

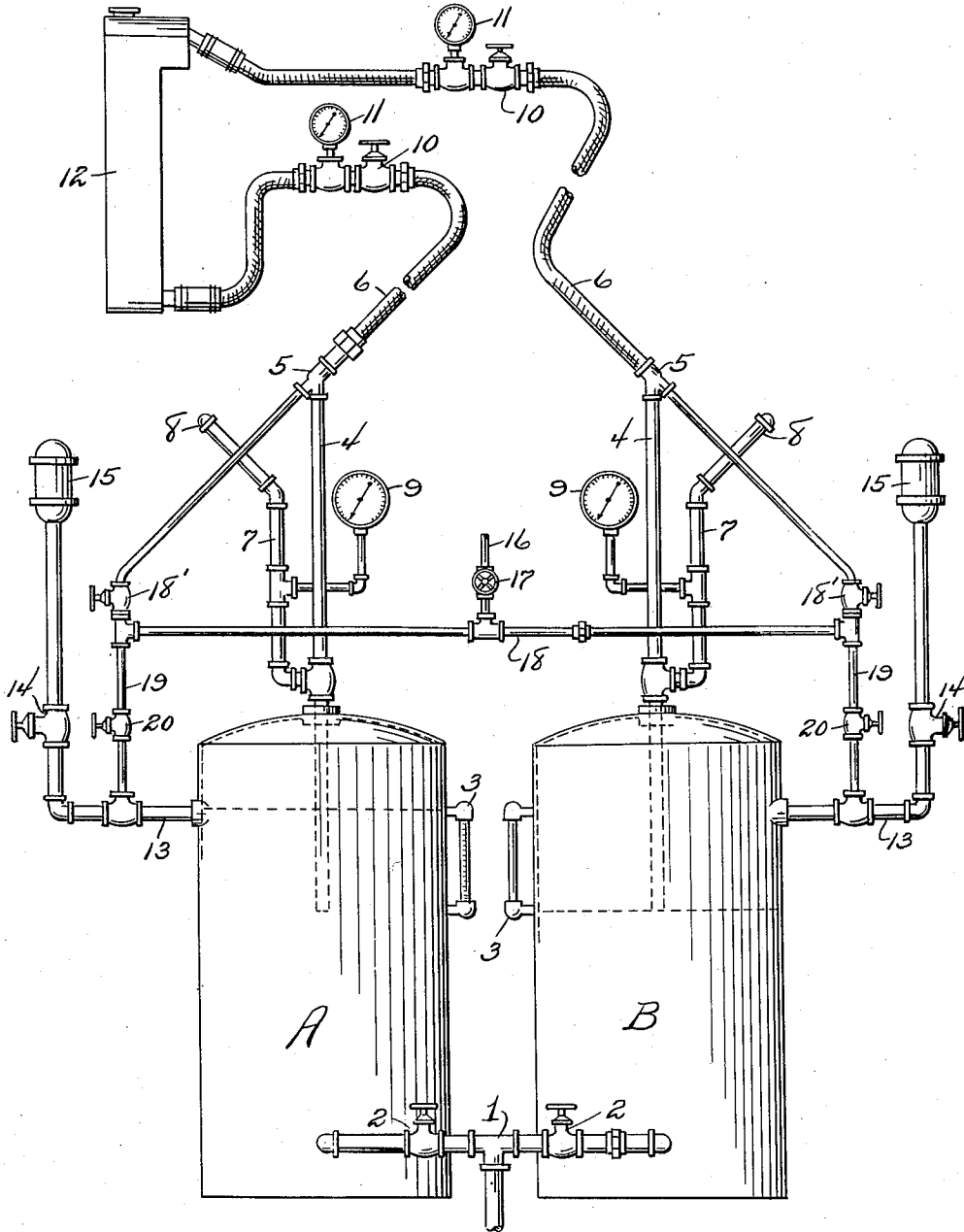
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RADIATOR CLEANER AND LEAK CHECKER

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## RADIATOR CLEANER AND LEAK CHECKER

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1 Claim. (Cl. 141—1)

This invention relates to a motor vehicle radiator cleaner and tester, and has for the primary object the provision of a device of this character which is easy and quick to operate and is so constructed that a cleaning fluid under a selected pressure may be passed through a radiator to remove foreign matter therefrom and also may be adjusted to place the radiator under a desired air pressure free of cleaning fluid to test for leaks.

With these and other objects in view, this invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which

The figure is a side elevation illustrating a radiator cleaner and leak checker constructed in accordance with my invention.

Referring in detail to the drawing, the characters A and B designate companion tanks suitably supported and equipped with a drain medium 1 including in its construction control valves

2 whereby either or both of said tanks may be emptied of their contents. Sight gages 3 are provided for the tanks and are located adjacent the upper ends thereof so that a person may readily determine when said tanks contain a proper amount of fluid. The tanks contain a suitable cleaning fluid.

Secured to and depending into the tanks are outlet pipes 4 equipped at their outer ends with fittings 5 to which flexible tubes 6 are secured.

The inner ends of the pipes 4 are spaced a considerable distance from the bottoms of the tanks so that any sediment accumulated in the tanks will not be disturbed or agitated by the use of the device. Filling pipes 7 are connected to the pipes

4 whereby the cleaning solution or fluid may be directed into the tanks. The filling pipes are normally closed by removable caps 8 and also connected to the filling pipes are pressure gages 9 whereby the operator may at any time determine the pressure within the tanks. The flexible tubes 6 have interposed therein control valves 10 having pressure gages 11. The flexible tubes are adapted to be connected in any suitable way to the intake and outlet necks or pipes of a motor vehicle radiator 12.

Pressure pipes 13 are connected to the tanks adjacent the latter's upper end and have interposed therein control valves 14 and carry at their outer ends air release valves 15 of any conventional type placing the outer ends of the pres-

sure pipes 13 at all times in communication with the atmosphere.

A main air pressure supply pipe is indicated by the character 16 and is provided with a control valve 17. Branch pipes 18 are connected to the air pressure pipe 16 and to pipes 19, the latter being connected to the fittings 5 and to the pressure pipes 13. The pipes 19 above the points of connection of the pipes 18 therewith, that is, above the T-connections therebetween are provided with the cutoff valves 18'.

The operation of this invention is as follows:

Cleaning fluid is placed in the tanks A and B with the tank A containing more fluid than the tank B as indicated by the dotted lines in the drawing. A radiator is then connected to the tubes 6. The valve 17 is opened, also the valves 18' and 20 to the tank A, placing the liquid in tank A under air pressure. The valves 18 of the tubes 6 are open and the valve 14 of tank B is open. The cleaning solution from tank A passes outwardly through the pipe 4 of said tank A, mixing with air under pressure at the fitting 5, the air and solution mixing and passing on into the radiator under a desired pressure and passing from said radiator to the tank B, carrying therewith any foreign matter which may be in the radiator, and depositing such foreign matter in the tank B. After this operation, the flow of fluid may be reversed, that is fluid from the tank B may be passed through the radiator to the tank A by opening the valves 20 and 18' of the tank B and closing the valves 20 and 18' of the tank A and opening the valve 14 of the tank A and closing the valve 14 of the tank B. As the foreign matter enters the tanks it naturally gravitates to the bottom of the tanks and after the use of this device over a period of time said tanks may be emptied of the foreign matter along with the cleaning solution and in many instances the cleaning fluid may be rectified and used over again in this device. After the cleaning of the radiator of foreign matter and if it is desired to test the radiator for leaks the valves 20 are closed and the valves 18' and 17 are opened placing the radiator under air pressure so that should a defect be in the radiator of the nature which would permit escape of air, the operator may readily locate such defect by the hissing sound produced by escaping air.

Having described the invention, I claim:

A radiator cleaner and leak tester comprising a pair of closed tanks adapted to contain cleaning fluid, outlet pipes connected to said tanks, fittings connected to said outlet pipes, flexible tubes con-

nected to said fittings and one of said tubes adapted to be connected to an inlet of a radiator and the other tube adapted to be connected to an outlet of said radiator, control means in said tubes, pressure gauges connected to said tubes, a manually controlled air pressure supply means connected to said tanks and to said fittings whereby

cleaning fluid in either one of said tanks may be passed therefrom through the radiator to the other tank, means whereby either of said tanks may be vented, and combined pressure indicating means and tank filling means connected to each of said pipes.

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