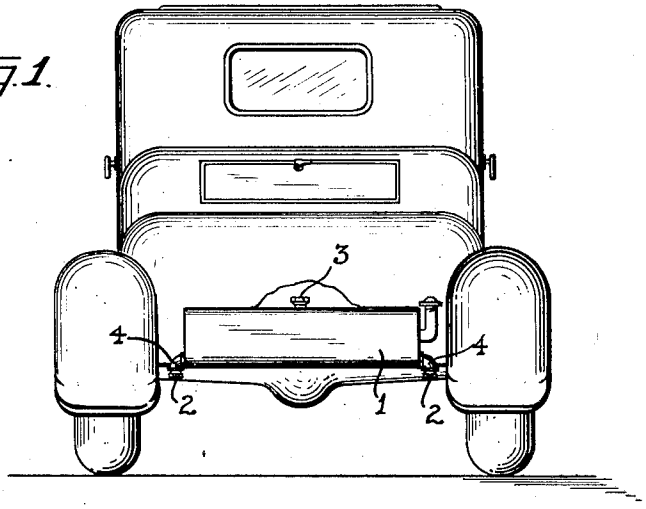
Sept. 11, 1934. V. L. SHAW 1,973,182

HEAT RELEASABLE DRAINAGE MEANS

Filed May 17, 1933

Fig. 1.



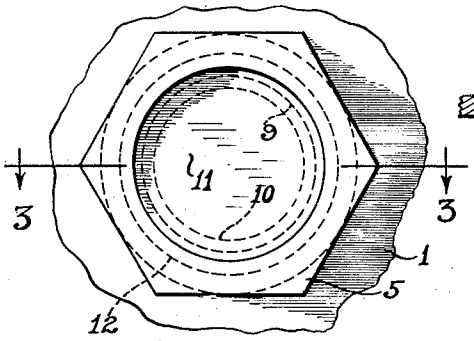


Fig. 2.

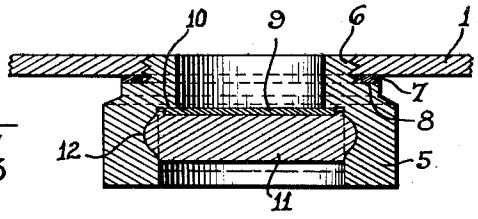


Fig. 3.

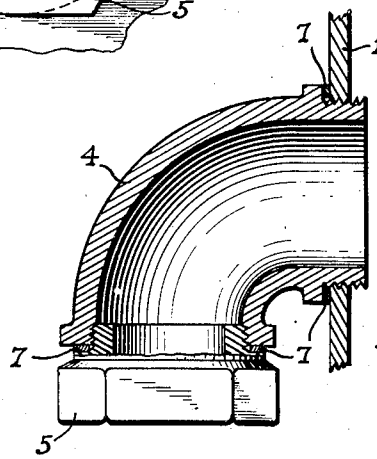


Fig. 4.

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HEAT RELEASABLE DRAINAGE MEANS

Vincent L. Shaw, Evanston, Ill.

Application May 17, 1933, Serial No. 671,453

2 Claims. (Cl. 220—89)

My invention relates to heat-releasable drainage means for fuel tanks. More specifically, it relates to heat-releasable drainage means for the gasoline tanks of automobiles.

When an automobile has an accident, one of the greatest dangers is that the gasoline will be ignited, in which event it is almost impossible to extinguish the fire, as the gasoline continues to leak out, causing the destruction of the car and often endangering the lives of the occupants of the car.

One of the methods now used for combating fire in such cases is to take some sharp instrument and puncture the gasoline tank, thus enabling the gas to get out of the tank and flow away from the car so that the car itself can be saved. It often happens that no sharp instrument is available, in which case nothing can be done in the way of draining the gasoline tank.

One of the objects of my invention is to provide improved, heat-releasable means whereby the tank will be drained automatically when the temperature adjacent the tank reaches a predetermined degree.

A further object is to provide such an automatic drainage means which will be operative no matter in what position the car may happen to be as the result of an accident.

A further object of my invention is to provide such a construction in which the drainage will be in such a direction that it will not endanger adjacent cars in the event that a car catches on fire while standing in a garage alongside of other cars.

Further objects will be apparent from the description and claims.

In the drawing, in which my invention is illustrated,—

Figure 1 is a rear view of an automobile showing a gasoline tank and three fusible drain plugs applied in such locations on the tank as to insure drainage no matter in what position the car may be placed;

Fig. 2 is a top plan view of the upper fusible drain plug;

Fig. 3 is a section on the line 3—3 of Fig. 2; and

Fig. 4 is a section of one of the lower drain plugs.

Referring to the drawing in detail, the construction shown comprises an automobile provided with a gasoline tank 1 in the rear and having three fusible drain plugs 2 and 3 positioned as shown. The upper fusible plug 3 is screwed directly into the upper wall of the tank, as shown in Figs. 1 and 3, Fig. 3 being a view showing the position of the plug if the car is overturned. Each of the two lower fuse plugs 2 is screwed into an elbow fitting 4 which, in turn, is screwed into the lower part of the end wall of the tank. This elbow directs the escaping gasoline downwardly in the event that the car is standing in a garage so that the gasoline will not be directed over toward the adjacent car but will flow directly downward and be carried away by the gutter.

Each fusible plug comprises a bushing 5 having a threaded nipple 6 screwed into the wall of the tank or the end of the elbow, as the case may be, a liquid-seal gasket 7 between the shoulder 8 on the bushing and the part into which the nipple is screwed, and a sheet metal disc 9 seated on an internal shoulder 10 of the bushing and in contact with the gasoline but serving to prevent the gasoline from coming in contact with the fusible element 11.

This fusible element 11 may be of any suitable material of a composition to fuse at the desired predetermined temperature. This element is forced into the recess 12 in the bushing after the metal disc is in place, and is compressed until the relatively soft fusible material is squeezed out into the annular recess 12 in the bushing, which thus locks the fusible material in place until an emergency arises which results in the fusing of the material and the consequent releasing of the gasoline in the tank. The metal disc 9 keeps the gasoline out of contact with the fusible material as otherwise the gasoline would tend to prevent the proper fusing of the material. In case of excessive heat from a fire, the fusible material melts and drops out of the recess in the bushing, followed by the sheet metal disc, thus releasing the gasoline from the tank and allowing it to escape rapidly. The diameter of this disc is small enough so that it will readily drop out when released.

It will be seen that no matter in what position the car may land, there will always be at least one of the drainage plugs in position to cause the rapid drainage of the gasoline from the tank. If the car is upside down, the upper drainage plug will be in position to drain the tank. If it is lying on its left side, the left hand drainage opening will drain the tank, and if it is lying on its right side the right hand drainage opening will effect the discharge of the gasoline from the tank. If the car is not overturned, both the right and left hand drainage outlets will be effective in draining the tank.

Further modifications will be apparent to those skilled in the art and it is desired, therefore, that the invention be limited only by the prior art and the scope of the appended claims.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. A fuel tank for automobiles having a plurality of heat-releasable drainage means for draining the fuel from the tank, said plurality of drainage means being so distributed that at least one of them will be in position to drain the tank no matter in what position the tank is placed there being at least one of said drainage means adjacent the top of said tank, at least one of said drainage means at the bottom of said tank, and at least one of said drainage means at each end of the tank.

2. A fuel tank for automobiles having a plurality of heat-releasable drainage means for draining the fuel from the tank, said plurality of drainage means being so distributed that at least one of them will be in position to drain the tank no matter in what position the tank is placed, there being at least one of said drainage means at each end of the tank and at least one of said drainage means adjacent the top of the tank and also adjacent the bottom of the tank.

VINCENT L. SHAW.