(No Model.)

N. N. HILL.

BICYCLE BELL.

No. 596,775. Patented Jan. 4, 1898.

Fig. 1

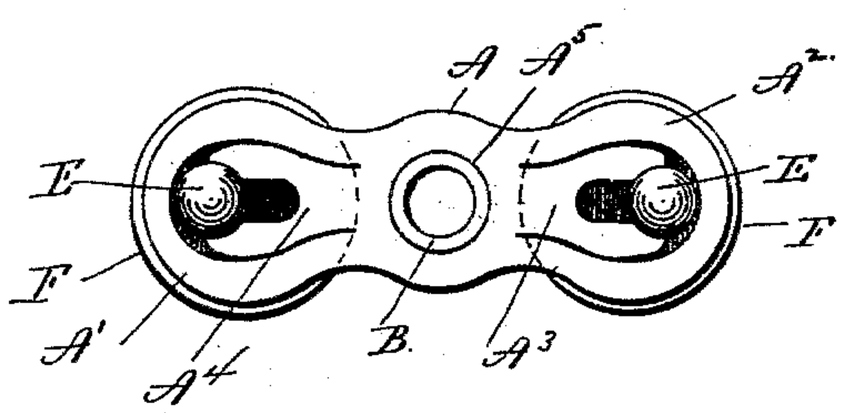


Fig. 2

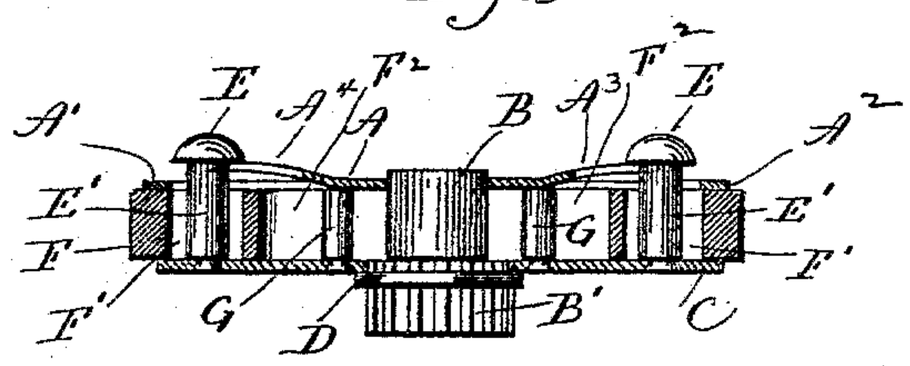


Fig. 3

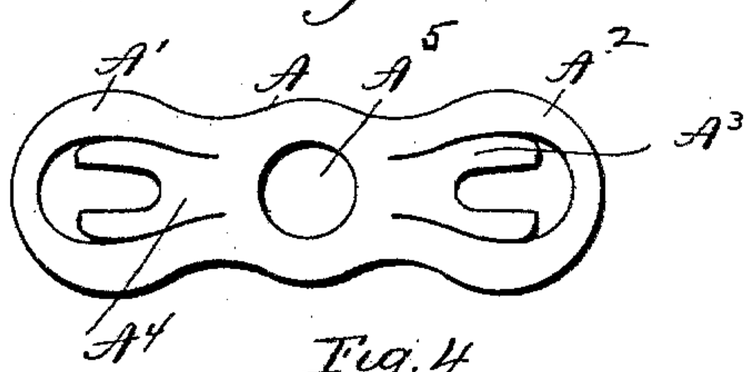
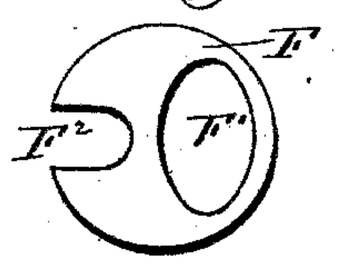


Fig. 4



Witnesses.
J. V. Thompson
Lillian D. Kelsey

Norman N. Hill.
Inventor.
By attys.
Church & Seymour

UNITED STATES PATENT OFFICE.

NORMAN N. HILL, OF EAST HAMPTON, CONNECTICUT.

BICYCLE-BELL.

SPECIFICATION forming part of Letters Patent No. 596,775, dated January 4, 1898.

Application filed August 16, 1897. Serial No. 648,414. (No model.)

To all whom it may concern:

Be it known that I, NORMAN N. HILL, of East Hampton, in the county of Middlesex and State of Connecticut, have invented a new Improvement in a Combined Retaining-Plate and Antirattling Spring for the Strikers of 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 plan view of a striker-carrier constructed in accordance with my invention; Fig. 2, a sectional view thereof; Fig. 3, a detached view of my improved combined retaining-plate and antifriction-spring; Fig. 4, a detached view of one of the strikers.

My invention relates to an improved retaining-plate and antirattling spring for the strikers of that class of bicycle-bells which are provided with rebounding strikers arranged to be thrown into rapid rotation, so as to impinge against striking-lugs projecting inward from their gongs, the object of my invention being to combine a retaining-plate and antirattling spring in one piece of metal so as to simplify the construction of such bells.

With these ends in view my invention consists in certain details of construction, as will be hereinafter described, and pointed out in the claim.

As herein shown, my improved combined plate and spring consists of a plate of comparatively thin sheet metal formed with a central portion A and two corresponding oppositely-projecting arms A′ and A^2. The said central portion of the plate is formed with a central circular perforation A^5, adapting it to be set down over and secured to the upwardly-projecting hollow hub B of the pinion B′, through which the carrier-plate C is actuated in rotation in the well-known manner. The said carrier-plate is staked upon the base of the hub B and, as shown, rests upon a washer D, which rests upon the upper face of the pinion B′. The arms A′ and A^2 of the combined plate and spring are formed with longitudinal central cuts for the production of two corresponding spring-forks A^3 and A^4, lifted above the plane of the plate and extending in opposite directions, a portion of the metal of each of these arms being removed in the formation of these forks, the outer ends of which extend under the heads E E, formed at the upper ends of the studs E′ E′, employed to retain the rebounding strikers F F upon the ends of the carrier-plate C. The lower ends of the said studs are riveted to the upper faces of the ends of the said carrier-plate. The spring-forks are placed under tension by being engaged with the under faces of the heads of the studs, and in turn exert a constant effort to draw the arms A′ and A^2, particularly the inner portions thereof, down upon the upper faces of the strikers F F, which are thus frictionally restrained from moving too freely and from rattling when the bell is not in use. The said studs E′ E′ pass through oval openings F′, formed in the rebounding strikers F, which are prevented from rotating upon the studs by forming them with deep notches F^2, receiving stop-pins G G, located in line with the studs E′ E′ and riveted at their lower ends to the carrier-plate on opposite sides of the hollow hub B, which passes over the gong-stud of the bell in the manner well known, so that the carrier-plate and the parts attached to it revolve upon the gong-stud, as upon a center.

By making the retaining-plate and antirattling spring in one piece of metal I secure simplicity and cheapness of construction without any loss of effectiveness and make the bell easier to assemble and less liable to be deranged.

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

The combination with a pinion having an upwardly-extending hollow hub, of a carrier-plate rigidly secured to the said pinion, two studs respectively secured to the said plate near the ends thereof and having their upper ends headed, two stop-pins secured to the said plate between the hub of the pinion and the said studs with which they are located in line, two rebounding strikers having oval openings adapting them to be set down over the said studs, with respect to which they have rebounding movement, and having deep

notches entering their inner edges and receiving the said stop-pins which prevent the strikers from rotating upon the said studs, and a combined retaining-plate and antirattling spring fixed to the upper end of the said hub, having oppositely-projecting arms which frictionally engage with the upper faces of the respective strikers, and formed with integral oppositely-projecting spring-forks, the outer ends of which pass under the heads of the studs, and which are placed under tension thereby for holding the said arms down upon the upper faces of the strikers, substantially as set forth.

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

NORMAN N. HILL.

Witnesses:
M. E. BARTON,
M. G. MARKHAM.