

PROCESS OF CLEANING PAINT, GREASE, DIRT, AND OTHER MATTER FROM VEHICLES AND OTHER ARTICLES.

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PROCESS OF CLEANING PAINT, GREASE, DIRT, AND OTHER MATTER FROM VEHICLES
AND OTHER ARTICLES.

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To all whom it may concern:

Be it known that I, HORACE G. ALEXANDER, a citizen of the United States of America, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in a Process of Cleaning Paint, Grease, Dirt, and Other Matter from Vehicles and Other Articles, of which the following is a specification.

My invention relates to means for cleaning, removing paint and grease, fumigating, and spraying and the like; and the object is to provide a process and apparatus for carrying out the process in performing the various functions of cleaning, removing paint and other matter from the surface of various objects such as furniture, vehicle bodies, motors and various working parts connected with the motor and running gear of the vehicles, also for cleaning rugs and carpets and the like, and fumigating and spraying. The improved apparatus is adapted to perform the various functions above recited, but it is particularly adapted for removing paint and grease from vehicle bodies and from the motor and other working parts of vehicles. Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings which form a part of this application.

The figure of drawing is a side elevation of the apparatus with a part thereof enlarged and shown in section.

The apparatus may be mounted on a frame 1 which may be stationary or it may be mounted on wheels. The advantage of mounting the apparatus on wheels is that it is made portable and can be moved from place to place for operating on various objects. A compressed air tank 2 is mounted on the frame 1 and a burner frame 3 is mounted on the main frame. A receptacle 4 is provided on the main frame and this receptacle is adapted to contain liquid fuel or gas and is provided with a burner 5. A tubular boiler 6 is mounted on the frame 3 and provided with a gauge 7. The boiler provides steam for heating the cleaning element hereinafter explained. A tank or receptacle 8 is provided for heating chemicals or cleaning elements. The vessel 8 will be

heated by the steam in the boiler 6, but the boiler 6 may be removed and the vessel 8 placed down on the burner frame 3 close to the burner nozzle 5. A pump 9 is mounted on the tank 2 and a motor 10 is provided for driving the pump 9. Air is pumped directly into the tank 2 by the pump. The compressed air may be used for aiding the combustion of the fuel by supplying air through a pipe 11 to the burner. The compressed air may be used direct through the pipe 12 and hose 13, or the air may be heated for use. The cock 14 may be closed. The air can then go through pipe 15 to the coils 16 and be heated in the coils and then pass through the pipe 17 and hose 18 for use. A pipe 19 may be used in case of necessity for cooling the pump 9. If steam is to be used, the steam will pass through the pipe 20 from boiler 6 and then through hose 21. The chemicals, whether hot or cold, will pass through the pipe 22 from tank 8 and then through the hose 23.

The various cleaning elements are used or applied through a nozzle 24 to which the hose pipes 13, 18, and 23 are connected. The chemicals are forced from the tank 8 through pipe 22 and hose 23 by compressed air, either hot or cold. When cold air is used, it will come through pipes 12 and 13 and will create a suction draft which will draw the chemicals from tank 8. If heated air is to be used, it will come through the pipes 17 and 18 and force the chemicals out of tank 8 to the nozzle 24 in the same manner.

The nozzle 24 may be jacketed for the purpose of heating the nozzle. A jacket 25 is mounted on the nozzle 24 and the jacket is connected to the boiler 6 by pipes 20 and 21 so that the nozzle can be heated whenever necessary. Air could be heated in the boiler 6 as well as in the coils 16. For some purposes, steam may be used through the nozzle 24 by providing a valve 26 which could be used to turn steam from the jacket 25 through the nozzle 24. The valve 26 can also be used as a vent for the jacket 25. A vent for the jacket 25 is also shown at 27.

The boiler 6 may also be used for vulcanizing purposes by tapping a pipe 28 into the boiler and providing a cock 29. Any suitable pipe may be connected to the cock 29 for vulcanizing purposes, or for other purposes where steam is needed.

The tank 2 may be provided with an additional pipe 30 and this pipe provided with a cock 31 so that compressed air may be used for any purpose required.

5 For removing paint and grease or either of these elements, compressed air is directed through the nozzle 24 and this will take the required chemicals from tank 6 and these elements can be mixed and applied either
10 cold or hot. The air and chemicals can be delivered to the nozzle 24 and there heated by steam in the jacket 25. The heated air can be used without the chemicals by closing the cock 32. Steam may be supplied to the
15 jacket 25 by opening cock 33. The nozzle 24 and jacket 25 are shown exaggerated in appearance for clearness in illustration.

The chemical to be used in this process is preferably a caustic alkaline solution and
20 this is to be mixed with cold or heated compressed air.

What I claim is,—

1. A process of cleaning paint, grease and dirt from an article which consists in direct-
25 ing a jet of compressed air on the article,

supplying an alkaline solution to the jet of air in its transit, and heating the mixture of air and solution with a fluid heating element before applying the mixture to the article.

2. A process of cleaning paint, grease or dirt from an article which consists in treating the surface of the article by creating a draft of compressed air, supplying a caustic alkaline solution to be picked up by the draft of air, heating the mixed compressed
35 air and solution, and directing the mixed air and solution in a jet on the article to be treated.

3. A process of cleaning paint, grease or dirt from an article which consists in treating the surface of the article by creating a draft of compressed air, supplying a caustic solution of an alkaline nature to be picked up by the draft of air, and heating the mixture of air and solution by injecting steam
45 into the mixture.

In testimony whereof, I set my hand, this 16th day of February, 1921.

HORACE G. ALEXANDER.