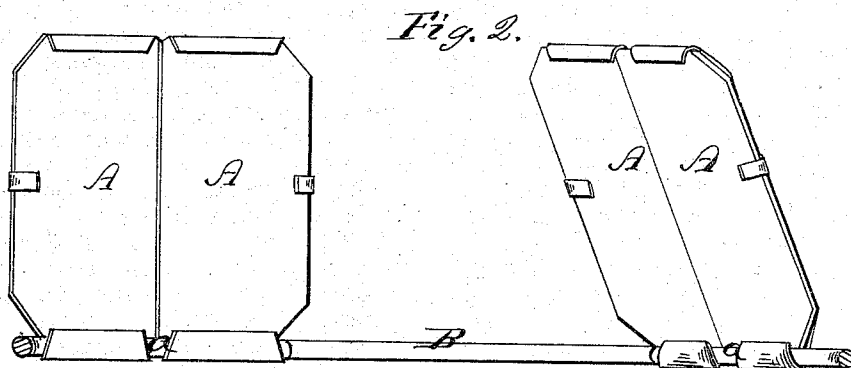
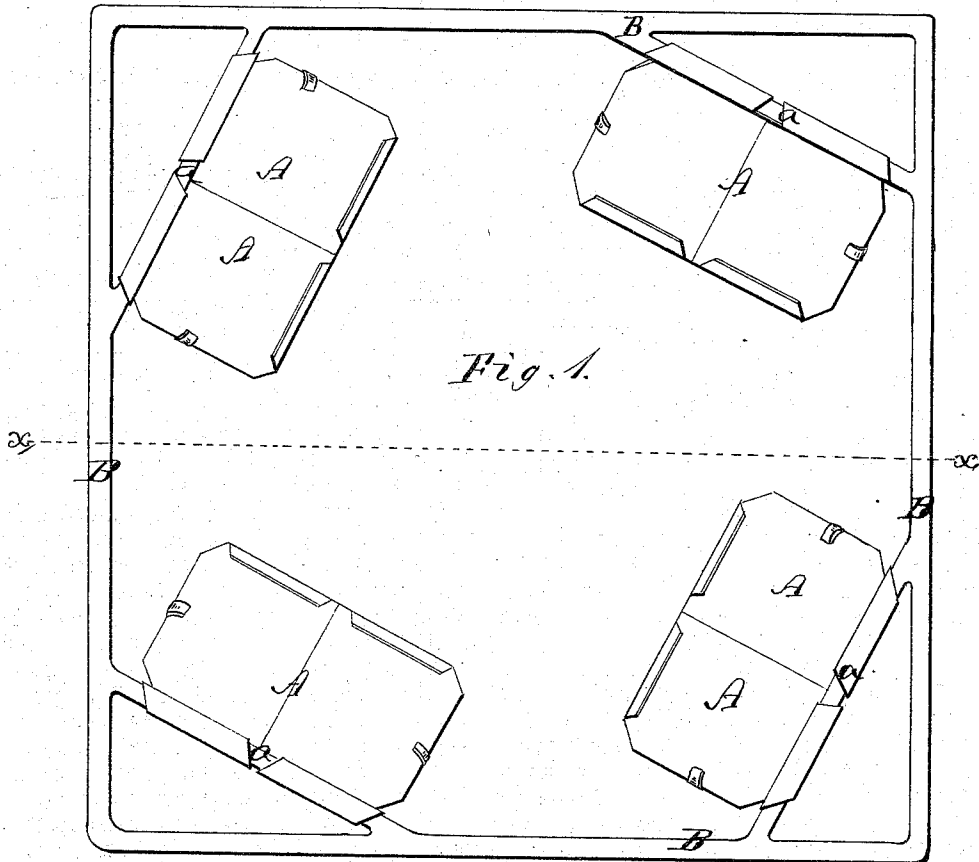


C. ROBINSON.
Street-Lamp Reflectors.

No. 157,461.

Patented Dec. 8, 1874.



WITNESSES
E. M. Gallaher.
Wm. E. Chaffee.

INVENTOR
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UNITED STATES PATENT OFFICE.

CHARLES ROBINSON, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN STREET-LAMP REFLECTORS.

Specification forming part of Letters Patent No. **157,461**, dated December 8, 1874; application filed September 10, 1874.

To all whom it may concern:

Be it known that I, CHARLES ROBINSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented an Improved Street-Lamp Reflector; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings making part of this specification—

Figure 1 being a view of the under side of the improved reflector; Fig. 2, a vertical section of the same, as taken in a plane indicated by the line *x x*, Fig. 1, but in its upright position.

Like letters designate corresponding parts in all of the figures.

The nature of my invention consists in an improved arrangement of mirrors, or reflecting-surfaces, in relation to the burner of a street-lamp, so as not to shade it in any direction whither the light is desired to be thrown; in relation to one another, so as not to obstruct by either the light reflected by the others; and in relation to the lantern or lamp case, so as to be applied to those of ordinary construction without any change thereof or addition thereto, all substantially as and for the purpose herein specified.

The mirrors, or reflecting-plates, represented by A A A A in the drawings, are secured to a suitable frame, B, to keep them in place, and to sustain them in the lamp-case. The supporting-frame B may be very light, made of wire, as shown in the drawings, or other equivalent or suitable material, and the mirrors or reflecting-plates themselves, whether of glass or polished metal, are set in suitable holders *a a* by any convenient means, the holders composing parts of the supporting-frame. The frame B is made of a form to fit inside of the lamp-case—square, to fit a common square or quadrangular case; or of more sides, if the lamp-case has a larger number of sides and angles; and the size of the frame is such that it will rest in the corners of the lamp-case, without other support or attachment, at the proper height in relation to the lamp-burner.

The proper position in the lamp-case is a little higher than the burner—just high enough to allow the laterally-radiated light of the burner to pass below it, and not be obstructed thereby to the view of persons passing in the streets.

The arrangement of the reflecting-plates in

relation to one another is peculiar, and is the most essential feature of my invention. They are placed in the corners of the frame and of the lamp-case, and there is a space between every two wide enough to allow all the light reflected by the opposite reflecting-plate to pass between them without obstruction; and the plates are set at such angles, or in such positions, that the light reflected from one will pass through an opposite space, each corner reflector having its proper transmitting-space, so that neither obstructs the reflected light of any of the others.

The proper positions are indicated in the drawings; and, to give more complete direction of the reflected rays, to this end each reflecting-plate has, or may have, two faces, set at an obtuse angle to each other, as shown, or even more faces, or may be concave; also, in a vertical plane, the reflecting-plates may have two or more faces at different angles, or be concave. They may be quite small, not exceeding four inches across, and, being located in the angles of the lamp-case, where the light is already of necessity obstructed, they hardly are to be seen, except from their reflecting-surfaces. Their inclination in vertical planes is the proper one to send the light in the required direction.

These reflectors, placed in the lamp-cases of ordinary street-lamps, add greatly to the illuminating power thereof; or, if the object is to save the consumption of gas without increasing the effective illuminating power, a large percentage can thereby be saved at no outlay, except the original cost of these reflectors, which is trifling.

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

1. The combination of reflectors A A A A, for a street-lamp, constructed substantially as described, and arranged with intervening spaces for the passage outward of light reflected, respectively, from the reflectors not adjacent to the said several spaces, substantially as and for the purpose herein specified.

2. The frame B, constructed as described, in combination with the reflectors A A A A, substantially as and for the purpose herein specified.

CHARLES ROBINSON.

Witnesses:

A. B. COBB,
TRUE W. TOWNSEND.