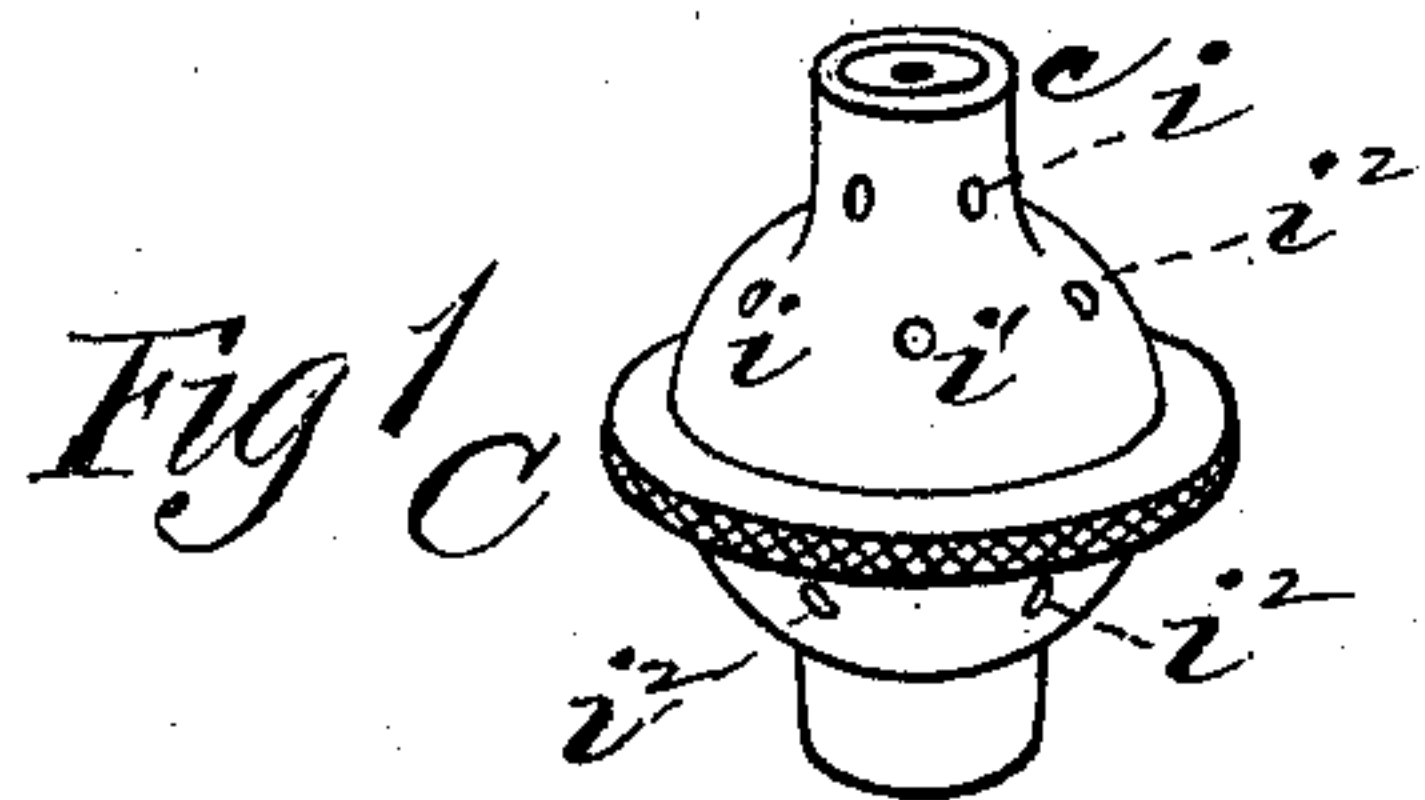


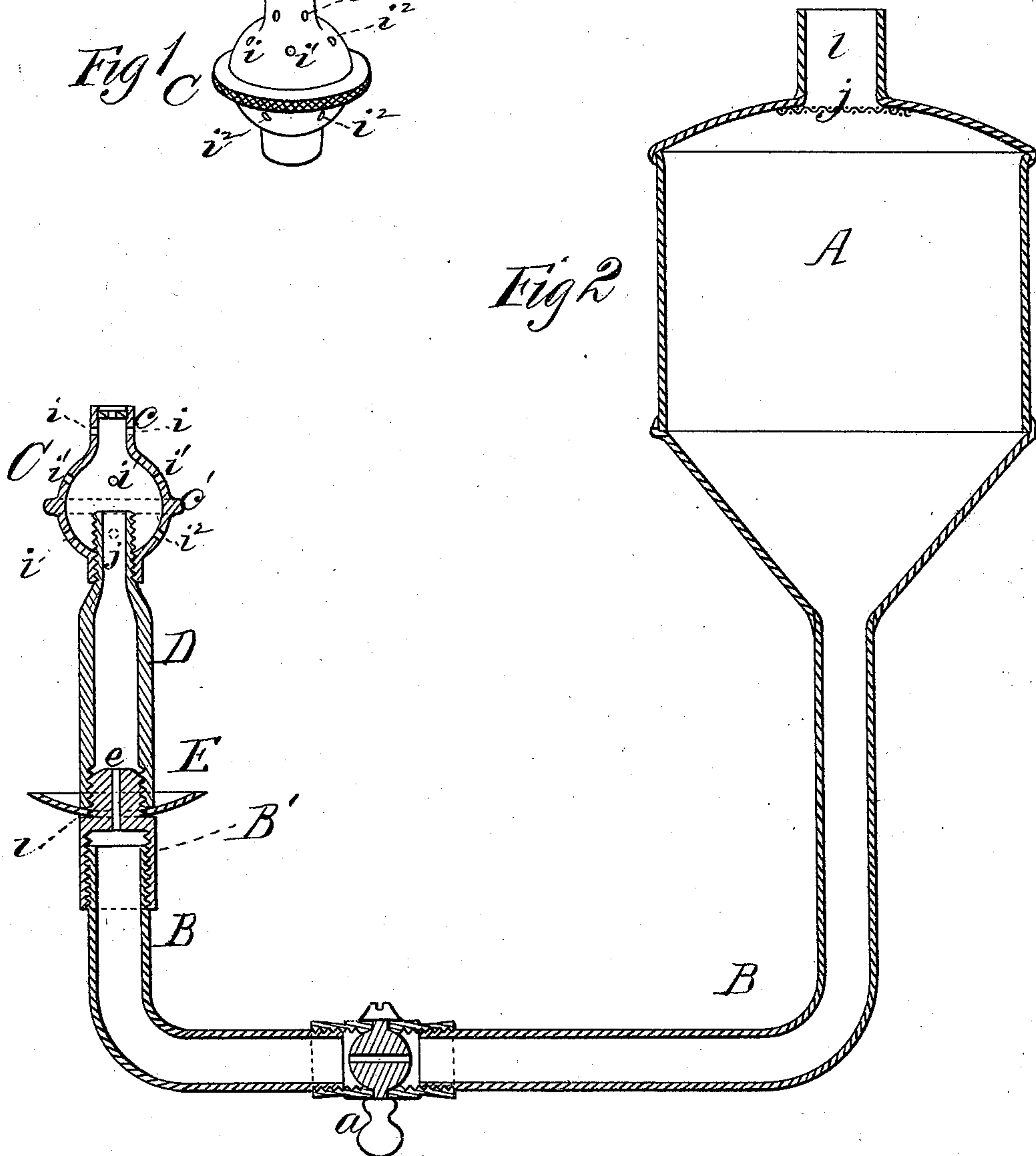
D. L. WESTCOTT.  
LAMP.

No. 177,601.

Patented May 16, 1876.



*Fig 2*



WITNESSES  
*Villette Anderson*  
*F. J. Masi*

INVENTOR  
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ATTORNEY

# UNITED STATES PATENT OFFICE.

DANIEL L. WESTCOTT, OF FORT WAYNE, INDIANA.

## IMPROVEMENT IN LAMPS.

Specification forming part of Letters Patent No. **177,601**, dated May 16, 1876; application filed April 8, 1876.

*To all whom it may concern:*

Be it known that I, DANIEL L. WESTCOTT, of Fort Wayne, in the county of Allen and State of Indiana, have invented a new and valuable Improvement in Street-Lamps; 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 of a perspective view of my improved burner; and Fig. 2 is a longitudinal vertical section of the burner, feed-pipe, and reservoir.

This invention has relation to improvements in burners for street-lamps.

The object of my invention is, principally, to devise a burner which will be incapable of casting a shadow downward; to feed the combustible substance to the burner automatically, and in such quantity as it is capable of consuming, and no more; to utilize the heat produced by the burner to vaporize the combustible material, thereby intensifying the flame and increasing the light, as will be fully understood from the following description.

In the accompanying drawings, the letter A designates a preferably metallic reservoir for oil; and B is a U-shaped metallic pipe, conveying the oil from the same to a burner, C, and provided with a stop-cock, *a*, by means of which the oil may be cut off from the burner, or its flow thereto regulated. The education end of pipe B is provided with a coupling, B, screwed thereon, and having contracted passage *e*, which may be formed in the body of the coupling, or in a plug inserted therein, and which is of such capacity as shall afford to the burner a supply of oil just equal to its power of consumption, and no more.

This coupling is rabbeted and screw-threaded upon its upper end, and the intermediate section D, to which the burner is applied, is screwed thereon. If passage *e* should become choked up the removal of pipe D will expose its education end, and it may be readily and expeditiously cleared out by inserting a wire through it.

The burner is on one end of pipe D, and the reservoir A on the free end of feed-pipe

B; consequently the well-known principle of liquids seeking their level is here utilized to keep the burner supplied with oil. This burner, designated by the letter C, is composed of a main stem, *c*, provided with a number of spaced perforations, *i*, and of a preferably spherical hollow bulb, *c'*, having perforations *i*<sup>1</sup> on its upper half, and like perforations *i*<sup>2</sup> upon its lower half, the object of which will hereinafter appear. This burner is screwed upon the rabbeted or inwardly-tapered and reduced upper end *j* of pipe B, and it extends rather more than half-way upward through *c'*. The part of pipe B inside of the bulb may also be perforated if I deem fit, but it is not absolutely necessary to do so.

The operation of my improved burner is as follows: The stop-cock being open the oil will be fed up pipe B into the interior of bulb *c'*, dropping over the end of the said pipe into the bottom of the said bulb. If the burner be now lit, jets of flame will project out of perforations *i*<sup>2</sup> upon the under half of the bulb, causing it to be speedily heated, and its contents to be vaporized when the carbon vapors, ascending the stem of the burner, will pour out of the perforations therein, and in the upper part of the bulb, producing a flame, when ignited, of great brilliancy and illuminating power. The under side of the bulb being encircled with flame-jets as well as its upper half, and the burner being applied on the rabbeted or reduced upper end of pipe D, no shadow will be cast downward. This result will be especially appreciated by and beneficial to vendors of small wares, fruits, and the like, so numerous in our cities, whose stands or booths are usually in shadow, while the light is thrown out beyond their merchandise.

The burner C, above described, may also be used with great advantage with coal-gas, the result obtaining a burner which does not throw a shadow, being the same and equally advantageous as when oil is used. E indicates a drip or overflow pan applied around pipe B, below the bulb, for the purpose of catching the excess of oil fed to the burner, should there be any. The reservoir A is provided with a neck, *l*, the lower end of which is covered by a sieve, *j*, for the purpose of catching any foreign matter in the oil when poured into the same.



What I claim as new, and desire to secure by Letters Patent, is—

1. In combination, the burner C, having a bulb, *c'*, provided with flame-jets *i*<sup>1</sup> *i*<sup>2</sup>, respectively, upon its upper and lower halves, and the feed-pipe D, having tapered and reduced upper end *j* projecting up into the said bulb, substantially as specified.

2. The coupling B', having the axial reduced passage *e*, in combination with a feed-pipe, B,

and a removable burner-carrier pipe, D, substantially as specified.

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

DANIEL L. WESTCOTT.

Witnesses:

FRED. HAYES,  
EMMA ZOLLARS.