

(No Model.)

H. S. PULLMAN.
BICYCLE BELL.

No. 553,568.

Patented Jan. 28, 1896.

Fig. 1.

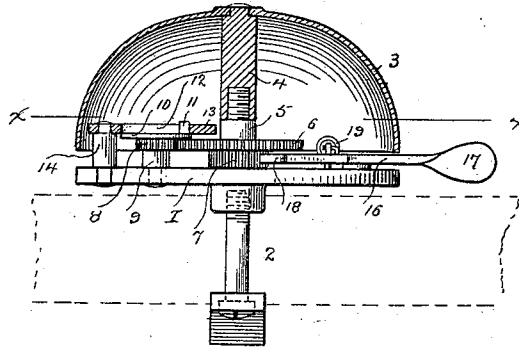


Fig. 2.

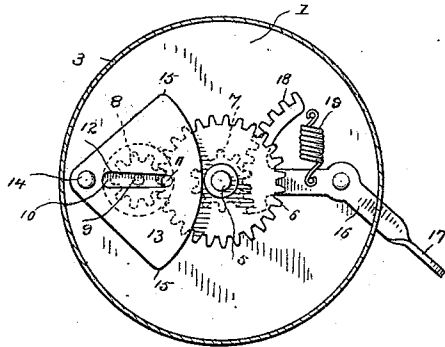
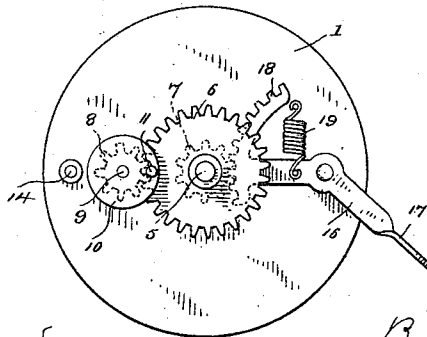


Fig. 3.



WITNESSES

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BICYCLE-BELL.

SPECIFICATION forming part of Letters Patent No. 553,568, dated January 28, 1896.

Application filed May 16, 1895. Serial No. 549,557. (No model.)

To all whom it may concern:

Be it known that I, HERBERT S. PULLMAN, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Bicycle-Bells; and I do hereby 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.

My invention relates to the construction of alarm-bells for bicycles and similar uses, and has for its object to produce a construction which shall consist of a minimum number of parts, all easy to produce without hand-labor, thereby reducing the cost of construction to the minimum, which shall produce a plurality of sharp tones each time the lever is moved in either direction, and which shall be durable and not likely to get out of repair. With these ends in view I have devised the novel alarm-bell, of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to designate the several parts.

Figure 1 is a vertical section showing a portion of the operating mechanism in elevation; Fig. 2, a section on the line *xx* in Fig. 1, looking down; and Fig. 3 is a similar view, the striker being removed.

1 denotes the base-plate; 2, the attaching device; 3, the gong; and 4, a shank extending downward from the center of the gong and preferably threaded internally at its lower end to receive a thread on a stud 5, which extends upward from the base-plate.

6 denotes a gear-wheel, and 7 a pinion formed integral therewith or rigidly secured thereto which turns on stud 5, and 8 denotes a pinion mounted on a stud 9, said pinion meshing with gear-wheel 6. This pinion has formed integral with it a disk 10 which partially overlies gear-wheel 6 and retains the latter in position on stud 5, and has extending from its upper face a pin 11 which engages a radial slot 12 in the striker 13, which is pivoted near the outer edge of the plate, as at 14. The exact shape of the striker is of course not of the essence of my invention. It is simply

essential that the part be so shaped as to provide two engaging points 15 adapted to engage the gong alternately and sufficient metal to enable the slot to be formed therein without weakening the piece.

16 denotes the operating-lever, which is provided at its outer end with a finger-piece 17 for convenience in operation and at its inner end with a segmental rack 18 which engages pinion 7.

19 is a spring, one end of which is connected to the plate and the other to the operating-lever, whereby the latter is returned to and retained at its normal position.

The operation of my novel bell will be clearly understood from the drawings. It is obvious that movement of the operating-lever in either direction will move pinion 7 and gear-wheel 6. The latter will impart rotary movement to pinion 8, and said pinion through the engagement of pin 11 with the slot in the striker will oscillate the latter and cause the engaging points to strike the gong. In practice I preferably so proportion the parts that pinion 8 will make two revolutions each time the operating-lever is moved in either direction. It is obvious, therefore, that each movement of the lever in either direction will cause the striker to strike the gong a plurality of times, it being apparent from the drawings that the striker lies normally at a position midway between its two engaging points and that each rotation of pinion 8 through the engagement of the pin with the slot will move the striker in one direction so that an engaging point will strike the gong and then to the extreme of its movement in the opposite direction, causing the other engaging point to strike the gong, and then back to its normal position, which in the present organization, being repeated during each movement of the lever, causes the striker to strike the gong four times and to repeat the four blows in quick succession should the finger be removed from the lever and the spring allowed to return the lever to its normal position. I have shown slot 12 as made slightly wider at the end toward the pivotal point of the striker. This is in order to avoid the possibility of the striker becoming locked

in any position, the opposite end of the slot being made just the width of the pin, so as to prevent the possibility of rattling.

Having thus described my invention, I
5 claim—

In a bicycle bell the combination with a gear wheel 6 and a pinion 7 moving therewith, of an operating lever having a segmental gear engaging pinion 7, a pinion 8 engaging gear wheel 6 and carrying a pin 11 and a
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striker having two engaging points and a radial slot engaged by said pin so that at each movement of the operating lever the striker will be oscillated.

In testimony whereof I affix my signature 15
in presence of two witnesses.

HERBERT S. PULLMAN.

Witnesses:

A. M. WOOSTER,
S. V. RICHARDSON.