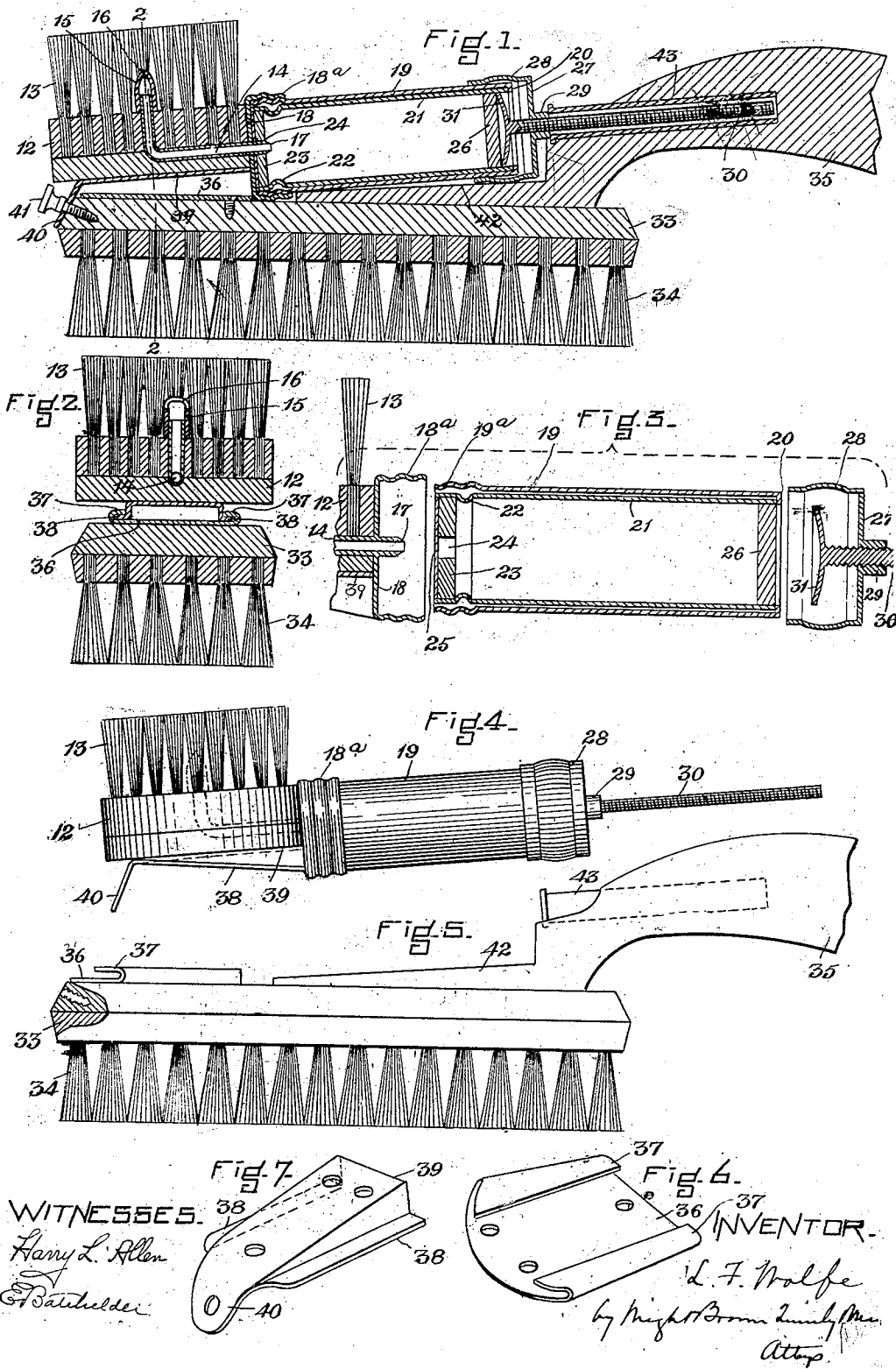


L. F. WOLFE.
BLACKING BRUSH.
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LEONARD F. WOLFE, OF NORTH WEYMOUTH, MASSACHUSETTS.

BLACKING-BRUSH.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, LEONARD F. WOLFE, a citizen of the United States, and a resident of North Weymouth, in the county of Norfolk and State of Massachusetts, have invented certain new and useful Improvements in Blacking-Brushes, of which the following is a specification.

This invention relates to a boot and shoe blacking brush having means for carrying a supply of semi-liquid blacking or paste and for discharging the same in small quantities as required among the bristles constituting the brush material of the spreading portion or dauber of the brush.

The invention has for its object to enable a brush of this character to be conveniently charged with blacking as required without liability of soiling the fingers during the operation, and also to provide means for conveniently and properly forcing the blacking into the brush material and for preventing the blacking from hardening or drying while stored on the brush.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings which form a part of this specification,—Figure 1 represents a longitudinal section of a blacking brush embodying my invention; Fig. 2 represents a section on line 2—2 of Fig. 1; Fig. 3 represents in section parts of the brush and the blacking-holding and ejecting means, some of said parts being separated from others; Figs. 4 and 5 represent side views of the daubing and polishing portions of the brush separated from each other; Figs. 6 and 7 represent perspective views of the coupling members employed to connect the dauber with the polishing portion of the brush.

Similar reference characters indicate the same or similar parts in all the figures.

In the drawings, 12 represents the back of a blacking brush dauber, and 13 represents the brush material mounted on said back, said material being preferably bristles arranged in tufts as usual and secured in any suitable manner to the back, the latter being preferably composed of two sections rigidly connected and the brush material being attached to the outer section.

The back 12 is provided with a blacking duct 14 adapted to conduct blacking from

the holder hereinbefore described and deliver the same to the brush material 13, said duct being preferably a bent tube which extends from one edge of the back 12 to the central portion of the same, and from thence outwardly to and beyond the outer side of the back, the delivering end of the duct projecting among the bristles 13.

15 represents a nipple, preferably of semi-elastic construction, formed to embrace the delivering end of the duct 14 and projecting from the latter, as shown by Figs. 1 and 2, said nipple having a narrow slit 16 in its outer end which is normally closed by the resilience of the nipple, and is adapted to be opened by pressure of the blacking against its inner surface, the sides of the slit closing when there is no pressure on the blacking and excluding air from the interior of the nipple and from the duct.

The outer end of the nipple projects sufficiently beyond the delivering end of the duct to enable it to bend freely when pressed against the surface of the boot or shoe.

The receiving end of the duct projects outwardly from the edge of the back 12 and is beveled or sharpened to constitute a cutter 17 adapted to penetrate a rupturable seal or closure on the blacking cartridge hereinafter described.

To the edge of the back 12 is rigidly attached a socket composed of a disk 18 and a screw-threaded flange 18^a. The disk is preferably attached rigidly to the duct 14, and the flange 18^a surrounds the cutter 17, as clearly shown by Fig. 3.

19 represents a barrel which is preferably a length of sheet metal tubing having an external screw-thread 19^a at one end adapted to engage the socket flange 18^a. The opposite end of the barrel 19 is provided with an inwardly projecting flange 20. The barrel 19 is adapted to receive a tubular cartridge containing a charge of blacking. Said cartridge is composed of a tubular body 21 adapted to bear at one end against the flange 20 and provided near its opposite end with an inwardly projecting shoulder 22 and with a head 23 which may be composed of any suitable material such as felt and is provided with a central aperture 24. The head 23 bears against the shoulder 22 and is prevented by the latter from being pressed inwardly.

25 represents a rupturable seal which may

be a disk of paraffin paper or other suitable material cemented to the outer side of the head 23 and closing the aperture therein.

26 represents a stopper which has a close sliding fit in the body 21 and may be a disk of felt or other suitable material. When the cartridge is filled the stopper 26 is at the outer end portion of the body 21, as shown by Figs. 1 and 3. The stopper 26 is adapted to be moved into the body 21 and to serve as a plunger or ejector to force blacking through the aperture 24.

The outer end of the barrel 19 is provided with a rotatable head which includes a disk 27 and a flange 28 thereon, said flange surrounding a portion of the barrel and being in sliding contact therewith. The disk 27 is provided with a hub 29 which is internally screw-threaded and constitutes a nut.

30 represents a screw-threaded rod which passes through and is engaged with the nut 29 and is formed at its inner end to have a suitable bearing on the stopper 26, so that when the rod 30 is moved inwardly endwise by the rotation of the nut 29, the rod will force the stopper toward the head 23. The rod is preferably provided at its inner end with a piston head or enlargement 31 formed to enter the cartridge body 21 and bear on the stopper 26, the said piston being preferably concave as shown by Fig. 3.

The cartridge composed of the body 21, the apertured head 23, the seal 25 and the stopper 26 constitute a blacking package which may be supplied to the market as an article of trade ready for application to a blacking brush. To apply the cartridge to the brush it is only necessary to unscrew the barrel 19 from the socket flange 18^a, insert the cartridge in the barrel, the outer end of the cartridge bearing on the flange 20, and then screw the barrel into the socket. The last mentioned operation forces the seal 25 against the cutter 17 which projects into the socket sufficiently to penetrate the seal and establish a communication between the interior of the cartridge and the duct 14 when the barrel has been screwed to place in the socket. The application of the head 27 to the outer end portion of the barrel causes the piston 31 to bear on the stopper 26. When the head is rotated in the proper direction its nut 29 causes an endwise movement of the rod 30, this movement pressing the piston 31 against the stopper 26 and forcing the latter toward the head 23. Blacking is thus ejected through the aperture 24 and the duct 14.

The dauber composed of the back 12 and the brush material 13 and the cartridge holder attached to the back as described, may be used independently of a polishing brush, the cartridge holder constituting a handle by which the da-

ber may be manipulated, as indicated by Fig. 4. It is preferable, however, to use the construction shown by Fig. 4 in connection with a polishing brush composed of an elongated back 33 having the usual brush material 34 and a handle 35. The brush backs 12 and 33 are provided with complementary coupling members whereby they may be quickly and conveniently connected and separated, the coupling member on the back 33 being preferably a sheet metal plate 36, the edges of which are bent over to form ears 37, said plate being attached by screws to the back 33. The coupling member on the back 12 is preferably a sheet metal piece having flanges 38 adapted to be inserted under the ears 37, as shown by Fig. 2, and an inclined portion 39 adapted to be attached by screws to the under side of the back 12, the said inclined portion holding the back 12 at an angle to the back 33, as shown by Fig. 1. The coupling member on the back 12 is also preferably provided with an inclined ear 40 adapted to be attached by a screw 41 to the outer end of the back 33. The handle 35 is provided with an inclined face 42 which forms a rest for the cartridge holder, as indicated by Fig. 1. The handle is provided with a socket 43 which is adapted to receive the piston rod 30 when the latter is retracted. It will be seen that by removing the screw 41, the dauber, the cartridge holder and the piston rod may be readily removed from the polishing brush to permit the removal of the barrel 19 from its socket on the dauber back, the removal of an exhausted cartridge, and the insertion of a fresh cartridge, the whole operation being quickly and conveniently performed and without liability of soiling the fingers. It is evident that the cartridge employed may contain stove blacking, the brush being adapted for application to metal surfaces.

I claim:—

1. A blacking brush comprising a back, brush material projecting therefrom, a fixed blacking duct extending through the back to the brush material and having a receiving end projecting from the exterior of the back and a delivering end projecting into the brush material and provided with a self-closing outlet nipple, a cartridge holding barrel attached to the back and surrounding the receiving end of the duct, a blacking cartridge removably inserted in the barrel and having an outlet orifice at one end adapted to receive the receiving end of the duct, and means for forcing blacking from the cartridge through the duct, the cartridge being separable from the duct and discardable when its contents are exhausted.

2. A blacking brush comprising a back, brush material projecting therefrom, a blacking duct extending through the back to the brush material, the receiving end of

the duct projecting from the back and being formed as a cutter, a cartridge-holding barrel detachably secured to the back, the cutting end of the tube projecting into said barrel, a piston movable in the barrel, and means of projecting and retracting the piston, the barrel being provided with means for pressing a blacking cartridge against the cutter.

3. A blacking brush comprising a back, brush material projecting therefrom, a blacking duct extending through the back to the brush material, the receiving end of the tube projecting from the back and being formed as a cutter, a cartridge-holder composed of a screw-threaded socket attached to the back and surrounding the said cutter, a barrel screw-threaded at one end to detachably engage the socket, and adapted to receive a cartridge, said barrel having a flange at its opposite end adapted to bear on one end of an inserted cartridge and force the opposite end thereof against the said cutter, a head rotatable on the outer end of the barrel and provided with a nut, and a piston adapted to enter a cartridge in the barrel and provided with a screw-threaded stem which is engaged with said nut.

4. In combination, a blacking brush including a back, brush material thereon, a blacking duct extending through the back and terminating in the brush material, and a screw-threaded socket attached to the back and surrounding the receiving end of the tube, said end being formed as a cutter, a cartridge-holding barrel screw-threaded at one end to engage the socket and provided at its opposite end with an inwardly projecting flange, and a head rotatable on the

said barrel and provided with a nut, a cartridge composed of a tube insertible in said barrel and adapted to bear at one end on said flange, the tube being provided with a rupturable closure adapted to be penetrated by said cutter, and with a stopper adapted to serve as an ejector, and a screw-threaded piston rod engaged with said nut and formed at its inner end to bear on said stopper.

5. In a blacking brush, in combination, a dauber, a cartridge-holding barrel attached to the back of the dauber and projecting therefrom, a blacking cartridge removably inserted in the barrel, means for conducting blacking from the cartridge to the brush material of the dauber, a piston movable in the cartridge and having a rod, means carried by the barrel for projecting and retracting the rod and piston, and a polishing brush having a back provided with a seat for the barrel, and with a handle provided with an elongated socket adapted to receive the rod when the latter is retracted, the backs of the dauber and polishing brush being provided with complementary coupling members formed to permit the separation of the dauber and its attachments from the polishing brush, to expose the outer end of the barrel and permit the removal and insertion of a cartridge, by a movement which withdraws the rod from the socket, the rod being protected by the handle when the parts are operatively assembled.

In testimony whereof I have affixed my signature, in presence of two witnesses.

LEONARD F. WOLFE.

Witnesses:

C. F. BROWN,
P. W. PEZZETTI.