

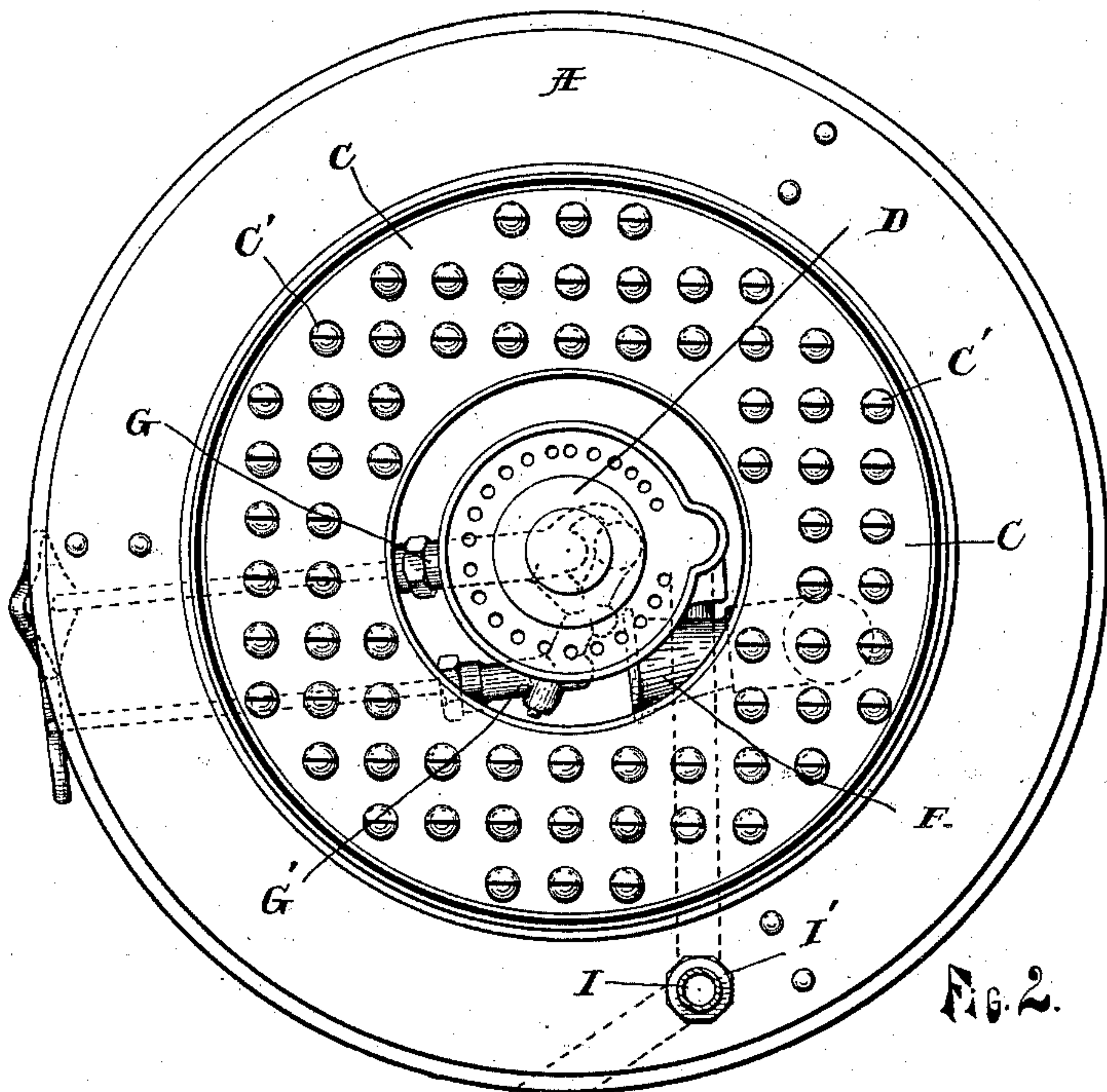
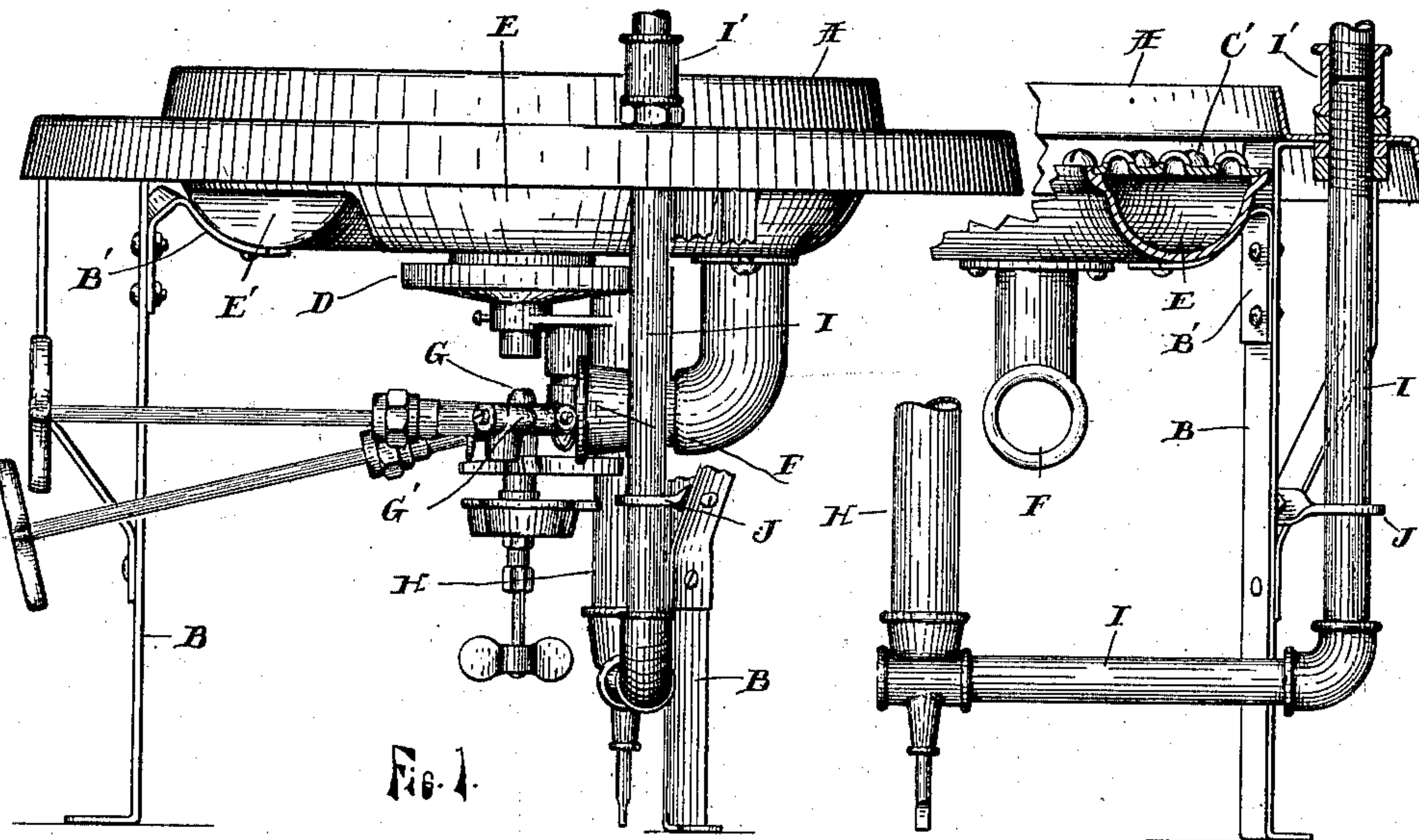
No. 654,459.

Patented July 24, 1900.

B. P. KENYON.
VAPOR BURNER.

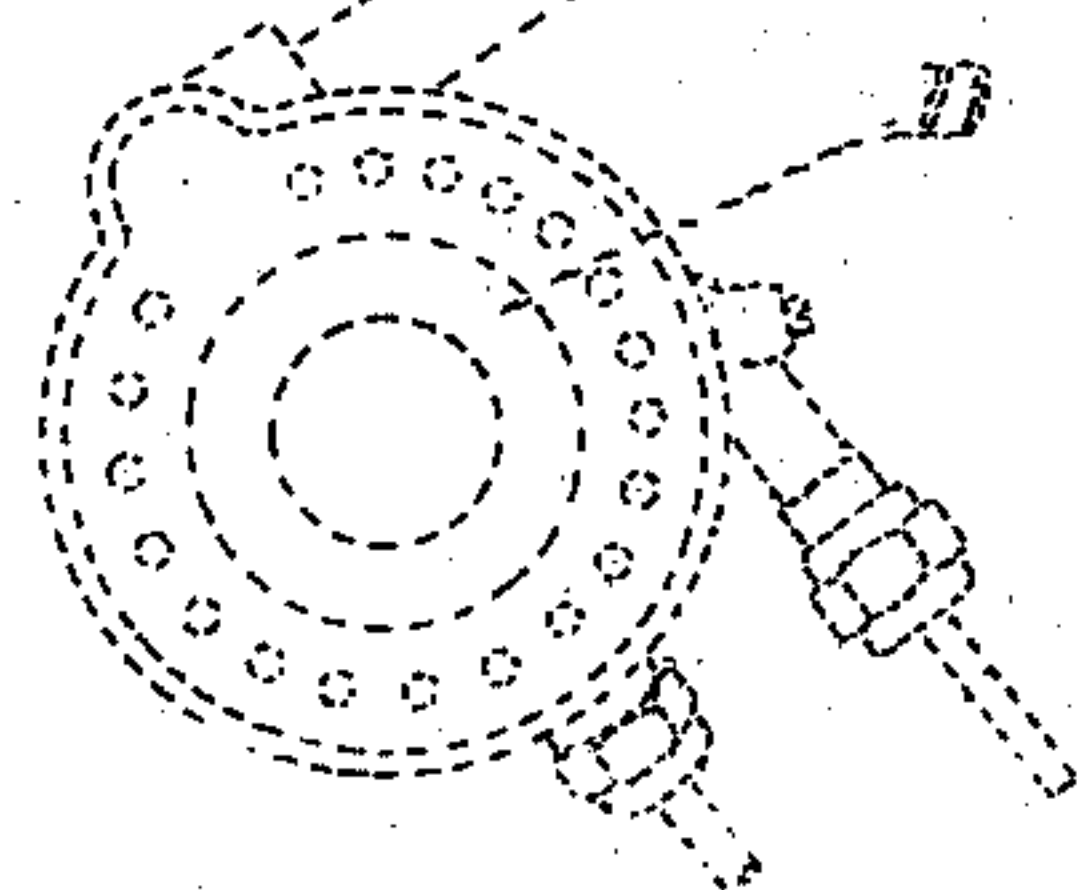
(Application filed Nov. 13, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

BERTRAND P. KENYON, OF GRAND RAPIDS, MICHIGAN.

VAPOR-BURNER.

SPECIFICATION forming part of Letters Patent No. 654,459, dated July 24, 1900.

Application filed November 13, 1899. Serial No. 736,749. (No model.)

To all whom it may concern:

Be it known that I, BERTRAND P. KENYON, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Vapor-Burners; and I do hereby 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.

My invention relates to improvements in devices for burning the vapor of gasoline or other volatile liquid; and its object is to provide a burner that will at pleasure afford a flame of large area and great heating capacity or a flame of lesser area and capacity and also be readily and conveniently heated and lighted in the first instance and to provide the device with certain new and useful features hereinafter more fully described, and particularly pointed out in the claims.

My device consists, essentially, in a fixed outer burner of large area and having a central opening and also supplied with vapor from a movable generator-burner adapted to be adjusted in the opening of the outer burner and to generate vapor for both itself and the outer burner and also adapted to be moved outside the said outer burner to be more conveniently heated and lighted, as will more fully appear by reference to the accompanying drawings, in which—

Figure 1 is a side elevation of a device embodying my invention; Fig. 2, a plan view of the same with the position of the generator-burner when it is moved out for heating and lighting shown in broken lines; and Fig. 3, a detailed elevation at right angles to Fig. 1, showing more fully the means of movably supporting the generator-burner.

Like letters refer to like parts in all of the figures.

A represents a suitable bed-plate, annular in form, as herein shown, and suitably supported by legs B.

C is the outer burner, supported within the opening of the bed-plate A by suitable brackets B', the burner being annular in form, as herein shown, and surrounding the generator-burner D and somewhat above the plane

thereof. This outer burner is provided with a flat top provided with numerous tips C' for the escape of the combustible mixture of air and vapor and is provided with an annular distributing-chamber E to receive and distribute said mixture to the tips C'. An intake-pipe F extends downward and inward from the distributing-chamber and has an opening opposite the needle-valve G' of the generator-burner, from which valve the vapor escapes to supply the outer burner C.

The generator-burner D is of the usual construction, having the needle-valve G to supply vapor to its own burner and an auxiliary needle-valve G' to supply vapor to the outer burner when the same is needed. This generator-burner is movably mounted and supported by having its stand-pipe H attached to one end of a supply-pipe I, extending horizontally outward and thence vertically upward through a bracket J and the bed-plate A, in which bracket and plate said supply-pipe is rotative. This supply-pipe extends upward to a tank (not shown) to contain the supply of gasoline or other fluid. A coupling I' serves as a collar to engage the bed-plate and support the supply-pipe.

The distributing-chamber E is recessed at the under side at E' to permit the generating-burner D to pass under the same. The supply-pipe I will thus turn fully in the bracket and bed-plate and permit of swinging the generating-burner from within the balance of the device. It is then readily accessible for the usual process of preliminary heating and lighting. It may then be swung inward beneath the opening of the outer burner C and used for heating alone when only a moderate heat is required, and whenever a much greater heat is required the valve G' may be opened and the outer burner will at once come into action also, the generating-burner serving to form and supply vapor for both burners.

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

1. A vapor-burner consisting of a fixed outer burner having a central opening, a generator-burner movably supported within said opening and adapted to be moved outside the area of the outer burner, and means for con-

veying combustible vapor from the generator-burner to the fixed outer burner, substantially as described.

2. The combination of an outer burner having a central opening and an intake-pipe, a generator-burner movably supported beneath said opening and having an auxiliary needle-valve opposite said intake-pipe, and means for moving the generator-burner outside the area of the outer burner, substantially as described.

3. The combination of a fixed outer burner having a central opening, and an intake-pipe extending downward and inward, a supply-pipe extending vertically and thence horizontally beneath the outer burner, and rotative on its vertical axis, a generator-burner mounted on the movable end of the supply-pipe, and having an auxiliary needle-valve to supply vapor to the said intake-pipe, substantially as described.

4. The combination of a bed-plate having a circular opening, an annular burner supported in said opening and having a downwardly-extended intake-pipe, a generator-burner movably supported beneath the opening of the outer burner on a supply-pipe ex-

tending horizontally from the stand-pipe of the generator-burner, and thence upward through the bed-plate and rotative therein, and an auxiliary needle-valve on the generator-burner to supply vapor to the intake-pipe, substantially as described.

5. The combination of an annular bed-plate, an annular burner in the opening of the bed-plate and having a flat top provided with tips, a distributing-chamber having a reduced portion and a downwardly and inwardly extended intake-pipe, a vertical supply-pipe rotative in the bed-plate and having a collar engaging the bed-plate, a horizontal extension of the supply-pipe beneath the annular burner, a generator-burner mounted on the horizontally-movable end of the supply-pipe, and an auxiliary valve on the generator-burner to supply the said intake-pipe with vapor, substantially as described.

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

BERTRAND P. KENYON.

Witnesses:

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