

F. D. STALFORD.
CRUDE OIL BURNER.
APPLICATION FILED SEPT. 7, 1908.

941,284.

Patented Nov. 23, 1909.

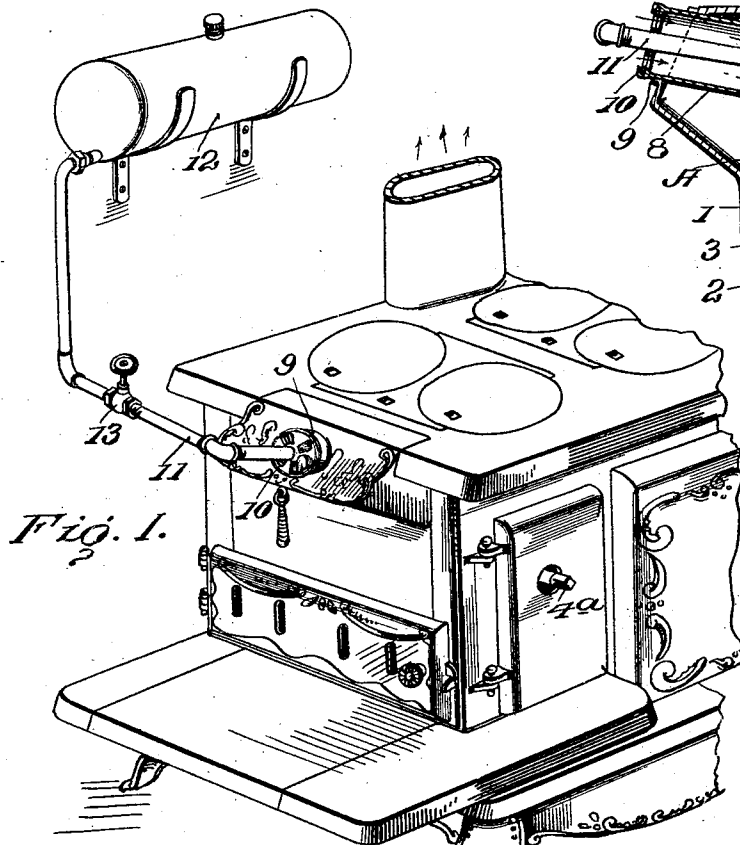


Fig. 1.

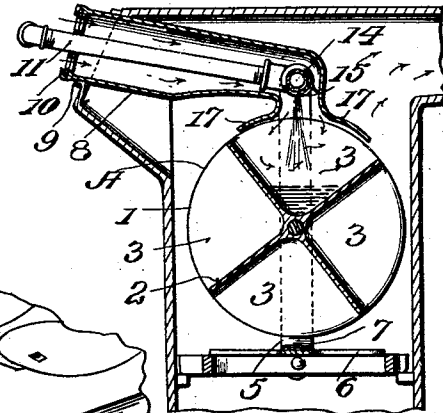


Fig. 3.

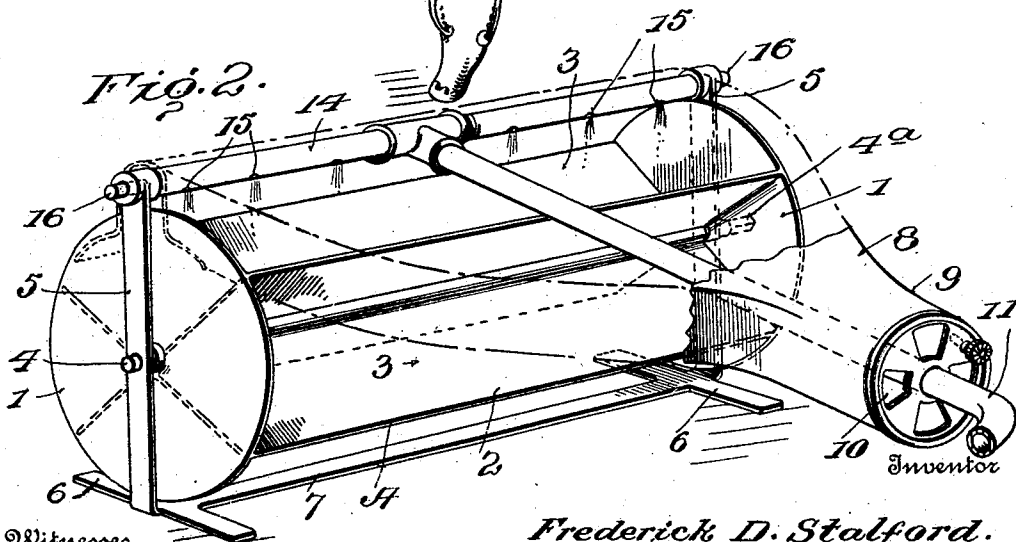


Fig. 2.

Witnesses
W. H. Woodson,
J. M. Gallin.

Frederick D. Stalford.

By

Handley, Attorneys.

UNITED STATES PATENT OFFICE.

FREDERICK D. STALFORD, OF FREDERICK, OKLAHOMA.

CRUDE-OIL BURNER.

941,284.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed September 7, 1909. Serial No. 516,340.

To all whom it may concern:

Be it known that I, FREDERICK D. STALFORD, citizen of the United States, residing at Frederick, in the county of Tillman and State of Oklahoma, have invented certain new and useful Improvements in Crude-Oil Burners, of which the following is a specification.

This invention comprehends certain new and useful improvements in burners for crude oil, or similar liquid fuels, and the invention has for its primary object a simple, durable and efficient construction of burner of this type which may be placed in the fire-pot of any ordinary stove, which in its operation will effectively consume the fuel and secure or produce a hot flame, and which will last a long time, as it embodies a plurality of troughs which may be moved to operative position one after the other, after one of the troughs becomes corroded.

With this and other objects in view as will more fully appear as the description proceeds, the invention consists in certain constructions and arrangements of parts that I shall hereinafter fully describe and claim.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings in which;

Figure 1 is a perspective view illustrating one application of my device; Fig. 2 is an enlarged perspective view of the burner; and Fig. 3 is a transverse sectional view thereof.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawings by the same reference characters.

My improved crude oil burner embodies a revoluble body portion A which comprises two preferably circular heads 1 and any desired number of preferably radial plates 2 secured at their side edges to the heads and arranged to form a plurality of troughs or pockets 3 in which the crude oil or similar liquid fuel is intended to be burned. The revoluble body portion A also includes a central longitudinal shaft which is journaled at its ends as indicated at 4 in bearings formed for it in standards or uprights 5 which form part of a supporting frame. This frame also includes laterally extending supporting feet 6 connected together by a cross bar 7, and is adapted to rest upon the

grate of a stove of any desired or conventional type.

8 designates an air induction hood. This is preferably provided with a tapering tubular neck 9 one end of which is formed with damper regulated openings 10 through which various amounts of air may be admitted into the interior of the hood, this portion of the device being preferably mounted in and protruding from the ordinary damper plate of a stove as best illustrated in Fig. 1. The end of the neck 9 is also formed with a central opening through which the fuel supply pipe 11 passes, said pipe being connected at one end to a tank 12 or any other suitable supply for the crude oil, the same being suspended from the wall of the room in which the stove is located or in any other desired way, and the pipe 11 being provided at any suitable point with a globe valve 13 or other controlling device. The opposite end of the supply pipe 11 has a cross arm or pipe 14 connected to it, the pipe 14 being provided with any desired number of downwardly facing orifices 15 through which the crude oil drops into the trough 3 which is uppermost. The pipe 14 is supported at its ends in the upper ends of the standards 5 as indicated at 16. Preferably the hood 8 is supported at one end by resting upon the pipe 14 and the hood is formed with oppositely extending outwardly flared flanges 17 designed to extend partially over and inclose the top of one of the pockets 3 in the operation of the device, so that the air passing into the pocket between the flanges will be retained therein sufficiently to become thoroughly commingled with the fuel dropping from the orifices 15 and thereby thoroughly promote combustion.

From the foregoing description in connection with the accompanying drawings, the operation of my improved crude oil burner will be apparent. In the practical use of the device it is supported on the grate of a kitchen range or other stove, as illustrated best in Fig. 3, and the revoluble body portion A is turned as by the projecting handle end 4^a of the shaft 4 so that one of the pockets 3 faces upwardly in juxtaposition to the discharge end of the hood 8. The oil is then permitted to flow and as it drops through the orifices 15 and is lighted will be met by the down draft of air passing into and

through the hood 8 so that the fuel and air will become thoroughly commingled and consumed with a minimum of residue. When, after a considerable time one of the pockets 3 becomes corroded, the revoluble member or body portion A may be turned so as to bring another pocket into an operative position.

It will be seen that I have provided a very simple device which may be cheaply manufactured and readily assembled and which will not be liable to get out of order.

Having thus described the invention, what is claimed as new is:

1. A burner of the character described, comprising a revoluble body portion provided with a plurality of pockets, a supporting frame adapted to rest on the grate of a stove and in which the revoluble body portion is mounted, a supply pipe for fuel including a cross arm supported in said frame work and formed with a plurality of downwardly facing orifices, and an air induction hood mounted on said supply pipe and formed at one end with air inlet openings.

2. A burner of the character described, comprising a frame work, a body portion mounted in said frame work and formed with a trough, a fuel supply pipe supported in the frame work and formed with a plurality of downwardly facing orifices, and an air induction hood formed with air inlet

openings and supported at one end on the supply pipe and formed with downwardly and outwardly flared flanges adapted to extend over said trough.

3. A burner of the character described, comprising a frame embodying vertically disposed standards, a revoluble body portion provided with a plurality of troughs or pockets, a shaft by which it is journaled in said standards, and a supply pipe including a cross arm supported in said standards above said shaft.

4. A burner of the character described, comprising a framework, a body portion mounted in said framework and formed with a trough, a supply pipe for fuel including a cross arm supported in said framework above the body portion, and an air induction hood supported at one end above said cross arm and having an opposite tapered end through which the supply pipe extends, and on which the tapered end of the hood is supported, the last named end of the hood being formed with damper controlled air inlet openings.

In testimony whereof I affix my signature in presence of two witnesses.

FREDERICK D. STALFORD. [L. s.]

Witnesses:

W. N. WOODSON,
FREDERICK S. STITT.