

No. 757,421.

PATENTED APR. 12, 1904.

R. G. SPEER.
OIL BURNER.

APPLICATION FILED JULY 15, 1903.

NO MODEL.

Fig. 1.

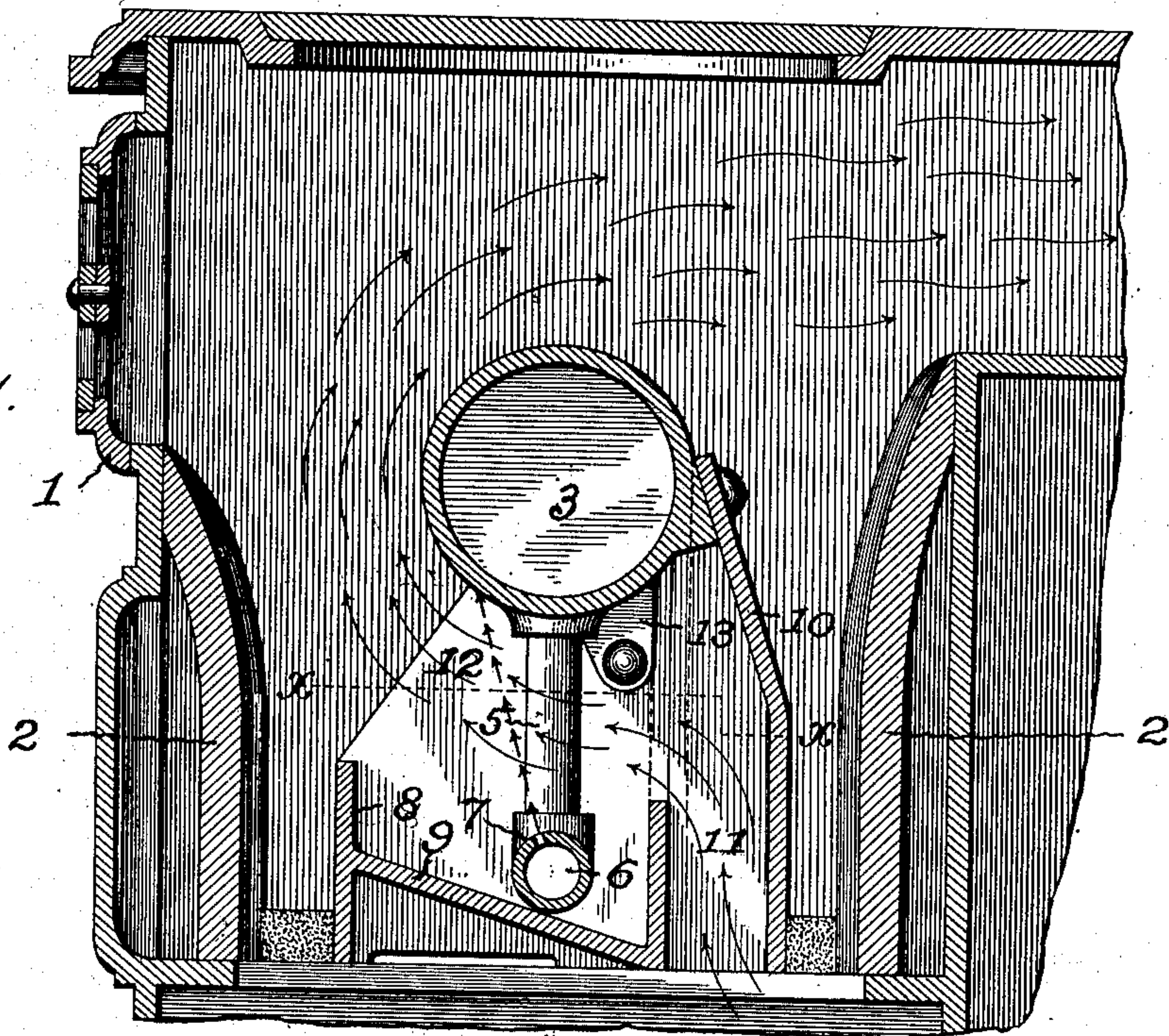


Fig. 2.

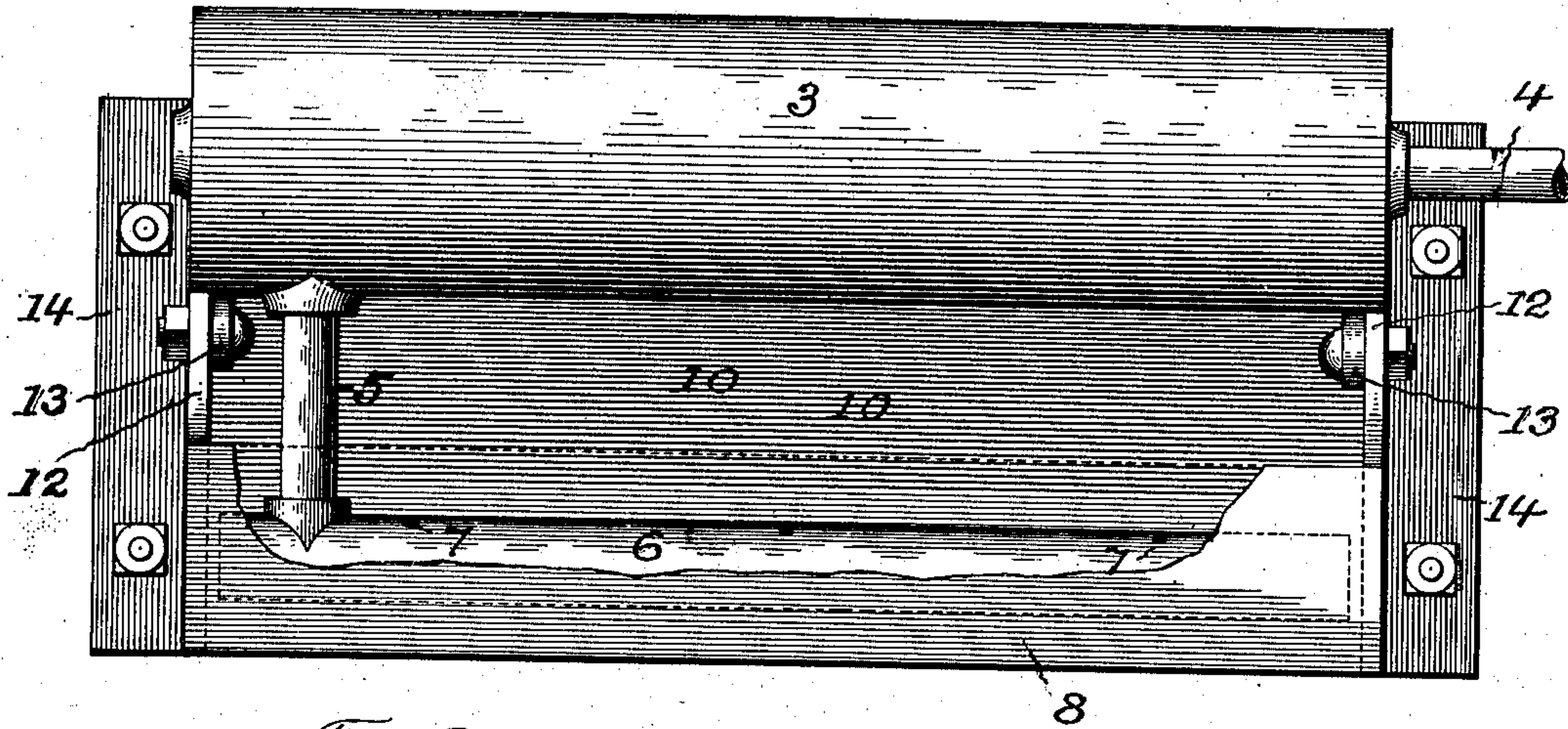
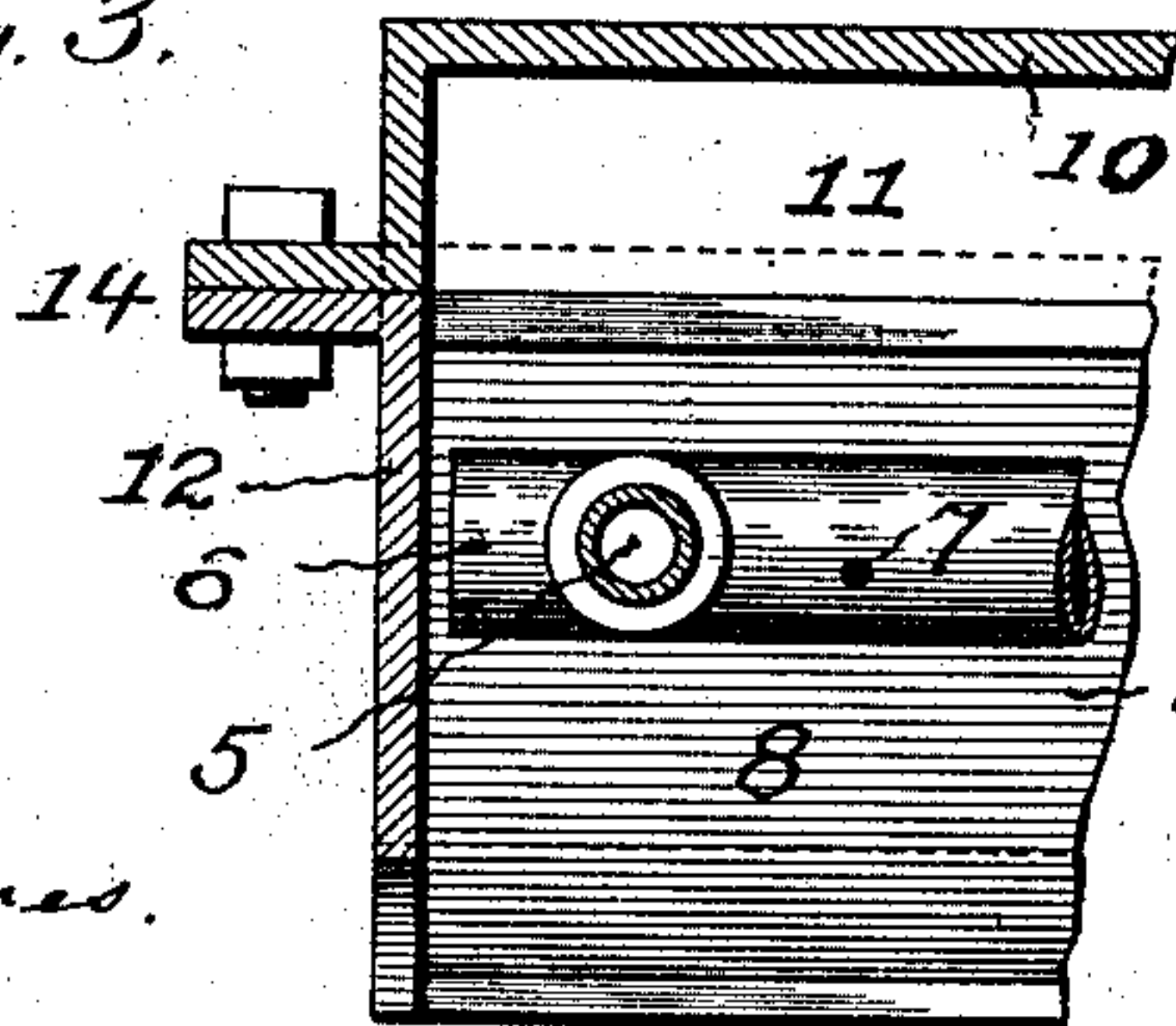


Fig. 3.



Attest:

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UNITED STATES PATENT OFFICE.

ROBERT G. SPEER, OF ST. LOUIS, MISSOURI.

OIL-BURNER.

SPECIFICATION forming part of Letters Patent No. 757,421, dated April 12, 1904.

Application filed July 15, 1903. Serial No. 165,643. (No model.)

To all whom it may concern:

Be it known that I, ROBERT G. SPEER, a citizen of the United States of America, and a resident of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Oil-Burners, of which the following is a specification.

The present invention relates to oil-burners for stoves and the like, and has for its object to provide a simple and efficient construction and arrangement of parts by which a uniform and constant operation of the burner with a very perfect combustion of the oil is attained in a simple and safe manner, all as will hereinafter more fully appear and be more particularly pointed out in the claims.

In the accompanying drawings, illustrative of the present invention, Figure 1 is a transverse sectional elevation illustrating the present invention applied to the fire-chamber of a cooking stove or range; Fig. 2, a side elevation of the present invention with parts broken away; Fig. 3, a detail sectional plan at line *x x*, Fig. 1.

Similar numerals of reference indicate like parts in the different views.

Referring to the drawings, 1 represents the usual inclosing walls of a stove, and 2 the linings thereof, which constitute the fire-chamber, in which the present burner is located.

3 is a cylindrical retort or generator arranged horizontally in the upper portion of the fire-chamber and provided at one end with a central neck for the attachment of the oil-supply pipe 4, which extends from an oil-supply tank or other source of oil-supply.

5 is a pendent outlet-pipe connected to the generator 3 at the end opposite to that at which the supply-pipe is connected.

6 is a horizontal discharge-pipe arranged a distance beneath the generator 3 and connected at one end to the pendent outlet-pipe 5 aforesaid.

7 represents a series of outlet-openings formed in the pipe 6 for the discharge of the oil-vapor generated in the generator 3 during the operation of the present burner.

8 is a preheating-pan arranged immediately beneath the discharge-pipe 6, and such pan in the present improvement is provided with an

inclined bottom 9, that is adapted to collect any oil allowed to escape through such pipe at a point where the heat from the combustion of such oil will be directed against said pipe and the generator 3 to efficiently attain the required preheating action.

10 is a deflector plate or partition arranged in separated relation to the forward side of the preheating-pan 8, so as to form an air-supply passage 11 the length of the burner, as shown, and through which the entire supply of air for the burner passes. To this end the said deflector-plate is extended upwardly and secured to the forward side of the generator 3 by screws or other like fastening means.

In my preferred construction as shown in the drawings the end walls 12 of the preheating-pan 8 will be extended up to form a bearing or support for the generator 3 and at the same time constitute end closures for the air-supply passage 11, &c., to direct the same and the vapor discharged by the discharge-pipe 6 against and around the generator 3.

13 represents ears on the generator 3, through which bolts or rivets pass to secure the generator to the end walls 12 of the preheating-pan 8.

14 represents flanges on the deflector-plate for attaching the same to corresponding flanges on the preheating-pan 8.

Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is

1. In an oil-burner of the character herein described, the combination of a horizontal retort provided with a pendent outlet-pipe, a horizontal discharge-pipe connected to the lower end of said outlet-pipe, a preheating-pan arranged beneath the discharge-pipe and provided with an inclined bottom, and a deflecting-plate arranged in separate relation to the forward end of such pan to form an air-supply passage and extended up and attached to the forward side of the retort, substantially as set forth.

2. In an oil-burner of the character herein described, the combination of a horizontal retort provided with a pendent outlet-pipe, a horizontal discharge-pipe connected to the lower end of said outlet-pipe, a preheating-

pan arranged beneath the discharge-pipe and provided with an inclined bottom and with extended end walls which support the retort, and a deflecting-plate arranged in separation
5 relation to the forward end of such pan to form an air-supply passage and extended up and attached to the forward side of the retort, substantially as set forth.

3. In an oil-burner of the character herein
10 described, the combination of a horizontal retort provided with a pendent outlet-pipe, a horizontal discharge-pipe connected to the lower end of said outlet-pipe, a preheating-
15 pan arranged beneath the discharge-pipe and provided with an inclined bottom and with

extended end walls which support the retort, and a deflecting-plate arranged in separated relation to the forward end of such pan to form an air-supply passage and extended up and attached to the forward side of the retort, said retort being provided with ears for attachment to said upwardly-extended end walls, substantially as set forth.

Signed at Chicago, Illinois, this 11th day of July, 1903.

ROBERT G. SPEER.

Witnesses:

ROBERT BURNS,
M. H. HOLMES.