(No Model.)

E. A. DOBBINS.

YIELDING SUPPORT FOR BICYCLE AND OTHER LAMPS.

No. 362,612. Patented May 10, 1887.

Fig. 2.

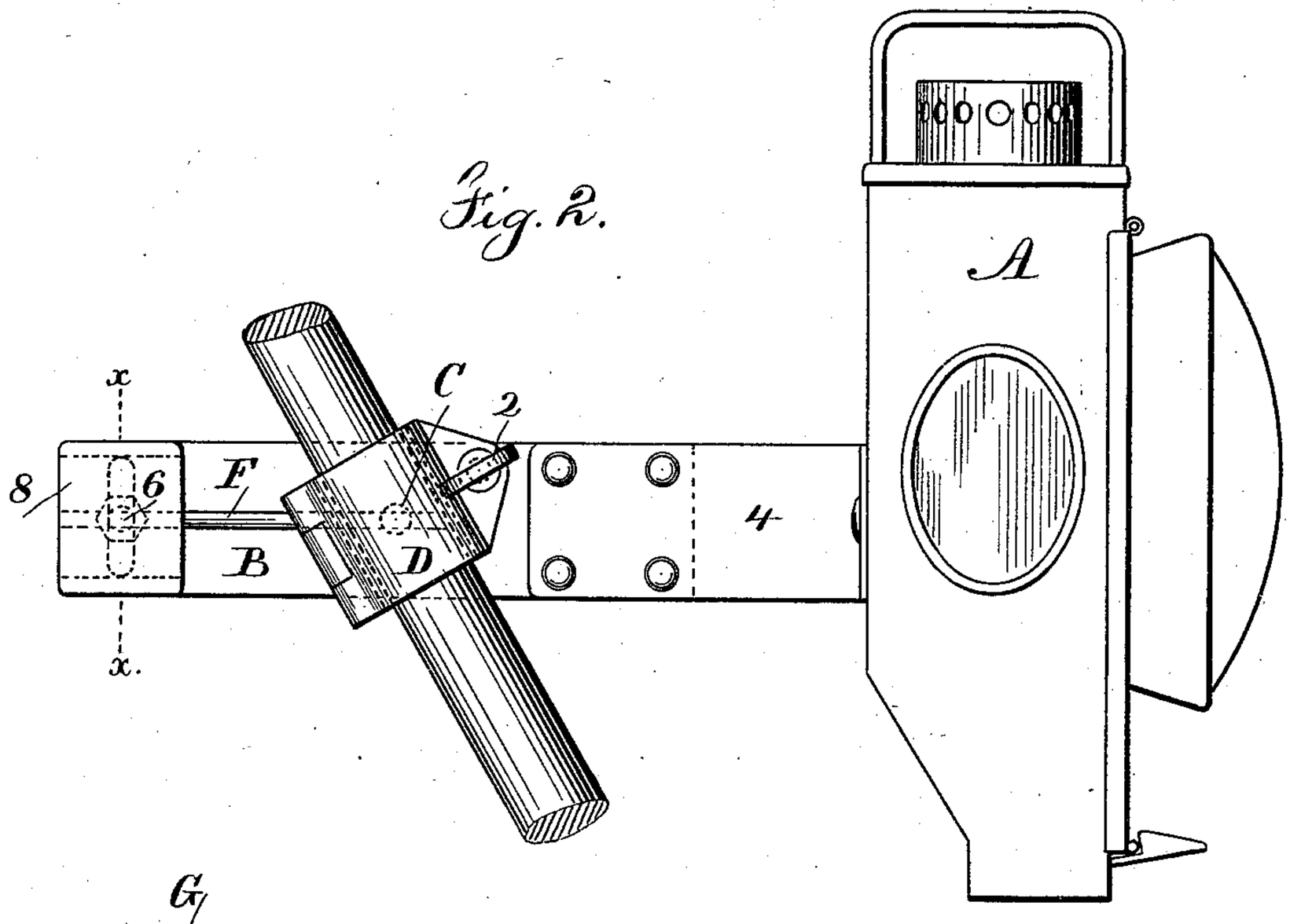


Fig. 3.

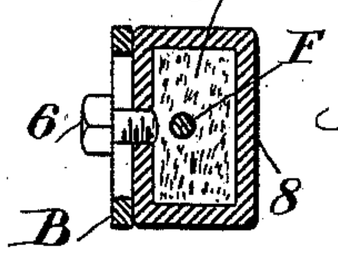
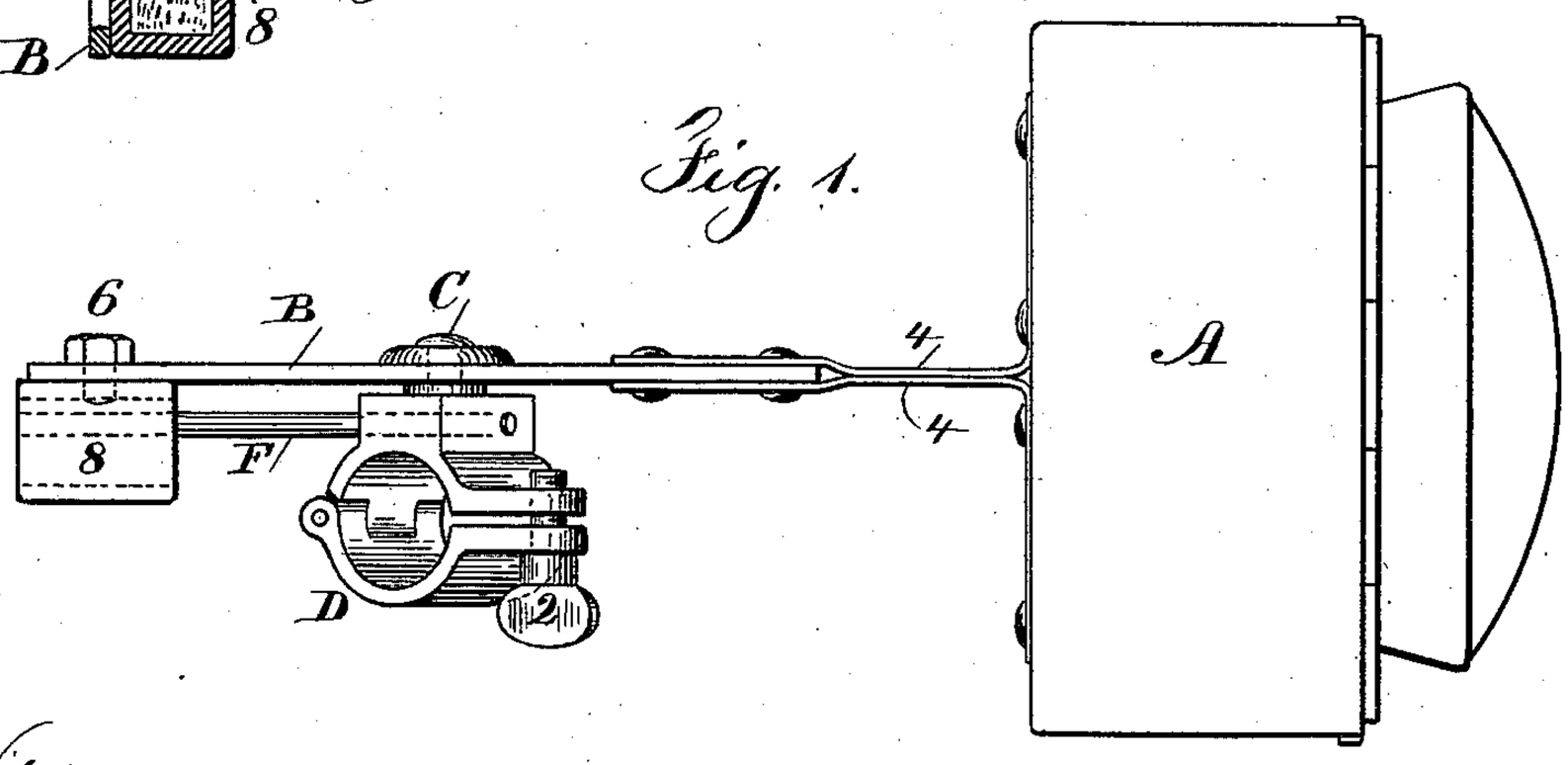


Fig. 1.



Witnesses
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EDWIN A. DOBBINS, OF NEW YORK, N. Y.

YIELDING SUPPORT FOR BICYCLE AND OTHER LAMPS.

SPECIFICATION forming part of Letters Patent No. 362,612, dated May 10, 1887.

Application filed August 27, 1886. Serial No. 211,977. (No model.)

To all whom it may concern:

Be it known that I, EDWIN A. DOBBINS, of the city and State of New York, have invented an Improvement in Yielding Supports for Bicycle and other Lamps, of which the following is a specification.

Bicycle lamps and lanterns are exposed to considerable agitation and vibration, especially when the vehicle is passing over a rough road, and the light is liable to be extinguished, or nearly so, by the jarring action.

Springs have heretofore been made use of for supporting such lamps and lanterns; but they have usually allowed too much motion to take place, so that the lamp is liable to be extinguished by the action of the atmosphere upon the flame.

By my improvements I am enabled to overcome these difficulties, and to lessen the vibration of the lamp and limit the extent of motion of the same.

In the drawings, Figure 1 is a plan view of a lantern and my improved support for the same. Fig. 2 is a side elevation; and Fig. 3 is a section at the line *x x*, Fig. 2.

The lantern A is of any desired size or character, and upon the back of the same is fastened the arm B, and C is a pivot passing through the arm and into the clip D. This clip is adapted to grasping the steering-bar or any other portion of the vehicle to which the lamp is to be attached.

Where the lamp is to be attached to the steering-bar of a machine—such as the "Star" bicycle—the clip is preferably tubular and made of two parts hinged together and provided with a clamping-screw, 2, so that the clip can be opened, passed around the steering-bar, and firmly secured in place.

The arm B, where it is attached to the back of the lamp, is preferably made of two plates of comparatively thin sheet metal, 4 4, placed together, as seen in Fig. 1, and with their back ends riveted to the single portion of the arm B, through which the pivot C passes, so that these thin plates 4 4 will spring laterally and relieve the lamp from lateral concussion. At the same time the lamp will be firmly supported; and I provide between the clip D and the arm B a compound spring, the same being formed of a spring-wire, F, and a block of rubber, G, these parts being applied so that the spring-wire will be bent and spring to a greater or less extent by the weight of the lamp, and the rubber will act as a damper to the spring-wire, as well as a device for increasing the elasticity.

I find it preferable to insert the spring-wire into and through a hole in the clip-piece D, near the pivot C, and to extend this spring-wire to the rear and pass the same through the rubber block G, and this rubber block G is connected to the rear end of the arm B, preferably by a small metallic box, 8, into which the rubber is received, and 6 is a clamping-screw passing into the box 8 through a slot in the arm B, by which means the box and rubber block can be held in the proper position upon the lever-arm.

It will now be understood that the lever-arm B turns more or less upon the pivot C as the lamp is exposed to the jar and concussion of the moving vehicle, and the spring F yields under the action of the weight of the lamp or lantern, and the rubber block G is also compressed by the action of the spring-wire upon the same, so that while the vehicle itself is necessarily exposed to concussion and jar the lamp is carried with great steadiness, and there is little or no risk of the light being extinguished or obscured.

By adjusting the lever where the box containing the rubber is clamped to the same the arm B can be brought into a horizontal or an inclined position for directing the light properly in front of the bicycle or other vehicle.

It will be apparent that the wire spring and the rubber block and the box for holding the same can be placed at either side of the pivot that may be desired, and when placed between the pivot and the lantern the wire spring will act upwardly instead of downwardly.

I claim as my invention—

1. The combination, with the lamp or lantern, of an arm attached to the back thereof, a pivot upon which the arm swings, a clip for supporting the pivot, and a spring acting between the clip and the arm to sustain the weight of the lamp and lessen the concussion upon the same, substantially as set forth.

2. The combination, with the lantern, of an arm having two spring-plates connected to the

lantern and allowing for lateral motion, a pivot for the said arm, a clip supporting the pivot, and springs between the clip and the arm, substantially as set forth.

3. The combination, with a lamp or lantern and an arm attached to the same, of a pivot upon which the arm swings, a spring-wire connected with the pivot, and a block of rubber connected with the lever-arm and into which block of rubber the spring-wire passes, substantially as set forth.

4. The combination, with the lamp or lantern and the arm connected therewith, of a pivotal support for the arm, a spring attached at one end to the pivotal support, the rubber block against which the other end of the spring-wire rests, and a metal box receiving the rubber block and a clamping-screw passing through a slot in the arm for adjusting the relative position of the parts, substantially as set forth.

Signed by me this 25th day of August, 1886.

EDWIN A. DOBBINS.

Witnesses:

GEO. T. PINCKNEY,

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