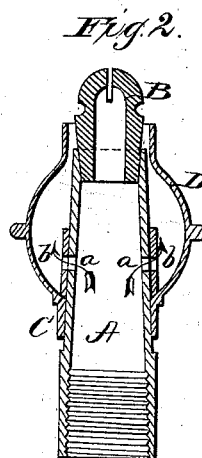
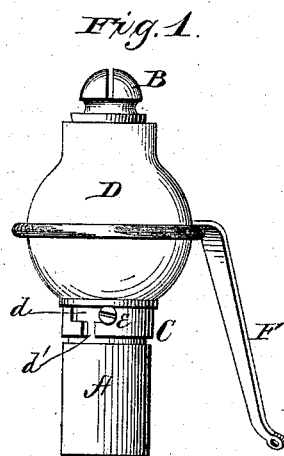


G. REZNOR.  
Gas-Burner.

No. 217,149.

Patented July 1, 1879.



WITNESSES  
Frank L. Owsand  
H. Aubrey Toulmin

INVENTOR  
George Reznor  
Alexander Watson  
ATTORNEYS

# UNITED STATES PATENT OFFICE.

GEORGE REZNOR, OF MERCER, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO RICHARD R. WRIGHT, OF SAME PLACE.

## IMPROVEMENT IN GAS-BURNERS.

Specification forming part of Letters Patent No. **217,149**, dated July 1, 1879; application filed December 18, 1878.

*To all whom it may concern:*

Be it known that I, GEORGE REZNOR, of Mercer, in the county of Mercer, and in the State of Pennsylvania, have invented certain new and useful Improvements in Gas-Burners; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a gasoline-gas burner, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a side view, and Fig. 2 a vertical section, of my improved burner.

My burner is composed of three parts—an ordinary coal-gas burner, consisting of the pillar A and lava tip B, and a spun brass globe, D, with collar C fitting over the pillar, very little grinding making a perfectly tight valve. The collar C extends upward into the globe, and has apertures *b b*, to correspond with similar apertures *a* in the pillar A.

The peculiar advantage of this style of valve is that it cannot wear loose and change the position of the collar, so as to affect the shape of the flame. The long bearing, slightly tapering, insures a permanent joint which will not wear loose, as is the case where screw-thread is used.

There being no thread, the burner can be quickly taken apart to remove any dust or other obstruction (which frequently accumulates between the chambers) without removing the burner from the fixture.

The movement of the globe and collar is limited by means of a slot, *d*, in the collar and a pin, *e*, projecting from the pillar through said slot. The slot *d* has an opening at *d'* through the end of the collar, for putting on and removing the same.

The globe is provided with a handle or switch, F, which enables the operator to control the flame with ease when globes are used. The opening and closing of the valve require but slight motion, changing the position of the outside collar but very little, thus avoiding all difficulty heretofore encountered by movable collars—*i. e.*, altering the shape of the flame by not revolving true around the inside burner.

The outside globe, containing considerable gas, becomes hot and heats the gas before it reaches the flame, causing a more rapid combustion, consequently a whiter and steady flame; also insuring an even flow at the exit.

The tip B is preferably made of lava, but may be of any suitable material, and is simply fitted in the end of the pillar without fastening device, so that the consumer can easily shift the tip in imperfect burners to make an even distribution of the gas coming from the outside chamber. For instance, the opening of the outside collar being a little larger at one side than the other, caused by being imperfectly made, or by having been injured by accident, the operator can have a perfect-shaped flame by simply shifting the tip so as to present the flat side to the point where the greatest amount of gas escapes.

My burner, being all spun brass and requiring no lathe-work or thread-cutting, can be cheaply and quickly made.

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

The combination, with the pillar A, having openings *a*, and tip B, of the outside globe and collar, D C, having openings *b*, substantially as and for the purpose herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

GEORGE REZNOR.

Witnesses:

JOHN N. REZNOR,  
S. B. ALEXANDER.