

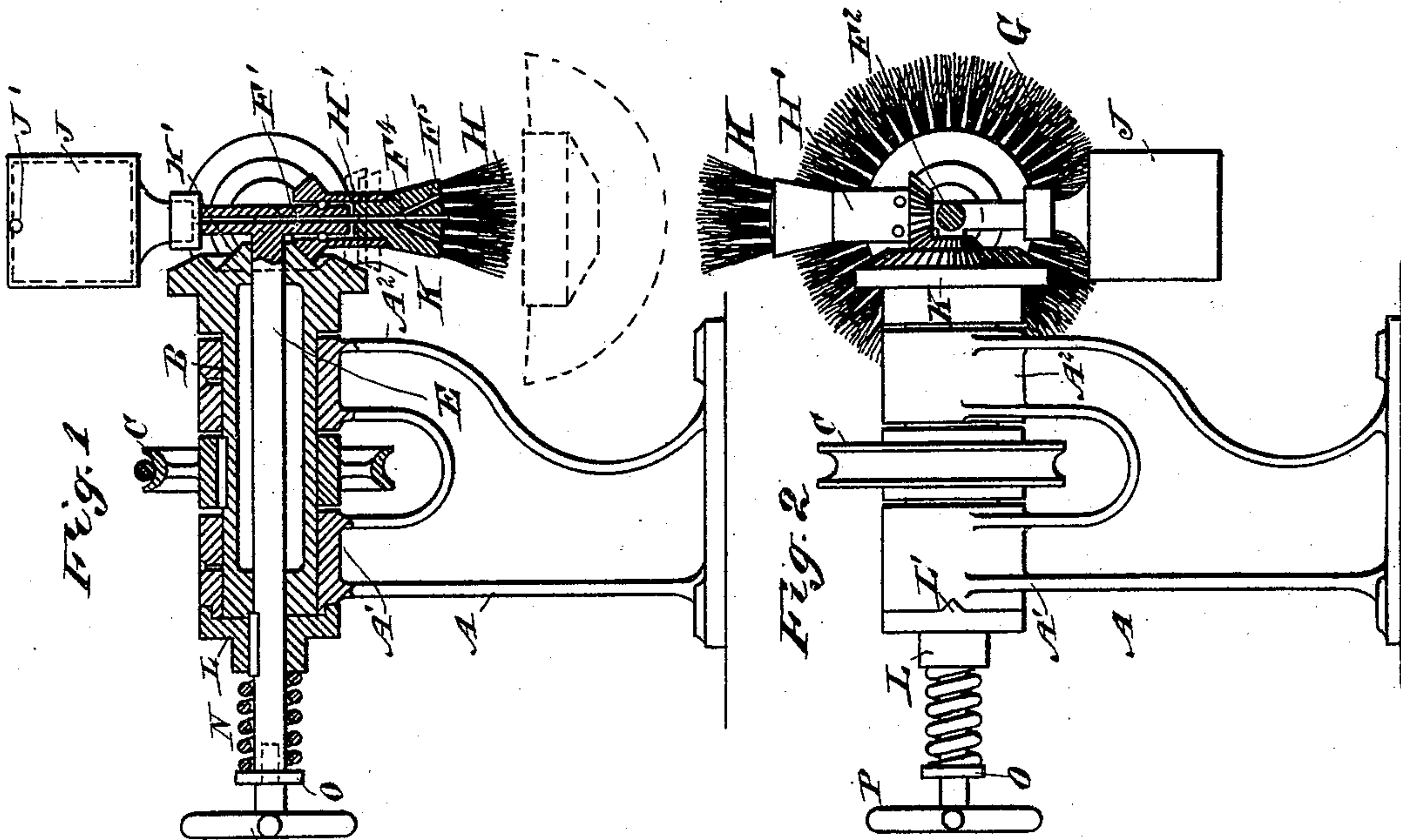
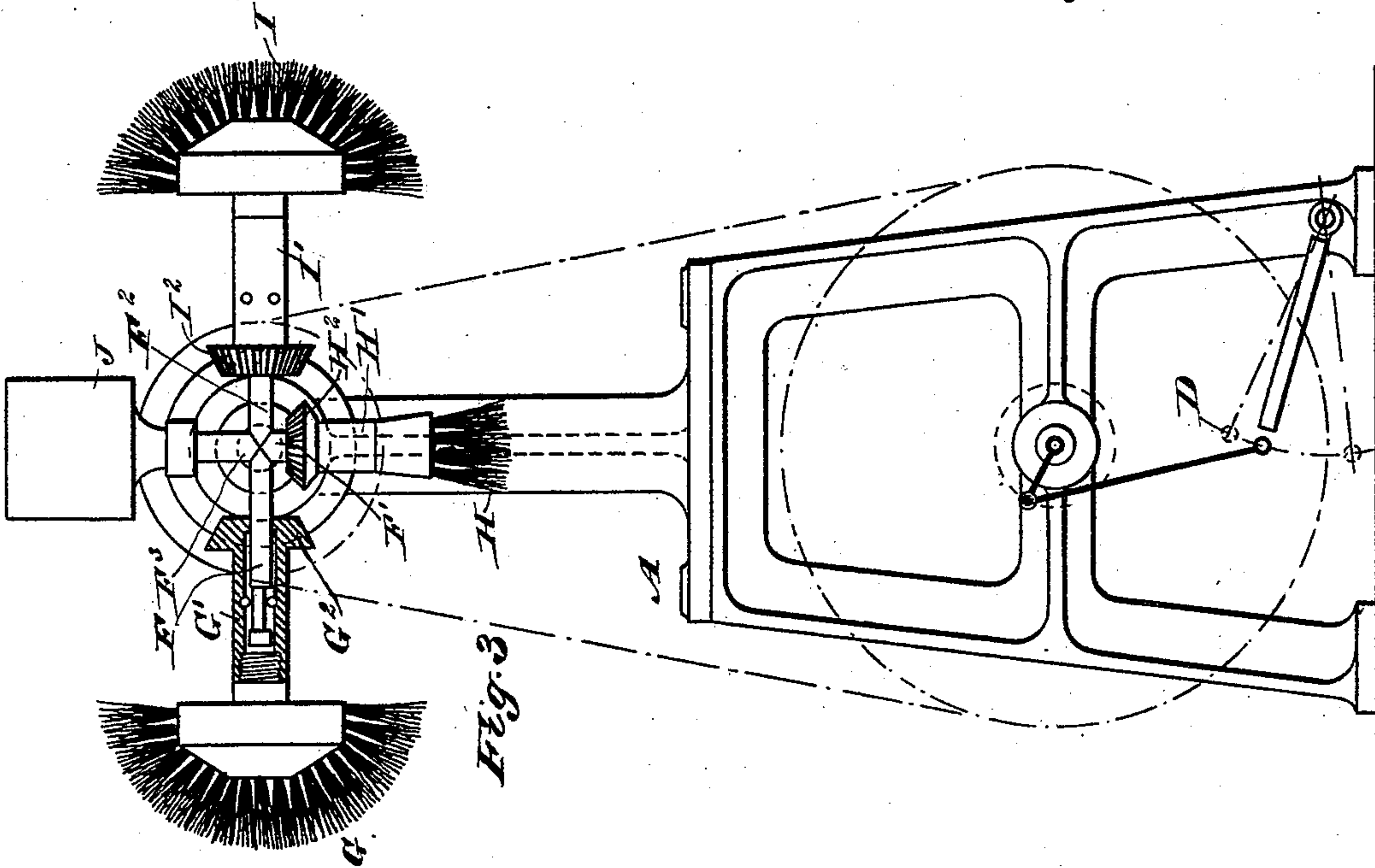
(No Model.)

S. BONNÉ.

BOOT CLEANING AND POLISHING MACHINE.

No. 497,624.

Patented May 16, 1893.



WITNESSES:

J. A. Bergstrom  
C. Sedgwick

INVENTOR

S. Bonné

BY

Munn & Co.  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

SIGMUND BONNÉ, OF NUREMBERG, GERMANY.

## BOOT CLEANING AND POLISHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 497,624, dated May 16, 1893.

Application filed March 5, 1892. Serial No. 423,863. (No model.)

*To all whom it may concern.*

Be it known that I, SIGMUND BONNÉ, of Nuremberg, Kingdom of Bavaria, Empire of Germany, have invented a new and Improved Shoe or Boot Cleaning and Blacking Machine, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved shoe or boot cleaning and blacking machine, which is simple and durable in construction, very effective in operation, and arranged to first clean the shoe or boot, then apply the blacking, and then brush the shoe or boot to produce the usual shine.

The invention consists in a plurality of brushes loosely mounted and adapted to be operated when pressure is applied thereto.

The invention further consists of a receptacle held on an arm on the said shaft and in communication with the back of one of the brushes to supply the blacking to the latter.

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter described and then pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a side elevation of the same, with parts in section and with the brushes and receptacle in a different position; and Fig. 3 is a front elevation of the improvement with parts in section, and illustrating means for operating the machine by foot power.

The improved machine is provided with a suitably constructed frame A, provided at its upper end with bearings A' and A<sup>2</sup>, in which is journaled a hollow shaft B, carrying between the bearings A' and A<sup>2</sup> a pulley C, connected by belt either with steam power machinery to impart a rotary motion to the said pulley and to the shaft B, or the said pulley is connected by belt with a treadle mechanism D, for conveniently operating the machine by foot power, as illustrated in Fig. 3.

In the ends of the hollow shaft B is jour-

naled a shaft E, extending centrally through the shaft B and formed at its outer end with a number of arms F, F', F<sup>2</sup> and F<sup>3</sup>, arranged radially and preferably in the shape of a cross so that the arms F and F<sup>2</sup> stand in line with each other and at right angles to the arms F' and F<sup>3</sup>, see Fig. 3.

On the arm F is mounted to rotate the hub G' of a brush G, having its bristles preferably arranged semi-spherically as plainly illustrated in the drawings. On the arm F' is mounted to turn loosely the hub H' of a small brush H, used for applying the blacking to the shoe or boot, as hereinafter fully described.

On the arm F<sup>2</sup> is mounted to revolve loosely the hub I' of a brush I, similar in construction to the brush G and serving to remove the dust and dirt from the shoe or boot previous to applying the blacking.

On the arm F<sup>3</sup> is attached a receptacle J, containing the blacking to be applied to the shoe or boot, the said receptacle being provided with a valve J', arranged near its upper end and serving to admit air to the interior of the receptacle. The receptacle J is connected with the back of the brush H by forming the arms F' and F<sup>3</sup> with a central opening F<sup>4</sup>, and also forming a number of diverging openings F<sup>5</sup>, in the back of the brush H, the said diverging openings leading to the central opening F<sup>4</sup>, as plainly shown in Fig. 1. Now, it will be seen that when the receptacle J is in an uppermost position, the liquid contents can flow through the central opening F<sup>4</sup> to the bristles of the brush H, the blacking being distributed to all parts of the brush by the diverging openings F<sup>5</sup>. On the hubs G' and I' of the brushes G and I are secured beveled friction wheels G<sup>2</sup> and I<sup>2</sup>, respectively adapted to engage a correspondingly shaped friction wheel K secured or formed on the outer end of the hollow shaft B. A like beveled friction wheel H<sup>2</sup>, is formed on the hub H' of the brush H and this friction wheel engages a small friction wheel K', formed on the face of the friction wheel K and concentric thereto. The friction wheels G<sup>2</sup>, H<sup>2</sup> and I<sup>2</sup> are normally disengaged from the friction wheels K and K' so that the brushes G, H and I remain at a standstill until



one of the brushes is pressed upon so as to slide inward onto the respective arm F, F', or F<sup>2</sup>.

Near the inner end of the shaft E is keyed  
5 a collar L, formed with V-shaped lugs L', engaging corresponding recesses in the outer face of the bearing A' of the frame A. Against the hub of this collar L presses one end of a spring N, resting with its other end on a collar O, secured on the shaft E, so that the friction wheels G<sup>2</sup>, H<sup>2</sup> and I<sup>2</sup> firmly engage the  
10 friction wheels K and K' when the brushes are pressed, as previously described. On the extreme rear end of the shaft E is secured a  
15 hand wheel P, for conveniently turning the said shaft E to bring the respective brushes G, H, I, into the desired position. It is understood that when the hand wheel P is turned, the collar L disengages by its lugs L', the  
20 notches in the bearing A' and when the respective brush is a desired position, the lugs L' again engage corresponding notches to hold the shaft E in position. It is understood that the collar L in disengaging the notches and  
25 turning at the end of the bearing A' presses the spring N, which latter again forces the lugs into their notches when the same are reached.

The operation is as follows: A continuous rotary motion is given to the shaft B either  
30 by steam power or foot power as previously described. The operator having hold of the shoe or boot to be cleaned and blackened applies the latter first on the brush I, so as to press the same inward to move its friction  
35 wheel I<sup>2</sup> in mesh with the friction wheel K so that the motion of the latter is transmitted to the brush I and the latter thus by its bristles revolves on the stationary-held shoe or boot and thereby brushes off all dust and dirt on  
40 the said shoe. When this has been accomplished, the operator takes the shoe or boot to the brush H and presses the same upward so that its friction wheel H<sup>2</sup> is moved in mesh with the friction wheel K' and a rotary motion of the latter is transmitted to the brush  
45 H so that the blacking in the bristles of the said brush is applied to the shoe or boot.

The operator then applies the shoe or boot to the brush G, and moves the same inward  
50 to bring its friction wheel G<sup>2</sup> in mesh with the revolving friction wheel K. The rotary motion of the latter is thus transmitted to the brush G and as the bristles of the latter are in engagement with the shoe or boot, the latter is brushed until the desired shine is obtained. In order to apply the blacking by the brush H, as above described, the said brush H must be in a lowermost position, as shown in Figs. 1 and 3, the receptacle J, then  
60 being directly above and supplying the necessary liquid to the brush. When applying the shoe or boot to the brushes I and G the latter may be in the position shown in Fig. 3, but I prefer to move the same in a lowermost  
65 position so as to apply the shoe or boot from underneath and press the brush upward to engage the respective wheel G<sup>2</sup> or I<sup>2</sup> with the

wheel K. In order to move the brushes G and I into such a lowermost position, the operator must turn the handle P to accomplish  
70 this result.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A shoe and boot cleaning and blacking  
75 machine, comprising a plurality of brushes loosely mounted, and means for revolving the brushes when pressure is applied thereto, substantially as described.

2. A shoe and boot cleaning and blacking  
80 machine, comprising a revolving cleaning brush, a revolving dauber, and a revolving polishing brush, all loosely, independently, and adjustably mounted, substantially as set forth.  
85

3. A brushing machine, comprising a frame, a main shaft journaled therein, an adjustable shaft having at one end a series of arms carrying sliding brushes, gears at the adjacent ends of the brushes and main shaft to rotate  
90 the brushes when pressure is applied to bring the respective gears into mesh or engagement, and a locking mechanism for holding the brush carrying shaft against rotation when the proper brush is brought into position, substantially as set forth.  
95

4. A brushing machine, comprising a frame, a tubular main shaft journaled therein, a longitudinally yielding axially adjustable shaft extending through the main shaft and provided at one end with a series of sliding  
100 brushes to be rotated from the main shaft upon the application of pressure, a spring on the brush shaft pressing its brush carrying end inwardly, and a locking collar on the  
105 brush shaft and held in engagement with the frame by said spring to lock the brush shaft when adjusted to bring any brush into the desired position, substantially as set forth.

5. In a machine of the class described, the  
110 combination with two arms arranged in line with each other and formed with a central opening, of a brush mounted to slide and to revolve on one of the said arms, and a receptacle held on the other arm and in communication through the said hollow opening with the back of the said brush, substantially as shown and described.  
115

6. In a machine of the class described, the  
120 combination with a hollow shaft mounted to revolve and formed with friction wheels, of a shaft mounted to turn in the said hollow shaft and provided at one outer end with arms, and brushes mounted to slide and to revolve on the said arms and formed with friction  
125 wheels adapted to engage the friction wheels on the wheels of the hollow shaft, substantially as shown and described.

7. In a machine of the class described, the  
130 combination with a hollow shaft mounted to revolve and formed with friction wheels, of a shaft mounted to turn in the said hollow shaft and provided at one outer end with arms, and brushes mounted to slide and to



revolve on the said arms and formed with  
friction wheels adapted to engage the friction  
wheels on the wheels of the hollow shaft, and  
a receptacle arranged on one of the said arms  
5 diametrically opposite one of the said brushes  
and in communication with the back of the  
latter, substantially as shown and described.

8. In a machine of the class described, the  
combination with a hollow shaft mounted to  
10 revolve and formed with friction wheels, of  
a shaft mounted to turn in the said hollow  
shaft and provided at one outer end with  
arms, and brushes mounted to slide and to  
revolve on the said arms and formed with  
15 friction wheels adapted to engage the friction

wheels on the wheels of the hollow shaft, a  
receptacle arranged on one of the said arms  
diametrically opposite one of the said brushes  
and in communication with the back of the  
latter, and means, substantially as described, 20  
for turning the said shaft carrying the arms,  
as set forth.

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

SIGMUND BONNÉ.

Witnesses:

EMIL KOERBAUNY,  
OSCAR BOCK.