

(No Model.)

E. D. ROCKWELL.
BICYCLE BELL.

No. 574,631.

Patented Jan. 5, 1897.

Fig. I.

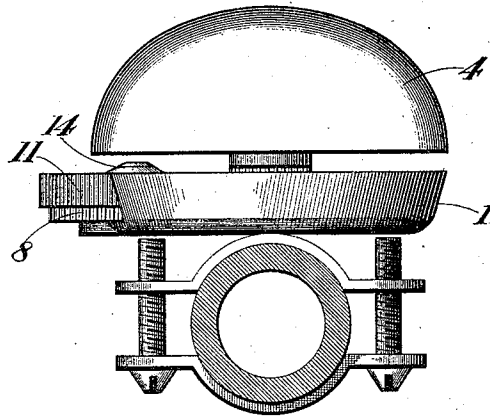


Fig. II.

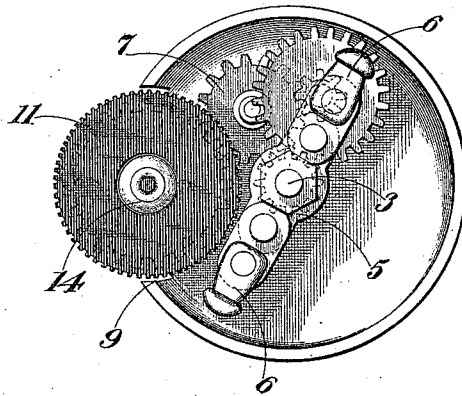
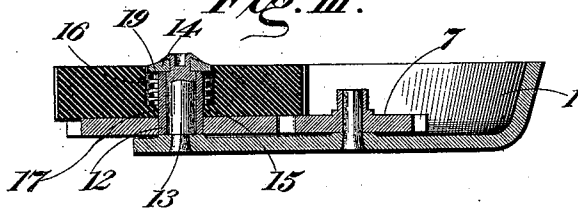


Fig. III.



Witnesses

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EDWARD DAYTON ROCKWELL, OF BRISTOL, CONNECTICUT, ASSIGNOR TO
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BICYCLE-BELL.

SPECIFICATION forming part of Letters Patent No. 574,631, dated January 5, 1897.

Application filed June 1, 1896. Serial No. 593,867. (No model.)

To all whom it may concern:

Be it known that I, EDWARD DAYTON ROCKWELL, of Bristol, county of Hartford, State of Connecticut, have invented certain new and useful Improvements in Bicycle-Bells, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to produce improvements in bells, especially in bicycle-bells of that class in which rotary sounding mechanism is actuated by a gear or cog wheel projecting from one side of the bell, whereby the cogs or projections upon the gear are protected by a guard, through which the cogged gear can be rotated without hurting the thumb or finger or tearing a lady's glove.

In the accompanying drawings, Figure I is a side elevation of my bell complete. Fig. II is a top plan view thereof with the gong removed. Fig. III is a vertical section, on an enlarged scale, taken through the stud of the driving-gear and that of the gear with which it directly engages, the remaining mechanism being omitted.

Referring to the figures on the drawings, 1 indicates the base of my bell, illustrated as the dish-shaped base of a bicycle-bell, provided with split-collar clamping mechanism for securing it to the handle-bar of a bicycle. The base is provided with a central stud 3, screw-threaded at its extremity and carrying in the usual manner a gong 4. This stud is illustrated as supporting a rotary striker-carrier 5, that carries upon its ends centrifugal strikers 6. A train of gears illustrates suitable actuating mechanism for imparting rotary movement to the striker-carrier.

The particular sounding mechanism illustrated does not constitute a part of my invention, and is only shown for the purpose of explaining the relation of my invention to complete bell mechanism.

My present invention consists of a guarded driving-gear 8. Being in operative relation with the train of gear 7, it is made accessible as a driving-gear by being located so as to project upon one side of the bell, as through a recess 9, formed in the side walls of the base 1. The guard, in respect to which my bell is distinguishable from bells of the same class, consists, preferably, of a disk 11, which,

being of greater diameter than the gear 8 and of considerably greater comparative thickness, completely guards and protects the finger or thumb of an operator from contact with the cogs or teeth of the gear and presents instead thereof a mild and agreeable operating-surface. On account of the office which it has to perform I prefer to make the guard of hard rubber, vulcanite, fiber, or the like, which, being light and easy to the touch, affords prompt and responsive obedience to power applied to rotate it.

I prefer to construct the gear and its guard as illustrated, the carrier being provided with a bushing 12, within which neatly fits a stud 13, that is secured, as by riveting it to the base 1 at one end, and on the other carries, in like manner, a washer 14. The guard is provided with a central bore 15, that is concentric with the carrier 8 and which fits snugly around the bushing 12. Above the bore I prefer to provide an enlarged annular recess 16, that defines in the guard in the side next to the carrier 8 an annular flange 17. The recess 16 is designed to accommodate a coiled spring 19, which surrounds the bushing 12, and which is seated at one end against the flange 17 and bears at its other end against the washer, thereby insuring against looseness of union between the guard and its gear and preventing rattling.

What I claim is—

In bell mechanism, the combination with a base and gong, of sounding mechanism embodying a gear extending upon one side of the base, a bushing for the gear, a disk of greater diameter than the gear secured concentrically with the gear around its bushing, a recess in the disk around the bushing, a stud in the base fitting within the bushing, a washer on the end of the stud, and a coiled spring surrounding the bushing located within the recess and bearing at one end against the disk, and at the other end against the washer, substantially as set forth.

In testimony of all which I have hereunto subscribed my name.

EDWARD DAYTON ROCKWELL.

Witnesses:

JOHN H. KIRKHAM,
JENNY Z. HAUGH.