

(No Model.)

T. PARISH.
CARRIAGE LAMP.

No. 372,325.

Patented Nov. 1, 1887.

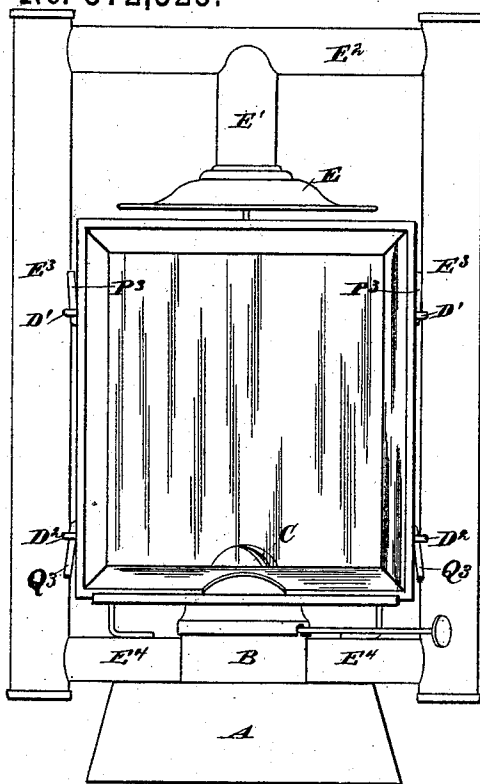


Fig. 1.

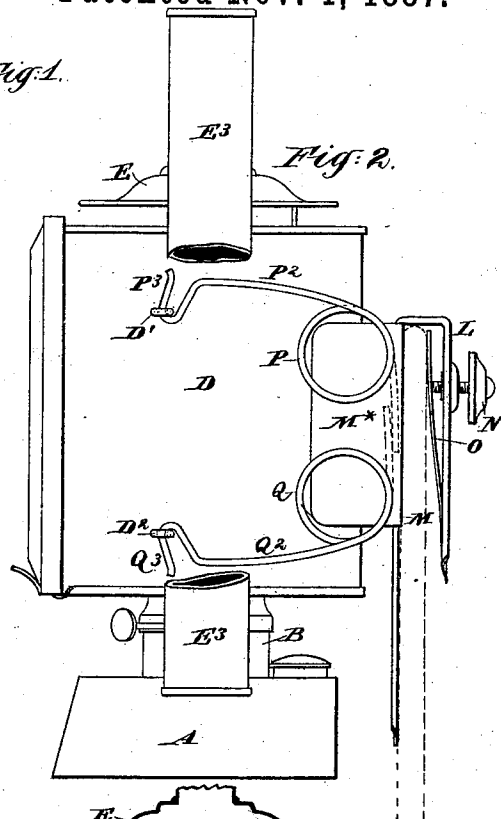


Fig. 2.

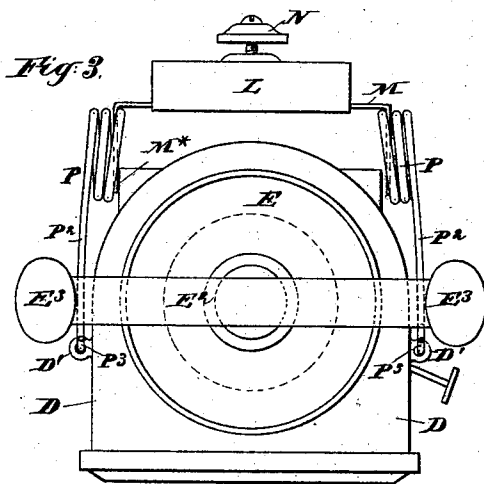


Fig. 3.

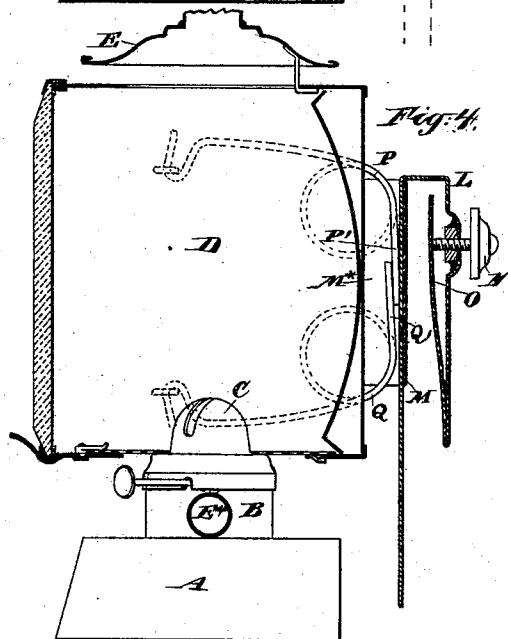


Fig. 4.

Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

THOMAS PARISH, OF NEWARK, NEW JERSEY.

CARRIAGE-LAMP.

SPECIFICATION forming part of Letters Patent No. 372,325, dated November 1, 1887.

Application filed February 23, 1887. Serial No. 223,478. (No model.)

To all whom it may concern:

Be it known that I, THOMAS PARISH, of Newark, in the county of Essex and State of New Jersey, have invented a certain new and useful Improvement in Carriage-Lanterns, of which the following is a specification.

I adapt a substantial and properly proportioned kerosene-lantern to be attached at will on the dash-board at the front of a carriage, and allow the entire body of the lamp, oil-pot, burner, reflector, bell, and side tubes to move up and down relatively to the carriage, or to allow the carriage to move up and down, according as it may be subjected to various jolting motions, without communicating such motions to the lamp. I provide two sets of springs on each side. The uppermost sets exert a force to lift or support the weight of the lamp. The lowermost sets exert a force tending to depress the lamp or prevent it from rising too high under any circumstances. Both sets are braced against any too great lateral movement. These springs occupy no space which is otherwise valuable. They especially do not necessitate any increase in the height of the lantern.

The cheap, familiar, and powerful illuminating-oil known as "kerosene" has heretofore been impracticable for carriage-lanterns from its liability to be extinguished by concussions. My experiments indicate that a carriage with my lantern may be driven over any road and at any velocity without extinguishing the flame.

I will describe my invention as being applied to a tubular lantern.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is a front view; Fig. 2, a side view; Fig. 3, a plan view; and Fig. 4, a central vertical section, partly in elevation.

Similar letters of reference indicate corresponding parts in all the figures where they occur.

A is the oil-pot, and B the ordinary air-chamber of a tubular lantern, mounted between the oil-pot and the cone containing the wick-tube and wick, and the means for operating it.

C is the cone.

D is the ordinary capacious metallic cham-

ber, highly reflective on its inner surface and curved at the rear. The front is a plain plate of clear glass. I will term this ordinary portion of the lamp the "body."

E is the bell, which receives the impact of the current of hot gases from the flame, which, dragging with them a supply of fresh air received above the body, rise through the short vertical pipe E', traverse laterally through the cross-pipe E², downward through the side pipes, E³, and inward through the horizontal pipes E⁴, to furnish the air at a pressure slightly above that of the atmosphere to induce the requisite constant and active current to supply the combustion.

M is a casing of metal, adapted to receive easily the curved rear side of the part D. A wing extending forward at each side is marked M*. The entire casing M M* is riveted or otherwise firmly secured to a broad clip, L, adapted to fit easily on the dash-board. Through this clip is tapped a thumb-screw, N, which, acting through a shoe, O, enables the clip to take a firm hold on the dash-board and to be tightened and released at will, preventing at the same time the pressure of screw-point and so injuring the dash-board.

On the exterior of the body D are four eyes, D' D' D² D², one pair on each side, near the top and bottom. Firmly attached to each wing M* is a stout wire spring, which performs important functions. Each is composed in part of several coils or convolutions, P, one end of which, P', is extended vertically and soldered or otherwise firmly fixed in the interior angle of the wing M*. The other end, P², is extended forward nearly or quite horizontally, and terminates in a V-shaped hook, P³, which is engaged in the upper eye, D', and exerts a lifting force on the lantern. The coils P are braced laterally against each other and against the wings M*, so that there is but slight lateral elasticity to the springs; but they are free to work vertically to a larger extent. Another spring, Q, is mounted in the reverse position on each side, the corresponding arm, Q², reaching forward and terminating in an inverted-V-shaped hook, Q³. This exerts a force to depress the lantern, and counteracts any excessive motion imparted by the upper spring. The spring Q is similarly braced against excessive lateral movement by its convolutions

lying against each other and against the wings M* in the same manner as the spring P. Between the two sets of springs, one pair on each side, two pulling upward and two pulling downward, the entire lantern proper is supported elastically, so that the jolts and concussions to which the carriage is subject are not communicated to the lantern. Furthermore, the positions in which the springs are placed insures a parallel motion of the lantern, maintaining its proper vertical position in all parts of its upward and downward movement. The result is to allow the lantern a sufficiently free and yet parallel motion. The wings M* guard the lantern against being displaced too far laterally. Under all ordinary conditions it rides on the springs without touching any other object.

I believe my case M, with its wings M* and the sets of springs P Q, arranged as shown, may serve with other means than the clip L for attaching it to a carriage. I propose to provide in some cases an arm reaching up from the case M M*, and equipped with a screw-clip or other means for attaching the lantern to the axle. I can attach two of my lanterns permanently or temporarily, one on each side of a carriage. I prefer the whole as shown, and adapted to be used on the dashboard.

It is not desirable to brace the lantern against lateral motion absolutely. The slight

amount of lateral elasticity exhibited by my springs P P' Q Q' is of advantage rather than the reverse; but it is important to guard the lantern against great movements laterally. This is effectually accomplished by the bracing of my coils P and Q against each other and against the wings M*, against which they are constantly pressed.

I claim as my invention—

1. The combination, with a lantern provided with eyes D' D'', as shown, of springs arranged at the sides in two sets, one set, as P P' P² P³, exerting a lifting force, and the other set, as Q Q' Q² Q³, exerting a depressing force, both braced against lateral yielding, and means for attaching the lantern to the dash-board of the carriage, substantially as herein specified.

2. The combination, with a lantern, as A B C D E, of casing M M* and springs P Q, arranged in duplicate on each side, said springs having hooks P³ Q³, engaging with the lantern, and the clip L, screw N, and shoe O, adapted for attaching to the dash-board of a carriage, as herein specified.

In testimony whereof I have hereunto set my hand at New York city, this 21st day of February, 1887, in the presence of two subscribing witnesses.

THOS. PARISH.

Witnesses:

H. A. JOHNSTONE,

M. F. BOYLE.