

(No Model.)

W. E. HAMMOND.
BELL.

No. 581,987.

Patented May 4, 1897.

Fig. 1.

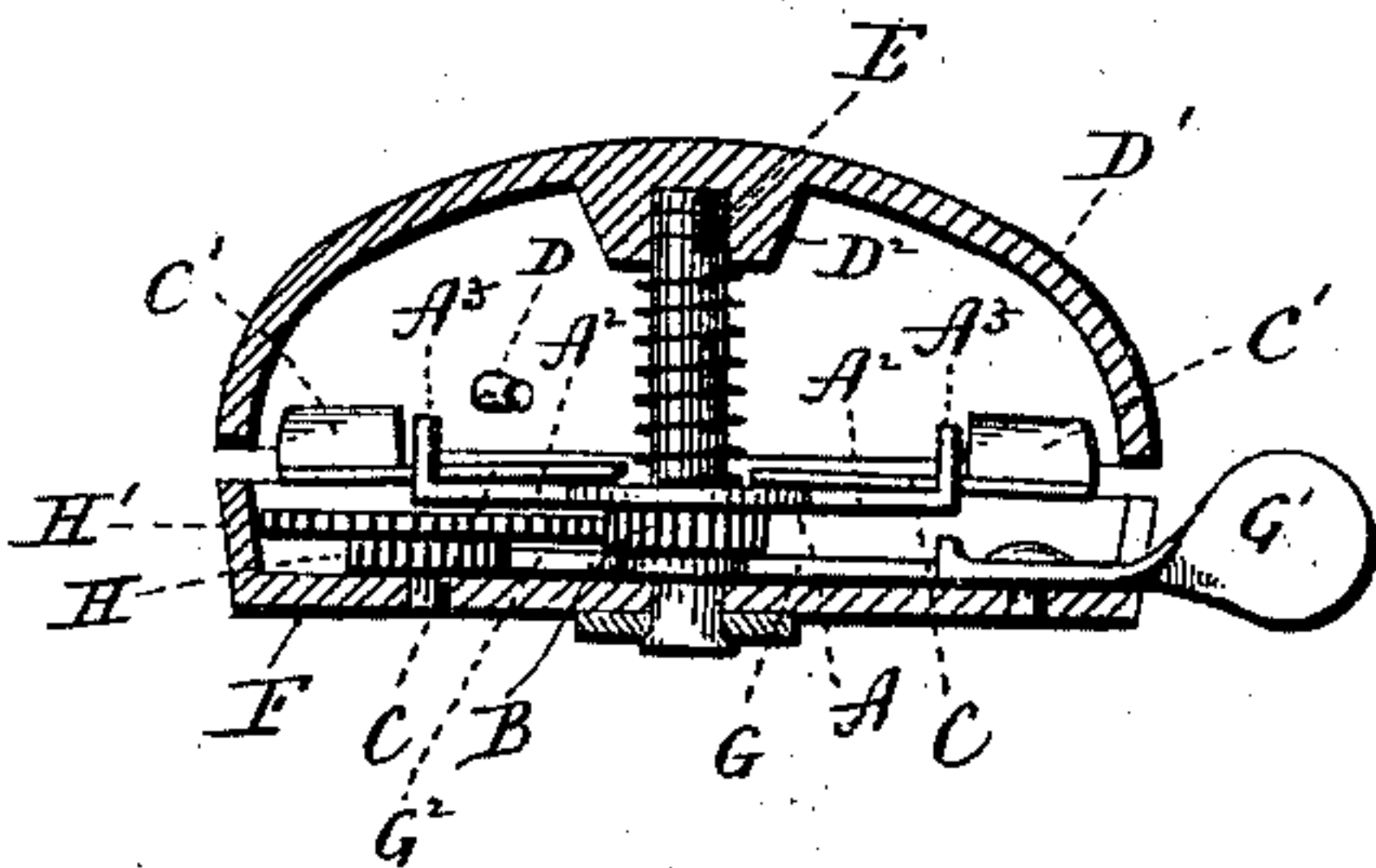


Fig. 2.

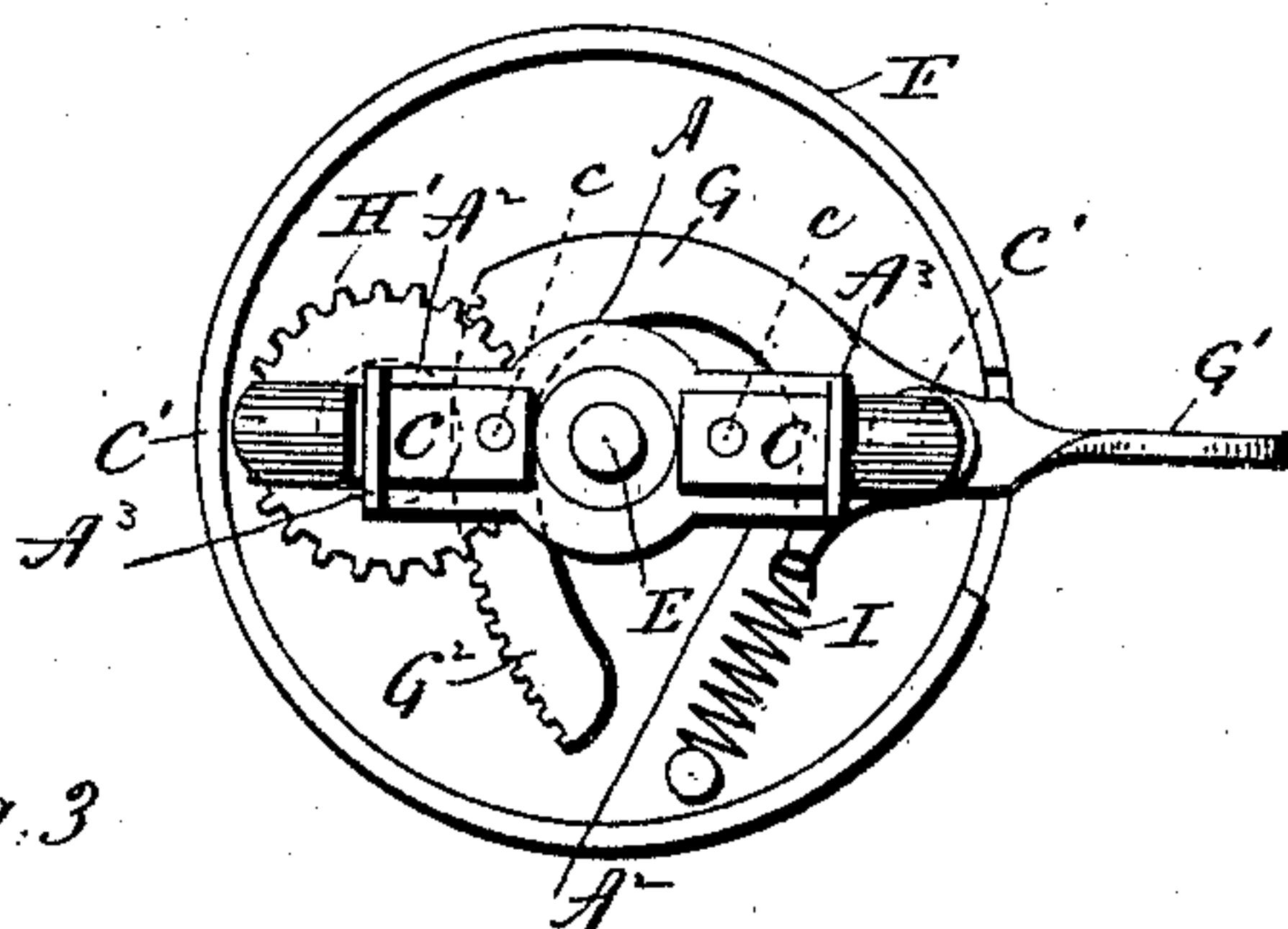


Fig. 3.

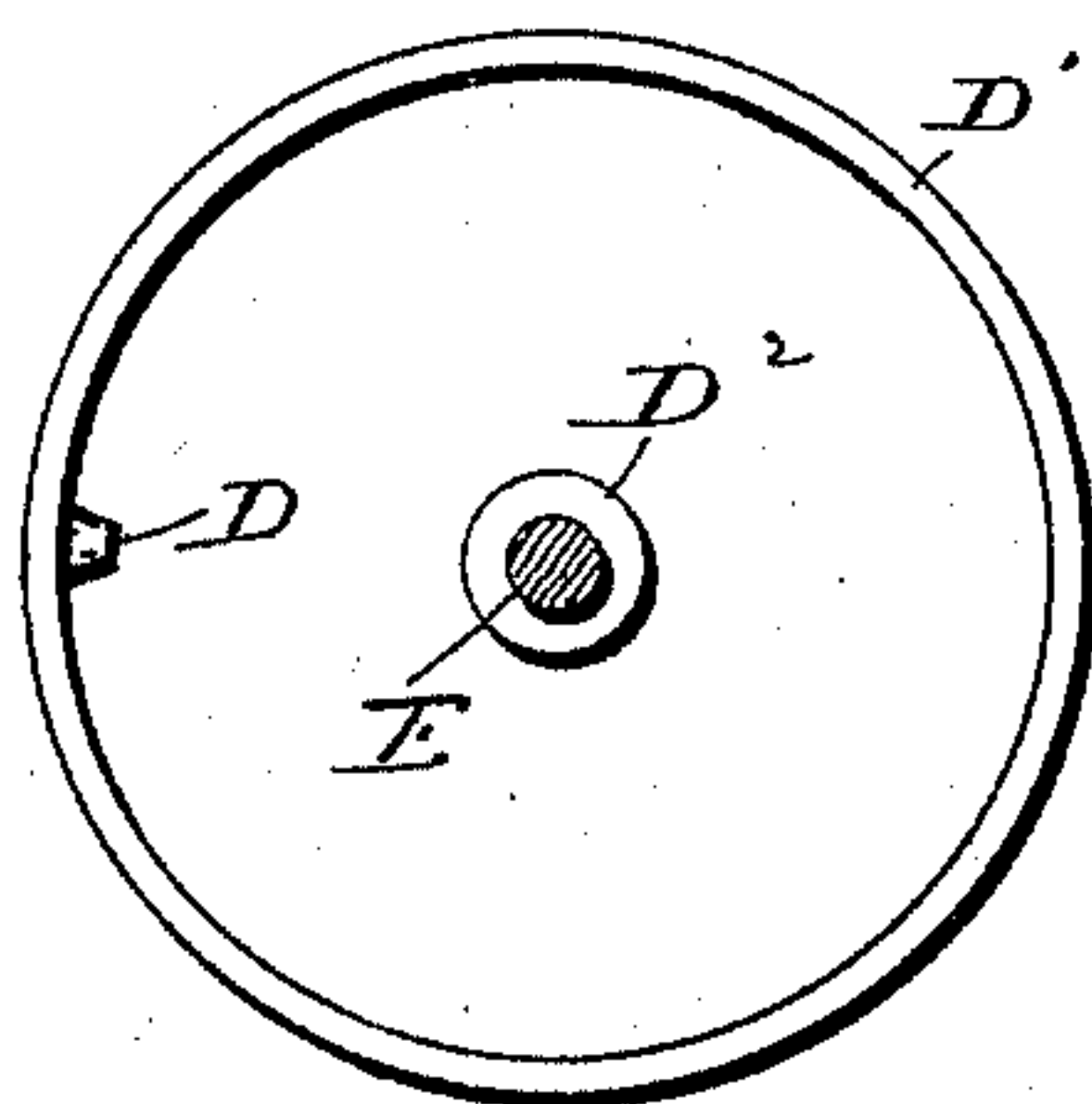


Fig. 4.

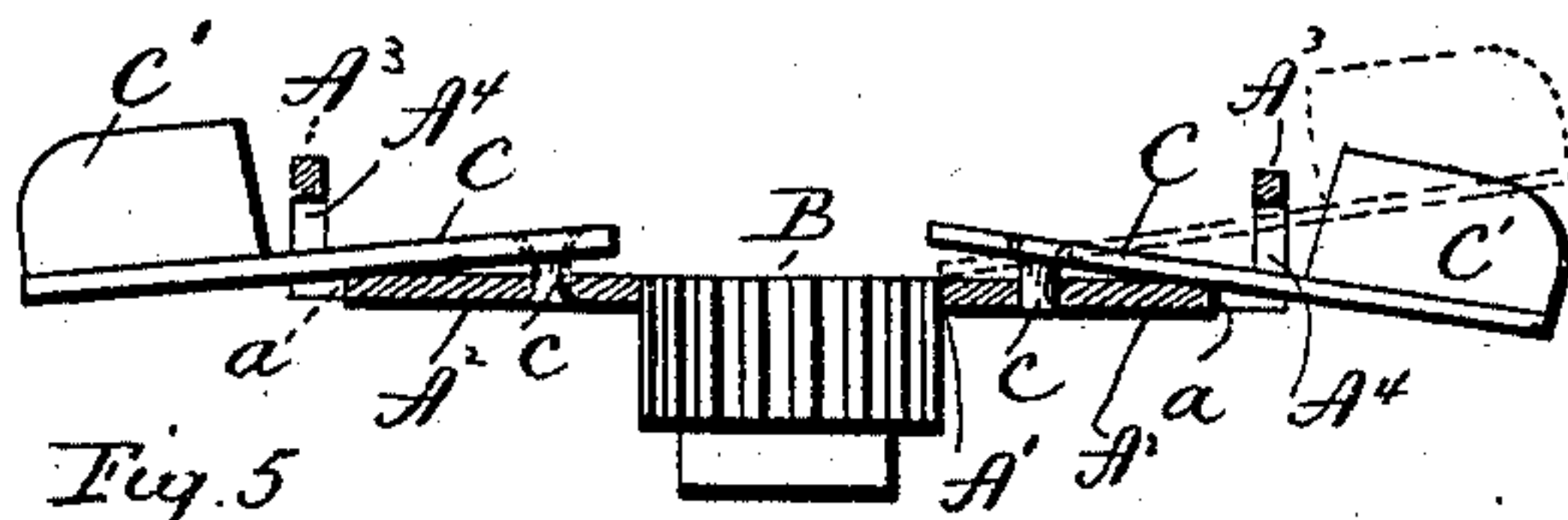


Fig. 5.

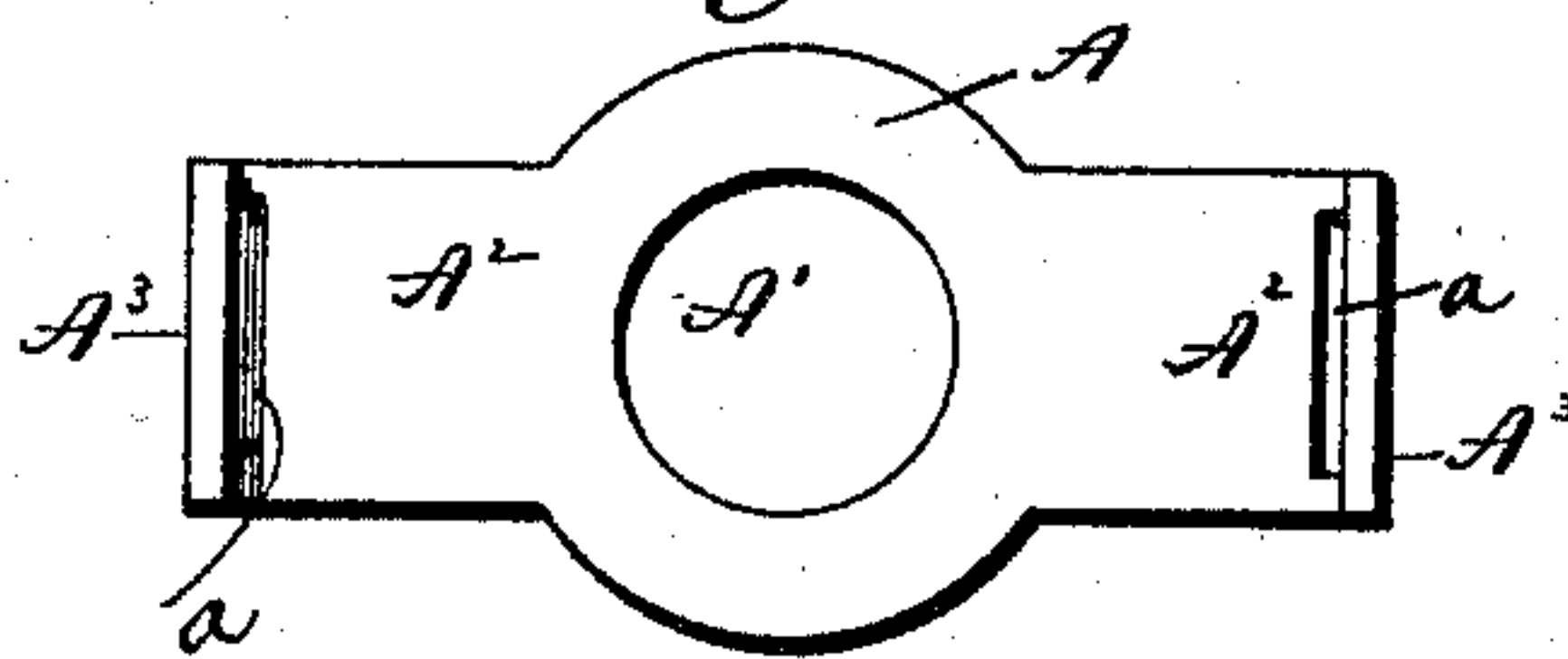
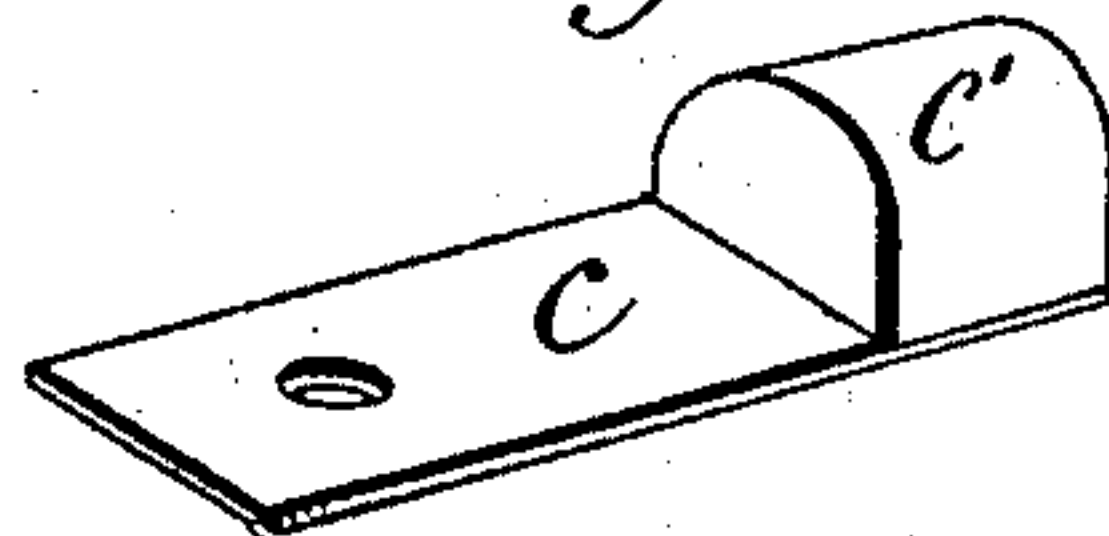


Fig. 6.



Witnesses.
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UNITED STATES PATENT OFFICE.

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BELL.

SPECIFICATION forming part of Letters Patent No. 581,387, dated May 4, 1897.

Application filed September 21, 1896. Serial No. 606,477. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. HAMMOND, of Meriden, in the county of New Haven and State of Connecticut, have invented a new
5 Improvement in Portable 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
10 same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view, partly in elevation and partly in vertical central section, of a bell constructed in accordance with my invention;
15 Fig. 2, a plan view with the gong removed; Fig. 3, a reverse plan view of the gong; Fig. 4, an enlarged detached view in longitudinal section of the carrier with the strikers, which are shown in their tilted or normal positions;
20 Fig. 5, a detached plan view of the carrier with the strikers and tubular pinion removed; Fig. 6, a detached perspective view of one of the strikers.

My invention relates to an improvement in
25 small portable bells, particularly designed to be used as bicycle-bells, the object being to produce a bell of the multiple-stroke or electric type which shall be of simple and durable construction and effective in use, giving a
30 penetrating alarm.

With these ends in view my invention consists in a bell having certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the
35 claims.

In carrying out my invention I employ a carrier consisting of a flat sheet-metal plate having an enlarged central portion A, which is formed with a central opening A' for the
40 reception of a tubular pinion B. The said plate also comprises two oppositely-extending corresponding arms A² A², the ends of which are turned upward at a right angle to form fenders A³ A³. Openings A⁴ A⁴, formed partially in the said fenders and partially in the
45 ends of the arms, are provided for the reception of the flat sheet-metal shanks C C of the tilting strikers C' C', which are located entirely outside of the said fenders. The inner
50 ends of the said shanks are loosely pivoted by means of vertical pivots c c to the inner

portions of the respective arms A² A² afore-
said, the pivots being long enough to permit the inner ends of the said shanks to lift above the upper surfaces of the said arms and the
55 strikers to assume normally-inclined positions, as seen in Figs. 1 and 4, in which they clear the inwardly-projecting striking-lug D of the gong D', which is secured by means of its inwardly-projecting centrally-arranged
60 hub D² to the threaded outer end of a gong-stud E, which is rigidly secured to the center of the base-plate F of the bell. The shanks of the striker rock upon the inner walls a a of the openings A⁴ A⁴ as upon fulcrums, as
65 well shown in Fig. 4. The said stud E passes through the hollow pinion of the carrier, which revolves upon the stud as upon a center, and therefore concentric with the bell.

The particular means for actuating the car-
70 rier in rotation may be widely varied. As herein shown, they consist of an operating-lever G, having a finger-piece or tail G' formed at its outer end and its inner end formed with a segmental rack G², which meshes into
75 a pinion H, rigidly connected with a wheel H', which in turn meshes into the pinion B. A spiral spring I, connected with the operating-lever and with the base-plate, recovers the lever after it has been swung in one di-
80 rection against the tension of the said spring by the user of the bell.

It will be understood that under normal conditions the strikers will be tilted and thus depressed by gravity, so as to clear the strik-
85 ing-lug of the gong. When, however, the carrier is actuated in rapid rotation, the strikers will be caused by the action of centrifugal force to lift in vertical planes and rise into the plane of the striking-lug, which they will
90 impinge against and by which they will be thrown down for clearance and to allow the carrier to continue its rotation. The strikers are prevented from rising into a plane above the striking-lug by means of the fenders at
95 the ends of the arms of the plate forming the carrier.

It is apparent that in carrying out my invention some changes from the construction herein shown may be made, and I would
100 therefore have it understood that I do not limit myself to the same, but hold myself at

liberty to make such changes 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

5 Patent, is—

1. In a small portable bell, the combination with a gong having an inwardly-projecting striking-lug, of actuating mechanism, a carrier connected with the said actuating mechanism for being actuated in rotation thereby, and a striker having a shank which lies upon the carrier, and which is pivoted thereto so as to have limited vertical movement, the said carrier being normally held by gravity in a tilted position and out of the plane of the striking-lug of the gong, but lifted into the said plane for impinging against the said lug, by the action of centrifugal force when the carrier is rapidly rotated.

20 2. In a small portable bell, the combination with a gong having an inwardly-projecting striking-lug, of a base-plate, a gong-stud secured in the center of the said plate and hav-

ing the gong applied to its outer end, actuating mechanism located within the base-plate, 25 a carrier connected with the said mechanism for actuation thereby, and consisting of a plate mounted to revolve upon the said stud as upon a center, and furnished at its ends with fenders; and two tilting strikers located 30 outside of the said fenders and provided with shanks extending inwardly through the same, and loosely pivoted by vertically-arranged pivots to the carrier, the said strikers being normally held by gravity in tilted positions 35 from which they are vertically lifted into the plane of the striking-lug of the gong by the action of centrifugal force when the carrier is rapidly rotated.

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

WILLIAM E. HAMMOND.

Witnesses:

HERMAN HESS,
M. E. POMEROY.