No. 763,241. PATENTED JUNE 21, 1904.

J. BALLANCE.

RESERVOIR OR FOUNTAIN BRUSH.

APPLICATION FILED DEC. 18, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

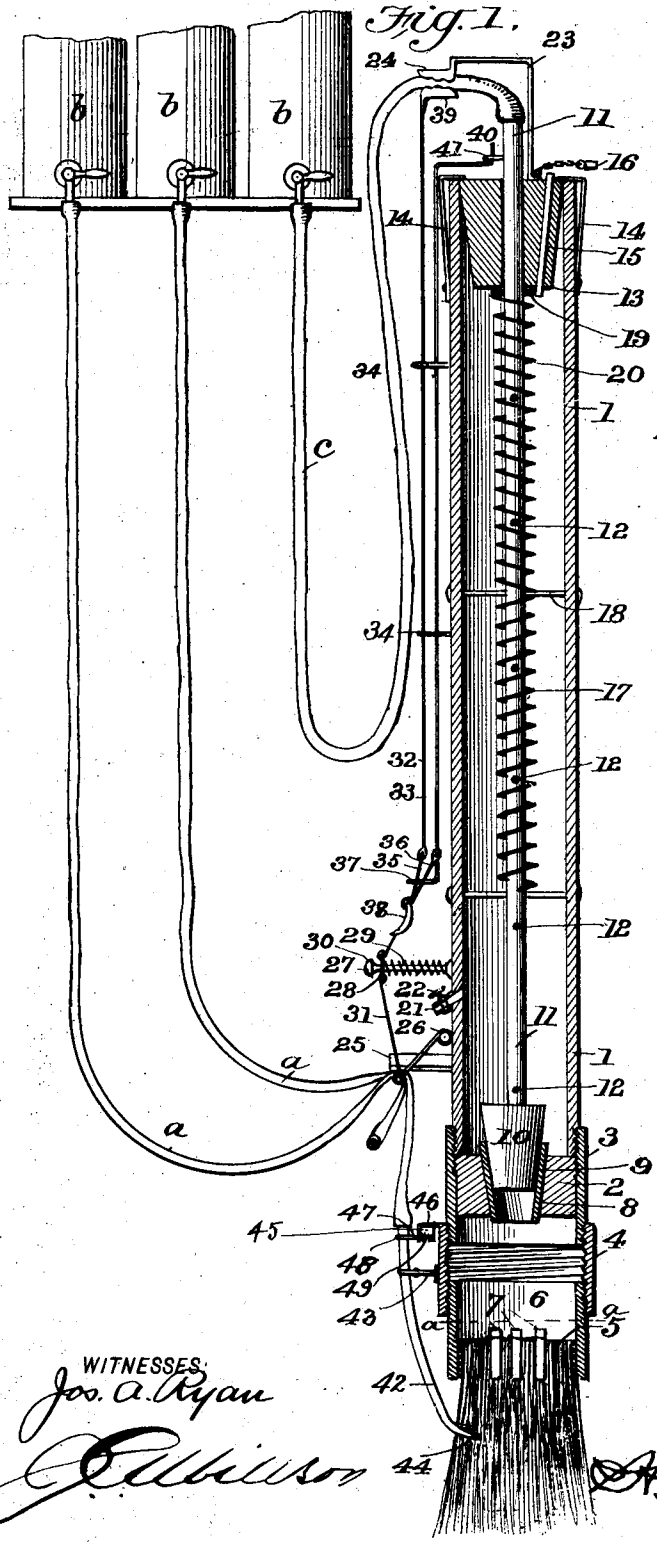


Fig. 2.

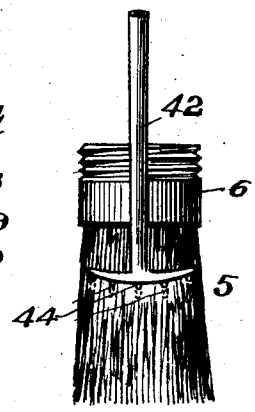


Fig. 3

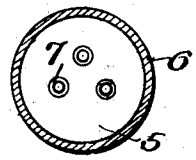
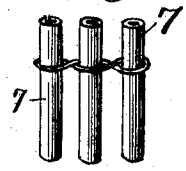


Fig. 6.



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RESERVOIR OR FOUNTAIN BRUSH.

APPLICATION FILED DEC. 18, 1902.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 4.

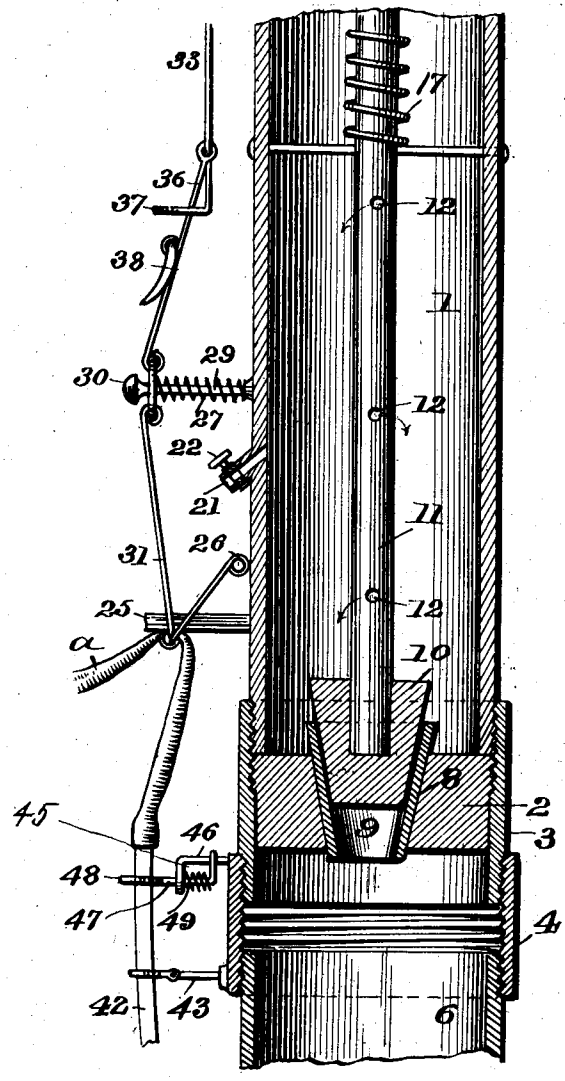
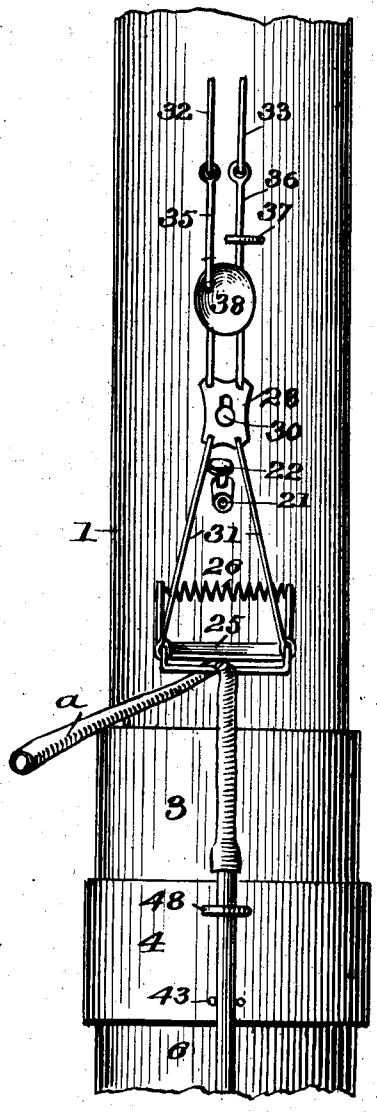


Fig. 5.



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No. 763,241. Patented June 21, 1904.

UNITED STATES PATENT OFFICE.

JOHN BALLANCE, OF NEW YORK, N. Y.

RESERVOIR OR FOUNTAIN BRUSH.

SPECIFICATION forming part of Letters Patent No. 763,241, dated June 21, 1904.

Application filed December 18, 1902. Serial No. 135,783. (No model.)

To all whom it may concern:

Be it known that I, JOHN BALLANCE, of New York city, in the State of New York, have invented certain Improvements in Reservoir or Fountain Brushes, of which the following is a specification.

My invention is an improved fountain or reservoir brush adapted for use as a paint-brush and for analogous uses; and it consists in the construction and combination of devices hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a longitudinal sectional view of a fountain-brush embodying my improvements. Fig. 2 is a detail elevation of the brush-head, showing the same detached from the reservoir or fountain. Fig. 3 is a detail transverse sectional view taken on the plane indicated by the line *a a* of Fig. 1. Fig. 4 is a sectional view of the lower or outer portion of the fountain or reservoir and its connections on a larger scale than that of Fig. 1. Fig. 5 is an elevation of the same at right angles to Fig. 4. Fig. 6 shows a detail of the brush.

In the embodiment of my invention here shown the fountain or reservoir 1 is in the brush-handle, which is of tubular cylindrical form, provided at one end with a closure 2, secured thereto by a collar 3, which is screwed to the tube 1 and also to the closure. The outer end of the collar projects beyond the closure, is externally screw-threaded, and a coupling-sleeve 4 is screwed thereto and is detachable therefrom and serves to detachably connect a brush-head 5 thereto. Within the scope of my invention the brush-head may be of any suitable construction. It is here shown as provided with a coupling-collar 6, which coacts with the collar 3 and coupling-sleeve 4 to form a feed-chamber and is provided with a plurality of feed-tubes 7, which serve to conduct the paint or other fluid from the feed-chamber to the bristles of the brush, as will be understood.

The closure 2 is provided with an outwardly-tapered central opening 8, in which is placed a conical sleeve 9. A valve-plug 10, which is also conical in form, is placed in the sleeve 9 and is movable longitudinally therein to open and close the same to permit the flow of fluid from the reservoir-tube 1 or to cut off the same at will. A supply-tube 11 is attached to and closed at one end by the valve-plug, extends longitudinally through the reservoir-tube 1, projects beyond the inner end thereof, and is provided at points between its ends with a plurality of openings 12. In the inner end of the reservoir-tube 1 is a plug 13, having a longitudinal central opening through which the supply-tube extends and in which the supply-tube is longitudinally movable. The said plug is secured in the end of the reservoir-tube by spring-catches 14 and is provided with a vent-tube 15, the outer end of which may be closed by a cap or other suitable closure 16.

A spring 17, which is here shown as a coiled spring, is attached to the supply-tube 11 and bears against a cross-piece or other suitable stop 18 in the reservoir-tube. The function of this spring is to move the supply-tube endwise in one direction to normally close its valve-plug in the opening of the closure 2.

A packing-disk of suitable construction (shown at 19) is on the supply-tube 11 and is pressed against the inner end of the plug 13 by a spring 20, the function of this packing-disk being to prevent leakage around the supply-tube. At one side of the reservoir-tube 1, here shown as near the inner end thereof, is a nipple 21, adapted for the attachment of a rubber or other flexible tube and here shown as provided with a valve 22 for closing it. An arm 23 projects outwardly from the outer end of the reservoir-tube 1 and is provided with a shoe 24.

From one side of the reservoir-tube and preferably at a point near the outer end thereof projects a jaw or arm 25. A spring-jaw 26, which is attached also to the reservoir-tube, bears normally against the outer side of the fixed jaw 25. One or more paint or other fluid-conducting tubes *a*, made of rubber or other flexible material, may be interposed between the fixed jaw 25 and the spring-jaw 26, and it will be understood that the tension of the spring-jaw will cause the said tubes to be clamped between the spring-jaw and fixed

jaw so tightly as to prevent fluid from flowing through said tubes. Each of the latter will in practice lead from a suitable reservoir, such as indicated at *b*. These reservoirs may contain paint, oil, varnish, or any other fluid to be used or applied by the brush. There may be any suitable number of these reservoirs and of the tubes *a* used in connection with the brush, according to the character of the work to be performed.

A post or standard 27 projects outwardly from the reservoir-tube, and on the same slides a link-plate 28. A spring 29, which is here shown as a coiled extensile spring on the post or standard 27, moves the link-plate outwardly on the standard or post and against the stop-head 30, with which the standard or post is provided at its outer end. The link-plate is connected by links 31 to the spring-jaw 26. Longitudinally-movable rods 32 33, which operate in guides 34 on one side of the reservoir-tube, are respectively connected by link-rods 35 36 to the link-plate 28, and it will be understood that the outward movement of said link-plate, caused by the action of the spring 29, will cause said link-rods 35 36 to draw inwardly on the rods 32 33 and that when the said link-plate is depressed against the action of the spring 29 it will cause said link-rods to move the said rods 32 33 outwardly and also cause the spring-jaw 26 to release the tubes *a*. The rod 33 is provided with a finger-piece 37, whereby it may be moved normally independently of the rod 32. On the link-rod 35 is hinged a finger-piece 38, which may be caused to lie also on the rod 36 or to be disengaged therefrom. When it lies on said rod 36 and is depressed, the rods 32 33 will be moved outwardly simultaneously, as will be understood, or by means of the said finger-piece 38 the rod 32 may be moved outwardly independently of the rod 33. It will be furthermore understood that by depressing the links 31 the spring-jaw 26 may be caused to release the tubes *a* without operating the rods 32 33. The rod 32 is provided at its outer end with a shoe 39, which is opposite the shoe 24 of the arm 23. The rod 33 is engaged at its outer end, as at 40, with an eye 41, which projects from the supply-tube 11, so that by moving said rod 33 outwardly by the means and in the manner hereinbefore described said tube 11 may be moved outwardly a sufficient distance to open the valve-plug 10 in the feed-opening of the closure 2, and hence cause fluid to be fed from the reservoir-tube to the head of the brush attached thereto. A tube *c*, made of flexible material and similar to the tubes *a*, connects one of the reservoirs *b* to the supply-tube 11 and passes between the shoes 24 39. By moving the rod 32 outwardly in the manner and by the means hereinbefore described to cause the tube *c* to be pressed by and between the shoes 24 39 the flow of fluid through said tube, and hence its supply to the reservoir-tube, may be be cut off at will.

Any one of the tubes *a* may be attached to the supply-tube 11 in lieu of the tube *c*, as is obvious, so that material may be supplied to the reservoir-tube from any of the reservoirs *b*.

In some instances it is desirable to supply paint, oil, or varnish or other fluid directly to the brush 5 from one of the reservoirs, and to enable this to be done I provide a feed-nozzle 42, which is pivotally mounted on a standard 43, that projects from the coupling-sleeve 4 and has a plurality of nozzles 44 appropriately spaced apart that are adapted to be inserted in the brush from one side thereof. The nozzle 42 is also attached to an extensible standard 45, which comprises a section 46, that is fixed to the coupling-sleeve 4, and a section 47, which is slidably connected to the section 46 and has an eye 48, through which the nozzle 42 extends. A spring 49 acts on the section 47 to normally move the same outwardly, and thereby press the plurality of nozzles 44 of the nozzle 42 into one side of the brush, as shown in Fig. 1.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

The feed-tubes 7 in the brush-head are connected together, as shown in detail in Fig. 6, by a wire or the like device, which is twisted between them. It will be understood that a number of brush-heads of different sizes and which vary in construction may be used in connection with my improved fountain-brush.

Having thus described my invention, I claim—

1. A brush having a hollow handle forming a reservoir, means to control the flow of material from said reservoir to the brush-head, and a reservoir independent of that formed by the brush-handle, and means to conduct material therefrom to the brush-head, and to cut off the flow of such material.

2. In a fountain-brush, the combination of a fountain-reservoir, a longitudinally-movable supply-tube therein, having a valve to regulate the flow of material from the fountain-reservoir, a spring to normally close said valve, and a feed-tube to supply material to the supply-tube, the latter supplying the fountain-reservoir.

3. In a fountain-brush, the combination of a fountain-reservoir having a closure provided with a discharge-opening, a longitudinally-movable supply-tube in the fountain-reservoir, having a valve to regulate the flow of material from the fountain-reservoir, and a spring

acting on said supply-tube to normally close said valve.

4. In a fountain-brush, the combination of a fountain-reservoir, a plug therein, removable therefrom, a supply-tube longitudinally movable in said plug and having a valve to regulate the flow of material from the fountain-reservoir, and a spring to normally close said valve.

5. A reservoir-brush, having a longitudinally-movable inflexible supply-tube, a flexible feed-tube connected to said supply-tube, a fixed compressing-arm, and a movable compressing device coacting with said fixed compressing-arm to open or close said flexible tube.

6. A reservoir-brush having a conduit to supply material to the fountain, means to control the flow of material through said conduit, means independent of the first-mentioned means, to supply material to the brush, and means to regulate the flow of material through the last-mentioned supply means.

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Witnesses:

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