No. 883,236. PATENTED MAR. 31, 1908.

G. REHBEIN.

HYDROCARBON BURNER.

APPLICATION FILED SEPT. 30, 1907.

FIG. 1

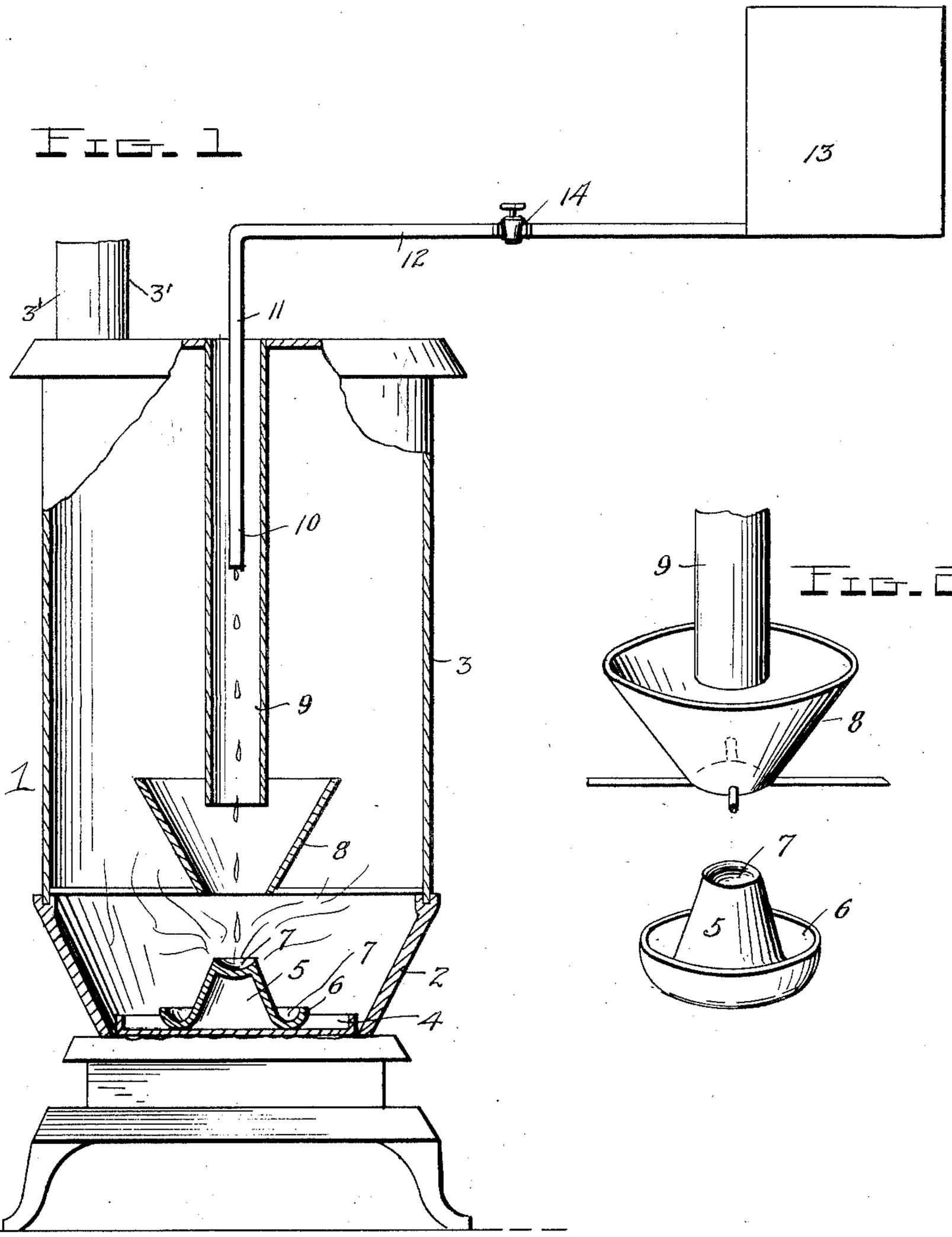

FIG. 2

Witnesses
Chas. L. Griesbauer.
C. H. Griesbauer.

Inventor
G. Rehbein
by A. Wilkinson & Co.
Attorneys

UNITED STATES PATENT OFFICE.

GEORGE REHBEIN, OF CANTON, KANSAS.

HYDROCARBON-BURNER.

No. 883,236. Specification of Letters Patent. Patented March 31, 1908.

Application filed September 30, 1907. Serial No. 395,216.

To all whom it may concern:

Be it known that I, GEORGE REHBEIN, a citizen of the United States, residing at Canton, in the county of McPherson and State of Kansas, have invented certain new and useful Improvements in Hydrocarbon-Burners; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has relation to new and useful improvements in hydrocarbon burners of that class where crude or fuel oil is used or consumed to furnish heat for heating or cooking purposes.

One of the principal objects of the invention is the production of a simple and economical construction of burner whereby the maximum amount of heat may be generated or furnished through a minimum fuel consumption.

With the foregoing and other objects in view which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a central longitudinal section of a burner constructed in accordance with the invention; and Fig. 2 is a detail perspective view of the burner.

Referring to the drawings for a more particular description of the invention, 1 indicates a stove of any suitable form or construction having a bowl 2, and an upright drum or fire box 3, the drum being closed in at its upper end and provided at said end with a smoke pipe 3′. A suitable drip pan 4 is arranged in the lower end of the bowl and a burner comprising an upright hollow post or bar 5 preferably in the form of a truncated cone having its lower edge turned or bent inwardly to provide an annular trough 6 and having a recess or hollow place 7 in its upper end or top to receive a quantity of oil is arranged above said drip pan. A central vertically disposed hollow spreader 8 in the form of an inverted truncated cone is arranged a suitable distance above or over said burner and a central vertical air pipe or shaft 9 depends from the top or upper end of the drum or fire box and extends to within a suitable distance of the spreader. A fuel or feed pipe 10 comprises a vertical arm or portion 11 which extends a suitable distance down the air pipe or shaft and a horizontal arm or portion 12 which communicates with a tank 13 or other source of oil supply. Said pipe is provided at a suitable point with a valve 14 so that the supply of oil to the burner may be partly or entirely cut off as occasion may necessitate.

In practice, a quantity of oil is placed in the annular trough 6 and recess 7 of the burner and this oil ignited to heat the same. After the burner has become sufficiently heated, the valve 14 is opened and the coal oil from the tank or other source of oil supply fed through the feed pipe 10 to the burner. As the fuel oil strikes the heated burner, it is converted into a gas or vapor and is deflected to the sides of the drum or fire box by the spreader, the drip pan 4 serving to catch any oil that may overflow from the burner. The shape of the spreader is such that the air admitted through the air shaft or tube 9 is confined or conducted to a point directly over the burner and the combustion of the oil is thereby greatly facilitated or rendered more perfect.

The spreader besides serving the two above-mentioned functions also prevents the products of combustion from passing up through the air shaft or tube 9 out into the room.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Having thus described my invention, what I claim is:—

1. In a hydrocarbon burner of the character described, the combination with a stove having an upright drum closed in at its upper end and a vertically disposed air pipe depending from said end, of a hollow spreader having a downwardly inclined outer surface arranged below said air pipe and an upright hollow burner closed in at one end, recessed in said end and bent upwardly at its base to form an annular trough arranged directly beneath said spreader, a drip pan under said burner and means for supplying oil to the burner.

2. In a hydrocarbon burner of the class specified, the combination with a stove or furnace having an upright drum closed in at

its upper end and an air pipe depending from said end, of a hollow spreader having a downwardly inclined outer surface arranged in said drum below said air pipe, a hollow upright burner closed in at its upper end recessed in said end and having its base bent upwardly to form an annular trough removably positioned beneath said spreader, a drip pan under the burner and a feed pipe having one end arranged in the air pipe and its other end adapted for communication with a source of oil supply.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE REHBEIN.

Witnesses:
HENRY W. LORTZ,
IRA G. WILSON.