

(No Model.)

2 Sheets—Sheet 1.

M. J. KELLY & W. ZIMMERMAN.

CANOPY FOR RAILWAY CAR LAMPS.

No. 364,019.

Patented May 31, 1887.

Fig. 1.

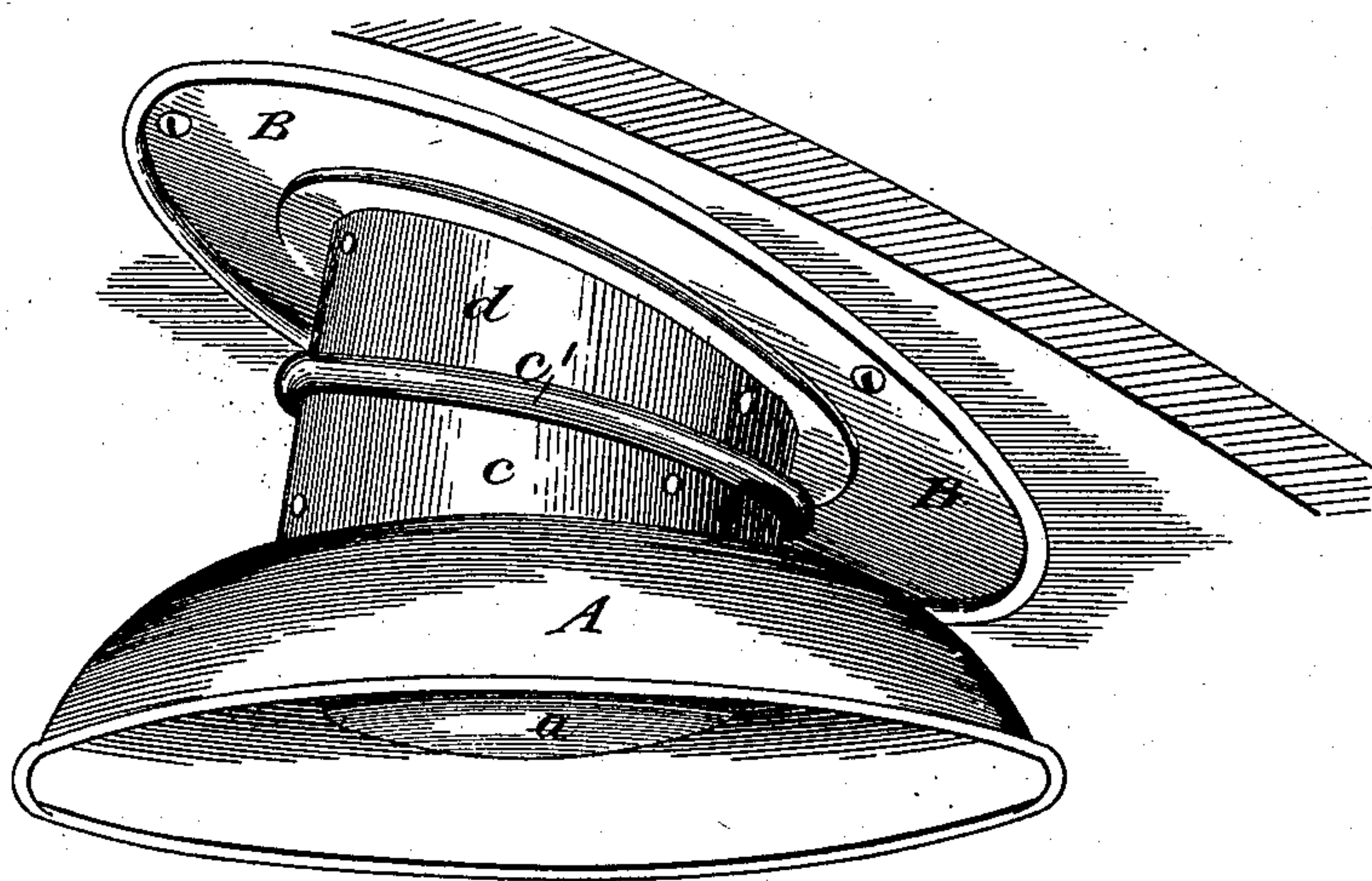


Fig. 2.

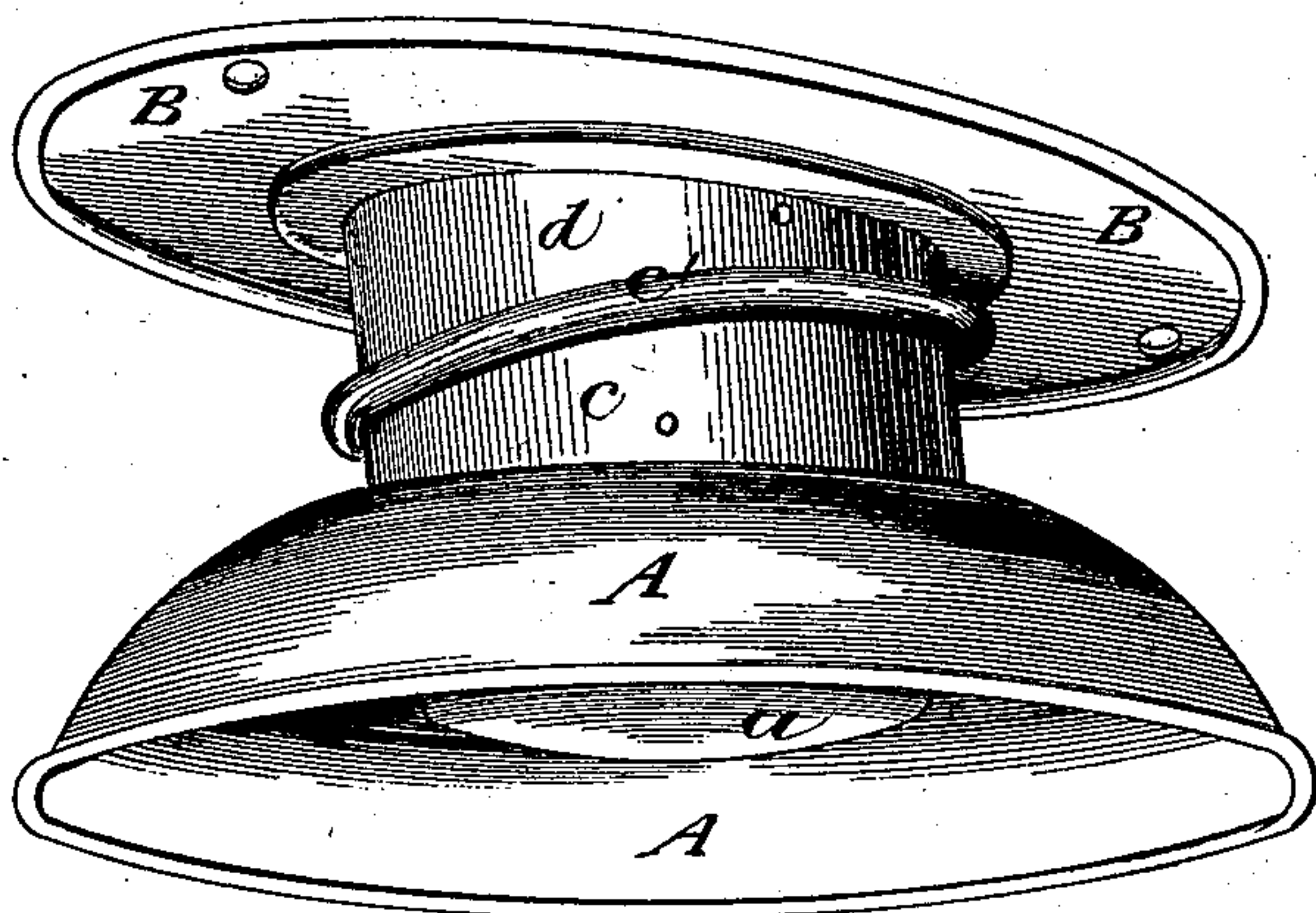
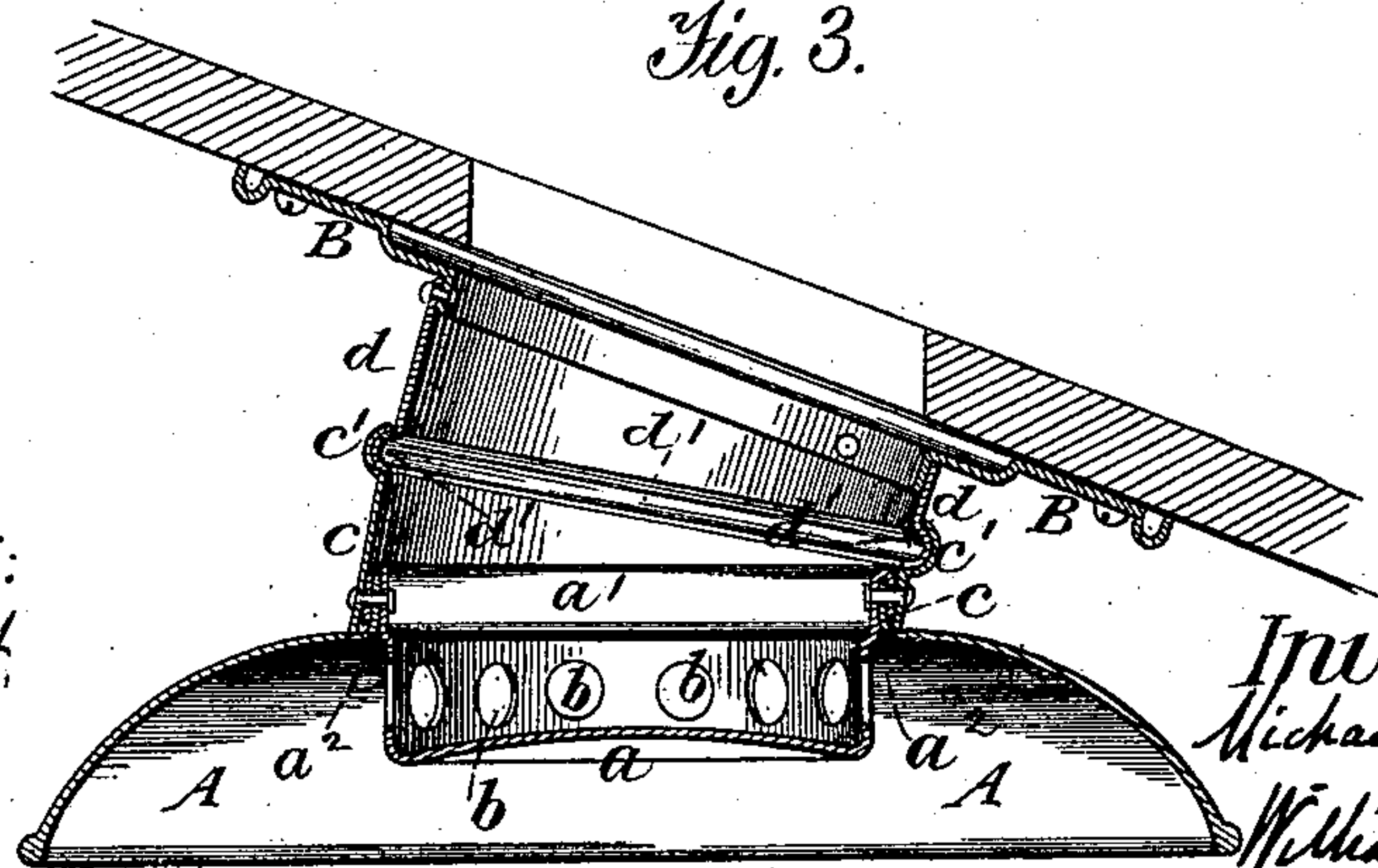


Fig. 3.



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(No Model.)

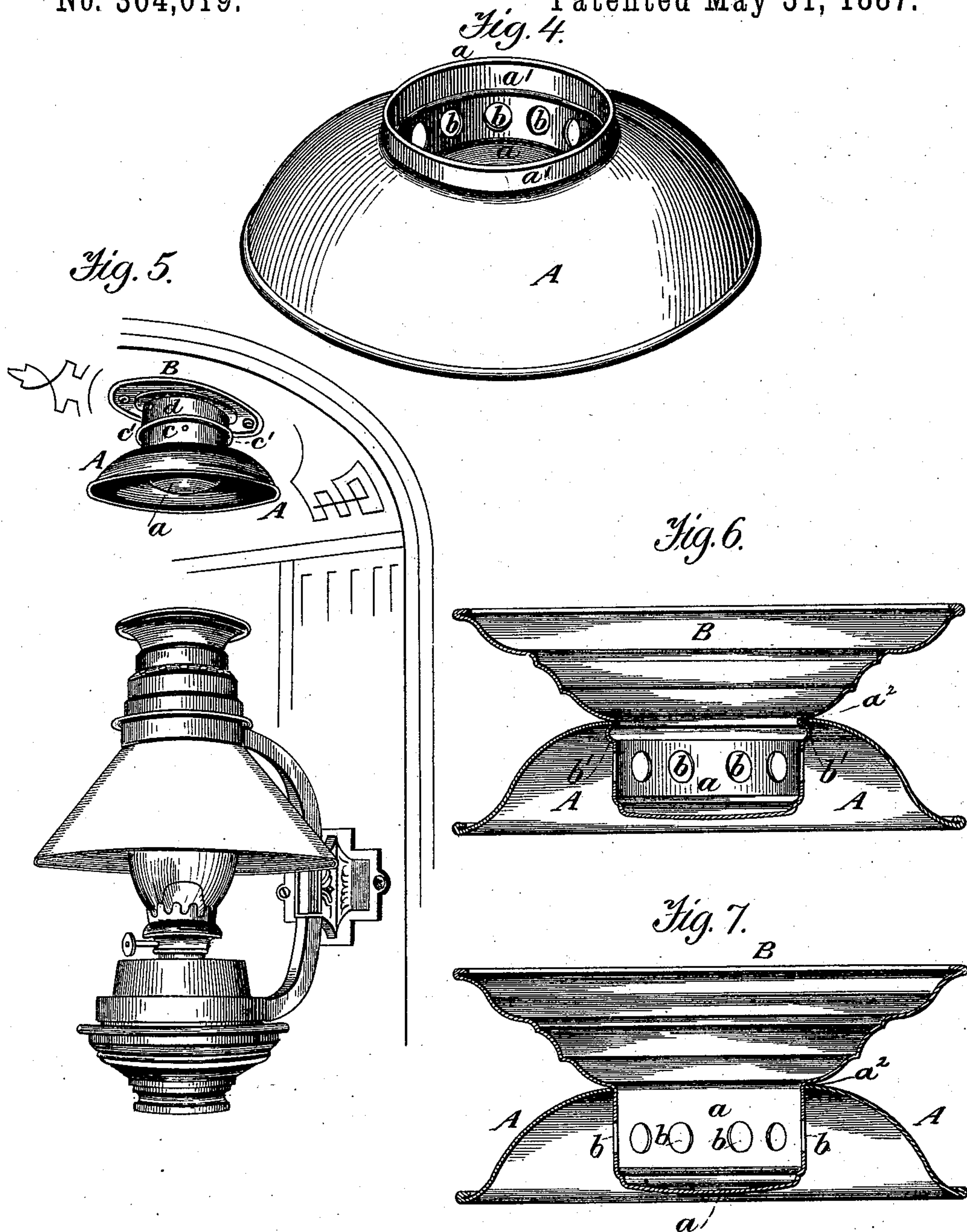
2 Sheets—Sheet 2.

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# UNITED STATES PATENT OFFICE.

MICHAEL J. KELLY AND WILLIAM ZIMMERMAN, OF CHICAGO, ILLINOIS,  
ASSIGNORS TO THE ADAMS & WESTLAKE MANUFACTURING COMPANY  
OF MICHIGAN, OF SAME PLACE.

## CANOPY FOR RAILWAY-CAR LAMPS.

SPECIFICATION forming part of Letters Patent No. 364,019, dated May 31, 1887.

Application filed December 27, 1886. Serial No. 222,593. (No model.)

*To all whom it may concern:*

Be it known that we, MICHAEL J. KELLY and WILLIAM ZIMMERMAN, both of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Canopies for Railway-Car Lamps, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The invention relates to a canopy for use with side lamps, its object being to adapt a canopy to the incline of the roof of any ordinary car.

In the accompanying drawings, Figure 1 is a perspective view of a canopy constructed in accordance with our invention, adjusted for application to a roof at the greatest angle. Fig. 2 is a similar view showing the canopy adjusted to suit a roof having a less angle. Fig. 3 is a vertical section of the canopy adjusted as in Fig. 1. Fig. 4 is a perspective view showing the under part of the canopy. Fig. 5 is a view showing the canopy arranged with proper relation to the roof of the car and a side lamp, and at a less angle than is seen in Figs. 1 and 3. Fig. 6 shows a modification, hereinafter described; and Fig. 7, a detail.

Similar letters of reference indicate similar parts in the respective figures.

A is the canopy or lower bell, the under central part of which,  $\bar{a}$ , is cylindrical and provided with ventilating-holes  $b$ . The part  $a$  extends through and beyond an opening in the top of the canopy, and to the part  $a$  is riveted or otherwise secured the angular ring  $c$ , having the upper bead,  $c'$ . B is the flange or upper rim, which is secured to the roof of the car; and to the flange B is riveted or otherwise attached an angular ring,  $d$ , having a bead,  $d'$ , which fits neatly within the bead  $c'$  of the ring  $c$ , by which construction the ring  $c$  is free to move around or upon the ring  $d$ .

Figs. 1 and 3 show the adjustment of the canopy to a car-roof of the greatest angle to which this invention (as illustrated in the drawings) is adapted. Should it be desired to decrease the angle of the canopy for attachment to a car-roof having a less angle, the canopy or lower bell, A, must be moved around or upon the ring  $d$ , when the angle will be

changed and decreased, as will be readily understood from the several figures of the drawings.

The advantage attending this invention is that the manufacturer is enabled to construct a canopy adapted to any and all ordinary car-roofs, whatever their angle may be, it being understood that we do not limit ourselves to any degree of angularity.

An important feature in the construction of this canopy is the extension of the cylindrical part  $a$  above the lower bell, A, so as to form an annular neck or ring,  $a'$ , and the attachment of the part  $a$  and lower bell, A, together by swaging, as hereinafter described, the canopy by this construction being greatly simplified, strengthened, and cheapened.

Referring to Fig. 6, which shows a fixed canopy, the flange or upper rim, B, and center piece,  $a$ , are made in one piece of metal, while the canopy or lower bell, A, as in the other figures, constitutes a separate body. The sides of the center piece,  $a$ , are originally made straight and of a diameter about equal to the opening  $a^2$  in the lower bell, A. In attaching the two parts—that is to say, the upper flange or rim, B, and the canopy or lower bell, A—the center piece,  $a$ , is slipped through the opening  $a^2$  of the canopy or lower bell, (see Fig. 7,) the sides of the center piece,  $a$ , being afterward swaged out by suitable machinery so as to form a rise or bead,  $b'$ , which effectually clamps the upper rim or flange, B, and lower bell, A, together. The same construction is followed in the other figures in connecting the canopy or lower bell, A, with the center piece,  $a$ .

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. As an improvement in canopies for railway-car lamps, a canopy or lower bell, A, having the angular ring  $c$ , combined with the flange B, having the angular ring  $d$ , the said rings being connected so as to be capable of rotation upon each other, whereby the angle of the said canopy or lower bell may be changed, substantially as set forth.

2. A canopy or lower bell, A, having the cylindrical part  $a$  projected through the open-

ing and above the top of said bell and provided with the perforations *b*, combined with the angular ring *c*, and with the flange or upper rim, *B*, having the angular ring *d*, said ring *c* 5 being adapted to revolve around or upon the ring *d*, substantially as and for the purpose set forth.

3. In a canopy for railway-car lamps, the canopy or lower bell, *A*, the cylindrical part 10 *a*, provided with perforations *b* and extending above the top of said lower bell, and the angular beaded ring *c*, secured to the said part *a*, combined with the flange or upper rim, *B*, having the angular beaded ring *d*, fitted within 15 the angular ring *c*, whereby the canopy or lower bell may be revolved around or upon

the ring *d* and the angle of the canopy changed, substantially as set forth.

4. The canopy or lower bell, *A*, having the opening *a*<sup>2</sup>, and the center piece, *a*, having the 20 perforations *b*, the said center-piece being connected to the canopy by swaging, combined with the angular rings *c d* and the flange *B*, substantially as set forth.

In testimony whereof we hereunto set our 25 hands and seals.

MICHAEL J. KELLY. [L. S.]  
WILLIAM ZIMMERMAN. [L. S.]

Witnesses:

WARD W. WILLITS,  
L. A. GRAY.