

L. A. SHERMAN.
PRIMING FLUID TANK.
APPLICATION FILED SEPT. 11, 1911.

1,013,324.

Patented Jan. 2, 1912.

2 SHEETS—SHEET 1.

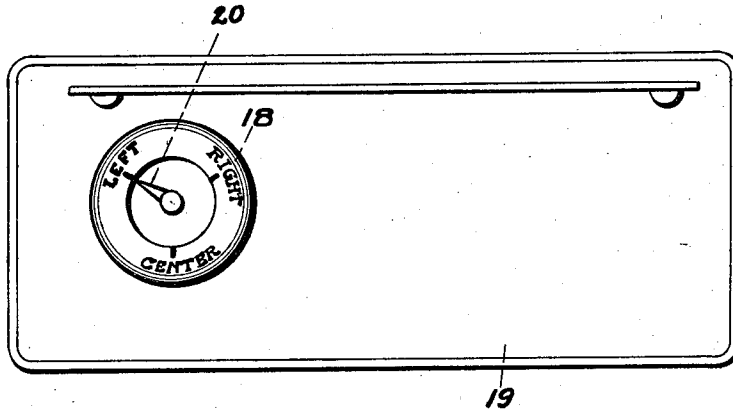


Fig. 2.

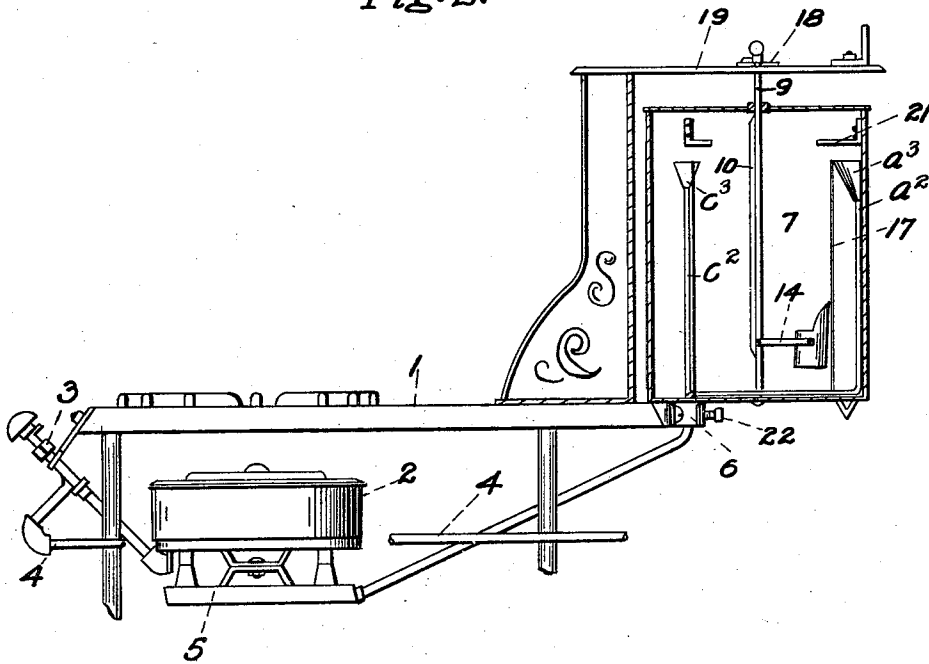


Fig. 1.

WITNESSES:

H. E. Soman

V. C. Spratt

INVENTOR

Louis A. Sherman

BY

Parker & Burton
ATTORNEYS

L. A. SHERMAN.
PRIMING FLUID TANK.
APPLICATION FILED SEPT. 11, 1911.

1,013,324.

Patented Jan. 2, 1912.

2 SHEETS—SHEET 2.

Fig. 4.

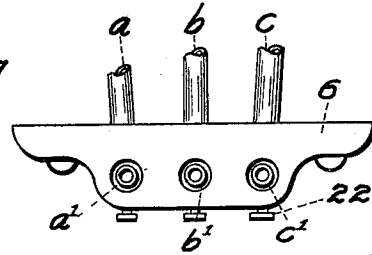
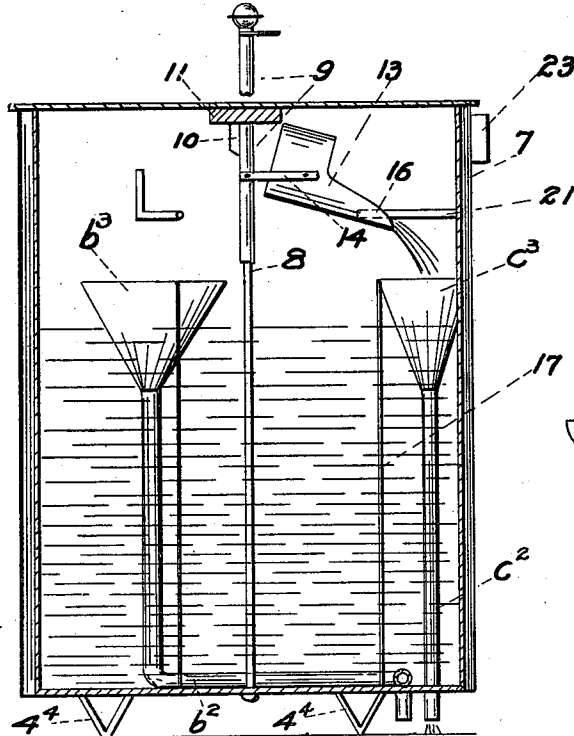


Fig. 5.

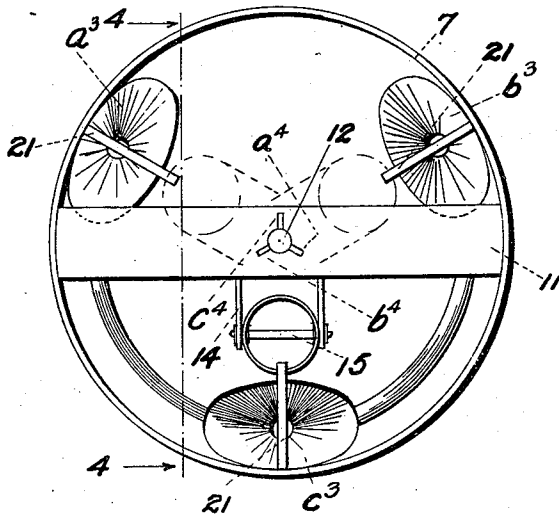


Fig. 3.

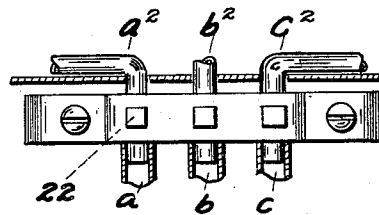


Fig. 6.

WITNESSES:
H. E. Loman.
J. C. Spratt.

INVENTOR
Louis A. Sherman
BY
Parker & Burton
ATTORNEYS

UNITED STATES PATENT OFFICE.

LOUIS A. SHERMAN, OF DETROIT, MICHIGAN.

PRIMING-FLUID TANK.

1,013,324.

Specification of Letters Patent.

Patented Jan. 2, 1912.

Application filed September 11, 1911. Serial No. 648,791.

To all whom it may concern:

Be it known that I, LOUIS A. SHERMAN, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Priming-Fluid Tanks, and declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to priming-fluid tanks to be used in connection with heavy-hydrocarbon burners; it has for its object a priming-fluid tank which can be connected with the stove by merely setting it thereupon and that can be lifted out of position without any leakage.

In the drawings:—Figure 1, is an elevation of a stove showing the priming supply connected up and the tank in section. Fig. 2, is a top elevation of the stove shelf with the dial in position. Fig. 3, is a top view of the inside of the priming-fluid tank. Fig. 4, is a vertical section of the priming-fluid tank along the line 4—4 of Fig. 3. Fig. 5, is a top view of the coupler-casting. Fig. 6, is a side elevation of the coupler casting with the bottom of the tank shown in section.

1, is the stove frame, below which is the hydrocarbon burner 2 controlled by the valve 3 and supplied by the conduit 4. This burner is intended to use heavy-hydrocarbon, such as kerosene and in order to start these heavy-hydrocarbons vaporizing, it is necessary to use an auxiliary burner 5, which heats the main burner 2 and then the kerosene or other fluid is turned therein and it readily vaporizes. It is proposed to use alcohol in this auxiliary burner, and to furnish a supply of this by a priming-fluid tank which may be readily lifted off when desired to refill, is the object of my invention. To this end, I connect up the auxiliary burners 5, (which may be of any number, depending upon the number of hydrocarbon burners) with the coupler-casting 6, by pipes a , b , c , each leading to bores a' , b' , c' respectively in the coupler-casting. This coupler-casting is screwed to the frame of the stove, as shown in Fig. 1. An equal number of conduits a^2 , b^2 and c^2 protrude

from the bottom of the tank 7 and are adapted to register with the pipes a , b , c , respectively in the coupler-casting, when the tank is hung in position. Within the tank, each one of these conduits is connected with the funnels a^3 , b^3 and c^3 respectively, the tops of these funnels being arranged above the liquid line and hence none of the liquid can escape through the conduits until lifted into the funnels. For this purpose, I employ a central rod-guide 8 upon which reciprocates and turns the tubular shaft 9, provided with the guiding-fin 10. A strip 11 extends underneath the cover of the tank 7 and is provided with guiding slots a^4 , b^4 and c^4 , which branch off from a central guide-hole 12.

The bucket 13 is connected with the tubular shaft 9 by a bracket 14, the bucket swinging on the rod 15. This bucket has a spout portion 16 and a wire or metal strip guide 17 keeps it from tipping over if it is raised rapidly. The guide slots a^4 , b^4 and c^4 are so placed that when the fin 10 of the shaft 9 is drawn through one of these slots, it brings the bucket adjacent to the proper funnel. The fin and the desired slot are brought to register by the use of a dial 18 on top of the shelf 19 of the stove. Upon this dial are indicated the respective burners and a pointer 20 is located on the shaft 9 to correspond with the guide fin 10. When this pointer is brought to the mark on the dial, the fin will then register with the proper slot and the shaft 9 may be reciprocated vertically. The shaft is pulled upward carrying with it the bucket which carries a given amount of liquid up with it, traveling adjacent to the guide 17, which prevents it from tipping; when it gets to the tripper 21, the spout 16 is thrown down and in position for the contents of the bucket to run into the funnel from whence the alcohol of other liquid runs through the aforescribed connections to the auxiliary burner; as this is a gravity feed and as the supply of liquid in the tank is below the feeding outlets, the tank may be readily lifted off from the pipes a , b and c without any liquid spillings.

The set screws 22 hold the pipes a , b , and c within their respective bores a' , b' and c' .

The tank is provided with legs 4⁴ upon which it stands and a bracket 23 upon which it may be hooked to the stove.

The tank is filled by removing the cover and pouring fluid in until it rises nearly to the top of the funnel.

What I claim is:—

5 1. A priming system for heavy-hydrocarbon burners, having in combination an auxiliary burner, a supply-pipe therefor, a tank having a conduit adapted to fit in the supply pipe and removable from such connection by merely lifting, and means for feeding the contents of the tank to the conduit in measured quantities only, substantially as described.

15 2. A priming system for heavy-hydrocarbon burners, having in combination, an auxiliary burner, a supply-pipe therefor, a tank, a conduit leading therefrom, adapted to set within the supply-pipe and opening into the interior of the tank near the top thereof, and means for elevating a measured quantity of the liquid to the conduit opening and draining it therein, substantially as described.

25 3. A priming system for heavy-hydrocarbon burners, having in combination, a plurality of supply pipes, a tank, conduits leading therefrom adapted to set within the supply pipes and opening into the interior of the tank near the top thereof, and means for elevating a measured quantity of the liquid to any one of the conduits and draining it into such one, substantially as described.

30 4. In a priming system for heavy-hydro-

carbon burners, the combination of a removable tank, a conduit leading thereinto and terminating near the top, a guide rod, a tubular shaft vertically slidable thereon, a pivotally mounted bucket supported on the shaft, a tripper to tip the bucket, when elevated, over the upper end of the conduit, and means to prevent such tipping until the upper end is reached, substantially as described. 35 40

5. In a priming system for heavy-hydrocarbon burners, the combination of a removable tank, a conduit leading thereinto and terminating near the top, a guide rod, a tubular shaft vertically slidable thereon, a pivotally mounted bucket supported on a shaft, a tripper to tip the bucket, when elevated, over the upper end of the conduit, means to prevent such tipping until the upper end is reached, a guiding fin on said shaft and a strip across said tank provided with guide slots through which the guiding fin is adapted to slide, thereby guiding the bucket to the desired conduit by sliding the fin through the slot corresponding to the conduit that is desired to be used substantially as described. 45 50 55 60

In testimony whereof, I sign this specification in the presence of two witnesses.

LOUIS A. SHERMAN.

Witnesses:

CHARLES F. BURTON,
VIRGINIA C. SPRATT.