

(No Model.)

J. R. MOORE.
BICYCLE BELL.

No. 584,312.

Patented June 8, 1897.

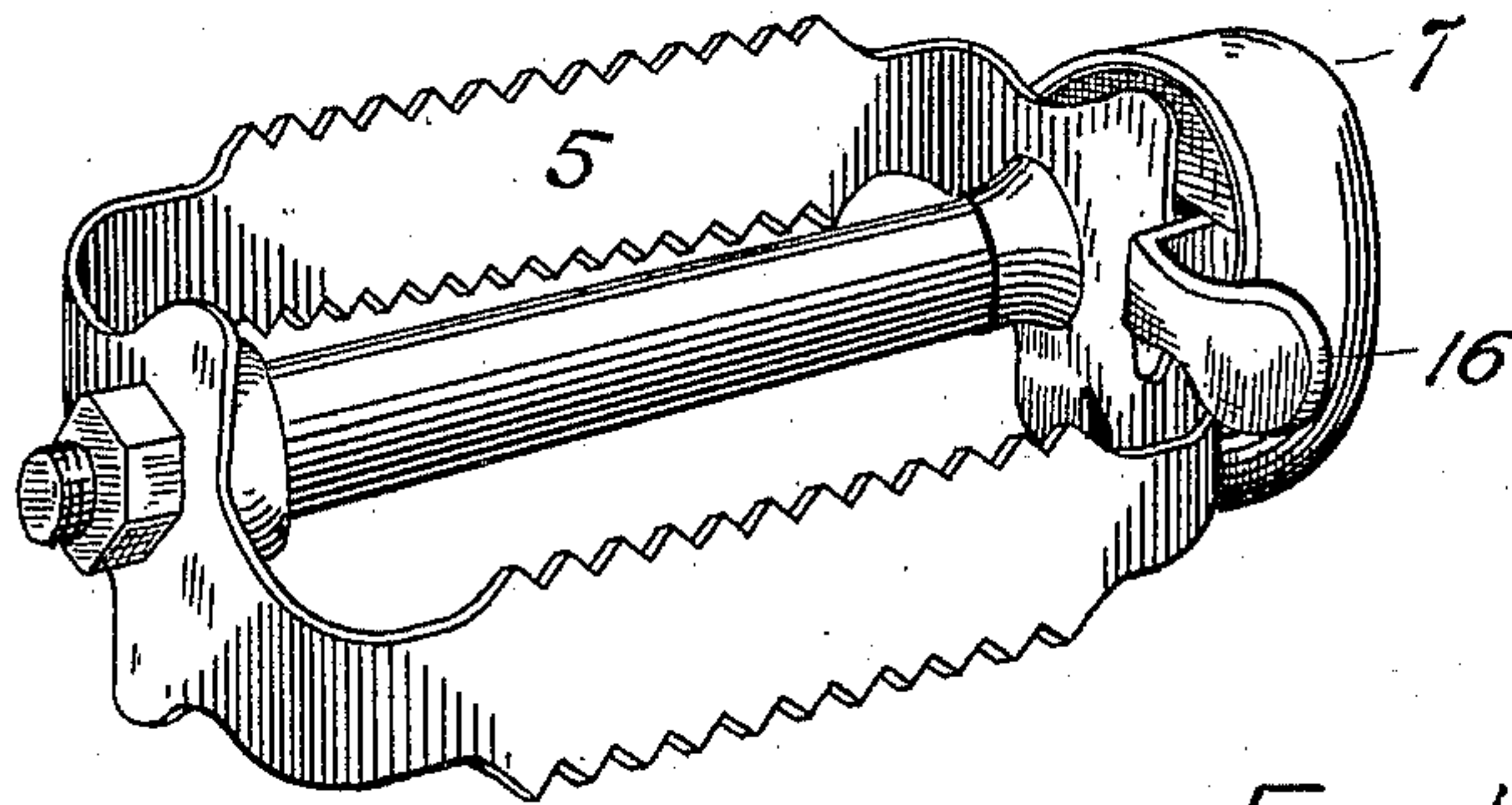


FIG. 1.

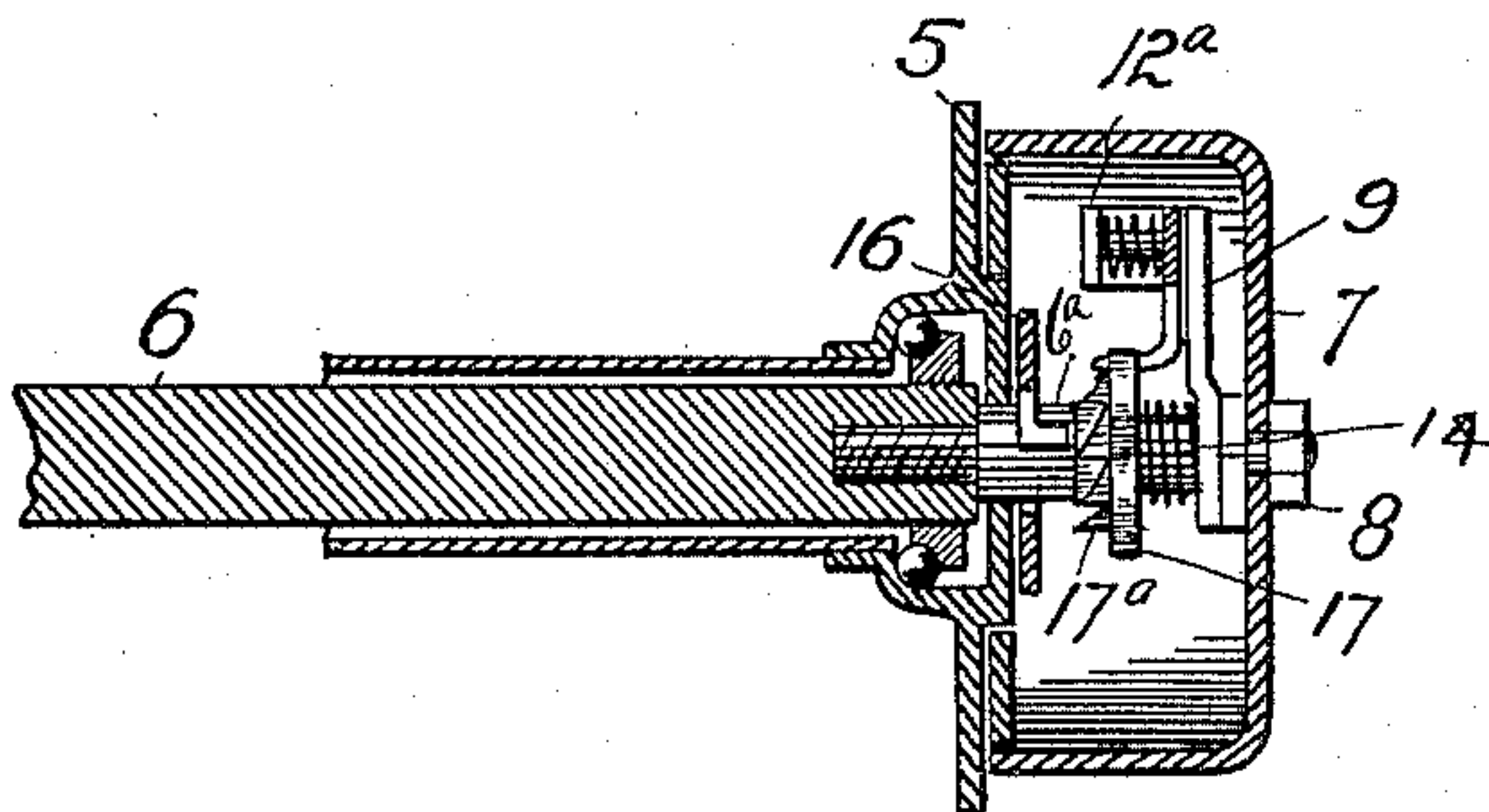


FIG. 2.

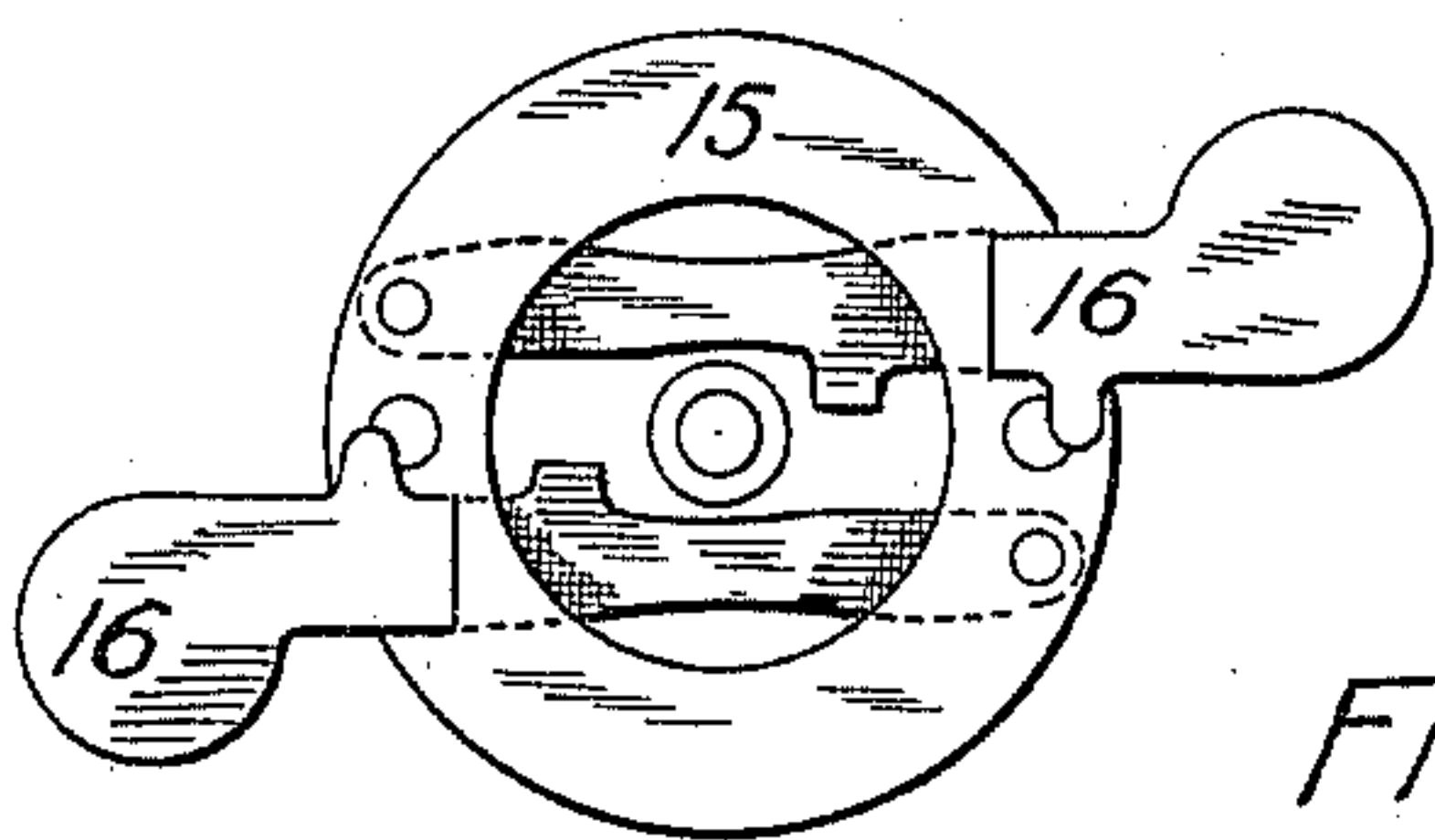


FIG. 3.

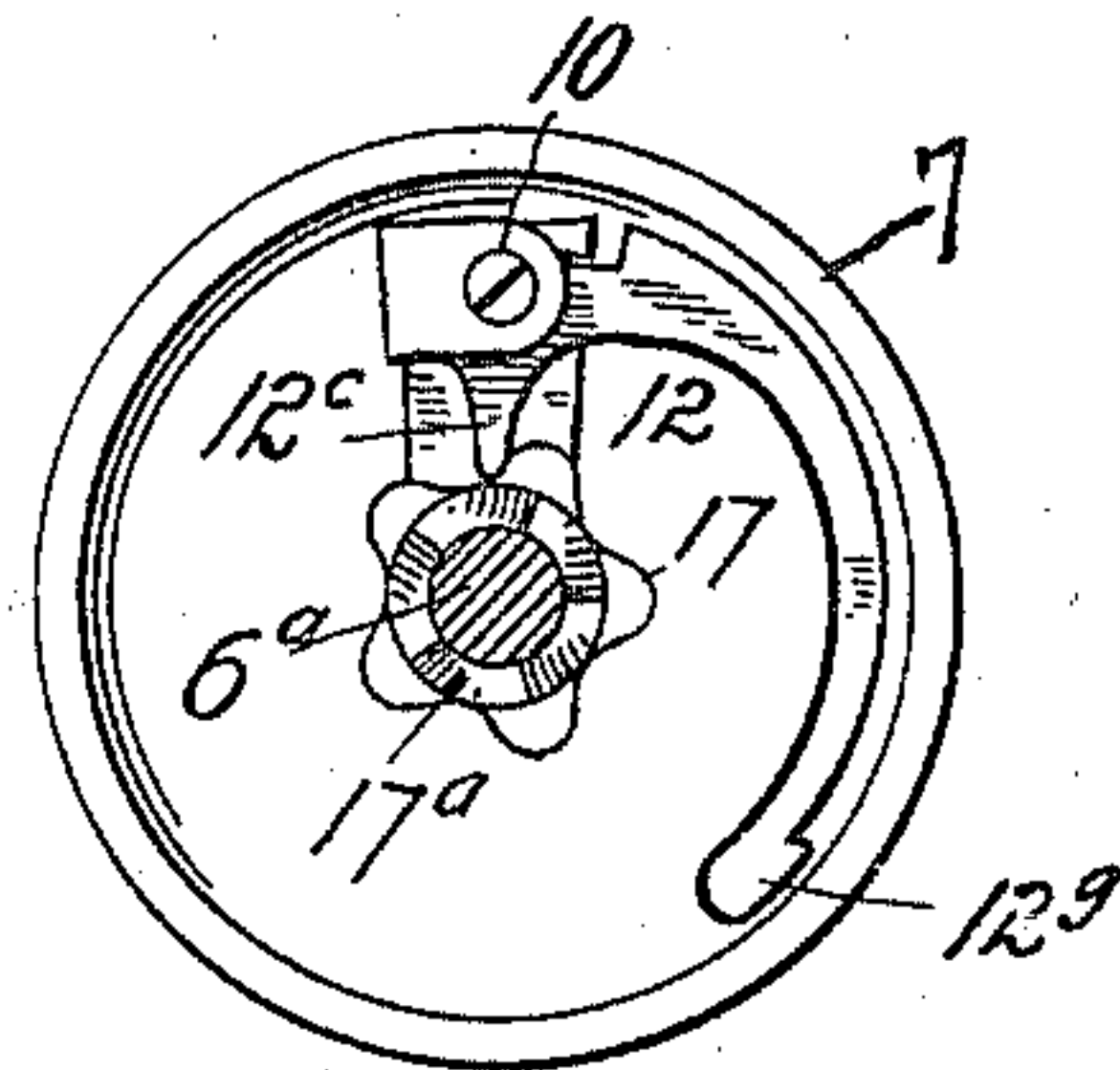


FIG. 4.

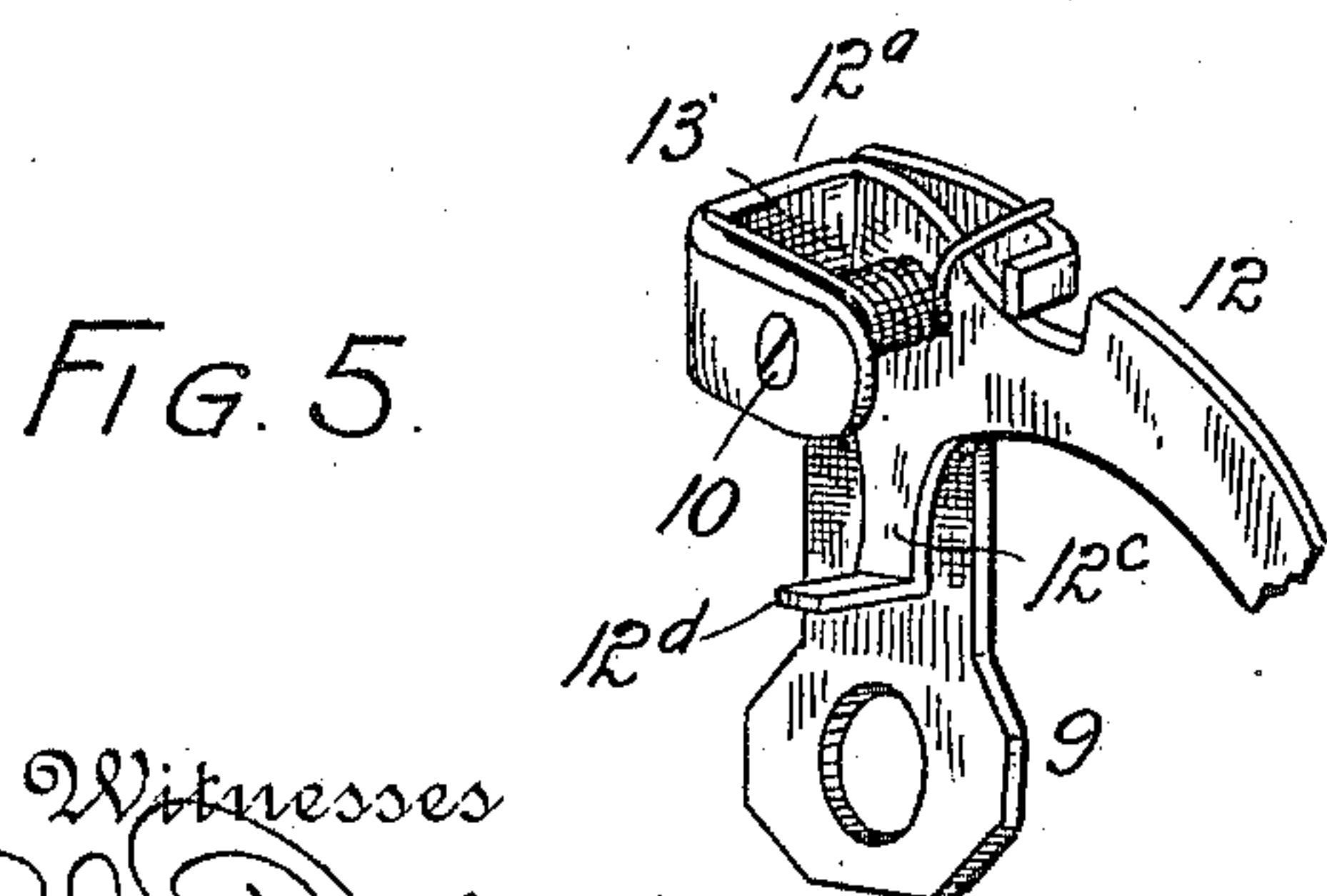


FIG. 5.

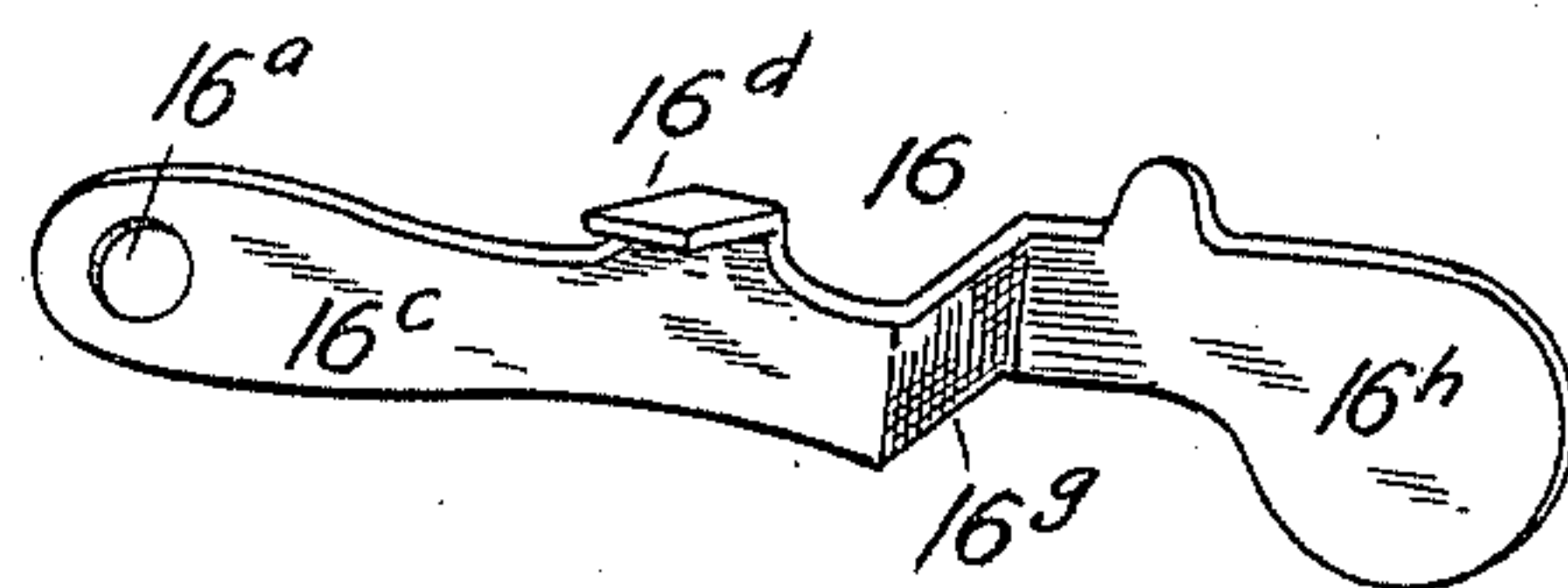


FIG. 6.

Witnesses
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UNITED STATES PATENT OFFICE.

JOSEPH R. MOORE, OF DENVER, COLORADO, ASSIGNOR TO BLANCHE L. KUYKENDALL, OF SAME PLACE.

BICYCLE-BELL.

SPECIFICATION forming part of Letters Patent No. 584,312, dated June 8, 1897.

Application filed November 30, 1896. Serial No. 613,959. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH R. MOORE, a citizen of the United States of America, residing at Denver, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Bicycle-Bells; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates to improvements in alarm attachments for the pedals of bicycles and other velocipedes. The construction shown in this application may be considered an improvement over that set forth in Letters Patent No. 570,944, and bearing date November 10, 1896.

My present invention will now be described in detail, reference being made to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 is a perspective view of a bicycle-pedal provided with my improvements. Fig. 2 is a section taken through one end of the pedal. Fig. 3 illustrates the end plate carrying the spring-arms for actuating the alarm mechanism. Fig. 4 is a section taken on the line *x x*, Fig. 2, looking toward the right. Figs. 5 and 6 are perspective views illustrating details of construction.

Similar reference-characters indicating corresponding parts in the views, let the numeral 5 designate the pedal-frame, and 6 the pin thereof, having an extension 6^a. To the outer threaded extremity of this extension is applied the gong 7, which is held in place by a nut 8, screwed on the stem outside the gong. Attached to the stem 6^a and located within the gong is an arm 9, having a pin 10 fast in its outer extremity. On this pin is fulcrumed a lever 12, having a stirrup-shaped extension 12^a. The pin 10 is surrounded by a coil-spring 13, one extremity of which bears against the part 12^a of the lever, while the other extremity engages the arm 9, which forms a stop therefor. The lever 12 is provided with an arm 12^c, having a horizontal projection 12^d. On the stem or pin extension 6^a is loosely

mounted a small star-shaped wheel or cam 17, whose peripheral sprockets, projections, or cam-faces lie in the path of the projection 12^d of the lever 12. The cam-wheel 17 is also provided with ratchet-teeth 17^a, formed on one side thereof. Between the arm 9 and the wheel 17 is located a coil-spring 14, surrounding the stem 6^a. This spring holds the wheel 17 against a shoulder on the stem.

To the end of the pedal-frame adjacent the alarm mechanism is attached a flat ring 15, carrying two spring-arms 16. Each of these arms is provided with an aperture 16^a at one extremity, through which is passed a rivet, which fastens the arm to the ring 15. The part 16^c of the arm 16 engages the outer surface of the ring 15 and carries a projection 10^d, which normally occupies a position close to the ratchet-teeth 17^a on the side of the wheel 17. The arm 16 is also provided with an offset 16^g, which throws the outer extremity 16^h of the arm inwardly close to the side of the rider's foot when in position on the pedal.

The two arms 16 are oppositely located, whereby one is always in position for use no matter which side of the pedal the foot rests upon.

To operate the alarm mechanism, it is only necessary to press the extremity 16^h of the spring-arm 16 sufficiently to cause the projection 16^d to engage the ratchet-teeth 17^a of the wheel 17. This engagement stops the movement of the wheel 17 with the pedal-pin, and the peripheral projections of the wheel engage the arms 12^c of the lever 12 and cause the latter to turn on its fulcrum. During this movement of the lever the spring 13 is placed under tension, and as soon as the lever-arm is released the recoil of the spring throws the outer extremity of the lever forcibly against the gong 7, sounding the alarm. This clapper-lever strikes the gong as often as the peripheral projection or cam-face on the wheel 13 engages the inner extremity of the lever. As soon as the pressure of the foot is withdrawn from the arm 16 the latter returns to its normal position and the bell or gong ceases to sound, since the wheel 17 then rotates with the lever and pedal-pin.

Having thus described my invention, what I claim is—

1. The combination with the pedal, of suit-

able alarm mechanism mounted on the pedal-pin and comprising a gong, a loose wheel having peripheral projections and ratchet-teeth, and a spring-held lever having one arm adapted to engage the periphery of said wheel, the other arm being located in suitable proximity to the gong, and a movable device mounted on the pedal-frame and adapted to engage the ratchet-teeth of the wheel, as and for the purpose set forth.

2. The combination with the pedal, of suitable alarm mechanism mounted on the pedal-pin and comprising a gong, a loose cam having ratchet-teeth on one side, and a spring-held clapper-lever having one arm adapted to engage the cam-face, and a movable device mounted on the pedal-frame and adapted to engage the teeth of the cam and lock the latter against rotation with the pedal-pin.

3. The combination with the pedal, of suitable alarm mechanism mounted on the pedal-

pin and comprising a gong, a loose cam and a spring-held clapper-lever having one arm engaging the cam-face, and a spring-arm mounted on the pedal-frame and adapted to engage the cam and lock it against rotation with the pedal-pin.

4. The combination with the pedal, of a gong mounted on the pedal-pin, and a loose cam also mounted on said pin, an arm fast on the pedal-pin, a spring-held clapper-lever mounted on said arm and having one arm engaging the cam, and a movable device mounted on the pedal-frame and adapted to engage the cam and lock it against rotation with the pedal-pin.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH R. MOORE.

Witnesses:

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J. W. KUYKENDALL.