(No Model.)

H. S. PULLMAN.

BICYCLE BELL.

No. 589,752. Patented Sept. 7, 1897.

Fig. 1

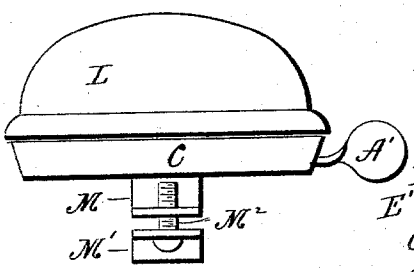


Fig. 2

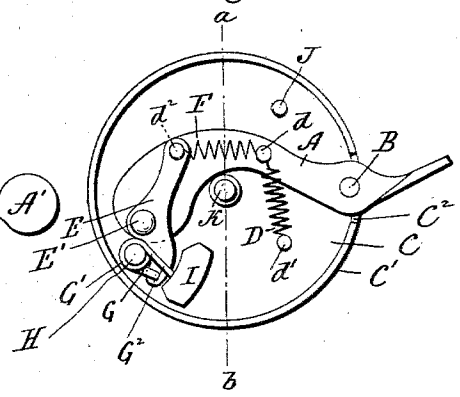


Fig. 3

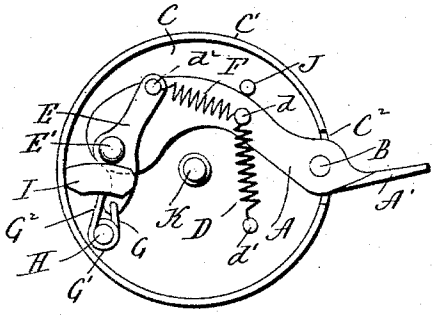


Fig. 4

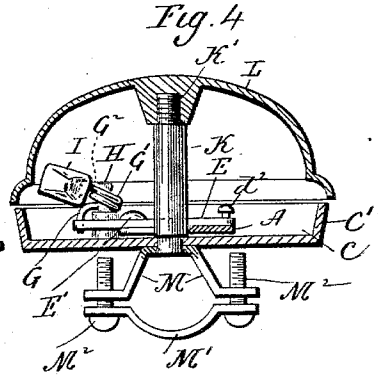
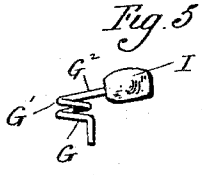


Fig. 5



Witnesses.
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UNITED STATES PATENT OFFICE.

HERBERT S. PULLMAN, OF WATERBURY, CONNECTICUT, ASSIGNOR TO THE SCOVILL MANUFACTURING COMPANY, OF SAME PLACE.

BICYCLE-BELL.

SPECIFICATION forming part of Letters Patent No. 589,752, dated September 7, 1897.

Application filed March 1, 1897. Serial No. 625,530. (No model.)

To all whom it may concern:

Be it known that I, HERBERT S. PULLMAN, of Waterbury, in the county of New Haven and State of Connecticut, have invented a new Improvement in Double-Stroke Bicycle-Bells; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation of a bell constructed in accordance with my invention; Fig. 2, a plan view thereof with the gong removed, showing the parts in their passive or normal positions; Fig. 3, a similar view showing the parts in the position due to them after the finger-lever has been operated in one direction against the tension of its spring; Fig. 4, a sectional view on the line *a b* of Fig. 2; Fig. 5, a detached view of the striker and the oscillating wire carrier thereof.

My invention relates to an improvement in double-stroke bicycle-bells, the object being to produce a simple and durable bell composed of a few parts and constructed with particular reference to sounding a quick, clear, and penetrating alarm.

With these ends in view my invention consists in a bicycle-bell having a finger-lever, a spring for operating the same in one direction, an oscillating striker, and a striker-lever connected with the said striker for actuating the same and pivotally mounted upon the said finger-lever with its pivot out of alinement with the center, upon which the striker oscillates.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

In carrying out my invention I employ a finger or operating lever A, pivotally connected by means of a pivot B with the sheet-metal cup-shaped base C of the bell, the flange C′ of the said base being formed with an opening C^2 for the outward projection through it of the finger-piece A′, forming the outer end of the said lever and provided for operating it in one direction. The said lever is operated in the other direction by means of a spiral spring D, connected at one end with the lever by means of a pin *d* and at the other end with the base C by means of a pin *d*′. Upon the extreme inner end of the lever A, I mount a striker-lever E, pivotally secured in place by means of a pivot E′, located about midway of its length.

A spiral spring F, somewhat lighter than the spring D, before mentioned, is connected at one end with the pin *d*, also before mentioned, and with a pin d^2, mounted in the inner end of the striker-lever, the opposite end of which is perforated to receive the downwardly-depending end or arm G of a short coil G′, of heavy wire, to the upper end or arm G^2 of which the striker I itself is secured. The said coil is set over a stud or post H, rigidly secured to the base C and having its upper end headed down to prevent the coil from coming off. The said coil G′, with its two arms, forms, as it were, an oscillating carrier for the striker. A stop-pin J, riveted into the base C, limits the outward movement of the finger-lever. It is to be particularly noted that the said parts are so constructed and arranged that the pivot of the striker-lever is out of alinement with the striker stud or post.

The finger-lever A and striker-lever E form in effect a compound lever, the movement of the finger-lever A being multiplied in the striker-lever E, so as to vastly quicken the action of the latter, which in turn actuates the striker, the movement of which is accelerated near the two limits of its excursion or oscillation, during the middle portion of which it moves slower, this action being due to the fact that the pivot of the striker-lever is out of alinement with the striker-stud, as aforesaid.

The spring D returns the operating or finger lever to its normal position, while the spring E assists in the control of the striker-lever and causes it to effect the sounding of the alarm with force upon the return movement of the finger-lever. The bell is provided with a gong-post K, of the usual construction, the said post being riveted centrally in the bottom of the base C and having its upper end formed with a threaded stud K′

for the attachment of the gong L, which is slightly larger in diameter than the diameter of the base C. The bell is also provided with a clip, composed of two parts, M and M′, united by clamping-screws M^2 M^2, but this clip may be replaced by any other clip of approved construction.

I would have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such alterations as fairly fall within the spirit and scope of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a bicycle-bell, the combination with the base and the gong thereof, of a finger-lever pivotally mounted in the base near the edge thereof, and having a finger-piece projecting outward beyond the said edge, a spring connected with the finger-lever for operating the same in one direction, an oscillating striker located near the edge of the base and adapted to strike the gong, and a spring-controlled, plate-like striker-lever connected with the said striker for oscillating the same and pivotally mounted upon the said finger-lever with its pivot out of alinement with the center upon which the striker oscillates.

2. In a bicycle-bell, the combination with a finger-lever, of a spring for actuating the same in one direction, an oscillating striker, a striker-lever connected with the said striker for actuating the same and pivotally mounted upon the said finger-lever with its pivot out of alinement with the center upon which the striker oscillates, and a striker-lever spring connected at one end with the striker, and at the other end with the finger-lever.

3. In a bicycle-bell, the combination with a finger-lever, of a spring for actuating the same in one direction, a striker stud or post, an oscillating carrier oscillating upon the said stud or post as upon a center, and a striker-lever connected with the said carrier for actuating the same and pivotally mounted upon the said finger-lever with its pivot out of alinement with the said stud or post.

4. In a bicycle-bell, the combination with a finger-lever, of a spring for actuating the same in one direction, a striker stud or post, a carrier formed of wire and consisting of two arms and of a coil which is passed over the said post on which the carrier oscillates, a striker attached to one of the said arms of the carrier, a striker-lever connected with the other arm of the carrier which it oscillates, and pivotally mounted upon the said finger-lever with its pivot out of alinement with the said stud or post, and a spring for the striker-lever.

5. In a bicycle-bell, the combination with a finger-lever, of a spring for actuating the same in one direction, a stud or post, an oscillating carrier mounted thereupon, a striker secured to the said carrier, a striker-lever connected with the said carrier for oscillating the same in the actuation of the striker and pivotally mounted upon the said finger-lever with its pivot out of alinement with the said stud or post, and a spring having one end connected with the striker-lever, and the other connected with the said finger-lever.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

HERBERT S. PULLMAN.

Witnesses:
HENRY FEHL,
M. J. WARNER.