2 Sheets—Sheet 1.

C. J. SWEDBERG.

Lantern.

No. 204,261. Patented May 28, 1878.

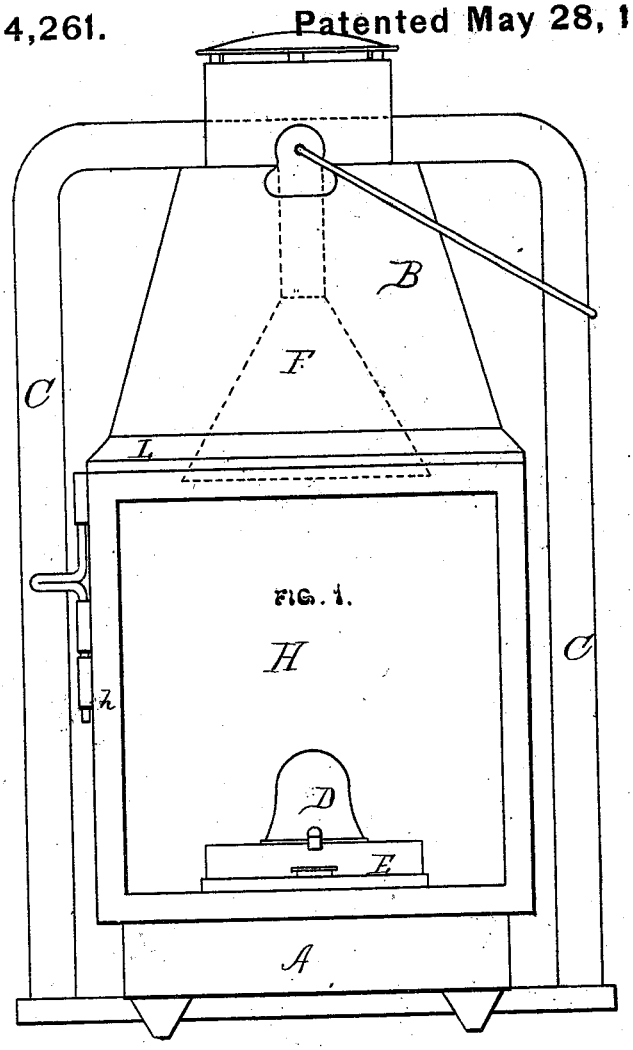

FIG. 1.

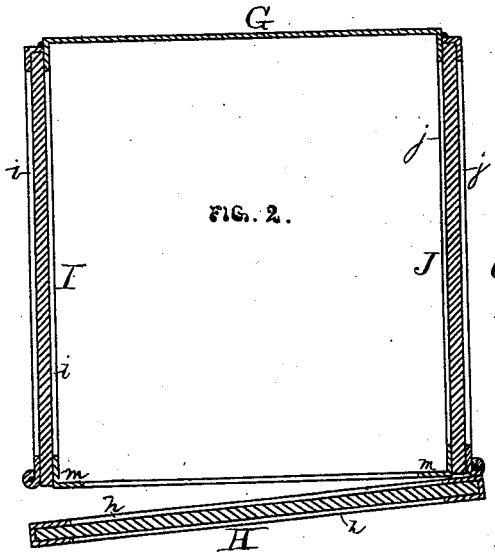

FIG. 2.

WITNESSES:
Forde R. Smith
Silas W. Moody

INVENTOR:
Carl J. Swedberg
by Munday & Evarts
his attys

2 Sheets—Sheet 2.

C. J. SWEDBERG.

Lantern.

No. 204,261. Patented May 28, 1878.

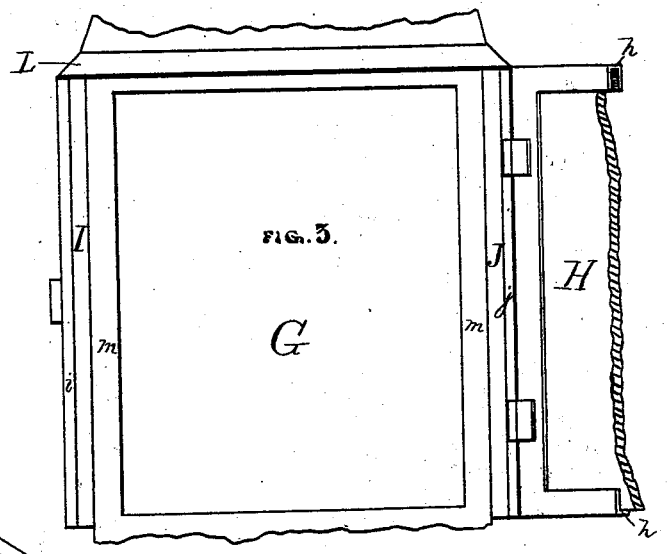

FIG. 3.

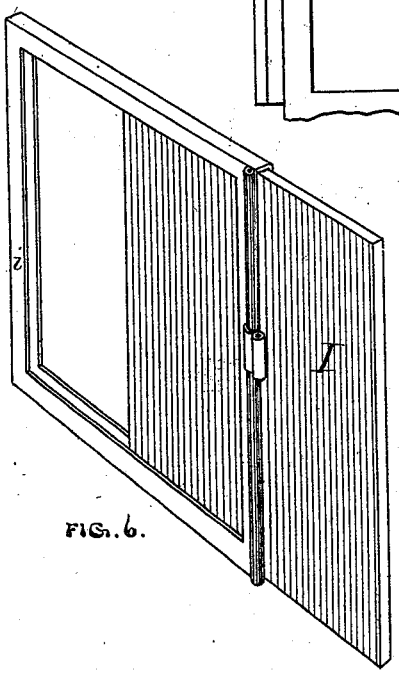

FIG. 6.

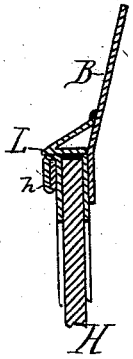

FIG. 4.

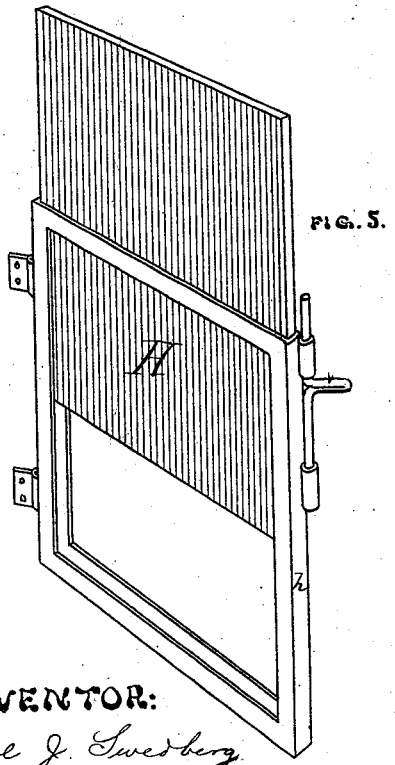

FIG. 5.

WITNESSES:
Forde R. Smith
Silas W. Woody

INVENTOR:
Carl J. Swedberg
by Munday & Evarts
his attys.

UNITED STATES PATENT OFFICE.

CARL J. SWEDBERG, OF CHICAGO, ILLINOIS, ASSIGNOR TO JOSEPH S. DENNIS AND HENRY N. WHEELER, OF SAME PLACE.

IMPROVEMENT IN LANTERNS.

Specification forming part of Letters Patent No. **204,261**, dated May 28, 1878; application filed April 5, 1878.

To all whom it may concern:

Be it known that I, CARL JOHAN SWEDBERG, of Chicago, in the county of Cook and State of Illinois, have invented certain Improvements in Lanterns, of which the following is a specification:

In the accompanying drawings, forming part of this specification, Figure 1 is a front view of my improved lantern; and Fig. 2 is a horizontal section of the walls of the illuminating part of the same. Fig. 3 is a front view of the lantern with the door removed. Fig. 4 is a partial cross-section, showing the protector at the top of the door. Fig. 5 is a perspective view of the door, showing the manner of inserting the glass in the same; and Fig. 6 is a similar view of one of the sides.

This invention relates to the construction of the glass-framed parts of square or angular tubular lanterns, known to the trade as "mill-lanterns," and is designed to render those parts tight at the joints against cross-currents of air, which, in the lanterns upon the tubular principle, is particularly desirable.

In the drawings, A represents the perforated base, B the top housing, C C the side air-tubes, D the burner, E the oil-pot, and F (in dotted lines) the bell, of an ordinary tubular mill-lantern. The back G is of metal, but the other sides, H I J, are of glass, and one of these, H, is the door. The panes of glass forming these sides are each set into grooved metal casings, lettered *h i j*, respectively, which are open upon one edge for the insertion and removal of the glass, as specified below.

In the case of each of the side lights the opening for the insertion of the glass is at the front edge, and within the limits of the door, so that the latter, when closed, sets up against and effectually closes both openings.

In the case of the door the opening for the glass is at the top edge. It also is closed when the door is shut by the awning or protector L projecting from the housing B, and setting down closely upon the door, as shown. A flange, *m*, is preferably provided upon the interior of each of the side casings *i j* at the doorway, as shown, for purposes of strength and greater tightness of the joints.

I thus provide for each of the glass panes an opening, through which it may be readily inserted or removed, and so locate the openings that they are securely closed against currents of air by the single act of closing the door.

By this construction all cross-currents, which it is vitally important to exclude from the lantern, are prevented, and no air is allowed to pass in or out, except at the top and bottom, where openings are provided therefor, and the lantern may be exposed to the winds without affecting the perfect operation of the burner.

I claim—

1. The lantern the casings of the side lights whereof are open for the insertion of the glass at the edge, abutting against and protected by the door, substantially as specified.

2. The lantern the casings of the side lights whereof are open for the insertion of the glass at the edge, abutting and protected by the door, and the door the casing whereof is open at one edge for the insertion of the glass, and a lip, L, attached to the housing, whereby the closing of the door closes all the points, substantially as specified.

CARL JOHAN SWEDBERG.

Witnesses:

EDW. S. EVARTS,

FORDE R. SMITH.