

No. 614,347.

Patented Nov. 15, 1898.

F. RHIND.
LANTERN BRACKET.

(Application filed Mar. 16, 1898.)

(No Model.)

Fig. I.

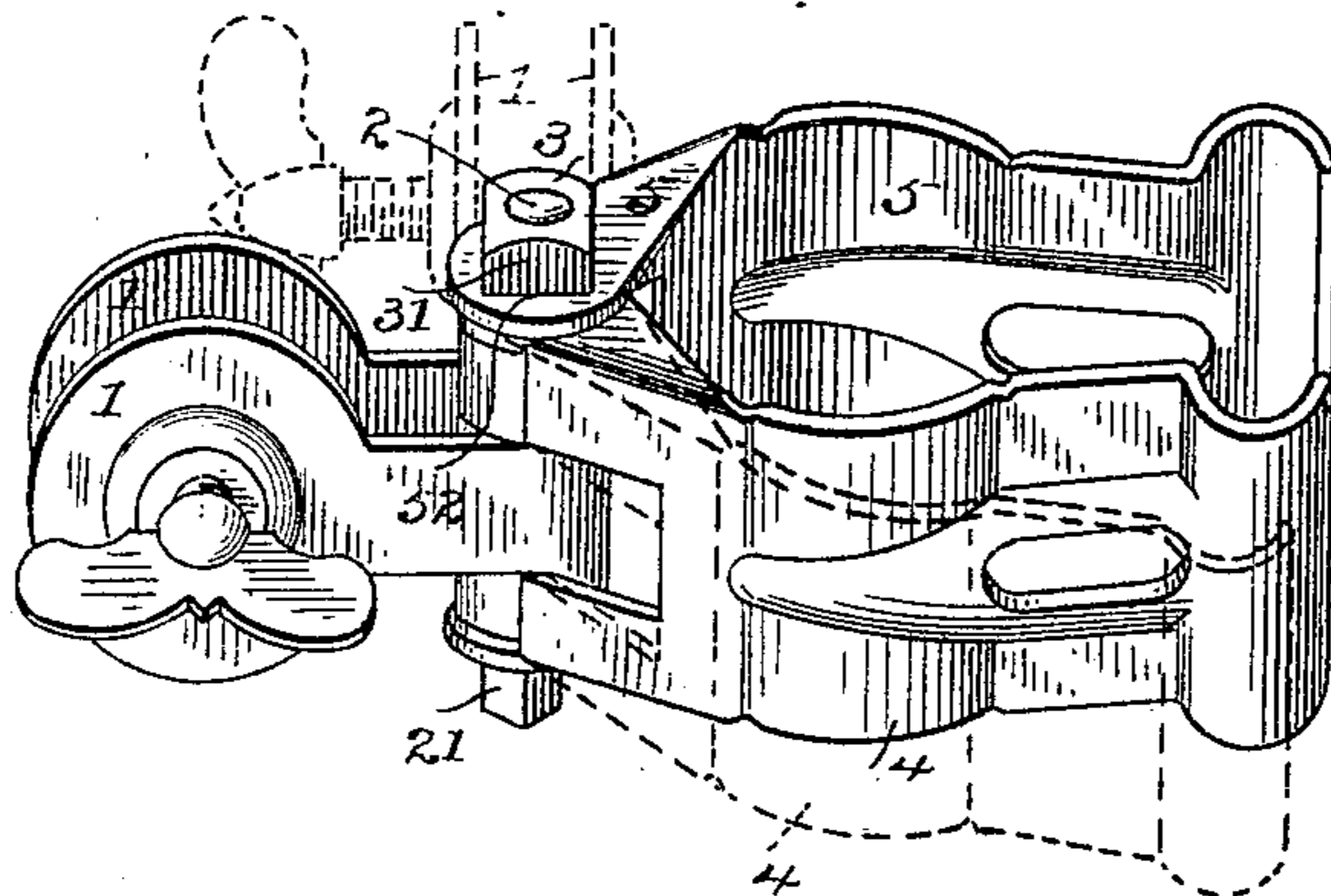


Fig. IV.

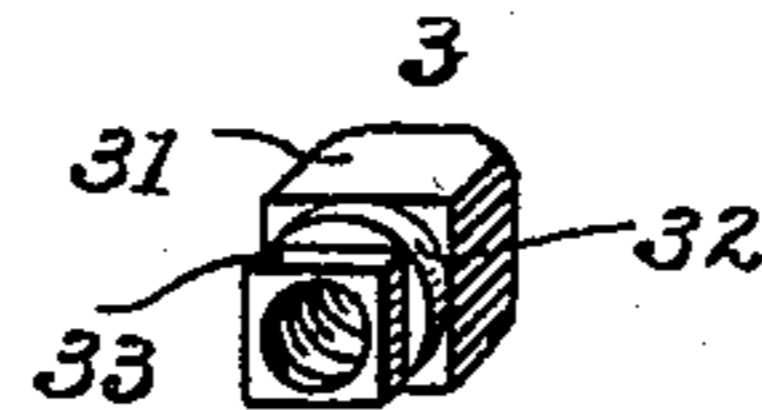


Fig. II.

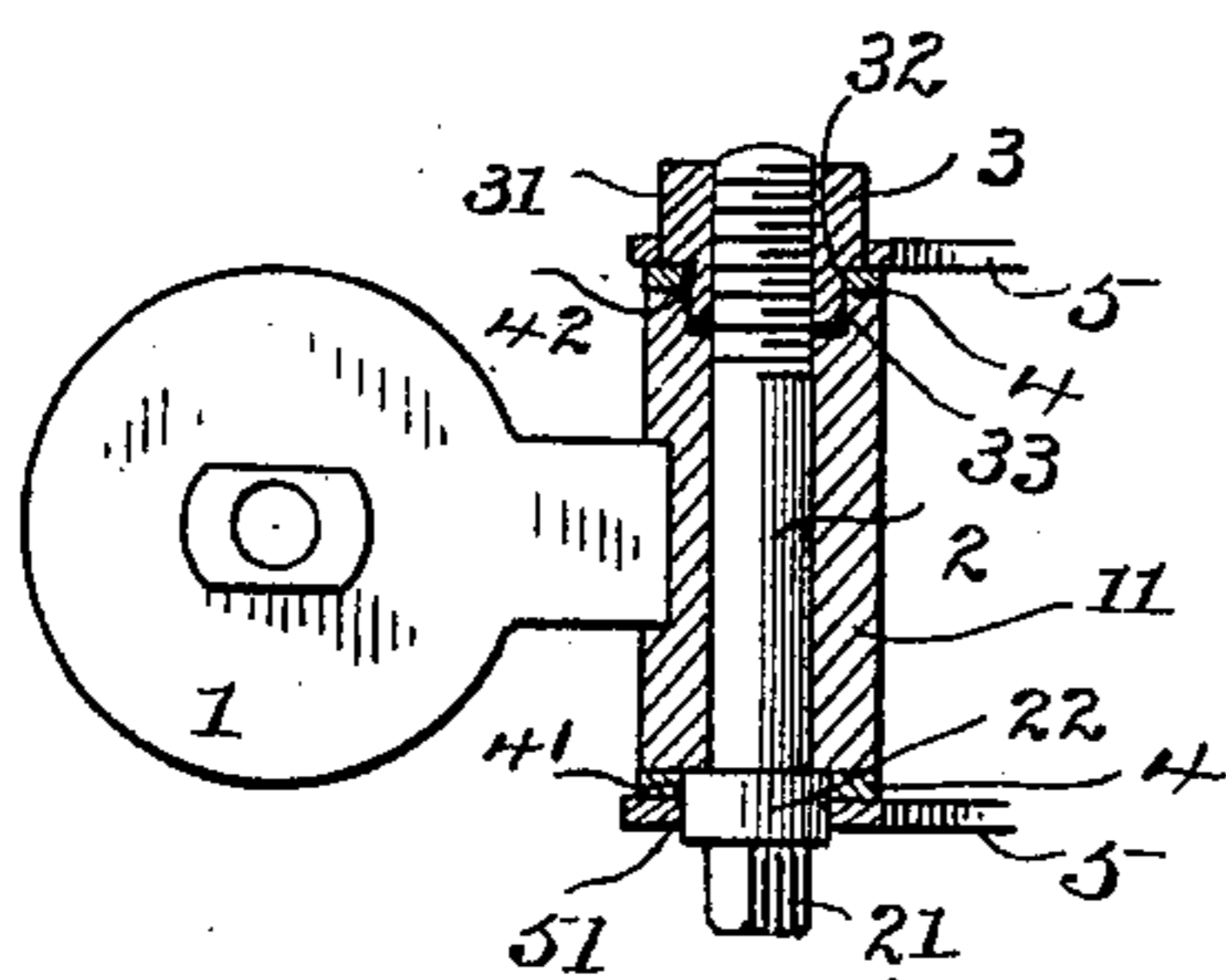


Fig. III.

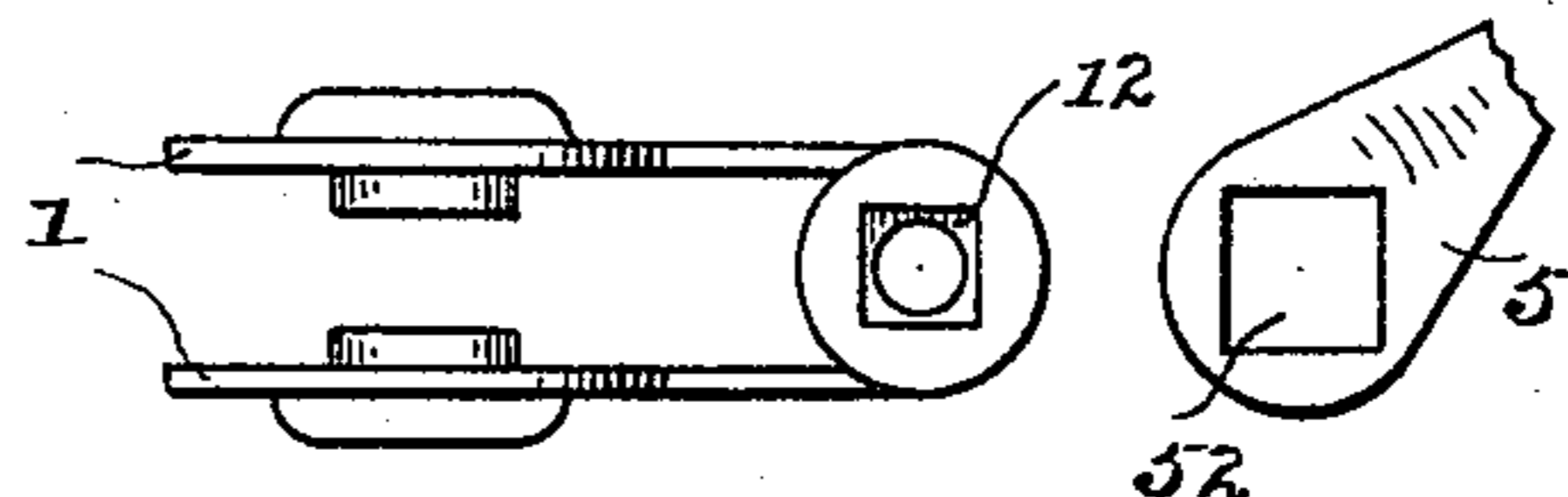


Fig. VI.

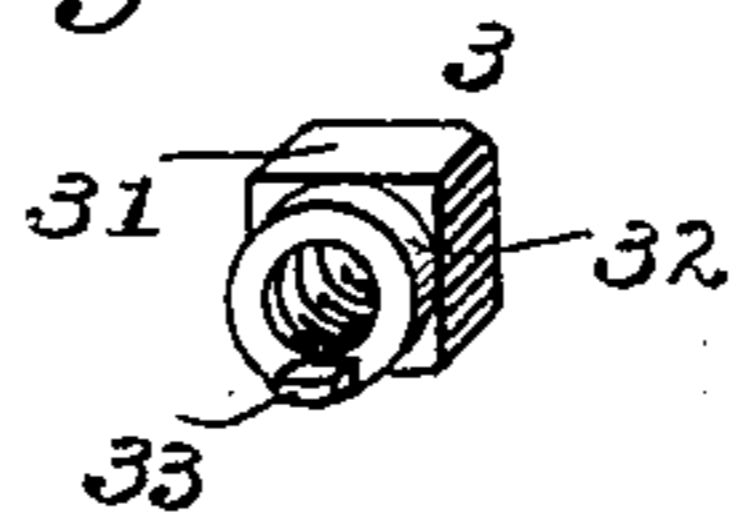
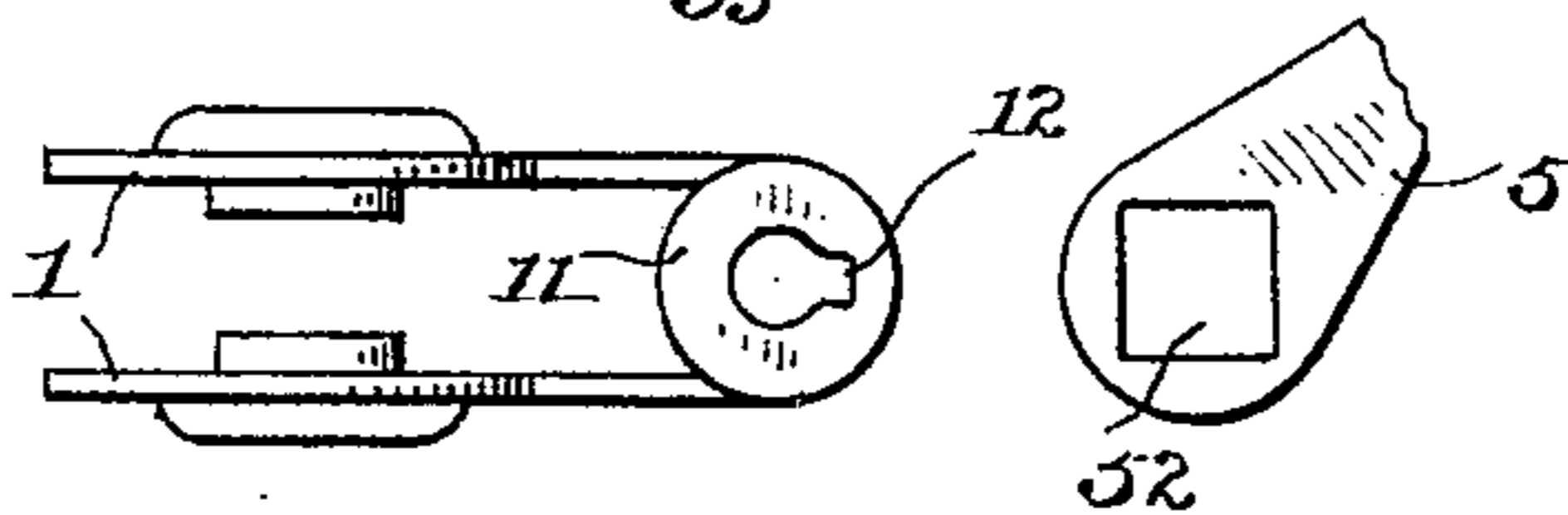


Fig. V.



WITNESSES

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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. 614,347, dated November 15, 1898.

Application filed March 16, 1898. Serial No. 674,120. (No model.)

To all whom it may concern:

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

My invention relates particularly to the brackets used to attach lanterns to bicycles and other vehicles. It is intended to facilitate the removal and replacement of such lanterns.

In the accompanying drawings, Figure I represents in perspective a lantern-bracket embodying my invention. Fig. II is a vertical section of a portion of the same. Fig. III is a top plan view of parts of the device detached from the rest. Fig. IV represents in perspective one part of the device. Figs. V and VI, corresponding to Figs. III and IV, respectively, show a modification.

1 designates a hinge-plate provided with a tubular portion 11, the end of which is provided with a recess 12; 2, a bolt formed with head 21 and shoulder 22; 3, a nut having a polygonal member 31, a cylindric member 32, and an engaging portion 33; 4 5, clamping-jaws having ears pierced at 41 42 and 51 52, respectively.

In the example of my invention illustrated in Figs. I, II, III, and IV of the drawings the hinge-plate 1 and tubular portion 11 may be of desired form. The hinge-plate is intended to be connected with the lantern either rigidly or detachably, as may be required. As shown they are similar in structure and function to the corresponding parts of the bracket shown in United States Patent No. 585,406, on which device the present is an improvement. The tubular portion 11 is here shown as having at one of its ends a recess, which may be of any non-cylindric form and is shown as squared. A bolt 2 is provided with a head 21, which may be squared or otherwise adapted to engage with a wrench or may be a thumb-piece or "butterfly." Above the head 21 is a cylindric shoulder 22. A nut 3 engages with the threaded end of the bolt 2 and, as shown, has a squared body 31, a cylindric shoulder 32, and a squared engaging portion 33. Two clamping-jaws 4 and 5 are

provided with ears pierced to admit the bolt 2 and nut 3, by which the jaws may be secured to the tubular portion 11. The apertures 41 42 in the jaw 4 are circular and of a size to move smoothly on the shoulder 22 of the bolt 2 and on the cylindric portion 32 of the nut 3, respectively. The aperture 51 in the jaw 5 is also circular and adapted to receive the portion 22 of the bolt 2. The other aperture 52 in the ear of the jaw 5 is of a polygonal form to fit the body 31 of the nut 3, here shown as square.

The operation of my device will be readily understood from an inspection of the drawings. When a lantern is attached to the head of a bicycle, it is desirable that the hinge-plate 1 should be in a right line with the jaws 4 5, as shown in full lines in Fig. I. When the lantern is secured to the front fork of a cycle or to the dashboard of a carriage, the hinge-plate should be at substantially a right angle with the jaws, as shown in dotted lines in Fig. I. It is also desirable that one of the clamping-jaws should be free as to rotary motion on the tubular portion, as also shown in dotted lines in Fig. I. In my present device this last is secured by making the length of the cylindric portion 32 of the nut 3 slightly greater than the thickness of the ear of the jaw 4, so that the jaw may freely turn on the bolt and nut. To enable the hinge-plate to which the lantern is attached and the clamping-jaws to be rigidly secured together in a plurality of different relative positions is the principal object of my present invention. To accomplish this, I provide at an end of the tubular portion 11 a recess 12, adapted to receive a correspondingly-shaped engaging portion 33 on the nut 3. It is obvious that when the bolt 2 is tightened the nut 3 is held as against rotation on the tubular portion. As the ear of the jaw 5 is pierced with a non-cylindric aperture 52, adapted to engage with a similarly-shaped portion 31 on the nut 3, it is also clear that the jaw 5 may be rigidly secured to the hinge-plate 1—e. g., as shown in Fig. I. By loosening the bolt 2 the portion 33 of the nut 3 may be disengaged from the recess 12 in the tubular portion, the hinge-plate may be turned to the relative position shown in dotted lines,

Fig. I, and the bolt tightened to again secure the parts rigidly together. A transverse bolt (not shown in the drawings) serves to hold the jaw 4 to the jaw 5, thereby clamping the jaws firmly to a cycle-frame or the like. I have shown the clamping-jaws as provided with two pairs of depressions, substantially as shown in my former patent, No. 585,406; but it is clear that except as herein described the form of the clamping-jaws or of the hinge portion is no part of my present invention.

In the form of my device shown in Figs. V and VI of the drawings the recess 12 and the engaging portion 33 are shown as a slot and lug at one side of the axis of the tubular portion 11 and of the nut 3, respectively. In this construction the nut 3 and tubular portion 11 must always retain the same relative position when the bolt 2 is tightened. The relative set of the hinge-plate 1 and the jaw 5 will therefore depend on the shape of the body 31 of the nut 3 and of the aperture 52 in the jaw 5, so that to adjust the plate and jaw by varying angles of ninety degrees the body 31 and aperture 52 must necessarily be of the square shape shown or of the section of a polygon the number of whose sides is a multiple of four.

I am aware that many mechanical alterations besides those alluded to may be made in my device without departing from my invention.

What I claim is—

1. In a lantern-bracket in combination a portion adapted to be connected with a lantern, a pair of opposed clamping-jaws adapted to engagement with a vehicle or the like one of said jaws being adapted to rotary movement on said first-named portion and means for rigidly securing the other of said jaws to said portion only in a plurality of fixed and

predetermined positions, substantially as described.

2. In a lantern-bracket in combination a pair of opposed clamping-jaws, a tubular portion with which one of said jaws is pivotally connected and means as a bolt and a non-cylindric nut engaging said tubular portion so as to be fixed as against rotation thereon whereby the other of said jaws may be rigidly secured to said tubular portion only in a plurality of fixed and predetermined positions, substantially as described.

3. In a lantern-bracket in combination a pair of opposed clamping-jaws, a tubular portion with which one of said jaws is pivotally connected, ears on said jaws embracing said tubular portion, a bolt passing through said tubular portion, a nut adapted to be secured as against rotation on said tubular portion and a non-circular aperture in the other of said jaws adapted to engage with said nut whereby said jaw may be rigidly secured in a plurality of fixed positions relative to said tubular portion, substantially as described.

4. In a lantern-bracket in combination a pair of opposed clamping-jaws, a tubular portion with which one of said jaws is pivotally connected, a non-circular recess in said tubular portion, a nut adapted to engage in said recess and to be secured as against rotation on said tubular portion and a non-circular aperture in an ear of the other of said jaws adapted to engage with said nut whereby said jaw may be rigidly secured in a plurality of fixed positions relative to said tubular portion, substantially as described.

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Witnesses:

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