

UNITED STATES PATENT OFFICE.

WILLIAM HAYBALL, OF PORTLAND, OREGON.

RESERVOIR BLACKING-BRUSH.

SPECIFICATION forming part of Letters Patent No. 558,172, dated April 14, 1896.

Application filed August 28, 1893. Serial No. 484,249. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HAYBALL, a citizen of the United States, residing at Portland, in Multnomah county, and State of Oregon, have invented a new and useful Improvement in Reservoir Blacking-Brushes, of which the following is a specification.

My invention is intended to improve and perfect brushes of the class under consideration, my improvements being designed to cheapen the construction of such brushes by simplifying the operating mechanism or means employed for retaining the liquid blacking in its reservoir and emitting the same as required for use. I further desire to adapt the contrivances necessarily employed by me so as to be easily applied to an ordinary brush, and to be easily replaced if broken in any way or worn out by use. The construction of these means and the advantages resulting therefrom will become apparent from the accompanying drawings, constituting a part hereof, and referred to in the description of my invention herein given.

Figure 1 of such drawings shows a detached swab adapted to receive my valve mechanism. Fig. 2 shows a sectional view of the valve to be fixed in the bottom of said swab, (an enlarged sectional view of such valve mechanism being shown in Fig. 6.) Fig. 3 shows a longitudinal section of a handle adapted to my invention and provided with a can or reservoir to contain the blacking. Fig. 4 shows a lever for operating said valve, and Fig. 5 shows a longitudinal section of a brush embodying my invention complete; and Fig. 6 is a sectional view of my valve mechanism, the same as Fig. 2, but on a larger scale.

I will describe my invention as if about to be applied to an ordinary brush provided with a swab and handle, referring to the letters in the drawings as designating the parts described.

The wooden disk A of the swab holding the bristles is provided with a central aperture *a'*, adapted to receive the short tube *b*, constituting the neck of my valve, and said disk is also countersunk on its bottom surface to receive the flange *b'*, projecting from the tube *b* and affording means for affixing my valve mechanism to the bottom of the swab. My valve mechanism is intended to hold the liquid blacking within the reservoir until wanted,

and the construction of the same may be seen from Fig. 6. The tube *b* has a projecting flange *b'* for the purposes mentioned, and the end *b*² of the tube below such flange is threaded, adapting the same to be screwed in the top of the reservoir-can C. The interior of the upper end of said tube *b*³ is counterbored to afford a seat for a cone-shaped valve *b*⁴, the periphery of said valve *b*⁴ being made at a somewhat sharper angle to diminish its contact with its seat, the end *b*³ of said tube *b*. The valve *b*⁴ has a threaded central perforation, adapting it to be adjusted on a threaded rod *b*⁵, and said valve is held down on its seat by means of a spiral spring *b*⁶, the lower end of which rests on a foot provided on the rod *b*⁵ and the upper end being seated in an interior recess *b*⁷, provided in the lower end of such tube *b*. The reservoir-can has a spring-bottom *c'*, on which the foot of said rod *b*⁵ rests. Thus as the outer end *d'* of the lever D is pressed down, the inner end *d*² presses upward, springing the bottom *c'* of the can C, and while so doing raising the valve *b*⁴ to permit some of the liquid blacking to escape and flow among the bristles of the swab upon the brush being turned so as to bring the swab down.

The lever D is pivoted in a slot *e'* in the handle E, the front end of such slot extending into the opening *e*² under the spring bottom *c'* of the reservoir-can C and the other end thereof leading out to the top of the handle, so as to receive the bent-up or handle portion *d'* of said lever D. A simple form of construction for said operating-lever D is illustrated in Fig. 4, and consists of a rod with a button *d*² on one end, and having two small lugs *d*³ near its central part, where it is pivotally fixed on a button *d*⁴ by means of a staple *d*⁵.

F is a cap for covering the swab when not in use, having a flange *f'*, adapted to be secured on the rib *a*³ on the swab, and it may be provided with a sponge *g*, which is to be kept moist to keep the swab soft.

Having thus described my invention, now what I claim is—

1. In a reservoir blacking-brush, in combination, a reservoir-can provided with a spring bottom, a swab mounted on said reservoir-can, an opening through the roof of said res-

ervoir-can and disk of the swab, a valve in said opening consisting of a tube, a plug attached to the upper end of a rod as b^5 within said tube, and which plug is adapted to close the discharge end of said tube, and the foot of which valve-rod rests on the bottom of said reservoir-can, a suitable spring bearing against the foot of such valve-rod and adapted to permit the latter and the plug supported thereby to be lifted when an upward pressure is exerted against the bottom of said reservoir-can, and a suitable operating-lever, as D, all substantially as set forth.

2. In a reservoir blacking-brush, in combination, a reservoir-can having a spring bottom and a threaded aperture, a swab with a central opening a' provided with a valve consisting of a tube secured in the disk of the swab, counterbored at its upper end, and having a threaded inner end b^2 for screwing in the threaded aperture in said reservoir-can, rod b^5 , plug b^4 the periphery of which is of a different angle than the counterbore of the upper end of said tube, and a spiral spring b^6 for keeping the valve closed, the upper end of said spring bearing against the lower end of the tube b and the lower end thereof against a foot on the rod b^5 , which foot rests on the spring bottom of the reservoir-can so that an upward pressure exerted against the bottom of such reservoir-can will open said valve,

and a suitable operating-lever as D, all substantially as set forth.

3. As an attachment for blacking-brushes, a handle adapted to be secured to the back of a brush, and having a groove or longitudinal opening as e' , a reservoir-can provided with a spring bottom, a swab mounted on such reservoir-can, an opening through the roof of such reservoir-can and disk of the swab, a valve in said opening consisting of a tube, a plug attached to the upper end of a rod as b^5 within said tube and which valve is adapted to close the discharge end of said tube and the foot of which valve-rod rests on the bottom of said reservoir-can, a suitable spring bearing against the said foot of such valve-rod and adapted to permit the latter and the plug supported thereby to be lifted when an upward pressure is exerted against the bottom of said reservoir-can, and a suitable operating-lever as D, pivoted within said opening in the said handle, the parts being combined substantially as set forth.

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

WILLIAM HAYBALL.

Witnesses:

M. C. G. F. ZIEGLER,
T. J. GEISLER.