

UNITED STATES PATENT OFFICE.

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OVERHEAD VEHICLE-WASHING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 791,144, dated May 30, 1905.

Application filed January 25, 1905. Serial No. 242,593.

To all whom it may concern:

Be it known that I, JAMES J. GANNON, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Overhead Vehicle-Washing Apparatus, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to overhead vehicle-washing apparatus similar to that shown and described in United States Letters Patent No. 750,932, dated February 2, 1904, and No. 624,423, dated May 2, 1899; and the object thereof is to provide an improvement in this class of apparatus which involves a rotatable coupling or support for a horizontally-arranged pipe, with which in practice a flexible hose is connected, the rotatable coupling being also provided with a gas-fixture which turns therewith.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a sectional side view of an apparatus of the class specified embodying my invention; Fig. 2, a section on the line 2 2 of Fig. 1; Fig. 3, a partial section on the line 3 3 of Fig. 1, and Fig. 4 a partial section on the line 4 4 of Fig. 1.

In the practice of my invention I provide a tube *a*, which is adapted to be suspended from an overhead support or ceiling, and for which purpose the upper end thereof is provided with a plate *a*², and the upper end portion of said tube is enlarged and the lower end of the enlarged portion is tapered, as shown at *a*³, and mounted on the tapered portion *a*³ is a collar or band *b*, provided in its inner surface with an annular groove *b*³ and held in place or in its position on the beveled portion *a*³ of the tube *a* by means of a nut *b*³.

The tube *a* constitutes the main supply-tube of the apparatus, and connected with the upper end thereof is a water-tube *b*⁴, which in practice is connected with the usual water-supply

mains or pipes of the building in which the apparatus is located, and in the opposite side of the upper end portion of the tube *a* is a by-pass *c*, with the upper end portion of which is connected a gas-supply pipe *c*², and the lower end portion of which communicates with the annular groove *b*³ in the collar or band *b*, and said collar or band *b* is also provided at one side with a coupling-stud *c*³, with which is connected an elbow-pipe *c*⁴, with which is connected a downwardly-directed pipe *c*⁵, with the lower end of which is connected an outwardly-directed pipe *c*⁶, provided at its outer end with a cross-tube coupling *c*⁷, with the opposite ends of which are connected depending burner-tip tubes *c*⁸, each of which is provided with a burner-tip *c*⁹.

The lower end portion of the tube *a* is screw-threaded, and mounted thereon are three screw-threaded collars *d*, *d*², and *d*³, and between the collars *d*² and *d*³, which are placed in the order named above the collar *d*, is a threaded plate or washer *d*⁴, and the lower end of the tube *a* projects into the coupling-head *e*, having a central enlarged chamber *e*² and laterally-directed tubular members *e*³, with which are connected outwardly-directed tubes *e*⁴, one of which in the form of construction shown is closed by a cap *e*⁵, and with the other of which is connected a flexible tube or hose *e*⁶, which conveys the water to the carriage or other article to be washed, and the end of which in practice is provided in the usual way with a suitable discharge-nozzle for this purpose.

The coupling-head *e* is provided with a laterally-directed top flange *e*⁷, on which is secured a sleeve *f*, through which the tube *a* passes, said sleeve being provided at its lower end with a flange *f*², in the bottom of which is an annular space *f*³, in which the plate or washer *d*⁴ fits, and between the bottom of the sleeve *f* and the said plate or washer is placed a packing *f*⁴. The flange or rim *f*² of the sleeve *f* and the flange *e*⁷ of the coupling-head *e* are connected by screws or bolts *f*⁵, and between said flanges is placed a packing *f*⁶, on which the plate or washer *d*⁴ also rests, and that portion of the coupling-head *e* into which the lower end of the tube *a* projects is

enlarged, and the collar d is placed within the said top portion of the coupling-head e and the collar d^3 within the bottom portion of the sleeve f , which is also enlarged, while the collar d^2 is inclosed by the packing f^6 , and between the collars d and d^2 is a flexible cup-shaped valve g , the rim of which extends downwardly within the top portion of the coupling-head e and closely fits the same.

The collar d^3 also fits snugly within the lower end portion of the sleeve f , and the upper end portion of said sleeve is enlarged to form a packing-chamber g^2 , and this packing-chamber is angular in cross-section, as shown in Fig. 4, and is partially filled with packing, and set into the upper end of said packing-chamber and pressing on the packing therein is a tubular gasket g^3 , the lower end of which is also angular in form and the central bore of which closely fits the tube a , and screwed into the upper end of the tubular gasket g^3 is a tubular plug g^4 , which closely fits the tube a , and at the upper end portion of said tubular gasket g , below the top thereof, is a flange or rim g^5 , and suspended therefrom is a nut-shaped sleeve g^6 , the lower end of which is screwed on the sleeve f , which is also provided with a set-nut g^7 below the nut-shaped sleeve g^6 .

Mounted on the enlarged upper end portion of the tube a is a rotatable cross-head h , which in practice is preferably composed of two separate bars, and pivoted to the outer ends of the cross-head h are hangers h^2 and h^3 , the hangers h^2 being slightly longer than the hangers h^3 , and the lower ends of these hangers are all provided with clamps h^4 , said clamps on one side being double clamps and on the other side being single clamps, and the double clamps engage both the laterally-directed water-tube e^4 and the gas-tube e^6 on one side of the apparatus, and the single clamps support the water-tube e^4 at the other side of the apparatus.

When constructed in the manner described, it will be observed that the coupling-head e , the water-tubes e^4 , connected therewith, the sleeve f , the sleeve g^3 , the nut-shaped sleeve g^6 , the plug g^4 , the cross-head h , the hangers h^2 and h^3 , the collar or band b , and the gas-tubes e^5 and e^6 , together with the burner-tips e^9 , are all free to turn in a horizontal plane on the tube a , and this operation does not interfere with the flow of gas through the gas-tube to the burner-tips nor with the flow of water through the tubes e^4 , and, if desired, a flexible tube e^8 may be connected with both of the water-tubes e^4 , and the operation of the apparatus in as far as it relates to the washing of carriages and other articles will be the same as that of other apparatus of this class. It will also be understood that the rotatable coupling-head e and all the parts connected therewith through which the tube a

passes are supported on said tube by the collars d , d^2 , and d^3 and the washer d^4 , which do not rotate, and by making the packing-chamber g^2 angular in cross-section the parts g^3 and g^4 are also compelled to rotate with the sleeve f , while the position of the tubular gasket g^3 is regulated or may be regulated by means of the nut g^7 and the nut-shaped sleeve g^6 .

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

1. In an apparatus of the class described, a tube adapted to be suspended from a suitable support and the upper end of which is enlarged and provided with a by-pass, a rotatable collar or band mounted on said tube and inclosing the lower end of the by-pass and provided with an annular groove with which said by-pass communicates, a gas-tube connected with said collar or band and communicating with the said annular groove, and a rotatable coupling-head connected with the lower end of said tube and provided with laterally-directed water-pipes, substantially as shown and described.

2. In an apparatus of the class described, a tube adapted to be suspended from a suitable support and the upper end of which is enlarged and provided with a by-pass, a rotatable collar or band mounted on said tube and inclosing the lower end of the by-pass and provided with an annular groove with which said by-pass communicates, a gas-tube connected with said collar or band and communicating with the said annular groove, and a rotatable coupling-head connected with the lower end of said tube and provided with laterally-directed water-pipes, said gas-tube comprising downwardly and horizontally directed members, and a rotatable support mounted on the upper end portion of said tube and provided with pivoted hangers at its opposite ends, said hangers being provided at their lower ends with clamps which inclose the gas and water supply tubes at one side of the rotatable head and the water-tube at the other side of said rotatable head, substantially as shown and described.

3. In an apparatus of the class described, a tube adapted to be suspended from an overhead support, the lower end portion of said tube being threaded and provided with a plurality of screw-threaded collars, a coupling-head mounted on the lower end portion of said tube and provided with laterally-directed water-tubes, a threaded sleeve mounted on said tube above the coupling-head and secured to said head, a washer placed between the upper collars and in the bottom portion of said sleeve, packings placed above and below said washer, a flexible cup-shaped gasket secured between the lower collars and within the coupling-head, the upper end of said threaded sleeve being

also enlarged internally to form a packing-chamber which is angular in cross-section, a tubular gasket mounted on said tube and the lower end of which is also angular in cross-section and inserted into said threaded sleeve, a tubular plug mounted on said tube and with which the upper end of said tubular gasket is connected, and a nut-shaped sleeve suspended from the upper end portion of the tubular gasket and into the lower end of which the threaded sleeve is screwed, said threaded

sleeve being also provided with a set-nut, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 24th day of January, 1905.

JAMES J. GANNON.

Witnesses:

CLARA J. KLEIN,
C. E. MULREANY.