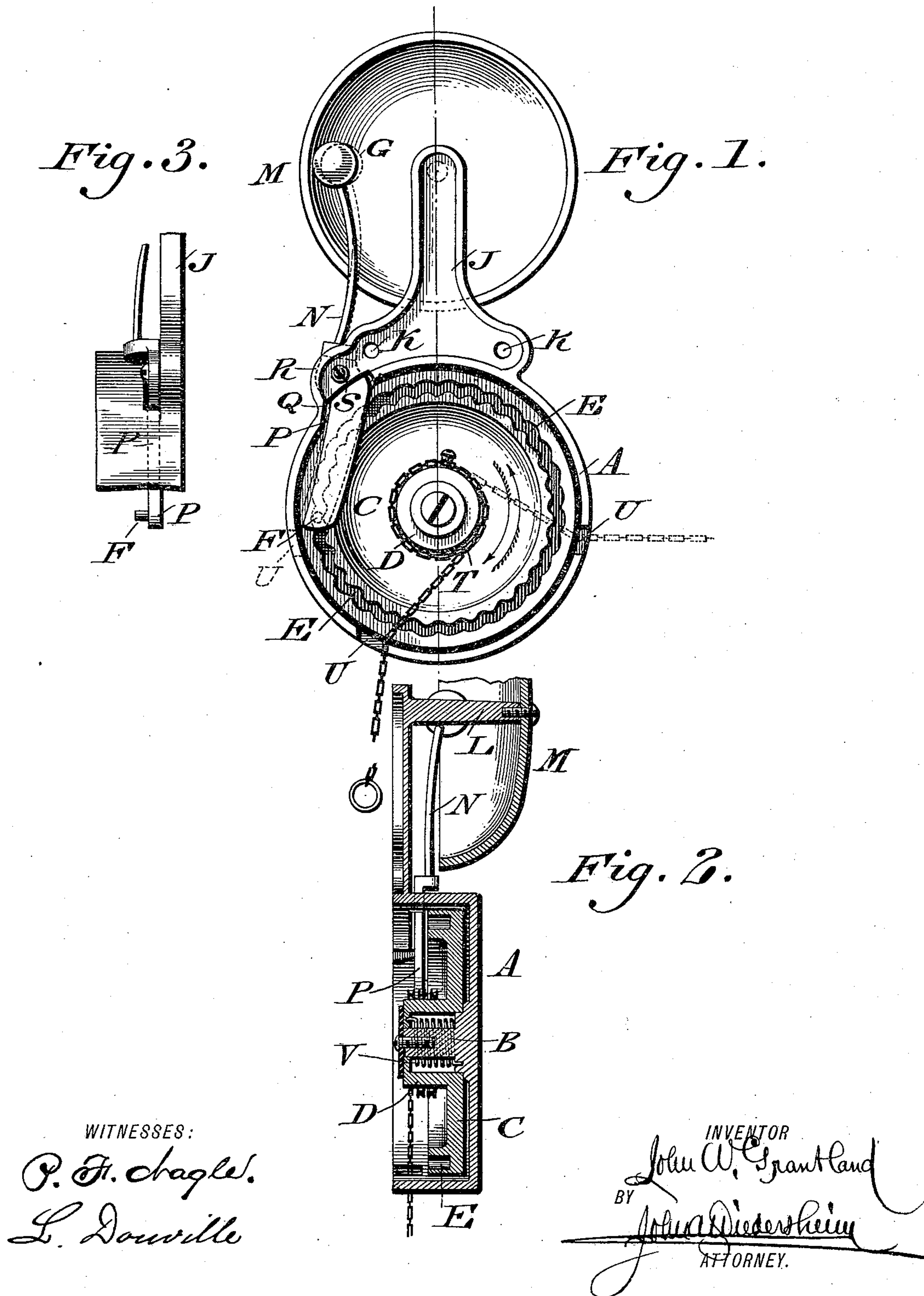


(No Model.)

J. W. GRANTLAND.
GONG OR BELL.

No. 461,241.

Patented Oct. 13, 1891.



WITNESSES:

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GONG OR BELL.

SPECIFICATION forming part of Letters Patent No. 461,241, dated October 13, 1891.

Application filed January 24, 1891. Serial No. 378,945. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. GRANTLAND, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Gongs or Bells, which improvement is fully set forth in the following specification and accompanying drawings.

My invention consists of a gong or call, door, or other bell in which the hammer is operated by a plate constructed to be rotated by means of a chain or cord, and the latter may be placed in different positions, and possessing other advantages, as will be hereinafter fully set forth.

Figure 1 represents a rear view of a gong or call-bell embodying my invention. Fig. 2 represents a vertical section of a portion thereof. Fig. 3 represents a side elevation of a portion thereof.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a casing, preferably of cylindrical form, and B designates a post cast with or otherwise secured thereto.

C designates a disk or plate, which is formed with a boss or hollow hub D, said post and boss being centrally located on the respective parts.

In the plate C, near the periphery thereof, is a serpentine or zigzag groove E, into which freely projects the pin or stud F on the heel end of the arm of the bell-hammer G, the latter being pivoted to the casing A, so that vibrating motions may be imparted to said hammer.

J designates an arm, which is cast with or otherwise secured to the casing A and provided with openings K for securing the device in position, said arm being provided with a post L, with which is connected the gong or bell M.

The arm of the bell-hammer consists of the wire or elastic portion N and plate or rigid portion P, to which said wire is attached. One end of the plate P passes through an opening Q in an ear R at the base of the arm J, said plate being connected with the side of the ear by a pin or screw S, which forms the pivot of the bell-hammer arm, it being seen

that in fitting up the device the plate P may be readily passed through the opening Q, the stud F inserted in the groove E, and the screw S applied, whereby the bell-hammer is mounted in position in a simple, convenient, and efficient manner, and adapted to have considerable throw imparted to it without the operating mechanism occupying much space.

Connected with and wound around the outer surface of the boss D is a chain or cord T, said chain passing therefrom through either of the openings or passages U in the peripheral rim of the casing A, so that the same is convenient of access for imparting rotation to the plate C.

Within the boss is a coiled spring V, one end of which is secured to said boss and the end with the casing A or post B, said spring encircling said post.

The operation is as follows: The chain is drawn out, whereby the plate is rotated, and thus vibrating motions are imparted to the bell-hammer arm, owing to the action of the groove E upon the stud F, the effect of which is the striking or ringing of the bell by the hammer G. As soon as the chain is let go the spring V reacts, so as to return the plate to its normal position, thus continuing the ringing of the bell and causing the rewinding of the chain or cord T around the boss D until the rotation of the plate ceases.

Owing to the chain or cord, long ringing of the bell may be occasioned when so required.

As the passages U are at different places, the device is adapted to be placed right or left, or in different positions, either as the one shown or reversed, so that the chain may be drawn down or up or laterally, according to requirements.

I am aware that it is not new to operate a bell-hammer by means of a segmental toothed plate, with which meshes a segmental rack, the latter being connected with a hand-lever, said plate being slotted, so as to allow one end of the returning spring to enter the same and permit the rotation of the plate, such construction being hereby disclaimed; but,

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

1. A bell or gong having a casing with a

post thereon, a rotatable plate with a serpentine groove and a hollow boss, a returning spring within said boss, connected with the same and the plate, a bell-hammer arm piv-
5 oted to said casing and provided with a stud freely entering said groove, and a chain or cord which is connected with said boss and wound thereon, substantially as described.

2. In a bell or gong, substantially as described, a hollow boss inclosing the returning spring of the rotatable grooved plate, which operates the bell-hammer, and a chain or cord connected with said boss and wound thereon, for the purpose set forth.

15 3. In a bell or gong, a casing, a rotatable grooved plate and the bell-hammer operated thereby, a returning spring connected with said plate and casing, and an operating chain or cord connected with the boss or hub of said
20 plate, the casing having openings in its rim for the passage of said chain or cord, substantially as described.

4. In a bell or gong, substantially as described, a casing containing the hammer-operating plate of the bell-hammer, a bell-sup- 25 port on said casing, and an ear on said support, in combination with the hammer-arm, which is pivoted to said ear and passed through an opening therein, so as to engage with the aforesaid operating-plate, as stated. 30

5. In a bell or gong of the order stated, a hollow boss inclosing the returning spring of the rotatable grooved plate, which operates the bell-hammer, and a chain or cord connected with said boss and wound thereon, in 35 combination with a casing for said plate having an opening in its rim for the passage of said chain or cord, substantially as and for the purpose set forth.

JOHN W. GRANTLAND.

Witnesses:

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