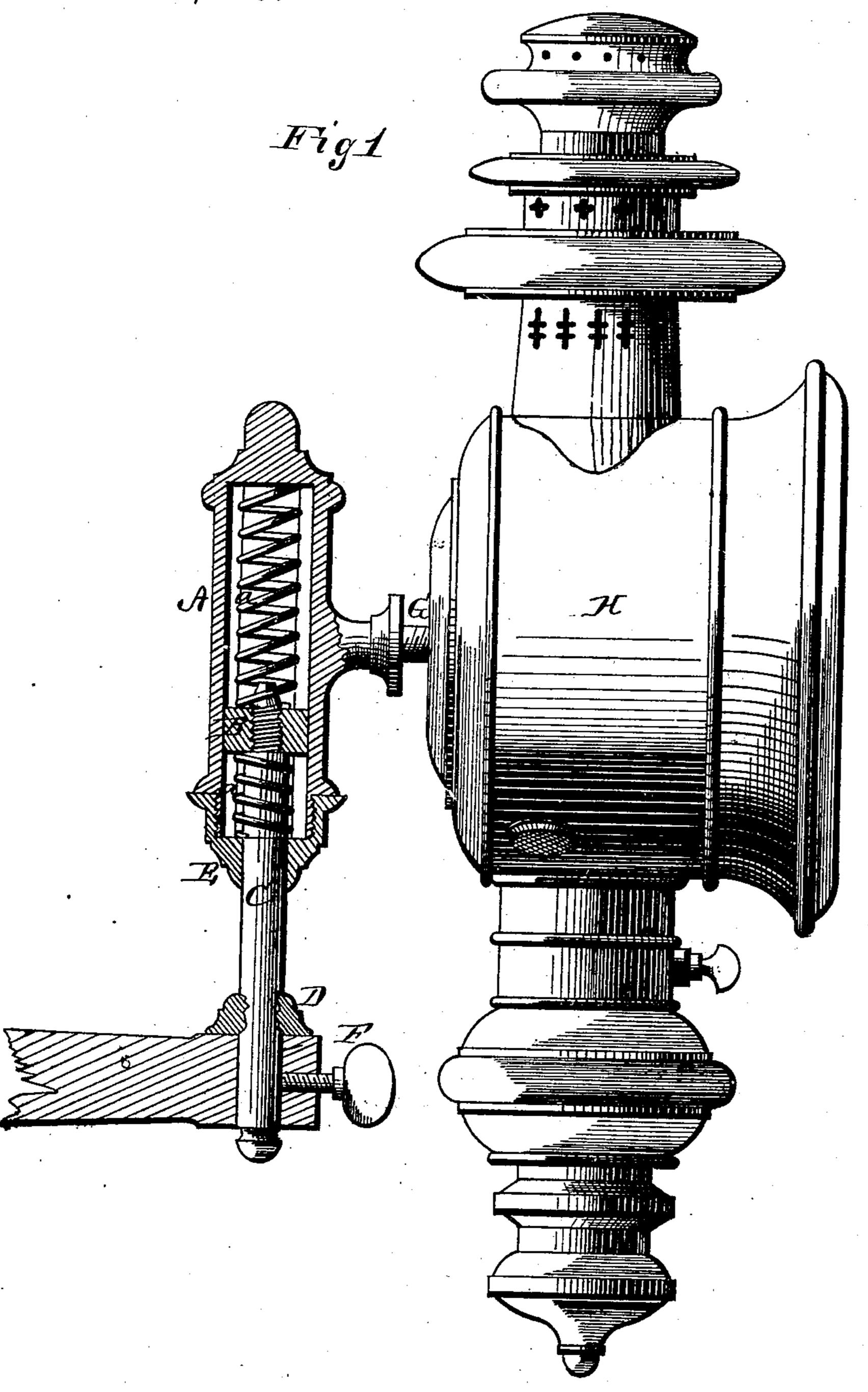
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No. 167,736.

Patented Sept. 14, 1875.



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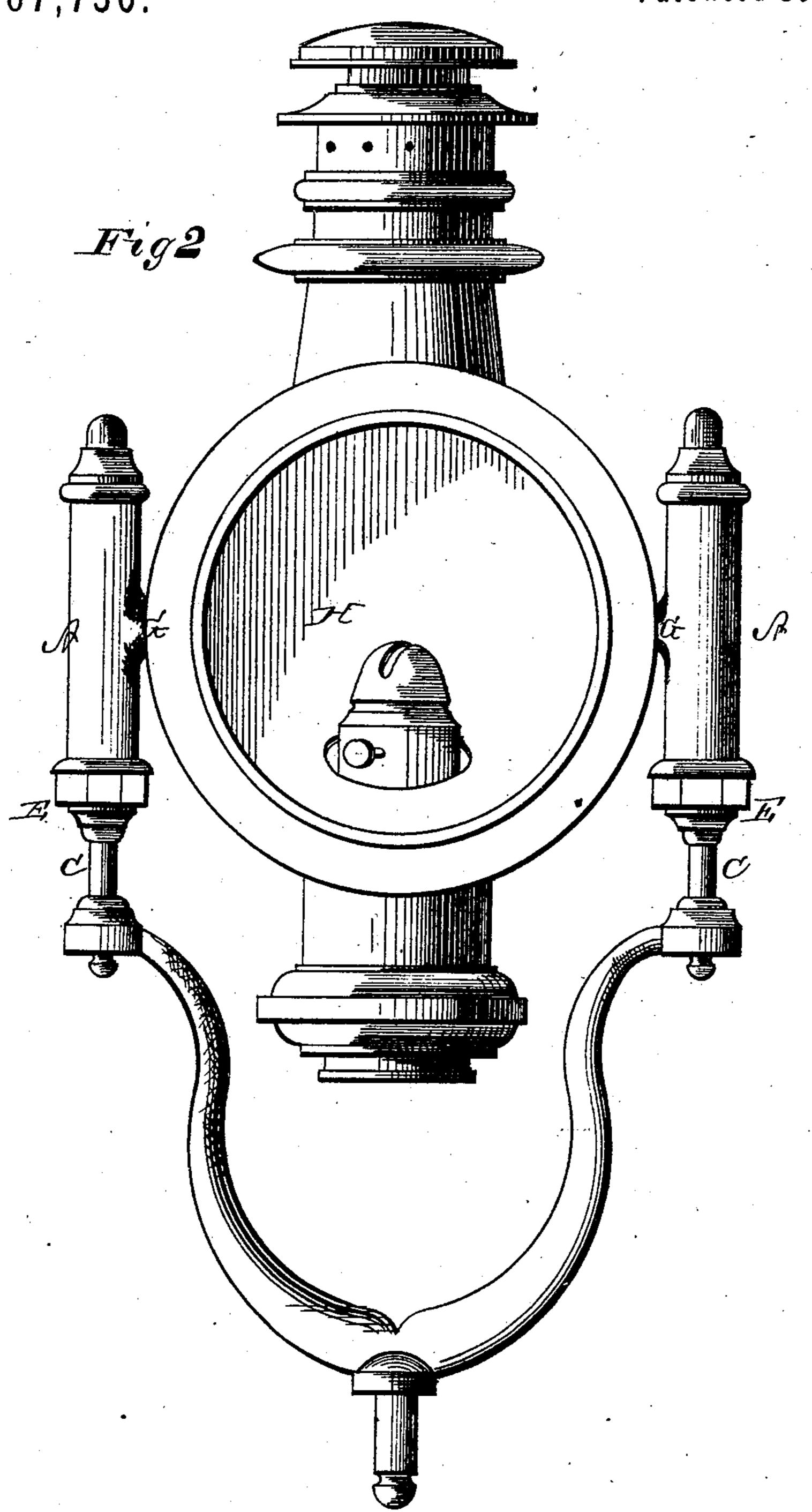
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WITNESSES

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## UNITED STATES PATENT OFFICE.

THOMAS BOUDREN AND GEORGE H. JOHNSON, OF BRIDGEPORT, CONN.

## IMPROVEMENT IN WAGON-LAMP SUPPORTS.

Specification forming part of Letters Patent No. 167,736, dated September 14,1875; application filed July 19, 1875.

To all whom it may concern:

Be it known that we, Thomas Boudren and George H. Johnson, of Bridgeport, in the county of Fairfield and in the State of Connecticut, have invented certain new and useful Improvements in Supports for Lamps for fire apparatus and other vehicles; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon making a part of this specification.

Our invention relates to a new method of attaching lamps to fire apparatus and other vehicles, the object being to protect the lampand keep it from being extinguished by the violence of jolting., To this end the nature of our invention consists, principally, in sustaining the lamp between two springs, so arranged that they act in opposite directions on each other, each receiving the recoil of the other in turn. It further consists in so arranging the shape of the interior of the barrel or tube of the holder, in which the springs are placed, with a correspondingly-shaped diaphragm, that the lamp will be free to move vertically, but has no lateral or revolving motion. Our invention further consists in combining a setscrew with the socket in which the lamp is placed, so that the lamp may be held in different positions, all as hereinafter more fully set forth.

In the annexed drawing, Figure 1 is a vertical section of our invention, showing the lamp hung to one socket. Fig. 2 is a front elevation, showing the lamp hung between the sockets.

A represents a vertical barrel, tube, or case, having its interior made hexagonal or polygonal in shape. In this tube or case is placed a diaphragm, B, of corresponding size and shape, on each side of which—that is, above and below—is placed a spiral spring, a. c is the spindle, which sustains the lamp, and which is provided with a shoulder, D, to abut against the socket in which the spindle rests. On the bottom of the case A is screwed a followernut, E, through the center of which the spindle C passes, and which prevents the springs from dropping out. The spindle C fits in a suitable socket at some convenient point on the vehicle, and is held by means of a set-screw, F, so that it may be turned in any direction

desired and held permanently in such position. The case A is provided with an arm or flange, G, to which the lamp H is attached by any suitable means. The upper end of the spindle C is usually attached to the diaphragm B by screw-threads, as shown, so that the diaphragm can be readily removed in order to place the lower spring in position. The springs a may be made of wire in spiral form, as shown, or of rubber or other suitable material.

By this invention the weight of the lamp is in immediate contact with the springs, and hence it is obvious that the violence resulting from having no spring and the jumping tendency of only one spring are fully corrected, and the practical result is that the lamp will burn freely, while otherwise it would be ex-

tinguished.

It is not essential to attach the lamp to the case A at the same point. It may be secured on top of the support. Neither is it essential to have both the springs in one case, as for certain jobs it is more desirable to have two spindles and cases, the springs being so arranged in each case with reference to the diaphragms on the supporting spindles that they act in opposite directions to each other, and the lamp is suspended between the two.

Having thus fully described our invention, what we claim as new, and desire to secure by

Letters Patent, is—

1. In combination with a lamp for vehicles, one or more supports provided with springs arranged with relation to the weight of the lamp, so that they will act in opposite directions, substantially as herein set forth.

2. The combination of the lamp-supporting case A, interior diaphragm B, springs a a, and spindle C, all constructed substantially as and

for the purposes herein set forth.

3. In a lamp-support, the combination of the case A, springs a a, diaphragm B, spindle C, with collar D and the set-screw F, all substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 23d day of June, 1875.

THOMAS BOUDREN. GEO. H. JOHNSON.

Witnesses:

S. I. PATTERSON, JOHN E. POND.