Nov. 22, 1938. O. E. ASPER 2,137,231

THAWING ATTACHMENT FOR THE HOSE CONNECTIONS AND RADIATOR OF AN INTERNAL COMBUSTION ENGINE

Original Filed Dec. 3, 1936

Fig. 1.

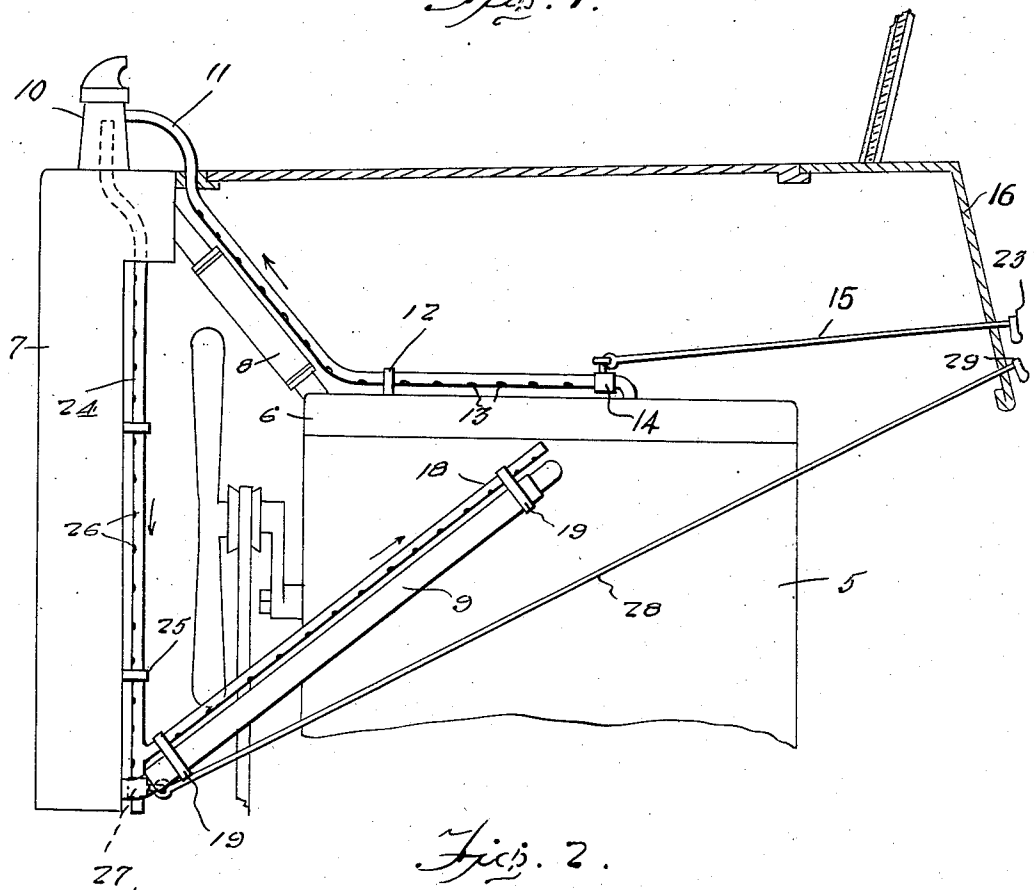


Fig. 2.

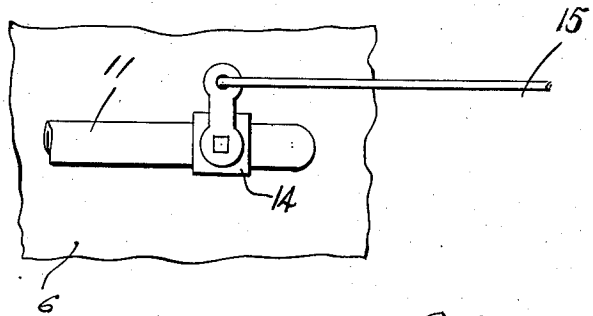


Fig. 3.

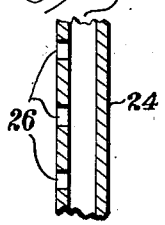
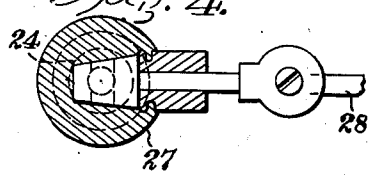


Fig. 4.



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Patented Nov. 22, 1938 2,137,231

UNITED STATES PATENT OFFICE

2,137,231

THAWING ATTACHMENT FOR THE HOSE CONNECTIONS AND RADIATOR OF AN INTERNAL COMBUSTION ENGINE

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Original application December 3, 1936, Serial No. 114,058. Divided and this application June 29, 1937, Serial No. 151,056

2 Claims. (Cl. 123—174)

The present application is a divisional application of my copending application Serial Number 114,058, filed December 3, 1936.

The present invention relates to thawing attachments for the hose connections and radiator of an internal combustion engine and has for its principal object to provide steam spray pipes having communication with the engine head and with the radiator for spraying steam against the respective hose connections leading to and from the radiator and also embodying a steam spray pipe positioned adjacent the radiator for discharging steam against the same.

One of the important objects of the present invention is to provide a series of steam spray pipes for utilizing the steam generated in the engine head and in the radiator, when the water circulation system has become frozen, to direct the steam against the frozen parts of the system and also to provide a control valve for the several spray pipes operable from a position from the driver's seat of the automobile.

Other objects comprise the provision of a system of this character of simple and practical construction, efficient and reliable in performance, relatively inexpensive to manufacture and installed in operation and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming part hereof, wherein like numerals refer to like parts throughout and in which:

Figure 1 is a side elevational view of an automobile engine showing the several parts of the invention mounted in position with respect thereto and

Figure 2 is a fragmentary top plan view showing one of the control valves.

Figure 3 is a longitudinal sectional view of any one of the perforated pipes.

Figure 4 is a sectional view through the valve at the lower portion of the overflow pipe.

Referring now to the drawing in detail, wherein for the purpose of illustration I have disclosed a preferred embodiment of invention, the numeral 5 designates an automobile engine of the internal combustion type, having a head 6 forming a water jacket and with which is connected a radiator 7 by means of upper and lower hose connections 8 and 9 respectively. The radiator 7 is provided with the usual filling neck 10 from the upper portion of which a spray pipe 11 extends, said spray pipe being secured to the engine head 6 by a clamp 12 and extends in substantially closely spaced relation with respect to the upper hose connection 8 and the top of the engine head as will be apparent from an inspection of the Fig. 1 of the drawing.

The opposite end of the spray pipe 11 communicates with the water jacket or cylinder head 6 and a portion of the spray pipe adjacent the hose connection 8 and the top of the cylinder head is provided at spaced intervals with perforations 13 for discharging steam against the hose connection and cylinder head. The pipe 11 is also provided with a control valve 14 having an operating rod 15 extending therefrom and leading to the instrument board 16 of the automobile, adjacent which the rod is provided with an operating handle 23.

A perforated spray pipe 18 is also secured in closely spaced relation with respect to the lower hose connection 9 by means of clamps 19, the upper end of the pipe being closed and connected at its lower end to the lower end of the radiator overflow pipe 24.

The overflow pipe 24 has its upper end terminating within the neck 10 and secured in vertical position at the rear of the radiator by clamps 25, said overflow pipe likewise having spaced perforated openings 26 formed in the side of the pipe immediately adjacent the radiator. The overflow pipe 24 and pipe 18 are provided with a common valve 27 having a control rod 28 leading therefrom to the instrument panel and provided with an operating handle 29.

Steaming water and condensate can pass down the pipe 24 and steam emanating therefrom and through the openings 26 will heat and thaw a frozen radiator, the valve 27 can be closed so that the hot water can seep through the openings 26.

Should the water in the radiator 7, or hose connections 8 or 9 become frozen, steam generated in the engine head or in the neck 10 of the radiator, will be directed against the frozen parts as desired by means of the valves 14, and 27.

Having thus described the invention what I claim is:—

1. An anti-freeze attachment for engines comprising spray pipes leading respectively from the radiator neck and engine head, means for securing said pipes respectively in closely spaced relation to the upper and lower hose connection between the radiator and engine, said pipes having perforations in the walls thereof immediately adjacent said hose connection, valves in said pipe and remote control means for said valves.

2. Anti-freeze attachment for the water circulation system of engines, said water circulation

system including a radiator, a water jacket and hose connection connecting the water jacket with the upper and lower portions of the radiator, said radiator having a neck, an overflow pipe having its upper end positioned within said neck and extending vertically in closely spaced relation with respect to the radiator, a second pipe having one end communicating with said neck and its opposite end communicating with the water jacket, said second pipe having positioned in closely spaced relation with respect to the upper hose connection, a third pipe connected at one end adjacent the lower end of the overflow pipe and positioned in closely spaced relation with respect to the lower hose connection, each of said pipes having perforations in their opposed walls, valves in each of the pipes and remote control means for said valves.

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