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SELF-FEEDING PAINT BRUSH

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2 Sheets-Sheet 1

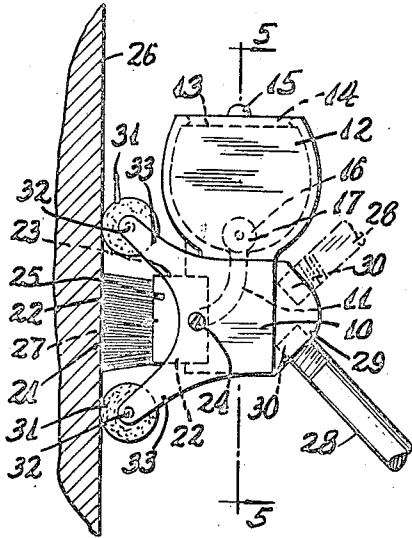


Fig. 1.

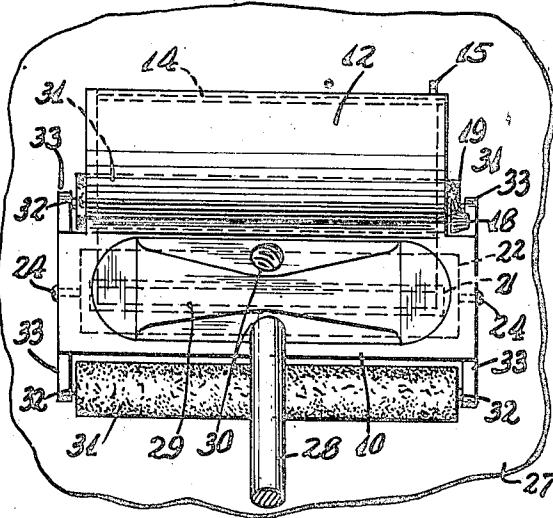


Fig. 2.

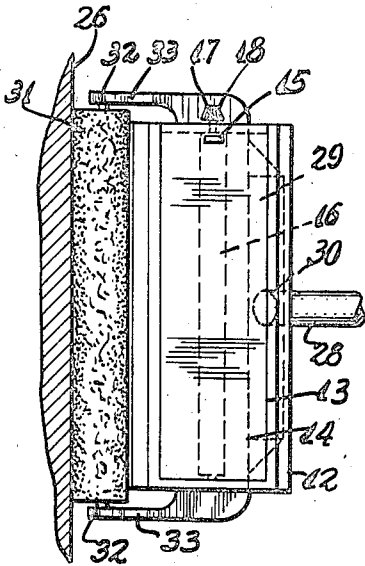


Fig. 4.

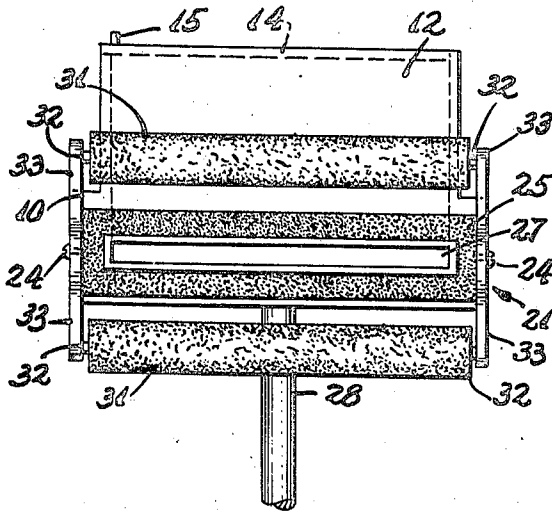


Fig. 3.

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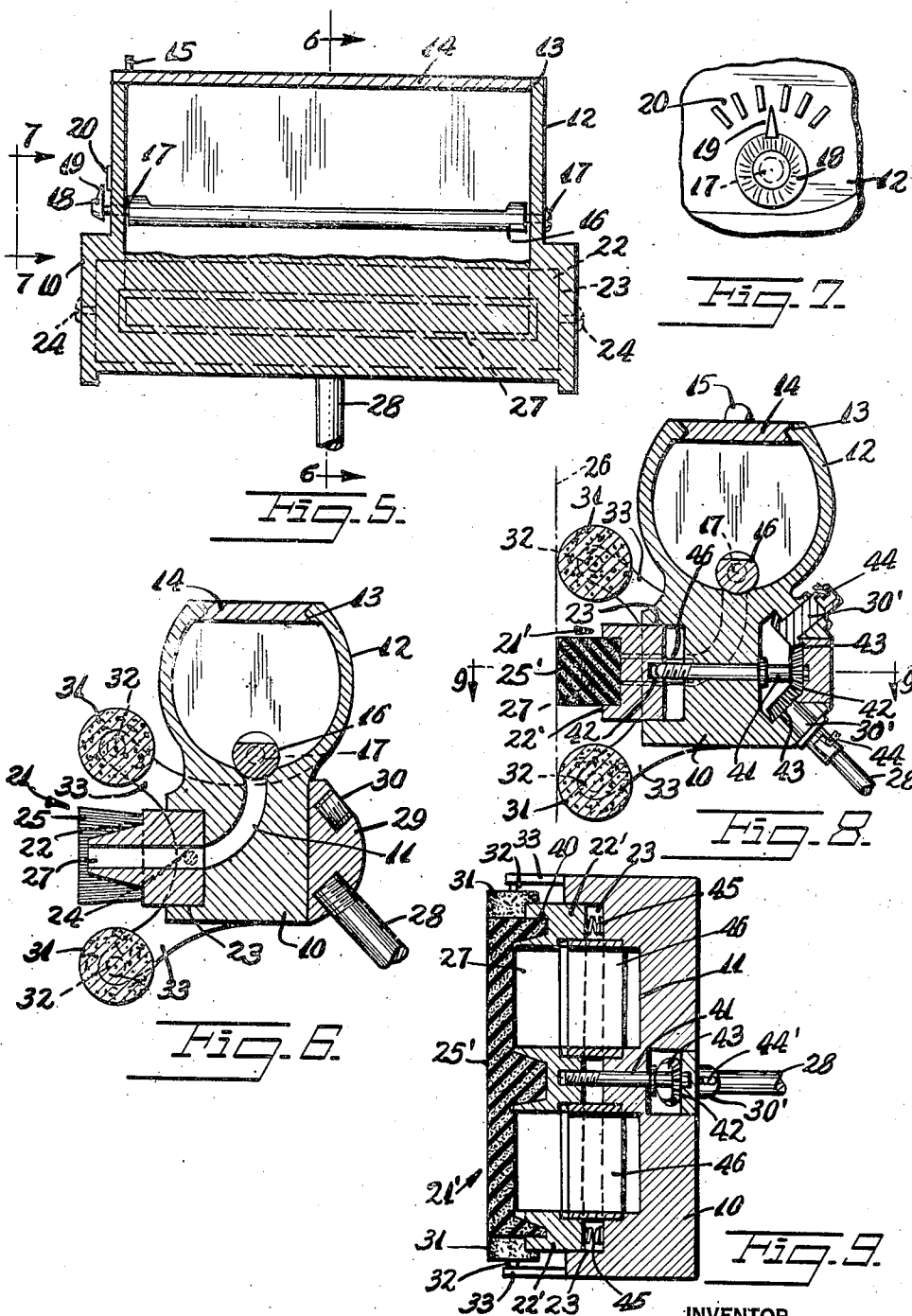
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2 Sheets-Sheet 2



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SELF-FEEDING PAINTBRUSH

Vincent Pino, New York, N. Y.

Application May 19, 1942, Serial No. 443,663

8 Claims. (Cl. 91—27)

This invention relates to new and useful improvements in a self-feeding paint brush.

More specifically, the invention proposes the construction of a self-feeding paint brush characterized by a casing having a paint passage extended from its top to its front face and carrying a paint container arranged to feed the paint from said container to a paint distributing member mounted upon the front face of the casing.

Another object of this invention proposes the provision of a valve within said container and arranged in conjunction with the top end of the paint passage to control the quantity of paint which will be supplied to the paint distributing member.

A further object of the invention proposes mounting the casing upon the top end of a long handle in a manner to permit the casing to be conveniently manipulated for painting high inaccessible wall areas without the use of a ladder or scaffold.

It is a further object of this invention to provide the casing with paint spreading and finishing rollers mounted above and below the paint distributing member in a manner to smooth the paint and remove the brush marks from the surface of the paint.

It is a further object of the invention to provide means whereby the paint distributing member may be automatically extended and retracted and controlled by the handle upon which the casing is mounted in a manner to permit the paint distributing member to be adjusted relative to the casing to seat solidly against the surface being painted.

For further comprehension of this invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a side elevational view of a self-feeding paint brush constructed in accordance with this invention.

Fig. 2 is a rear elevational view of Fig. 1.

Fig. 3 is a front elevational view of Fig. 1.

Fig. 4 is a plan view of Fig. 1.

Fig. 5 is a vertical sectional view taken substantially on the line 5—5 of Fig. 1.

Fig. 6 is a vertical sectional view on the line 6—6 of Fig. 5.

Fig. 7 is a partial end elevational view looking in the direction of the line 7—7 of Fig. 5.

Fig. 8 is a vertical sectional view similar to Fig. 6 but illustrating a modification of the invention.

Fig. 9 is a horizontal sectional view on the line 9—9 of Fig. 8.

The self-feeding paint brush, according to this invention, includes a casing 10 having a paint passage 11 which extends from its top face downwards and forwards to the front face of the casing. A container 12 is mounted upon the top face of the casing 10 and is provided for the purpose of holding a quantity of paint. The container 12 in the preferred construction is integrally formed with the casing 10 and is provided with a top opening 13 closed by means of a slidably mounted panel 14. One end of the panel 14 is provided with an upwardly extended handle 15 by which the panel 14 may be removed from the top of the container 12 to permit the quantity of paint within the container to be replenished.

A valve is provided for controlling the quantity of paint that will enter the paint passage 11 from the container 12. This valve comprises a cylindrical valve element 16 located within the container 12 and which seats against the top end of the paint passage 11. Trunnion elements 17 extend through the end walls of the container 12 and rotatively support the cylindrical valve element 16. One side of the cylindrical valve element 16 is flattened and when aligned with the top of the paint passage 11 permits a quantity of paint to enter the paint passage and flow downwards therethrough. One of the trunnions 17 carries a knob 18 by which the cylindrical valve element 16 may be conveniently rotated. The knob 18 carries a pointer 19 which registers on a calibrated scale 20 formed on the adjacent outside face of the end wall of the container 12 to indicate the degree of alignment of the flattened side of the valve member 16 with the top end of the paint passage 11.

A paint distributing member 21 is mounted on the front face of the casing 10. This paint distributing member is in the form of a brush having a back member 22 which seats within a recess 23 formed in the front face of the casing 10. Set screws 24 are threadably engaged through the end walls of the casing 10 and engage the ends of the brush back 22 for securely mounting the paint distributing member 21 in position within the recess 23. A plurality of brush bristles 25 project from the brush back 22 and are adapted to engage against the wall 26 being painted. The brush back 22 is further formed with a passage 27 which connects with the bottom end of the paint passage 11 for the purpose of conveying the

paint flowing through the paint passage 11 to the bristles 25 of the paint distributing member 21.

Means is provided for mounting the casing 10 upon the end of a long handle 28 to permit high inaccessible areas of the wall to be painted without the use of ladders or scaffold. This means comprises a bracket 29 mounted upon the back face of the casing 10 and which is provided with a pair of superimposed inwardly converging threaded openings 30 into which end of the handle 28 is adapted to be threadedly engaged for securely mounting the casing 10 upon the end thereof. When the handle 28 is engaged into the bottom opening 30, high inaccessible places may be painted, and when the handle 28 is engaged into the upper downwardly inclined opening 30, low inaccessible places may be painted without requiring bending over.

Paint spreading and finishing rollers 31 are mounted above and below the distributing member 21. These rollers 31 are provided with outwardly extending trunnion elements 32 which rotatively engage brackets 33 extending forwardly from the ends of the casing 10. The surface of the rollers 31 are serrated for the purpose of spreading the paint and for simultaneously removing the brush marks from the paint spread by the brush bristles 25. Thus the rollers 31 also act as stippling members to permit the painting and stippling to be simultaneously accomplished by a single brushing operation.

The operation of this form of the invention is as follows:

To fill the container 12 with paint the valve member 16 is rotated to a position in which it will close the top end of the paint passage 14, and the panel 14 is removed from the top of the container 12, permitting the paint to be used upon a wall to be passed into the container through the open top 13. After the container 12 is filled with the desired quantity of paint, the panel 14 is returned to its engaged position with the container 12 to close the open top thereof. The valve 16 is opened to a desired degree by turning the knob 18 and watching the movement of the pointer 19 over the calibrated scale 20. This will permit a quantity of the paint from the container 12 to pass downwards through the paint passage 11 into the passage 27 in the paint distributing member 21. The aligned passages 11 and 27 will thus act to convey the paint from the container 12 to the bristles 25 of the paint distributing member 21.

The casing 10 is then mounted upon the end of the handle 28 and by means of the handle the entire device is raised to a position in which the paint spreading and finishing rollers 31 and the paint distributing member 21 will be seated against the vertical wall 26. By means of the handle 28 the entire device is moved vertically along the wall 26 causing the bristles 25 of the paint distributing member 21 to spread a film of paint upon the wall 26. Following the bristles 25 the spreading and finishing rollers 31 will pass over the film of paint and assist in the spreading operation and remove the brush marks from the surface thereof.

In the modification of the invention shown in Figs. 8 and 9, the construction of the self-feeding paint brush is similar to that previously described, except for the construction and manner of using the paint distributing member 21'. In this form of the invention the paint distributing member 21' has a back member 22' which engages within a recess 23 formed in the casing

10. A sponge rubber member 25' is seated within a cavity 40 formed in the front face of the back member 22'. The sponge rubber member 25' acts in the nature of a brush for spreading the paint which is conveyed to it by the aligned passages 11 and 27.

Means is also provided for extending and retracting the distributing member 21' relative to the vertical wall 26 so as to cause the front face of the sponge rubber member 25' to seat solidly against the vertical wall. In this form of the invention the casing 10 carries a horizontal stud 41 which is rotatively supported and which has its front end threaded to engage a complementary threaded opening 42 formed in the back face of the back member 22' of the paint distributing member 21'. The horizontal stud 41 is formed with a beveled gear 42 which meshes with a pair of beveled gears 43 mounted on the inner end of socket members 30' which are adapted to receive the end of the handle 28.

The socket members 30' carry set screws 44 which are adapted to engage against the end of the handle 28 and securely lock the end in position within the socket members 30'. The socket members 30' are rotatively supported on the casing 10. Thus the handle 28 may be rotated relative to the casing for rotating the stud 41 to cause the paint distributing member 21' to be moved into and out of the recess 23 in the casing 10. Springs 45 operate between the back face of the back member 22' of the paint distributing member 21' and the base wall of the recess 23 to urge the paint distributing member 21' outwards relative to the casing 10 requiring that the stud 41 be used to move the paint distributing member 21' into the recess 23.

The bottom end of the paint passage 11 has forwardly extending tubular extensions 46 which slidably engage into the back end of the passages 27 formed in the back 23 of the paint distributing member 21' for conveying the paint from the container 12 across the open space between the back face of the paint distributing member 21' and the base wall of the recess 23.

In other respects this form of the invention is identical to the previous form and like parts are indicated by like reference numerals.

While I have illustrated and described the preferred embodiments of my invention, it is to be understood that I do not limit myself to the precise constructions herein disclosed and the right is reserved to all changes and modifications coming within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A self-feeding paint brush, comprising a casing having a paint passage extending to its front face, a valve for controlling said paint passage, a container for paint connected with said paint passage, a paint distributing member mounted on said casing and connected to receive paint from said passage, a handle for conveniently manipulating said casing, and paint spreading and finishing rollers mounted on said casing above and below said distributing member, said valve comprising a valve member engaging the top of said paint passage, and a knob mounted on an extended portion of said valve member for controlling the movement of said paint passage to permit a quantity of paint to enter said paint passage.

2. A self-feeding paint brush, comprising a casing having a paint passage extending to its front face, a valve for controlling said paint passage, a container for paint connected with said paint passage, a paint distributing member mounted on said casing and connected to receive paint from said passage, a handle for conveniently manipulating said casing, and paint spreading and finishing rollers mounted on said casing above and below said distributing member, said paint distributing member being in the nature of a brush having a back fixedly mounted within a recess formed in said casing adjacent the bottom of said paint passage, and bristles extending from said back.

3. A self-feeding paint brush comprising a casing having a paint passage extending to its front face, a valve for controlling said paint passage, a container for paint connected with said paint passage, a paint distributing member mounted on said casing and connected to receive paint from said passage, a handle for conveniently manipulating said casing, and paint spreading and finishing rollers mounted on said casing above and below said distributing member, said paint distributing member being in the nature of a brush having a back fixedly mounted within a recess formed in said casing adjacent the bottom of said paint passage, and bristles extending from said back, said casing having set screws engaging through its end wall and bearing against the ends of said brush back for securely locking said paint distributing member in position within said recess.

4. A self-feeding paint brush comprising a casing having a paint passage extending to its front face, a valve for controlling said paint passage, a container for paint connected with said paint passage, a paint distributing member mounted on said casing and connected to receive paint from said passage, a handle for conveniently manipulating said casing, and paint spreading and finishing rollers mounted on said casing above and below said distributing member said paint spreading and finishing rollers having serrated surfaces to act as stipplers to remove brush marks from the surface of the paint applied to a wall.

5. A self-feeding paint brush comprising a casing having a paint passage extending to its front face, a valve for controlling said paint passage, a container for paint connected with said paint passage, a paint distributing member mounted on said casing and connected to receive paint from said passage, a handle for conveniently manipulating said casing, and paint spreading and finishing rollers mounted on said casing

above and below said distributing member, and means for extending and retracting said distributing member controlled by turning said handle.

5 6. A self-feeding paint brush comprising a casing having a paint passage extending to its front face, a valve for controlling said paint passage, a container for paint connected with said paint passage, a paint distributing member mounted on said casing and connected to receive paint from said passage, a handle for conveniently manipulating said casing, and paint spreading and finishing rollers mounted on said casing above and below said distributing member, and means for extending and retracting said distributing member controlled by turning said handle, comprising a horizontal stud carrying said paint distributing member, and a transmission system between said stud and handle for conveying rotations of said handle to said stud to cause said paint distributing member to be retracted.

7. A self-feeding paint brush comprising a casing having a paint passage extending to its front face, a valve for controlling said paint passage, a container for paint connected with said paint passage, a paint distributing member mounted on said casing and connected to receive paint from said passage, a handle for conveniently manipulating said casing, and paint spreading and finishing rollers mounted on said casing above and below said distributing member, and means for extending and retracting said distributing member controlled by turning said handle, comprising a horizontal stud carrying said paint distributing member, and a transmission system between said stud and handle for conveying rotations of said handle to said stud to cause said paint distributing member to be retracted, and expansion springs for urging said paint distributing member into its extended position.

8. A self-feeding paint brush comprising a casing having a paint passage extending to its front face, a valve for controlling said paint passage, a container for paint connected with said paint passage, a paint distributing member mounted on said casing and connected to receive paint from said passage, a handle for conveniently manipulating said casing, and paint spreading and finishing rollers mounted on said casing above and below said distributing member, said paint distributing member having a back engaging a recess in said casing, and a sponge rubber member mounted on the front face thereof.

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