

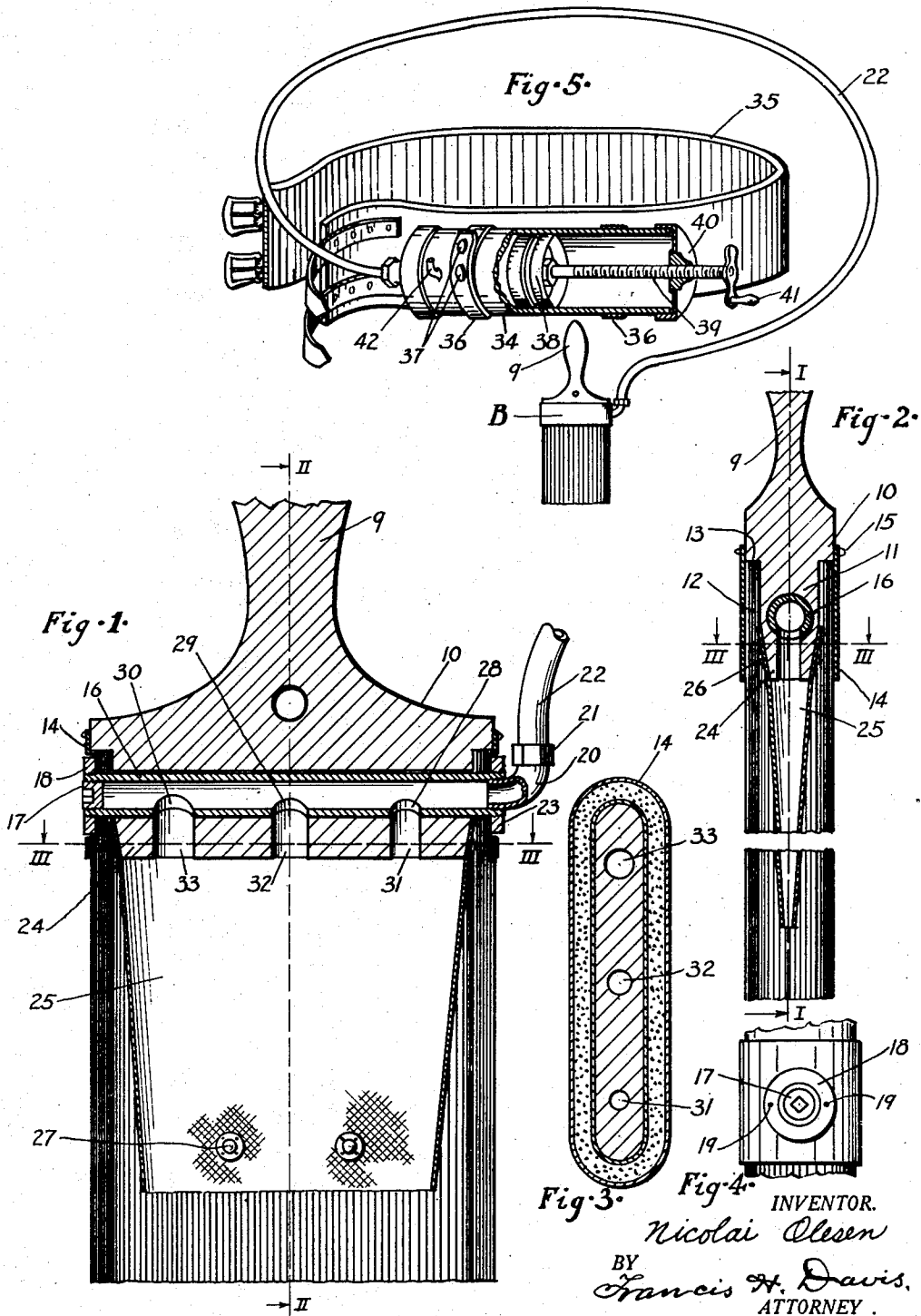
May 12, 1936.

N. OLESEN

2,040,327

POSITIVE FEED FOUNTAIN PAINT BRUSH

Filed March 5, 1934



INVENTOR.
Nicolai Olesen
BY
Francis H. Davis,
ATTORNEY.

UNITED STATES PATENT OFFICE

2,040,327

POSITIVE FEED FOUNTAIN PAINT BRUSH

Nicolai Olesen, Salinas, Calif.

Application March 5, 1934, Serial No. 714,117

1 Claim. (Cl. 15—128)

This invention relates to paint brushes, and more particularly to a positive-feed fountain paint brush.

The present invention provides novel means to overcome certain limitations inherent in paint brushes of this character in which the paint is generally fed to the brush under air pressure from a reservoir that is usually placed at some distance from the painter. Under such conditions the flow of paint is uncertain because the air pressure fluctuates; furthermore, unless there is another person present to pump the air the painter has to stop painting and attend to it, probably having to climb up and down ladders to do so.

Another limitation that has militated against the general use of such brushes is that unless they are cleansed promptly after use the paint remaining in the tubes and other portions of the brush sets hard and makes it extremely difficult to restore the brush to working order.

An object of this invention is to provide a unitary painting apparatus consisting of a paint reservoir attached to a belt adapted to be worn by an operator, there being a hose leading from the reservoir to a novel paint-distributing brush. Said reservoir is provided with a manually-operable, screw-controlled, double-acting plunger adapted by forward movement to feed paint to said brush, and by backward movement to suck paint from said hose back into the reservoir, and thus prevent loss of paint.

A further object is to provide a positively-fed, manually-operable paint brush of the class described, wherein the paint enters the brush at a right angle to the bristles through a tube which passes transversely clear through the brush, the receiving end of said tube being arranged for connection with said hose, whereas the far end thereof is provided with a plug. By removal of the hose connection and removal of the plug hardened paint if present can be readily cleaned out of said tube, drilled out if necessary by a drill passing completely through the brush.

Another, very important object is to provide a series of distribution outlets suitably spaced apart on the lower side of said tube, the outlet nearest the intake end of the tube being smallest, the others increasingly larger as they approach the plug end of the tube, by which arrangement a more uniform flow of paint is had downwardly through said openings.

A further object is to provide a flexible conduit extending suitably downward from the solid structure of the brush so as to include said

distribution outlets, and having hookless fasteners in spaced relation to each other across the conduit adjacent its lower end, said fasteners being adapted to confine the lower end of said conduit into a series of passages for the uniform outflow of paint.

Other objects will appear as the nature of the invention is better understood, and the same consists in the novel form, combination, and arrangement of parts hereinafter more fully described, shown in the accompanying drawing, and claimed.

In the drawing, wherein like reference characters indicate corresponding parts throughout the views:

Figure 1 is a section taken through the paint brush of my invention on the line I—I of Figure 2.

Figure 2 is a section taken on the line II—II of Figure 1.

Figure 3 is a section taken on the line III—III of Figures 1 and 2.

Figure 4 is a fragmentary elevational detail showing the plug assembly.

Figure 5 is a perspective view of my complete apparatus.

In carrying out my invention and having reference to Figures 1 and 2, I provide the brush B, consisting of the handle portion 9 which is integral with the head 10, and preferably of wood. The head is reduced all round to form the tongue 11 thereby providing a flat ground for the bristles 12 to bed on, and the shoulder 13 extending all round the head for the upper ends of the bristles to abut against. The band 14, as is well shown in Figure 3, encircles the upper end of the brush, being secured by brads as 15.

The tongue 11 is perforated through its major axis, at a right angle to the longitudinal axis of the brush to receive the tube 16 which is a drive-fit therein. Having reference to Figures 1 and 4 it will be noted that the left-hand end of said tube is internally threaded to receive the plug 17, being suitably countersunk to engage a turnkey with which to screw the plug in or out, said tube end being externally threaded to engage the circular nut 18 countersunk into the band 14 and provided with the holes 19 adapted to engage a suitable pronged spanner, not necessary to show as it forms no part of the present invention. The right-hand end of the tube 16 is internally threaded to engage a suitable hose fitting as 20, provided with the coupling 21 engaging the hose 22, preferably of the suction type, for a purpose to be explained. Said right-hand end of the tube 16 is externally threaded to engage the nut 23

which is similar to the nut 18, and it will be noted that the band 14 is suitably countersunk to seat said respective nuts. By this arrangement it will be understood that by providing the tube 16 as a drive-fit in the tongue 11, and by tightening the respective nuts 18 and 23 the tube 16 is held firmly against either rotary or axial displacement.

From about the level of the lower portion of the tube 16 the tongue 11 at the portion 24 is formed wedge-shaped to incline the upper portions of the conduit member 25 together, said conduit is substantially a section of light flexible hose, which may well be of cotton or the like that will yield nicely during the act of painting.

The upper end of said conduit fits up all round the portion 24 and is secured thereto by tacks as 26, the lower end of said conduit is brought together detachably at spaced distances apart by hookless fasteners as 27.

Reference being had to Figures 1 and 2 it will be noted that the lower wall of the tube 16 at points within the upper end of the conduit 25 is perforated at the three points 28, 29 and 30, which is illustrative as a greater or lesser number of perforations could obviously be employed. The portion 24 is provided with the vertical holes 31, 32 and 33 corresponding in size, and disposed in registry with said perforations. The perforation 29 is suitably larger than the perforation 28, and the perforation 30 is suitably larger than the perforation 29 to provide an equal flow of paint under the correspondingly diminished pressures at the perforations 29 and 30.

Figure 5, which shows my complete apparatus with its several parts cooperative as a unit, comprises the paint reservoir 34 detachably secured to the belt 35 by straps as 36 the ends of which are arranged to snap together by conventional fasteners as 37.

Portions of said reservoir wall are cut away in said figure to expose the double-acting plunger element 38 actuated to right or left by the screw 39 engaging a counterpart thread in the cap 40 which is removably attached to the reservoir end.

When about to operate my apparatus the paint reservoir may be removed from the belt by undoing said snaps. The screw is now screwed out

as far as it will come, the cap is removed, paint put in, the cap replaced and the reservoir replaced on the belt.

When painting an occasional forward movement of the screw by manual operation of the crank 41 forces the paint through the hose 22, and down to the point of the brush by the means disclosed, in a positive manner. When the operator wishes to cease work a slight reverse turning of said crank sucks the paint that is in the brush and in the hose back into the reservoir, it being a suction hose that will not collapse. When not in use the brush may be hung on the hook 42.

In event the brush should become clogged through neglect the tube 16 can be freed by removing the plug 17, and the hose fitting 20 which enables a drill or a wire to be passed through the tube, whereas access can be gained to the holes 31, 32 and 33, and to the perforations 28, 29 and 30 by unsnapping the fasteners 27, thereby giving full access to the whole interior of the brush.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claim, without departing from the spirit and scope of the invention.

I claim:—

A brush of the character described, including a head having a peripherally reduced portion, said reduced portion being surrounded by brush fibres and having a cross bore therein with lateral ports forming communication between the cross bore and brush fibres, a tube having externally threaded ends seated in the cross bore and having lateral ports registering with the aforesaid ports with the threaded ends of the tube projecting from the bore into the reduced portion, a nut threaded onto each end of the tube for securing the same in the bore and engaged with the adjacent portions of the brush fibres, a band carried by the head and overlying the reduced portion for retaining the brush fibres to the head and having clearance openings therein for the nuts on the tube ends, a closure plug for one end of the tube and supply means attached to the other end of the tube.

NICOLAI OLESEN.