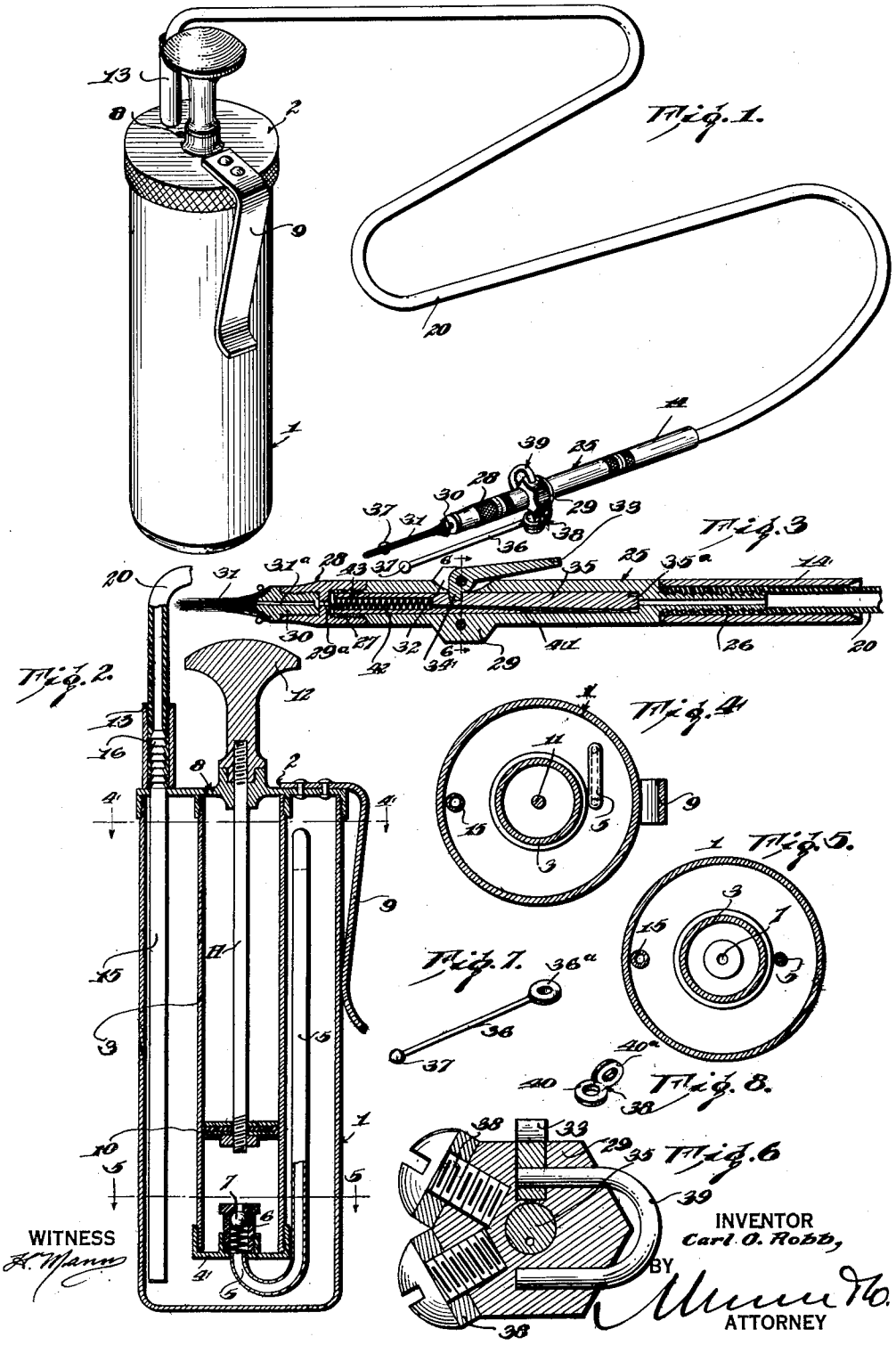
June 7, 1932. C. O. ROBB 1,862,430

PAINTER'S STRIPING BRUSH

Filed Feb. 16, 1929



Patented June 7, 1932 1,862,430

UNITED STATES PATENT OFFICE

CARL O. ROBB, OF COLORADO SPRINGS, COLORADO

PAINTER'S STRIPING BRUSH

Application filed February 16, 1929. Serial No. 340,606.

This invention relates to painters' striping brushes and more particularly to fountain brushes of this character.

It is well known that what may be termed "the hand striping process of painting" is very unsatisfactory for many reasons, among which is that it is practically impossible to produce a stripe of uniform width and density, or which is parallel with another stripe, or with a bead or the like, even although the work is gone over repeatedly.

A primary object of this invention is to construct a brush of this character so as to eliminate this tedious and expensive process of hand striping, and to provide for the pulling of a stripe which is uniform in width and density from start to finish, which is parallel to a bead or another stripe, and in which the time required is materially reduced thereby reducing the expense, and which does not tax the nerves and patience of the operator.

Another object is to so construct such a brush that it may be suspended from the body of the painter and manipulated with one hand leaving the other hand free.

Still another object is to provide a striping brush which does not depend on gravity to ensure the flow of the paint and in which the creation of a vacuum in the bristles is prevented thereby ensuring uniformity in width and density of the stripes so formed.

Another object is to so construct a brush of this character that it may be easily assembled and dissembled for cleaning and other purposes.

In carrying out these objects, the invention is susceptible of a wide range of modification without departing from the spirit or sacrificing any of the advantages of the claimed invention; there being shown in the accompanying drawing for illustrative purposes a preferred and practical form, in which:

Figure 1 represents a perspective view of the striping brush embodying this invention;

Fig. 2 is a vertical section of the paint containing member thereof with the tube which connects it with the brush head broken off for convenience in illustration;

Fig. 3 is a longitudinal section through the brush head and its connection with the tube;

Fig. 4 is a horizontal section taken on the line 4—4 of Fig. 2;

Fig. 5 is a similar view taken on the line 5—5 of Fig. 2;

Fig. 6 is a transverse section taken on the line 6—6 of Fig. 3.

Fig. 7 is a detail perspective view of one of the guides and its connection, and

Fig. 8 is a detail perspective of one of the short leg connecting arms.

In the embodiment illustrated the paint container is in the form of a can 1 on the upper end of which is removably mounted a cover or top member 2 which is threadedly or otherwise firmly secured to the can so as to permit of its removal when necessary and yet adapt it to withstand the pressure of the compressed air used in forcing the paint out.

Depending from the inner face of this cover 2 is a pump cylinder 3 having a cap-like bottom 4 threadedly connected with the lower end thereof and through the bottom of which extends a discharge pipe 5 having a curved portion or goose neck at its lower end and with its upper end terminating in a gooseneck opening downwardly near the top of the can as is shown clearly in Figs. 2 and 4. On the bottom 4 and within the pump cylinder is a valve casing 6 provided with a spring controlled ball or check valve 7 which closes the opening from the casing into the cylinder normally and which is adapted to be unseated by the pressure of air in the cylinder when the plunger or piston 10 is moved downward thereby forcing the compressed air out through pipe 5 into the top of the top cylinder to adapt it to exert its pressure on the top of the paint to be used for forcing it out of the can in a manner presently to be described. The piston has a rod 11 extending through the top 2 and is provided with a detachable handle 12.

The top 2 has an air suction hole 8 opening into the cylinder 3 and a suspension hook 9 is shown riveted to said top. This hook 9 is designed for use in suspending the can 1 from the belt or other part of the apparel of the painter or from any other suitable

support and while the hook 9 is shown attached to the top of the can obviously it may be fastened to the side wall thereof if found desirable to do so.

The tube 20 which conducts the paint from the can 1 to the brush head 25 is connected at one end by a coupling sleeve 13 to the can and at its other end by a similar sleeve 14 with the head 25.

Extending through the top 2 and down to a point near the bottom of the can 1 is a pipe 15 the upper end of which is provided with annular threads or ribs 16 for connection with the tube 20 as is shown clearly in Fig. 2. The sleeve 13 extends around this end of tube and firmly clamps or holds it on the end of pipe 15.

The head 25 is provided at one end with an externally threaded reduced extension 26 designed to be inserted in the end of the tube 20 which is tightly connected with said extension by means of the sleeve 14 as is shown clearly in Fig. 3 the end of the tube abutting the shoulder formed at the base of the extension 26 while the ends of the sleeve 14 also abuts the shoulder. At the opposite end of the head 25 is a similar threaded reduced extension 27 which is shown somewhat shorter than the extension 26 and is designed to have threaded engagement with a bonnet 28 which forms an end closure for the valve chamber at the end of the head 25 and which receives in its outer end the nipple or tip 30 having a central bore 31*a* and constituting a part of the striping brush proper. This nipple 30 has secured around said bore and in its outer end by any suitable means the hairs or bristles 31 which are arranged annularly to provide a paint feeding channel within them.

At the center of the head 25 or rather midway the ends thereof is an enlargement 29 having a cut out portion 32 in which a lever 33 is fulcrumed. This lever has a laterally extending nose or toe 34 which enters a notch provided in a valve 35 positioned within the head 25. This lever is designed for opening and closing the valve for controlling the flow of the paint through the head.

Secured to the enlargement 29 of the head 25 are guide legs 36 two of which are shown and which are provided at their free ends with ball-like members 37 to facilitate their engagement with the article to be striped without danger of marring it. This enlargement 29 has its outer face made hexagonal and mounted on two of the flat faces thereof are the legs 36 which are connected by universal joints to adapt said legs to be adjusted for use in connection with various objects. This connection of the legs is shown effected by means of short arms 38 having flat apertured ends 40 and 40*a* arranged in planes at right angles to each other and one of which is designed to be screwed to the enlargement 29 and the other to have the flattened apertured inner end 36*a* of one of the legs 36 adjustably connected therewith.

The valve actuating lever 33 is preferably pivotally mounted in a slit or recess 32 of the enlargement 29 by means of a U-shaped pin 39 the legs of which are removably inserted one through the enlargement and lever and the other in the enlargement 29 as is shown clearly in Fig. 6 and with the curved portion thereof projecting laterally beyond the head to afford a hand grip for manipulating the device and for removing and inserting the pin when it is desired to assemble or disassemble the parts of the head.

The valve 35 which controls the flow of paint through the head 25 is constructed as shown in Fig. 3 to fit within said head and has at one end thereof a nipple like projection 35*a* which normally closes the passage through the extension 26 and which has an annular space surrounding it so that when this nipple is unseated the paint may flow through the passage in the extension 26 into the head and then through a longitudinally extending passage 41 formed in the body of the valve and which opens at its opposite end into a chamber 42 which communicates with the passage 29*a* in the bonnet 28 and with the passage 31*a* in the nipple or tip 30 and discharges into the space between the bristles thereby feeding paint to the bristles from the interior thereof.

A coiled spring 43 is located in the chamber 42 and bears at one end against the bonnet and at the other end against the shoulder at the inner end of said chamber of the valve and exerts its tension to hold the valve 35 normally in closed position as shown in Fig. 3.

The valve 35 is designed to be opened to unseat the nipple 35*a* thereof from over the passage in the member 26 by depressing the lever 33 whereby the valve body is moved longitudinally forward against the tension of the spring 43 thus permitting the paint to flow under the pressure of air in the container 1 outwardly to the bristles 31.

In the use of this fountain paint brush the cuplike container 1 is unscrewed from the cover 2 and filled with the desired quantity of paint of the desired color. It is then screwed back into the cover and the operator pumps sufficient air into the can to create the necessary pressure to cause the paint to flow through the head to the bristles 31 of the striping brush in the manner above set forth. The guide members 36, one or both of which may be used, are adjusted to ride against the bead or other objects in connection with which the brush is to be used and the pulling of the stripe is begun. It is of course understood that the container may be attached to the user's belt by the hook 9 or to any desired support and the rubber tube 20 is preferably passed over and attached to his shoulder to

adapt it to hang down in convenient position to locate the head 25 where he may grasp it and direct it in the painting operation. This arrangement of the container and tube leaves one arm and hand of the operator entirely free while the other hand is used to grasp the head 25 and to manipulate the lever 33 for controlling the flow of the paint through the brush head. By thus manipulating the brush the painter may pull a stripe of uniform width and density and one which will be parallel to the bead or other stripe.

It will thus be seen that by supplying a continuous flow of paint under pressure to the point of the brush, creation of a vacuum is prevented which is objectionable in that it causes the hairs of the brush to come together and result in the production of stripes which vary in width and density and which this invention overcomes.

When it is desired to clean the outfit all that is necessary is to pull the sleeves 13 and 14 away from the container and the brush head, respectively, and remove the tube 20 from the head 25. To clean the head 25 the pin 39 is withdrawn thereby releasing the lever 33 and by unscrewing the bonnet 28 the spring 43 and valve 35 may be taken out of the head and all parts thoroughly cleaned.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will, of course, be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention or its scope as claimed.

I claim:

A painter's brush comprising an elongated head having a chamber intermediate its ends and inlet and outlet passages leading from the chamber outwardly of the ends thereof, a bonnet at the outlet end of said head and having an apertured partition, a bristle carrying nipple detachably engaged with the outer end of said bonnet and having a passage therethrough, a valve body having sliding fit in the said chamber and having a chamber opening through its outer end, said valve body having an annular chamber formed exteriorly of its rear and a passage leading forwardly from the latter through the body and opening into the inner end of the said chamber at its outer end, a spring engaged in the chamber at the other end of said valve and normally acting to hold the rear end of said valve closed and means carried externally of said head for actuating said valve to open position.

Signed at Colorado Springs in the county of El Paso and State of Colorado, this 6th day of February, A. D. 1929.

CARL O. ROBB.