

N^o 459



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COMPLETE SPECIFICATION.

“Improvements in Fountain Pens and other Marking Devices”

We, JOHN EVERARD LANGILL and JOHN TOKER LANGILL, both of 36 Third Place, Brooklyn, New York, United States of America, Engineers, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

Our invention relates to that class of devices for applying ink or liquid pigment, in which the marking liquid is contained in a “fountain” or reservoir and supplied to the brush or pen automatically, as required. Numerous devices for this purpose have been proposed, and while certain of these may have been successful in practice, it is the object of my invention to provide a fountain marker which shall be simple in construction, positive and efficient in operation, and of less cost. To these ends the invention consists in the novel features and combinations hereinafter described, and more particularly pointed out in the claims.

Referring now to the drawings, Fig. 1 is a longitudinal section of a fountain brush embodying our invention. Fig. 2 shows in perspective the combined valve and brush holder, and Fig. 3 is a modified form of this part. Fig. 4 is a blank from which the carrier shown in Fig. 2 is made. Fig. 5 shows the invention with a pen used as the marker in place of a brush. Fig. 6 is a section on line 6—6 of Fig. 5.

The reservoir, 1, is preferably of cylindrical form as shown, and may be of metal, hard rubber, or other suitable material. In the open end of the same is a removable valve plug 2. This is preferably conical in form, as shown, and when made of metal may be conveniently formed by bending into a truncated cone a blank like that illustrated in Fig. 4, and providing it with legs, 3, as shown in Fig. 2. The latter fit closely in the barrel, or reservoir, and abut against a ring 4. This construction renders the valve readily removable, but if such a feature is not desired the cone may be secured to the barrel by brazing, soldering, or in any other suitable way. Openings, as 4, are provided in the hollow cone, for a purpose hereafter explained.

On the outside of the barrel at the valve end are screw threads, as shown, which engage an interiorly threaded cap 5, preferably rounded as appears in Figs. 1 and 5, having an opening slightly larger than the outer end of the valve cone.

From the above description the operation of the valve will be readily understood. When the cap is screwed down so that the edge of the opening fits closely on the cone, a liquid tight closure is secured which effectually prevents escape of the contents of the barrel. When it is desired to use the device, the cap is unscrewed, whereupon the ink flows out through the openings in the cone and around the apex upon the brush 6. The supply to the latter may be easily and accurately regulated by adjusting the cap to vary the size of the space around the apex of the cone, as will be readily understood. The removable cap 7 protects the operative parts of the device when not in use. An air valve, 11, may be provided at the lower end of the barrel, if desired.

Fig. 5 shows the invention embodied in a structure specially adapted for use

[Price 8d.]

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with a pen instead of a brush. In this case the small end of the cone is closed as shown, and over the valve cap is a closely fitting pen section 8, having its free end reduced to a semicircular pen socket as shown in Fig. 6. The inner wall of the socket has an open-ended feed channel 9, which carries ink to the pen 10.

The operation of the form just described is precisely the same as that of the form illustrated in Fig. 1, except that the ink after escaping through the valve flows through the hollow pen section and feed channel to the pen.

In Fig. 5 the valve cone is shown slightly different in form from that of Fig. 2, in that the part which fits into the barrel is a cylindrical tube instead of a plurality of legs or guides, and is therefore like that shown in Fig. 3. It is obvious, of course, that the two forms are equivalents.

From the foregoing it will be seen that my device is very simple in construction, and therefore may be carefully constructed of the best materials at comparatively slight cost. The valve is such that wear at the joint is always taken up, and is always perfectly tight, thereby effectually preventing the annoying leakage so commonly met with.

The invention is of course capable of embodiment in various forms, and I therefore do not consider myself limited to that herein specifically described.

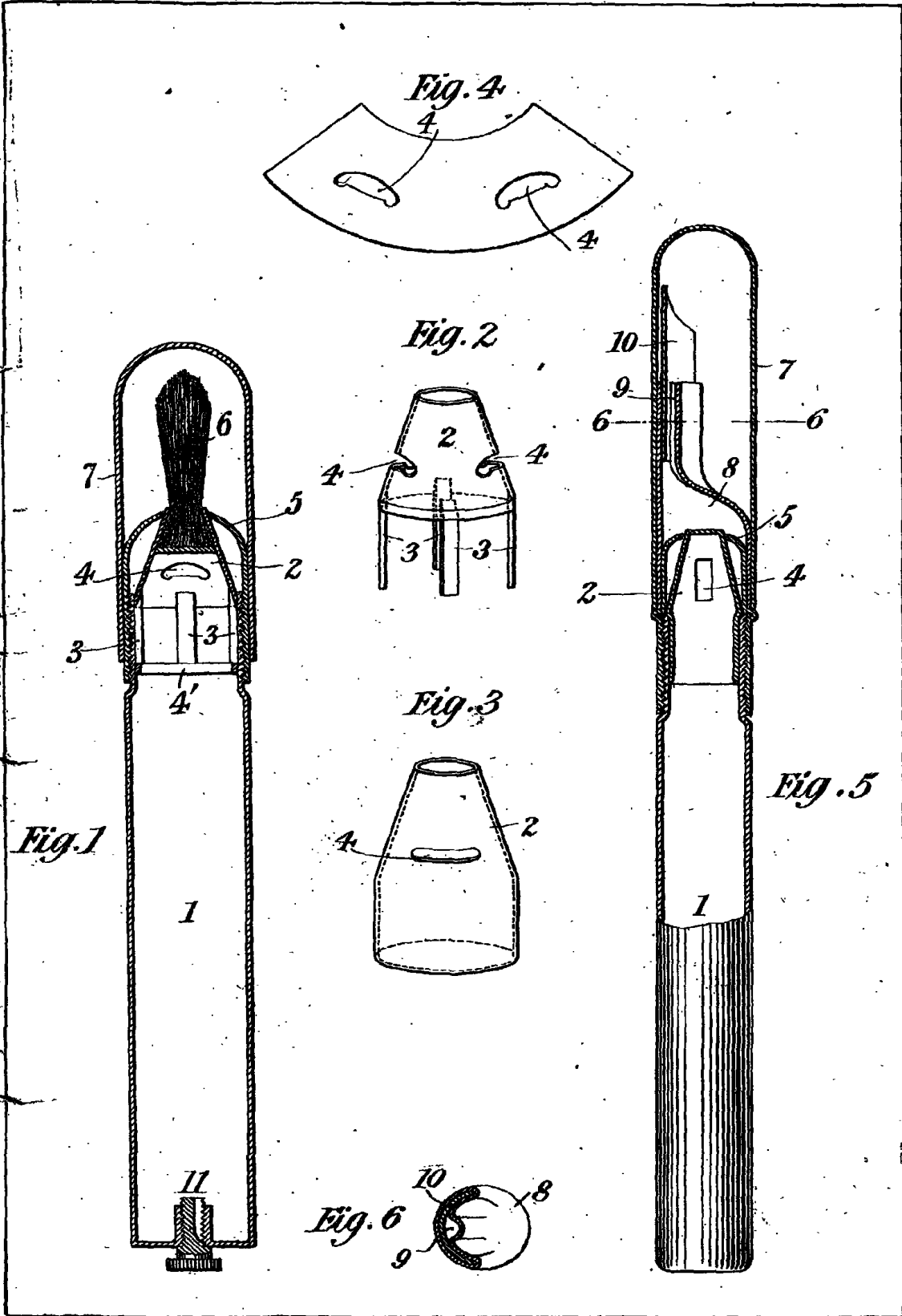
Having now particularly described and ascertained the nature of our invention, and in what manner the same is to be performed, we declare that what we claim is;—

1. In a fountain marking device, the combination with a barrel or reservoir, of a tapered valve plug in one end, having openings in the side, an open ended adjustable cap over the valve, having a shoulder adapted to engage the tapered valve plug between the outer end of the same and the openings, and an ink-applying device adapted to be fed from the valve, as set forth.

2. In a fountain marking device, the combination with a barrel or reservoir, of a hollow, tapered valve plug in one end, having openings in the side, a screw cap having a spherical end with an opening therein adapted to form a valve seat to engage the valve plug between the outer end of the same and the openings, an ink-applying device arranged to be supplied through the valve, and a removable protecting cap over the ink-applying device, as set forth.

Dated this 23rd day of December, 1903.

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Agents for the Applicants.



[This Drawing is a reproduction of the Original on a reduced scale.]