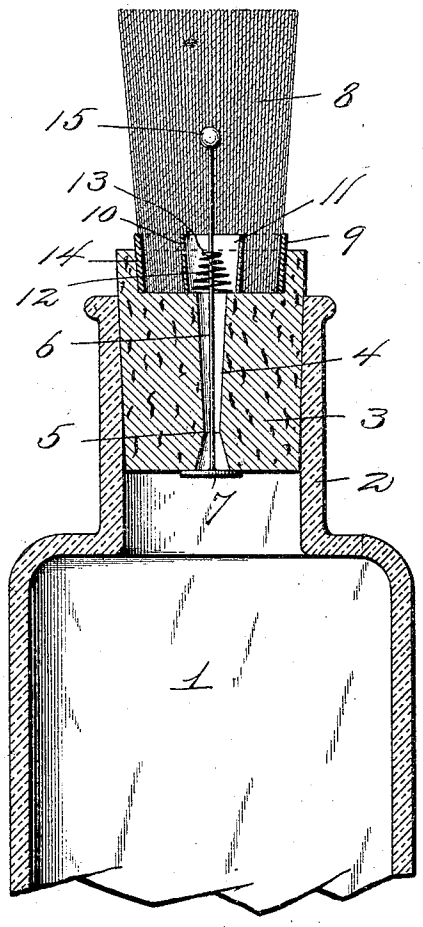
No. 774,553. PATENTED NOV. 8, 1904.

S. R. BOON.

BRUSH.

APPLICATION FILED MAY 2, 1903.

NO MODEL.



Witnesses

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No. 774,553. Patented November 8, 1904.

UNITED STATES PATENT OFFICE.

SIDNEY R. BOON, OF CHICAGO, ILLINOIS.

BRUSH.

SPECIFICATION forming part of Letters Patent No. 774,553, dated November 8, 1904.

Application filed May 2, 1903. Serial No. 155,385. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY R. BOON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Brushes, of which the following is a specification.

This invention relates to fountain-brushes, the object in view being to provide a brush of the character indicated in which the liquid contained in a suitable reservoir or receptacle is automatically admitted to or shut off from a brush or distributer attached to and carried by the stopper of the receptacle. The parts of the brush are so assembled and related to each other that a valve controlling the escape of the liquid is automatically unseated or opened by the lateral flexing or bending of the brush, said brush when in its normal or inactive condition serving, through the medium of the valve-stem, to hold the valve closed and prevent the escape of the liquid.

With the above and other objects in view the invention consists in the novel construction, combination, and arrangement of parts, as hereinafter fully described, illustrated, and claimed.

The accompanying drawing represents a central longitudinal section through a fountain-brush constructed in accordance with the present invention.

Referring to the drawing, 1 designates a suitable receptacle or reservoir, the same being shown for convenience in the shape of an ordinary bottle provided with a reduced end portion or neck 2. Within the neck 2 is inserted a stopper 3, of rubber, cork, or other material, the same being provided with a through-opening 4 to allow the liquid contained in the receptacle to escape and find its way to the brush, by which it is distributed upon any desired surface. The opening 4 is constricted at a point 5 intermediate its ends, so as to allow of the proper rocking movement of a valve-stem 6, which passes through said opening and has attached to its inner end a disk valve 7, which normally closes the inner end of the opening 4, as shown in the drawing.

The brush 8 is preferably shown as composed of the ordinary bristles, the inner end thereof being held by means of a brush holder or head comprising an outer wall 9 and an inner wall 10, between which the inner ends of the bristles are firmly confined and held. The inner wall 10 constitutes a housing which incloses a space 11, in which is placed a spring 12, which surrounds the valve-stem 6 and is confined between the outer portion of the stopper 3 and a shoulder 13 on the valve-stem, said spring therefore serving by its tension to hold the valve seated and closed, thereby preventing the escape of liquid when the holder or receptacle is inverted and the brush is not being used. The holder or head 9 and 10 is preferably seated in a circular recess 14, formed in the outer portion of the stopper 3, and may be cemented or otherwise permanently fastened therein. The valve-stem 6 extends outward beyond the holder or head and well into the central and flexible portion of the brush 8, where said stem is provided with an enlarged head, preferably in the shape of a ball 15, which lies in the midst of the bristles of the brush proper.

In using the fountain-brush hereinabove described the receptacle or reservoir 1 is inverted or turned upside down, so that the liquid will tend to flow by gravity through the passage 4 into the bristles of the brush. By now passing the brush proper over the surface to which the liquid is to be applied the flexing of the brush to one side or the other will cause a corresponding movement of the ball 15 at the outer end of the valve-stem, swinging said valve-stem to one side or the other and thereby tilting the disk valve 7 sufficiently to partially unseat the same and allow a portion of the liquid to escape downward through the opening 4 into the brush, which then acts to distribute the liquid over the surface with which the brush is in contact. The greater pressure given to the brush the more the valve 7 will be opened and the greater the amount of liquid admitted to the brush. It will thus be seen that the operation of the fountain-brush is entirely automatic and the amount of liquid allowed to escape is in proportion to the pressure applied to the brush in a lateral direction.

The fountain-brush, as hereinabove de-

scribed, may be used for liquid blacking, mucilage, paste, or any other preparation in the form of liquid.

The mounting of the valve-stem 6 in the opening 4 to have a lateral movement to unseat the valve permits of a surface being provided with a very delicate coat of liquid without interfering with the operativeness of the valve 7, as the slightest contact with a surface during the operation of coating said surface will cause the brush 8 to yield laterally, thereby moving the valve-stem laterally and unseating the valve to provide a continuous supply of liquid to the brush.

Having thus described the invention, I claim as new—

A device of the character described comprising a reservoir provided with an outlet, a stopper mounted in the outlet and provided with a passage-way having walls constricted at a certain point, said stopper being further provided with a recess at its upper end, a brush-holder mounted in the recess and also forming a spring-housing, a brush, a valve serving to normally close the inner end of the passage-way, a valve-stem mounted in the passage-way and having one end located in the brush so as to be moved laterally from side to side thereby to unseat the valve and provided with a stop, a spring located in the housing and interposed between the stopper and said stop on the valve-stem to yieldingly mount it in the passage-way and normally retain the valve closed, substantially as specified.

In testimony whereof I affix my signature in presence of two witnesses.

SIDNEY R. BOON.

Witnesses:

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