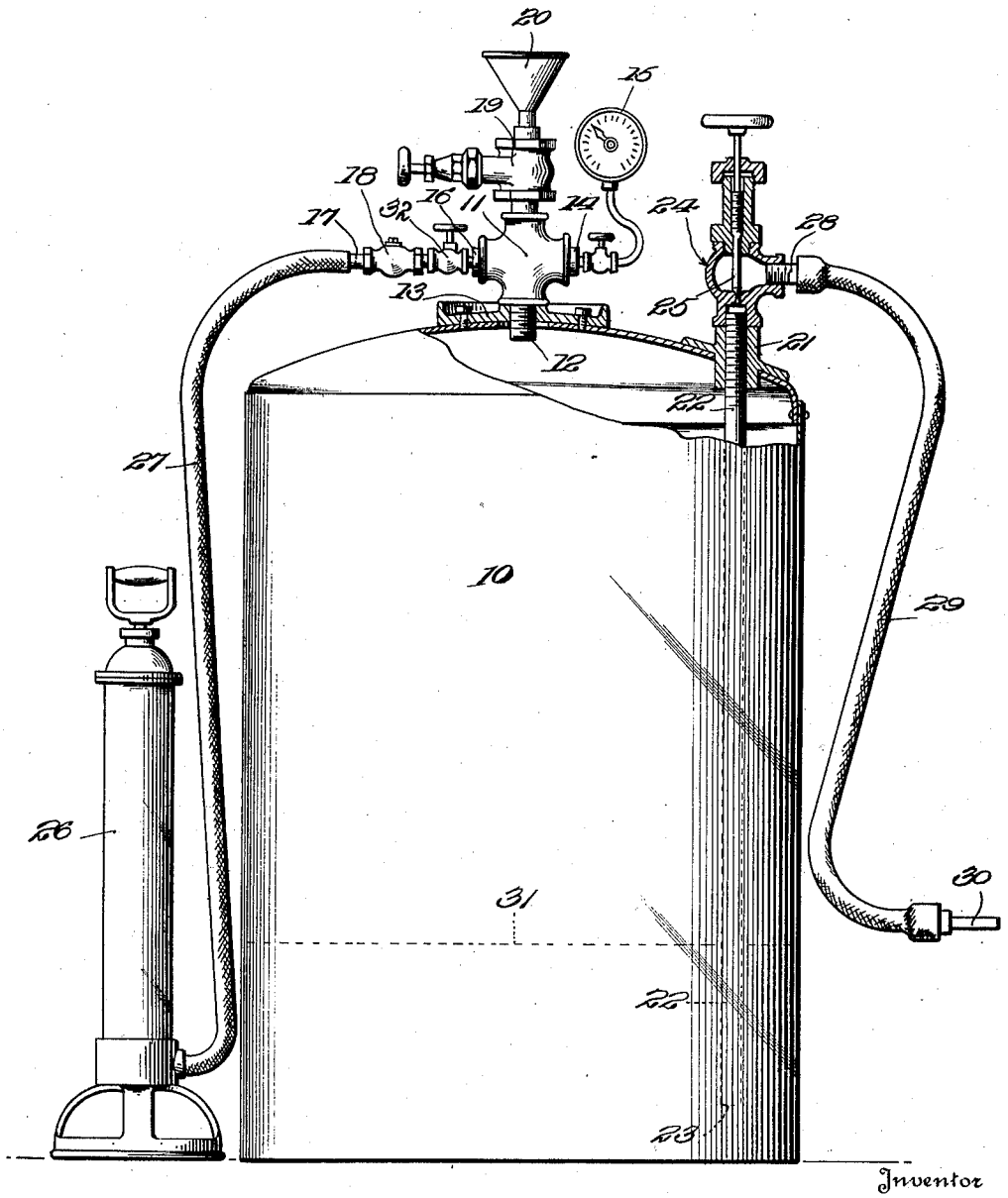
A. E. HOBBS.

CLEANING DEVICE.

APPLICATION FILED OCT. 4, 1917.

1,303,201. Patented May 6, 1919.



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CLEANING DEVICE.

1,303,201. Specification of Letters Patent. Patented May 6, 1919.

Application filed October 4, 1917. Serial No. 194,821.

To all whom it may concern:

Be it known that I, ALBERT E. HOBBS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Cleaning Devices, of which the following is a specification.

This invention relates to improvements in cleaning apparatus and has for its object to provide a comparatively simple and inexpensive device of this character, whereby the surfaces of the engines and running gear of automobiles and other like vehicles, locomotives and other engines, or machinery, may be cleansed and the accumulations of dust, mud, oily particles and the like quickly and economically removed.

The invention consists in certain novel features of construction, as hereinafter shown and described and then specifically pointed out in the claim; and in the drawings illustrative of the preferred embodiment of the invention.

The figure represents an elevation of the improved apparatus, partly in section.

The improved apparatus comprises a relatively large tank or receiver represented as a whole at 10, and of any suitable size or material. The tank preferably will be constructed of plate or sheet metal of sufficient strength to withstand the pressure to which it will be subjected.

Disposed upon the top of the tank 10 is a supporting member 13 having an upstanding peripheral drip flange and a central internally threaded boss to receive a nipple 12. A cross fitting 11 is engaged with the nipple and is supported thereby. The member 13 is detachably connected to the tank by any suitable means, for instance by tap bolts as shown. By this means the cross member 11 is in communication with the interior of the upper part of the tank. Fitting in one of the horizontal branches of the cross member 11 is a plug 14, to receive the supply pipe of a pressure gage 15.

A plug 16 is fitted in the other horizontal branch of the member 11, and engaged in this plug is an air conductor pipe 17 having a check valve 18. Connected to the upper vertical branch of the member 11 is a controlling valve represented conventionally at 19, and preferably of the gate form. The valve 19 provides means for the introduction of the cleansing liquid into the interior of the tank, and a funnel 20 is employed to facilitate the introduction of the liquid.

Connected to the tank 10, preferably to the top thereof, is an internally threaded fitting 21, through which an externally threaded pipe 22 extends. The upper threaded end of the pipe extends above the fitting 21, while its lower end is spaced a short distance above the bottom of the tank as indicated at 23. Connected to the extended upper end of the pipe 22 is a valve, preferably of the needle form, and represented conventionally at 24, the needle member of the valve being represented at 25.

The air intake pipe 17 is designed to be coupled to a suitable compressed air supply means, such as an ordinary hand operated air pump 26, with usual air conductor 27 between the pump and the pipe 17.

By this means the tank may be supplied with air under pressure as hereafter explained.

Connected into the casing of the needle valve 24 is a nipple 28, and connected to the nipple is a section of conductor hose 29 to the outer end of which a suitable spray nozzle 30 is attached.

The hose member 29 may be of any required length so that the nozzle 30 may be moved about to enable the spray to be applied at any desired point or distance from the tank.

When the apparatus is to be charged with a cleansing liquid the needle valve 24—25 is closed and the valve 19 opened and the funnel 20 disposed in position, as shown.

The cleansing liquid is poured into the funnel and runs thence into the tank and settles in the lower part thereof, the level of the cleansing liquid being indicated by the dotted line 31. The valve 19 is then closed and the pump 26 operated to force a supply of air under pressure into the tank above the cleansing liquid, thus producing a corresponding pressure upon the liquid and forcing the latter upward into the pipe 22 and thence into the needle valve chamber. When the needle valve is opened the liquid will be forced by the pressure of the air in the tank through the conductor 29 and escape in a fine spray from the member 30. The escaping sprayed liquid will thus be driven for a considerable distance in ad-

vance of the nozzle 30 and reach every part of the mechanism, especially otherwise inaccessible parts.

The pressure gage will enable the operator to determine the amount of pressure of the air in the tank.

The fitting being provided with an internally threaded bore supports the conductor 22 with its lower end constantly immersed in the cleansing liquid, while the upwardly extended terminal of the threaded part of the conductor forms a threaded holding means for the casing of the valve 24.

The fitting 21, the conductor 22 and the casing of the valve 24 thus coact to form an efficient coupling between the casing conductor and valve, thereby holding all these parts firmly in position.

A cut off valve 32 is located between the check valve 18 and the cross fitting 11.

Having thus described the invention, what is claimed as new is:

An apparatus of the class described including a tank having an opening in the top thereof, a supporting member having its lower surface bearing directly against and secured to the top of the tank and provided with a centrally disposed threaded opening and an upstanding drip flange arranged concentric with said opening, a nipple threaded in the opening in the supporting member and projecting through the opening in the tank, a hollow member engaging the threads on the nipple and bearing against the supporting member, said hollow member being disposed within the lines of the drip flange and including vertically alined branches and horizontally alined branches, a funnel for directing a cleansing medium through the vertically alined branches of the hollow member into the tank, a cut-off valve interposed between the hollow member and funnel, plugs detachably fitting within the horizontal branches of the hollow member, an air conductor operatively connected with one of the plugs, a check valve for controlling the supply of air from the conductor to the tank, a cut-off valve interposed between the check valve and the adjacent plug, a gage connected with the other plug, a conductor depending within the tank, a discharge conductor communicating with the depending conductor, and a valve for controlling the flow of cleansing medium through the discharge conductor.

In testimony whereof I affix my signature.

ALBERT E. HOBBS. [L. S.]