

C. W. SIEVERT.  
OIL BURNER.  
APPLICATION FILED SEPT. 27, 1909.

958,330.

Patented May 17, 1910.

Fig. 1.

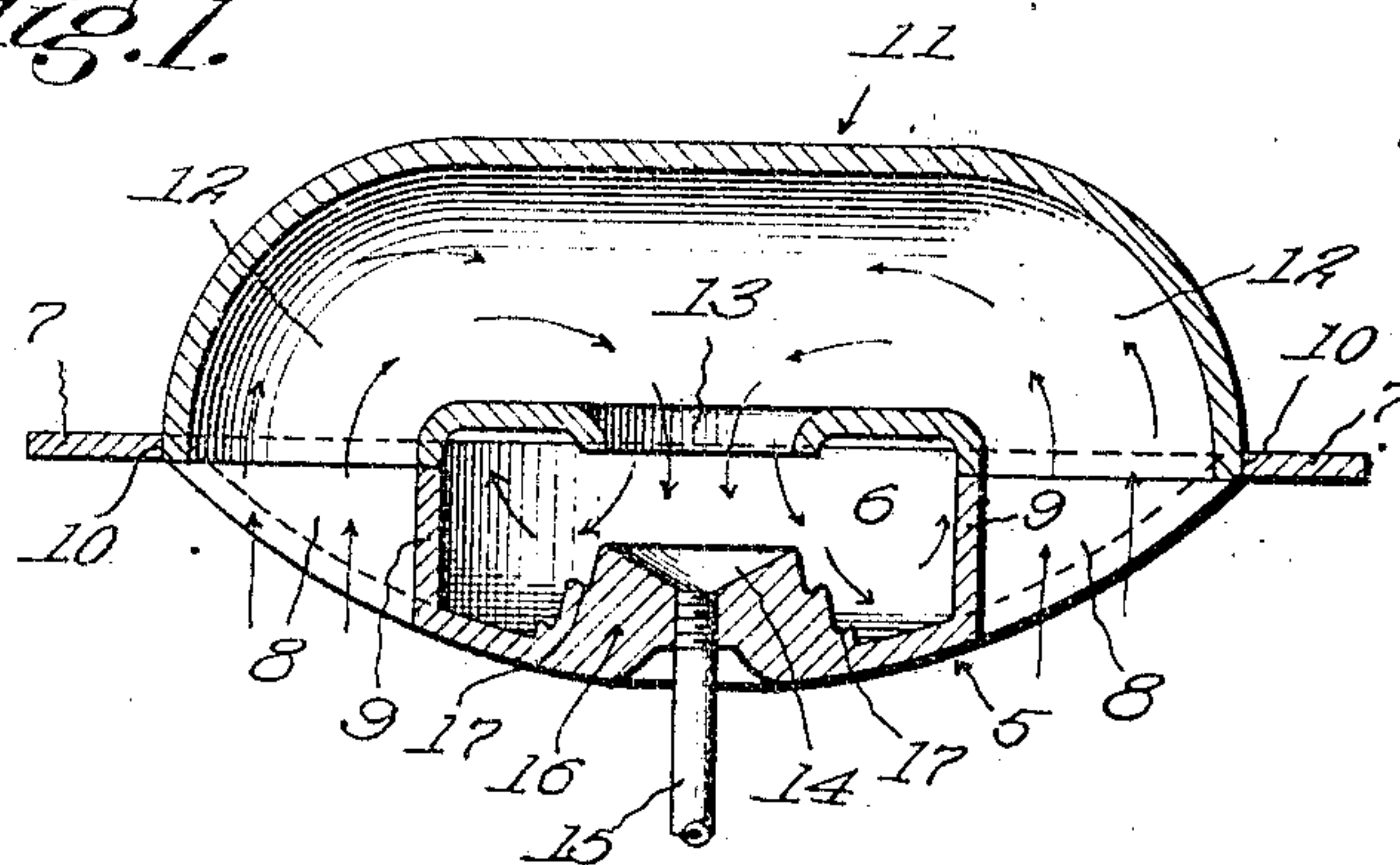


Fig. 2.

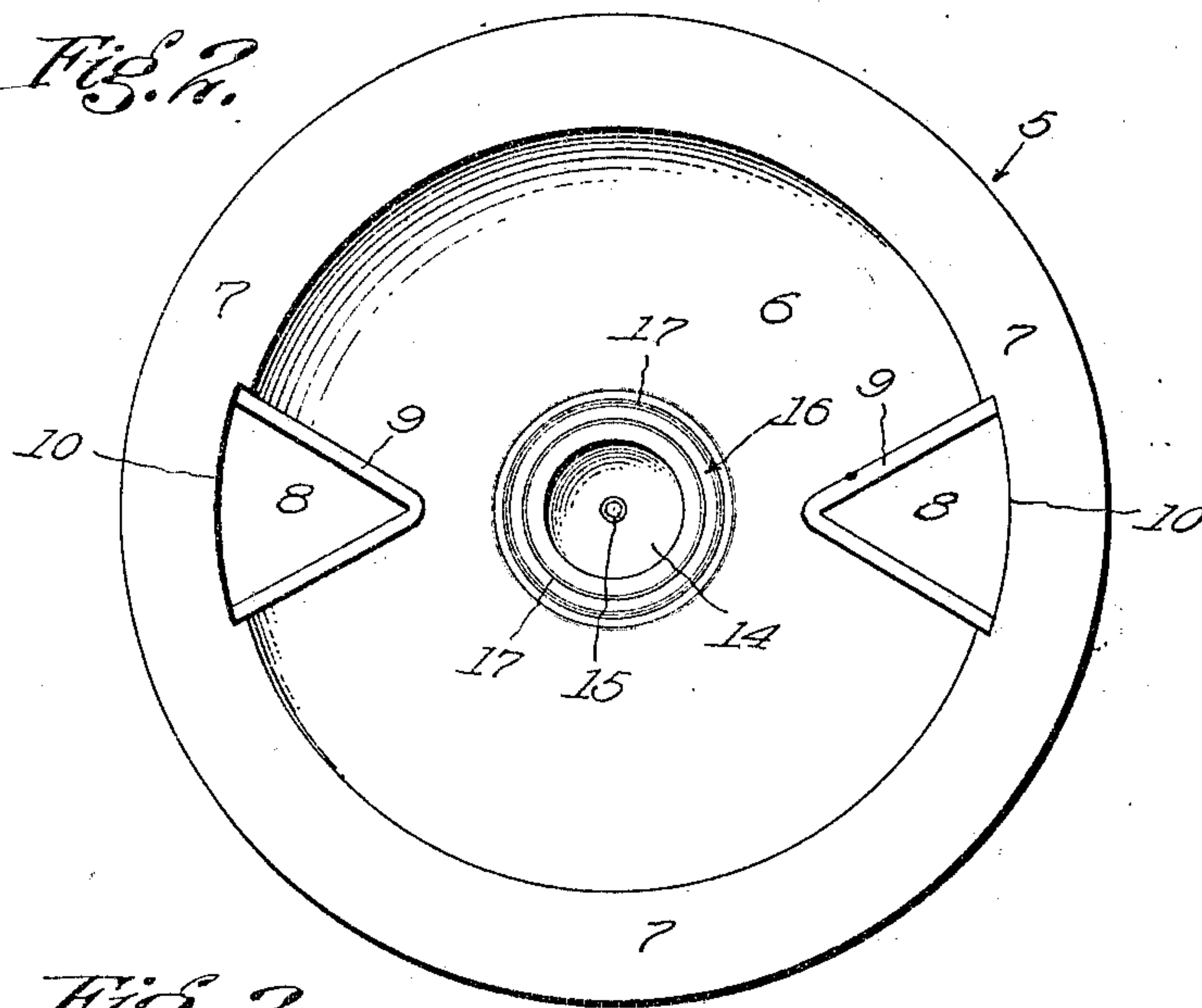
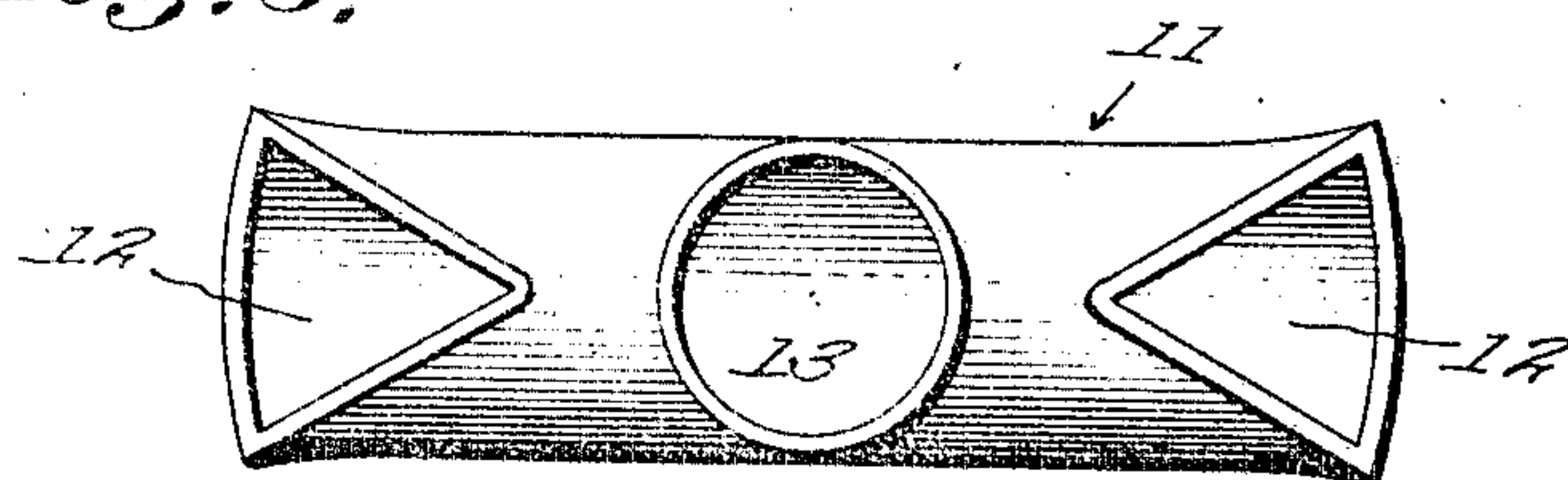


Fig. 3.



Witnesses  
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Inventor  
Charles William Sievert  
by James T. Barkelow  
his attorney



# UNITED STATES PATENT OFFICE.

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## OIL-BURNER.

958,330.

Specification of Letters Patent.

Patented May 17, 1910.

Application filed September 27, 1909. Serial No. 519,838.

*To all whom it may concern:*

Be it known that I, CHARLES W. SIEVERT, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Oil-Burners, of which the following is a specification.

This invention relates to an improvement in hydrocarbon burners of the general character shown in Patents Nos. 738,635 and 710,899, issued to me on Sept. 8, 1903 and Oct. 7, 1902, respectively; and it has for its object the provision of a simplified and efficient burner of this class, adapted for inexpensive construction and efficient operation.

The burner is constructed to operate under the general principles involved in the burners described in the patents above referred to, having a curved air pipe which brings the air in from the side of the burner, over it, and discharges the air downwardly upon the supply of hydrocarbon contained in the cup in the center of the burner. This air pipe is illustrated as being provided with two induction branches and one outlet; this for the reason that a pipe of such form does not interfere with the upward play of the flame from the bowl shaped base, or body portion, of the burner. But this pipe may have three or four induction branches without interfering materially with the flame.

In the accompanying drawings, Figure 1 is a vertical sectional view of the burner. Fig. 2 is a plan view of the base, or body portion, of the same. Fig. 3 is a bottom plan view of the air pipe.

In the drawings 5 designates the base of the burner which is constructed with a central bowl 6 and flange 7, flange 7 serving to support the burner on a ring or other suitable supporting member which connects it with the stove or furnace structure in which it is used. Leading up through the bowl are two air passages 8, the walls 9 of which are formed integrally with the bowl. These passages are preferably triangular in shape with their apexes toward the center of the bowl so that they offer a minimum obstruction to the play of the flame in the bowl. This, however, is a point of minor consideration, it being possible and practicable for the passages to be circular in cross section, or any other shape. The walls of the passages do not extend to the level of the top of flange 7 and shoulders 10 are thereby

formed near the inner edges of the flange. Air pipe 11 is adapted to rest with its two induction branches 12 upon the upper ends of walls 9 and inside shoulders 10. Its outlet branch or opening 13 allows the air to flow downwardly over the center of the bowl.

Located in the bottom center of the bowl is a cup 14 which is supplied with liquid hydrocarbon by means of a pipe 15 leading through the bottom of the bowl. This cup 14 is raised above the bottom of the bowl and is supported by a cone 16 having a plurality of circular troughs 17 on its sloping surface, the oil which overflows the cup being caught in these troughs.

The action of the burner is similar to that described in the above named patents. The draft formed by the burning hydrocarbon causes a movement of air as indicated by the arrows, the heated and burning oil is carried from the edges of the cup down the side of the cone and out into the bowl by the draft, the globules of oil carried by the draft thus being supplied with sufficient air to insure efficient burning.

Having described my invention, I claim:—

1. An oil burner, comprising a bowl shaped base, an oil cup in the center of the base, walls formed within the bowl of the base and inclosing an air passage leading from the under side of the base upwardly through the same, and an air pipe leading from the upper end of the passage and discharging at a point over the oil cup.

2. An oil burner, comprising a bowl shaped base, an oil cup formed integrally with the base and situated in the bottom of the base, walls formed integrally with the base within the bowl thereof and inclosing vertical air passages inside the bowl of the base and near the outer periphery thereof, and an air pipe having induction branches connecting with the vertical passages and having an outlet discharging air directly over the oil cup and into the base.

3. An oil burner, comprising a bowl shaped base, an oil cup formed integrally with the base and situated in the central lower portion of the base at a small distance above the bottom, walls formed integrally with the base within the bowl thereof and inclosing vertical air passages within the bowl of the base and near the periphery thereof, and an air pipe having induction branches connecting with the air passages



and having a central downwardly projecting outlet opening adapted to discharge air downwardly over the oil cup and into the base.

- 5 4. An oil burner, comprising a bowl shaped base, a frusto-conical member raised in the central lower portion of the base, the conical member having an annular trough in its lateral face and having an oil cup  
10 formed in its top, oil supply means leading to the oil cup, walls formed integrally with the base within the bowl thereof and enclosing a pair of vertical air passages situated inside the bowl of the base and near

the periphery thereof and passing upwardly therethrough, and an air pipe having induction branches resting upon the walls and communicating with the air passages and having an outlet opening discharging air downwardly over the oil cup and into the base. 20

In witness that I claim the foregoing I have hereunto subscribed my name this 20th day of Sept. 1909.

CHAS. W. SIEVERT.

Witnesses:

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ELWOOD H. BARKELEW.