

(No Model.)

I. E. SHAW.
DOOR BELL.

No. 547,186.

Patented Oct. 1, 1895.

Fig. 1

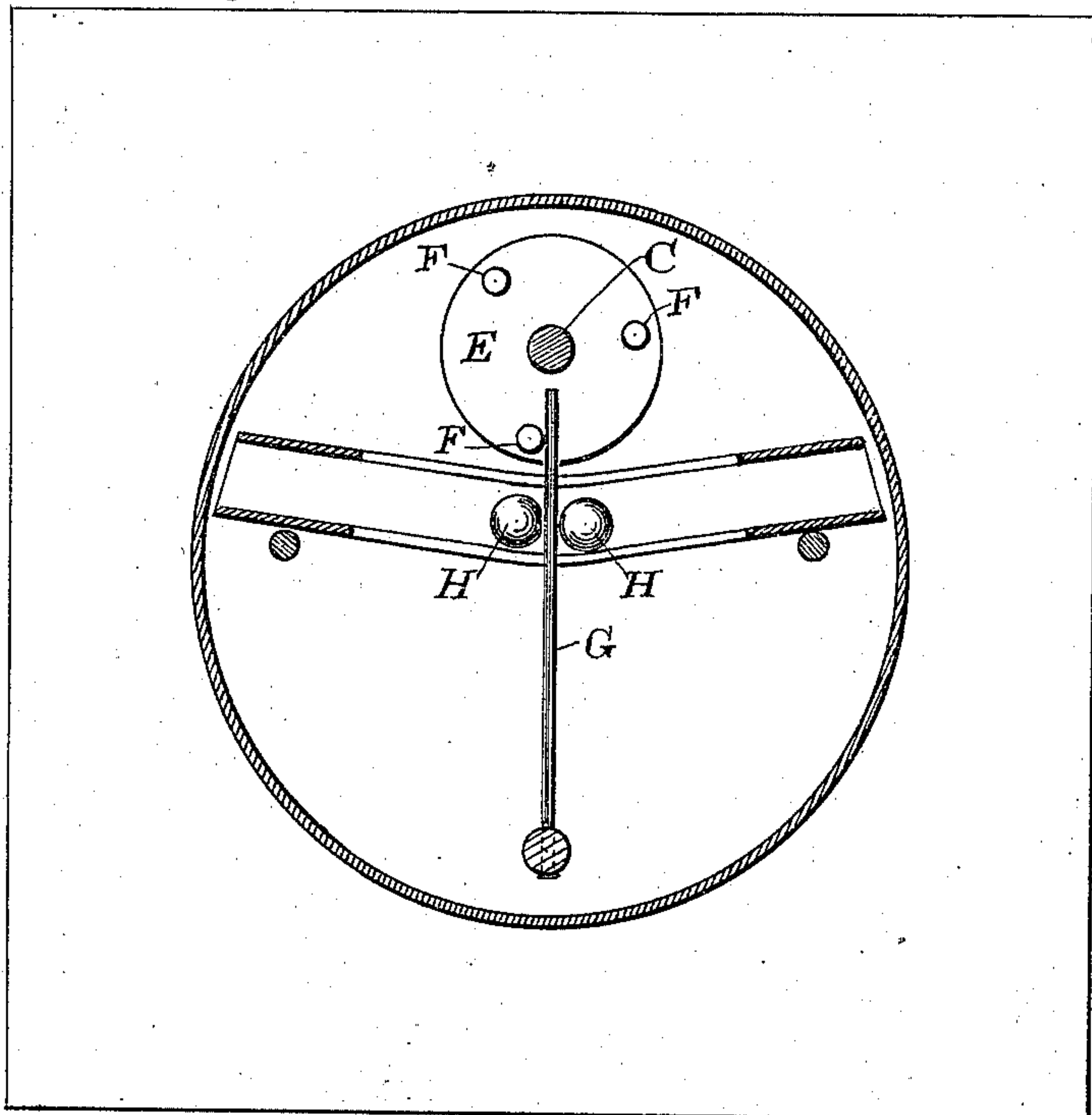
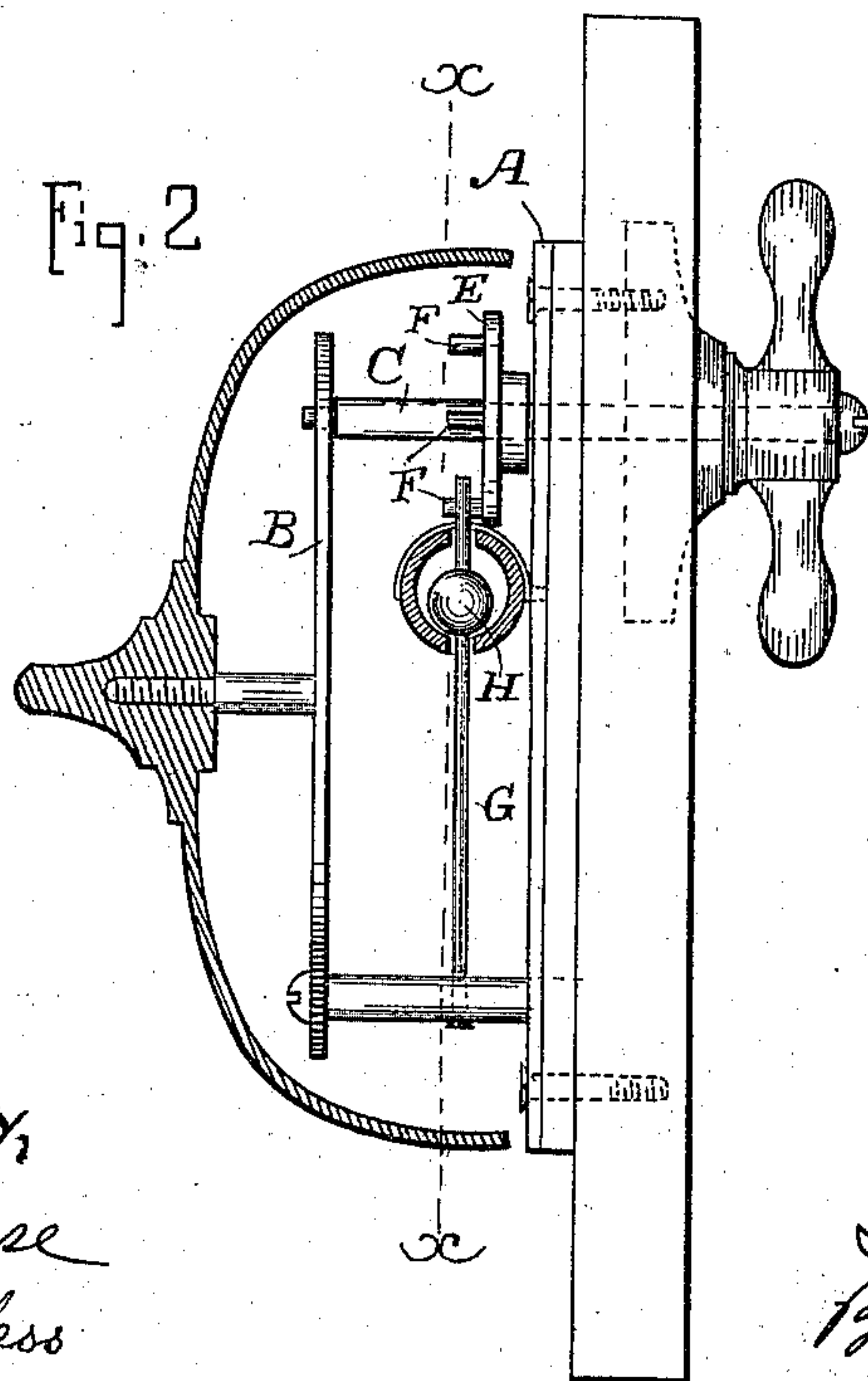


Fig. 2



Witnesses,
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UNITED STATES PATENT OFFICE.

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DOOR-BELL.

SPECIFICATION forming part of Letters Patent No. 547,186, dated October 1, 1895.

Application filed May 27, 1895. Serial No. 550,847. (No model.)

To all whom it may concern:

Be it known that I, ISAAC E. SHAW, a citizen of the United States, residing at Cloverdale, county of Sonoma, State of California, have invented an Improvement in Bells or Gongs; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a novel construction for bells or gongs.

It consists in certain details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a vertical section taken through the bell in a plane through *xx* of Fig. 2. Fig. 2 is a side view.

The object of my invention is to provide a bell with freely-movable hammers adapted to rebound immediately after striking the bell, so as to leave the latter free to vibrate and produce a clear unimpeded tone.

A is the plate, adapted to be secured to the door or other point of attachment. Through this plate and an interior supporting-plate B passes a shaft C, having upon the outer end the device for turning it. This device may be in the form of crossed arms or any other suitable turning mechanism. Upon this shaft is fixed a disk E, having pins F, projecting from it, as shown. Below the shaft is a tube, the center of which is depressed just below the turning cam-shaft, and the ends rise slightly above the level of the center. This tube is slotted in the present case on top and bottom, and a spring-arm G passes through the slots, extending far enough above the tube so that it will be engaged by the projecting pins of the disk or an equivalent cam device, which will press it to one side or the other. The outer ends of the tube terminate just a short distance inside the inner periphery of the bell, and within the tube are two freely-rolling balls H. These balls lie normally against the spring-arm, which projects up through the center of the tube. When the handle is turned in either direction, one of the projecting pins will engage the spring-arm and force it away to one side of the center. As soon as the pin has passed the upper end

of the spring-arm the latter is released, and, returning with considerable force on account of its elasticity, it strikes the ball on that side which has rolled to the center of the tube. The ball is thus thrown violently outward, so as to strike the inside of the bell and immediately rebounds and rolls backward by gravitation to rest against the spring.

It will be manifest from this construction that the handle may be turned in either direction, so that the spring may be moved to either side of the center, and when released it will operate to force the ball which has rolled to the center against the bell. This produces a very clear and satisfactory tone.

The apparatus is extremely simple and easily kept in repair.

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

1. The combination with a gong or bell of a double inclined tube rising from the center outwardly, a spring arm having one end secured, and the other end extending through slots or channels made in the tube, balls rolling freely in the tube upon either side of the spring arm, and a cam disk mounted upon a turning shaft whereby the spring arm may be drawn to one side or the other and released so as to strike one of the balls, and force it against the interior of the bell.

2. The combination with a gong or bell of a slotted tube inclining upwardly from its center in each direction toward the interior periphery of the bell, two balls adapted to roll within the inclined tubes, a spring arm extending upwardly between the two balls, a cam shaft and turning device whereby the spring arm may be moved to either side of its central position and released so as to strike the ball upon the side toward which it is moving and force the latter against the bell from which it recoils and rolls back to the center by gravitation.

In witness whereof I have hereunto set my hand.

ISAAC E. SHAW.

Witnesses:

GEO. H. STRONG,
S. H. NOURSE.