

C. COLEMAN.

Door-Bell.

No. 168,721.

Fig. 1

Patented Oct. 11, 1875.

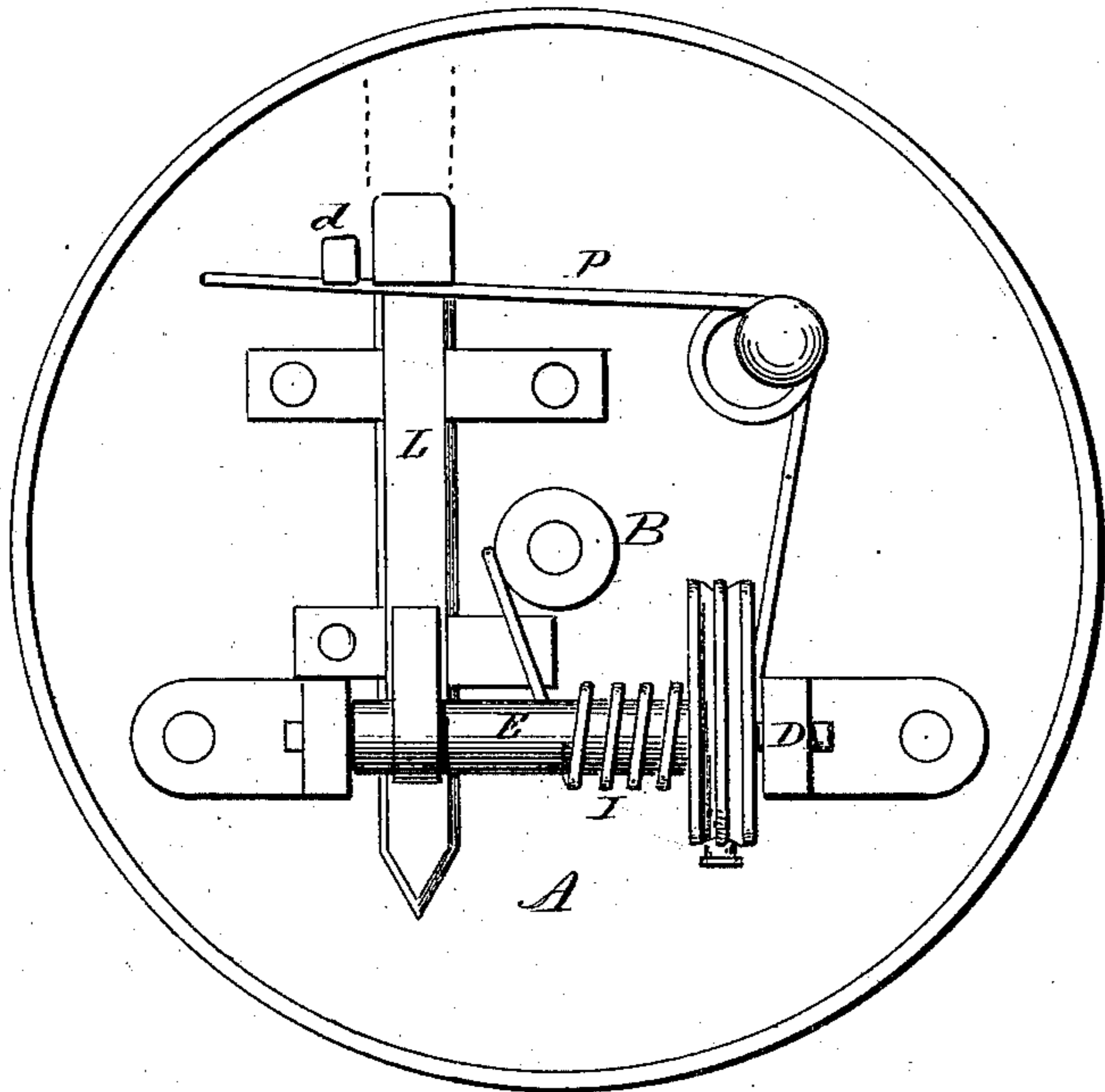
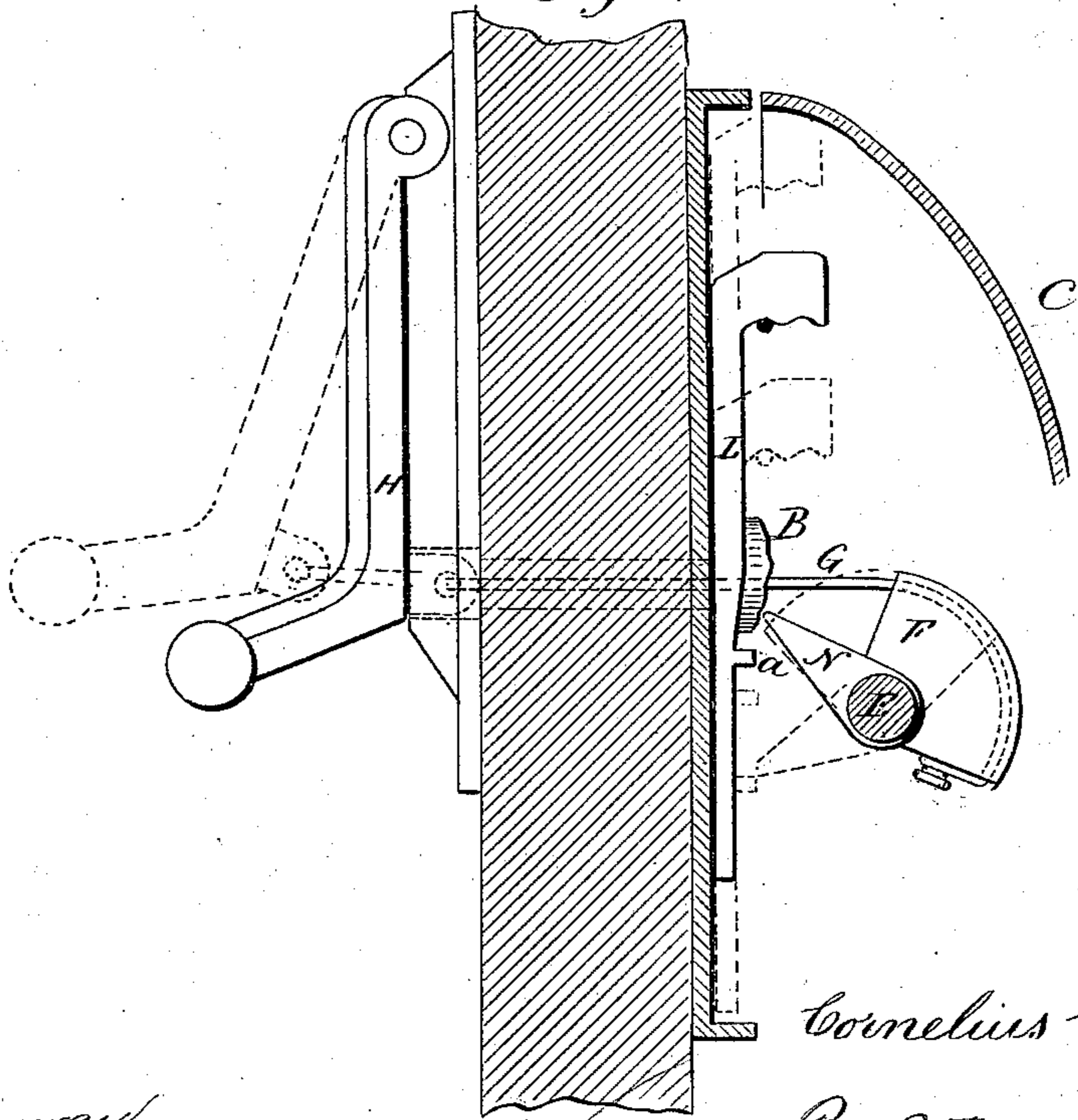


Fig. 2



Witnesses.

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# UNITED STATES PATENT OFFICE

CORNELIUS COLEMAN, OF WEST MERIDEN, CONNECTICUT, ASSIGNOR TO  
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## IMPROVEMENT IN DOOR-BELLS.

Specification forming part of Letters Patent No. **168,721**, dated October 11, 1875; application filed  
September 28, 1875.

*To all whom it may concern:*

Be it known that I, CORNELIUS COLEMAN, of West Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Door-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 same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, plan of the operative mechanism as arranged upon the plate, the bell removed; Fig. 2, vertical section of the plate, showing a side view of the mechanism.

This invention relates to an improvement in the mechanism for striking that class of door-bells known as "gongs;" and it consists in a rock-shaft arranged parallel with the plane of the bell, with a projecting arm in connection with the pull to turn the said shaft, and a spring to cause the return of the shaft, and a second arm extending toward the base, combined with a hammer arranged to slide on the base, and so that in turning the said shaft the said second arm will draw the said sliding hammer from the bell until it escapes from the said second arm, and a spring arranged to throw the said hammer into contact with the bell when it thus escapes from the said second arm, as more fully hereinafter described.

A is the base or plate, in the center of which is a post, B, supporting the bell C in the usual manner for this class of bells. On the base, in suitable bearings D, a rock-shaft, E, is arranged parallel with the surface of the plate. On this shaft is an arm, or, preferably, a segment, F, from which a connection, G, is made to the pull, here represented as a lever, H, on one side of the door, and a bell arranged on the other. In connection with the shaft is a spring, I, arranged so that when the arm F is drawn forward to turn the shaft, the spring will, by its reaction, return the arm when the pull is released. On the plate, in suitable guides, a sliding hammer, L, is arranged, and at right angles to the rock-shaft. On this hammer is a projecting shoulder, *a*, and from the shaft a second arm or trip, N, extends

above the said shoulder when all the parts are at rest, and so that when the shaft is turned by the pull, the said arm N will strike the shoulder *a* and move the hammer with it, as denoted in broken lines, Fig. 2, until the arm in its rotation has passed from the shoulder, so as to allow the hammer to escape from the control of the arm; then a spring, P, which has been compressed by the movement of the hammer, as indicated in broken lines, Fig. 1, reacts and throws the hammer up toward the bell, and with sufficient force to strike and sound the bell.

To prevent the hammer from remaining against the bell after the blow, and thereby prevent the vibration, a stop, *d*, is arranged on the plate, against which the spring will strike, as seen in Fig. 1, before the hammer has quite reached the bell; but the momentum imparted to the hammer by the spring in its reaction is sufficient to throw the hammer hard against the bell, and when it has so struck the bell it instantly falls back by its own gravity, or the interposition of a spring against the force of the spring which throws the hammer toward the bell.

This construction is shown as applied to one side of a door, with the pull upon the other; but this arrangement is not essential, as the bell and mechanism may be arranged at a point distant from the door, it only being essential that there shall be a connection between the rock-shaft and the pull.

I claim—

The combination, in a bell mechanism, of a rock-shaft arranged upon and parallel with the plate, and provided with one arm in connection with the pull, and a second arm to actuate the hammer, and a spring to return the said shaft, with the sliding hammer constructed with a shoulder, upon which the said second arm acts, and a spring to throw the said hammer after it escapes from the said arm, the construction and arrangement being substantially such as described.

CORNELIUS COLEMAN.

Witnesses:

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