

(No Model.)

D. E. BANGS.
PETROLEUM BURNER.

No. 267,478.

Patented Nov. 14, 1882.

Fig. 1.

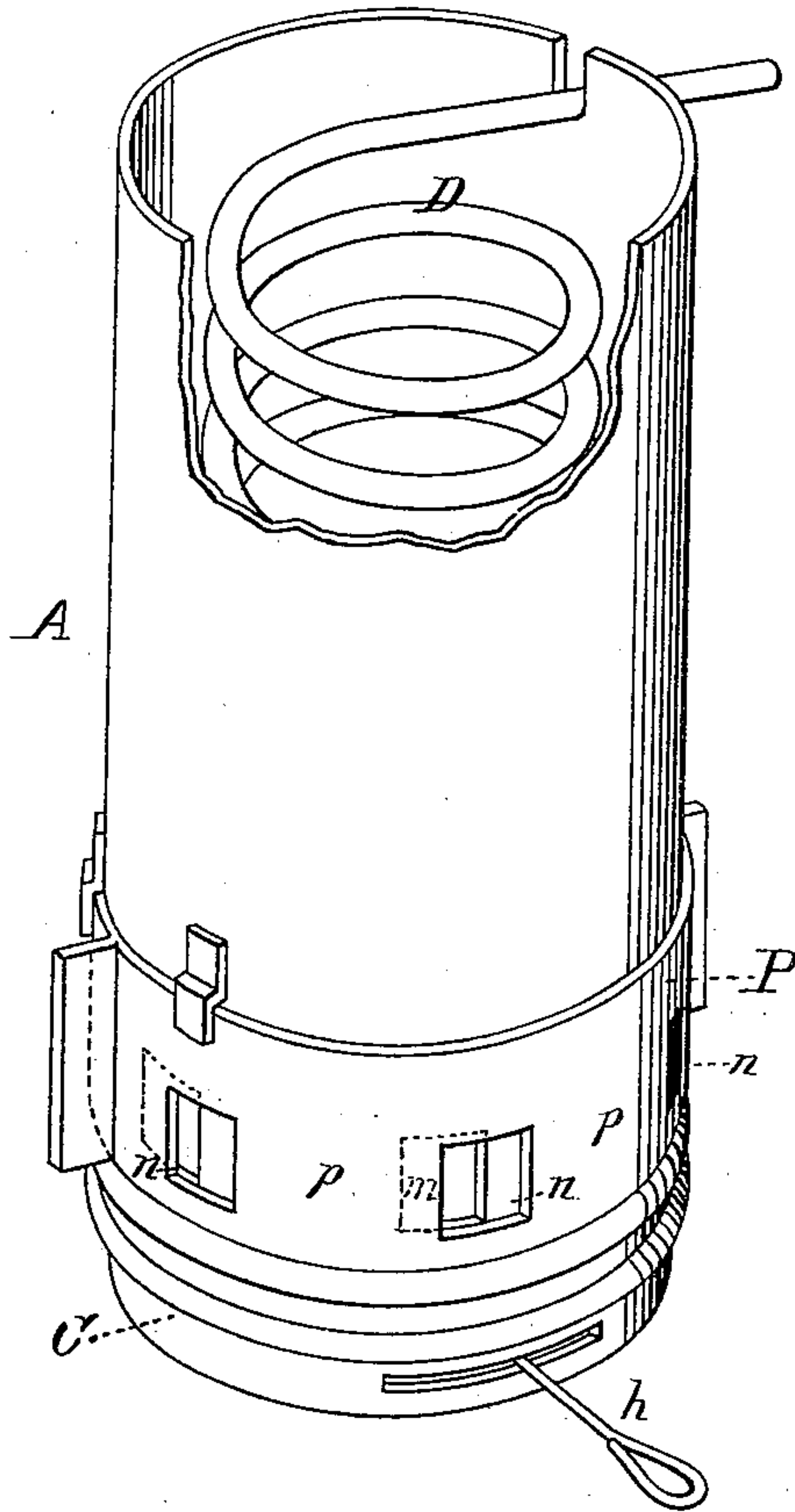


Fig. 2.

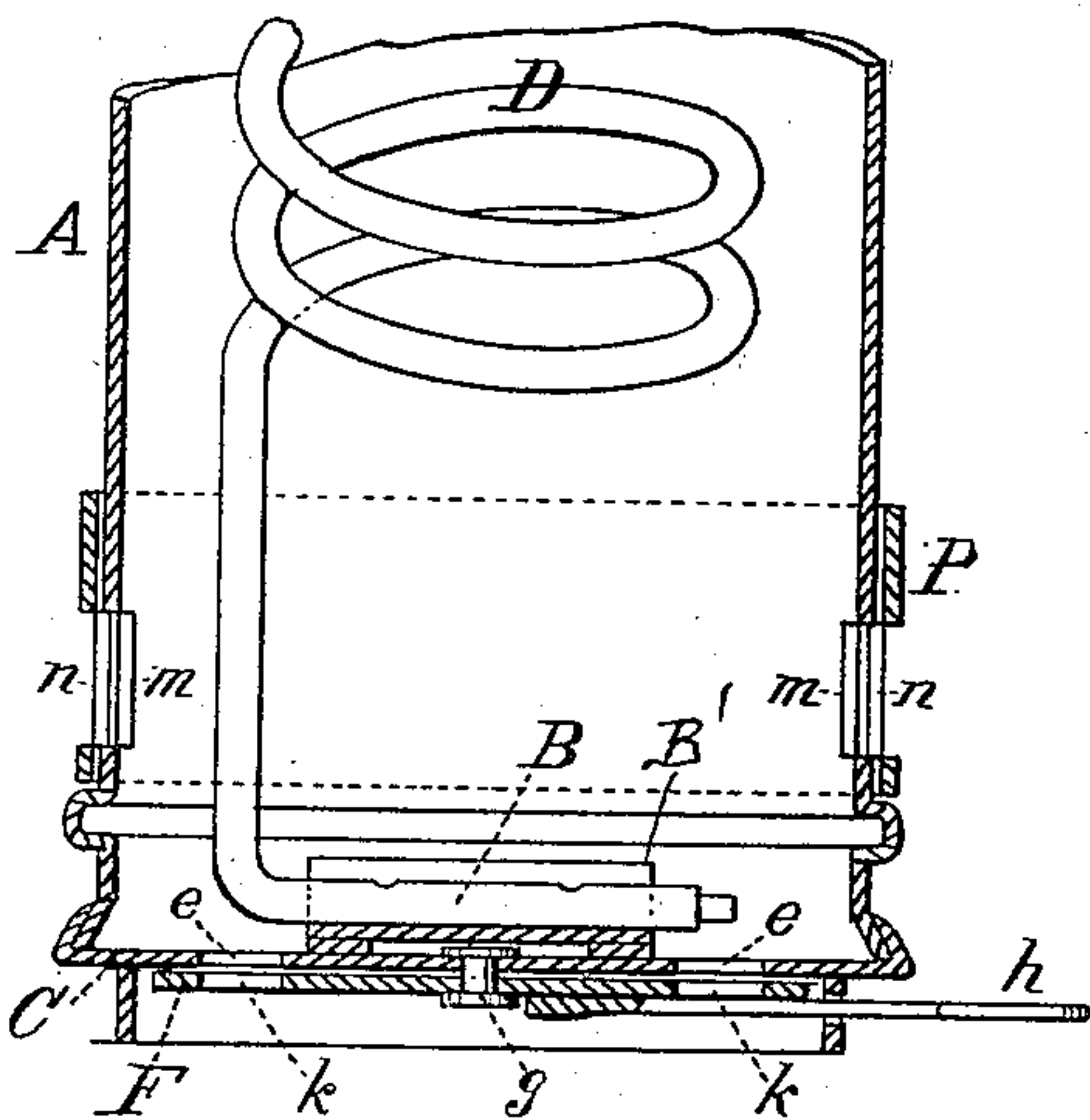
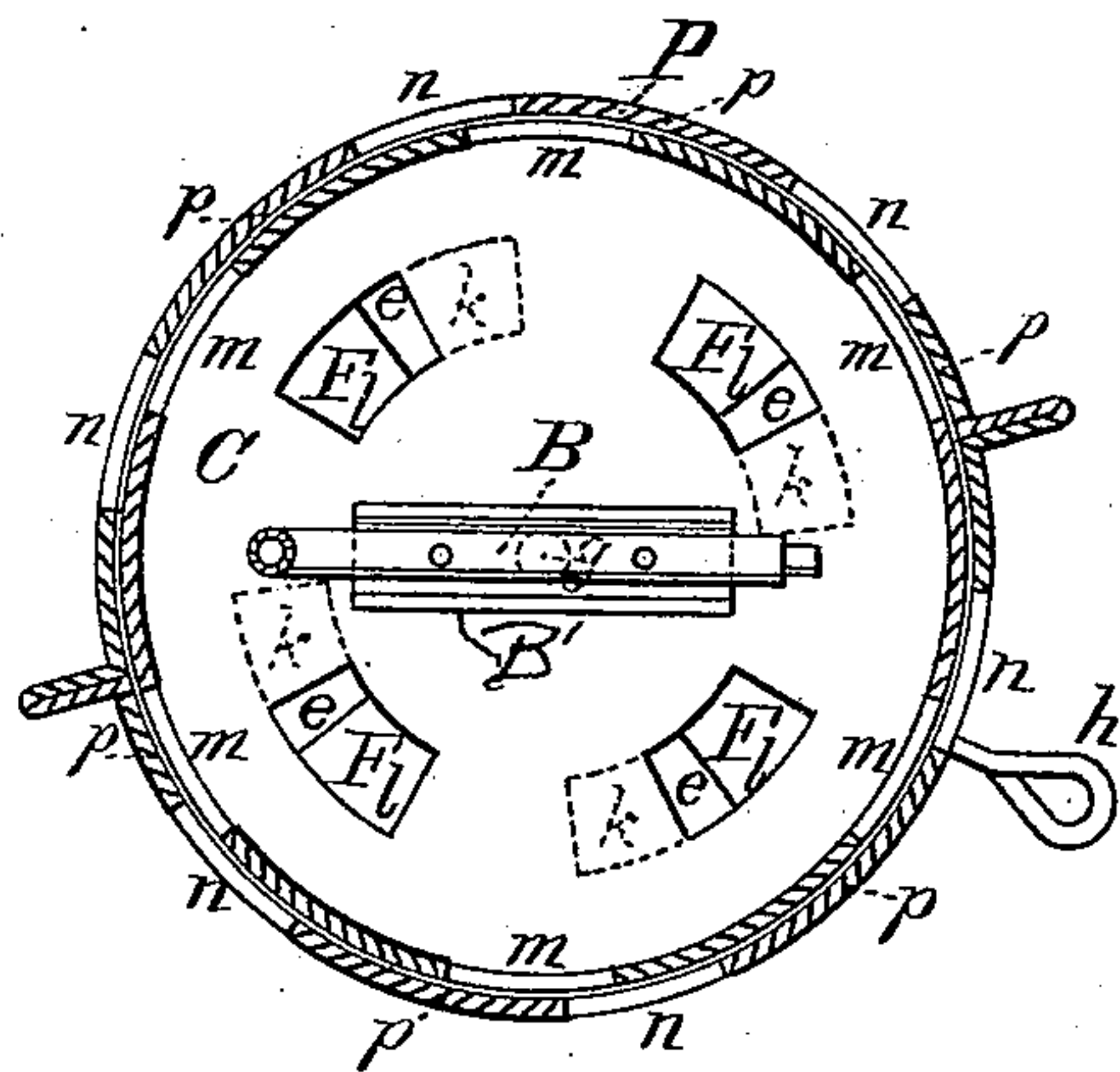


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

DAVID E. BANGS, OF MEDFORD, MASSACHUSETTS, ASSIGNOR TO THE
NATIONAL HEAT AND LIGHT COMPANY, OF MAINE.

PETROLEUM-BURNER.

SPECIFICATION forming part of Letters Patent No. 267,478, dated November 14, 1882.

Application filed June 17, 1882. (No model.)

To all whom it may concern:

Be it known that I, DAVID E. BANGS, a citizen of the United States, resident at Medford, in the county of Middlesex and State of Massachusetts, have invented a new and valuable Improvement in Petroleum-Burners; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation in perspective of this invention. Fig. 2 is a section taken longitudinally of the lower part. Fig. 3 is a cross-section taken through the cylinder A and the register P.

This invention has relation to burners for petroleum and the lighter oils proceeding therefrom; and it consists in combining with a trough-shaped burner and its feeding-coil an inclosing wall or incasement having a base under the burner provided with air-passages and adjustable valves, and having air-passages and adjustable valves in the side wall of the incasement, the lower portions of the side air-passages being on a level or slightly above the burner, all as hereinafter set forth.

In the accompanying drawings, the letter A designates the incasement or cylinder around the burner B, which is located in the lower part thereof above the base C.

D represents the feeding tube or coil leading to the burner, this coil being in the construction illustrated arranged above the level of the burner and within the incasement A. The burner B at the lower end of this tube or coil is made in trough form—that is to say, the horizontal perforated lower end of the coil rests in a trough, B', secured to the bottom of the incasement, as shown. The result of this construction is that when the burner is in use the trough B' will become highly heated, and will greatly assist in vaporizing the petroleum or its products under combustion. It will also prevent drippage through the bottom of the incasement should the draft become insufficient. I have described and shown a perforated trough connected with a supply-tube in a former patent, No. 229,355; but this construction is designed as an improvement on said patent.

In the base C of the incasement or cylinder are formed the air-openings *e*, and in connection therewith a register-plate, F, is provided, being pivoted to the base C, as indicated at *g*, and provided with a handle, *h*, whereby it may be readily turned to bring its openings *k* or intermediate valve portions, *l*, opposite the openings *e* of the base. In the side wall of the incasement or cylinder are formed at or a little above the level of the burner B the openings or air-passages *m*, and around the cylinder is arranged a register-ring, P, having the openings *n*, and the intermediate stops or valve-walls, *p*, which, by turning the register-ring, may be made to partially or wholly close the openings *m*. By adjusting the registers F and P the amount of air supplied to the burner can be easily regulated to suit the draft of any stove or chimney, so that all the smoke will be consumed and a perfect combustion will be obtained.

The object of this invention is to regulate the heat and make the combustion perfect for burners used with petroleum and its products, and while the trough-burner illustrated is well adapted for use in connection with governing devices of the character described it is evident that they will serve an equally important purpose in connection with burners of various styles in common use.

A petroleum-burner having an incasement or surrounding wall provided with adjustable air-passages to regulate the amount of air supplied to the point of combustion is not broadly claimed herein.

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

In a petroleum-burner, the combination, with a trough-burner consisting of a trough, B', and the horizontal lower perforated end of the feeding-coil D resting therein, of the coil D, arranged directly over the burner, and an incasement having a base under the burner provided with air-passages and adjustable valves, and air-passages and adjustable valves in the side walls of the incasement on a level with or slightly above the burner, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

DAVID E. BANGS.

Witnesses:

WM. F. GRUBB,
MAY S. ANDERSON.