To all whom it may concern:

Be it known that I, George E. Peters, a citizen of the United States, and a resident of Rapid City, in the county of Pennington, and State of South Dakota, have invented a certain new and useful Improvement in Containers for Hydrocarbon Oils, of which the following is a specification.

My present invention relates generally to containing cans, and more particularly to containing cans for hydrocarbon oils, my object being the provision of a can having means whereby to obviate the danger of filling a kerosene can with gasoline and vice versa, a further object being the provision of such means in the nature of a mechanism contained within the can which will be strong and lasting in use and thereby comparatively inexpensive in its manufacture.

In the accompanying drawings illustrating my present invention:

Figure 1 is a vertical section through a can adapted for kerosene;

Figure 2 is a horizontal section therethrough taken substantially on line 2—2 of Fig. 1;

Figure 3 is a detail perspective view of the float member;

Figure 4 is a vertical section through a can adapted to contain gasoline, and

Figure 5 is a vertical sectional view illustrating the adaptation of my invention to the supply tank of an oil stove or the like.

Referring now to these figures, and more particularly to Figs. 1, 2, and 3, the container can generally indicated at 10 has an upper discharge spout 11 and is provided in its top with a filling aperture downwardly through which extends a filling tube 12, the latter having an upper exteriorly threaded closing cap 13 and communicating at its lower end through an opening 14 with the inner vessel 15, the latter of vertical tubular shape, disposed horizontally within the lower portion of the can 10 and in elevated relation with respect to the base thereof, upon supports 16.

The vessel 15 has a discharge spout 17 leading upwardly therefrom at a point diametrically opposite the filling tube 12 and projecting outwardly into the discharge spout 11 of the can 10, and the vessel 15 is further provided with an opening 18 in the base thereof and with a valve seat around the said opening, the opening 18 providing for communication between the interior of the vessel 15 and the interior of the can 10.

It is thus obvious that when kerosene is introduced through the filling tube 12, it must pass into the vessel 15 with which the lower end of the filling tube communicates by virtue of the opening 14 before it finds its way into the interior of the can 10 through the opening 18.

Within the vessel 15 is an enlarged float member 19, weighted accurately to float in kerosene but not in gasoline the more refined and lighter hydrocarbon, an internal weight member 20 being disposed within the float for this purpose.

The float member 19 is further provided centrally of its lower surface with a valve member 21, the latter of which co-operates with the seat around the opening 18 in the base of the vessel to normally close the opening. From this it is obvious that when kerosene is introduced the float member 19 rises so as to permit of the passage of the kerosene through the opening 18 and into the can 10, but should gasoline be introduced through mistake, the float member 19 remains seated, and the opening 18 being thus closed by the valve member 21, the vessel 15 quickly fills and the oil backs up in the filling tube, and promptly warns the user that the can 10 is not filling and that the oil he is introducing is not sufficiently heavy to raise the float member 19.

The construction shown in Fig. 4 in connection with the gasoline can 10 is similar in all respects to the construction described in connection with Figs. 1, 2, and 3 except that the inner vessel 15 has its opening 18 for communication with the interior of the can 10 in the top wall thereof instead of the base, the valve member 21 being located at the top of the float member 19. Thus, the float member 19 being of the same weight as the float member 19, will remain in its normally lowered position with the opening 18 unobstructed when gasoline is introduced within the filling tube 12, while if kerosene is introduced, the float member 19 will rise and move the valve member 21 against the seat around the opening 18, closing the latter so as to prevent passage of the kerosene into the can 10, with the same warning results as previously described in connection with Fig. 1.

It is obvious that, in either of the forms
of the invention described, the supplemental discharge spout of the inner vessel, numbered 17 in Fig. 1 and 17* in Fig. 4, provides for the discharge of oil from the inner vessel as well as from the can 10* before refilling and in case mistake has been made by the introduction of other than the desired character of oil.

Fig. 5 shows the introduction of an inner vessel 13* within the supply tank 10* of an oil stove and the like, the opening 13* being in the base of the vessel as in Fig. 1 for communication between the vessel and the interior of the tank and the filling tube 12*, communicating with the vessel by the lower opening 14* and an upper opening 14*, the latter providing for the outlet of air in connection with this structure, where the supplemental discharge spouts 17 and 17* are dispensed with.

Furthermore, in the form shown in Fig. 5, as no discharge spout leads from the vessel 15*, the latter has a discharge opening 22 in its base closed by a control cover 23 which latter is connected to the lower end of a rod 24 extending vertically in the filling tube 12* with its upper end disposed for engagement and lowering movement by the screw cap 13* so as to elevate the cover 23 when the cap 13* is screwed down to permit all of the oil within the vessel 15* to find its way into the tank 10* for discharge therewith.

It is obvious from the construction of the foregoing that my invention provides not only a safety device of the nature described, but one which is adaptable as well to the rejection of excessively adulterated oils, which will be efficient in use, and which will be comparatively inexpensive in considering the results of its employment.

I claim:

1. A container for hydrocarbons having a filling tube and a discharge spout, a vessel within the said container and into which the filling tube opens, having an opening communicating between the interior thereof and the interior of the container, said vessel having a discharge spout leading therefrom and extending into the discharge spout of the container and being otherwise closed, a float member within the said vessel, and a valve member carried by the said float and extending within the said opening of the vessel for closing the latter.

2. A container for hydrocarbons having a filling tube and a discharge spout, a vessel within the container and into which the filling tube opens, having means to discharge the same while within the container, and having an opening in its wall providing communication between the vessel and the interior of the container, said vessel being otherwise closed and having a valve seat around its said opening, a float member carried by the float for cooperation with said seat to close the said opening.

3. A container for hydrocarbons including a holder having a filling tube and a discharge spout, a vessel stationary mounted within the said holder and into which the said filling tube opens, said vessel having means whereby to discharge the same while within the holder, and having an opening providing communication between the vessel and the interior of the holder, a float member operable within the said vessel, and a valve member carried by the float and movable into the said opening to close the latter.

GEORGE E. PETERS.