

J. G. HARPER.  
Gas Lighting Device.

No. 48,932.

Patented July 25, 1865.

FIG. 1.

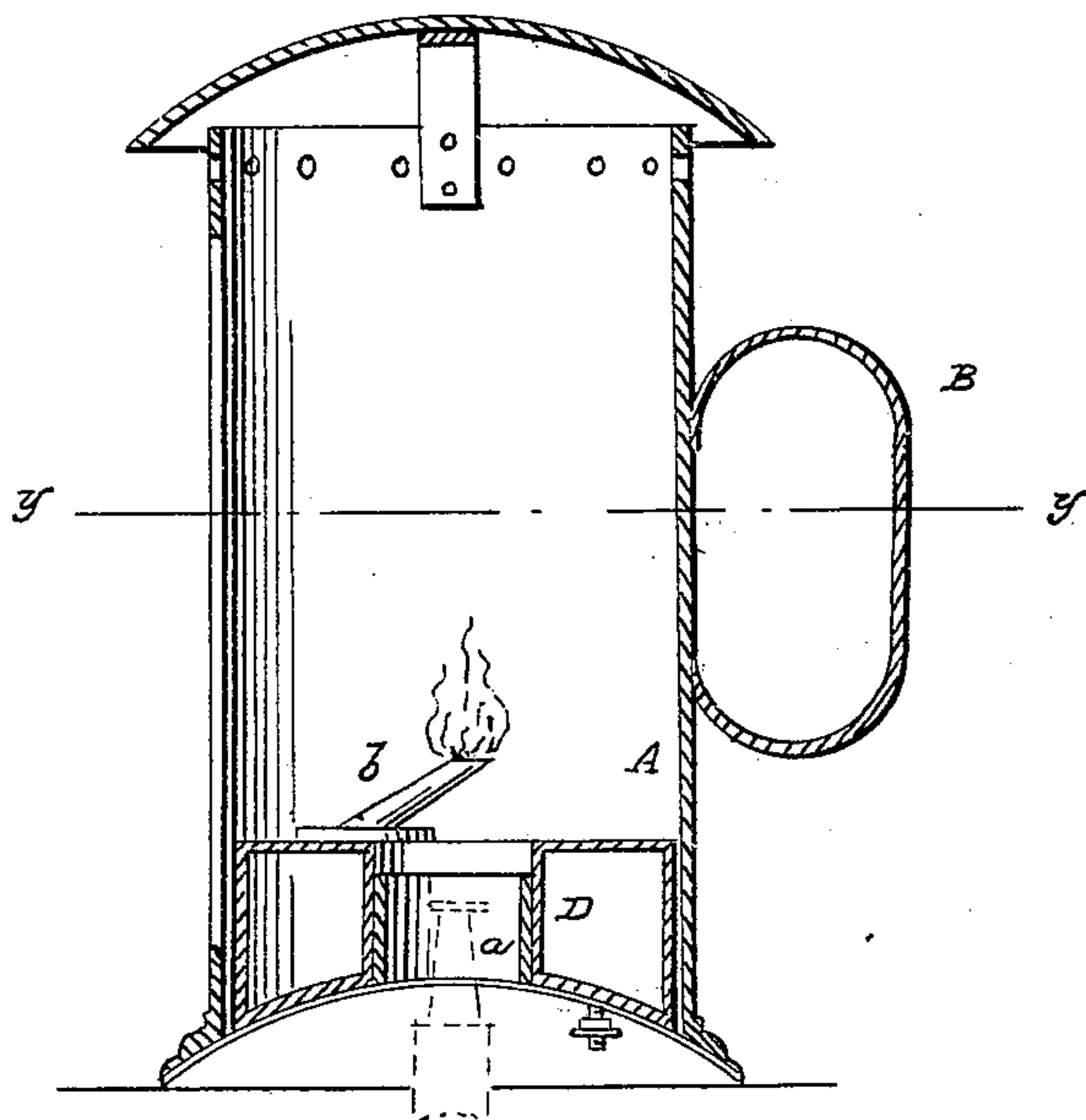
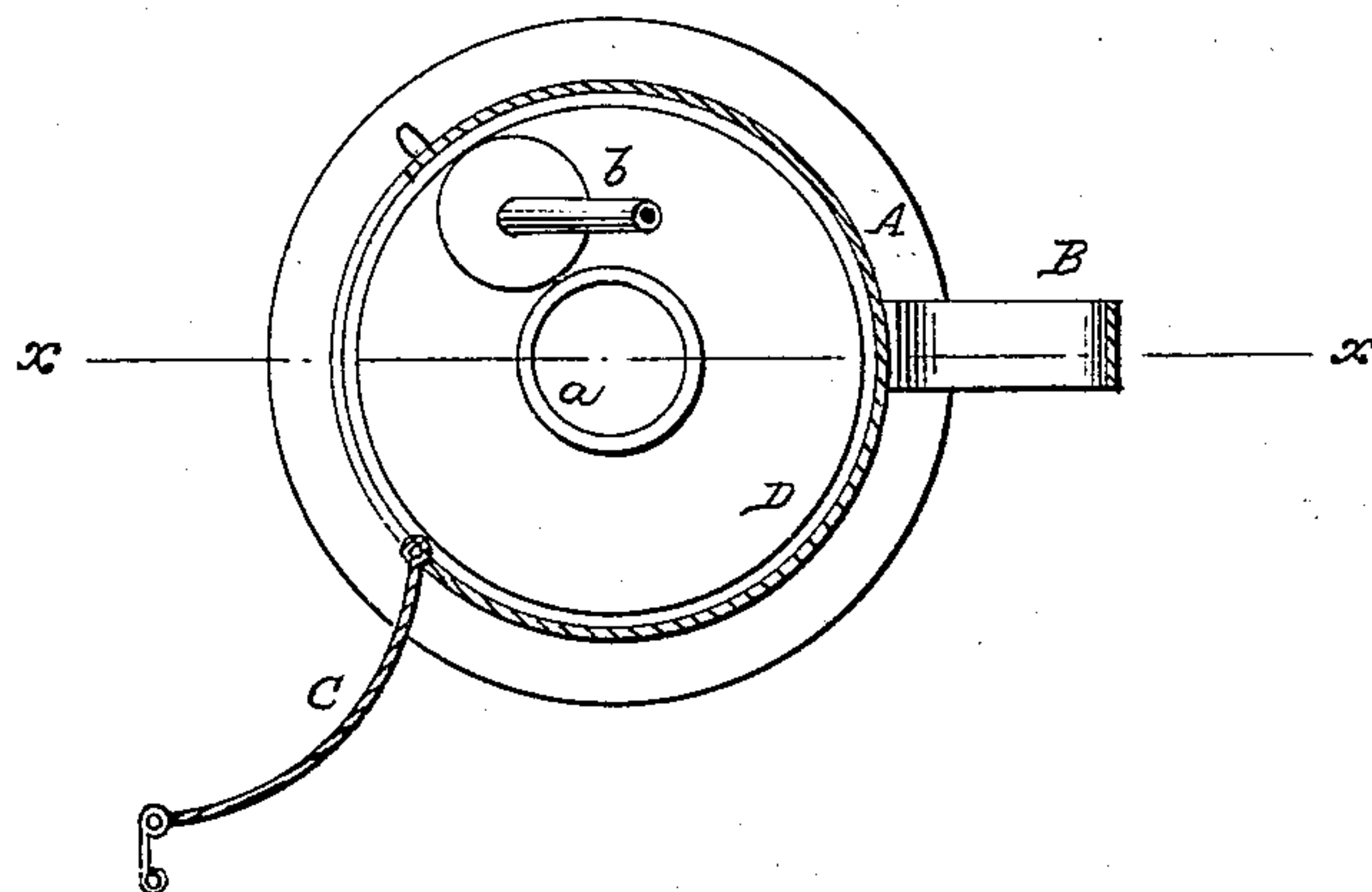


FIG. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

JOHN G. HARPER, OF NEW YORK, N. Y.

## IMPROVED GAS-LIGHTING DEVICE.

Specification forming part of Letters Patent No. 48,932, dated July 25, 1865.

*To all whom it may concern:*

Be it known that I, JOHN G. HARPER, of the city, county, and State of New York, have invented a new and Improved Gas-Lighting Device; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a vertical central section of my invention, taken in the line *xx*, Fig. 2; Fig. 2, a horizontal section of the same, taken in the line *yy*, Fig. 1.

Similar letters of reference indicate corresponding parts.

This invention relates to a new and useful device for lighting gas, and is more especially designed to be used for lighting street-lamps and other out-door lamps, so as to dispense with the use of friction-matches, a great number of which are consumed for this purpose on account of failures to ignite owing to the wind, storms, dampness of the atmosphere, unnecessary waste, &c.

The invention consists in inserting an oil or other lamp within a suitable case, provided with an opening at such a point and in such relation with the wick-tube of the lamp that the device may be applied to the gas-burner, and the flame from the lamp ignite the gas issuing therefrom.

A represents a case, which may be of cylindrical or other form, and constructed of sheet metal. This case is provided with a handle, B, and has a vent at its top to admit of a draft through it to supply with air the lamp within. The case is also provided with a door, C, for the purpose of lighting and trimming the lamp, &c.

D is the lamp, which is of annular form, and is fitted on or around a cylindrical flange, *a*, at the bottom of the case, said flange encompassing a circular opening in the bottom of the case. The lamp is provided with an inclined wick-tube, *b*, the upper end of which is nearly in line with the opening in the bottom of the case, and

is a short distance above the flange *a*. This lamp may be supplied with whale-oil. I prefer that material, although others may be used.

The device is used as follows: The lamp D is filled, and its tube *b* supplied with a wick and lighted, and the door C closed. The flame of the lamp D is supplied with air through the opening in the bottom of the case A. The bottom of the case is placed over a gas-burner, the gas let on, and the gas ascending up through the opening in the bottom of the case is instantly ignited by contact with the flame of lamp D.

It is not essential that the gas-burner be allowed to project much up into the flange *a* in order to ignite the gas, but it would be advisable to have it extend up a trifle. The work is done in a moment, and a failure need not in any case occur at the first essay or attempt.

The lamp D, it will be seen, is fully protected from the wind and weather—equally so as the lamp in an ordinary lantern. The device will prove a very economical affair for those having contracts for lighting street gas-lamps, as the friction-matches now employed for that purpose, especially at the present enhanced price, are a very expensive article. Besides with my invention the work may be done more expeditiously.

I do not confine myself to the precise mode of construction herein shown and described, for that may be varied or modified, and the same end attained.

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

A case or jacket provided with a lamp for burning oil or other suitable material, and having an opening or aperture made in it in such a relative position with the wick-tube of the lamp as to admit of the case or jacket being applied to a gas-burner to ignite the gas issuing therefrom, substantially as set forth.

JOHN G. HARPER.

Witnesses:

M. M. LIVINGSTON,  
C. L. TOPLIFF.