C. F. NYSTROM.

AIR VENT.

APPLICATION FILED JAN. 30, 1917.

1,350,109. Patented Aug. 17, 1920.

Fig. 1.

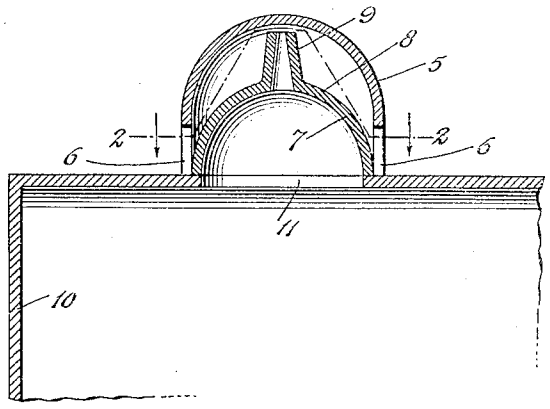


Fig. 2.

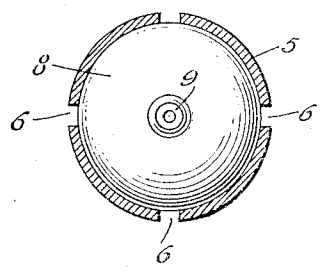
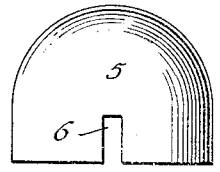


Fig. 3.



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AIR-VENT.

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To all whom it may concern:

Be it known that I, CARL F. NYSTROM, citizen of the United States, and resident of the borough of Manhattan, in the city and county of New York and State of New York, have invented certain new and useful Improvements in Air-Vents, of which the following is a specification.

My invention relates to air valves for normally closed receptacles and more particularly to valves for gasolene or other fuel tanks of motor vehicles and has for its object to provide a simple and efficient construction whereby air is freely admitted to the interior of the tank when necessary, and whereby water, moisture, dirt and other foreign matter is efficiently excluded therefrom. Other objects of my improvement will appear from the description hereinafter and the features of novelty thereof will be pointed out in the appended claims.

In the accompanying drawings, which show an example of my improvement for illustrative and descriptive purposes, Figure 1 is a sectional view of my improved valve in operative position on a tank or other receptacle; Fig. 2 is a horizontal section on the line 2—2 of Fig. 1 and Fig. 3 is an exterior elevation thereof.

As shown in the drawings my improved valve comprises an outer or external hollow member 5 open at its one end and having its opposite end closed and shaped in any suitable manner, as for instance in the form of a dome as illustrated in the drawings, said member 5 being provided with a plurality of apertures 6, whereby communication is established between the interior of the member 5 and the atmosphere. In the preferred form these apertures 6 extend from the open end of the member 5, or in other words are located at the base thereof and as shown in the drawings may simply comprise saw cuts of suitable dimensions. My improved valve further comprises an inner member having a hollow body 7 fitted within the open end of the outer member 5 and preferably, though not necessarily secured therein in any suitable way as by means of solder, the ends of the inner and outer members being preferably flush. The body 7 of this inner member has an outer surface 8 sloping downwardly substantially throughout its entirety from a central point toward the apertures 6 for instance in the form of a dome as illustrated in Fig. 1. A tubular spout 9 projects from the body 7 of the inner member into close proximity to the inner surface of the closed end of the outer member 5 and establishes communication between the interior of the outer and inner members as shown in Fig. 1.

In practice my improved valve is secured in any suitable manner, as by soldering, upon the outer surface of the tank or receptacle 10 and in registry with a vent opening 11 formed therein. The diameter of the opening 11 preferably corresponds to the interior diameter of the body 7 of the inner member, the parts being so combined that the opening 11 is in substantial registry with the open end of the body 7 as shown in Fig. 1.

With my improved arrangement air is freely admitted to the interior of the tank or receptacle 10 at all times by way of the apertures 6, spout 9 and hollow body 7 of the interior member, thus permitting the contents for instance to be readily withdrawn. At the same time the construction prevents any water, moisture or other foreign matter from entering the interior of the tank 10 even if the latter is subjected to a drenching as for instance during the washing of a motor car, assuming that the tank 10 forms part of a motor car's equipment. This is due to the fact that the body 7 of the interior member forms a seal and because the free end of the spout 9 is located at a distance above the tank 10 and in close proximity to the end of the outer member 5 which forms a protecting cover. Any moisture, water or other foreign matter which may find its way or be forced into the interior of the member 5 will simply flow or otherwise pass downwardly along the sloping outer surface 8 of the body 7, and pass out through the apertures 6 to the exterior of the tank 10. It will be noted that said apertures 6 do not communicate directly with the interior of the tank 10 and that it is substantially impossible for any appreciable quantity of any foreign matter to reach the interior of a tank or other receptacle equipped with my improvement.

In some cases the outer member 5 may be detachably connected with the body 7 of the inner member and secured in operative connection therewith by friction or in any other suitable manner.

My improvement is simple in construction, efficient in operation and is readily

combined even with existing tanks or other receptacles.

It will of course be understood that the body 7 instead of being dome shaped may be otherwise constructed to provide an equivalent arrangement, a conical construction for instance being suitable for the intended purpose.

Various changes in the specific form shown and described may be made within the scope of the claims without departing from the spirit of my invention.

I claim:—

1. An air vent of the kind described comprising an inner hollow member having an opening whereby communication with its interior is established and having a sloping outer surface and a hollow outer member covering said inner member and having its one end open and fitted over said inner member in surface contact therewith, said outer member having an aperture located at the foot of the slope of said inner member whereby communication between the atmosphere and the interiors of said inner and outer members is established.

2. The combination of a receptacle having a vent opening, a dome shaped hollow member secured to said receptacle in registry with said opening, a tubular spout projecting in an axial direction from said member, and an outer dome shaped hollow member fitted tangentially over said inner dome shaped member and having the inner surface of its closed end in close proximity to the free end of said spout, said outer member being provided at its base with an aperture whereby communication between the interior of said outer member and the atmosphere is established.

Signed at the city of New York in the county of New York and State of New York.

CARL F. NYSTROM.