

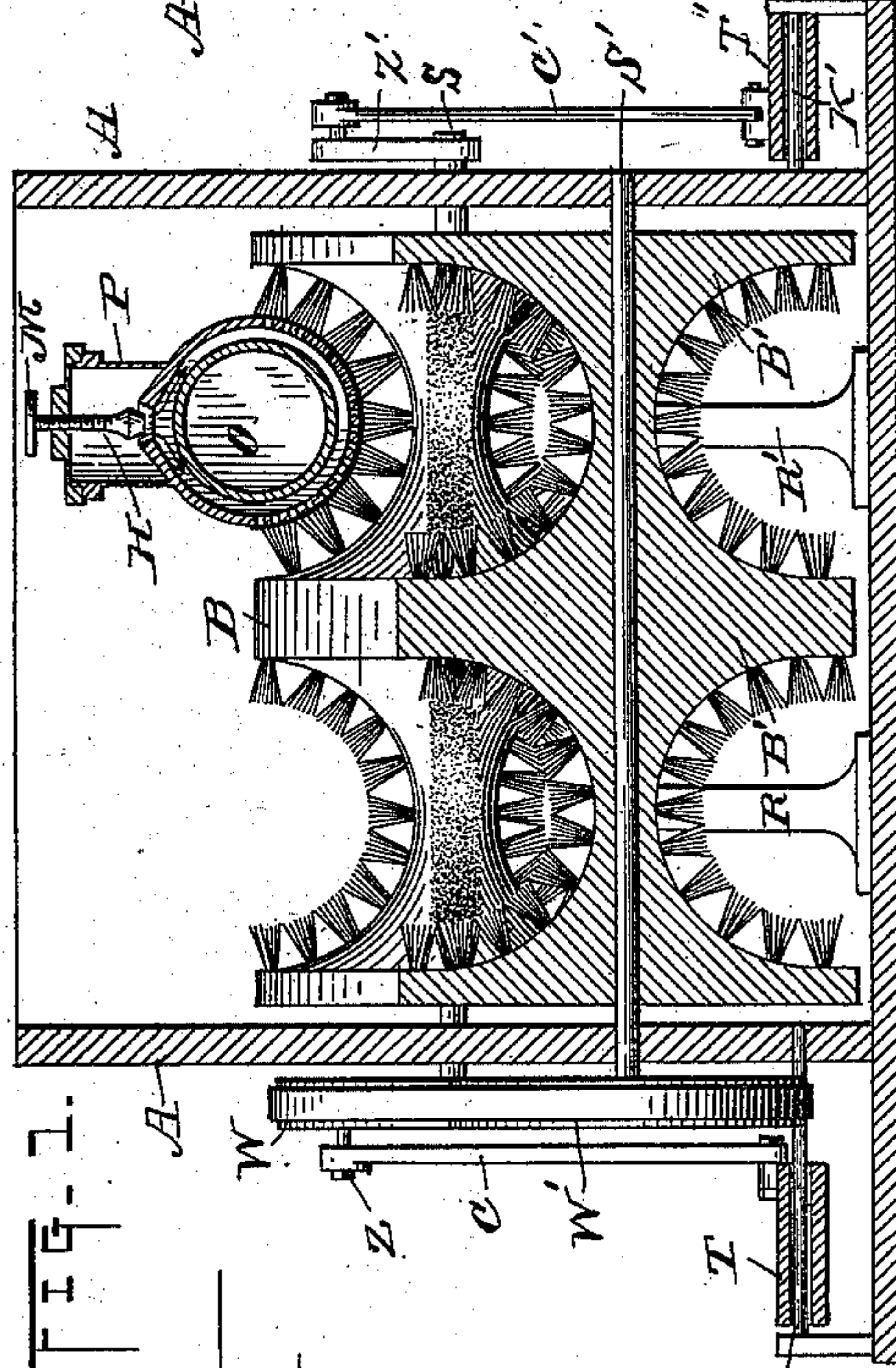
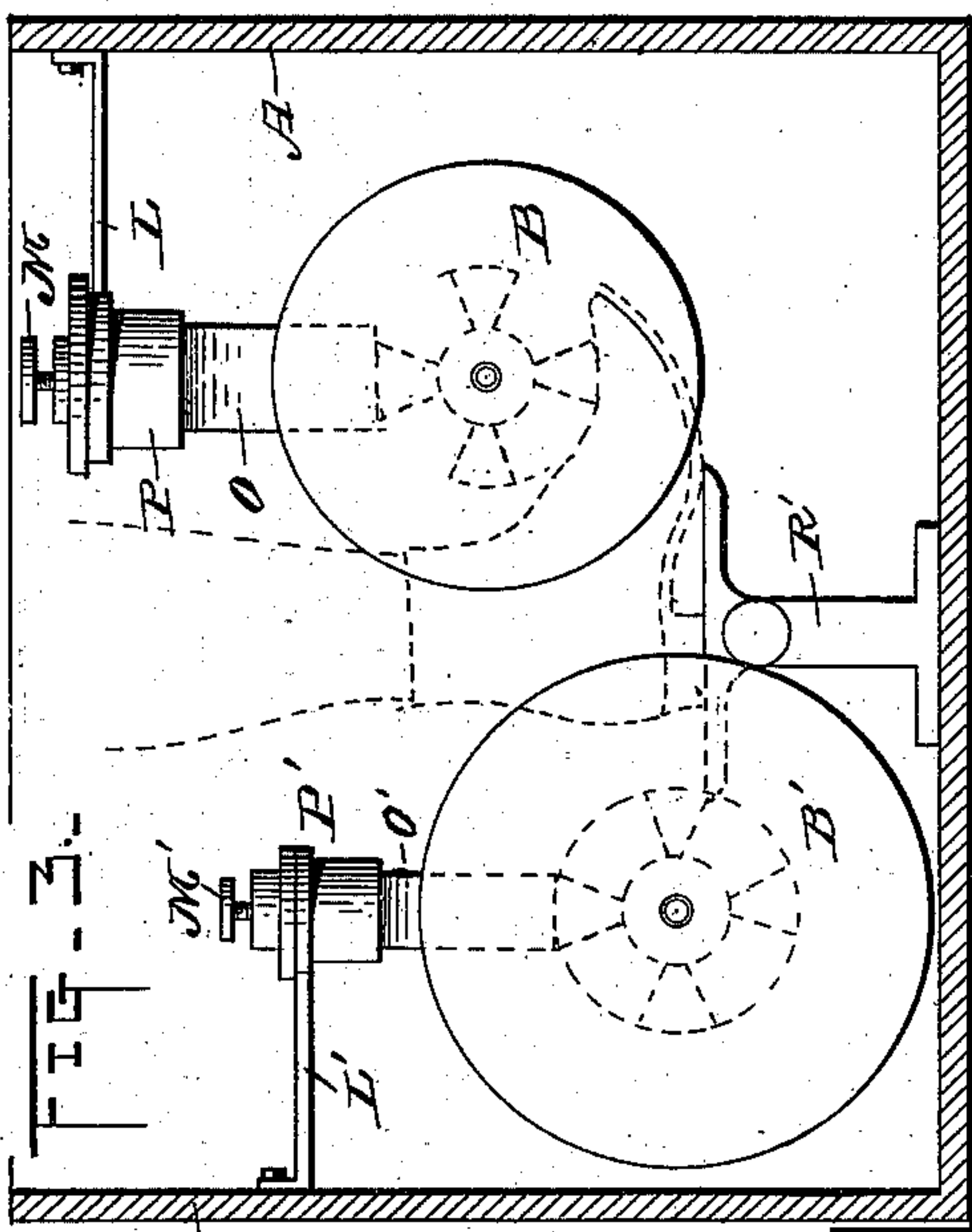
(No Model.)

A. KITSON.

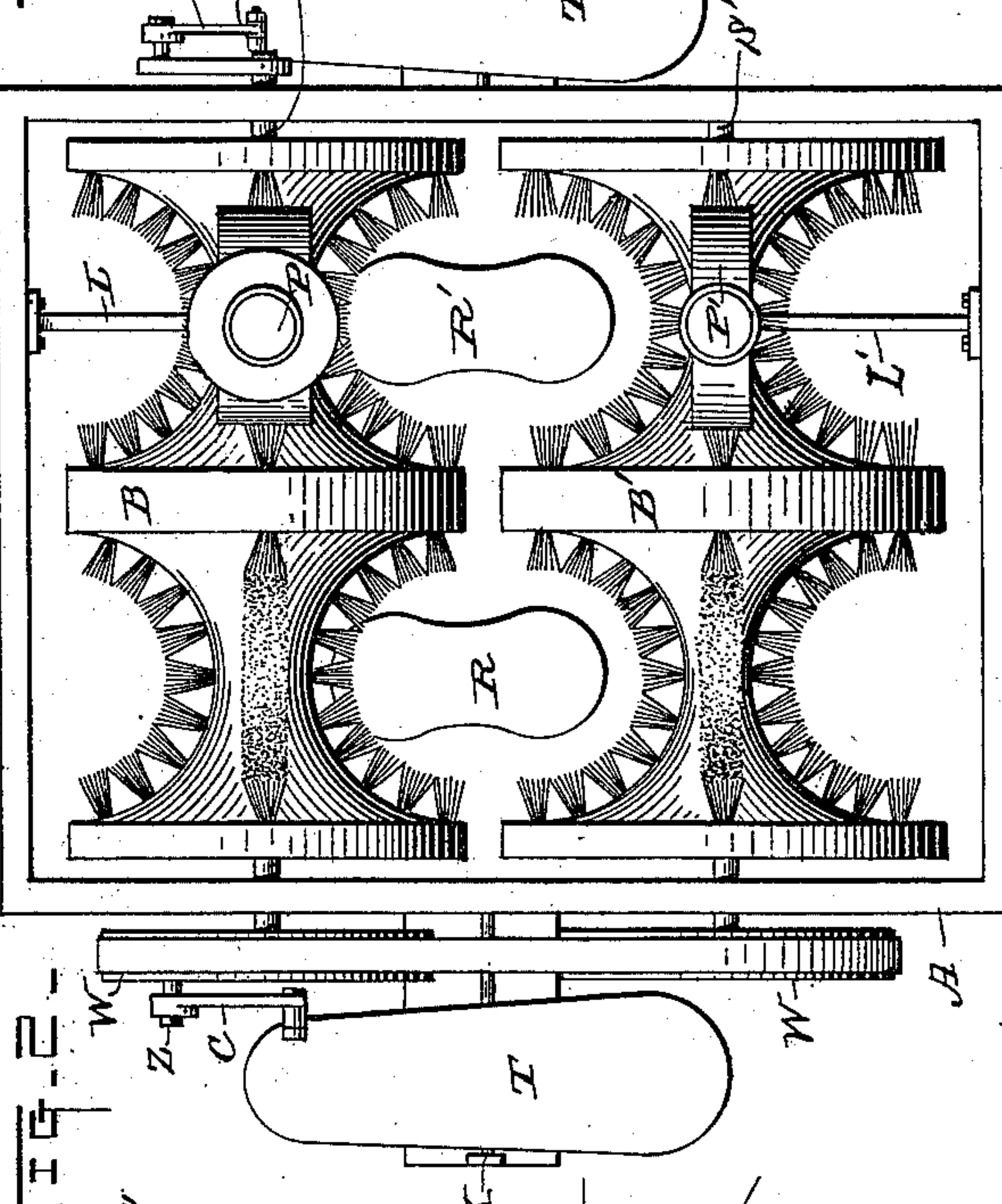
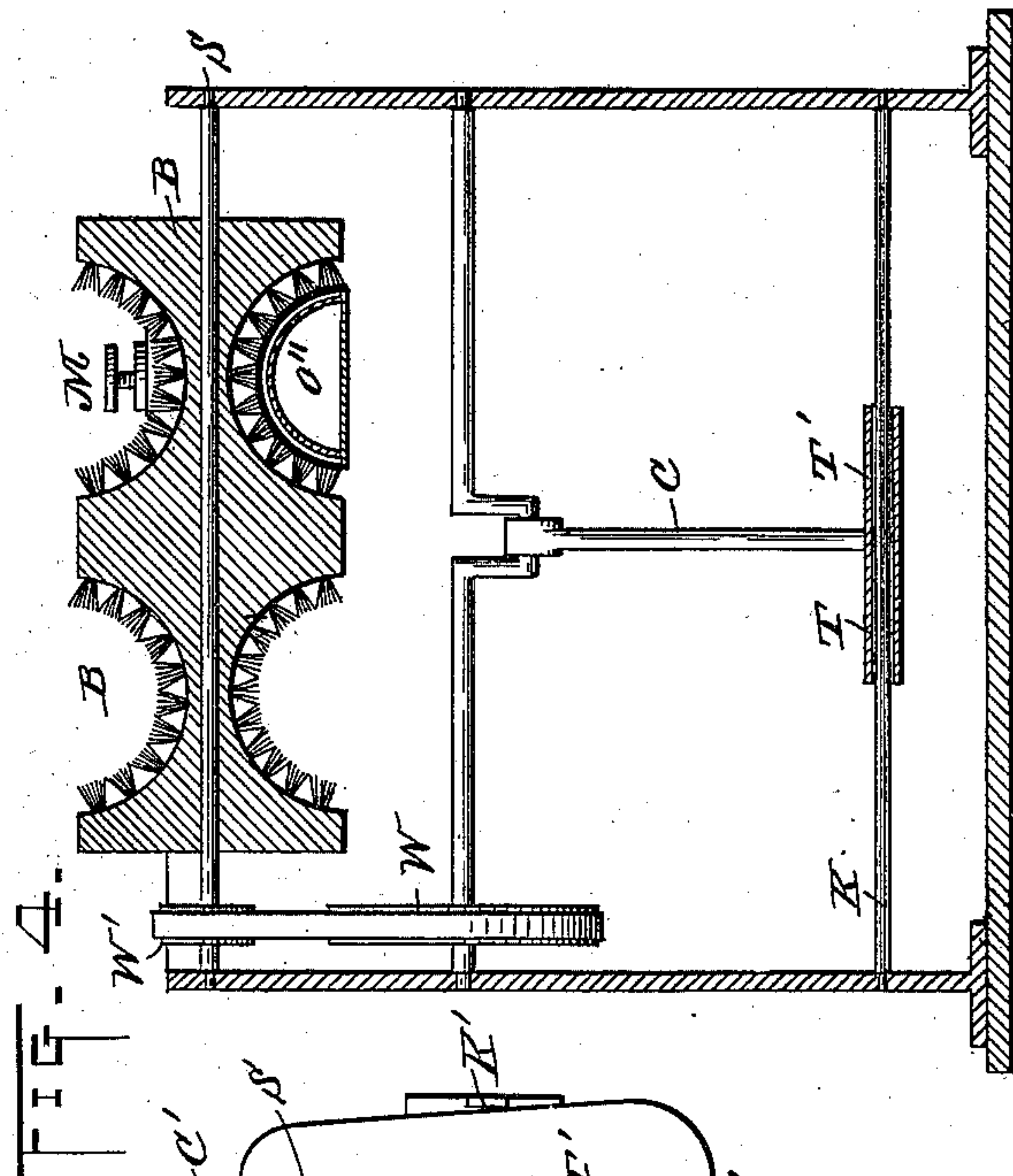
MACHINE FOR BLACKING AND POLISHING SHOES.

No. 401,890.

Patented Apr. 23, 1889.



WITNESSES.  
E. J. Smith  
O. Fred. Keller.



INVENTOR  
Arthur Kitson  
by  
Arthur W. Harrison  
Att'y.



# UNITED STATES PATENT OFFICE.

ARTHUR KITSON, OF PHILADELPHIA, PENNSYLVANIA.

## MACHINE FOR BLACKING AND POLISHING SHOES.

SPECIFICATION forming part of Letters Patent No. 401,890, dated April 23, 1889.

Application filed September 21, 1887. Serial No. 250,369. (No model.)

*To all whom it may concern:*

Be it known that I, ARTHUR KITSON, a subject of the Queen of Great Britain, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Machine for Blacking and Polishing Shoes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention consists of one or more sets of circular brushes supported at their centers, about which they rotate, supported by a frame and rotated by suitable mechanism, which may be operated entirely by the feet or by a handle, thereby saving time, labor, and unpleasantness of manipulating hand-brushes.

Referring to the drawings, Figure 1 is a front sectional elevation of the machine. Fig. 2 is a plan; Fig. 3; an end view showing relative position of brushes and foot-rest. Fig. 4 is another form of similar machine. Fig. 5 is a longitudinal sectional view of the blacking-reservoir and supply shown in Fig. 4.

Similar letters designate similar parts.

A is a wooden frame or box for supporting the machine.

B B' are circular brushes, grooved, as shown, to fit the shoe. Each set consists of two distinct brushes similarly grooved and revolving on the same spindle. These brushes are supported by the spindles or shafts S S', running through their centers, and these are supported by the frame-work A. The brushes are supported at different heights, B being raised several inches above the level of B'. The object of this is that the former is used for polishing the toe and upper portion of the shoe and the lower for the heel. These brushes are rotated by the cranks Z Z', rods C C', and treadles T T', which are all connected together in the usual manner, similar to the mechanism employed in sewing-machines and other well-known apparatus. The motion given by the cranks Z Z' to the upper shaft, S, is conveyed to shaft S' by the wheels W and W', which are connected together by a belt, as shown.

R R' are foot-rests upon which the feet are placed while cleaning the shoes.

P P' are blacking-holders supported by the rods L L', attached to the frame A, as shown, and are used to supply blacking to the brushes. In Fig. 1, for convenience, P' is omitted. P is shown in section and represents the apparatus, both P and P' being similar. The vessel P, which contains the blacking in a liquid condition, is connected to a receiver, O. This receiver consists of two metallic cylinders, one inside and rather smaller than the other, both being connected at both ends, which are closed, and forming a channel between them, as shown in the drawings. This receiver rests horizontally on one side and is made to fit the groove of the brush exactly. The under side of this receiver is perforated with holes and covered with cloth or some absorbent material through which the blacking can easily percolate. This cloth is in contact with the brush.

At the top of the receiver a hole is shown, which is opened and closed by the plug H, operated by the handle M, which, when turned, raises and lowers the plug in or out of the hole. When the plug is raised, the liquid runs from the vessel through the hole into the channel of the receiver O, as shown by the arrows, and when lowered shuts it off entirely. The liquid runs down to the holes and is absorbed by the cloth. The brushes when rotated take up the blacking from the cloth without splashing or soiling the machine. The brushes on the right-hand side of the machine are used for blacking and those on the left for polishing the shoes.

The mode of operating the machine is as follows: To polish the right shoe, the brushes are rotated by the left foot operating the treadle T. The right foot is placed on the rest R' and the toe pushed forward under the brush B until all the upper and front half of the shoe is well blackened. The foot is then drawn backward until the heel is brought in contact with the brush B'. This blackens the remaining portion of the shoe. The foot is then transferred to rest R and placed similarly in contact with first one and then the other brush until the shoe is thoroughly polished. To polish the left shoe, the machine is worked by the right foot and the left placed in similar positions to the right in the previous op-



eration. Fig. 3 shows the foot in first position. It is only necessary to use four rows of bristles in each brush, as shown in dotted lines, Fig. 3, provided the speed of rotation is sufficient, and it is easy to see that the interposition of another pulley will give any speed necessary.

In Fig. 4 the form of machine is designed for cleaning shoes off the feet. Only one set of brushes is requisite in this case. In this construction the blacking is supplied to the under side of the brush, as shown, the vessel or reservoir P'' being at one end of the reservoir O'', as shown in Fig. 5. The receiver is semitubular and the liquid travels from the vessel P'' into the semitubular channel and is absorbed and supplied as in the construction shown in Fig. 1. The brushes are rotated by the treadles T T, and the shoes held in contact with the upper portion of brushes.

It is obvious that other mechanism than that herein described for rotating the brushes can be employed—such as a handle placed at end of crank instead of rods C C' and treadles—or power conveyed to the wheels W W' by steam, &c.

I do not confine myself to any particular method of causing the brushes to rotate; but

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

1. In combination with a rotary grooved blacking-brush, a perforated blacking-re-

ceiver curved to fit the groove of the brush, substantially as described.

2. In combination with a rotary grooved blacking-brush, a perforated blacking-receiver curved to fit the groove of the brush, said perforations being covered with an absorbent material, and a supply-vessel connected to said receiver, substantially as described.

3. In a machine for blacking and polishing boots and shoes, the combination, with two circular double-grooved brushes, of means for simultaneously revolving them, and a blacking-supply for applying blacking to each of the two brushes at one end of the machine, substantially as described.

4. In a machine for blacking and polishing boots, the combination, with two shafts, each having upon it two grooved brushes, one shaft being arranged slightly above the plane of the other, of a blacking-supply, and a foot-rest arranged between each pair of grooved brushes, whereby the toe of the boot will be operated upon by one brush and the heel by the other brush, and whereby the boot, after being blackened by one pair of brushes may be polished by the other pair, substantially as described.

ARTHUR KITSON.

Witnesses:

R. ASCHENBACH,  
A. MADDOX.