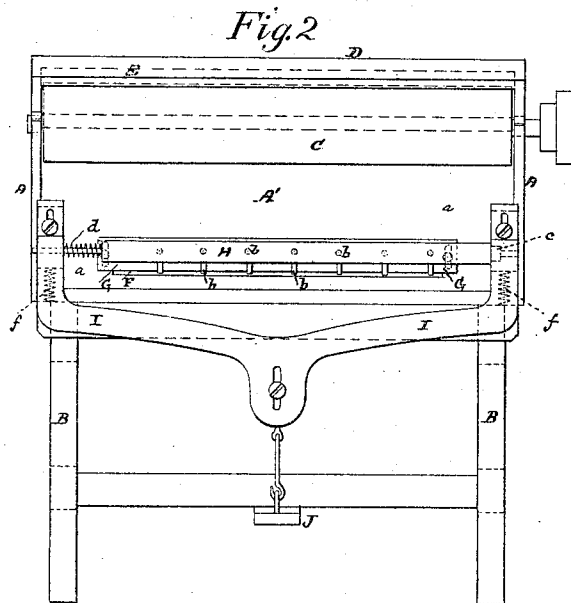
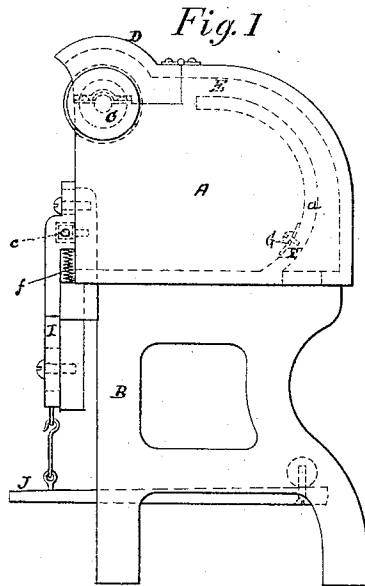


G. C. HAWKINS.

Machines for Buffing Boots and Shoes.

No. 145,501.

Patented Dec. 16, 1873.



Witnesses:

John Buckley
Lucas Flint

Inventor:

Gardner C. Hawkins
by atty. H. H. H.

UNITED STATES PATENT OFFICE.

GARDNER C. HAWKINS, OF BOSTON, MASS., ASSIGNOR TO THE SHOE MACHINERY MANUFACTURING COMPANY, OF NEW HAVEN, CONN.

IMPROVEMENT IN MACHINES FOR BUFFING BOOTS AND SHOES.

Specification forming part of Letters Patent No. **145,501**, dated December 16, 1873; application filed July 22, 1873.

To all whom it may concern:

Be it known that I, GARDNER C. HAWKINS, of Boston, Suffolk county, Massachusetts, have invented certain Improvements in Machines for Buffing Boots and Shoes, of which the following is a specification:

These improvements relate to the construction of the class of machines for "buffing" or sandpapering boots and shoes in which a horizontal roller or drum is supported upon a suitable frame and surrounded by a hood, which prevents scattering of dust and refuse about the apartment, a suction air-engine being combined with the machine, and communicating with the interior of the hood to exhaust therefrom the dust and refuse matter before named. The novel elements in my present machine are, first, the construction of the machine in such manner as to create a shallow draft-flue, whose induction end extends closely up to the buffing-cylinder, in order to instantly attract and carry off the dust arising from the operation of buffing the sole of a boot, this construction being distinguished from former machines, inasmuch that in the latter the draft-flue makes its exit from the bottom of a comparatively large chamber, and the draft or suction about the buffing-cylinder is comparatively weak. In my present machine I employ an attenuated flue in addition to and independent of the buffing-chamber or hood. A second point of novelty in these improvements will be seen in the combination, with buffing machinery, of a series of stamping-dies, by which a boot or shoe, after being buffed, may be at once stamped with its proper number, a matter of great convenience being secured by this arrangement; and, thirdly, these improvements consist in the combination, with the buffing-chamber and draft-flue, of a slot or orifice, which establishes communication between the two, this opening being provided with a cover or gate to close the communication between the said chamber and flue and preserve the draft of the latter, or to open such communication and allow solid or heavy matters which may fall to the bottom of the chamber to be drawn into the flue and discharged from the machine.

The drawings accompanying this specifica-

tion represent in Figure 1 a perspective view, and in Fig. 2 a transverse section, of a machine embodying my improvements.

In these drawings, A represents a horizontal box or case, elevated upon suitable end standards B B, a rotary horizontal roller or cylinder, C, being disposed at the upper front corner of such case, and constituting the buffing cylinder or drum, and which, in practice, is to be covered with sand-paper or other abrasive material, a hood or cover, D, being hinged to the front edge of the top of the case A and over the buffing-cylinder, for convenience of access to and removal of the latter. E represents a shallow flue created in the case A, and at the rear of the buffing-chamber A' thereof, the induction-mouth of this flue extending closely up to the buffing-cylinder, while its discharging end passes through the bottom of the said chamber, and is there to be attached to or connected with a suction or exhaust air-engine, in order to obtain a powerful draft through the flue to remove any dust which may follow in the operation of buffing the sole, and several of these machines may be connected with one of such engines. F in the accompanying drawings represents an orifice or opening created in the inner wall or partition *a* of the plug E, while G represents a gate or cover applied in a suitable manner to this opening, to open or close the same, as the case may be, and to allow at certain times of the escape of refuse matter of a weight too great to be carried off through the mouth of the flue. H in the drawings represents a horizontal beam supported upon and carried by a carriage, I, which is disposed at the front part of the machine, the beam being elevated somewhat above the level of the floor of the buffing-chamber, while the carriage is so applied as to be susceptible of sliding vertically with respect to such floor, a treadle, J, being confined with the carriage and machine-frame, by which the carriage and beam may be depressed, such carriage and beam being elevated by suitable springs. The beam H, which may be cylindrical or polygonal, is to be so applied to its carriage as to be readily rotated upon its axis to bring any one of its rows of stamps or bosses in position, and I applied to its periphery, or to one or

more of its ranges of studs or bosses, *b b*, &c., the outer end of these studs being provided with a number, by which the sole may be stamped. Each row or range of stamps *b* should consist, practically, of seven, which is the range of numbers of one class of work, (men's, for instance,) while in order to adapt the machine to all classes of work, (men's, women's, misses', &c.,) I apply to the beam several ranges or rows of stamps, and the beam is to be susceptible of rotation in order to bring one or the other of these sets of stamps into play. To effect this I form on one of the ends of the beam a square or angular tenon, *c*, adapted to fit a correspondingly-shaped mortise into adjoining part of frame *I*, and interpose between the other end of the beam and that part of frame *I* in which its journal has its bearing, a spring *d*. The shaft can be moved longitudinally to slide the tenon out of the mortise, and can then be rotated to bring any desired range of stamps in position, and it can then be moved in the other direction to cause the tenon to enter the mortise, spring *d* serving to keep these two parts engaged.

The convenience of the stamps or dies, constituting, as they do, part and parcel of the machine, will be at once understood.

The value of the "top draft," as I term it, of this machine is very great, as it protects the boot from the dust and refuse matter which heretofore have fallen directly upon it

from the buffing-cylinder, and which necessitates brushing of every boot or shoe after it leaves the machine.

Springs *f* are interposed between frame *I* and main frame *B*, to offer a yielding resistance to the descent of frame *I*, so that when pressure is removed from the treadle *J* the springs will serve to return the frame to its normal position.

I claim—

1. In a buffing-machine for boots and shoes, the combination, with the buffing cylinder or wheel and buffing-chamber, of a top-draft flue independent of said chamber, and having its induction-mouth arranged and located, with respect to the buffing cylinder or wheel, substantially as herein shown and set forth.

2. In combination with the buffing-chamber and independent top-draft flue, the opening leading from the lower part of the buffing-chamber into said flue, and the gate or cover for closing the same, substantially as and for the purposes shown and set forth.

3. The stamping-beam and vertically-reciprocating frame for carrying the same, and lever or treadle for operating said frame, combined together and arranged on the front of the buffing-machine as shown and described.

GARDNER C. HAWKINS.

Witnesses:

F. CURTIS,

W. E. BOARDMAN.