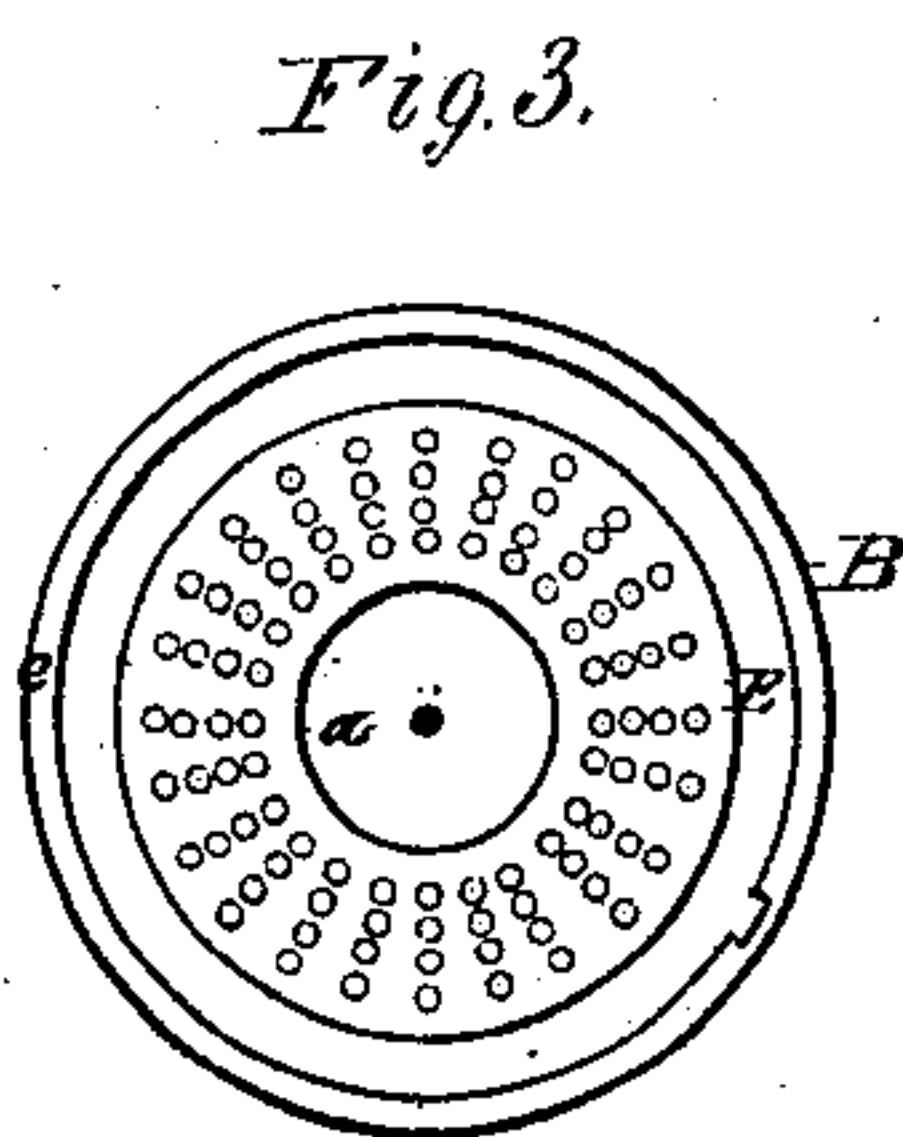
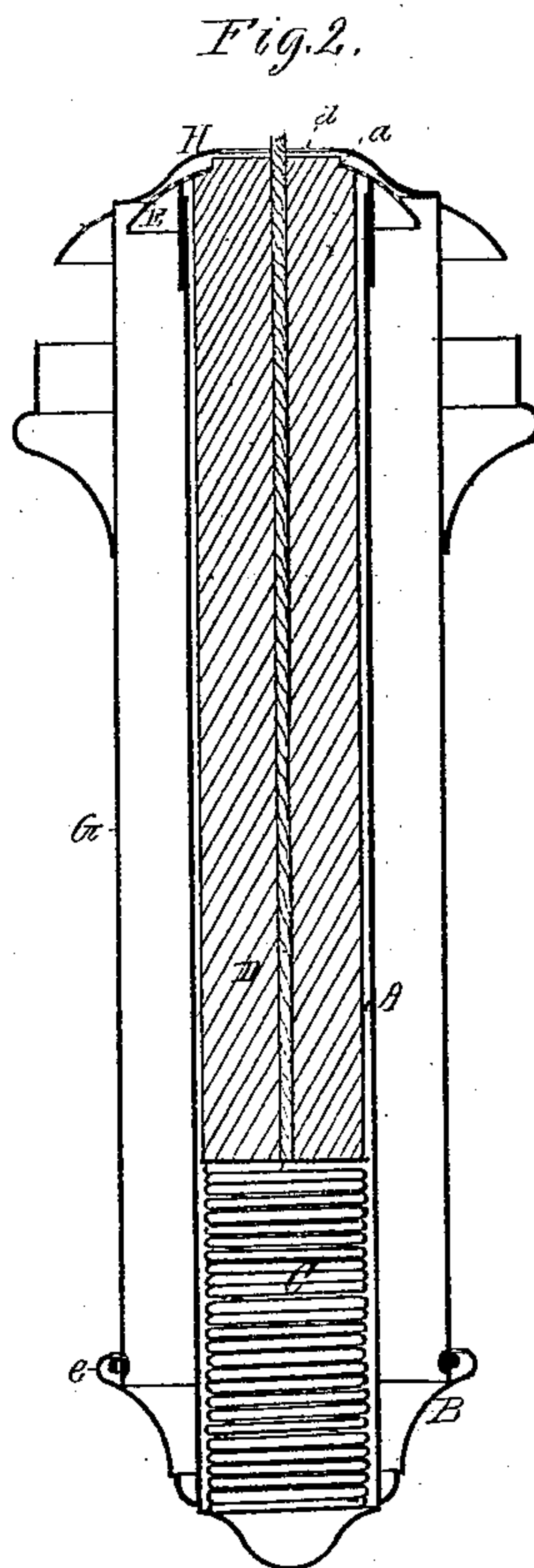
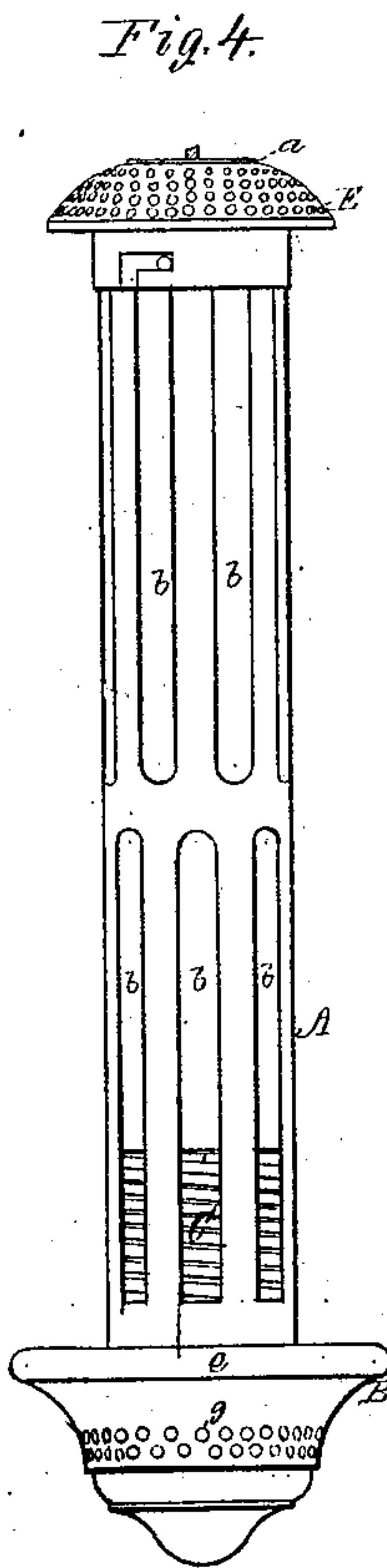
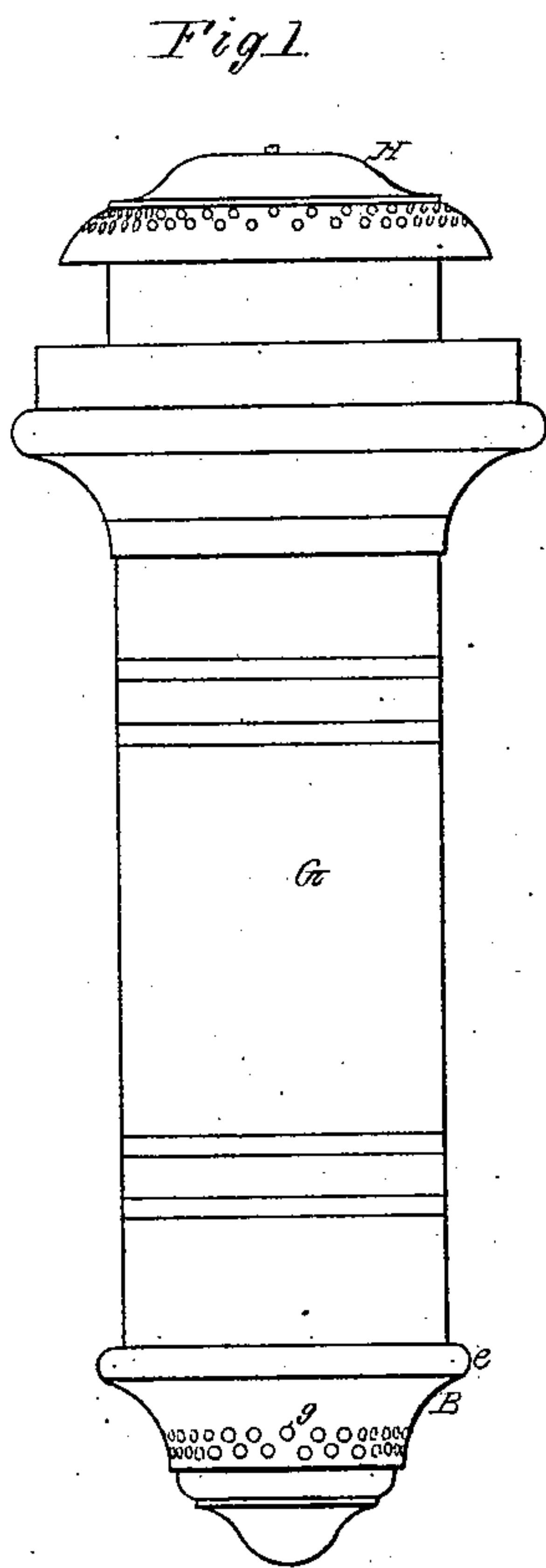


H. RYDER.
Candlestick.

No. 105,257.

Patented July 12, 1870.



Witnesses.
S. N. Piper.
J. Palmer.

Henry Ryder.
by his attorney.
R. H. Eddy

United States Patent Office.

HENRY RYDER, OF NEW BEDFORD, MASSACHUSETTS.

Letters Patent No. 105,257, dated July 12, 1870.

CANDLESTICK

The Schedule referred to in these Letters Patent and making part of the same.

To all persons to whom these presents may come:

Be it known that I, HENRY RYDER, of New Bedford, of the county of Bristol and State of Massachusetts, have made a new and useful invention, having reference to Candlesticks or Candle-Burners; and I do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawing, of which—

Figure 1 is a front elevation; and

Figure 2, a vertical section of a candle-burner, as provided with my invention.

In the common candlesticks and coach-lanterns in which a candle is used for giving light, and forced upward against a stationary cap, provided with a hole for reception of the upper part of the wick of the candle, the said cap, by absorption of heat from the flame of the wick, contributes to melt the upper end of the candle, and thus causes imperfect combustion of the candle by the flame of the wick, the surplus or part melted and unburned flowing down the outer surface of the candlestick or burner, or into the lantern, as the case may be.

To prevent or diminish such tendency of the cap to melt the candle, as well as to obviate the evil consequences thereof, is the object of my invention.

In the drawing—

A denotes the candle-holder or tube, as extended upward from a perforated, hollow, conical base, B.

Within the tube A is a helical spring, C, for forcing a candle, D, up against a cap or cover, E, which is fitted to the upper end of the tube, and held in place therein by a "bayonet connection."

A hole, *a*, having a diameter less than that of the candle, is made through the middle of the cap E.

Furthermore, the said cap, concavo-convex in shape, has a diameter larger than the candle-tube, or is extended beyond it in manner as represented. The part which is so extended beyond and around the candle-tube is made foraminous, as shown in Figure 3, which is a top view of the cap.

The candle-tube may have one or more series of slots, *b*, made in it, in manner as shown in Figure 4, which is a side elevation of the said candle-tube, its base and cap.

The said candle-tube and cap I surround by an air-chimney or conduit, G, arranged concentrically with the tube. The said conduit G may be connected to the base by a bayonet-catch. The internal diameter of the tube G may be equal to or somewhat greater than the diameter of the foraminous cap E.

The tube G extends a short distance above the cap

E, and is surmounted by a concavo-convex air-deflector, H, having a hole, *d*, through its central part.

This air-deflector extends over the cap E, at a short distance from it, so that there may be a free passage for air between the two, and over and against the upper surface of the cap.

A flange, *e*, formed as represented, and provided with bayonet-connection studs, may be extended from the air-tube, in manner as shown in the drawing, such appendages being to enable the tube to be fixed in the lower part of a lantern. The perforations in the base B are shown at *g*.

While the upper part of the wick of the candle may be inflamed, air for the support of the flame will pass through the perforations *g*, thence up through the tube G, and against the outer surface of the candle-tube; thence it will flow through the perforations of the cap, and, impinging against the deflector H, will, by such, be deflected over the top of the cap and to the flame.

The air, by going through the deflector, will operate to abstract from it any heat which may have been absorbed by it, so, by being deflected over the upper surface of the deflector, the air will still further operate to deprive it of heat. The air heated will pass to the flame, and promote combustion of the liquid part of the candle which may be drawn into the wick.

The air, by passing through the chimney G, will keep the candle-holder from becoming heated, and, in consequence of the slits in the holder, the candle will be more or less exposed to the upward current of cool air, and thus be more or less prevented from being melted or softened by heat absorbed by the holder.

I claim as my invention the following, viz:

The combination of the foraminous cap E with the candle-holder A, provided with a spring, as and for the purpose described.

Also, the combination of the deflector H with the foraminous cap E, and candle-holder A.

Also, the construction and arrangement of the air-conduit or tube G, surrounding the candle-holder A, with such holder and its foraminous cap E, to operate with a spring and candle as explained.

Also, the combination of the air tube G and deflector H with the candle-holder A and its foraminous cap E, the whole being substantially as and for the purpose or purposes as specified.

HENRY RYDER.

Witnesses:

R. H. EDDY,
S. N. PIPER.