

(No Model.)

2 Sheets—Sheet 1.

C. WHITTINGHAM.
OIL BURNER.

No. 528,314.

Patented Oct. 30, 1894.

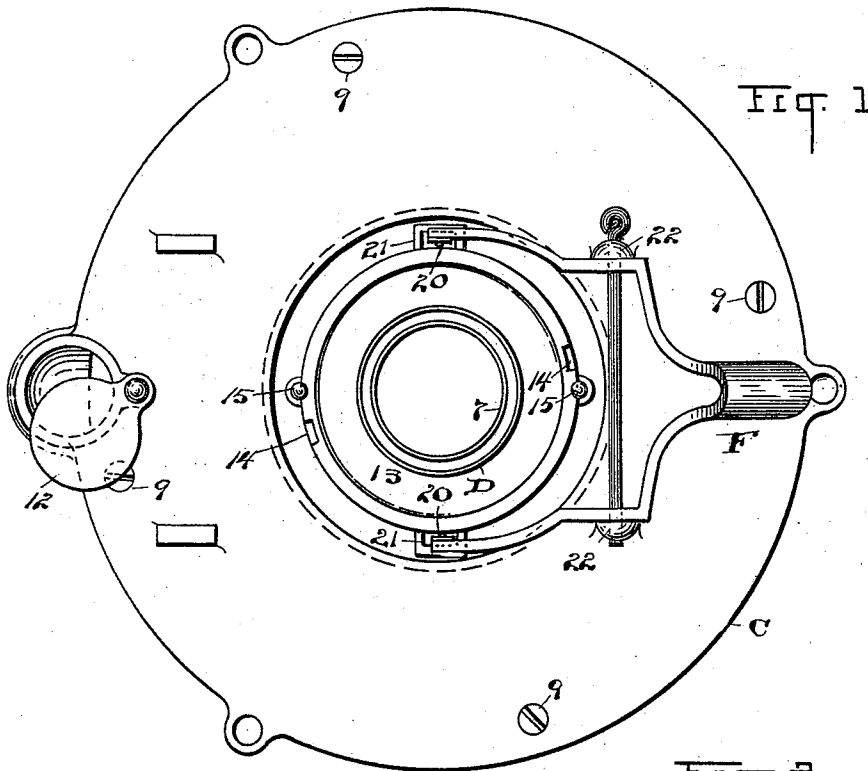
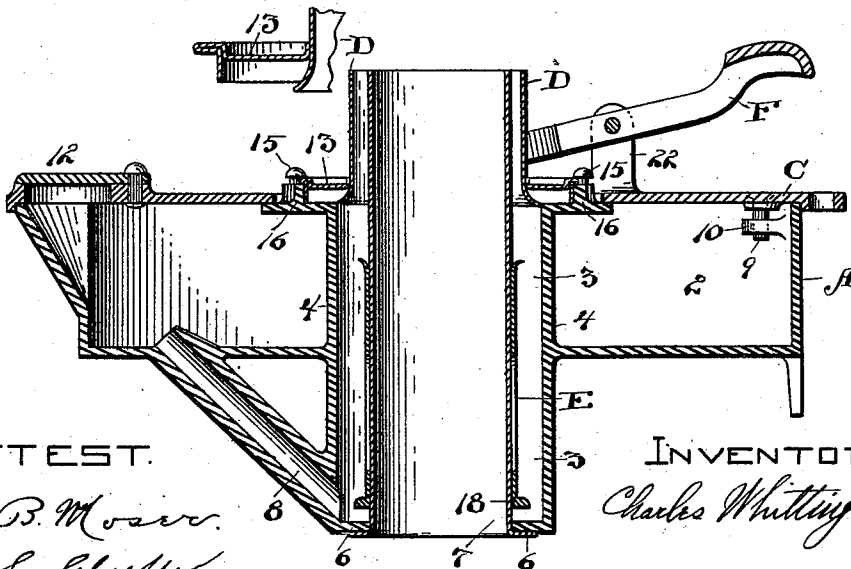


FIG. 1.



ATTEST.

R. B. Moore.
G. L. Scharffer.

INVENTOR

Charles Whittingham

By H. T. Fisher ATTORNEY.

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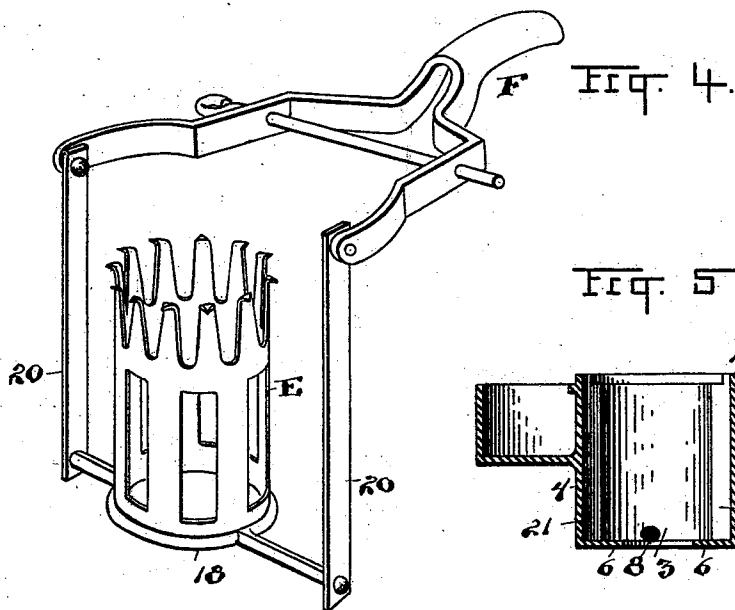
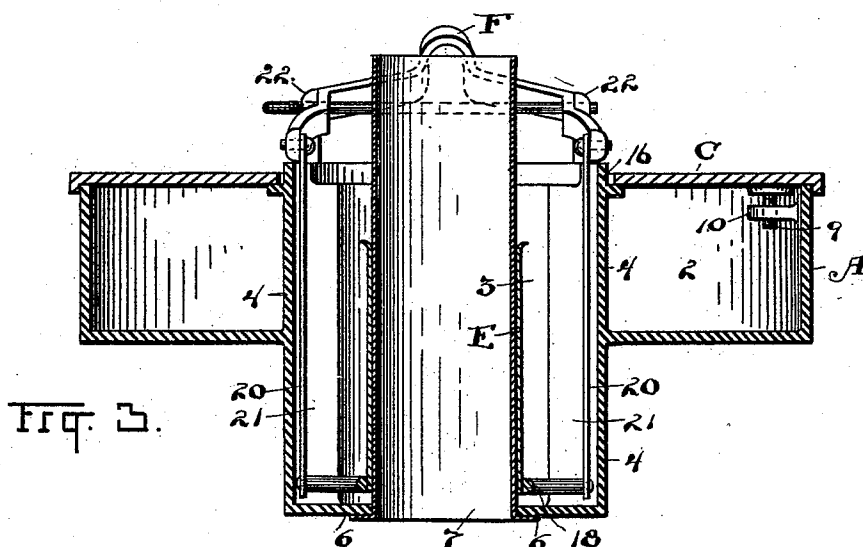
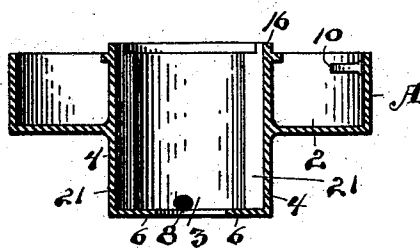


Fig. 5



ATTEST.

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UNITED STATES PATENT OFFICE.

CHARLES WHITTINGHAM, OF CLEVELAND, OHIO, ASSIGNOR TO THE
CLEVELAND FOUNDRY COMPANY, OF SAME PLACE.

OIL-BURNER.

SPECIFICATION forming part of Letters Patent No. 528,314, dated October 30, 1894.

Application filed July 16, 1894. Serial No. 517,637. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WHITTINGHAM, a citizen of the United States, residing at Cleveland, in the county Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Oil-Burners; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to oil burners, and the invention consists in the construction of a burner substantially as shown and described and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my improved burner. Fig. 2 is a central sectional elevation thereof on line 2, 2, Fig. 1. Fig. 3 is a central sectional elevation at right angles to Fig. 2, on line 4, 4, Fig. 1. Fig. 4 is a perspective view of the wick tube and the mechanism for raising and lowering the same. Fig. 5 is a vertical central sectional elevation of the body of the burner itself considerably reduced, as hereinafter more fully described.

The burners constructed according to this invention are designed to be of considerably more than ordinary size, that is, materially larger than ordinary lamps, and are adapted to be used for heating rooms as well as for other purposes where a large volume of heat is required. Hence, the demand for a large oil chamber or reservoir and perfect security in and about said chamber so far as possible danger from the oil, or gases generated therein are concerned. I have therefore devised a construction of burner which is absolutely secure so far as danger from overheating of the oil therein and the generation of gases or other dangerous experience in the use of the burner are concerned, and which, furthermore, affords a cheap, substantial and convenient article.

The body of the burner as thus designed and constructed consists in the part A shown in cross-section in Fig. 5. The entire structure, as seen in Fig. 5, is cast in a single piece and comprises the oil chamber —2—, the central well —3— extending down through the oil chamber and having the annular wall —4— about the inside thereof and projecting

below said chamber a distance substantially equal to the depth of said chamber. The lower extremity of said well has an outwardly extending annular flange —6— equal in depth to the oil and wick space which is formed between the wall —4— and the central air and burner tube —7—, which is soldered or otherwise hermetically and firmly secured to said flange —6— at its lower end. There is a single and comparatively small oil passage from the chamber —2— to the oil and wick space —3—, and this passage is through the inclined duct —8— from the bottom of the oil chamber to the bottom of well —3—, and said duct is drilled after the casting forming body A, as such, has been produced. There is, therefore, no communication between the oil and the wick chambers possible except through this duct or passage —8—, which is cast with the body A, and this duct is so located as to be wholly exempt from the heat of the burner.

The central fresh air and burner tube —7— extends some distance above the cover C of the burner. This cover is firmly screwed down upon the body A of the burner by a suitable number of screws —9— taking into internal ears —10— on said body, or by other equivalent means, and, if necessary, there may be packing introduced between the parts A and C so that the union will be hermetically tight, and it will be impossible for oil or gas to escape at this point if there were any danger whatever that this might occur or be a possible source of danger in the operation and use of the burner.

Oil is introduced to the oil chamber through an opening at one side thereof directly in line with the oil duct —8— and purposely having its outside edge flared so as to enable a tool to be introduced at the right inclination to drill the said duct. The said opening is closed by a closely fitting cover or cap —12—, or its equivalent.

A short tube D, which has a horizontal flange or apron —13— about its base, encircles the upper and exposed end of the air and draft tube —7—, and the wick space is continued between these two tubes and combustion occurs at the extremities of said tubes as usual. The said outer tube D covers the

wick chamber and well —3— by its flange —13—, and is conveniently removable from the body A by rotating it and bringing the notches —14— in the edges of its flange opposite the headed pins or projections —15— shown clearly in Fig. 2. When turned to the position shown in Fig. 1, the said sleeve D is held closely about its flanged edge upon and around within the annular upwardly extending rim —16— and serves to seal the wick chamber against the escape of vapor or gas at that point.

The wick tube proper, E, seen clearly in Fig. 4, serves the usual function of carrying the wick up and slides closely on the air and burner tube —7—. This tube E has a bridle —18— connected with its base or bottom, and side bars or links —20— fixed to said bridle and adapted to slide up and down in the vertical channels —21— formed on opposite sides in the base A. A bifurcated handle F is pivoted on posts —22— upon the cover C and connected with the upper ends of the said links —20—, and in this way the wick tube is easily and uniformly raised and lowered and adjusted, and the tube E fits so snugly upon the tube —7— that it will remain in any position to which it is adjusted without other means of holding it.

By detaching the handle F from its pivots on the cover the said handle and the wick tube E and their connections can be bodily lifted out and replaced without taking off the cover C, because the central opening in said

cover is large enough to enable this to be done. Of course in such case the flanged tube D is first removed.

Having thus described my invention, what I claim is—

1. The burner described having a central wall —4— and an air and burner tube inside of the same, thereby forming an intermediate wick space, in combination with a wick tube constructed to slide and engage frictionally on the said air and burner tube, a bridle fixed to the said wick tube, links —20— connected at each side with said bridle and a bifurcated pivoted lever connected with said links and serving to operate the wick tube, substantially as set forth.

2. The burner described consisting of the body A cast in a single piece and comprising the central vertical cylindrical wall —4— and the annular oil chamber about the top portion of the inner wall —4— and relatively of half the depth of said wall, a separate tube —7— fixed to the bottom of the wall —4— and set apart therefrom and extending above said wall, an oil duct from the bottom of the oil chamber to the chamber between wall —4— and tube —7—, a cover for the oil chamber and a wick tube and means to operate the same, substantially as set forth.

CHARLES WHITTINGHAM.

Witnesses:

H. T. FISHER,

GEORGIA SCHAEFFER.