

W. C. MARSHALL.

Railway-Car Lamp.

No. 130,586.

Patented Aug. 20, 1872.

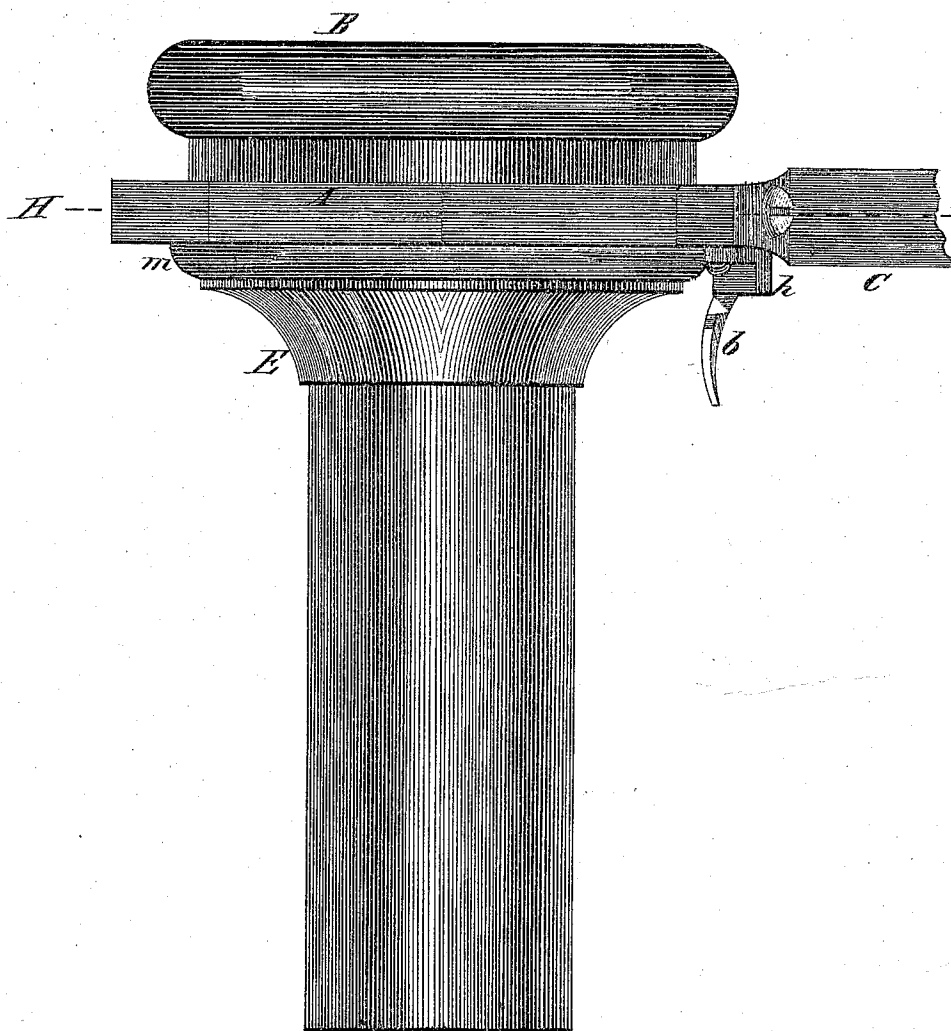


FIG. 1

Witnesses,  
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*W. S. Boynton*

Inventor,  
*William C. Marshall.*  
By *J. A. Curtis,*  
*his atty.*

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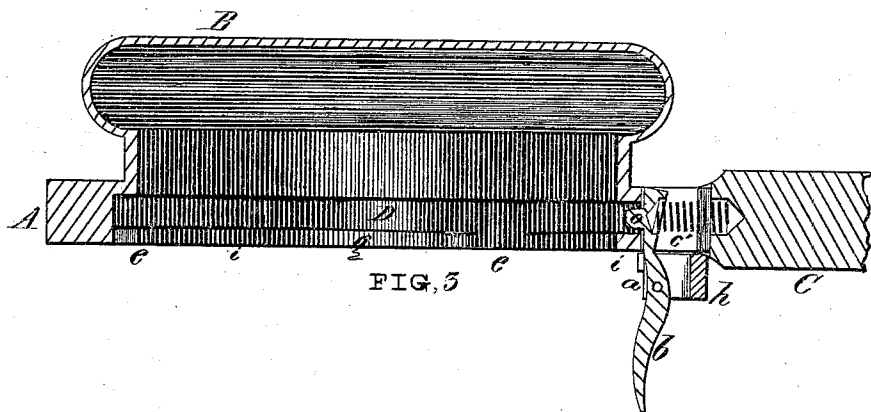


FIG. 3

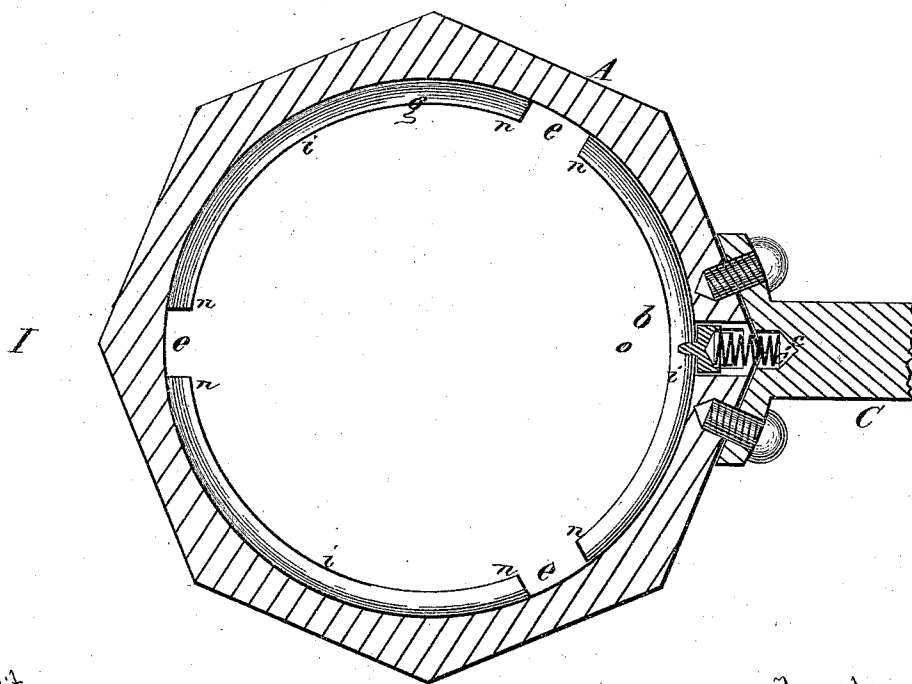


FIG. 2

Witnesses,  
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FIG. 5

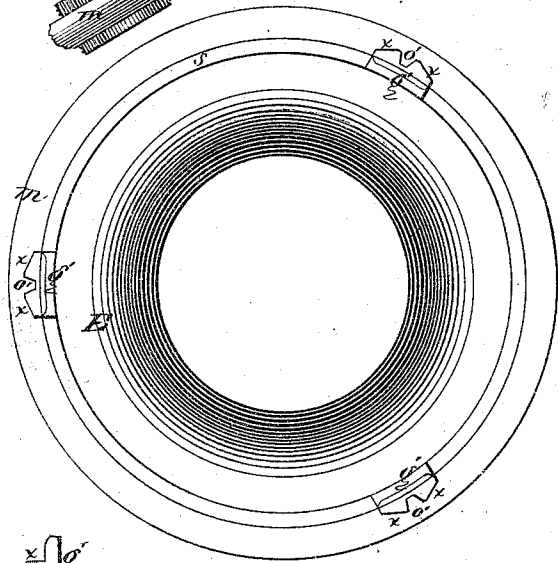
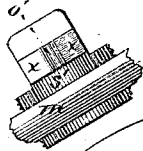
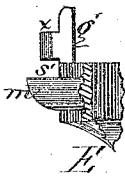


FIG. 4

FIG. 6



Witnesses,  
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*M. S. Boynton.*

Inventor,  
*William C. Marshall.*  
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*his Atty.*

# UNITED STATES PATENT OFFICE.

WILLIAM C. MARSHALL, OF HARTFORD, CONNECTICUT.

## IMPROVEMENT IN RAILWAY CAR-LAMPS.

Specification forming part of Letters Patent No. 130,586, dated August 20, 1872.

*To all whom it may concern:*

Be it known that I, WILLIAM C. MARSHALL, of Hartford, in the county of Hartford and State of Connecticut, have invented a new and useful Improvement in Railway Car-Lamps; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification and to the letters of reference marked thereon, in which—

Figure 1 is a side view of so much of a car-lamp as illustrates my invention. Fig. 2 is a horizontal section of the same through the supporting-rim at line H of Fig. 1. Fig. 3 is a vertical section through line I. Fig. 4 is a plan view of the detachable portion of the lamp containing the wick or candle. Fig. 5 is a front view of one of the supports or catches, and Fig. 6 is a side view of the same.

### *Nature of the Invention.*

The nature of my invention, which relates to the class of lamps which are used in railway cars, consists in providing that part of the lamp to which is attached the oil and wick reservoir with a supporting-rim, having three openings therein, and in making said rim thicker, in a vertical direction, midway between said openings than it is at the openings. The lower part of the lamp, which contains the oil and wick reservoir, is provided with three vertical projections, corresponding in size and position with the openings in the supporting-rim, all of which are equidistant from each other; and these projections each have a protuberance on the outside, in which is made a vertical notch or recess, and the protuberance is beveled or inclined inward from each side of the notch out to the edge of the projection. A lever is pivoted to the lower part of the lamp, the upper end of which lever is made somewhat sharp or angular in a vertical direction, and is kept pressed in by means of a spring, so that when the vertical projections upon the lower part of the lamp are passed up into the openings in the supporting-rim, and the lower part of the lamp is turned or rotated therein, as the catches approach the thicker part of the supporting-rim such thicker part fills entirely the space between the catches and the shoulder or annular flange beneath, and the lower

part of the lamp is firmly wedged into the upper part, the supporting-rim acting as a cam in that respect. The lever, which acts as a detent, is pivoted to the lower part of the lamp, just midway between two of the openings which receive the catches, so that the lower part of the lamp may be attached and secured by inserting either of the catches into either of the openings, irrespective of position; and by rotating the lower part so that the catches shall be midway between the openings one of the catches will receive the detent or retaining-lever.

That others skilled in the art may be able to make and use my invention, I will proceed to describe the same in its construction and operation.

In the drawing, B represents that part of the lamp which carries the globe, having upon its lower end the rim A, to which are attached the arms, a portion of one arm being shown at C, and an annular recess, D, is made therein, and also the annular flange or rim *g*. This rim has three vertical openings, *e*, therein, dividing the rim into three equal parts, and each part is made thinner at each end, at *n*, in a vertical direction than it is at *i* midway between the openings. A projection, *h*, is made upon the rim A, to which is pivoted a lever, the upper end of which, *o*, projects into the annular recess D, and a spring, *c'*, is placed in the recess *c* behind the upper end of the lever, which operates to keep said upper end always pressed in toward said recess D. The lower part of the lamp, E, which contains the oil and wick or candle reservoir, has an annular flange, *m*, thereon, upon which are made three vertical projections, *g'*, the outer face of each of which stands out somewhat over the annular flange *m*, leaving a space, *s'*, beneath said outstanding part, between it and the flange *m*, of a width just sufficient to receive the thickest part of the supporting-rim *g*, so that it will fit tightly therein. The outer face of each catch *g'* has a recess or notch, *o'*, therein, and is beveled or inclined inward from the notch each way toward the side; and the annular flange *s* may be made upon the lower part of the lamp, if desirable, which fits inside the supporting-rim *g*, although it is not essential that this be added.

The operation of my invention is as follows:

The lower part of the lamp E is attached to the upper part, by passing the catches  $g'$  up through the openings  $e$  and then rotating the part E so that the catches  $g'$  pass around in the recess D until each catch  $g'$  is midway between two openings,  $e$ . As they thus pass around in the recess, and approach the point midway between the openings, the rim  $g$ , as it is thicker at that point, entirely fills the vertical space  $s'$  beneath the overhanging outer part of the catches  $g'$ , and at the same time the upper end of the detent  $b$  slides over the inclined face  $x$  on the catches and drops into the notch  $o'$  by the force of the spring  $c'$ , and the lower part E is then secured in place, and is firm and tight, so that it will not rattle by the jar of the car. The part E may be easily detached by seizing it with one hand and pressing in the lower end of the lever or detent  $b$ , which draws its upper end out of the notch  $o'$ , and then rotating the catches  $g'$  in the recess D and drawing them down through the openings  $e$ .

The advantages of this lamp are that, as the supporting-rim  $g$  is thicker midway between the openings than at the openings, it

acts as a cam to hold the lower part of the lamp up into the upper part more firmly, and is entirely free from the annoying jar so common to this class of lamps in railway carriages; and the lower part may easily be detached, for trimming and lighting, with one hand without climbing upon the seats of the car, to their injury.

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

1. In a railway car-lamp, the supporting-rim  $g$ , divided into equal parts by the openings  $e$  and made of such difference in vertical diameters at said openings and midway between them as to act as a cam or wedge, in connection with the catches  $g'$ , substantially as described.

2. I claim the pivoted detent  $b$ , operating in connection with the catches  $g'$  and the supporting-rim  $g$ , substantially as and for the purposes specified.

WM. C. MARSHALL.

Witnesses:

W. E. MARSHALL,  
M. W. MARSHALL.