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H. W. LOVETT.
LIQUID FUEL BURNER.
FILED DEC. 15, 1921.

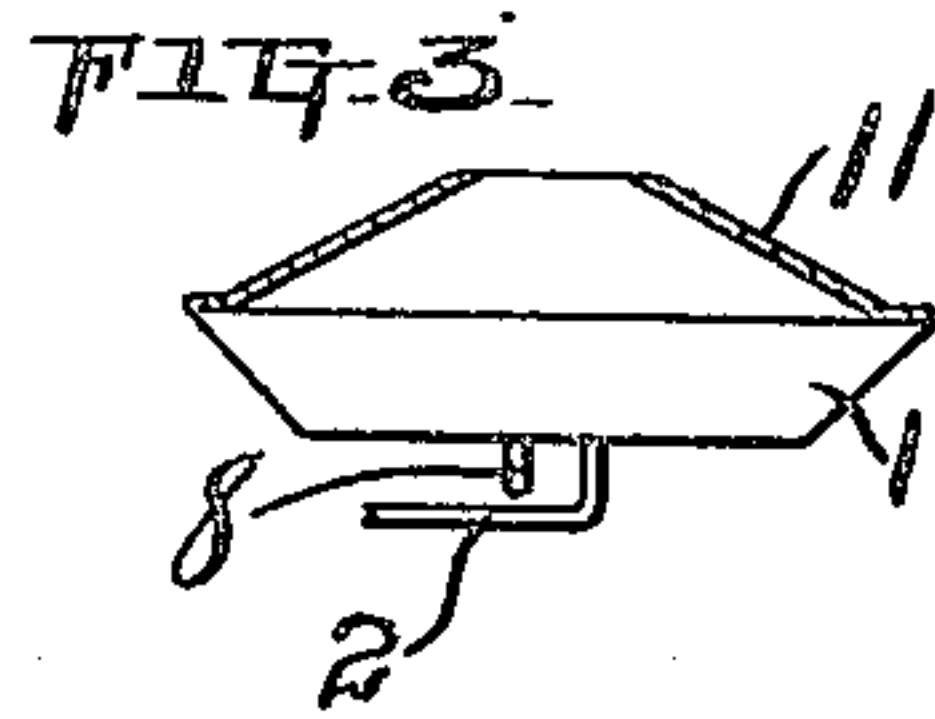
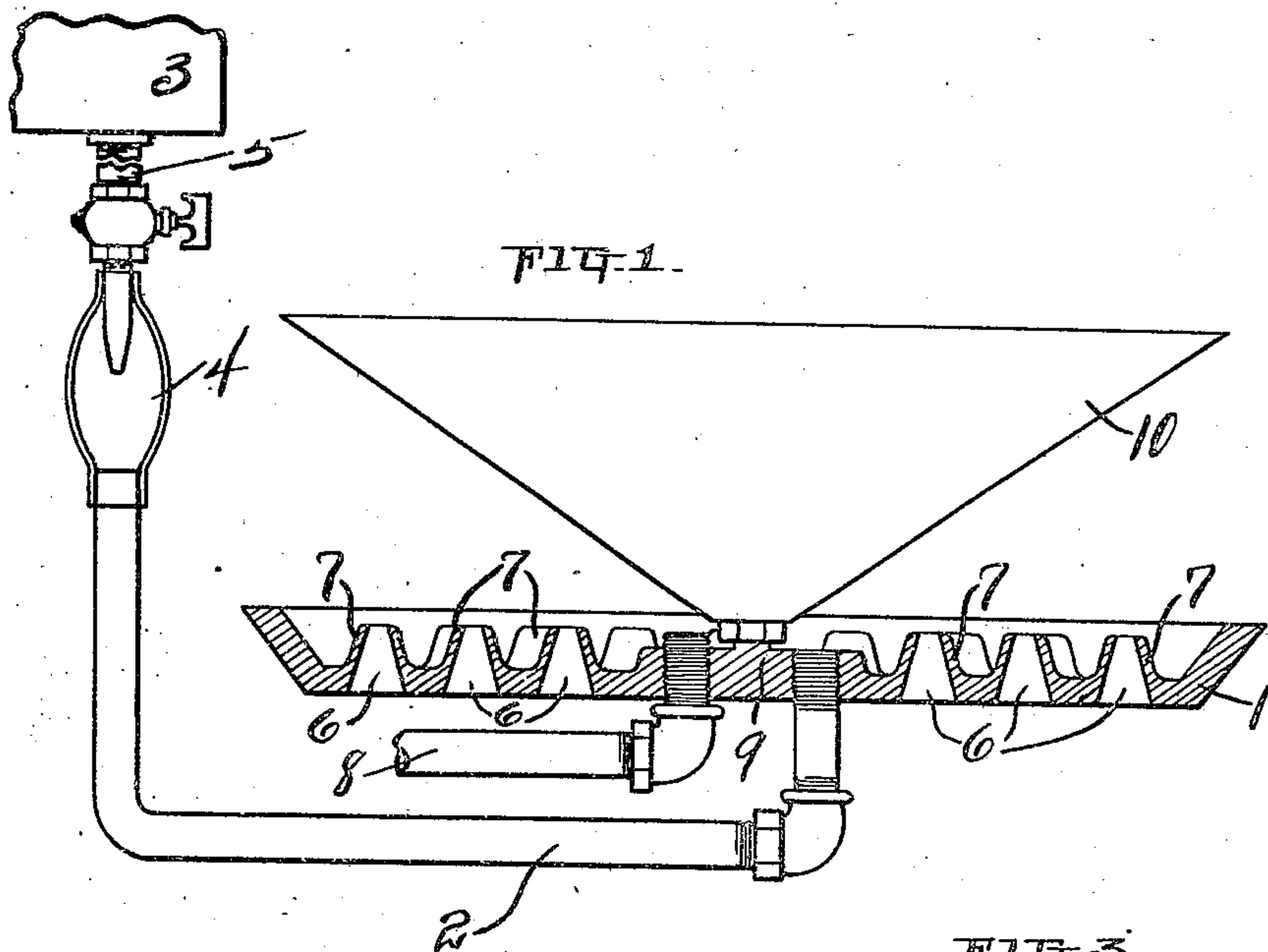
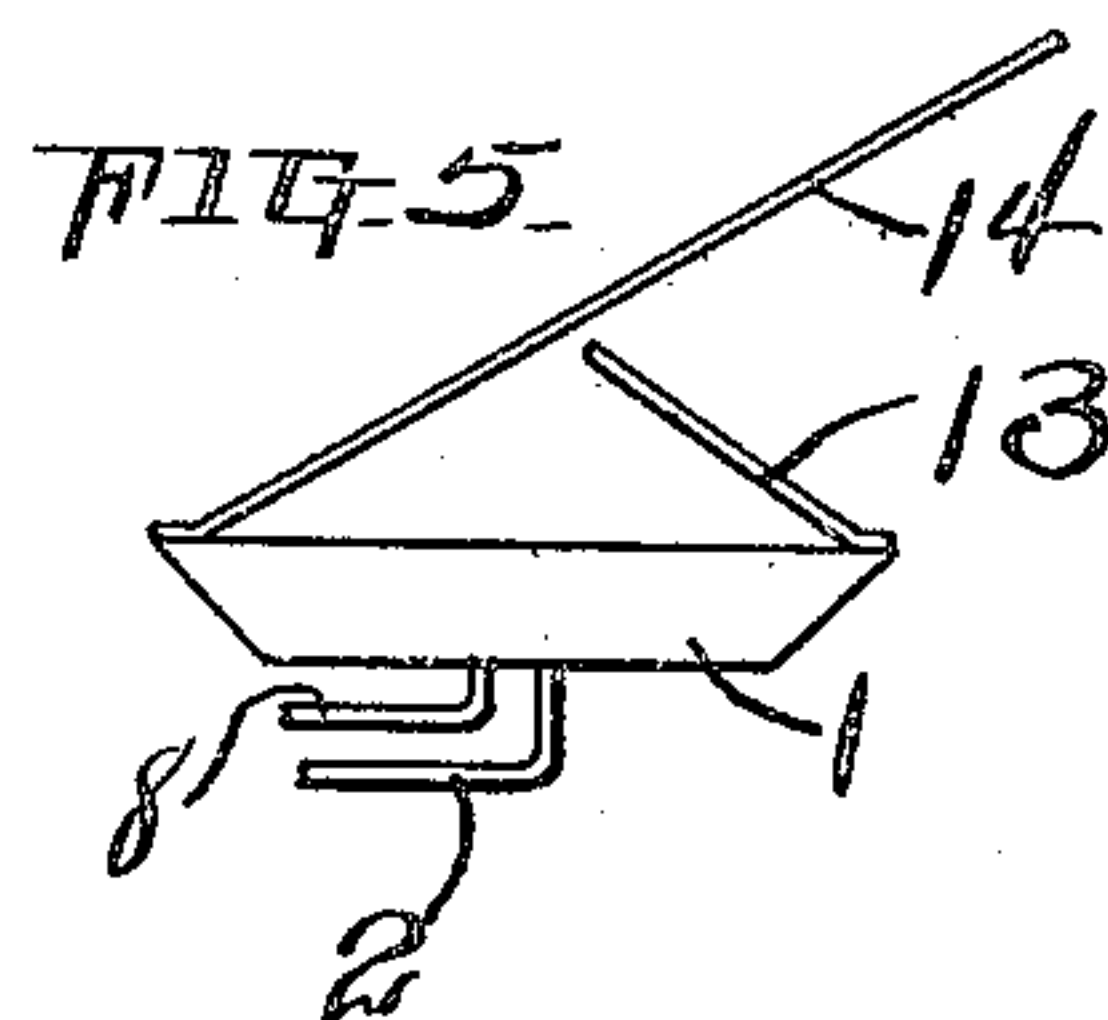
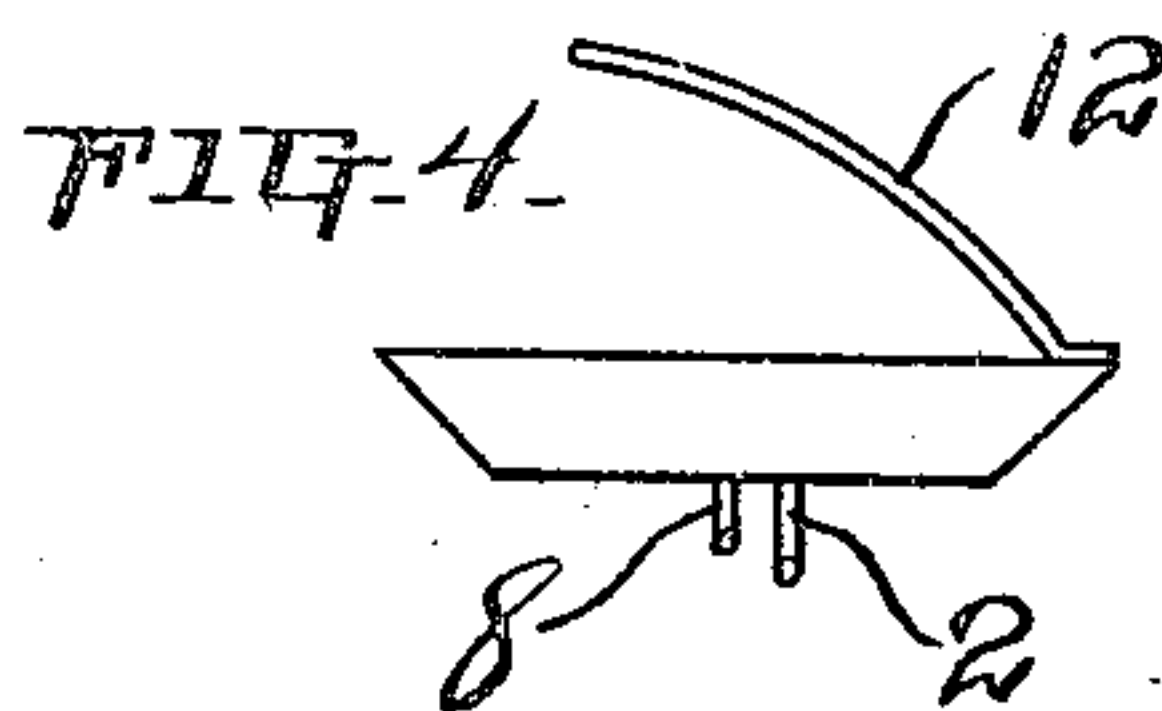
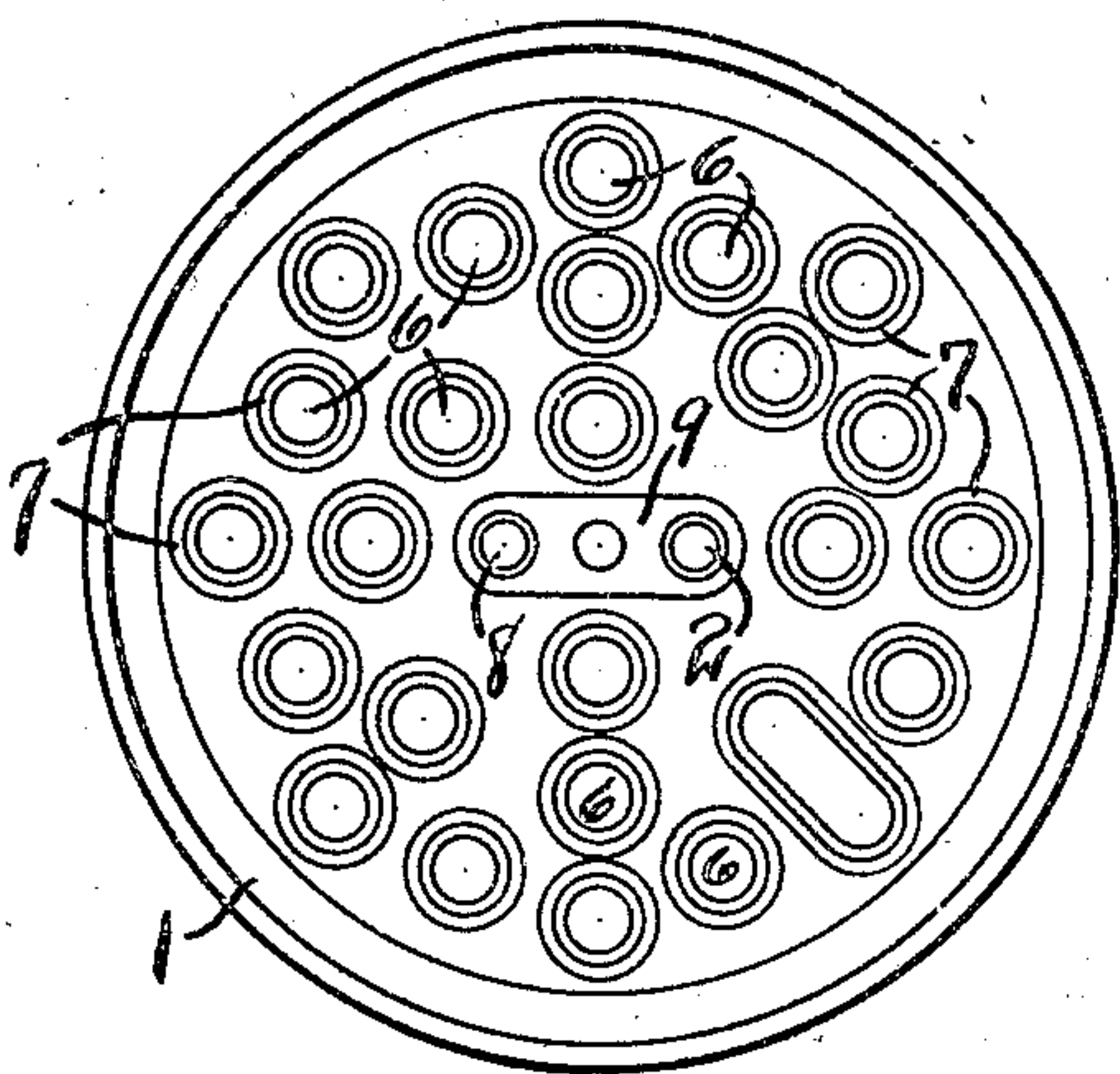


FIG. 2.



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UNITED STATES PATENT OFFICE.

HOWARD W. LOVETT, OF MIDLOTHIAN, TEXAS, ASSIGNOR OF FORTY-NINE ONE-HUNDREDTHS TO S. A. COWART, OF MIDLOTHIAN, TEXAS.

LIQUID-FUEL BURNER.

Application filed December 15, 1921. Serial No. 522,464.

To all whom it may concern:

Be it known that I, HOWARD W. LOVETT, a citizen of the United States of America, residing at Midlothian, in the county of Ellis and State of Texas, have invented certain new and useful Improvements in Liquid-Fuel Burners, of which the following is a specification.

My invention relates to liquid fuel burners and more particularly to burners for utilizing unrefined crude oil; and the object is to provide burners which can be manufactured at small cost and which can be installed readily in any heater, cook stove, or furnace for immediate use, and which can be used with any ordinary liquid fuel, such as kerosene oil and fuel oil and distillate and which will be highly efficient in cooking and heating. Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claims.

Reference is had to the accompanying drawings which form a part of this application.

Fig. 1 is a vertical section of the fuel pan provided with a spreader and pipe connections. Fig. 2 is a plan view of the fuel pan. Fig. 3 illustrates a style burner for a furnace, being provided with a hood for concentrating the heat on the object to be heated. Fig. 4 illustrates a form of fuel pan to be used in a cook stove. Fig. 5 illustrates the kind or form of burner for use in an open fire place.

Similar characters of reference are used to indicate the same parts throughout the several views.

The burner is provided with a fuel pan 1 which may be a metal casting or other suitable material, such as clay. A supply pipe 2 is to be connected with a fuel tank 3 for feeding fuel to the pan. This pipe 2 is provided with sight feed 4. A transparent globe 4 is mounted on the feed or supply pipe 5 which projects down into the globe so that the oil will not strike the sides and obscure the sight. The liquid fuel is fed to the pan 1 and will spread over the entire bottom. The pan 1 is provided with a plurality of openings 6 for admission of air for aiding combustion. The openings 6 are made in bosses or nipples 7 which project above the bottom so that oil will not flow out through the bottom of the pan. In case of too much

liquid fuel, an overflow pipe 8 is provided for taking care of the overflow which can be carried to any suitable receptacle. The overflow pipe 8 projects higher up above the bottom of the fuel pan than the supply pipe 2. The fuel pan 1 has an elevated portion 9 through which supply and overflow pipes project so that there will be no interference by oil or fuel in the fuel pan.

In the form of burner shown in Fig. 1, a spreader 10 is provided for use in spreading flame in a heater.

The burner shown in Fig. 3 is provided with a hood 11 for concentrating the flame or heat on an object to be heated.

The burner shown in Fig. 4 is provided with a deflector 12 for throwing the flame towards the front of a cook stove so that the flame will double back over the oven.

The burner shown in Fig. 5 is provided with a deflector 13 for throwing the flame towards the front and is also provided with a deflector 14, for throwing the flame back towards the chimney or flue.

The utility of this improved burner has been thoroughly demonstrated and is found to be highly efficient for the various purposes named above.

The projections 7 and the openings 6 may be of different design or form, as shown in Fig. 2.

What I claim, is,—

1. A liquid fuel burner comprising a fuel pan having an approximately level bottom and projections upstanding above the bottom and perforated for admission of air, said bottom having a raised portion in the central part thereof, supply and overflow pipes projected from below up through said raised portion, and means for feeding fuel through said supply pipe.

2. A liquid fuel burner comprising a fuel pan having an approximately level bottom and projections upstanding above the bottom and perforated for passage of air for aiding combustion, said bottom having a raised portion in the central part thereof, supply and overflow pipes projected through said raised portion, means for feeding fuel through said supply pipe, and means for deflecting the flame and heat rising from said fuel pan.

In testimony whereof, I set my hand, this 3rd day of December, 1921.

HOWARD W. LOVETT.