

(No Model.)

J. F. BARKER.
Gas Burner.

No. 238,205.

Patented March 1, 1881.

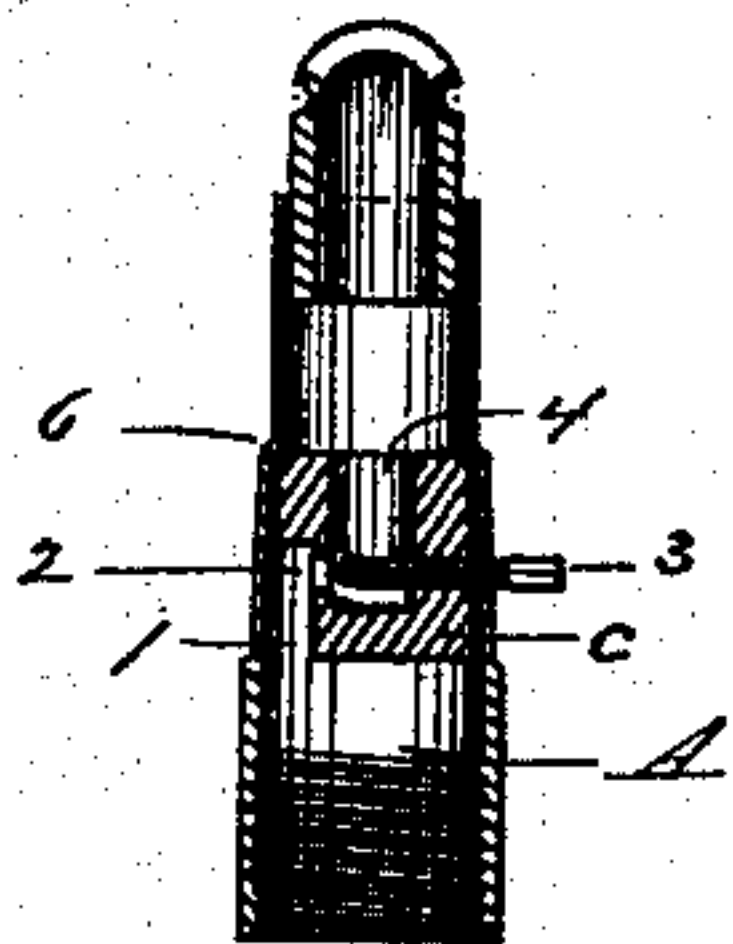


Fig. I

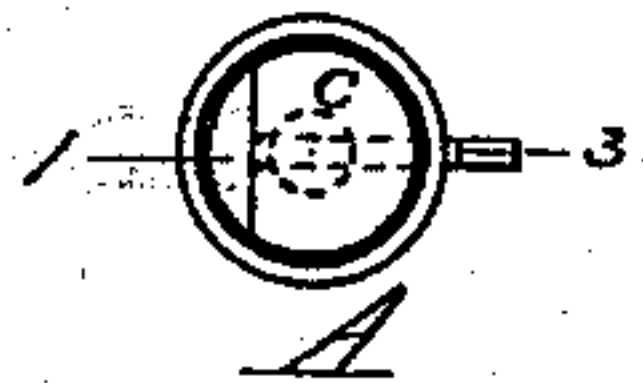


Fig. II

Witnesses— J. A. Curtis.
C. H. Wood.

Inventor.
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UNITED STATES PATENT OFFICE.

JOHN F. BARKER, OF SPRINGFIELD, MASSACHUSETTS.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 238,205, dated March 1, 1881.

Application filed December 29, 1880. (No model.)

To all whom it may concern:

Be it known that I, JOHN F. BARKER, of Springfield, in the county of Hampden, and State of Massachusetts, have invented a new and useful Improvement in Gas-Burners, (which has not been patented to any person in any foreign country with my knowledge and consent,) of which the following is a specification.

The object of my invention is to provide a gas-burner through which the flow of gas to the tip may be readily controlled from the outside and while the jet is ignited, and whose regulating-valve may be easily and quickly cleaned, all without removing the burner-pillar from the fixture or pipe; and I accomplish these results by the means illustrated in the accompanying drawings, in which—

Figure I is a vertical longitudinal section through the burner at its axis, and Fig. II is a reverse plan view of the burner, showing the valve-plug secured therein.

In the drawings, A represents the burner-pillar, with the usual interior screw-thread at its lower end, by which to secure it in place on the fixture or pipe, and *c* is a plug, whose exterior is made to fit snugly the interior of the burner-pillar A, preferably about midway its length; and if the interior of the burner-pillar is tapered, the exterior of the plug *c* should also be tapered. A portion of the exterior of the plug *c* is cut away, leaving an exterior cavity, 1, and a central recess, 4, is made in the upper end of the plug, extending down to a point below the upper end of the exterior cavity, 1, leaving a thin partition between the lower part of the central recess, 4, and the upper part of the exterior cavity, 1. The plug *c* thus prepared is driven firmly into the pillar A from its lower end, and either against the internal shoulder, 6, or until it fits snugly and is secured thereby in position within the pillar, and a small hole is then drilled through one side of the pillar, and also through the side of the plug into the central recess, 4, and also through the thin partition of the plug, forming a small orifice at 2 through said partition. That portion of the hole through the side of the pillar, and also through the thicker

part of the plug, is provided with a screw-thread, and a small screw, 3, is turned into this threaded hole snugly, with its extreme end entering and fitting closely the orifice 2, the outer end having either a milled head or made prismatic, to be turned by a small key.

As thus constructed, the flow of gas from the pipe through the orifice 2 into the burner above the plug may be easily regulated while the jet is burning by turning the screw 3 either in or out a little, to obtain the desired combustion, and the orifice 2 may also be quickly cleaned from any sediment that might collect therein by turning the end of the screw into the orifice and out again.

As thus arranged, it will be seen that a comparatively long threaded bearing is provided in the plug and side of the pillar, which effectually prevents any leakage of gas back through the screw-hole past the screw, and the full pressure of gas in the pipe is only against the extreme end of the screw; while only the reduced pressure in the burner above the orifice 2 is effective against the screw-hole, which is an additional safeguard against leakage.

I am aware that burners have heretofore been made in which the pillar contained a thin metal cup forced into the pillar with a small regulating-screw through its side; but as the pillar is also made of thin metal, the threaded bearing therein is so short as to furnish little or no barrier against the gas following the screw back through the screw-hole and allowing a large leakage. I do not therefore claim such cup and screw, nor any part thereof; but,

Having described my invention, what I do claim as new is—

In an improved gas-burner, the combination of the pillar A, the plug *c*, secured in said pillar, and having the exterior cavity, 1, the orifice 2, and the central recess, 4, and the regulating-screw 3, having a threaded bearing in said plug and in the side of the pillar, substantially as and for the purpose set forth.

JOHN F. BARKER.

Witnesses:

T. A. CURTIS,
CHAS. H. WOOD.