

No. 624,093.

Patented May 2, 1899.

F. RHIND.
LANTERN BRACKET.

(Application filed Aug. 26, 1898.)

(No Model.)

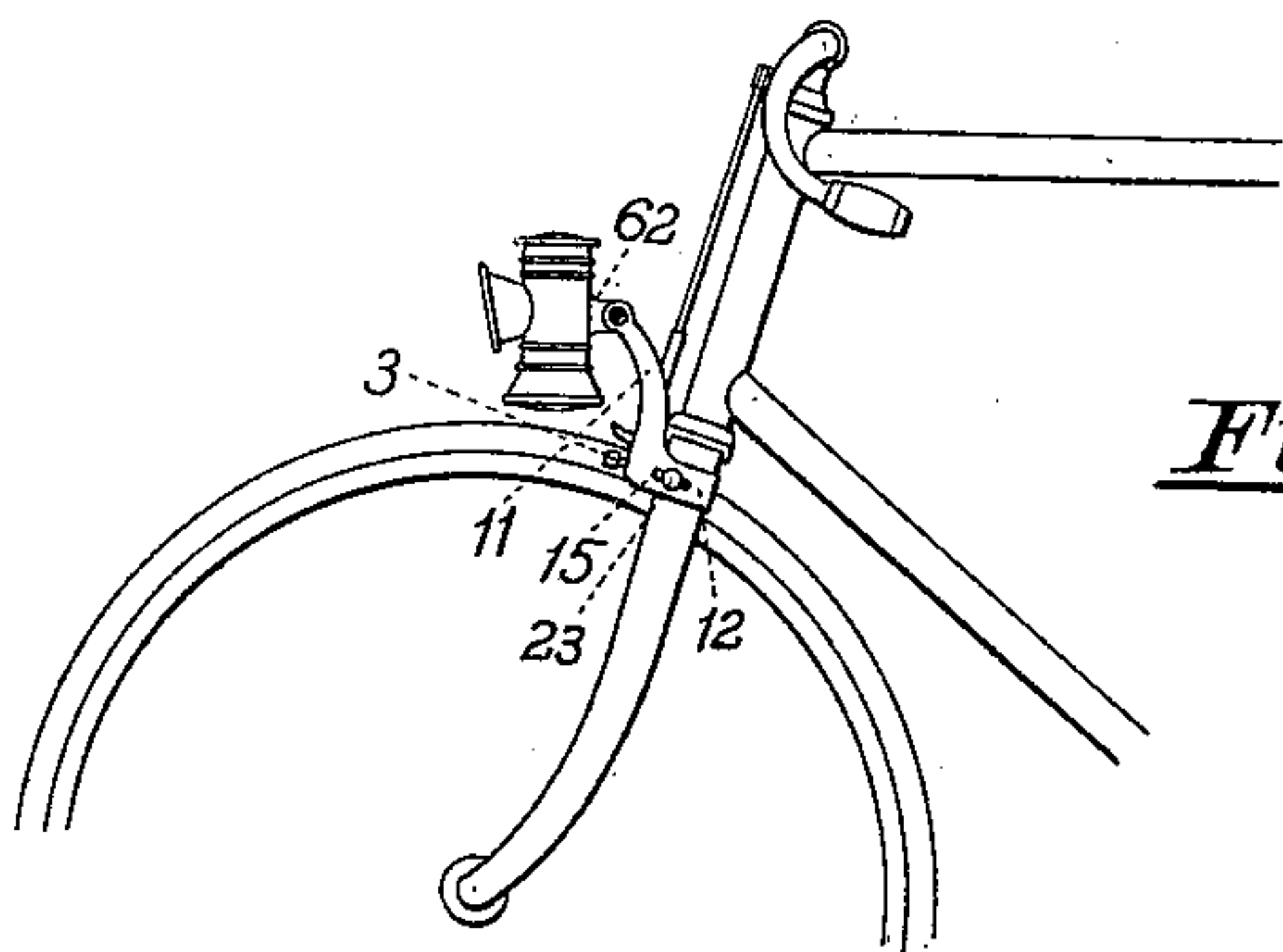
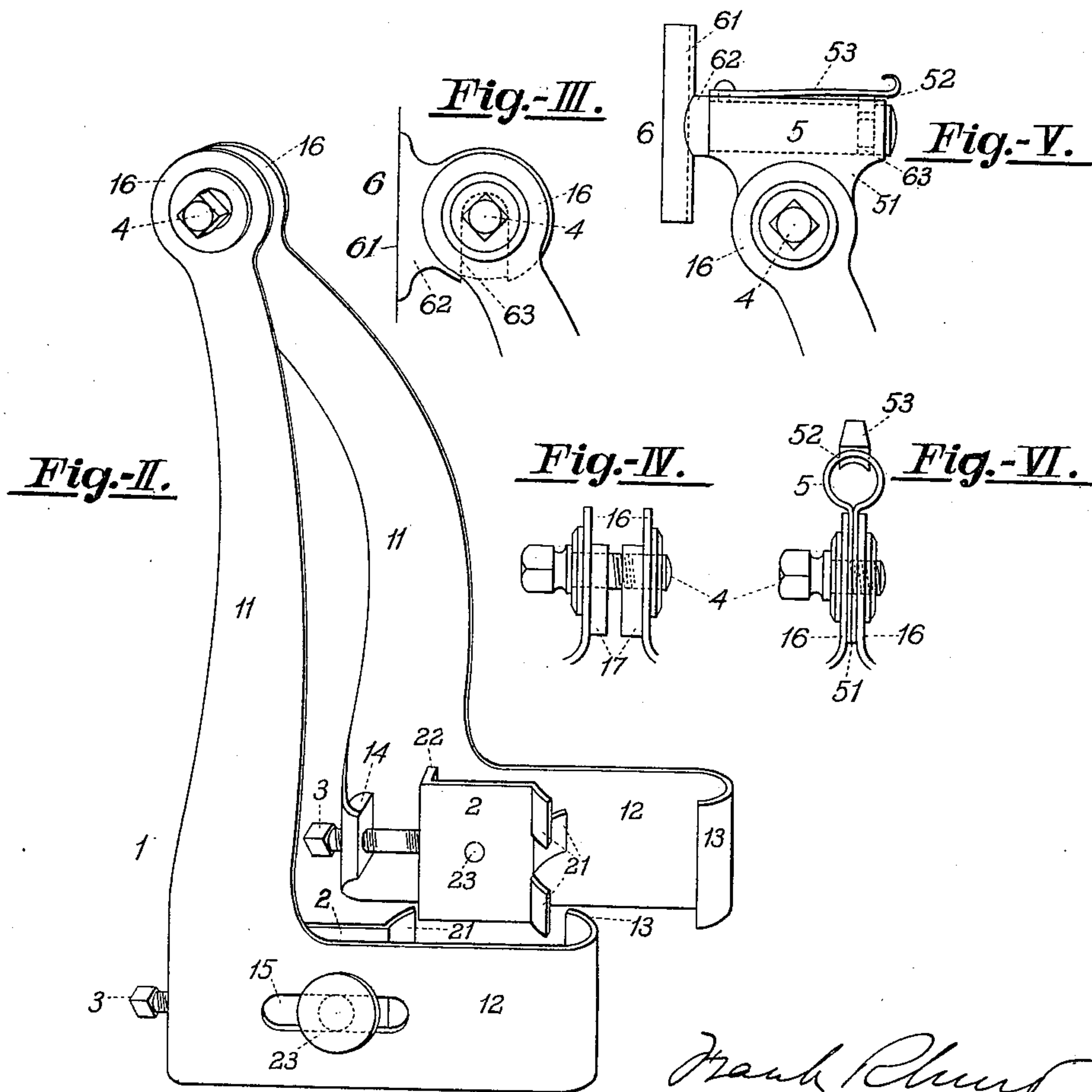


Fig.-I.



WITNESSES:

Herbert Hastings.
Nettie S. Wells.

Frank Rhind
INVENTOR

BY Geo. L. Cooper
ATTORNEY.

UNITED STATES PATENT OFFICE.

FRANK RHIND, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR OF ONE-HALF
TO THE BRIDGEPORT BRASS COMPANY, OF SAME PLACE.

LANTERN-BRACKET.

SPECIFICATION forming part of Letters Patent No. 624,093, dated May 2, 1899.

Application filed August 26, 1898. Serial No. 689,622. (No model.)

To all whom it may concern:

Be it known that I, FRANK RHIND, a citizen of the United States, and a resident of Bridgeport, Connecticut, have invented a new and useful Improvement in Lantern-Brackets, of which the following is a specification.

My invention relates to brackets used to attach a lantern to a bicycle or like vehicle. It is intended to produce a light strong bracket adapted to be securely attached to the bicycle.

In the accompanying drawings, Figure I is an elevation of a portion of a cycle-frame, showing my device in position thereon. Fig. II is an enlarged detached perspective view of the device. Fig. III shows a portion of the device with a lantern-lug secured therein. Fig. IV is a rear elevation of that portion of the device shown in Fig. III. Figs. V and VI are views corresponding to Figs. III and IV, respectively, but showing a modification.

1 designates a bracket-arm consisting of vertical portion 11, base portion 12, hook 13, nut 14, slot 15, cheek 16, and lug 17; 2, a clip provided with jaw 21, heel 22, and stud 23; 3 and 4, bolts; 5, a socket having ears 51 and an aperture 52 and provided with a catch 53; 6, a lantern-lug having plate 61 and body 62, recessed at 63.

In the example of my invention illustrated in Figs. I to IV of the drawings I employ a pair of similar right and left bracket sides or arms 1. These, as shown, are preferably formed from sheet metal in the form of a curved upwardly-extending portion 11 and a portion 12 nearly at a right angle with the lower end of said vertical portion. At the rear end of the base 12 is an inwardly-turned hook 13. A nut 14 is secured at the forward end of the base 12. A longitudinal slot 15 is cut through the base 12. At the upper end of the portion 11 is a nearly-circular plate or cheek 16. At the inner side of the cheek 16 may, if desired, be a lug 17. A clip 2 is provided with a jaw 21, shown as made by slotting the rear end of the clip and bending the freed portions in opposite directions, as clearly shown in Fig. II of the drawings. A heel 22 is bent at substantially a right angle with the forward end of the clip 2. The clip is provided with a stud 23, the shank of which passes freely through the slot 15 in the base

12. A bolt 3 in the nut 14 bears against the heel 22 of the clip 2. In use, the pair of arms 1 is held together by a bolt 4, passing through the cheeks 16. A lug 6 (clearly shown in Fig. III) is adapted to be secured, as by riveting its plate 61, to the rear of a lantern-body. The body 62 of the lug 6 is shown as a substantially circular disk, which may have a recess 63.

The operation of the device will be readily understood from an inspection of the drawings. Each of the bracket sides or arms 1 is first secured, by means of the clip 2 and bolt 3, to the corresponding side of the front fork of a cycle, near the crown. This brings the cheeks 16 side by side, so that by means of the bolt 4 they may be firmly secured one on each side of the lantern-lug 6. This poises the lantern exactly over the front wheel of the cycle in a safe and convenient place and so that the lantern turns with the wheel. If the construction of the cheeks 16 and lug-body 62 were as shown in United States Patent No. 560,109, granted to me May 12, 1896, it would be possible to adjust the lantern in a vertical plane. I have observed, however, that the variation in the rake or angle of inclination of bicycle-forks at their upper ends is insignificant. Hence I prefer to cut in the body 62 a radial recess 63 and provide the cheeks with inwardly-projecting lugs 17, adapted to enter this recess. By this means the possibility of the lantern jarring down so as to strike the wheel-tire is avoided. As this last-described construction is the subject of a pending application filed January 12, 1898, which has received Serial No. 666,392, it is not herein claimed as new. It is clear that a slight loosening of the bolt 4 will permit the removal of the lantern, as for cleaning or the like.

In the form of my device shown in Figs. V and VI of the drawings the bracket-arms, clips, and bolts are as above described, except that, as shown, the lugs 17 are omitted. A socket 5, shown as a tubular body having downwardly-extending ears 51, adapted to be engaged between the cheeks 16, is provided. An aperture 52 in the tubular body of the socket 5 permits a small detent on a spring-catch 53 to enter the tube. In this construc-

tion the lantern-lug 6 may have, as before, a plate 61 or other convenient means for securing it to a lantern. The body 62 of the lug 6 is here a cylindric rod entering and moving
 5 freely in the tubular socket 5. It has an annular recess 63, adapted to receive the detent of the catch 53.

It will be understood that the operation of the device differs from that before described
 10 chiefly in that (a) the lantern is now placed in and removed from its operative position without loosening the bolt 4, a raising of the catch 53 being all that is necessary for this purpose, and in that (b) the plate 61 being at-
 15 tached to the lantern above its center of gravity the lantern is automatically adapted to lateral adjustment in the socket 5. The advantage of this last feature is the preventing of the spilling of the liquid in the lantern-
 20 fount and of the smoking and discoloration of the combustion-chamber when the cycle is inclined or laid upon its side.

This mode of supporting a cycle-lantern above the front wheel, yet so as to permit it
 25 to turn therewith, I believe to be new and advantageous. It is particularly convenient when the cycle has a front tire-brake the rod of which passes in front of the head.

I am aware of a prior patent in which it was
 30 proposed to carry a lantern in front of the front wheel of a bicycle. Such a device I consider entirely impracticable in that (a) it subjects the lantern to unnecessary danger of breakage from accident, (b) it is very
 35 heavy and cumbersome, and (c) it is, unless of prohibitory weight and strength, likely to jar out the light by its resilience, either vertical or horizontal. In my device the lantern is supported by a short rigid bracket in a po-
 40 sition in which it is both safe and conveniently regulated by the rider without dismounting and in which it is still free to turn with the front wheel, so that the light is thrown where needed.

45 As many mechanical alterations may be made in my device without departing from my invention and as various features thereof are capable of being separately employed or of being differently combined, I do not hold
 50 myself limited to the particular form, combination, or uses herein shown and described.

What I claim is--

1. A lantern-bracket having two arms each adapted to be secured to the corresponding side of a cycle front fork near the upper end
 55 thereof and projecting upwardly so as to support a lantern above the front wheel and in front of the steering-head of the cycle, substantially as described.

2. In a lantern-bracket a pair of arms each
 60 provided with means for detachably securing it to the corresponding side of a cycle front fork and with upwardly and inwardly projecting portions in combination with means for securing at the upper end of said arms a
 65 lantern-lug whereby said bracket is adapted to support a lantern above the front wheel and in front of the steering-head of a cycle, substantially as described.

3. In a lantern-bracket a pair of arms each
 70 provided with means for detachably securing it to the corresponding side of a cycle front fork and with upwardly and inwardly projecting portions in combination with means for detachably securing at the upper end of
 75 said arms a lantern-lug whereby said bracket is adapted to support a lantern above the front wheel and in front of the steering-head of a cycle, substantially as described.

4. In a lantern-bracket a pair of arms each
 80 provided with means for detachably securing it to the corresponding side of a cycle front fork and with upwardly and inwardly projecting portions in combination with means for adjustably securing at the upper end of
 85 said arms a lantern-lug whereby said bracket is adapted to support a lantern above the front wheel and in front of the steering-head of a cycle, substantially as described.

5. A lantern-bracket having two arms each
 90 adapted to be attached to the corresponding side of a cycle-fork in combination with a lantern, said bracket and said lantern being provided one with a socket the other with a lug adapted to be rotatably and detachably se-
 95 cured in said socket whereby said lantern may swing laterally, substantially as described.

FRANK RHIND.

Witnesses:

GEO. L. COOPER,
 NETTIE S. WELLS.