F. BILLINGHAM.

TORCHES FOR LIGHTING STREET LAMPS.

No. 181,030. Patented Aug. 15, 1876

FIG. 1.

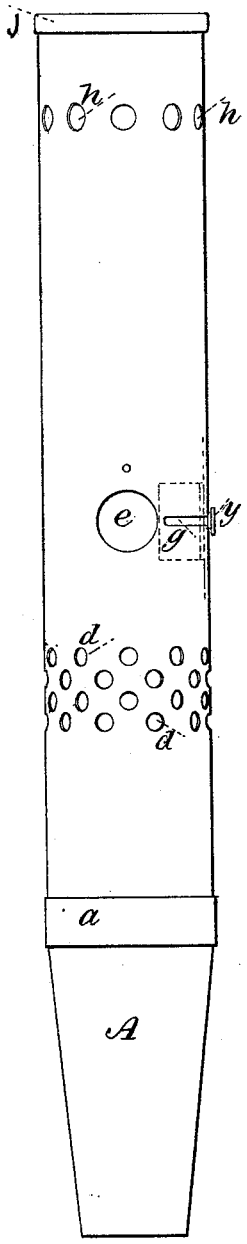


FIG. 3.

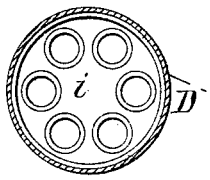


FIG. 4.

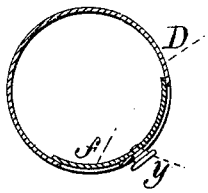


FIG. 5

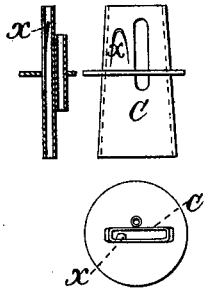
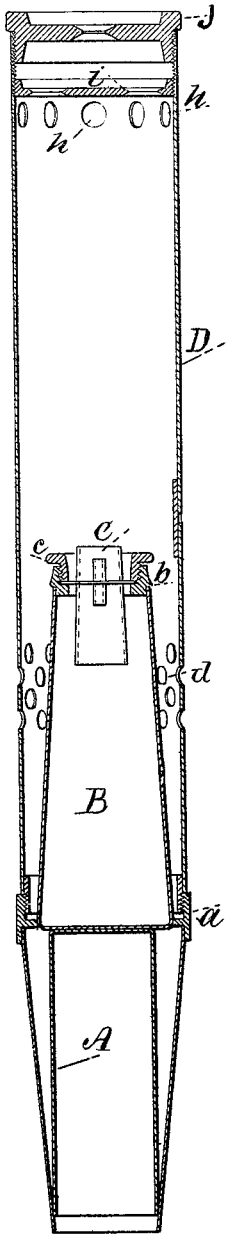


FIG. 2.



WITNESSES.

W.H. Hicks

John. Cook

Francis Billingham by A. Sidney Doane atty.

INVENTOR.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

FRANCIS BILLINGHAM, OF NEW YORK, N. Y., ASSIGNOR TO E. P. GLEASON MANUFACTURING COMPANY, OF SAME PLACE.

IMPROVEMENT IN TORCHES FOR LIGHTING STREET-LAMPS.

Specification forming part of Letters Patent No. **181,030**, dated August 15, 1876; application filed July 20, 1876.

To all whom it may concern:

Be it known that I, FRANCIS BILLINGHAM, (assignor to the E. P. GLEASON MANUFACTURING COMPANY,) of the city, county, and State of New York, have invented, made, and applied to use Improvements in the Construction of Torches for Lighting Street-Lamps; and that the following is a full, clear, and correct description of my invention, reference being had to the accompanying drawing, making part of this specification, and to the letters of reference marked thereon, in which—

Figure 1 is a side elevation of my improved torch. Fig. 2 is a sectional view of the same. Fig. 3 is a view of the top of the torch, the cap being removed. Fig. 4 is a view of the portion of the torch provided with sliding plate and opening for lighting the lamp. Fig. 5 are views showing the construction of the wick-tube.

In the drawing, like parts of the invention are pointed out by the same letters of reference.

The nature of the present invention consists in improvements, as more fully hereinafter set forth, in the construction of torches for lighting street-lamps; the object of the invention being the production of a torch for lighting street-lamps efficient in operation, and produced at a low cost.

To enable those skilled in the arts to make and use my invention, I will describe the construction and operation of the same.

A shows a socket formed of tin or any suitable metal, in which may be inserted one end of the pole of wood or suitable material for supporting the torch. The upper portion of the socket is flanged, as at *a*, and upon the interior of the same is cut a screw-thread, with which engages a screw-thread formed upon the base of the upper portion of the torch, as hereinafter described. B shows the lamp soldered or attached in any convenient manner to the socket A. This lamp is made conical, and in it is received the oil to be supplied to the wick. C shows the wick-tube of the lamp made in ordinary manner, save that a portion of the metal of which the tube is formed is cut lengthwise, and is then forced in and beyond the face of the interior of the tube, and forms, as it were, a lip or tongue, *x*, projecting inward, and serving to retain the wick in position within the tube C. The top of the lamp is flanged, as at *b*, and provided with a screw-thread, with which, after the wick-tube has been placed in position, a threaded cap or nut, *c*, engages, and holds the wick-tube C in position. The upper portion of the torch consists of a tube, D, screw-threaded at its base to engage with the upper portion of the socket A, and intended to be placed over the lamp B. The tube D is provided with a series of perforations, *d*, so positioned that when the tube D is united to the socket A these perforations *d* shall be about midway between the base and the top of the lamp, and are intended to allow air to be supplied to the flame to support combustion. It is also provided with an opening, *e*, placed so that when united to the socket A this opening shall be a little above the top of the wick-tube C, and thus admit of the lighting of the wick without disconnecting the upper and lower portions of the torch. The opening *e*, after the lamp has been lighted, is closed by a sliding plate, *f*, placed upon the interior of the tube D, and is retained in position, and moved forward or back, by means of a headed pin, *y*, passing through a slot, *g*, in the tube D, and having its bearing in the plate *f*. The tube D is further provided with a series of perforations, *h*, near its upper end; and upon the interior, a short distance above these perforations *h*, is a perforated disk of metal, *i*, for deflecting the flame. The upper end of the tube D is threaded upon its interior, and with the same engages the threaded base of a cap or disk, J, secured upon the upper portion of the torch, to prevent the extinguishment of the same from rain or other causes.

Such being the construction, the operation may be thus described: The lamp is first filled, the wick placed in the wick-tube, and retained in the proper position therein by the lip or tongue *x*, formed as described, and the upper portion D of the torch is secured upon the lower portion of the same. The plate *f* may now be drawn away from its position within the opening *e* in the tube D, and, a lighted match having been inserted into the same, the wick

of the lamp is lighted. The opening *e* is then closed by moving forward, by means of the headed pin *y*, the plate *f*, which fills the opening.

To light a street-lamp: The cock of the same having been opened to allow of the supply of gas to the burner, the openings or perforations *h* are brought into proximity with the burner, and the flame, issuing through these perforations *h*, and deflected by the disk of metal *i*, lights or ignites the gas. As previously stated, air is supplied to the lighted wick through the perforations *d*, and combustion is thus maintained.

When desired to extinguish the lamp the sliding plate may be withdrawn from its position within the opening, and the lamp may be blown out.

A torch thus made can be afforded at a low rate to the consumer, and will be found efficient in its operation.

Having now set forth my invention, what I claim as new is—

The combination of the threaded socket A, lamp B, wick-tube C, threaded tube D, provided with the perforations *d* and *h*, and opening *e*, and sliding plate *f*, and disk *i*, and cap J, constructed and operating substantially as and for the purposes specified.

FRANCIS BILLINGHAM.

Witnesses:
E. P. GLEASON,
E. F. GENNERT.