

*I. Whitehouse. Gasoline Burner.*

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*Fig. 1*

PATENTED AUG 22 1871

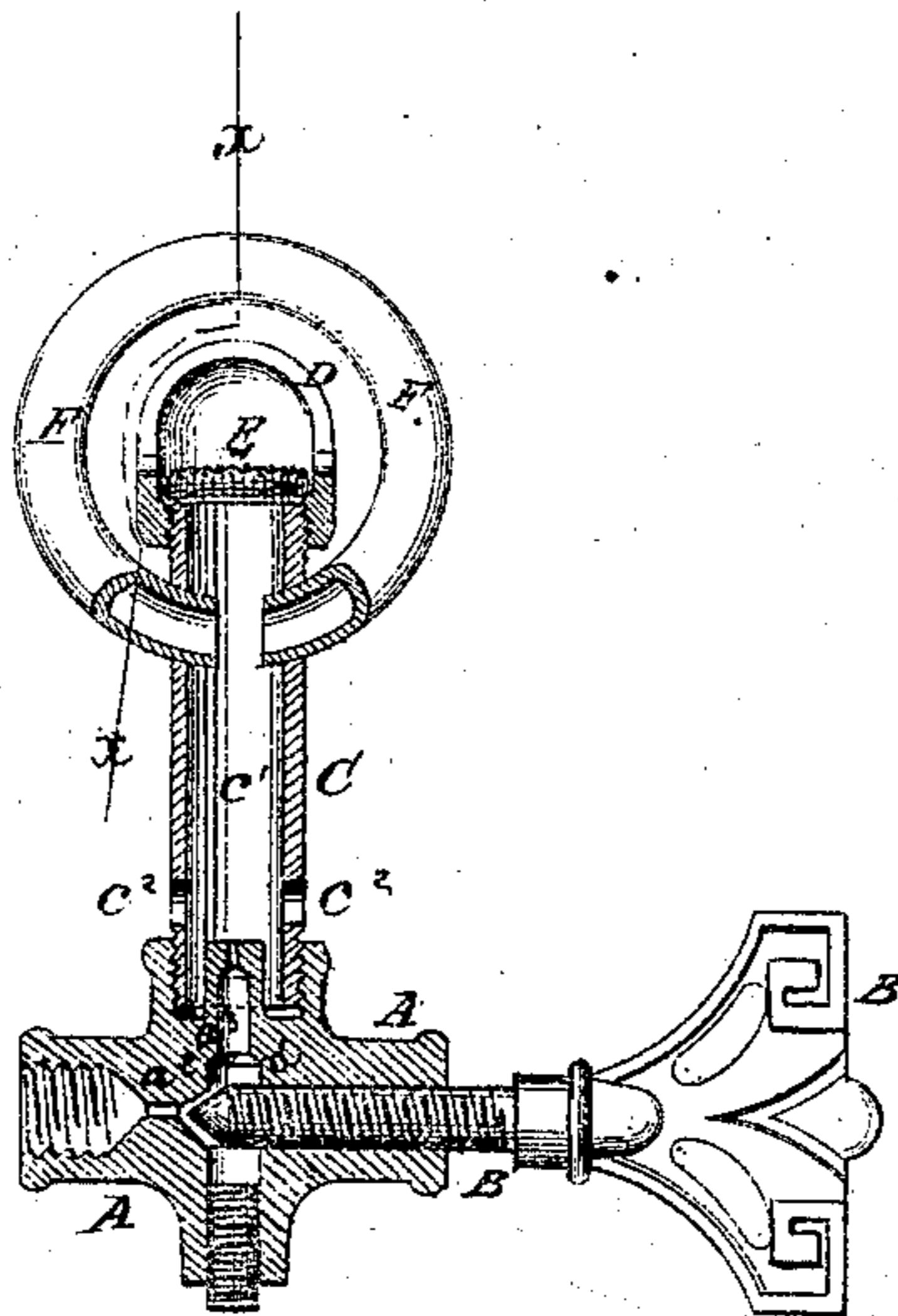
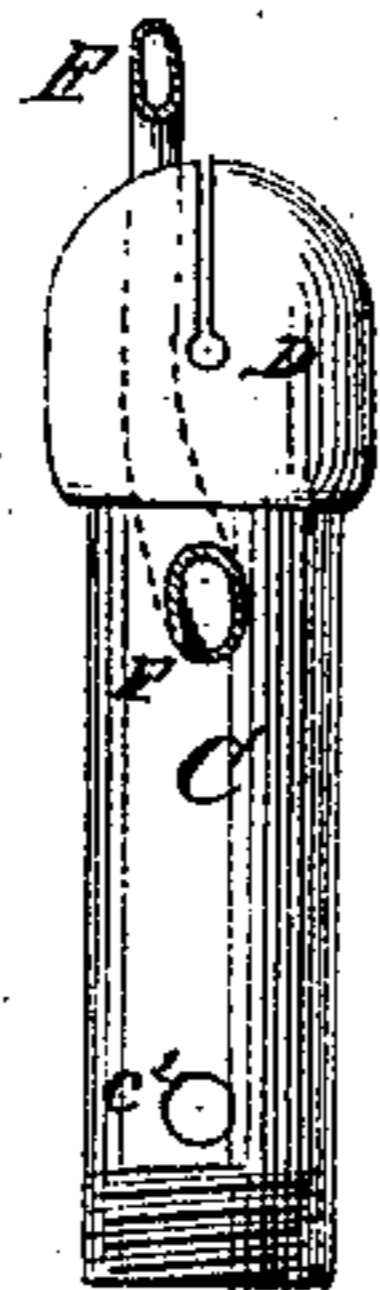


Fig. 2



**Witnesses:**

A. W. Almquist  
Wm. B. C. Smith.

**Inventor:**

S. Whitehouse.

PER

## Attorneys.

# UNITED STATES PATENT OFFICE.

ISAAC WHITEHOUSE, OF NEW YORK, N. Y., ASSIGNOR TO CHARLES ROYLE, OF  
SAME PLACE.

## IMPROVEMENT IN VAPOR-BURNERS.

Specification forming part of Letters Patent No. 118,314, dated August 22, 1871.

*To all whom it may concern:*

Be it known that I, ISAAC WHITEHOUSE, of the city, county, and State of New York, have invented a new and useful Improvement in Gasoline-Burner; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a detail sectional view of my improved burner. Fig. 2 is a detail side view of the upper part of the same, partly in section, through the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish a simple and effective burner for burning the gas generated from gasoline and other suitable light hydrocarbons, and which will give a strong and uniform flame; and it consists in the improvement hereinafter described, and subsequently pointed out in the claim.

A represents the piece which is screwed upon the end of the gas-pipe. In the opposite end of the piece A is screwed a screw, B, upon the outer end of which is cast a thumb-piece, and which passes into and through the chamber *a*<sup>1</sup> formed in the center of the piece A. The point or forward end of the thumb-screw B is made conical to fit into the conical cavity formed at the enlarged inner end of the small passage *a*<sup>2</sup> that leads from the chamber *a*<sup>1</sup> into the cavity that receives the end of the gas-pipe, so that the said screw B may serve as a valve to regulate and stop the escape of the gas, as required. *a*<sup>3</sup> is a passage leading from the chamber *a*<sup>1</sup> into the chamber *c*<sup>1</sup> of the burner-tube C. The end of the upper arm or part of the piece A in which the passage *a*<sup>3</sup> is formed has an annular recess formed in it to receive the lower end of the burner-

tube C, and has a screw-thread cut in the inner surface of the outer wall of said recess to receive the screw-thread cut upon the outer surface of the lower end of the said burner-tube C. In the opposite sides of the lower part of the burner-tube C are formed holes *c*<sup>2</sup> to admit air into the chamber *c*<sup>1</sup> to mingle with the gas as it passes to the burner-tip, said holes *c*<sup>2</sup> being made of such a size as to allow the proper amount of air to mingle with the gas. Upon the upper end of the burner-tube C is screwed the tip D through a slit, in the upper end of which the gas escapes to be burned. In the tip D, above the upper end of the tube C, is placed a cap or partition, E, made of wire-gauze or finely-perforated sheet metal, the effect of which is to finely divide the escaping stream of mingled gas and air, and cause it to escape thoroughly mingled and uniformly from the tip D, thus giving a steady flame. F is an open ring-tube, the open ends of which enter the opposite sides of the upper part of the tube C. The ring-tube F is cast solid with the burner-tube C, and is bent a little to one side so as to pass over the tip D parallel with and a little in the rear of the slit in the top of the tip D.

By this arrangement the mingled air and gas will be thoroughly heated before it escapes through the tip D, and will thus be prepared to produce the best effect.

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

The ring-tube F, in combination with the burner-tube C and tip D, substantially as herein shown and described, and for the purpose set forth.

The above specification of my invention signed by me this 17th day of March, 1871.

ISAAC WHITEHOUSE.

Witnesses:

JAMES T. GRAHAM,  
GEO. W. MABEE.