Nov. 9, 1926. 1,606,156

P. F. ELZI

FOUNTAIN STENCIL BRUSH

Filed June 8, 1925

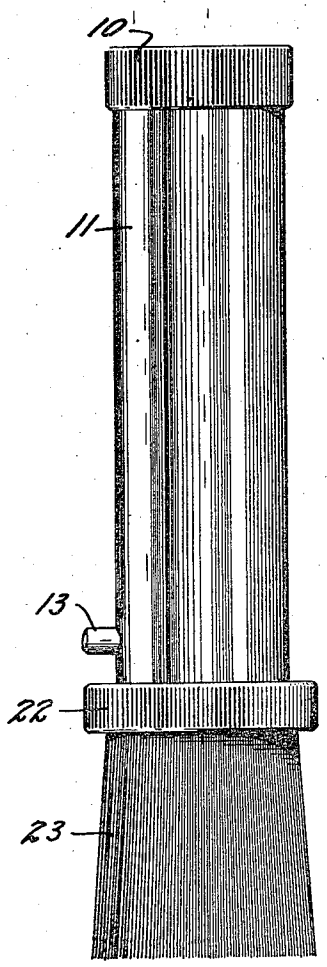


Fig 1

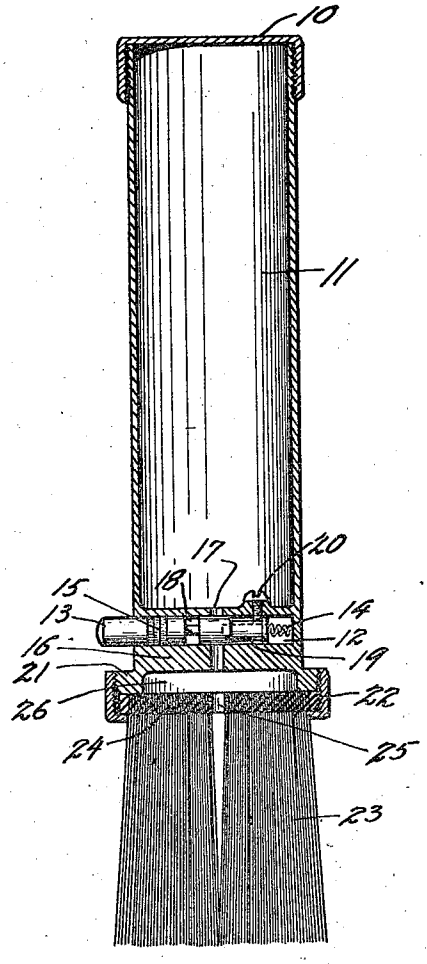


Fig 2

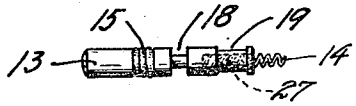


Fig 3

INVENTOR.
PETER F. ELZI
BY
ATTORNEY.

Patented Nov. 9, 1926. 1,606,156

UNITED STATES PATENT OFFICE.

PETER F. ELZI, OF DENVER, COLORADO.

FOUNTAIN STENCIL BRUSH.

Application filed June 8, 1925. Serial No. 35,634.

This invention relates to brushes of the fountain type used for marking through stencil plates and has for its principal object the provision of a brush of this character which will be economical to manufacture, efficient in operation, and which will have a minimum of parts.

A further object of the invention is to provide a valve for a fountain brush of this character, the entire mechanism of which, may be easily removed as a unit from the brush proper for cleaning purposes.

A still further object is to so construct a fountain stencil brush that it may be filled without it being necessary to remove either the brush or the operating mechanism.

Other objects and advantages reside in the detail construction of the invention, which result in simplicity, economy, and efficiency, and which will become more apparent from the following description.

In the following detailed description of the invention reference is had to the accompanying drawing which forms a part hereof. Like numerals refer to like parts in all views of the drawing and throughout the description.

In the drawing: Fig. 1 is an elevation of my improved fountain stencil brush.

Fig. 2 is a vertical cross section through the same.

Fig. 3 is a detail view of the valve mechanism.

The invention comprises a tubular barrel 10 adapted to contain ink or other fluid. The barrel 10 is closed at its upper extremity by means of a screw cap 11. Near the lower extremity of the barrel 10, a cylindrical valve seat 12 is formed, which opens to the exterior of the barrel 11 at its one extremity only. Slidably mounted in the valve seat 12, is a valve 13, actuated by means of a spring 14. The valve 13 is formed from a solid piece of metal and carries packing 15 to prevent leakage.

The bottom of barrel 11 is closed, as shown at 16, and is provided with a central opening 17 which passes through the valve seat 12. In the valve 13, a peripheral groove 18 is turned which, when the valve is depressed, comes into alignment with the central opening 17 thus allowing the ink, from the barrel 11, to flow therethrough. A second similar groove 19 is cut in the valve 13 and acts to limit the movement thereof by co-acting with a screw 20, the extremity of which, projects into the groove 19.

To open the valve, it is simply pressed inward as far as possible, thus bringing the groove 18 into alignment with the opening 17 and allowing the ink to flow therethrough. When the valve is depressed the spring is compressed into a countersunk opening 27 drilled in the end of the valve 13. To close the valve, it is only necessary to release the pressure thereon so as to allow the spring 14 to force the valve outward until the screw 20 contacts in the groove 19, thus bringing the groove 18 out of alignment with the opening 17 and shutting off the flow therethrough.

The lower extremity of the barrel 11 is surrounded by a threaded flange 21, upon which a retaining collar 22 is screwed.

The brush end, illustrated at 23, is formed of bristles molded into a rubber disk 24, the edges of which, project beyond the bristles. This projecting edge of the disk is clamped against the flange 21 by the retaining collar 22. The disk 24 is provided with a central opening 25, through which the ink feeds to the bristles of the brush end.

The screw cap 10, and the retaining collar are knurled, as shown in Fig. 1, so that they may be easily unscrewed by hand.

To fill the barrel, it is only necessary to remove the screw cap 10. To remove the brushes 23, which is rarely necessary, the retaining collar 22 is unscrewed. To remove the entire valve mechanism for cleaning purposes, it is only necessary to unscrew the single screw 20, until it is brought out of engagement with the groove 19.

When not in use, the entire device may be set upon the flat surface of the screw cap 10 thus holding the brush end upward and preventing leakage of ink therefrom.

The barrel 10 forms the main ink reservoir. A space is left between the barrel bottom 16 and the disk 24 as indicated at 26. This space 26 forms an auxiliary reservoir and retains a supply of ink which is slowly fed to the brush 20 after each opening. This auxiliary reservoir is one of the features of the invention and allows better control of the brush fed and lessens the necessity for continually opening and closing the valve.

While a specific form of the improvement has been described and illustrated herein, it is desired to be understood that

the same may be varied, within the scope of the appended claim, without departing from the spirit of the invention.

Having thus described the invention, what I claim and desire to secure by Letters Patent is:—

A valve for fountain brushes comprising a cylindrical valve seat; a cylindrical valve head slidably mounted in said valve seat; an annular groove in said valve head; annular packing carried in said groove; a second annular groove in said valve head adapted to allow flow across said seat when said valve head is in one position; a third annular groove in said valve head; a flange surrounding the extremity of said valve head and forming a side for said third groove; a removable projection in said valve seat adapted to engage said third annular groove and contact with said flange to limit the movement of said valve head and, when withdrawn, adapted to allow the removal of said valve head from said seat; and a spring arranged to maintain said flange against said projection.

In testimony whereof, I affix my signature.

PETER F. ELZI.