

(No Model.)

N. T. MILLS.
GONG BELL.

No. 538,379.

Patented Apr. 30, 1895.

Fig. 1.

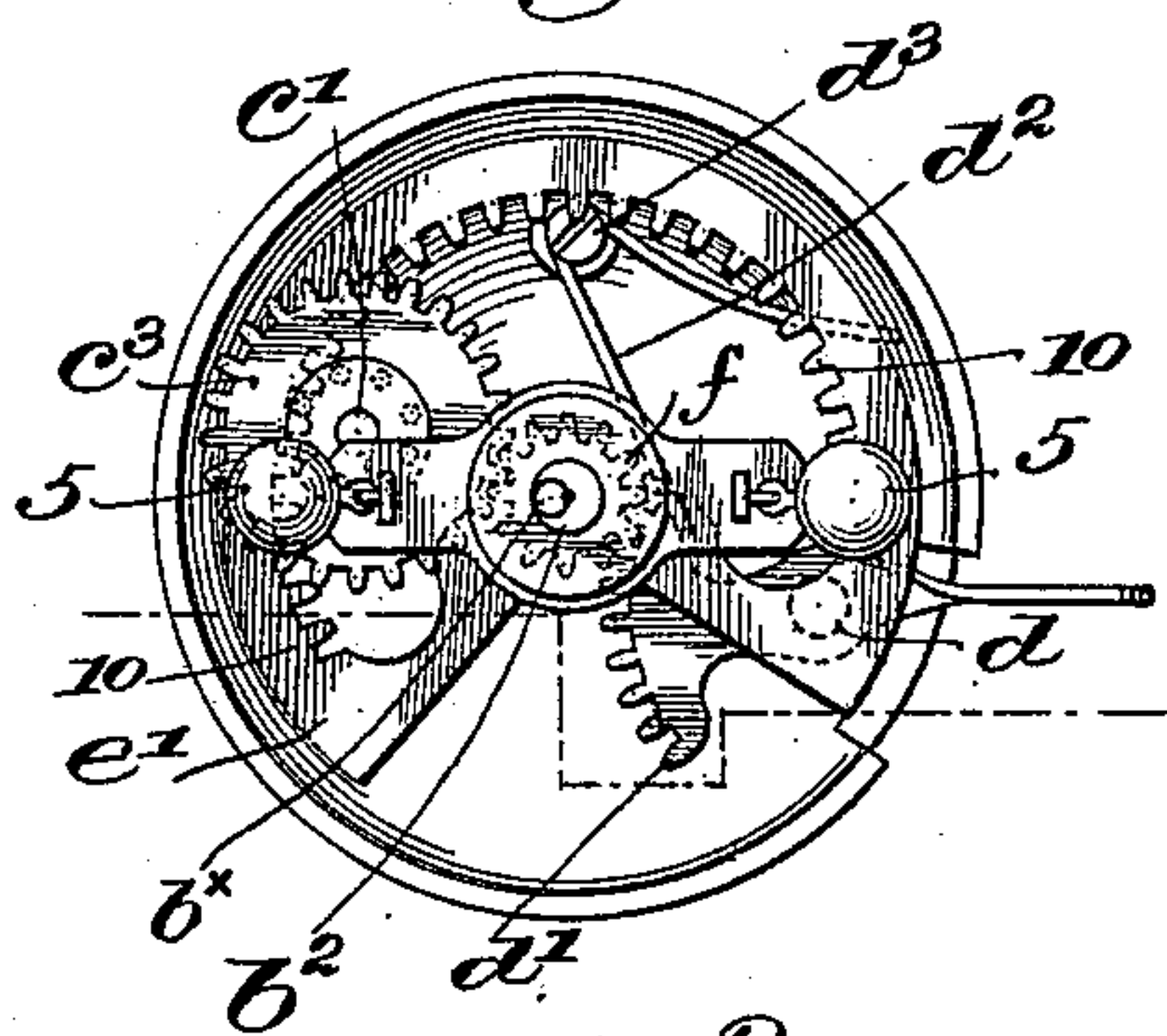


Fig. 2.

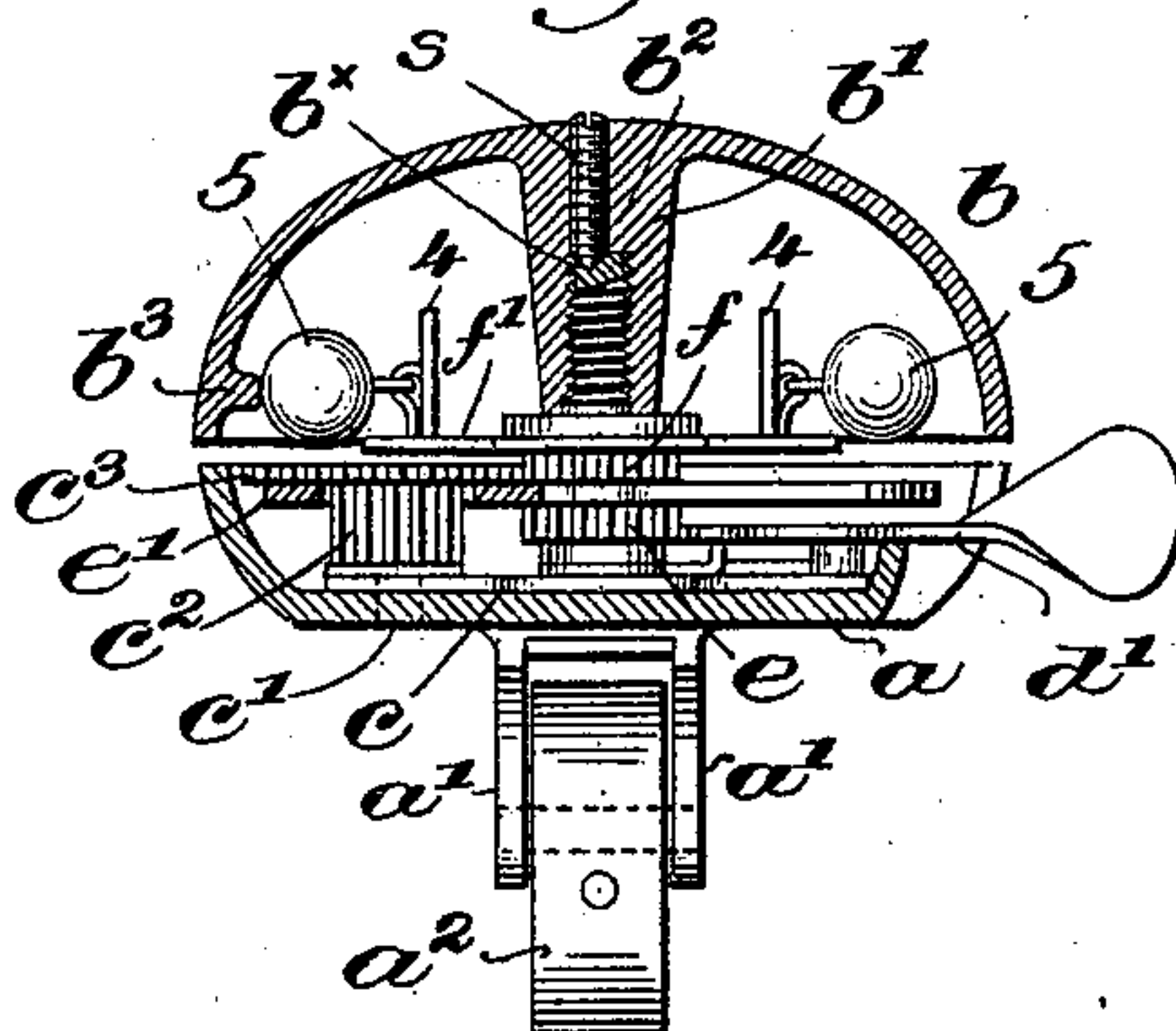
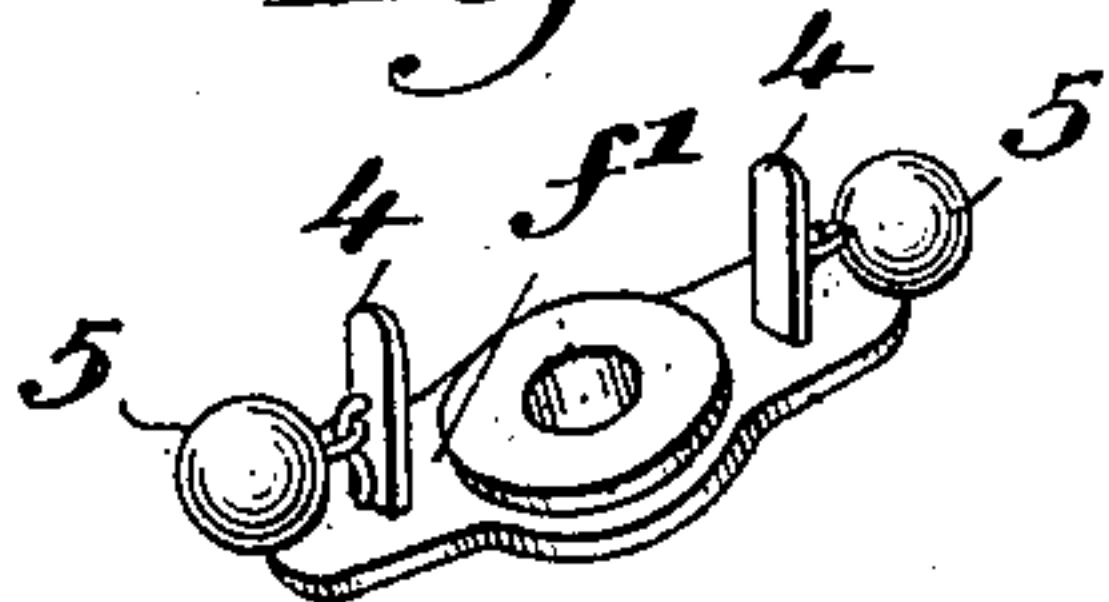


Fig. 3.



Witnesses.
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UNITED STATES PATENT OFFICE.

NORMAN T. MILLS, OF CAMBRIDGE, ASSIGNOR OF ONE-HALF TO HENRY A. PRENTICE, OF BOSTON, MASSACHUSETTS.

GONG-BELL.

SPECIFICATION forming part of Letters Patent No. 538,379, dated April 30, 1895.

Application filed July 23, 1894. Serial No. 518,324. (No model.)

To all whom it may concern:

Be it known that I, NORMAN T. MILLS, of Cambridge, county of Middlesex, State of Massachusetts, have invented an Improvement in Gong-Bells, of which the following description, in connection with the accompanying drawings, is a specification, like letters and numerals on the drawings representing like parts.

10 This invention relates to that class of gong bells in which the hammer-carrier has a rotating motion, and the object of my invention is to improve the actuating mechanism, whereby the hammer may be made to operate more rapidly than heretofore.

15 Figure 1 shows the base and actuating parts of a gong-bell embodying my invention, the gong being omitted; Fig. 2, a vertical section with the gong added, and Fig. 3 shows the 20 striker-bar and its strikers removed.

The base a , having suitable ears a' , with a clamp a^2 between, by which, if desired, to attach the base to a bicycle or other thing, and the gong b having a threaded post to be 25 screwed onto a screw threaded stud b^2 rising from the base, and having a projection or lug b^3 , are and may be as common to this class of gong bells. The stud b^2 is surrounded by a thin plate c which rests on the base, said 30 plate having rising from it a stud c' which acts as a pivot for a pinion c^2 having an attached gear c^3 , while at the opposite end of the plate, preferably fixed in the base, there is a stud or pivot d , shown by dotted lines Fig. 35 1, for the actuating segment d' , acted upon near its inner end by a spring d^2 suitably secured to the base, as by a screw d^3 . The stud b^2 is surrounded loosely at its lower end by a pinion e connected to an internally toothed 40 rack or gear e' , the teeth 10 of the rack engaging the pinion c^2 , while the teeth of the pinion e are engaged by the actuating segment d' .

45 The teeth of gear c^3 engage the teeth of a pinion f mounted loosely on the stud b^2 above the internally toothed rack or gear e' , and to said pinion f is connected rigidly a hammer carrier f' , shown as provided with two loosely connected hammers 5 loosely connected in 50 suitable manner to said carrier by or through suitable eyes or loops erected alongside of up-

right arms 4, said arms preventing a planetary motion of the hammers on the hammer-carrier as the latter is revolved rapidly in one direction by pressure applied to the other end 55 of lever d' , it may be by hand, and in the other direction by the spring b^2 .

One complete movement of the lever d' in one direction will impart a little more than a half rotation to the internally toothed rack or 60 gear and rotate the gear c^3 about three times and it, in engagement with the smaller pinion on the hammer-carrier will rotate the latter many more times, thus giving a very great number of quick rapid blows on the hammer 65 on the gong, the lever being returned by the spring, and by moving the lever as soon as restored to its normal position by the spring, a substantially continuous ringing of the gong may be kept up.

70 The constant action of the hammer on the interior lug of the gong tends to turn the latter on the threaded supporting stud, loosening the gong so that it must be tightened, from time to time. To obviate this, I have 75 provided means for locking the gong to its supporting stud, and, referring to Fig. 2, I have shown a threaded pin or stud s extended through a suitable opening in the post b' of the gong, eccentric to the center of the stud 80 b^2 and long enough to enter an eccentric depression b^x in the end of the latter.

It will be obvious that the locking pin or stud s will, when in place, effectually prevent loosening of the gong on the supporting stud 85 b^2 , the pin being readily applied or removed, its outer end projecting slightly beyond the exterior of the gong and slotted as shown.

I believe I am the first to employ an internally toothed circular rack or gear to set in 90 motion the driving gear engaging the hammer-carrier pinion, and this invention is not, therefore, limited to the exact gear e shown; nor is my invention limited to the use of the particular carrier f' shown, or to the exact 95 number of hammers.

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

The base, its attached gong; the stud b^2 ; 100 the pinion c^2 , its attached gear c^3 ; a hammer-carrier having a hammer and a pinion f ; and

a pivoted segment lever actuated in one direction by a spring, combined with an internally toothed segment or gear having at its hub a pinion e , said lever moving said segment gear, and the latter the pinion c^2 , substantially as described.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

NORMAN T. MILLS.

Witnesses:

GEO. W. GREGORY,
LAURA T. MANIX.