No. 842,644. PATENTED JAN. 29, 1907.

F. E. FORNWALT.

FOUNTAIN BRUSH.

APPLICATION FILED SEPT. 28, 1906.

Fig. 1.

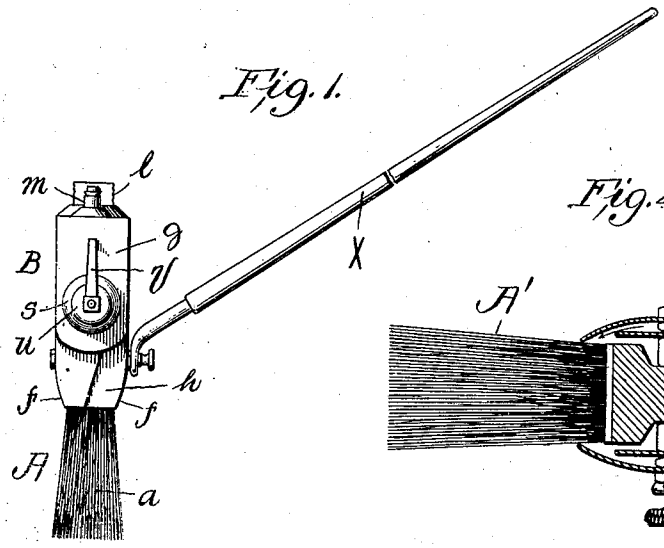


Fig. 4.

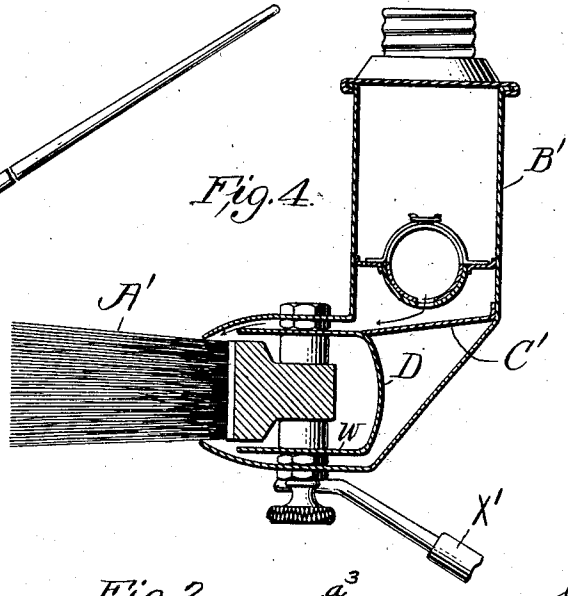


Fig. 2.

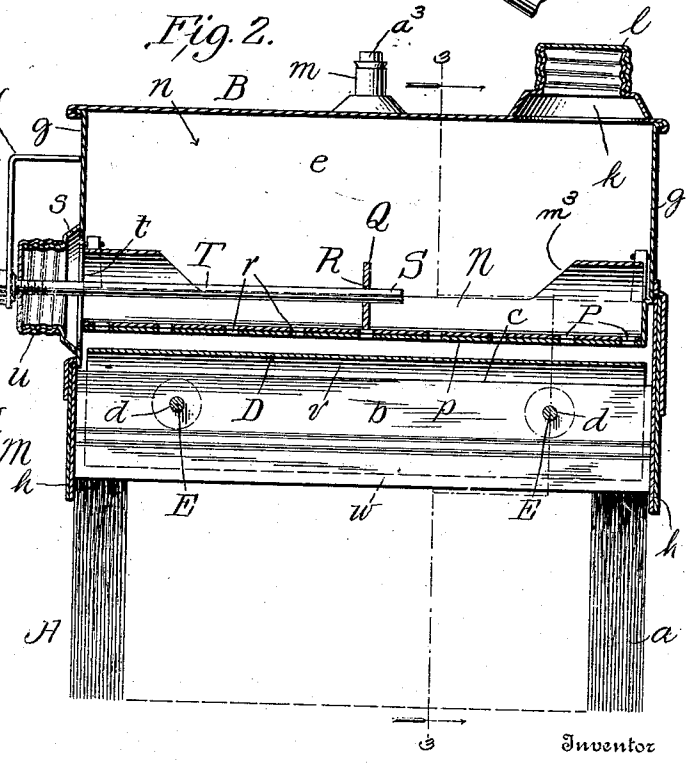
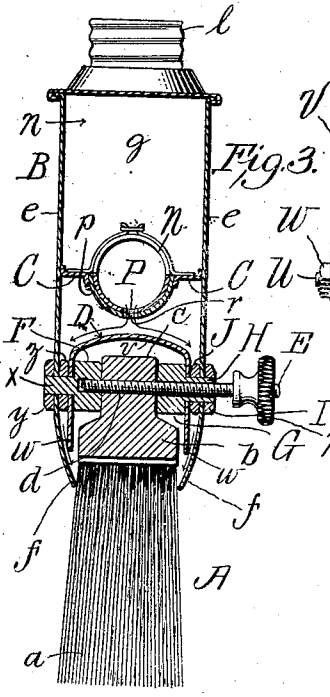


Fig. 3.



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FOUNTAIN-BRUSH.

No. 842,644. Specification of Letters Patent. Patented Jan. 29, 1907.

Application filed September 28, 1906. Serial No. 336,569.

To all whom it may concern:

Be it known that I, FRANKLIN E. FORNWALT, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented new and useful Improvements in Fountain-Brushes, of which the following is a specification.

My invention relates to fountain-brushes, and more particularly to fountain-brushes for applying paint and it seeks to provide a fountain-brush which while simple, inexpensive, and compact in construction is practical and highly efficient in operation.

The novelty, utility, and practical advantages of the invention will be fully understood from the following description and claims when the same are read in connection with the accompanying drawings, forming part of this specification, in which—

Figure 1 is an end elevation of the fountain-brush constituting the preferred embodiment of my invention, the said brush being shown as provided with a handle and as arranged to apply paint to a horizontal or approximately horizontal surface. Fig. 2 is a vertical section taken through the longitudinal center of the brush and illustrating the valve as fully opened. Fig. 3 is a transverse section taken in the plane indicated by the line 3 3 of Fig. 2 looking in the direction of the arrow. Fig. 4 is a view similar to Fig. 3 of a modification designed to apply paint to a vertical or approximately vertical surface.

Referring by letter to the said drawings, and more particularly to Figs. 1 to 3 thereof, A is the brush proper of my improved device. The said brush proper may be of any construction compatible with my invention, though I prefer to have it comprise the usual bristles *a* and a head *b*, preferably of wood, the upper portion *c* of which is reduced as to thickness and is provided with transverse apertures *d*, Figs. 2 and 3.

B is the brush and paint holder of the device, which is preferably made of tin or other suitable metal in about the shape illustrated. The body of the said holder is provided with side walls *e*, the lower portions of which are directed inward, as indicated by *f* in Fig. 3, to guide the paint to the sides of the body of bristles *a*, and in addition to the said side walls the holder-body is provided with end walls *g*, the lower portions *h* of which are arranged side by side and movable independent of each other, so as to enable the lower parts of the side walls *e* to spring inward and outward. The holder-body is further provided with a filling-aperture *k*, normally closed by a cap *l*, and it may when desired be provided with a connection *m*. This connection is shown as closed by a plug a^3, and it is designed when the plug is removed to be connected with a hose (not shown) leading from a source of paint-supply or from a source of compressed air.

In addition to the body described in the foregoing the brush and paint holder B comprises a fixed diaphragm C, which forms the bottom wall of the reservoir *n* and is provided with a portion *p* of semicircular form in cross-section, in the longitudinal center of which are a plurality of apertures *r* for the downward passage of paint and a threaded nipple *s*, which surrounds a comparatively large opening *t* in one end wall *g* of the body and is normally closed by a cap *u*.

D is a hood arranged in the lower portion of the holder-body B and having a dome *v* and depending skirts or flanges *w*. The said hood is arranged as shown in Figs. 2 and 3, and hence it will be apparent that when paint is permitted to pass from the reservoir *n* through the apertures *r* in diaphragm C it will drop on the dome *v* of the hood and will pass therefrom to the outer sides of the flanges *w* and will be guided by the latter to the lower portions of the side walls *e* of the body B, on which it will be conducted to the upper portions of the opposite sides of the body of bristles *a* of the brush A. In virtue of the provision of the said hood D paint is effectually prevented from getting on the brush-head *b*, and at the same time liability of the brush becoming choked and impaired is reduced to a minimum. It will also be apparent that the hood D conveys an equal quantity of paint to each side of the body of bristles *a* and assures the paint reaching the sides of the body of bristles in the form of thin layers, which obviously contributes materially to the efficiency of the fountain-brush as a whole.

E E, Fig. 2, are threaded bolts which extend transversely through the apertures *d* in the brush-head *b*. Each of these bolts E is screwed at its inner end into an interiorly-threaded block F, which is interposed between the brush-head *b* and one flange *w* of the hood D and is connected to the adjacent side wall *e* of body B by a bolt *x*, on which is a nut *y* and a washer *z*, the latter being inter-

posed between said side wall *e* and the adjacent flange *w*. Between the brush-head *b* and the other flange *w* of the hood D is interposed a smooth-bore block G, which is connected with the adjacent side wall *e* of body B by a bolt H, which is provided at its outer end with a nut I and at a point between the said wall *e* and the adjacent flange *w* with a spacing-washer J. The bolt E mentioned extends through the block G and the bolt H, which is tubular, and is provided without the body B with a thumb-nut M. The threaded bolts E are turned into the threaded bores of the blocks F and are thereby fixed with respect to said blocks F, and hence it will be apparent that when the thumb-nuts M are turned up on the said bolts E the head of the brush A will be clamped between the blocks F and G, and at the same time the side walls *e* of body B will be pressed inward, so as to carry their lower edges to points adjacent to the opposite sides of the body of bristles *a*. It will also be apparent that when the thumb-nuts M are removed from bolts E and said bolts E are turned out of the blocks F and removed from the device the brush A may be quickly and easily removed and may be as readily replaced with a new brush with a view of prolonging the usefulness of the device as a whole. But one bolt E and its appurtenances are shown in Fig. 3; but inasmuch as the arrangement of the bolts E is shown in Fig. 2 and the appurtenances of the bolts are identical the said showing is deemed sufficient.

N is a hollow valve having a large opening m^3 in its upper portion in communication with the reservoir *n* and arranged in and conforming in cross-section to the semicircular portion *p* of the diaphragm C. The said valve N is provided with apertures P, designed to be registered with the apertures *r* of diaphragm C, and it is also provided at an intermediate point of its length with an upright Q, having an angular opening R. This angular opening R is to receive the angular portion S of a stem T, which is journaled in the cap *u* and has an outer threaded end U, of angular form in cross-section, to receive a handle V, which has an angular aperture receiving said angular end U. The angular end U also receives a nut W, through the medium of which the handle V is secured on the stem T. In virtue of this construction it will be apparent that by adjusting the handle V or swinging the same in one direction or the other the apertures P in valve N may be readily positioned relative to the apertures *r* in diaphragm C, according to the volume of paint which the operator desires to pass from the reservoir *n* down on the hood D.

X, Fig. 1, is a handle suitably connected to one side of the body B and through the medium of which the brush may be conveniently manipulated on a horizontal surface.

In the practical operation of my fountain-brush it will be seen that when the reservoir *n* is charged with paint and the valve N is opened to the extent desired and the brush is moved to and fro paint will be supplied equally to the opposite sides of the body of bristles *a* and passing down the latter will be applied evenly to the surface that is to be painted.

The modified construction illustrated in Fig. 4 is designed for painting vertical surfaces, and for this reason the holder-body B′ is of right-angle form in cross-section, the brush A′ is disposed at a right angle to the upper portion of said body B′, the handle X′ is connected in a suitable manner to the under side of the horiozntal portion of the body B′, and a diaphragm C′ is employed for isolating the lower flange *w* of the deflector or hood D and causing the paint to pass outward on the upper flange *w* alone and to the upper side of the body of bristles to supply that side alone. With these exceptions, however, the construction of the modification is similar to the embodiment shown in Figs. 1 to 3, and it will be apparent that when the modified construction is moved up and down on a vertical or approximately vertical surface paint will be supplied to the upper side of the body of bristles of the brush A′ and by said bristles will be applied to the vertical surface.

The constructions herein shown and described constitute the preferred embodiments of my invention; but I desire it understood that in practice such changes may be made in the form, construction, and relative arrangement of parts as fairly fall within the scope of my invention as claimed.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—.

1. The combination in a fountain-brush, of a holder containing a reservoir, the bottom wall of which is formed by a diaphragm having a depending portion of semicircular form in cross-section in which are a plurality of apertures, a hollow valve having a large opening in its upper portion in communication with the reservoir and mounted to turn on its axis in said semicircular portion of the diaphragm and also having apertures arranged to register with those of the diaphragm, a handle arranged outside of the body and connected to said valve, a brush carried by the holder, and means for conducting substance received from the valved reservoir to the brush.

2. The combination in a fountain-brush, of a holder containing a reservoir, the bottom wall of which is formed by a diaphragm having a portion of semicircular form in cross-section in which are a plurality of apertures; said reservoir also having an opening in its end wall in alinement with the semicircular portion of the diaphragm, a

threaded nipple surrounding said opening and a threaded cap mounted on the nipple, a hollow valve communicating with the reservoir and having apertures arranged to register with those of the diaphragm and also having an upright provided with an angular aperture, a stem journaled in the said cap and having an angular portion arranged in the aperture of said upright, a handle fixed on the outer end of the stem, a brush carried by the holder, and means for conducting substance received from the valved reservoir to the brush.

3. The combination in a fountain-brush, of a holder containing a reservoir, and having the lower portions of its end walls arranged side by side and movable independent of each other to permit its side walls to spring inward and outward, a brush arranged in the holder, and means for clamping the brush in the holder and pressing the edges of the side walls of the holder toward the opposite sides of the brush.

4. The combination in a fountain-brush, of a holder containing a reservoir, a hood arranged in the holder and adapted to receive substance from the reservoir, a brush having its head positioned in the hood, and means for clamping the brush-head and holding the hood in the body.

5. The combination in a fountain-brush, of a holder having side walls, a hood arranged in the holder, a brush having a head arranged in the hood and provided with a transverse aperture, an interiorly-threaded block interposed between the brush-head and one flange of the hood and connected to said flange and the adjacent side wall of the holder, a threaded bolt extending through the transverse aperture of the brush-head and into the said threaded block, a smooth-bore block receiving the threaded bolt and interposed between the brush-head and the other flange of the hood and connected to said flange and the adjacent side wall of the holder, and a thumb-nut which is mounted on that portion of the bolt which extends beyond said wall of the holder.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANKLIN E. FORNWALT.

Witnesses:
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SUE G. LANDIS.