

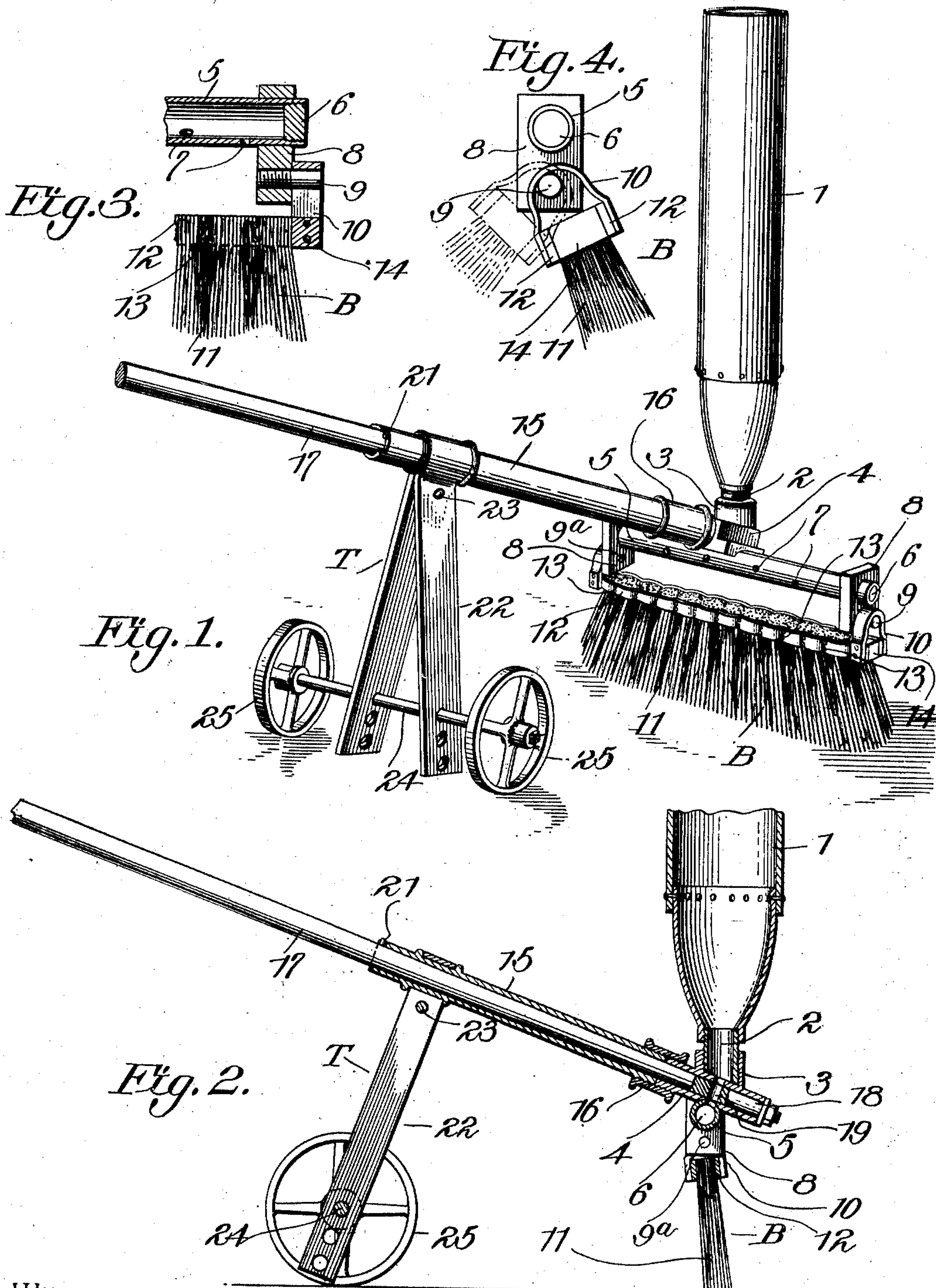
No. 759,930.

PATENTED MAY 17, 1904.

N. STOW.
PAINT BRUSH.

APPLICATION FILED JULY 27, 1903.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

NELSON STOW, OF BINGHAMTON, NEW YORK.

PAINT-BRUSH.

SPECIFICATION forming part of Letters Patent No. 759,930, dated May 17, 1904.

Application filed July 27, 1903. Serial No. 167,194. (No model.)

To all whom it may concern:

Be it known that I, NELSON STOW, a citizen of the United States, residing at Binghamton, in the county of Broome and State of New York, have invented a new and useful Paint-Brush, of which the following is a specification.

This invention relates to paint-brushes, especial reference being had to that type of brush which is designed for use in applying paint or oil to roofs, floors, and other surfaces that lie in horizontal or inclined planes approaching the horizontal.

The object of the invention is to improve the type of brushes specified by providing means for insuring the holding of the brush at a suitable inclination to the surface upon which it operates upon both forward and rearward strokes of the brush, to provide easily-operated means for controlling the flow of paint or oil from a fountain, and to provide a suitable support for the brush which will materially facilitate its use.

With the objects above stated and others in view, as will appear as the invention is more fully disclosed, the same consists in the construction and combination of parts of a fountain paint-brush hereinafter fully disclosed, illustrated in the accompanying drawings, in which corresponding parts are designated by the same characters of reference throughout, and having the novel features thereof specifically pointed out in the appended claims.

In the drawings, Figure 1 is a perspective view of a brush constructed in accordance with this invention. Fig. 2 is a view in vertical section through the reservoir and a portion of the brush. Fig. 3 is a detail view in section, showing the way in which the brush-head is suspended and the internal structure of the discharge-pipe. Fig. 4 is a detail view showing the range of movement of the brush-head on its support.

Referring now to the drawings, 1 designates the paint fountain or reservoir, which is preferably of cylindrical form throughout the greater portion of its length and is provided with a lower end tapering to a threaded outlet-tube 2, which is screwed into the upper branch of a casting 3 of irregular form. The

casting 3 comprises the upper branch, to which the fountain 1 is attached, the tubular portion 4, disposed at an oblique angle to the axis of the fountain and forming a valve-seat, and the base portion, to which is rigidly attached, by brazing or otherwise, a discharge-pipe 5, which is arranged at right angles to the axis of the paint-fountain and also at right angles to the tubular portion 4, which forms the valve-seat. The discharge-pipe 5 is closed at the ends by means of plugs 6, secured in position in any suitable manner, as by threaded engagement with the interior of the pipe, and is provided throughout its length with a series of perforations 7, which form the passages by which the paint or other liquid contained in the fountain 1 is allowed to escape when the brush is in use. The openings 7 are not arranged in a straight line; but those nearest the casting 3 are placed at higher points in the discharge-pipe than those lying more remote from the casting, the whole series of perforations being so arranged that the elevation of the perforations nearest the casting is greatest and that of those near the ends of the pipe least. This manner of arranging the discharge-openings insures the distribution of the paint or other liquid through all of the openings, as that which lies in the bottom of the discharge-pipe can escape only through the openings nearest the ends thereof, as they are at the bottom of the pipe.

Rigidly attached to the discharge-pipe, adjacent to the ends thereof, are two lugs 8, which depend from the pipe and form a support for the brush-head, (designated generally as B.) The brush-head is supported by means of short screws 9 and 9^a, which pass through loops 10, rigidly secured to the ends of the brush-head, and engage with suitably-threaded openings in the lower portions of the lugs 8.

The brush-head B is of special structure, comprising the bristles 11 and the bars 12, between which said bristles are secured by riveting the bars together while under great pressure. The bars 12 are not perfectly straight, but are made up of a number of outwardly-curved divisions, as shown, rivets 13 being inserted between the curved divisions. By so arranging the bars, bristles, and rivets

the bristles are crowded together in the spaces between the bars and are held securely without glue by means merely of the pressure thereon exerted by the bars. At the ends of the brush-head small blocks 14 of metal are placed between the ends of the bars 12 to fill the space between them and form a solid structure.

The handle of the brush comprises a tubular section 15, which is attached to the higher end of the tubular portion 4 of the casting 3 by means of a coupling member 16, as shown, and a solid member 17 of smaller diameter than the tubular member and rotatable therein. The member 17 has attached to the end thereof which is adjacent to the brush a valve-plug 18, which is rotatable within the valve-seat formed in the casting 3 and is provided with a transverse opening 19 to permit the passage of liquid from the fountain or reservoir to the discharge-pipe. By this simple arrangement the feed of liquid from the fountain to the discharge-pipe is always kept under control by merely turning the solid portion 17 of the handle within the tubular portion, and in order that the user of the brush may at all times know exactly the degree of opening of the valve there is provided on the handle member 17 a small stud 21, the upper end of which is in the same plane as the upper end of the opening in the valve-plug, and the free end of the tubular handle member 16 is slightly cut away on top, as shown in Fig. 1, to afford stops with which the stud 21 may contact to limit the rotary movement of the handle member 17 within the tubular member 16.

To facilitate the use of the brush and to insure uniformity in the application of paint or oil therewith, I make use of a small truck, designated generally as T and comprising a bifurcated standard 22, formed, preferably, from a piece of strap-iron, which is bent so as to encircle the tubular handle member 16, upon which it is clamped by means of a bolt 23 and which has passing through openings adjacent to the downwardly-disposed ends thereof an axle 24, upon which are secured a pair of small wheels 25.

The mode of using the brush is simple in the extreme. The fountain or reservoir 1 will be filled with paint or other liquid which it is desired to apply to a roof or other similar surface and the handle member 17, having been turned sufficiently to open the valve to the desired extent, the liquid in the reservoir will pass downward into the discharge-pipe 5 and be discharged therefrom through the opening 7. As the liquid passes down from the discharge-pipe to the brush it will be applied to the surface by drawing the brush backward and forward over the surface.

Owing to the way in which the brush-head is suspended beneath the discharge-pipe, the proper inclination of the brush to the surface

upon which the liquid is spread will be secured automatically by the oscillation of the brush-head on the supporting-screws, the lugs 8 being so proportioned that the oscillatory movement of the brush on the supporting-screws will be limited by the contact of the bars 12 with the under side of said lugs, and when the lugs 8 come in contact with either of the bars 12 the brush will be held at the proper inclination for applying the liquid to the surface. The use of the small truck T insures the proper contact of the bristles of the brush with the surface to be coated and prevents the bending or unnecessary wear of the bristles which would result if the entire weight of the paint-filled reservoir, the discharge-pipe, and one end of the long handle were allowed to rest upon the bristles of the brush. As the weight of the reservoir and the end of the brush-handle is supported upon the truck, the bristles 14 will merely make sufficient contact with the surface to be coated to insure the proper spreading of the paint or other liquid thereon, and at the completion of each stroke in either direction the brush will oscillate easily upon its bearings to bring it into position for the return stroke.

The advantages of having a brush-head constructed in the manner described by securing the bristles between metal bars which are riveted together when under great pressure will be obvious at a glance, for the bristles when so clamped are positively held with such firmness that they will wear out before they will become detached from the brush-head, and will not, as is the case when glue is used to hold the bristles in position, be constantly coming loose and remaining on the painted surface to spoil its appearance.

While I have described and illustrated the preferred form of embodiment of the invention, it will be obvious that various changes in the form, proportions, and arrangement of the parts may be made without departing from the spirit thereof or sacrificing the advantages of the invention.

Having thus described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination in a device of the class described, of a handle and a brush-head mounted for oscillatory movement independent of the handle.

2. The combination in a device of the class described, of a handle, a brush-head mounted for oscillatory movement on the handle, and means to limit said movement.

3. The combination in a device of the class described, of a handle and a brush-head mounted transversely of the handle for oscillatory movement thereon.

4. The combination in a device of the class described, of a handle, a brush-head-supporting member disposed transversely of the han-

dle, and a brush-head suspended beneath said supporting member for oscillatory movement.

5. The combination in a device of the class described, of a handle, a brush-head-supporting member disposed transversely of the handle, a brush-head suspended beneath said member for oscillatory movement, and stops provided on said member to limit the range of said movement.

10 6. The combination in a device of the class described, of a handle, a brush-head-supporting member disposed transversely thereof at one end, a pair of downwardly-disposed lugs rigidly secured to said member, and a brush-head suspended beneath said lugs for oscillatory movement and adapted to contact with said lugs at the limit of its movement in either direction.

20 7. The combination in a device of the class described, of a reservoir, distributing devices at the bottom of said reservoir, and a brush mounted for oscillatory movement beneath said distributing devices.

25 8. The combination in a device of the class described, of a reservoir, a discharge-pipe disposed at right angles to the axis of said reservoir, and an oscillatory brush supported beneath said discharge-pipe.

30 9. The combination in a device of the class described, of a reservoir, a horizontal discharge-pipe at a lower level than the reservoir, and an oscillatory brush arranged in suitable position to be supplied from said discharge-pipe.

35 10. The combination in a device of the class described, of a reservoir, a horizontal discharge-pipe beneath said reservoir, said pipe being provided with a series of discharge-openings at different levels, and a brush mounted for oscillatory movement beneath said discharge-pipe.

40 11. The combination in a device of the class described, of a reservoir, a brush-head supplied from said reservoir, a valve to control

the flow from the reservoir, and a brush-handle 45 connected with said valve and forming means for operating the same.

12. The combination in a device of the class described, of a reservoir, a brush-head supplied from said reservoir, a rotatable valve to 50 control the flow from said reservoir, and a brush-handle rigidly attached to said valve and forming operating means therefor.

13. The combination in a device of the class described, of a reservoir, a brush-head, a rotatable valve to control the flow from said reservoir, a brush-handle rigidly connected with said valve and forming operating means therefor, and means to limit the rotary movement 60 of said handle.

14. The combination in a device of the class described, of a reservoir, a brush-head supplied from said reservoir, a valve to control the flow from said reservoir, a brush-handle rigidly attached to said valve, and means on 65 said handle to indicate the amount of opening of the valve.

15. The combination in a device of the class described, of a truck, a brush-handle rigidly secured on said truck, and an oscillatory brush-head mounted at the end of said handle. 70

16. The combination in a device of the class described, of a truck, a tubular handle member rigidly secured on said truck, a brush-head mounted on said tubular member, a reservoir 75 supported above said brush-head, a second handle member rotatably supported in said tubular member, and a valve rigidly attached to said second handle member and forming means to control the flow from the reservoir to the 80 brush-head.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

NELSON STOW.

Witnesses:

J. H. JOCHUM, Jr.,

J. ROSS COLHOUN.