

B. F. McMAHON.
OIL BURNER.
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967,037.

Patented Aug. 9, 1910.

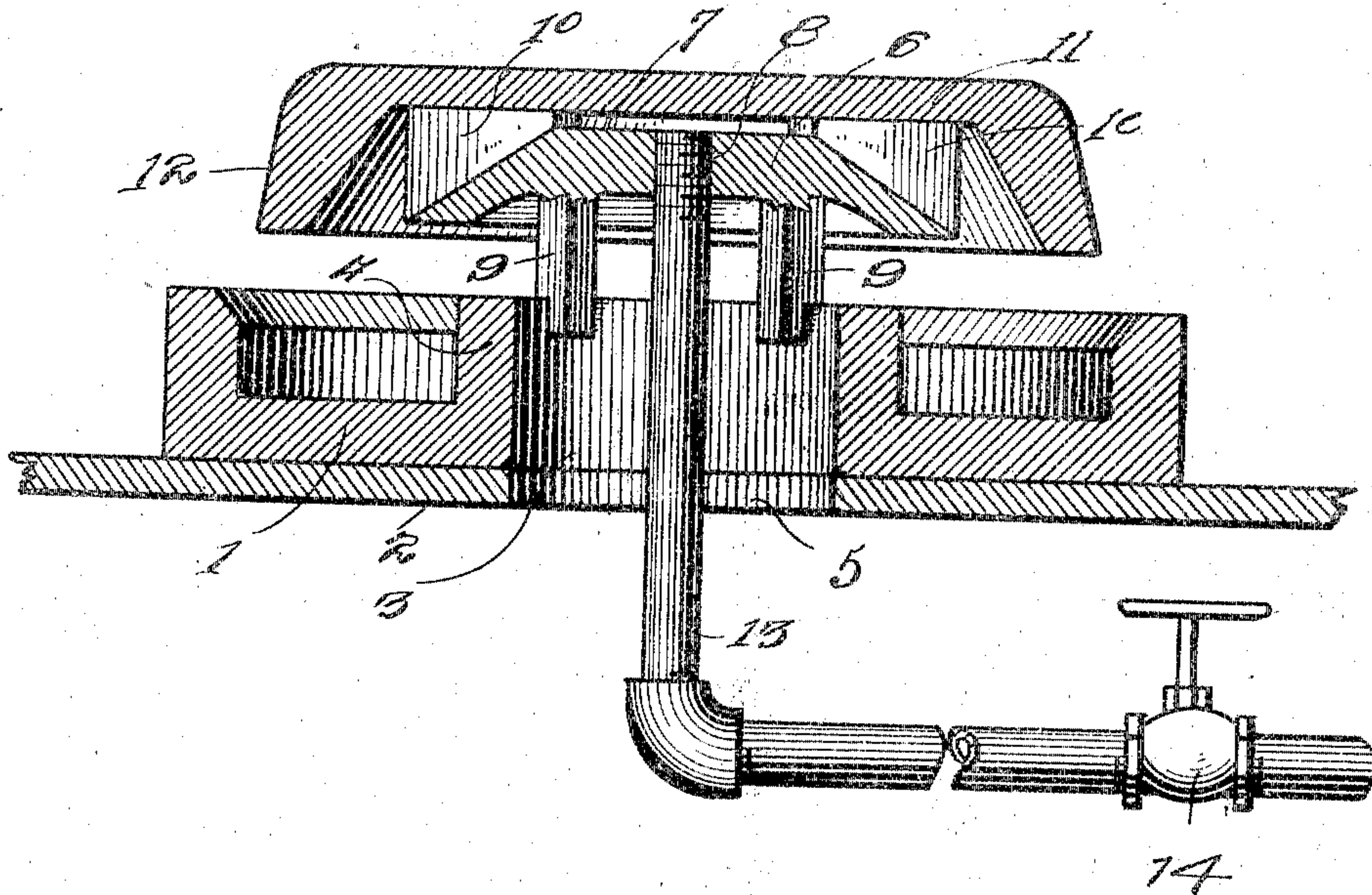


Fig. 1.

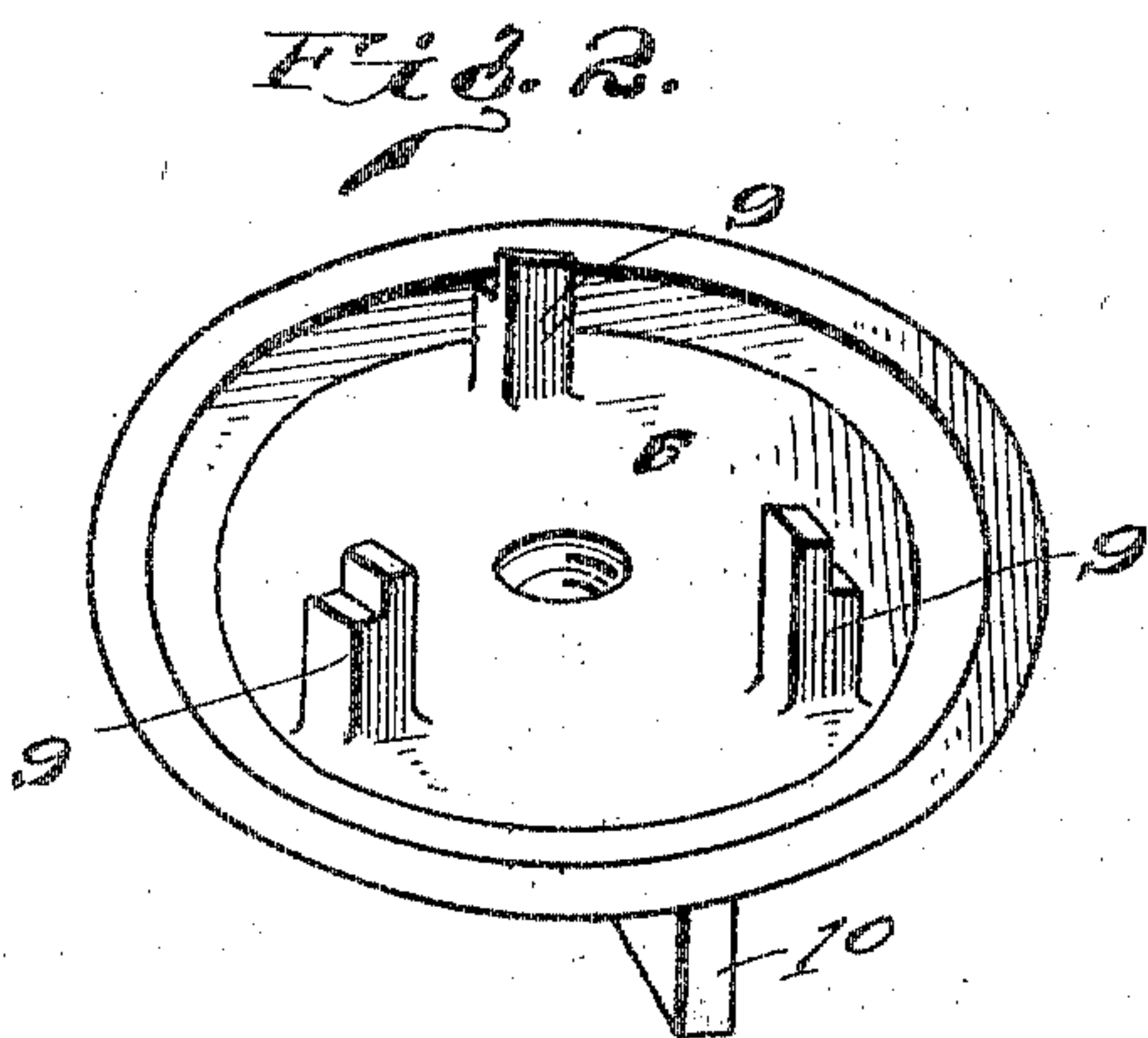


Fig. 2.

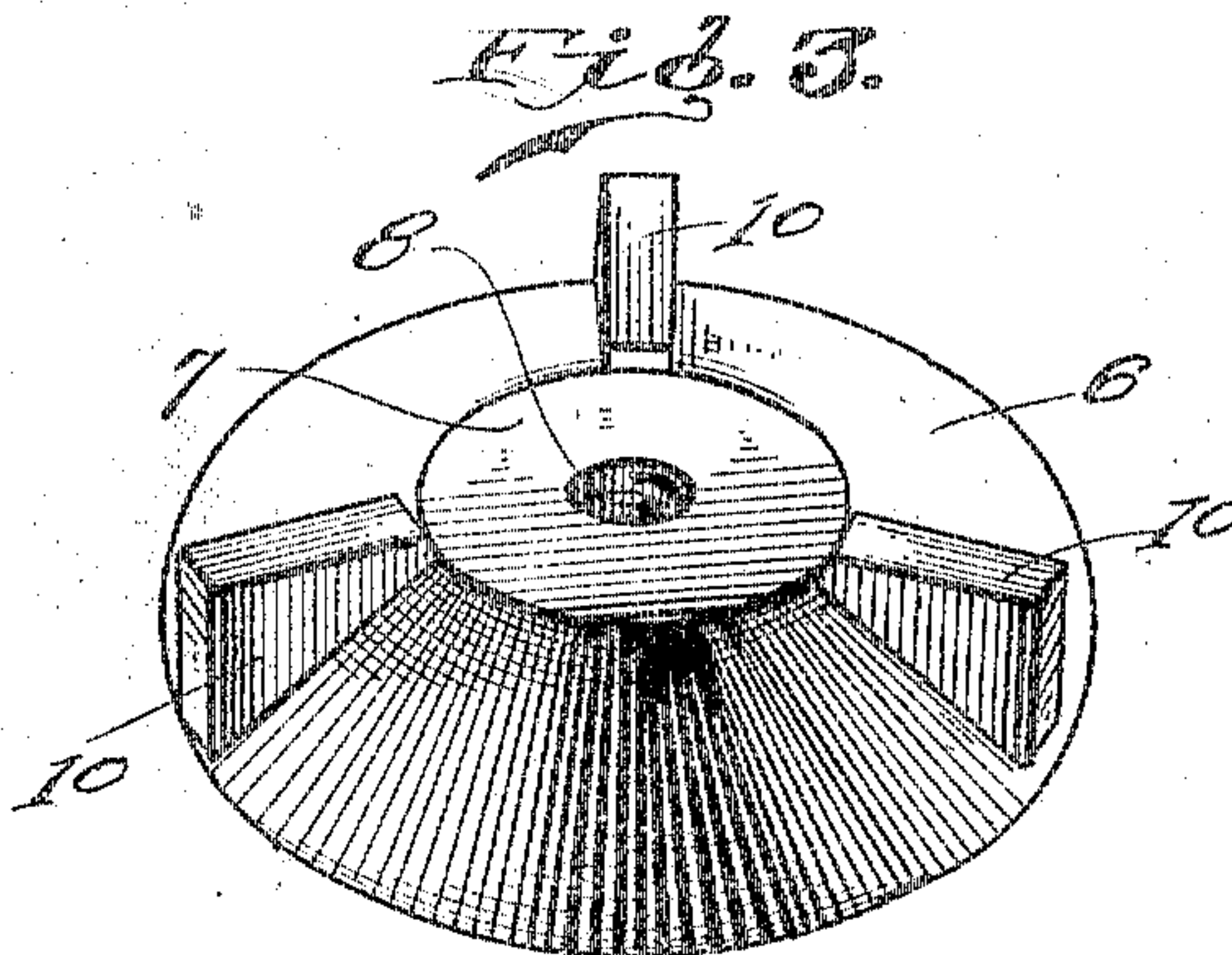


Fig. 3.

Witnesses
J. H. Wells
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UNITED STATES PATENT OFFICE.

BENET F. McMAHON, OF BEATTIE, KANSAS.

OIL-BURNER.

967,037.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BENET F. McMAHON, a citizen of the United States of America, residing at Beattie, in the county of Marshall and State of Kansas, have invented certain new and useful Improvements in Oil-Burners, of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to oil burners, especially adapted for burning crude oil; and the principal object of the same is to provide a novel type of oil distributor and cooperating spreader cap and overflow pan, all of which
15 mutually contribute to produce a burner in which a thorough combustion of the fuel is obtained with the resulting increase in the heat generated by the burner.

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

Figure 1 is a central vertical sectional view of the improved oil burner. Fig. 2 is an inverted perspective view of the oil distributor. Fig. 3 is a perspective view of the oil distributor viewed from the top thereof.

The improved burner is equally adapted for use in connection with a heating or cooking stove, and comprises an overflow pan 1
35 that is suitably attached to a support 2 within a firebox of a stove so that the pan will be rigid with said support. The pan may be annular or other shape to adapt it to the type of firebox in which it is mounted and is
40 provided with a central air opening 3 that is surrounded by the upstanding guard flange 4. The support 2 is provided with an opening 5 that aligns with the opening 3 of the pan 1 so that the air will have an unobstructed
45 circulation through said opening 3.

A substantially frusto-conically shaped fuel distributing plate 6 has a flat top 7 through which a threaded opening 8 is formed. Said plate is provided with pendent supporting legs 9 the free ends of which
50 are notched so that they may have a firm interlocking engagement with the upper edge of guard flange 4 to retain said plate spaced from said upper edge.

The inclined upper surface of plate 6 is 55 provided with a plurality of regularly spaced apart supporting lugs 10 preferably arranged in radiating relation to the center of said plate, said lugs serving as supports to retain the flame deflecting cap 11 over and
60 spaced from plate 6. Said cap is provided with a pendent outer flange 12 that inclines outwardly.

A fuel supply pipe 13 equipped with a controlling valve 14 extends through the air 65 openings of support 2 and pan 1 and has a threaded engagement with the opening 8 of plate 6.

Plate 6 overlaps the upper end of guard flange 4 and is dished on its undersurface, 70 so that fuel which flows down the inclined outer surface of said plate 6 is prevented from flowing around the lower edge thereof and dropping through the air supply openings 3 and 5. 75

In use, fuel is fed through pipe 13 to the top surface of plate 6 and flows down the inclined portion thereof and is caught in pan 1. The fuel being ignited on plate 6, it will be seen that cap 11 becomes highly heated so that the subsequent fuel is vaporized. The flame from the burning fuel is deflected by cap 11 and spreads around the lower edge of the flange 12 of said cap, and meets the air that flows over the upper edge of guard 85 flange 4.

What I claim as my invention is:—

An oil burner comprising a pan provided with a central air opening, an upstanding guard flange surrounding said air opening, a 90 distributor plate provided with notched legs adapted for interlocking engagement with said flange to space said plate in overlapping relation to said flange, said plate being provided with a flattened central upper portion 95 having an opening formed therethrough, lugs carried by the inclined upper surface of said plate, a spreader cap supported by said lugs in spaced overlapping relation to said plate, and a fuel feeding pipe having one 100 end communicating with the central opening of said plate.

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

BENET F. McMAHON.

Witnesses:

JOSEPH BAER,
W. W. POTTER.