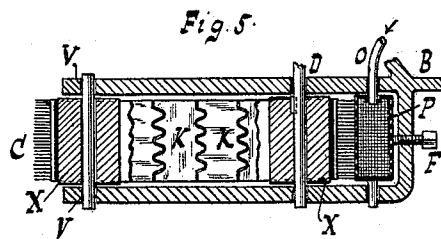
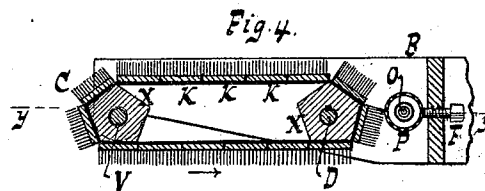
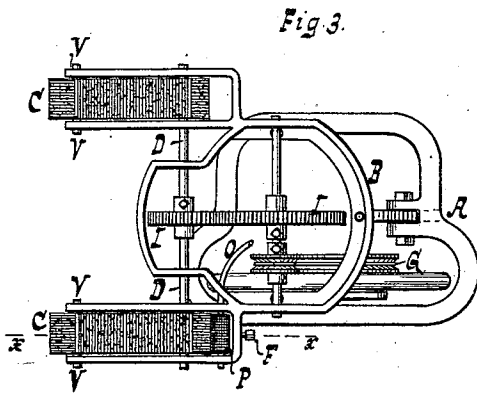
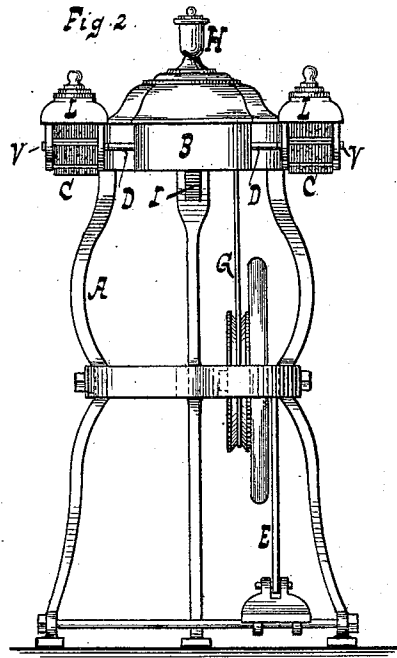
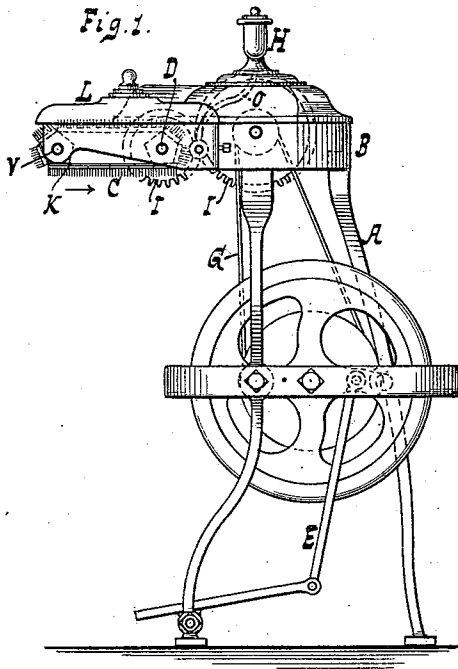


(No Model.)

R. KUNSTMAN.
MACHINE FOR POLISHING BOOTS OR SHOES.

No. 469,087.

Patented Feb. 16, 1892.



WITNESSES:

William Miller
Edward Wolff.

INVENTOR:

Robert Kunstman.
BY
Van Santvoord & Hauff
his ATTORNEYS

UNITED STATES PATENT OFFICE.

ROBERT KUNSTMAN, OF AWENKAMP, NEW SOUTH WALES.

MACHINE FOR POLISHING BOOTS OR SHOES.

SPECIFICATION forming part of Letters Patent No. 469,087, dated February 16, 1892.

Application filed July 30, 1891. Serial No. 401,142. (No model.)

To all whom it may concern:

Be it known that I, ROBERT KUNSTMAN, a British subject, residing at Awenkamp, Bowral, New South Wales, Australia, have invented new and useful Improvements in Machines for Polishing Boots or Shoes, of which the following is a specification.

This invention has for its object to provide a novel machine for brushing, cleaning, and polishing boots, shoes, or other articles; and to this end the invention consists in the features of construction and the combination or arrangement of devices hereinafter described and claimed, reference being made to the accompanying drawings, in which—

Figure 1 shows a side elevation of the machine driven by foot-power. Fig. 2 is a rear elevation of the same machine. Fig. 3 represents a sectional plan or top view of enlarged scale. Figs. 4 and 5 represent the formation of the endless and movable brush.

In Figs. 1 and 2, the letter A indicates the stand which supports the frame B, Fig. 3, and within this frame the operating and endless brushes C C are placed and set in motion by a spindle D D from a motor, such as a foot-power machine E. The endless and movable brushes consist of a number of uniform sections of brushes K K K, closely gearing or meshing each other and attached to slightly-elastic endless bands. This endless brush revolves over a pair of small angular rotary supports X X, of three, five, or more sides of their respective circumference, one angular rotary support being fixed to the spindle D, while the other one is loosely revolving on its bearings V V, (both supports being precisely of the same size and shape.) The endless and movable brush is kept in a stretched condition while in motion, each side of the cylinder corresponding in width exactly with the sectional part of the brush. It will thus be seen that the brushes are revolving when the spindle is set in motion, thereby brushing continually in one direction, forming a compact brush, either stiff or soft, while gliding over the article to be operated upon.

In Figs. 1 and 2 a small reservoir H H is containing the liquid ingredients for the supply of the polishing-brush during the operation of polishing. A small tube O O leads

from the reservoir to conduct the liquid to a perforated cylinder P P, rotated by the action of one of the traveling endless brushes, Figs. 4 and 5. The liquid is delivered from the rotating cylinder to the endless brush by centrifugal force, and the endless brush conveys the liquid to the boot or shoe which is to be polished. Provision is made by means of screw F to stop the cylinder P instantly when no supply of polishing ingredients is required to be brought in contact with the polishing-brush.

In Figs. 1 and 2, the letters L L indicate covers for protecting the moving gear and likewise the brushes on their upper sides, so that no dirt may rise to inconvenience the operator during the time of working the machine. The contact-edges of the brush-sections are serrated, as seen in Fig. 5, so that said sections are held in proper alignment. The belt G and gears I are shown as transferring motion from the foot-power machine to the spindle D.

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

1. The combination of an upright stand A, having a frame B at its upper end, a horizontal driving-shaft D, having a pair of angular supports, bearings V, having angular supports, a pair of independent parallel endless bands extending round the supports and provided with brush-blocks, which are engaged at their end portions, means for rotating the drive-shaft to simultaneously move the endless bands in the same direction in a horizontal plane, a liquid-distributor arranged in juxtaposition to one of the endless bands for supplying the brushes thereof with liquid, and a liquid-reservoir connected with the liquid-distributor, substantially as described.

2. The combination of an upright stand A, having a frame B at its upper end, a horizontal drive-shaft D, having a pair of angular supports, bearings V, having angular supports, a pair of independent parallel endless bands extending round the angular supports and provided with brush-blocks, mechanism for rotating the drive-shaft to simultaneously move the pair of endless bands in the same direction in a horizontal plane, a rotary liquid-distributing cylinder operated by the

brushes of one endless band, and means for holding the cylinder stationary when desired, substantially as described.

3. The combination of an upright stand A,
5 having a frame B at its upper end, a horizontal drive-shaft D, journaled in the frame and having a pair of rotary supports, the bearings V, supported by the frame and having rotary
10 supports, a pair of independent parallel endless brushes extending round the rotary supports and separated from each other to move in a horizontal plane, means for rotating the

drive-shaft to simultaneously move the pair of brushes in the same direction in a horizontal plane, and a liquid-distributor arranged 15 in juxtaposition to one of the endless brushes, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ROBT. KUNSTMAN.

Witnesses:

D. MAUNSELL,
W. T. F. BUDD.

Correction in Letters Patent No. 469,087.

It is hereby certified that the residence of the patentee in Letters Patent No. 469,087, granted February 16, 1892, upon the application of Robert Kunstman, for an improvement in "Machines for Polishing Boots or Shoes," was erroneously written and printed "Awenkamp, New South Wales," whereas said residence should have been written and printed *Arrenkamp, New South Wales*, and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed, countersigned, and sealed this 23d day of February, A. D. 1892.

[SEAL.]

CYRUS BUSSEY,
Assistant Secretary of the Interior.

Countersigned:

W. E. SIMONDS,

Commissioner of Patents.