

E. G. W. PARKS.
FOUNTAIN-BRUSH.

No. 176,044.

Patented April 11, 1876.

Fig. 1

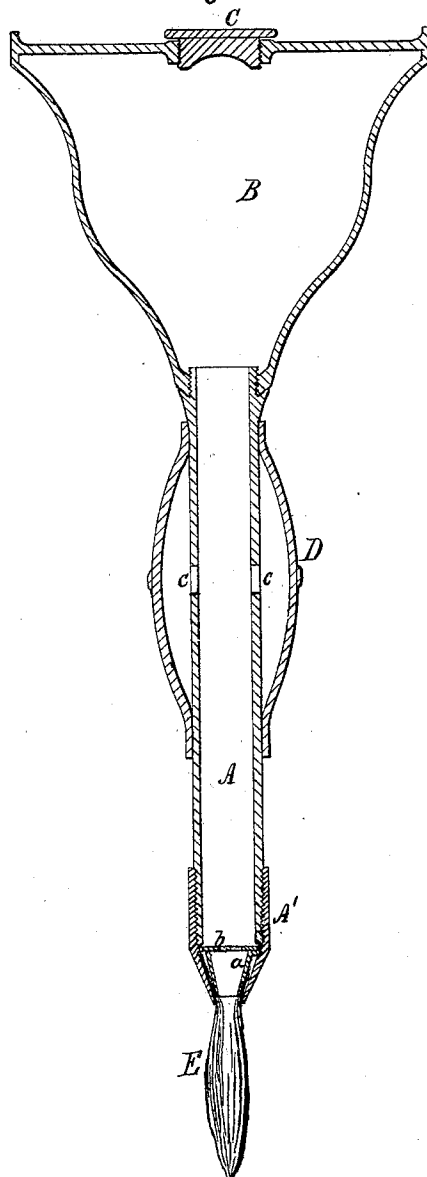


Fig. 3.

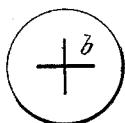
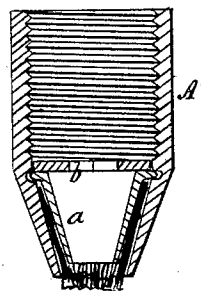


Fig. 2.



Arthur L. McIntire
Geo. J. Barnes

Witnesses.

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by A. C. W. McIntire
his atty

UNITED STATES PATENT OFFICE.

ELISHA G. W. PARKS, OF ROCK FALLS, ILLINOIS.

IMPROVEMENT IN FOUNTAIN-BRUSHES.

Specification forming part of Letters Patent No. **176,044**, dated April 11, 1876; application filed February 18, 1876.

To all whom it may concern:

Be it known that I, ELISHA G. W. PARKS, of Rock Falls, in the county of Whitesides and State of Illinois, have invented certain new and useful Improvements in Fountain-Brushes; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification.

My invention relates to that class of brushes known as marking-brushes, designed for use in marking boxes and packages for transportation; and my invention relates more particularly to what are known in that class of brushes as "fountain-brushes," or brushes provided with an ink or paint containing reservoir, from which the brush proper or bristles are continuously or automatically furnished.

My invention has for its object to produce a brush which shall fulfill the requirements of a fountain-brush, and which shall be simple and economic in construction and successful in its operation.

The disadvantages incident to fountain-brushes as at present made, and with which I am familiar, are that the ink or paint is irregularly fed to the bristles, subjecting the operator to great annoyance and performing its work unsatisfactorily, complex and costly in their construction, and inducing too great waste of ink or paint, owing to leakage and evaporation.

My invention is designed to overcome all these objections; and consists of a marking fountain-brush having a hollow handle and ink-containing reservoir, communicating with the bristles through a cone at the base of the handle, which serves the purpose of a securing device for the bristles and a seat for an intermediate supply-valve, and provided also with a flexible rubber bulb surrounding the handle, and secured in such position as to be grasped by the fingers and thumb when using the brush, so that the simple natural motion of the fingers will sufficiently compress the bulb (which covers one or more perforations in the handle) to cause a proper amount of the ink contained in the handle to be forced through the supply-valve to the bristles, as will be hereinafter more fully set forth.

To enable those skilled to more fully understand my invention, I will proceed to describe the same, referring by letters to the accompanying drawings, in which—

Figure 1 is a central longitudinal section of a fountain-brush embodying the features of my invention. Fig. 2 is a similar detail section, on an exaggerated scale, of the lower end of the handle, showing the manner in which the bristles are secured, and a seat for the valve furnished by the conical ink-conduit; and Fig. 3, a top view of the valve employed to regulate the flow of ink to the bristles.

Similar letters indicate like parts in the several figures.

A represents the handle, which is made preferably of sheet metal, and hollow, and adapted to be soldered, or otherwise secured water-tight, at the top to a containing-reservoir, B, which is provided with an opening and screw cap or plug, C, to permit the ready introduction of ink or paint, and securing the same when introduced against waste or evaporation. The lower end of the handle A terminates in a cone-mouth, A', screwed thereon, and which is adapted to receive a similarly-shaped hollow wedge, *a*, of sufficiently less diameter than the cone-mouth to permit the introduction between the interior of the mouth and the exterior surface of the wedge *a* of sufficient quantity of bristles to form a brush, E. The upper edge of the cone-wedge is slightly upset to form a slight flange, which, when the wedge *a* is forced sufficiently far down into the cone-mouth to securely clamp and hold the bristles in place, will spring into a slight recess in the interior of the mouth, and thus be held against accidental displacement. This upset edge also serves as a seat for the valve *b*, which is composed of a simple disk or diaphragm of sheet-rubber, slit or cut at the center at right angles, as clearly seen in Fig. 3 of the drawings. D is a rubber bulb slipped over the handle, so as to cover one or more holes, *c*, in the same, and this bulb may be maintained in position either by ordinary contraction of the rubber, or the handle may have, in addition, suitable collars, to assist in the retention at the proper point of the bulb.

The operation of my improved brush is as follows: The plug or cap C being removed, a quantity of ink or paint is poured into the reservoir B, and from thence it flows into the handle A, and through the holes *c* into the bulb D, and is checked in its descent to the brush by the flap-valve *b*, so that there is no escape for the ink or contact with the air when the brush is not in use. The reservoir being filled, as above stated, the brush, when used, is grasped, so that the bulb D is between the fingers and thumb, similar to the handle of an ordinary pen, and the necessary motion to form letters or figures induces just sufficient pressure upon the bulb to force the ink toward the valve *b*, which, under such pressure, yields just enough to allow the passage through it of a supply of ink or paint, which then flows through the cone-shaped wedge, and is delivered centrally to the bristles E. The reservoir may be of any desired shape; but I have shown it preferably as flat on the top, so that the brush, when not in use, may be inverted, and the flat surface of the reservoir forms a suitable base, on which the instrument may rest upon a shelf.

It will be observed that there is no possibility of the escape of ink or paint except upon the compression of the rubber bulb, and that likewise the ink contained is not permitted to be in contact with the air, so that no evaporation takes place, and, consequently, it

never becomes thick or gummy, but is always of proper consistency to flow freely when the brush is used.

What I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the handle A, terminating at its lower end in a cone-mouth, the reservoir B, bulb D, and hollow cone-wedge *a*, for securing the bristles and forming a conduit centrally to the brush, substantially as and for the purposes set forth.

2. In combination with the cone-shaped wedge *a*, having its top edge upset, as described, and handle A, the valve *b*, held in position, substantially as and for the purposes described.

3. In combination with the cone-shaped wedge *a*, valve *b*, and handle A, provided with holes *c c*, the rubber bulb D, whereby the flow of ink to the bristles is controlled, substantially as described.

4. The handle A, terminating in a cone-mouth, as described, in combination with a hollow cone-shaped wedge for securing the bristles in place, substantially as described.

Witness my hand this 18th day of February, A. D. 1876.

ELISHA G. W. PARKS.

Witnesses:

ARTHUR L. MCINTIRE,
JOHN J. BONNER.