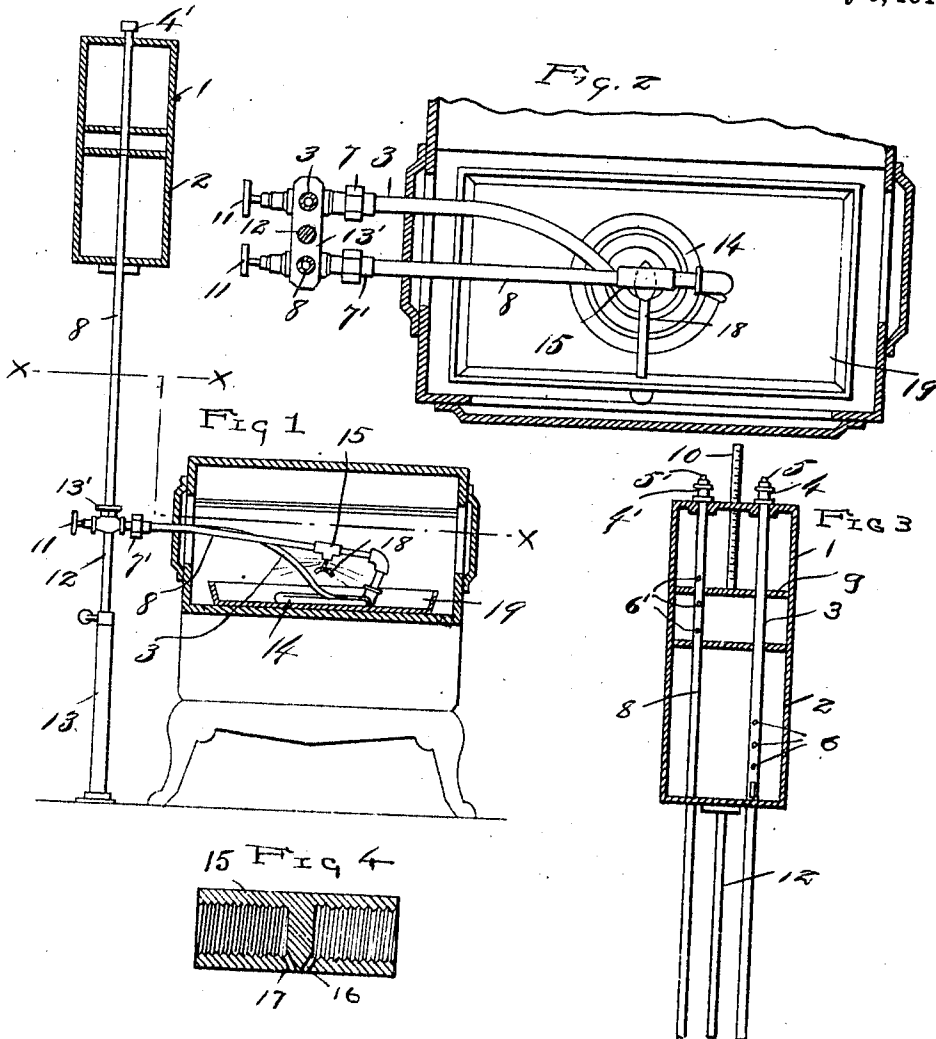


L. ALVERSON.
TANK FOR OIL BURNERS.
APPLICATION FILED MAR. 14, 1910.

992,102.

Patented May 9, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

LEWIS ALVERSON, OF FORT WORTH, TEXAS.

TANK FOR OIL-BURNERS.

992,102.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed March 14, 1910. Serial No. 549,324.

To all whom it may concern:

Be it known that I, LEWIS ALVERSON, a citizen of the United States, residing at Fort Worth, in the county of Tarrant and State of Texas, have invented certain new and useful Improvements in Tanks for Oil-Burners, of which the following is a specification.

My invention relates to apparatus for furnishing fuel to burners for stoves and heaters and more particularly to apparatus and devices for using crude oil or other liquid fuel and water for the purpose of combustion, and the object is to provide simple and inexpensive apparatus and devices for utilizing liquid fuel for cooking and heating purposes.

One of the advantages of this invention is that all the fuel is completely consumed and the stoves or heaters are not clogged with soot or unconsumed fuel.

Other objects and advantages will be fully explained in the following description and the invention will be more particularly pointed out in the claim.

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

Figure 1 is a vertical section of a stove and a vertical section of the fuel and water tanks, showing the fixtures for controlling the fuel and water and discharging the same. Fig. 2 is a horizontal section, taken substantially along the line $x-x$ of Fig. 1. Fig. 3 is a vertical section of the water and fuel tanks, showing the construction and arrangement of the pipes for receiving and discharging water and fuel. Fig. 4 is a longitudinal section of the mixer and burner nozzle, showing a slight variation in the construction of the burner.

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

A combined water and fuel tank is mounted near the stove or heater, the upper part 1 containing fuel and the lower part 2 containing water. A water pipe 3 runs through both compartments and is provided with a

plug 4 which can be removed for the purpose of filling the tank with water and this plug is provided with a check valve and a connection 5 for filling the tank above the water with compressed air. This pipe has perforations 6 through which the water will pass to fill the tank and also pass out for combustion purposes. The pipe 3 is provided with a union 7 for convenience in connecting and disconnecting with a stove or heater. A pipe 8 for receiving and discharging liquid fuel runs through both compartments and is provided with a plug 4', connection 5', perforations 6', and union 7', similar to pipe 3. A float 9 and gage 10 are provided for the oil tank so that the amount of oil or fuel in the tank can be determined. The pipes 3 and 8 are provided with feed regulating valves 11. The tanks are supported by the pipes 3 and 8 and by a pedestal 12 which is vertically adjustable in a socket 13. The pipes 3 and 8 and the pedestal are braced together by a bracket 13'. The pipe 3 has a coil 14 which extends around several times and the pipes 3 and 8 terminate in a union nozzle 15 into which they are screwed. The union nozzle has separate discharge openings 16 and 17 for the steam and fuel. A spreader 18 is provided and placed in the path of the discharged mixture so it will be spread to all parts of the fire box. An igniter pan 19 is provided for burning any fuel that may run through the pipe 8 into the fire box. As the water passes through the coil 14, it is converted into steam by the heat. The water and fuel are both kept under pressure and the steam and fuel are discharged with sufficient pressure or force to atomize the fuel by means of the steam.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is,—

The combination with an oil burner, of a tank having a water compartment and a liquid fuel compartment, a water pipe having a pipe connection and extending through said compartments and having perforations

therein within said water compartment and
connected to said burner, and a fuel pipe
having a pipe connection and extending
through said compartments and having per-
forations therein within said fuel compart-
ment and connected to said burner.

In testimony whereof, I set my hand in

the presence of two witnesses, this 4th day
of March, 1910.

LEWIS ALVERSON.

Witnesses:

A. L. JACKSON,
L. T. KNIGHT.