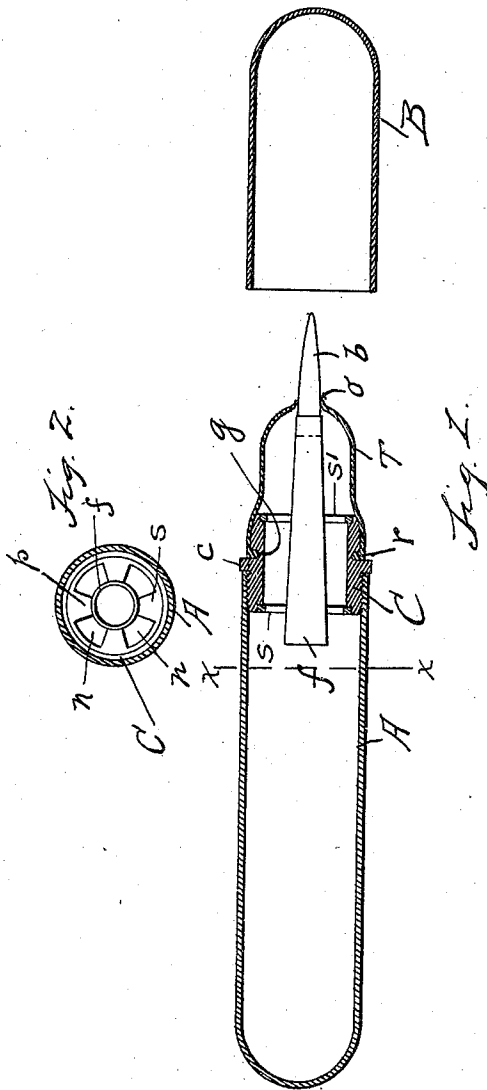


C. W. HOWE.
 FOUNTAIN MARKING BRUSH.
 APPLICATION FILED MAY 17, 1910.

983,999.

Patented Feb. 14, 1911.



WITNESSES:
Chas E. Mier...
Richard Alspa...

INVENTOR.
Charles W. Howe

UNITED STATES PATENT OFFICE.

CHARLES W. HOWE, OF DETROIT, MICHIGAN.

FOUNTAIN MARKING-BRUSH.

983,999.

Specification of Letters Patent.

Patented Feb. 14, 1911.

Application filed May 17, 1910. Serial No. 561,908.

To all whom it may concern:

Be it known that I, CHARLES W. HOWE, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Fountain Marking-Brushes, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to fountain marking brushes and its object is a fountain brush in which a marking fluid, such as a paint prepared with the heavier oils, may be used.

In devices of this class, it has heretofore been the practice to use an ink made of anilin or lamp black or material of a like nature which flows freely by the action of gravity. It is also necessary in such devices to have a valve or other means for controlling or regulating the flow of fluid on to the brush which very readily get out of order.

In this invention a means is provided whereby the fluid may be forced out of the reservoir on to the brush as required; said means consisting of a flexible bulb or cap on the reservoir through which the brush projects and which is so arranged that the fingers of the operator, in marking with the brush, may compress the bulb to produce a flow of fluid. This construction enables such mechanism as valves and like apparatus to be dispensed with and, therefore, is much cheaper to manufacture and is much more easily kept in order. This device is also better adapted to the various uses for which a marking brush may be utilized inasmuch as the lighter fluids, heretofore described, may be used as readily as the heavier oils for which the device was principally designed.

The specific design and arrangement of parts which I find most adaptable to the purpose and in the construction of the brush are hereinafter more fully described and claimed and shown in the drawings in which—

Figure 1 is a longitudinal sectional view of a fountain brush embodying my invention. Fig. 2 is a cross section thereof on line $x-x$ of Fig. 1 showing the brush retainer in detail.

Similar letters refer to similar parts throughout the drawings and specification.

A indicates the barrel or reservoir, B is

the end piece or cover for the brush, and C is the brush holder. The brush holder is formed of a cylindrical tube threaded at one end for the reception of the barrel A, which seats against the annular shoulder c when in place. The opposite end of the holder is provided with a flexible bulb or cap T which forms a closure for the reservoir A. The bulb is preferably made of soft rubber and is provided at the larger end with an annular ring r which fits into the groove g in the holder C. The opening o in the small end of the bulb, in which the brush b rests when in place, is in a slight degree larger than the brush but not sufficiently large to allow fluid to flow out of the reservoir except under conditions hereinafter mentioned. The ferrule f is made tapering as shown and is held in place by the retainers s and s^1 at each end of the holder and shown in detail in Fig. 2. The retainers are preferably pressed into place in the holder but may be fastened in any practical way without departing from the spirit of this invention. The retainers are disk shaped and are notched at n, n and the prongs between the notches are adapted to hold the brush centrally in the holder. The ferrule is simply pressed into place between the ends of the prongs p and as the ferrule is tapering a slight pressure is sufficient to force it into place. The notches n, n allow the fluid in the reservoir to pass freely through the holder C into the chamber around the brush formed by the flexible bulb or cap T. An examination of the drawing will show that the small opening o in the rubber cap or bulb surrounds the bristles of the brush and is not in contact with the ferrule.

By applying pressure to the bulb T, fluid in the reservoir is forced out of the opening o onto the brush b , and, as the pressure is released, air will flow into the reservoir to fill the space occupied by the discharged fluid. The flow of air is produced by the bulb returning to its normal shape after the pressure is released, which tends to produce a vacuum in the reservoir. As heretofore stated, the position of the bulb or cap is such that the fingers of the operator are naturally in contact with it and, in the act of marking, may be readily compressed to feed fluid onto the brush.

Having thus briefly described my invention and its operation, what I claim is—

1. A fountain marking brush comprising

a reservoir, a brush holder attached thereto provided with means for positioning the brush, a compressible bulb carried by the holder and provided with an opening, and a
 5 brush supported by the holder and projecting through said opening in the bulb; said bulb and said brush forming a closure for the reservoir, substantially as shown.

2. A fountain marking brush comprising
 10 a reservoir, a brush holder attached thereto, a compressible bulb for said holder having an opening in its free end, a brush in said holder, and means for positioning the brush; said bulb providing a means whereby pres-
 15 sure may be exerted on the fluid in the reservoir to feed it on to the brush.

3. A fountain marking brush comprising a reservoir for marking fluid, a brush holder, a flexible bulb for said holder having an open-
 20 ing in its free end, said holder being tubular in form and threaded at one end for the reception of the barrel or reservoir, the opposite end being provided with a groove, said flexible bulb being less in diameter
 25 than the holder and being provided with a flexible ring that may be stretched over the end of the holder and rest in the groove therein thereby preventing a leakage of fluid, and a brush carried by said holder and pro-
 30 jecting through the opening in the bulb; said flexible bulb and said brush forming a closure for the reservoir, substantially as shown and described.

4. A fountain marking brush comprising
 35 a reservoir for marking fluid, a brush holder, means for attaching the holder to the res-

ervoir, a flexible bulb on the opposite end of the holder having an opening in its free end, brush retainers carried by the holder, and a brush carried by the retainers and project-
 40 ing through the opening in the flexible bulb; said retainers being provided with openings to allow a free flow of fluid there- through into the flexible bulb, said bulb and brush forming a closure for the reservoir, 45 substantially as shown and described.

5. A fountain marking brush comprising a reservoir for marking fluid, a brush holder attached thereto provided with foraminous plates for supporting the brush, a compres-
 50 sible bulb for said holder provided with an opening, and a brush in said holder projecting through the opening in the bulb; said brush having a tapered ferrule adapted to fit into openings in the foraminous 55 plates thereby limiting the projection of the brush through the opening in the bulb, said bulb and said brush forming a closure for the reservoir.

6. A fountain marking brush comprising 60 a reservoir for marking fluid, a flexible bulb forming a closure for the reservoir and provided with an opening, a brush in said opening, and means for positioning the brush; said positioning means being adapted to 65 hold the brush from lateral movement.

In testimony whereof, I sign this specification in the presence of two witnesses.

CHARLES W. HOWE.

Witnesses:

CHAS. E. WISNER,
 RICHARD ALSPAS.