No. 745,406. PATENTED DEC. 1, 1903.

E. VEGIARD DIT LABONTÉ.

PAINTING AND CLEANING APPARATUS.

APPLICATION FILED MAR. 30, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

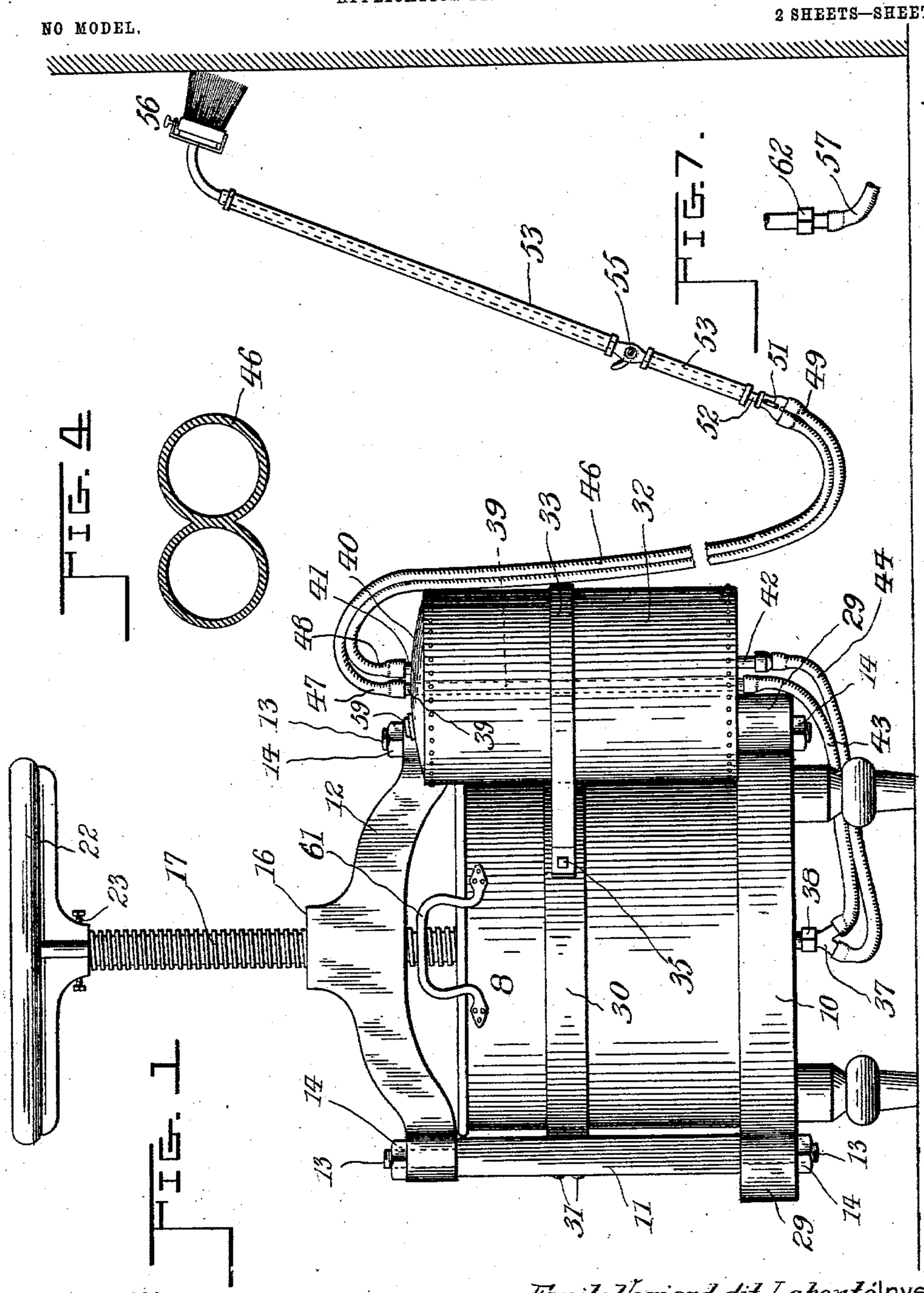

FIG. 4

FIG. 7

FIG. 1

Witnesses:

J. Ed. Page.

F. D. Cummings

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By Marion & Marion

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NO MODEL. 2 SHEETS—SHEET 2.

FIG. 2.

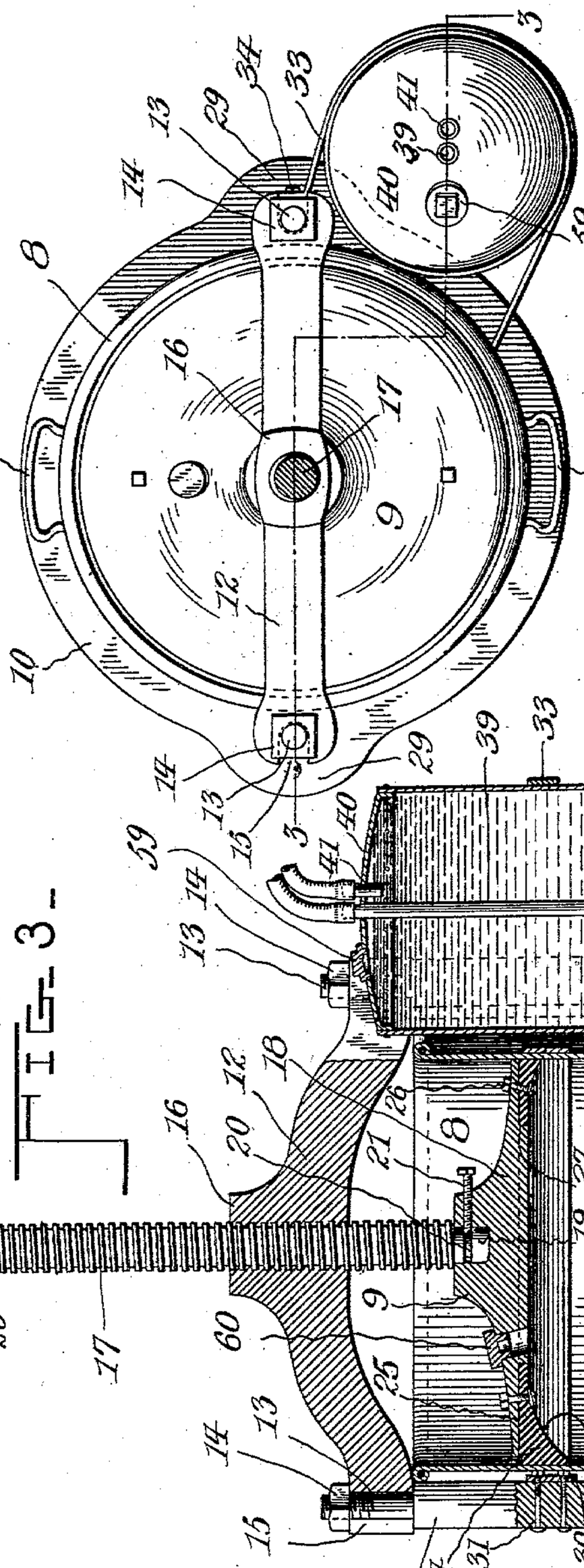


FIG. 3.

FIG. 5

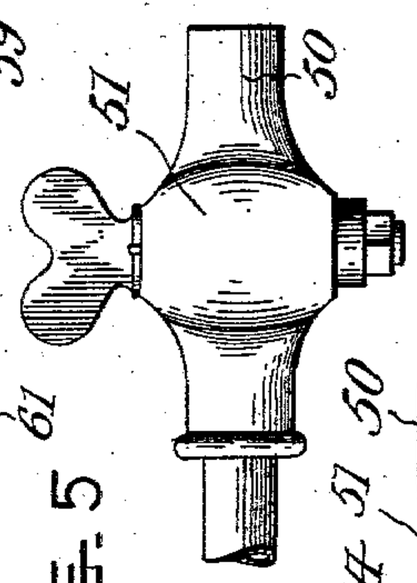
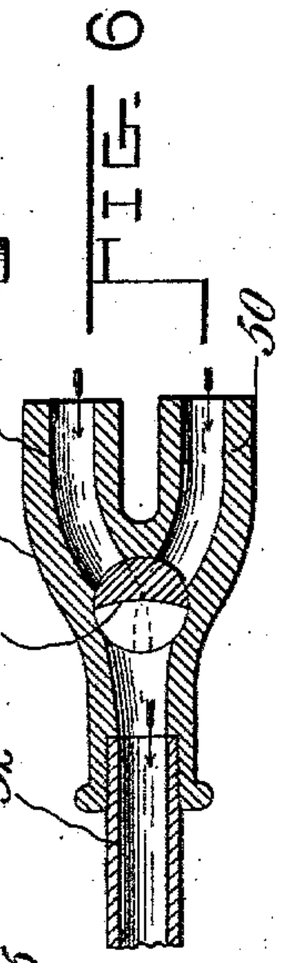


FIG. 6



Witnesses:

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UNITED STATES PATENT OFFICE.

EMILE VEGIARD DIT LABONTÉ, OF MONTREAL, CANADA, ASSIGNOR TO JOSEPH RAOUL MARCOTTE, OF MONTREAL, CANADA.

PAINTING AND CLEANING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 745,406, dated December 1, 1903.

Application filed March 30, 1903. Serial No. 150,122. (No model.)

To all whom it may concern:

Be it known that I, EMILE VEGIARD dit LABONTÉ, a subject of the King of Great Britain, residing in the city and district of Montreal, Province of Quebec, Canada, have invented certain new and useful Improvements in Painting and Cleaning Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to painting and cleaning apparatus. It is expected to be found most useful in cleaning and painting walls, calcimining or whitewashing ceilings and similar surfaces, and by its use such operations as cleaning and painting will be much facilitated.

The invention contemplates the employment of a supply vessel in which there is arranged a movable piston. When the apparatus is being used for cleaning purposes, this supply vessel is filled with fresh water. Adjacent to the supply vessel there is a soap tank or mixer in which a quantity of soap is placed. A double hose leads from this mixer to the scrubbing-brush, which brush has a tubular handle to convey the cleaning-water to the brush-body. One section of the double hose is adapted to receive the soapy water from the mixer, while the other section receives clean water direct from the supply vessel. A stop-cock in connection with the double hose enables either soapy water or fresh water to be delivered to the scrubbing-brush. It is expected in operating the invention that soapy water would be first used for removing the dirt from the surface to be cleaned and this would be followed by rinsing the surface with the fresh or pure water. The movable piston by being forced down within the vessel affords means for maintaining a pressure within the same, so that the cleaning fluid will flow through the brush even though the brush be at an elevation.

When the apparatus is used for painting, the mixer is dispensed with and a single-hose connection is used, which leads directly from the supply vessel to the brush, as will be readily understood.

The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

In the drawings, which fully illustrate my invention, Figure 1 represents the same substantially in side elevation, showing also a brush supposed to be in connection with the apparatus, the hose connection therebetween being represented as broken. Fig. 2 is a plan of the apparatus. Fig. 3 is a vertical section supposed to be taken substantially on the line 3 3 of Fig. 2, certain hose connections being shown in side elevation. Fig. 4 represents in cross-section the double hose which I use, this view being upon an enlarged scale, as will appear. Fig. 5 represents in side elevation a part of the hose connection which constitutes a stop-cock for controlling the flow to the brush. Fig. 6 is a central section through this stop-cock. Fig. 7 represents an auxiliary connection used with the apparatus when it is being used for painting.

Throughout the drawings and specification the same numerals of reference indicate like parts.

Referring more particularly to the parts, 8 represents the supply vessel, which, as illustrated, consists, substantially, of an open tank of cylindrical form in which is mounted a movable piston 9. The said vessel may be mounted upon a suitable support 10, and on each side of the vessel are provided the oppositely-disposed standards 11, to which attaches a yoke or bracket 12. As illustrated, the said standards 11 have reduced extensions constituting studs 13, upon which are mounted nuts 14 for the purpose of connecting the parts. In order to facilitate the removal of the yoke 12, its extremities are provided with open slots 15 or recesses, which receive the studs in the manner shown. The central portion of the yoke 12 is formed into a hub or head 16, which is provided with a threaded bore in which is mounted a screw 17, and the lower extremity of this screw makes a swivel connection with the body 18 of the aforesaid piston 9. To effect this connection, the lower extremity of the said screw is formed with a reduced extension 19, in which there is formed a peripheral groove or recess 20, which receives the extremity of a set-screw 21. The

upper extremity of the set-screw 17 carries a hand-wheel 22, which is attached to the same by means of set-screws 23, as indicated.

It should appear that the aforesaid piston 9 comprises a body 18. This body is preferably formed of such material as cast-iron. It is substantially circular in outline and of a diameter slightly less than the diameter of the supply vessel 8. To its edge there is attached an annular packing strip or ring 24, which is preferably made of rubber and is preferably of the form shown. It should be observed that it has a substantially flat upper face 25 and attaches, by means of bolts 26, to the lower side of the body 18 of the piston, the said body being provided with a recess 27 to receive it in the manner shown. Its lower face is curved inwardly, as indicated at 28, so that the periphery of the said packing-ring is of material width.

It should be observed that the aforesaid base or support 10 is of substantially circular form in plan and of larger diameter than the aforesaid supply vessel. It is provided with bosses or enlargements 29 below the standards 11, as indicated.

A band or hoop 30 encircles the supply vessel in the manner shown, being attached to the uprights 11 by bolts 31, as indicated. The soap-mixer consists of a closed cylindrical vessel or tank 32, which is disposed in an upright position by the side of the supply vessel, as indicated. Its lower edge rests upon the projecting edge of the base, as indicated, wherefore the base supports the greater portion of its weight. It is retained in this position by means of a strap or band 33, which passes about it, as shown, the extremities of this band being attached at 34 respectively to one of the uprights 11 and to the hoop 30.

A tubular connection 36 passes through the bottom of the supply vessel and through an opening in the support, and to the lower extremity of this there is attached a Y branch 37, which is coupled by means of a removable coupling-nut 38. A pipe 39 is arranged vertically in the soap-mixer, passing through the body of the same and projecting at each extremity beyond the heads 40 thereof. It should be understood that this pipe does not connect with the interior of the mixer, but simply affords means for leading the pure water through the same. A short tubular extension 41 is attached in the upper head, as indicated, and a second tubular extension 42 is attached in the lower head of the mixer. One of the branches of the aforesaid Y connection is connected with the aforesaid pipe 39 by means of a short hose 43, and a similar short hose 44 connects the other branch of the said Y connection with the tubular extension 42 aforesaid. In connection with the tubular extension 42, however, it should appear that there is provided a check-valve 45, through which the pure water from the supply vessel must pass before entering the soap-mixer.

The double hose which leads from the soap-mixer to the brush consists substantially of two independent rubber hose, which are set side by side and vulcanized together, as indicated in Fig. 4, for the greater portion of their length. Their inner extremities 47 and 48, however, are not connected, so that the attachment of the hose is facilitated. It should appear that the extremity 47 is attached to the extremity of the aforesaid tube 39, while the extremity 48 connects with the tubular connection 41. The outer extremity of the double hose comprises the separate ends 49, which connect, respectively, with the branches 50 of the stop-cock 51. The outlet of this stop-cock connects with a tubular member 52, which passes into the tubular handle 53 of the brush. A gland or plug 54 affords means for placing either of the branches 50 in connection with the tubular member 52, the remaining branch being cut off. The dotted lines shown in connection with the plug 54 indicate its respective positions to make the connections mentioned.

The tubular handle 53 includes a second stop-cock 55, which when the apparatus is being used for cleaning purposes is usually left open, but which is more of a necessity when the apparatus is being used for painting. It of course controls the flow through the handle to the brush 56. This brush is of course what is known as a "fountain-brush," having such a construction as enables the liquid to be delivered to the bristles.

When the apparatus is to be used for painting, the Y connection 37 is disconnected and the soap-mixer is removed and disconnected from the vessel. The connection shown in Fig. 7 is then applied in place of the Y connection 37, a single hose 57 leading from a coupling 62 and the extremity of which is attached to the aforesaid tubular member 52 of the handle 53, the stop-cock 51 having been first removed.

For the purpose of enabling the mixer 32 to receive a quantity of soap its upper head is provided with a removable plug 59, and in order to fill the vessel 8 a similar removable plug 60 is provided in connection with it. For the purpose of facilitating the moving about of the apparatus the supply vessel is preferably provided with bails or handles 61, as indicated.

The manner of using the apparatus for cleaning purposes will now be described. The supply vessel 8 having been substantially filled with a quantity of clean water and a quantity of soap having been placed in the soap-mixer, the hand-wheel 22 is then turned so as to force the piston 9 downwardly, so that suitable pressure is developed beneath the same. This operates to force the water from the supply vessel through the hose connections 43 and 44 and through the double

hose 46. From this arrangement it should evidently appear that an attendant by operating the plug 54 or the stop-cock 51 can completely control the flow to the brush 56. By first placing the plug in one position the soapy water may flow as long as desired, after which, by turning the plug, the soapy water is cut off and the clean water flows to the brush, as will be readily understood. It should be observed in connection with the supply vessel that it should not be filled to such a height as to fill the entire space below the piston, for in such a case there would be no air retained below the piston in forcing it downwardly, and consequently the pressure which was produced would be immediately expended the instant that an outlet was made, it being understood that the fact that the cleaning operation may continue uninterruptedly for some time is due to the compressibility of the air below the piston. The presence of this air enables the attendant to continue his scrubbing operation uninterruptedly for some time. In this manner the necessity for constantly dipping the brush into a pail is obviated.

While I have shown in the accompanying drawings the preferred form of my invention, it will be understood that I do not limit myself to the precise form shown, for many of the details may be changed in form or position without affecting the operativeness or utility of my invention, and I therefore reserve the right to make all such modifications as are included within the scope of the following claims or of mechanical equivalents to the structures set forth.

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

1. In apparatus of the class described, in combination, a supply vessel adapted to contain clean water, a soap-mixer, a connection therebetween, a brush, a hose leading to said brush, said hose being adapted to convey clean water from said vessel and water from said mixer to said brush, and means for controlling the flow to said brush.

2. In apparatus of the class described, in combination, a supply vessel adapted to contain clean water, a soap-mixer, a brush, a hose leading to said brush, said hose comprising two branches, one of said branches being in communication with the interior of said mixer, the other of said branches communicating with the interior of said vessel, said vessel and mixer being in communication.

3. In apparatus of the class described, in combination, a supply vessel adapted to contain clean water, a soap-mixer in communication therewith, a brush, hose leading thereto, a tubular member leading to said mixer, said hose having two branches communicating respectively with said tubular member and said mixer, and means for controlling the flow to said brush.

4. In apparatus of the class described, in combination, a supply vessel adapted to contain a quantity of clean water, a soap-mixer in communication therewith, means for producing a pressure within said vessel, a brush, a double hose leading thereto, the branches of said double hose communicating respectively with the interior of said mixer and said vessel, and means for controlling the flow to said brush.

5. In apparatus of the class described, in combination, a supply vessel adapted to contain a quantity of clean water, means for producing a pressure within the same, a soap-mixer in communication with said vessel, a check-valve therebetween, a brush, a hose leading thereto, said hose having branches communicating respectively with the interior of said mixer and said vessel, and means for controlling the flow to said brush.

6. In apparatus of the class described, in combination, a supply vessel adapted to contain a quantity of clean water, a soap-mixer in communication with said vessel, a check-valve therebetween, a tubular member passing through said mixer and communicating with the interior of said vessel, a brush, a double hose leading to said brush, said hose having branches communicating respectively with said tubular member and the interior of said soap-mixer, and means for controlling the flow to said brush.

7. In apparatus of the class described, in combination, a supply vessel adapted to contain a quantity of clean water, a piston movably mounted therein, a soap-mixer, a connection between said soap-mixer and said vessel and including a check-valve, a brush, a hose leading thereto, said hose having a branch communicating with the interior of said soap-mixer, and a branch communicating with the interior of said vessel.

8. In apparatus of the class described, in combination, a supply vessel adapted to contain clean water, a base for the same, a soap-mixer mounted upon said base and adapted to receive water from said supply vessel, a brush, and hose leading to said brush.

9. In apparatus of the class described, in combination, a supply vessel adapted to contain clean water, a base for the same and projecting therebeyond, a soap-mixer resting upon said base, means for maintaining said mixer against lateral movement, a brush, hose leading thereto, and means for controlling the flow through said hose.

10. In apparatus of the class described, in combination, a vessel adapted to contain clean water, a base for the same and projecting therebeyond, a soap-mixer supported upon the projecting edge of said base, a band surrounding said soap-mixer and clamping the same against said vessel, a brush, hose leading thereto, said hose having branches, said branches communicating respectively with the interior of said mixer and said vessel.

11. In apparatus of the class described, in combination, a supply vessel, a piston movably mounted therein, a brush, and hose leading to said brush from said supply vessel.

12. In apparatus of the class described, in combination, an open supply vessel, a piston movably mounted therein, a screw adapted to control the position of said piston, a brush, hose leading therefrom to said supply vessel, and means for controlling the flow to said brush.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

EMILE VEGIARD DIT LABONTÉ.

Witnesses:
F. MYNARD,
M. SIDON.