

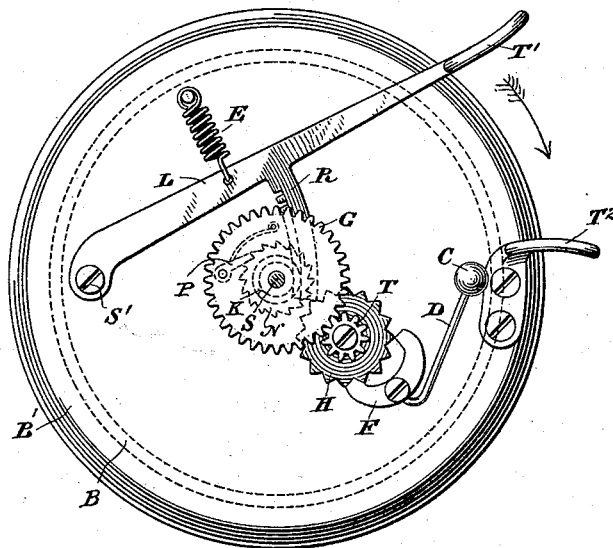
(No Model.)

C. J. KINTNER.  
BELL.

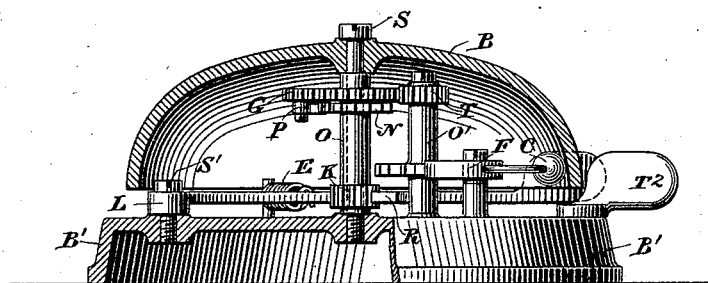
No. 455,626.

Patented July 7, 1891.

*Fig. 1.*



*Fig. 2.*



Witnesses  
Geo. W. Breck,  
Henry W. Lloyd.

Inventor  
Charles J. Kintner

# UNITED STATES PATENT OFFICE.

CHARLES J. KINTNER, OF NEW YORK, N. Y., ASSIGNOR TO GEORGE JOHNSON,  
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## BELL.

SPECIFICATION forming part of Letters Patent No. 455,626, dated July 7, 1891.

Application filed April 1, 1891. Serial No. 387,258. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES J. KINTNER, a citizen of the United States, residing at New York, county of New York, and State of New York, have made a new and useful Invention in Bells, of which the following is a specification.

My invention is directed particularly to improvements in tap or call bells of a mechanical nature and such as are designed to imitate in their operation the action of electrical trembler-bells.

My invention has for its objects, first, the production of a cheap, simple, and efficient mechanical trembler-bell adapted for use wherever such bells are needed; second, the construction of such a bell of as few parts as possible, so put together that they may be readily taken apart for repairs, &c. These objects are accomplished by my improved bell, hereinafter described, and particularly claimed in the claims which follow this specification.

Referring to the drawings, Figure 1 is a plan view of the base and operative parts of the apparatus, the bell being shown in dotted lines. Fig. 2 is a sectional and side elevational view of the entire apparatus.

B represents the bell secured to a base B' by the upper shouldered end of an upright standard S, which acts also as a bearing for a loose sleeve O, provided with a loose gear-wheel G, ratchet N, and pawl P at one end and a pinion K at the other end, said pinion being adapted to mesh with a rack R, carried by a lever L, pivotally secured to the base B' by a screw S'. A spiral spring E is attached at its opposite ends to the lever L and the base B'.

O' is a second sleeve journaled to an upright standard in the base B' and carrying at its upper end a pinion T, which meshes with the gear-wheel G on sleeve O. At the lower end of sleeve O' is an escapement-wheel H, the teeth of which are adapted to actuate a verge F, pivotally secured to the base B', carrying a bell-clapper C at the free end of an arm D.

T' and T<sup>2</sup> are thumb-levers, the former located at the free end of lever L and the latter either integral with the base B' and struck

up therefrom in the making of said base or secured thereto by screws, as shown.

The operation of the apparatus is as follows: The operator grasps the parts T' and T<sup>2</sup> between his thumb and finger and forces the lever L in the direction of the arrow, thus placing the spring E under stress, at the same time causing the pinion K, sleeve O, and ratchet-wheel N to rotate rapidly, so that the pawl P, under stress of spring E, will, when the pressure of the thumb and finger is removed, cause the gear-wheel G to transmit motion to the pinion T, and hence ultimately to the escapement-pallet F, thereby causing the clapper C to rapidly strike the bell B a number of times.

It will be understood that this improved form of bell may be adapted for door-bells by the use of a cord or wire attached to the lever L at its free end, the base B' being secured to the wall, the door, or any preferred location.

If desired, the ratchet-wheel N and pawl P may be done away with and the gear-wheel G rigidly fixed to sleeve O, in which event the bell will ring when the lever L is moved in either direction.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A mechanical trembler-bell having a pivoted operating-lever provided with a propelling-rack, a fixed thumb-lever secured to the base, and intermediate gear mechanism operatively connected to an escapement-pallet carrying a bell-clapper, substantially as described.

2. A mechanical trembler-bell having a finger and a thumb-lever, the former being pivotally secured to the base and connected through intermediate gearing to a vibratory bell-clapper and the latter rigidly secured to its base, substantially as described.

3. In a mechanical trembler-bell, the combination of the following elements: a fixed thumb-piece secured to the base, a pivoted operating-lever having a retractile spring and a propelling-rack, a pinion meshing with the rack, and a gear-wheel carried by the same sleeve which sustains the pinion, said gear-wheel meshing with a second pinion carried

by a fixed standard and operatively connected with an escapement which drives an escapement-pallet carrying a bell-clapper.

4. In a mechanical trembler-bell, the combination of the following elements: a fixed thumb-piece T<sup>2</sup>, a pivoted actuating-lever L, provided with a rack R and retractile spring E, a pinion K, gear-wheel G, ratchet N, and pawl P, carried by a sleeve O on the standard

which supports the bell, a pinion T, an escapement H, and an escapement-pallet F, supporting a bell-clapper C, all operating substantially as described.

CHARLES J. KINTNER.

Witnesses:

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