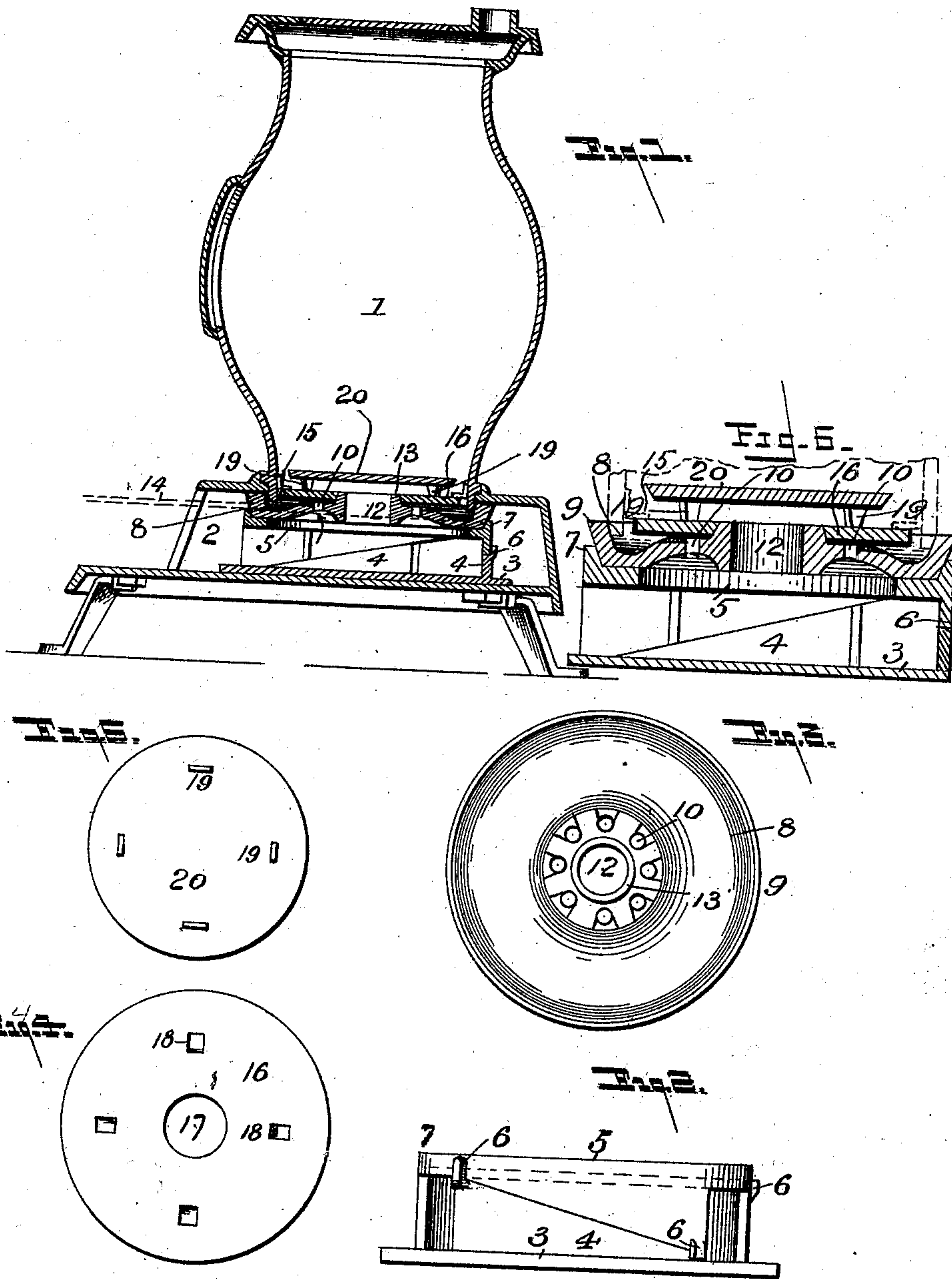


(No Model.)

J. D. FOSTER & C. A. HAMMEL.  
OIL STOVE.

No. 505,245.

Patented Sept. 19, 1893.



WITNESSES  
J. L. O'Rand  
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# UNITED STATES PATENT OFFICE.

JAMES D. FOSTER, OF IRONTON, AND CHARLES A. HAMMEL, OF FINDLAY,  
OHIO.

## OIL-STOVE.

SPECIFICATION forming part of Letters Patent No. 505,245, dated September 19, 1893.

Application filed June 5, 1893. Serial No. 476,597. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES D. FOSTER, of Ironton, in the county of Lawrence, and CHARLES A. HAMMEL, of Findlay, in the  
5 county of Hancock, State of Ohio, have invented certain new and useful Improvements in Oil-Stoves; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others  
10 skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

15 Our invention relates to improvements in stoves or heaters, which burn hydro-carbon oils, or other similar liquid fuel.

The object of the invention is to provide an improved construction of the same whereby a  
20 very high degree of temperature is attained.

Our invention consists in the novel construction and combination of parts, hereinafter fully described and claimed.

25 In the accompanying drawings, Figure 1, is a central longitudinal sectional view of a heating stove, constructed in accordance with our invention. Figs. 2, 3, 4 and 5, are detail views of parts of the burner. Fig. 6 is an enlarged vertical sectional view of the burner.

30 In the said drawings, the reference numeral 1, designates the fire pot, and 2 the ash pit or box.

In the present instance we have shown what is known as an egg stove, although any other  
35 form may be employed in connection with the invention.

40 Located in the ash pit or box is a rectangular plate 3, which is removable therefrom. On its upper side this plate is formed with a series of beveled segments 4, which form inclined ways for similar segments arranged on the under side of an annulus or ring 5, the arrangement being such that when said annulus is rotated in one direction it will be  
45 elevated, and when rotated in the opposite direction it will be lowered. Lugs 6, are secured to the lower segments to prevent lateral displacement of the annulus. The annulus is also provided with an upwardly extending flange 7. Seated upon this annulus  
50 and held in place by said flange is a concavo-convex oil receptacle 8, provided with an up-

wardly extending peripheral flange, 9. It is also formed with a number of openings 10, to admit air for supporting combustion. This  
55 receptacle is also formed with a central opening 12, and a boss 13.

The numeral 14, designates a pipe leading from an oil reservoir or tank to said receptacle.  
60

Located in the lower part of the fire pot 1, and secured thereto by means of lugs 15, is a disk 16, having a central opening 17, to receive the upper end of boss 13. This disk is  
65 somewhat smaller in diameter than the fire pot, and on its upper side is formed with a number of depressions or recesses 18, to receive legs 19, of a circular plate 20 which is thus supported above said disk.

The operation is as follows: The plate, 3, 70 the annulus and the oil receptacle are inserted in the ash-pit or box, and the annulus rotated so as to elevate it and cause the oil receptacle to abut against the lower edge of the fire-pot. Oil is now turned on and ignited  
75 in the said receptacle, the openings 10, admitting the necessary air to insure combustion. The flames and products of combustion will escape upwardly around the periphery of disk 16, when they will meet and combine with  
80 a current of air coming in through the central opening in 12, and boss 13, which air-current is deflected toward the periphery by the plate 20. By this means an intense heat is created, and the temperature of the fire pot  
85 is raised to a very high degree. It will be noted that the flange of the oil receptacle engages with the outside of the fire pot, so that any oil splashed upon the sides of the latter will be caught by said receptacle, instead of  
90 falling down into the ash-pit.

While we have shown the inclined or beveled segments as the means of elevating the oil receptacle, we do not wish to be confined thereto, as other devices may be employed  
95 for effecting the same object. By rotating the annulus in a reverse direction the oil-receptacle can be lowered and removed from the stove for cleaning and other purposes.

Having thus described our invention, what  
100 we claim is—

1. An oil burner for an oil burning stove, consisting of an oil receptacle having a central opening, and a boss, a series of air open-

ings outside of said boss, a disk located above said oil receptacle having a central opening with which said boss engages, and a deflecting plate, substantially as described.

5 2. In an oil burning stove, the combination with the fire pot, of the flanged oil receptacle having a central opening and a boss, a series of openings outside of said boss, a disk located above said oil receptacle having a central  
10 opening with which said boss engages, a deflecting plate, and means for elevating and lowering said oil receptacle, substantially as described.

15 3. In an oil burning stove, the combination with the fire pot and ash-pit, of the plate lo-

cated in the ash-pit, provided with a series of beveled segments, the rotatable annulus having similar segments engaging therewith, and formed with a peripheral flange, the oil receptacle having air openings and a central  
20 opening and boss and the disk and deflecting plate, substantially as described.

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

JAMES D. FOSTER.  
CHARLES A. HAMMEL.

Witnesses:

BENJ. G. COWL,  
MYER COHEN.