

No. 883,621.

PATENTED MAR. 31, 1908.

J. N. CARTER.

CRUDE OIL BURNER.

APPLICATION FILED MAY 8, 1907.

Fig. 1.

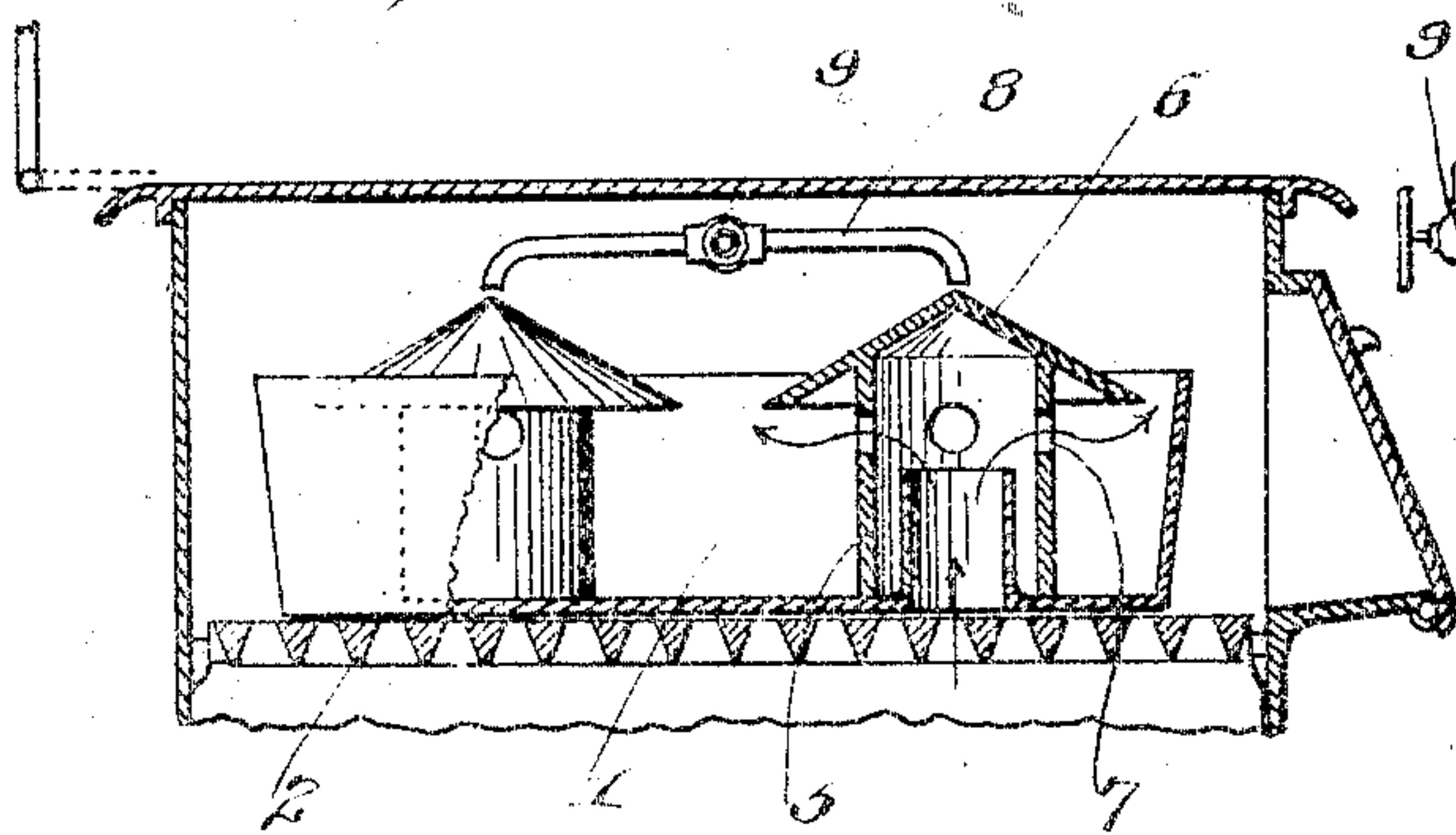


Fig. 2.

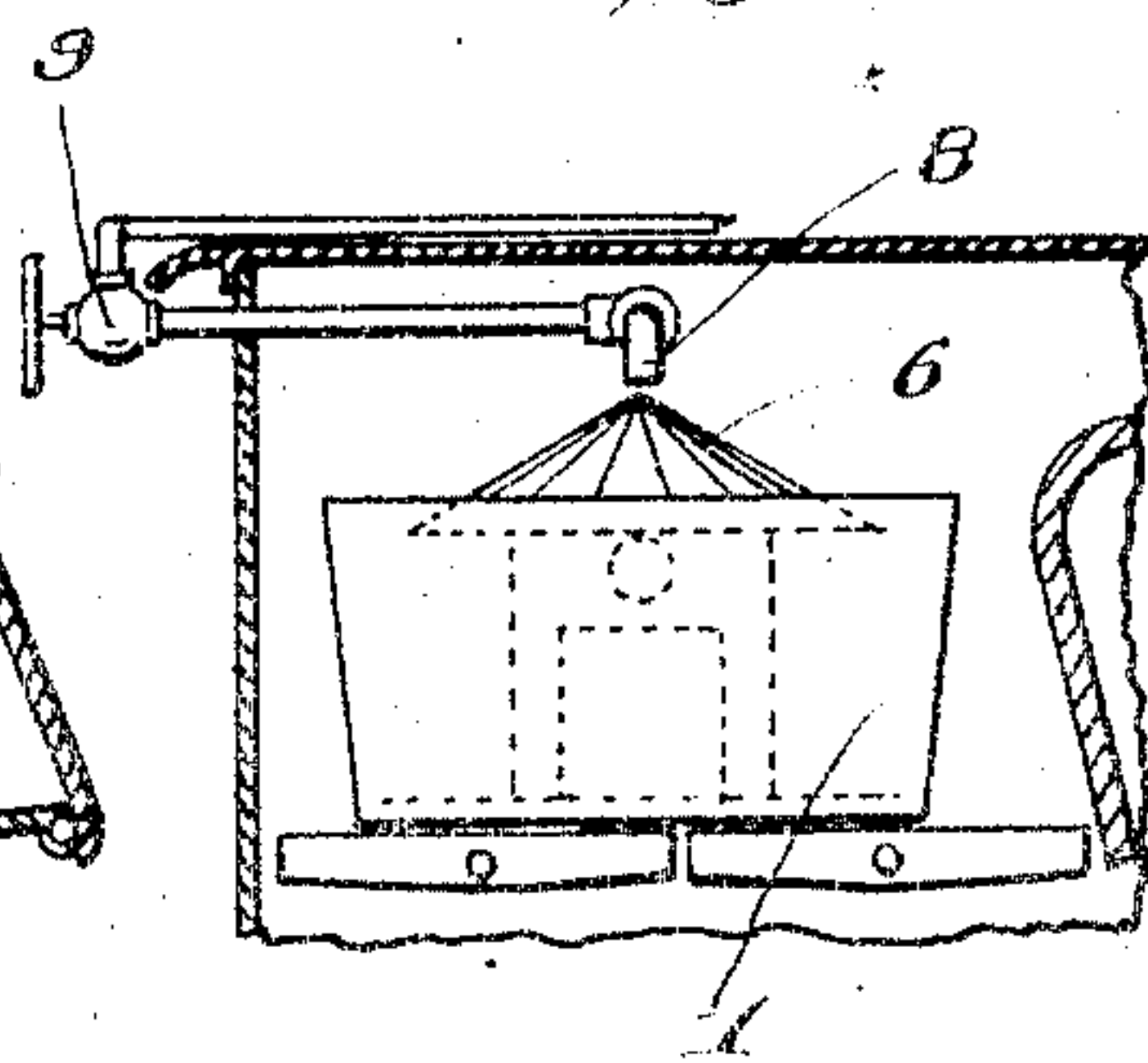


Fig. 3.

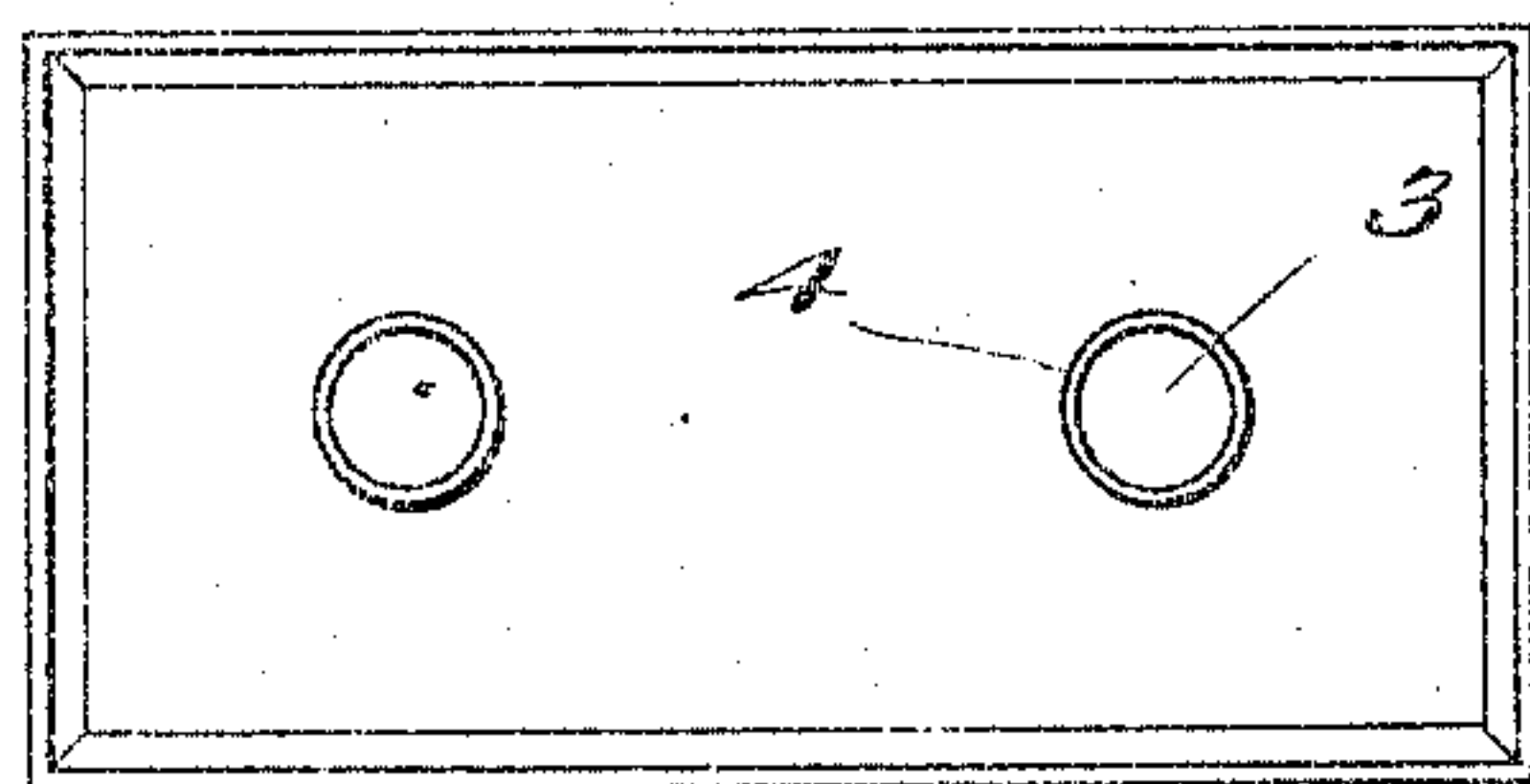


Fig. 4.

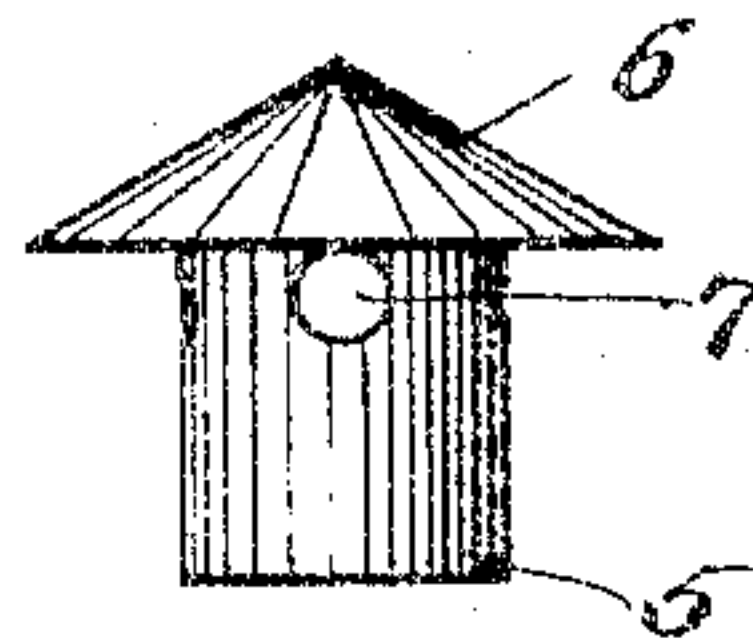


Fig. 5.

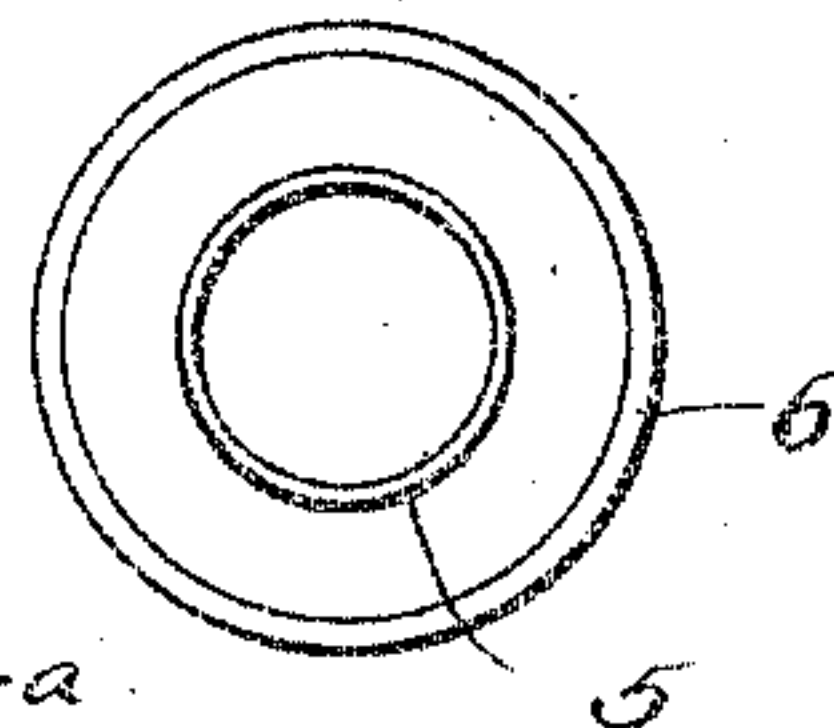


Fig. 6.

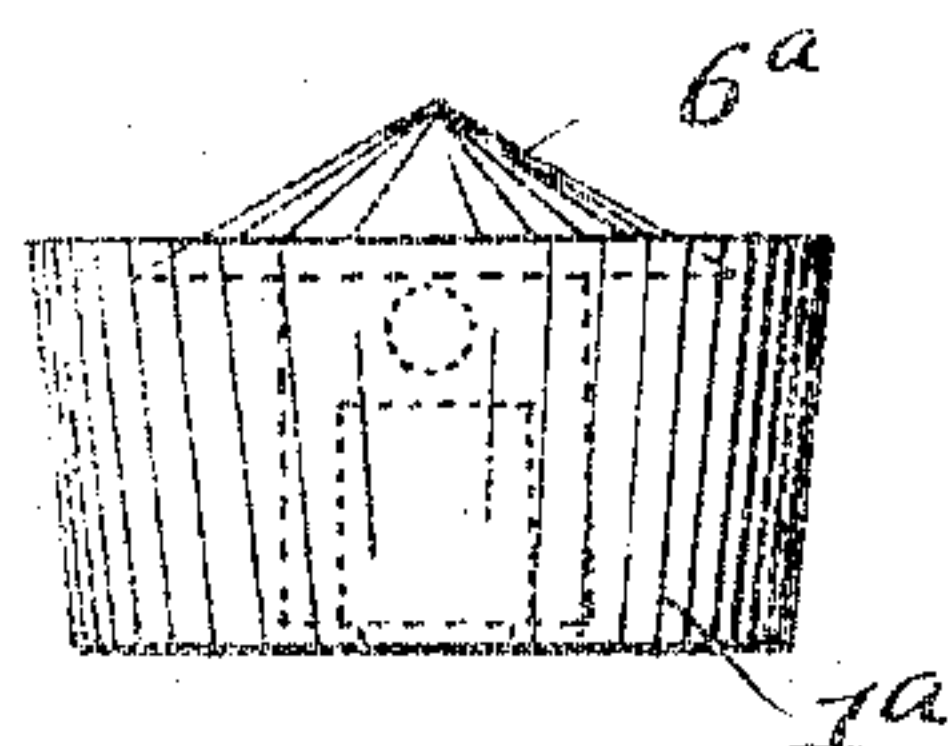
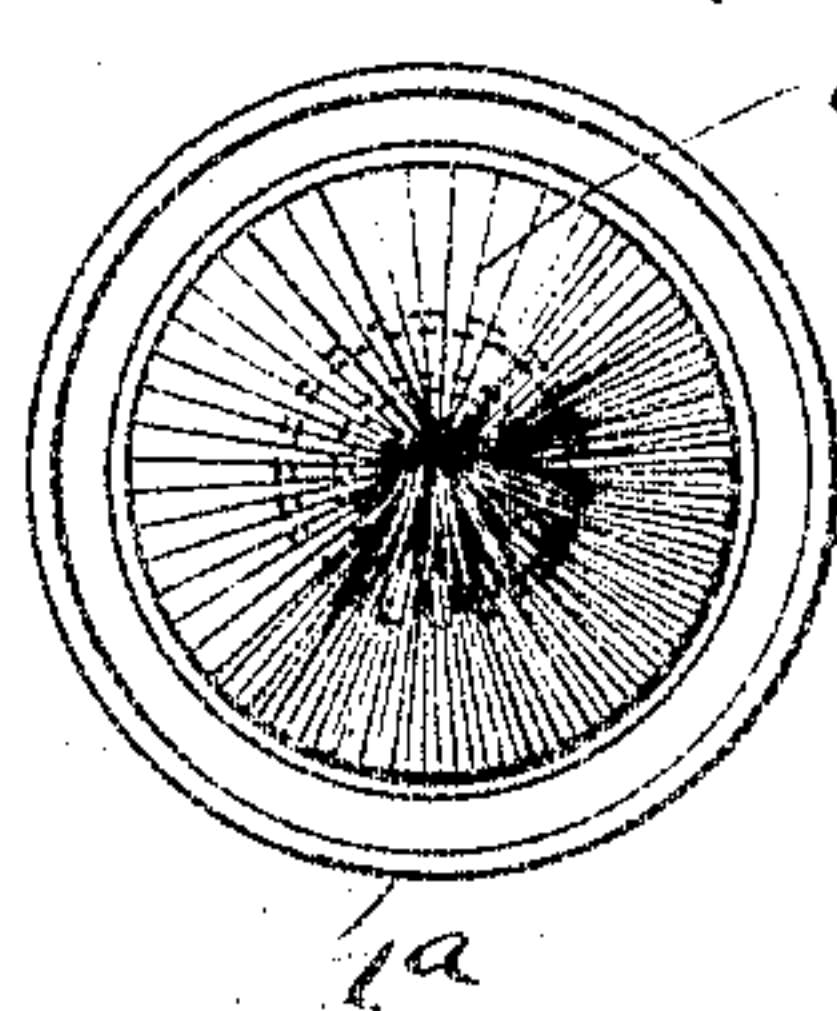


Fig. 7.



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Inventor

Witnesses:

J. N. Carter
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UNITED STATES PATENT OFFICE.

JOHN N. CARTER, OF WICHITA, KANSAS.

CRUDE-OIL BURNER.

No. 883,621.

Specification of Letters Patent.

Patented March 31, 1908.

Application filed May 8, 1907. Serial No. 372,535.

To all whom it may concern:

Be it known that I, JOHN N. CARTER, citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Crude-Oil Burners, of which the following is a specification.

This invention contemplates certain new and useful improvements in liquid and gaseous fuel burners, and the invention has for its object an improved construction of crude oil burner which is adapted to generate the gas from a hydrocarbon oil, and which will be simple and durable in construction and efficient in operation, and capable of being readily applied to any of the ordinary forms of stoves, to take the place of coal or other solid fuel.

With this and other objects in view as will more fully appear as the description proceeds, the invention consists of certain constructions and arrangements and combinations of the parts hereinafter described and claimed.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side elevation of my improved crude oil burner, showing it mounted in the fire pot of the stove, part of the trough being broken away and other parts in section, to better illustrate the interior construction. Fig. 2 is an end view of the device. Fig. 3 is a top plan view of the trough or reservoir, the cones being omitted. Fig. 4 is a detail side elevation of one of the cones and its supporting sleeve. Fig. 5 is a bottom plan view thereof. Figs. 6 and 7 are side elevation and top plan views, respectively, of a modified construction.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

That form of my invention illustrated in Fig. 1, is a double burner and comprises a trough or reservoir 1 adapted to be inserted in the fire pot of a stove and supported therein in any desired manner, as upon the grate 2. The said trough 1 is provided with bottom openings 3 that are surrounded by upwardly extending tubes 4. Sleeves 5 sur-

round the respective tubes 4 and rest removably upon the bottom of the trough 1 and to the upper edge of each sleeve a cone 6 is secured. The sleeve 5 is preferably spaced from the tube 4 and is formed near its upper edge with a series of orifices 7 above the upper edge of the tube 4. Preferably the cone 6 projects beyond the sleeve 5 on all sides, as clearly illustrated in the drawing.

8 designates a supply pipe which in that form of the invention illustrated in Fig. 1 is provided with two branches, the nozzle ends of which are located just above the apices of the cones, so as to direct the oil upon the cones to the best possible advantage.

In the practical operation of my improved crude oil burner, the oil is supplied to the pipes and flows therefrom upon the cones 6. As the oil drops upon the points of the cones, it will flow evenly over the entire surface of the cones and be heated and coming in contact with the air flowing upwardly and around the lower edge of the cones, will be heated and burned. The pan or trough 1 will hold any superfluous amount of oil before it is consumed, but when the entire device becomes hot and especially the cones, the oil will be consumed as rapidly as it comes in contact with the cones and the air which flows out from beneath and through the tubes 4 and out through orifices 7, around the edges of the cones. Any suitable form of valve 9 may be provided or applied to govern the supply.

In that form of the invention illustrated in Figs. 6 and 7, the trough or reservoir 1^a is round and is adapted to support but one cone 6^a. In all practical respects this embodiment of the invention is like that just described, except as to the number of cones and shape of the reservoir or trough 1^a; but it is obvious that my invention is not limited to any particular shape or design of trough or to any number of cones.

Having thus described the invention, what is claimed as new is:

A burner of the character described, comprising a trough adapted to rest within the fire pot of a stove, the bottom of the trough being formed with an opening extending therethrough and having an upwardly extending tube surrounding said opening, a nozzle adapted to discharge oil and mounted above the trough, and a sleeve encircling and spaced from said tube and provided at

its upper end with a cone projecting downwardly below the upper edge of the trough and beyond the sleeve on all sides, the sleeve resting removably on the bottom of the
5 trough and provided above the tube and below the plane of the lower edge of the cone with air orifices.

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

•JOHN N. CARTER. [L. s.]

Witnesses:

THORNTON W. SARGENT,
A. J. ADAMS.