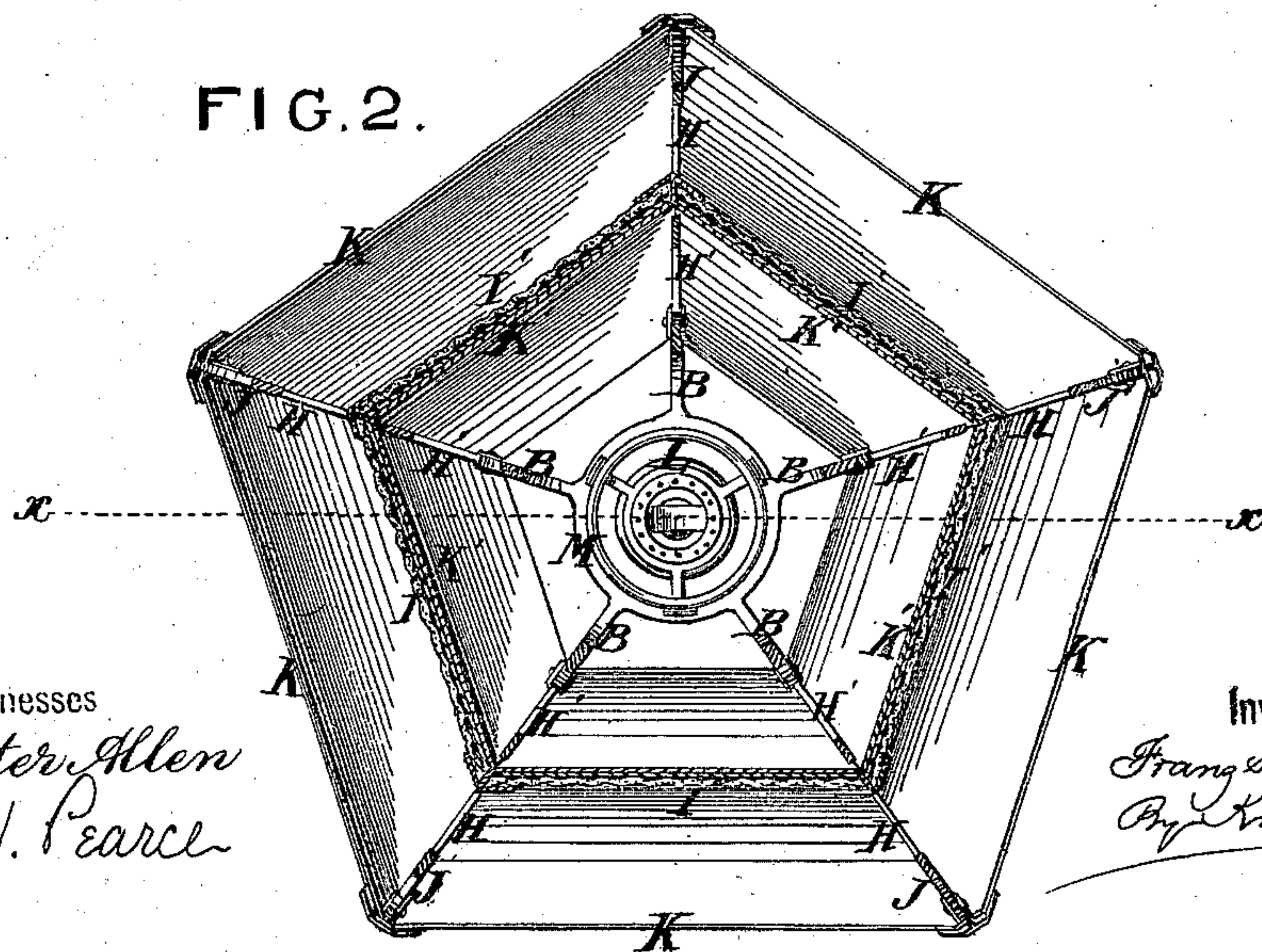
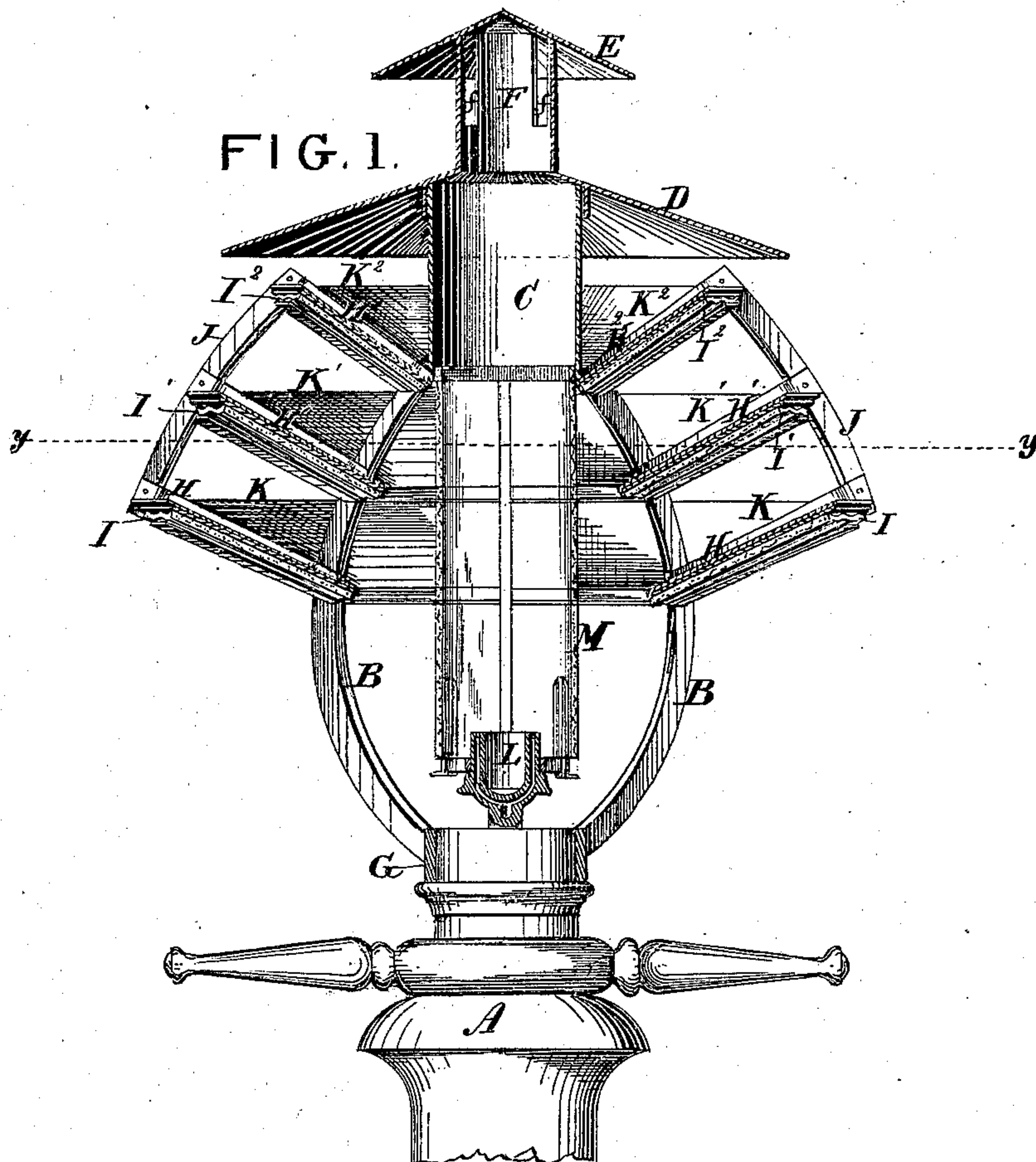


F. SCHUMANN.

Street-Lamps.

No. 133,672.

Patented Dec. 3, 1872.



Witnesses

Walter Allen  
W. H. Pearce

Inventor.

Frank Schumann  
By *Knights & Sons*  
Attorneys



# UNITED STATES PATENT OFFICE.

FRANZ SCHUMANN, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR  
TO ALFRED B. MULLETT AND FRANZ SCHUMANN, OF SAME PLACE.

## IMPROVEMENT IN STREET-LAMPS.

Specification forming part of Letters Patent No. 133,672, dated December 3, 1872.

*To all whom it may concern:*

Be it known that I, FRANZ SCHUMANN, of Washington, in the District of Columbia, have invented an Improvement in Street and Hall Lamps, of which the following is a specification:

### *The Nature and Object of the Invention.*

My invention relates to a mode of applying to an Argand or chimney lamp a series of reflectors, adapted to intercept ascending rays and deflect them horizontally, the parts being so constructed and arranged that the customary inclosing lantern may be dispensed with.

### *Description of the Accompanying Drawing.*

Figure 1 is a vertical section of a street-lamp with my invention applied, the line  $xx$ , Fig. 2, indicating the plane of section. Fig. 2 is a horizontal section on the line  $yy$ , Fig. 1.

### *General Description.*

A may represent the upper part of a street lamp-post. From this rise any desirable number of curved standards, B, surmounted by a cylinder, C, which, in addition to its primary functions of constituting a portion of the lamp-chimney and supporting the compound hood D E F, hereinafter described, serves also to connect and brace the upper ends of the standards. The number of the standards may be varied without departing from the principles of the invention. In the present illustration I have shown five standards connected at bottom by a ring or collar, G, which fits over the head of the lamp-post. From the outer edges of the standards B arms H H<sup>1</sup> H<sup>2</sup> project outward and upward in vertical planes radial to the axis of the lamp. These arms are grooved for the reception of the reflectors I I<sup>1</sup> I<sup>2</sup>, which I prefer to make of corrugated glass, backed with tin or suitably coated or prepared in any suitable manner. The ends of the arms H H<sup>1</sup> H<sup>2</sup> are connected by tie-bars J. Metallic plates, K K<sup>1</sup> K<sup>2</sup> are applied above the backs of the reflectors to protect them from injury.

The compound hood consists of conical caps D E, connected by a short shaft or supplemental chimney, F, which is perforated at  $f$

$f$  to allow the escape of gases. The lower cap D being annular surrounds the chimney, and is of sufficient size to completely cover the upper reflector and protect it from rain or snow. The plates K K<sup>1</sup> of the two lower ranges being located at a greater distance from the chimney will shed water without injury to the apparatus or interference with the operation of the lamp. The upper cap E completely covers the chimney and prevents the entrance of water at top.

The burner L is preferably of the Argand type, the cylindrical glass chimney M being large enough to afford ample room for the flame, and fitting within the lower end of the metallic chimney C.

By an inspection of Fig. 1 of the drawing it will be observed that the positions of the successive reflectors and their arrangement relatively to each other and to the burner cause them to intercept all rays of light passing through the glass chimney in an upward direction and reflect them horizontally. The reflectors offer no obstruction to the horizontal rays, but utilize rays which would otherwise be lost by passing upward. The illuminating effect of the lamp, especially at a distance, is thus greatly increased.

I have represented the reflectors five-sided and in tiers of three, believing that this particular arrangement is as good as any in combining thorough effectiveness with economy of construction. The device may, however, be varied in both these respects, and in other non-essential particulars, as experience, preference, or special circumstances may render desirable, without departing from the essential principles of the invention.

### *Claim.*

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

The supporting-frame B G H J, reflectors I, burner L, and chimney M, constructed and arranged to operate in the manner and for the purposes set forth.

F. SCHUMANN.

Witnesses:

OCTAVIUS KNIGHT,  
WALTER ALLEN.