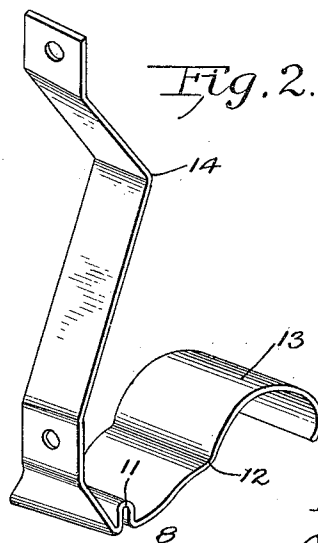
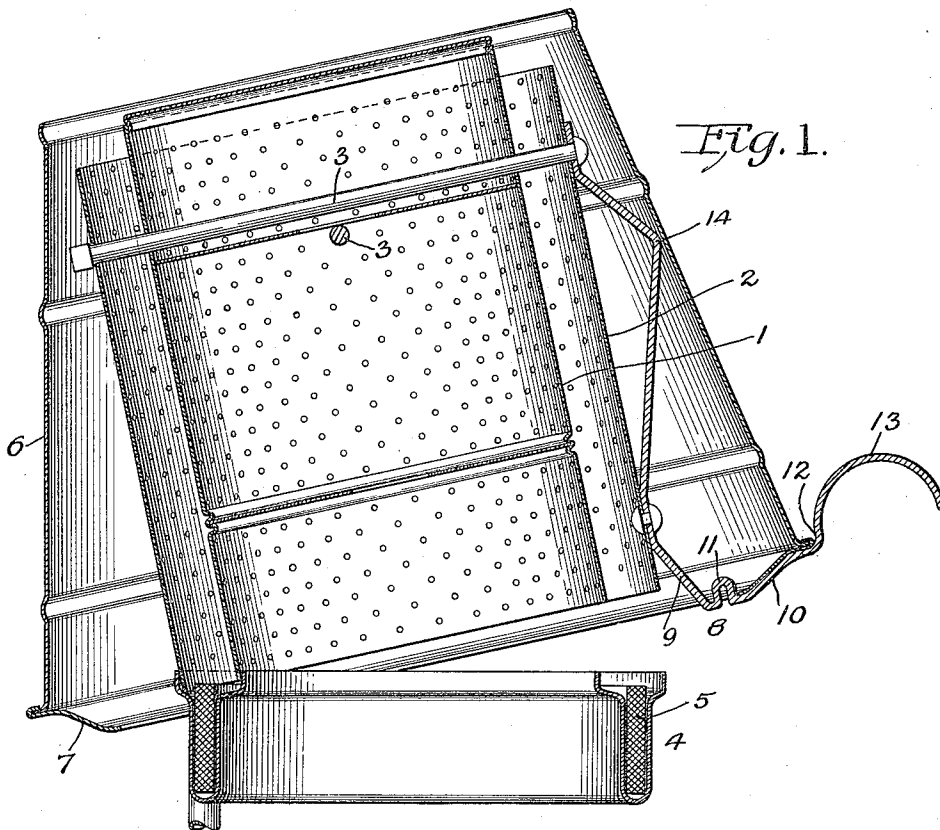


R. HOFFMAN.  
BLUE FLAME OIL BURNER.  
APPLICATION FILED MAY 5, 1915.

1,154,637.

Patented Sept. 28, 1915.



Witness:

J. C. Devick.

Inventor:

Rudolph Hoffman.

By Miller & Chindoke  
Atty.

# UNITED STATES PATENT OFFICE.

RUDOLPH HOFFMAN, OF CHICAGO HEIGHTS, ILLINOIS, ASSIGNOR TO SEARS, ROEBUCK AND COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF NEW YORK.

## BLUE-FLAME OIL-BURNER.

1,154,637.

Specification of Letters Patent. Patented Sept. 28, 1915.

Application filed May 5, 1915. Serial No. 25,878.

*To all whom it may concern:*

Be it known that I, RUDOLPH HOFFMAN, a citizen of the United States, residing at Chicago Heights, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Blue-Flame Oil-Burners, of which the following is a specification.

This invention relates to hydrocarbon burners of the type in which concentric up-right perforated combustion tubes are employed to produce a blue flame. The tubes are rigidly secured together and rest loosely upon a burner bowl containing a suitable wick. Surrounding the perforated tubes is a drum or chimney. When the burner is to be lighted the combustion tubes and the drum must be tilted to permit access to the wick. To support the drum and to permit of tilting the perforated tubes and the drum as a unit, it is necessary that there be some connection between the combustion tubes and the drum. It is, however, desirable that the drum be readily removable from the combustion tubes for convenience in cleaning or replacing any of the parts.

The object of this invention is to provide improved means whereby the combustion tubes and the drum may be tilted as a unit, although permitting the drum to be freely and easily withdrawn when desired.

In the accompanying drawings, Figure 1 is a vertical central sectional view through a burner embodying the features of my invention. Fig. 2 is a perspective view of one element of the construction.

In the drawings, 1 is the inner perforated combustion tube and 2 is the outer combustion tube. Said tubes may be of any preferred construction and may be rigidly secured together in any ordinary or desired manner. Herein, I have shown two pins 3 extending through both of the combustion tubes at right angles to each other, said pins serving to fasten the tubes rigidly together.

The combustion tubes 1 and 2 are adapted to be supported upon a burner bowl 4 which may be of any suitable construction.

5 indicates the wick.

The drum or chimney 6 may be of any desired form. Herein it is shown as being of generally frusto-conical shape, its lower larger end being provided with an annular inwardly extending flange 7. The drum 6 is supported concentrically with the tubes 1

and 2 by means of a bracket 8, said bracket comprising an arm or a portion 9 which is rigidly secured to the lower part of the outer combustion tube 2. The bracket 8 further comprises a portion 10 which is suitably shaped to serve as a seat or support for the flange 7. The flange 7 is prevented from shifting radially upon the portion 10 by means of the projection 11 and the bend 12.

13 is a handle portion formed integral with the bracket 8.

The means for supporting the drum 6 further comprises a spacer member 14 projecting outwardly from the combustion tube 2 at a point above the bracket 8, said projection being arranged to lie in contact with the inner surface of the drum. The projection 14 is herein shown as consisting of an angular piece of sheet-metal. If desired, the bracket 8 and the projection 14 may be formed of an integral piece of sheet-metal, as shown in the drawings.

When the burner is to be lighted, the operator lifts the handle 13, thereby tilting the combustion tubes and the drum into the position shown in Fig. 1. A match may then be conveniently applied to the wick 5 and the combustion tubes and drum returned to their normal position. If it be desirable to remove the drum for the purpose of cleaning it or the tubes 2, or for any other purpose, the drum may readily be lifted from its seat 10.

I claim as my invention:

1. An oil burner having, in combination, a combustion tube, a bracket secured to the lower portion of said tube, said bracket comprising a drum seat and a handle, a projection extending outwardly from said tube above said bracket, said bracket and projection being formed from an integral piece of sheet-metal, and a drum having an inwardly extending annular flange adapted to rest upon said seat, said drum being adapted to rest against said projection.

2. An oil burner having, in combination, a combustion tube, a bracket secured to the lower portion of said tube, said bracket comprising a drum-support and a handle, a drum adapted to rest upon said support, and supplemental means attached to the combustion tube for supporting the drum.

3. An oil burner having, in combination, a combustion tube, a bracket secured to the lower portion of said tube, said bracket com-

prising a drum-support and a handle, a drum adapted to rest upon said support, and supplemental means attached to one of the before-mentioned elements for supporting the drum.

4. An oil burner having, in combination, a perforated combustion tube, a bracket secured to the lower portion of the tube, said bracket comprising a drum seat and a handle, a projection extending outwardly from said tube above the bracket, said bracket and projection being formed from an integral piece of sheet-metal, and a drum mounted upon said seat and resting against the projection.

5. An oil burner having, in combination, a perforated combustion tube, an arm secured to the lower portion of the tube, a drum seat integral with the arm, a handle integral with the drum seat, a spacer integral with the arm and located above the drum seat, and a drum mounted on the seat and resting against the spacer.

6. An oil burner having, in combination, a perforated combustion tube, a drum seat secured to the lower portion of the tube, a drum resting loosely on the seat, the latter being adapted to prevent radial movement of the drum, and a spacer between the drum and the tube and connected to one of said

last mentioned two parts, said spacer being located above the drum seat.

7. An oil burner having, in combination, a perforated combustion tube, an arm secured to the lower portion of the tube, a drum seat connected to the arm, a handle connected to the drum seat, a drum having an inwardly-extending annular flange resting upon said seat, and means above the drum seat to space the drum from the tube.

8. An oil burner having, in combination, a perforated combustion tube, a drum seat secured to the tube, a drum resting loosely on the seat, and a spacer between the drum and the tube and connected to one of said last mentioned two parts, said spacer and drum seat being located one above the other.

9. An oil burner having, in combination, a perforated combustion tube, an arm secured to the lower portion of the tube, a drum seat connected to the arm, a handle connected to the drum seat, a drum on the drum seat, and means above the drum seat to space the drum from the tube.

In testimony whereof, I hereunto set my hand in the presence of two witnesses.

RUDOLPH HOFFMAN.

In the presence of—

FRED LANDSEA,

BERTHA ARKENBERG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."