

J. A. DANIEL.
OIL BURNER.
APPLICATION FILED MAR. 18, 1911.

1,015,997.

Patented Jan. 30, 1912.

Fig. 1.

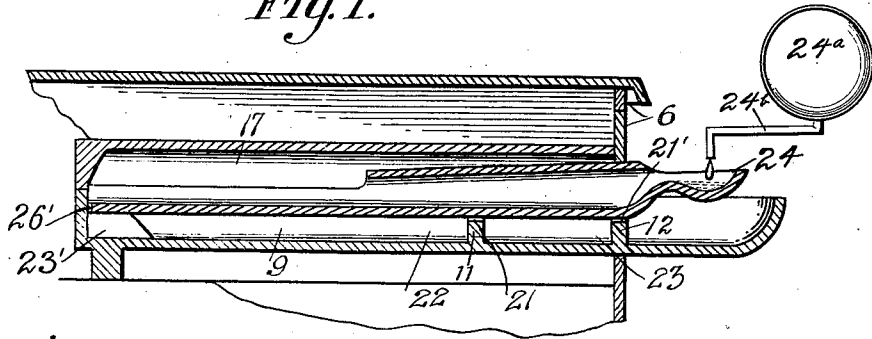


Fig. 2.

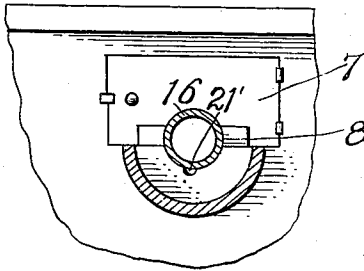


Fig. 3.

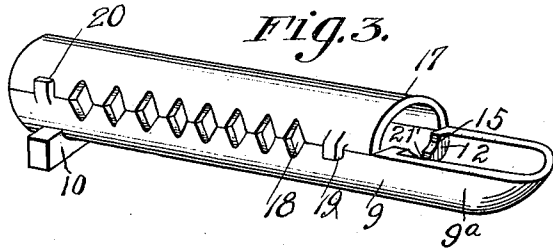


Fig. 4.

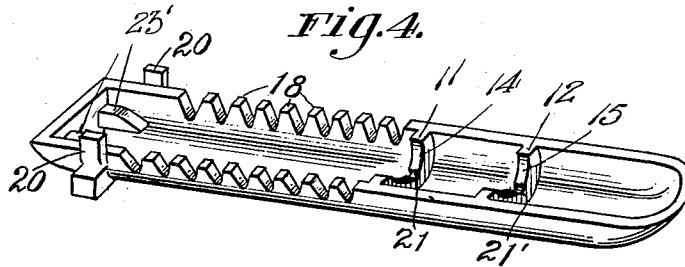


Fig. 5.

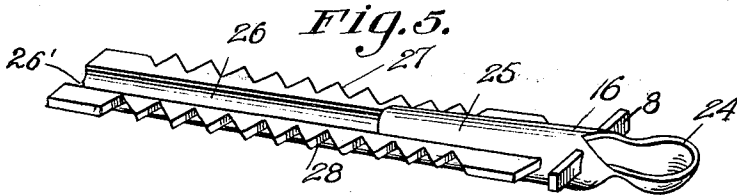
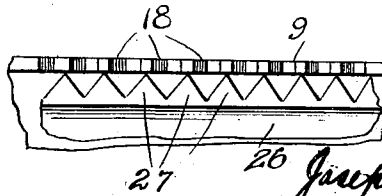


Fig. 6.



WITNESSES
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JOSEPH A. DANIEL, OF COMANCHE, TEXAS.

OIL-BURNER.

1,015,997.

Specification of Letters Patent.

Patented Jan. 30, 1912.

Application filed March 18, 1911. Serial No. 615,375.

To all whom it may concern:

Be it known that I, JOSEPH A. DANIEL, a citizen of the United States of America, and resident of Comanche, in the county of Comanche 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 stoves and furnaces and particularly to a burner for crude oil.

An object of this invention is to provide novel means for conveying oil from a point exteriorly of a stove and for heating the said oil in its travel therefrom to the interior of the stove where it is consumed.

A further object of this invention is to provide a conduit for the oil associated with a burner therefor, the said conduit being in such relation to the burner as to effect the heating of the oil in its transmission to the burner, provision being made for permitting the exit of flames from the side of the burner.

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, and in which—

Figure 1 illustrates a transverse sectional view of a portion of a stove with a burner applied thereto; Fig. 2 illustrates a view in elevation of a fragment of the stove with the lower member and trough of the burner in section; Fig. 3 illustrates a perspective view of the burner with the oil conducting trough omitted; Fig. 4 illustrates a perspective view of the lower member of the burner; Fig. 5 illustrates a perspective view of the trough and Fig. 6 is a fragmental detail plan view of the lower burner member and the trough assembled in operative relation.

In these drawings, 6 denotes a stove having a door 7 provided with an aperture to permit entrance of the flanges 27 and 28 of the trough 10; and the wings 8, of the trough, are adapted to normally close the said aperture.

The lower portion 9 of the burner is supported in the usual fire box of a stove by means of a lug 10 which is arranged on

the bottom of the said member 9 and projects from the sides thereof. The member 9 is provided with transversely disposed partitions 11 and 12, and the said partitions 11 and 12 are provided with recesses 14 and 15 respectively in their upper edges; the said recesses forming seats for the generator or trough 16 (hereinafter to be termed a trough) which conveys oil to the burner. The upper section 17 of the burner fits on the lower member 9 thereof, and together they form a cylindrical casing having apertures 18 formed by recessing the edges of the members 9 and 17 so that the recesses coincide as shown in Fig. 3. The member 17 is provided with an overhanging lug 19 which engages the side wall of the member 9 whereas the member 9 has an upwardly extending lug 20 which engages the side wall of the member 17 thus preventing disarrangement or displacement of one of the members with relation to the other. The partition 11 is of such shape, relative to the surface of the trough 16, that the port 21 is formed in the recess 14 and permits oil to flow over said partition from the compartment 22 to the compartment 23, of the said member 9. The interior of the member 9 is further provided with lugs 23' which are supports for one end of the trough, the other end of said trough being supported by the partitions 11 and 12.

The trough 16 has a bowl 24, at its outer end, which merges with the tubular portion 25. This tubular portion extends approximately midway of the said trough, the remaining portion of said trough being open at its top, and oil may flow rearwardly therethrough to the end thereof, where it is discharged between the lugs 23', from the aperture 26', into the lower burner member 9. The trough is further provided with lateral serrated flanges 27 and 28, which permit flame, which issues from the lower member 9 to pass up through the openings 18.

In using this oil burner, crude oil is supplied to the bowl 24 by any proper gradual and continuous means, such as the tank 24^a and pipe 24^b, and said oil flows along the trough into the lower burner member 9. While the oil is flowing down the trough it becomes heated, and combustion taking place in the compartment 22 is aided thereby. When the lower burner member 9 becomes filled above the level of the port 21 in partition 11 oil flows from the compart-

ment 22 and to the compartment 23, where combustion also takes place, so that the tubular portion of the trough is heated and raises the temperature of the oil passing therethrough. The outer portion 9^a of the lower member 9 serves as a receptacle for oil which may overflow laterally from the bowl, and delivers said oil through the port 21' into the chamber 23. The ports 21 and 21' also serve to relieve the compartment 22 of excess of oil, which may flow through said ports into the receptacle 9^a, from which it may be dipped or drawn out by any proper means.

I claim—

1. In an oil stove, a cylindrical burner comprising upper and lower burner members, the walls of which are provided with coinciding apertures, the said lower burner member having partitions therein with recesses in their upper edges, a trough seated in the recesses and partially supported by the partitions, and means in the lower burner member for supporting one end of the trough, one of the partitions having a port therein for permitting oil to flow from one compartment to the other of the lower burner member.

2. In an oil burner, a bottom burner mem-

ber having transversely disposed recessed partitions therein, an upper burner member supported on the edges of the first said burner member, the lateral edges of the said members having recesses which coincide to form openings when the burner members are assembled, the bottom burner member projecting forwardly beyond the upper burner member, a trough having a tubular portion intermediate its length seated in the recesses of the partitions, a bowl at the outer end of the trough to receive the oil, and serrated side flanges on the trough extending laterally into proximity with the inner walls of the burner members.

3. In an oil burner, two semi-cylindrical sections having their lateral edges in contact, said edges being recessed to form openings, a trough seated in one of said sections, said trough having a tubular portion intermediate its length, a bowl at its outer end to receive oil, a serrated flange on each of its sides, and a wing on each of said sides.

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

JOSEPH A. DANIEL.

Witnesses:

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