(No Model.)

I. H. ABELL & G. W. GOFF.

BICYCLE BELL.

No. 590,814. Patented Sept. 28, 1897.

Fig. 1.

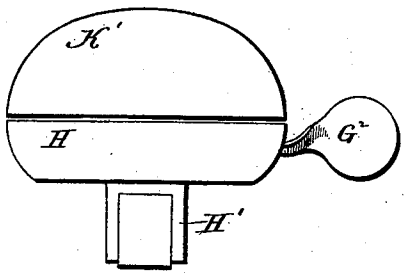


Fig. 3.

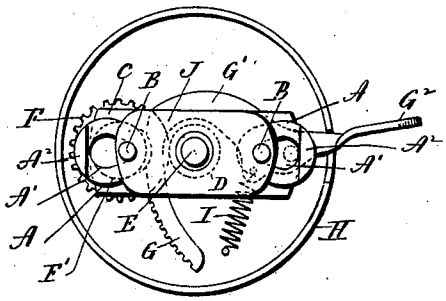


Fig. 2.

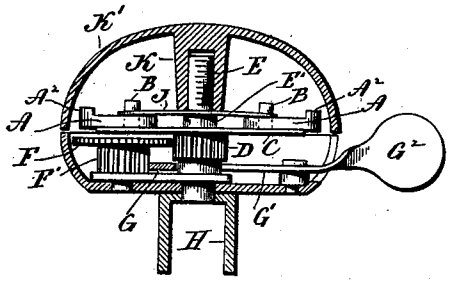


Fig. 4.

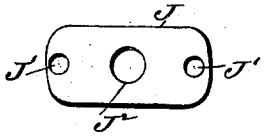


Fig. 5.

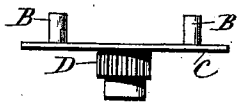


Fig. 7.

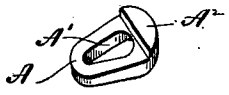
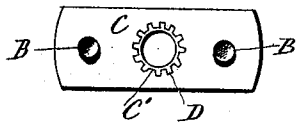


Fig. 6.



Witnesses
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Lillian D. Kelsey.

Inventors.
Irvin H. Abell.
and George W. Goff.
By their atty.
Earle Seymour

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

IRVIN H. ABELL AND GEORGE W. GOFF, OF EAST HAMPTON, CONNECTICUT, ASSIGNORS TO THE EAST HAMPTON BELL COMPANY, OF SAME PLACE.

BICYCLE-BELL.

SPECIFICATION forming part of Letters Patent No. 590,814, dated September 28, 1897.

Application filed April 13, 1897. Serial No. 631,901. (No model.)

To all whom it may concern:

Be it known that we, IRVIN H. ABELL and GEORGE W. GOFF, of East Hampton, in the county of Middlesex and State of Connecticut, have invented a new Improvement in Bicycle-Bells; and we 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 the bicycle-bell constructed in accordance with our invention; Fig. 2, a sectional view thereof; Fig. 3, a plan view thereof with the gong removed; Fig. 4, a detached plan view of the plate-spring; Fig. 5, a detached view, in side elevation, of the carrier; Fig. 6, a plan view thereof; Fig. 7, a detached perspective view of one of the strikers.

This invention relates to an improvement in bicycle-bells, the object being to produce a simple and durable bell composed of few parts, not liable to derangement, and constructed with particular reference to sounding a clear and penetrating alarm.

With these ends in view our invention consists in a bicycle-bell having certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claim.

In carrying out our invention we employ two pear-shaped strikers A, having flat lower faces and longitudinally-arranged pear-shaped openings A′, and having their outer ends formed with striking-lugs A^2, which rise above their upper faces, which are otherwise flat. The said lugs enlarge the striking-faces of the strikers and also virtually load the strikers by increasing the weight of their outer ends. The said strikers are passed over rigid pins B B, which do not confine them closely, but with relation to which they are free to move and rebound within the limits of their pear-shaped central openings. The said pins are rigidly secured to and project above a carrier-plate C, having a central opening C′, receiving the upper end of a tubular pinion D, to which the said carrier is rigidly secured and which rotates upon the lower end of the gong-stud E as upon a center. The said pinion D is meshed into by a wheel F, having a pinion F′, meshed into by a rack G, formed at the inner end of the finger-lever G′, the outer end of which is formed with a finger-piece G^2, which projects through a slot formed in the edge of the base H of the bell, the gong-stud E, before mentioned, being rigidly secured to the said base. A spring I, connected with the base and with the operating-lever G, is employed for returning the same after having been swung in one direction by the finger of the user of the bell. The strikers are held down in place and placed under slight restraint by means of a plate-spring J, formed at its ends with perforations J′ J′, adapting it to fit down over the pins B B in position to rest upon the flat portions of the upper faces of the strikers. Said plate also has a central opening J^2, adapting it to fit down over a shoulder E′, formed upon the gong-stud. The plate is pressed down over the said shoulder against its tension by means of the hub K of the gong K′, as clearly shown in Fig. 2, the inner end of the said hub coming to and bearing upon the said shoulder. The strikers are therefore confined between the carrier-plate C and the plate-spring J, sufficient friction being developed by the carrier and plate-spring to prevent the strikers from moving too freely. The ends of the plate-spring also coact with the striking-lugs A^2 of the strikers to limit the rotary movement thereof.

As herein shown, the base H of the bell has a chambered head H′, cast integral with it and forming a part of the clip, by means of which the bell is adapted to be secured to the handle-bar of a bicycle; but our improved bell may obviously be furnished with any approved kind of clip.

We are aware that bicycle-bells have been furnished with strikers wider at their outer than at their inner ends and having a central longitudinal slot and in a sense pear-shaped in general form. We are also aware that it is old to employ a spring in conjunction with rebounding strikers for restraining their too-free movement. We do not therefore claim either of these constructions broadly.

Having fully described our invention, what

we claim as new, and desire to secure by Letters Patent, is—

In a bicycle-bell, the combination with the base, gong, and gong-stud thereof, of a carrier-plate mounted upon the gong-stud so as to rotate thereupon as upon a center, means for rotating the said carrier, pins rigidly mounted in the carrier and extending upward therefrom, pear-shaped strikers having pear-shaped openings applied over the said pins, upon which they have rebounding and swinging movement, and formed at their outer ends with integral striking-lugs which rise above their upper faces and which weight their outer ends and increase the area of their striking-surfaces and a plate-spring having perforations formed in its ends to pass over the said pins and having a central perforation to pass over the stud, and placed under tension by the engagement with it of the inner end of the hub of the gong, the ends of the said spring coacting with the inner edges of the said striking-lugs to limit the swinging movement of the strikers.

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

IRVIN H. ABELL.
GEORGE W. GOFF.

Witnesses:
GEO. B. JONES,
L. H. GOFF.