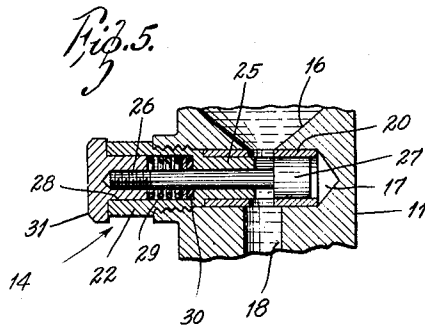
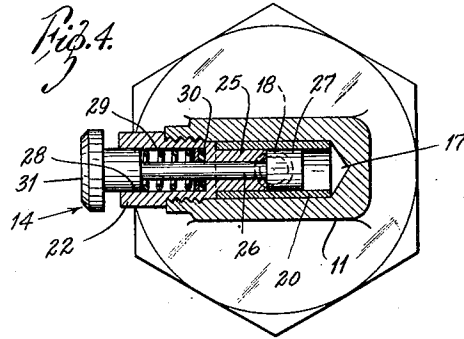
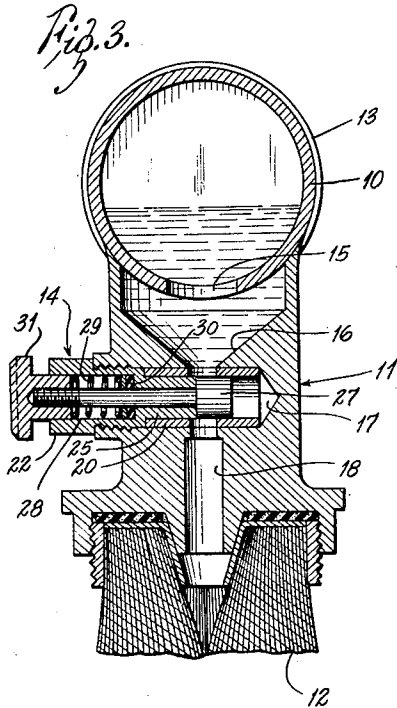
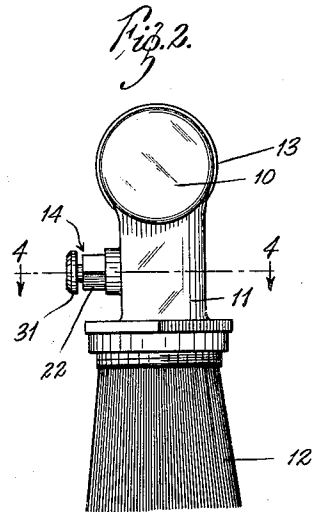
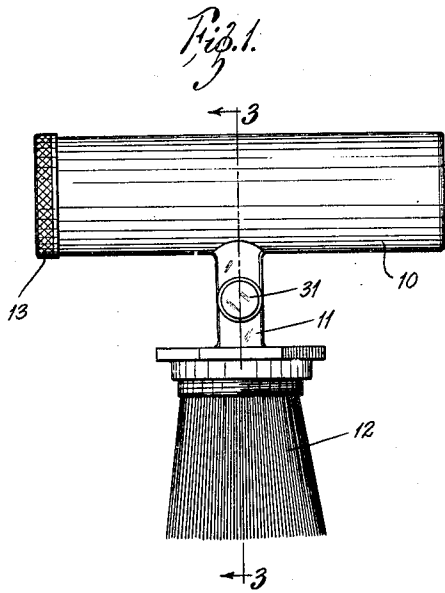


Sept. 5, 1950

W. C. MARSH
FOUNTAIN BRUSH

2,521,014

Filed April 12, 1945



INVENTOR:
WALTON C. MARSH,

By *Kingland Rogers & Egel*
ATTORNEYS.

UNITED STATES PATENT OFFICE

2,521,014

FOUNTAIN BRUSH

Walton C. Marsh, Belleville, Ill., assignor to Marsh Stencil Machine Company, Belleville, Ill., a corporation of Illinois

Application April 12, 1945, Serial No. 587,873

1 Claim. (Cl. 15—138)

1

The present invention relates to a fountain brush.

It is an object of the invention to provide a brush having a particularly comfortable and convenient grip, thus eliminating strain on the hand and wrist. A further object is to provide a brush designed for convenient use and handling in a number of different positions as when stenciling sides as well as tops of cartons.

It is a further object to provide a fountain brush upon which the operator can apply pressure with his hand, rather than with his fingers, and one which will enable the operator to keep the bristle tips applied squarely against the stencil.

A further object is to provide a fountain brush in which the inking button is conveniently available to the finger, thumb, or heel of the hand, and to provide a combination of handle arrangement and button arrangement wherein only a minimum amount of button movement is required.

More particularly, it is an object of the invention to provide a fountain brush having a reservoir handle in the form of an elongated, hollow member disposed transversely with respect to the axis of the brush portion, with an easy acting valve in a neck between the reservoir and the brush.

In the drawings:

Fig. 1 is a side elevation of the device;

Fig. 2 is an end elevation, taken from the right of Fig. 1;

Fig. 3 is a vertical section on the line 3—3 of Fig. 1;

Fig. 4 is a horizontal section through the axis of the valve, taken on the line 4—4 of Fig. 2 and showing the valve in closed position; and

Fig. 5 is a view of the valve similar to that in Fig. 3, but with the valve open.

The brush includes a handle-reservoir part 10, a neck 11, and a brush 12. The handle 10 is here shown as a hollow cylinder having an end closure 13 which may be removed for pouring ink into the handle. Of course, the cap 13 can be put at a location other than the end of the handle, but the latter is a very convenient disposition of this element.

Midway between the ends of the handle 10 and projecting transversely therefrom is the neck 11 which contains a valve mechanism generally indicated at 14. The neck communicates with the interior of the handle 10 through a port 15 and a funnel-shaped opening 16 terminating in a transverse bore 17. Below the bore 17 is a vertical

2

opening 18 in alignment with the bottom of the opening 16. The opening 18 opens into the middle of a brush 12.

The transverse opening 17 opens through to one edge wall of the neck portion 11. Within it is disposed a sleeve 20 of brass or the like, this sleeve having two transverse ports forming continuations of the openings 16 and 18.

The valve unit, generally indicated at 14, is threaded into the opening 17. This valve unit includes an outer sleeve 22 having an outer shoulder followed by a threaded portion, and the latter followed by a reduced part 25 that slides into the sleeve 20 with a liquid-sealing fit, and that has a squared-off end. When the sleeve 22 is threaded into the neck portion, the squared-off end of the projection 25 is disposed beyond the edge of the opening 16, substantially as shown in Figs. 4 and 5.

The sleeve 22 is hollow and receives a valve stem 26 having a slide valve head 27 secured thereto. The head is cylindrical and has a squared-off end adapted to engage the correspondingly shaped end of the projection 25, in sealing relationship. The stem 26 extends through the projection 25 and into a hollowed-out portion 28 of the member 22, where it is surrounded by a coil spring 29 and packing washer means 30. An operating button 31 is threaded onto the outer end of the stem 26 and acts as one abutment for the spring 29. The spring normally holds the valve plug outward.

Operation

It will be seen that this brush can be grasped by the hand with the brush bristles projecting in a radial direction from the fist around the handle. The brush may project at an angle comfortable for the work being done and for the particular operator. The button 31 is convenient to the thumb or to the heel of the hand, or, when the brush is turned around, to a finger. Thus the brush may be used to stencil horizontal surfaces or vertical surfaces without any twisting of the arm muscles.

Also a minimum amount of button operation is required. The fact that the end of the projection 25 extends beyond the left end of the opening in Fig. 4 causes the movement of the valve away from the projection to provide a maximum opening with minimum movement. It is apparent that were the valve to move from the most leftward point in the edge of the opening in Fig. 4, half-way to the center of the opening, the stroke would provide a much smaller port

3

than does the movement from the half-way mark to the center. The present valve moves substantially from the half-way mark on one side of the center to the half-way mark on the other, and thereby secures maximum opening for minimum movement. In an ordinary brush, a travel of about $\frac{1}{8}$ inch allows full opening of the port. It also provides instant opening and closing, makes for easier assembly and easier cleaning.

When the valve is opened, ink from the handle 10 flows downward through the openings 15 and 16, past the valve, and through the opening 18 to the brush 12. The valve, when closed, seals off the ink supply and will not leak.

When not in use, the brush can be placed in the upright position with the bristles resting on the table, or it can be laid flat.

What is claimed is:

A fountain brush including an elongated handle grip portion having a liquid-containing well 20 therein, a neck portion extending substantially radially from said grip portion, a liquid applicator on the neck outward from the grip portion, a passage through the neck from the well to the applicator, a control valve in the passage, said passage being circular, and said control valve including a fixed member having its axis located transversely of the axis of the passage and having a transverse surface intersecting the passage at approximately half-way outward from the center of the passage, the control valve also having a reciprocating slide element disposed to slide axially toward and from the fixed member intersecting the passage beyond the fixed mem-

4

ber at a point substantially halfway between the center of the passage and the inner tangential edge thereof as an inner extreme position of movement and having a surface adapted to engage the transverse surface of the fixed member in a liquid-sealing relationship in the outer extreme position of movement thereof, means yieldingly holding the slidable member with its surface thus against the fixed member, whereby a minimum of movement of said reciprocating slide element effects a maximum amount of liquid flow, and a push button operatively associated with said slide element for manual movement thereof inwardly of said neck and towards said passage to open the same, said push button being readily accessible to the heel of the palm of the hand or to the fingers of a user, a minimum of movement of said slide element through actuation by said push button effecting a maximum amount of liquid flow.

WALTON C. MARSH.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
302,083	Arper	July 15, 1884
623,218	Ormerod	Apr. 18, 1899
1,137,959	Farnam	May 4, 1915
1,598,615	Marsh	Sept. 7, 1926
1,944,368	Primrose	Jan. 23, 1934
2,255,879	Garvey	Sept. 16, 1941