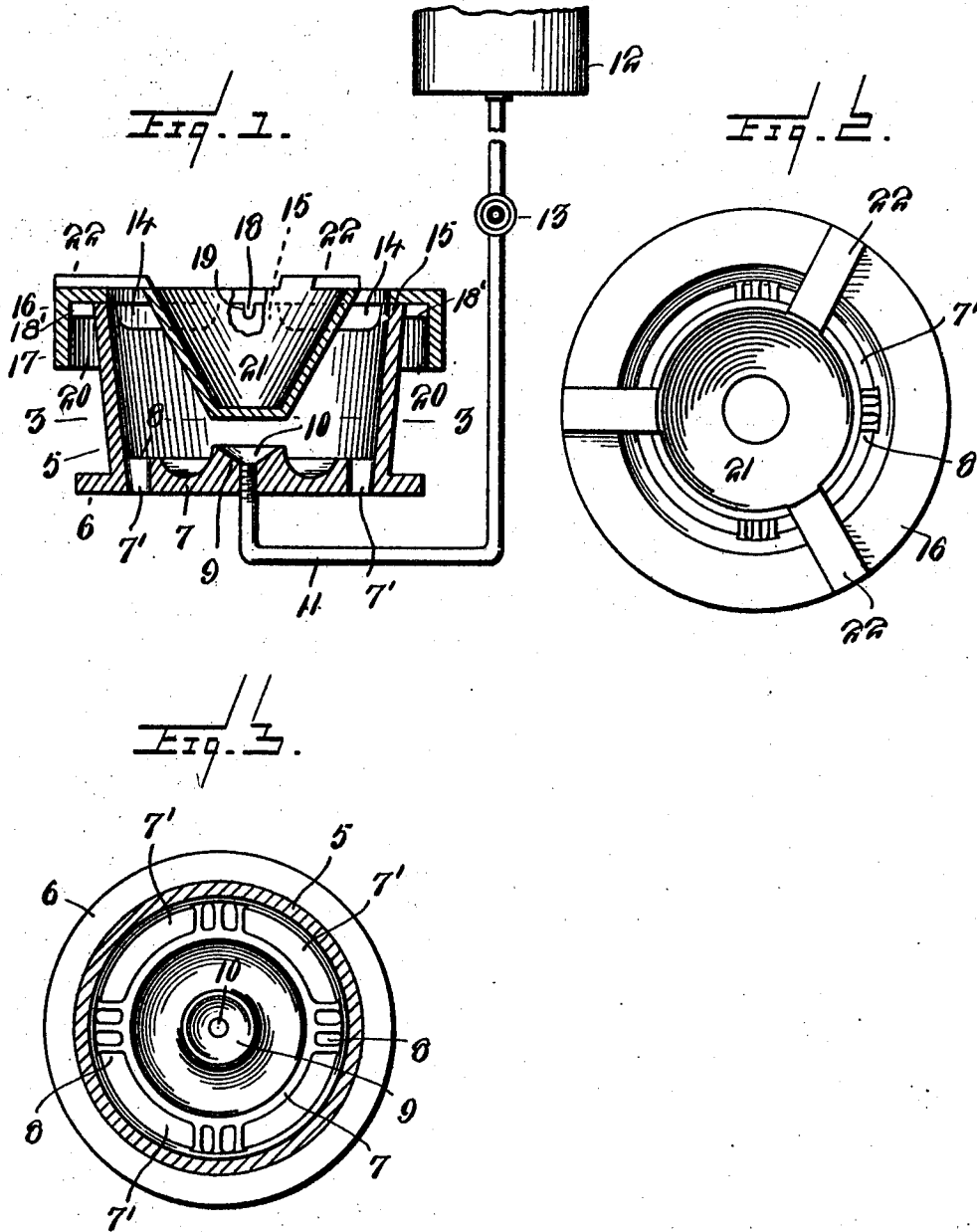


E. C. SEXTON & C. E. JACKSON.
OIL BURNER.

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EDWIN C. SEXTON, OF WICHITA, AND CHARLES E. JACKSON, OF MINNEAPOLIS,
KANSAS.

OIL-BURNER.

1,031,473.

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To all whom it may concern:

Be it known that we, EDWIN C. SEXTON and CHARLES E. JACKSON, citizens of the United States, residing, respectively, at
5 Wichita, Sedgwick county, and Minneapolis, in the county of Ottawa, State of Kansas, have invented new and useful Improvements in Oil-Burners, of which the following is a specification.

10 This invention relates more particularly to the class of crude and fuel oil burners which are adapted to be applied to heating stoves, furnaces and cooking stoves when the
15 grates of the latter have been removed and the principal object of the invention is to provide a lateral draft in connection with the usual vertical drafts which will more effectively produce a flame which will be
20 freed from the products of combustion by the said lateral draft.

In carrying out the object of the invention generally stated above, it will be understood, of course, that essential features thereof are necessarily susceptible to changes
25 in details and structural arrangements, one preferred and practical embodiment being shown in the accompanying drawings wherein:—

Figure 1 is a vertical sectional view of a
30 burner particularly adapted to be used in a heating stove. Fig. 2 is a top plan view of the burner illustrated in Fig. 1. Fig. 3 is a sectional view on the line 3—3 of Fig. 1.

Referring to the accompanying drawings
35 by numerals it will be seen that the burner which is adapted to be applied to a heating stove comprises a circular body 5 having at its lower end an annular flange 6, said flange being adapted to support said body when
40 the same is seated within the stove. A generating pan 7 is located in the lower end of the body 5 spaced from the walls thereof to provide vertical air passages 7' and connected thereto by a plurality of apertured
45 webs 8 formed integrally with said body and said pan.

Centrally located in the generating pan 7 is a raised oil cup 9 provided with a central opening 10, in which a feed pipe 11 is
50 attached. The feed pipe 11 extends from beneath the body 5 and is suitably connected to an oil reservoir 12, said pipe having a regulating valve 13 therein for regulating the flow of oil into the oil cup 9 and
55 the generating pan 7.

The wall of the body 5 is provided at its top with a plurality of elongated cut-out portions 14 which are spaced to provide a number of raised shoulders 15. An annular cap 16 having a depending flange 17 is
60 adapted to rest upon the shoulders 15 and said cap is provided on its inner surface with a depending lug 18 which is adapted to engage in a notch 19 formed on the upper edge of one of the shoulders 15 in order to
65 prevent rotation of said cap when in position. Spacing lugs 18' are also carried by the cap 16 and are adapted to engage the body 5 for preventing lateral movement of said cap. The inner walls of the flange
70 17 and the horizontal portion of the annular cap 16 form angular air passages 20 in conjunction with the cut-out portions 14 of the wall of the body 5. A substantial frusto-conical shaped hollow deflecting
75 plate 21 is seated within the body 5 directly over the generating pan 7 therein by means of a plurality of elongated laterally extending lugs 22 which are adapted to engage the upper surface of the annular cap 16.
80

When a predetermined amount of oil has been fed into the generating pan 7 and the same is ignited, the air which enters the body through the vertical passages 7' mixes with the products of combustion and tends
85 to produce a flame having a greater degree of heat. However it has been found in practice that by providing the additional angular air passages 20 the air entering through the said passages will mix with the
90 products of combustion which have not been at first consumed and thus produce a flame which has the greatest efficiency of products of combustion and which will leave no residue. The heat from the flame will pass
95 from the burner between the deflector plate 21 and the wall of the body 5 thus being distributed evenly throughout the stove.

From the foregoing description it will be obvious that a burner has been provided in
100 which the flame therein is freed from the products of combustion and thereby caused to produce the greatest amount of heat possible.

Having thus described our invention, what
105 we claim as new is:—

1. An oil burner comprising a body, said body being provided at its top with a plurality of cut-out portions, shoulders formed
110 by said cut-out portions, an annular cap

having a depending flange resting upon said shoulders, means carried by said cap and engaging one of said shoulders for preventing rotation of said cap, a generating pan in
5 said body, and a deflector plate supported by said cap.

2. An oil burner comprising a body having a plurality of spaced cut-out portions at the top thereof, shoulders formed by said
10 cut-out portions, an annular cap having a depending flange resting upon said shoulders, the inner walls of said cap and flange providing angular air passages which communicate with said cut-out portions, a gen-
15 erating pan in said body and spaced from

the inner wall thereof to provide vertical air passages, and a deflector plate mounted in said body over said generating pan.

In testimony whereof we affix our signatures in presence of two witnesses.

EDWIN C. SEXTON.

CHARLES E. JACKSON.

Witnesses to Edwin C. Sexton's signature:

L. W. BEATTY,
C. W. BEATTY.

Witnesses to Charles E. Jackson's signature:

L. A. HOWES,
LEE JACKSON.

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