

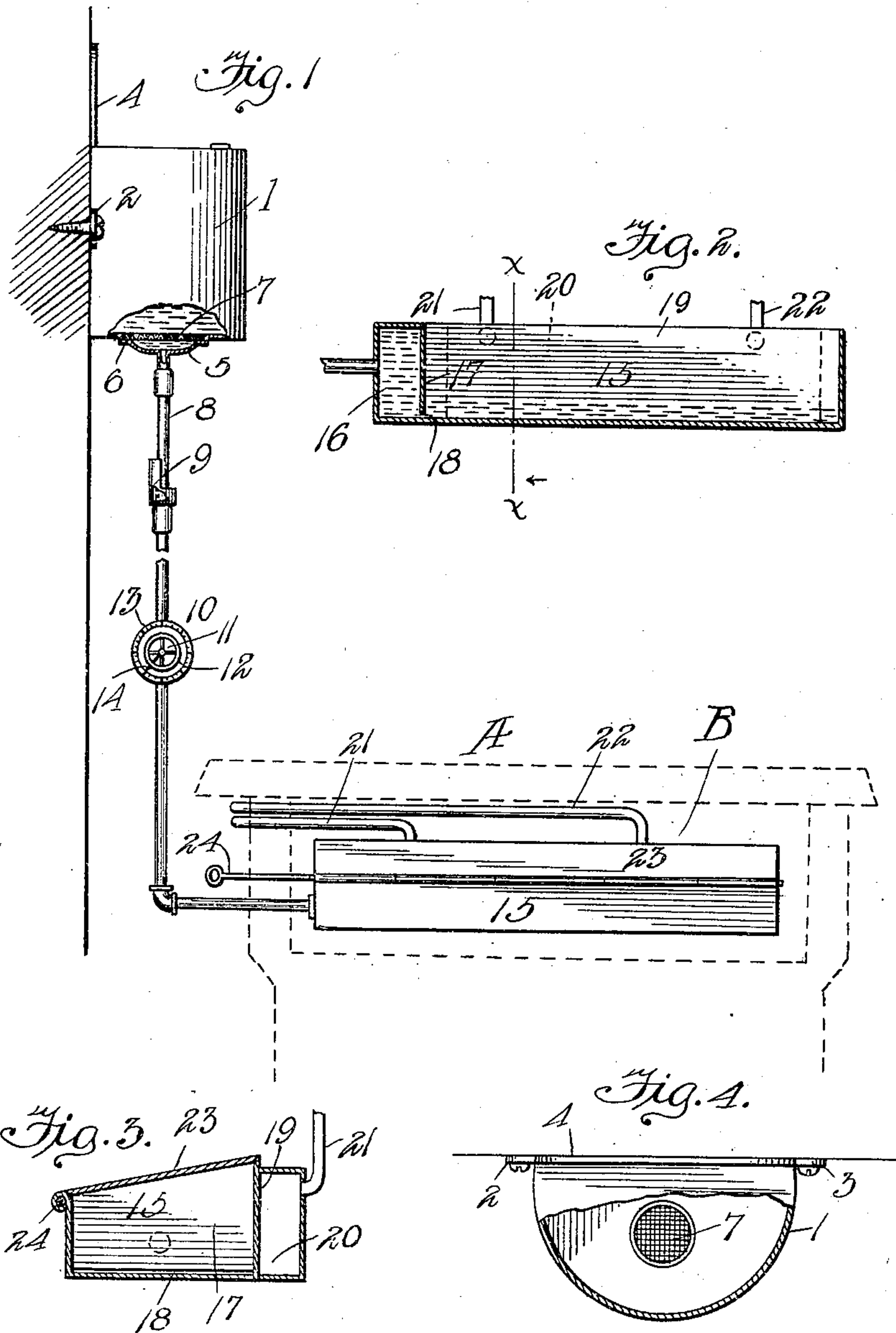
C. W. MITCHELL.

OIL BURNER.

APPLICATION FILED OCT. 23, 1909.

969,647.

Patented Sept. 6, 1910.



WITNESSES

G. M. Spring.
L. E. Barkley.
A. M. Luch

INVENTOR

Cliff W. Mitchell,
by Frank S. Appleman,
Attorney

UNITED STATES PATENT OFFICE.

CLIFF W. MITCHELL, OF FLOYDADA, TEXAS.

OIL-BURNER.

969,647.

Specification of Letters Patent.

Patented Sept. 6, 1910.

Application filed October 23, 1909. Serial No. 524,181.

To all whom it may concern:

Be it known that I, CLIFF W. MITCHELL, a citizen of the United States of America, and resident of Floydada, in the county of Floyd and State of Texas, have invented certain new and useful Improvements in Oil-Burners, of which the following is a specification.

This invention relates to oil burners and more particularly to that class of oil burners which are adapted to be applied to stoves of ordinary construction or which may be used for other purposes.

An object of my invention is to produce such a burner which will consist of few parts which parts may be easily assembled and inexpensive to manufacture.

Heretofore in burners of this character, difficulty has been met in producing a burner which would not clog when crude oil is burned and at the same time one which will be absolutely safe under all conditions.

It is a further object of my invention to overcome this difficulty and by the use of the oil pan constructed of few parts produce a burner which cannot be clogged by the impurities in crude oil, and the flame in which cannot possibly have access to the oil in the supply tank.

Furthermore, an object of my invention is to produce a burner which shall carry means adapted to heat water in a reservoir carried by the oil pan.

A still further object of my invention is to provide means which shall indicate the amount of oil being supplied to the burner without necessitating a removal of the stove cover in order to determine the size of the flame.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, in which—

Figure 1 illustrates a side elevation of my improved burner showing the stove in dotted outline; Fig. 2 illustrates a longitudinal section of the pan; Fig. 3 illustrates a cross section on the line X—X of Fig. 2; and Fig. 4 illustrates a top plan view partly in section of the fuel tank.

In carrying my invention into practice, I construct an oil tank 1 of any suitable size having one portion flattened in order that it may be hung to the side wall or other flat surface. Projecting from the sides of the tank 1 are ears 2 and 3 by which the tank may be secured to said wall. A protecting plate 4 is formed at the back of the tank and is adapted to lie flat against the wall in order to prevent oil from splashing upon said wall, when the tank is being filled. At the bottom of the tank is a depression or recess 5 having a seat 6 around its upper circumference adapted to receive a screen or filter 7 therein. The mesh of this screen may, of course, be adapted for oils of different densities and I preferably employ two screens of different sized mesh, the smaller to be used in summer while the one of larger mesh is to be employed in winter when the oil is cold and does not flow readily.

A pipe 8 extends downwardly from the bottom of the recess 5 and supported at a suitable point along said pipe is a cup 9, which is adapted to receive a small supply of oil which may be burned in said cup if the oil in the pipe 8 becomes frozen in cold weather.

Located at a suitable point in the pipe 8 is a stop-cock or valve 10 controlled by a spindle 11 upon which is fixed a hand wheel 12. This valve is of any usual construction and I do not wish to be limited to the exact form shown. Mounted upon the valve or the spindle thereof is a register in the form of a disk 13, the outer periphery of which is provided with suitable graduations. An indicator 14 is fixed to the valve spindle or to the wheel 12 and extends out over the graduations on the disk 13. When the wheel 12 is turned, thus opening the valve, the indicator 14 will travel over the graduations on the disk 13, thus showing exactly how much oil is being passed to the burner.

Upon the end of the pipe 8 and adapted to be inserted in the fire box B of a stove A, is an oil pan 15, which of course may be of any desired size, this depending altogether upon the size of the fire box in which it is to be used. I preferably construct this pan with one side slightly higher than the other but this is merely a matter of size as the shape of the pan is of no importance.

Formed at one end of the pan 15 is a chamber 16 into which the oil flows from the pipe 8, the inner side of said chamber

forming a partition 17 beneath which is a narrow slot 18 through which the oil may have access to the pan proper. It will be understood that this partition is to prevent the flames from the burning oil from reaching the inlet pipe. In this way the danger of explosion is entirely obviated. Extending longitudinally of the pan upon the high side thereof is another partition 19 which forms one side of a reservoir 20 which reservoir has inlet and outlet pipes 21 and 22 respectively connected thereto. These pipes may be connected to the water system in such manner as to provide a continual flow through the reservoir 20 thus heating all water passing through said reservoir.

Hinged on one side of the pan 15 is a lid 23 adapted to close said pan. By the use of this lid, the flames may be extinguished by cutting off the air supply thereto. A handle or rod 24 is connected to the lid 23 and may extend through the side of the stove in order that said lid may be controlled from the outside.

It will be seen from the foregoing that I have produced a very simple burner which is easily constructed and as the parts are few it cannot readily get out of order. At the same time, it is impossible to clog the burner portion and as the filter is easily removed, very impure oil may be used in it.

Moreover, my improved form of burner overcomes the danger heretofore present of

the flames reaching the oil before the said oil is free to burn thus causing an explosion.

I claim—

1. An oil burner comprising a tank, a supply pipe connected thereto and a receptacle on the end of said pipe, the receptacle having a partition forming a chamber into which the oil flows, the chamber having an integral top, the other part of the receptacle forming a pan, the partition being provided with an opening at the bottom whereby the oil flows from the chamber to the pan, a lid hinged to the pan, and a rod connected to the lid and forming part of the hinge whereby the lid may be operated outside of the stove.

2. An oil burner comprising a supply tank, a pipe connected thereto, a closed chamber on the end of said pipe, a pan connected to the side of the chamber, the chamber being provided with an opening whereby the oil is permitted to flow into the pan and keep the bottom thereof covered as the oil burns, and a lid hinged to the pan and adapted to cut off the atmosphere to the surface of the burning oil and thereby extinguish the flame.

In testimony whereof, I have affixed my signature in the presence of two witnesses.

CLIFF W. MITCHELL.

Witnesses:

A. L. LOVE,

E. L. MORRIS.