(No Model.)

O. W. SWIFT.

COACH LAMP.

No. 383,080. Patented May 15, 1888.

Fig. 1

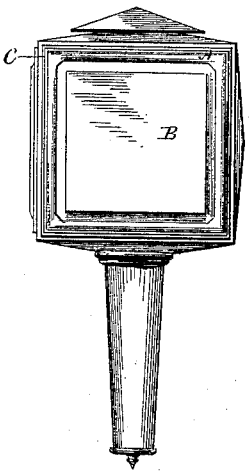


Fig. 2

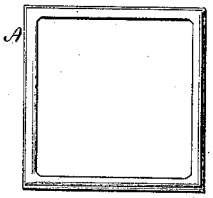


Fig. 3

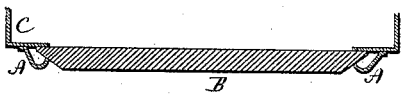


Fig. 4

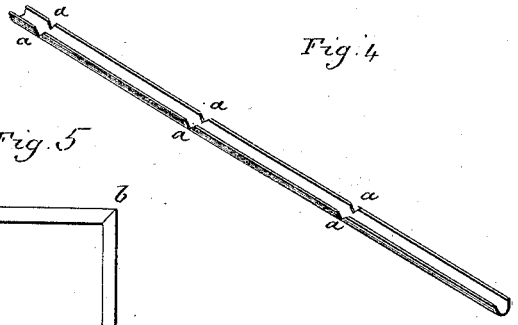
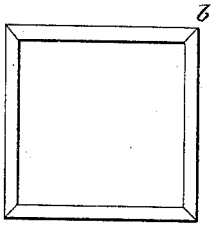


Fig. 5



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UNITED STATES PATENT OFFICE.

ORRIN W. SWIFT, OF NEW HAVEN, CONNECTICUT.

COACH-LAMP.

SPECIFICATION forming part of Letters Patent No. 383,080, dated May 15, 1888.

Application filed March 30, 1887. Serial No. 232,948. (No model.)

To all whom it may concern:

Be it known that I, ORRIN W. SWIFT, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Coach-Lamps; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view of a lamp, showing the panel secured by my improved method; Fig. 2, a face view of the glass frame detached; Fig. 3, a horizontal section through the lamp-frame and glass, showing the application of my improved securing-frame enlarged; Fig. 4, a perspective view of the band usually employed for securing the glass; Fig. 5, a front view of such band as bent around the glass.

This invention relates to an improvement in the construction of coach-lamps, with special reference to securing the glass panels.

In the usual construction of lamps having angular or polygonal shaped panels the glass is secured by first forming a band of metal U shape in transverse section and of a length equal to the combined sides of the glass, as seen in Fig. 4, and at points corresponding to the angles of the glass, cuts are made in the two sides, as at *a*, so as to permit this metal band to be bent to form an angle at those points corresponding to the angles of the glass, and as seen in Fig. 5. The ends of the band are cut of corresponding angular shape and so as to meet at one of the angles of the band—say as at *b*, Fig. 5. This band is closed around the edge of the glass and the ends soldered. Then the band is soldered to the body or frame of the lamp. Under this construction it is extremely difficult to make a nice fit upon the glass, and because of the lack of such perfect fit the glass will rattle to a greater or less extent. Again, the joints at the angles disfigure the frame, even when nicely made. In cleaning the lamps or glass the detached exposed sides of the frame are liable to be bent, because not supported at the angles, and because of such displacement or bending of the band the lamp is soon disfigured.

The object of my invention is to overcome this difficulty and so secure the glass that it cannot rattle, and at the same time avoid the cuts in the securing-frame of the glass, and thereby prevent the displacement of the sides or angles of the frame.

In carrying out my invention I cut from sheet metal a frame, A, Fig. 2, corresponding to the shape of the glass panel required, the opening through the frame somewhat less than the size of the glass, and the sides of this frame I strike into concavo-convex shape, as seen in Fig. 3, the plane of the inner edge of the frame being outside the plane of the outer edge of the frame, corresponding substantially to the thickness of glass. Preferably I make a short curve at the inner angles of the frame, both to strengthen the frame and to add to its symmetrical appearance.

The glasses usually employed for coach-lamps are beveled, as seen in Fig. 3, B representing the glass.

In applying the glass to the lamp it is first laid in place upon the plane of the lamp, as seen in Fig. 3. Then the band A is placed over the glass and pressed down thereon, so as to bring the inner edge to a firm bearing on the glass, while the outer edge rests on the frame C of the lamp. Thus held the frame A is soldered to the frame of the lamp around its edge, and because the frame is necessarily brought to a hard bearing upon the glass, so as to clamp it against the frame of the lamp, there is no liability to rattle. The angles are uncut; hence the liability of bending the frame in cleaning is avoided. Another great advantage which this method of securing the glass possesses over former bent bands is that whereas in the old construction the angularity of the frame was liable to be irregular, owing to the irregularity of the glass or in securing it in place, the frame made without joint necessarily retains its shape irrespective of the irregularity in outline of the glass. Again, the frame thus made costs no more to produce than the old bent band, and the labor in applying the frame is less with the solid frame than with the bent frame.

I do not wish to be understood as claiming, broadly, securing a glass in an opening by means of a projecting metal bead extending onto the face of said glass, as such I am aware is not new, the essential feature of my invention being a metal band or frame without joint

placed upon the outer surface of the lamp-panel around the opening after the glass has been laid upon said opening, and the said band soldered or secured to the said outer surface of the panel.

I claim—

In a lamp or lantern having open panels to be filled with glass, the combination of the glass B, the metal frame A, made from sheet metal without joint, and having an opening corresponding to the glass to be exposed, the said frame substantially concavo-convex shape in transverse section, the inner edge of the said frame adapted to bear upon the edge of the glass and clamp it against the frame of the lamp, and the outer edge of the frame secured to the frame of the lamp, substantially as described.

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