

(No Model.)

R. A. WOODING.

DOOR BELL.

No. 344,763.

Patented June 29, 1886.

Fig. 1.

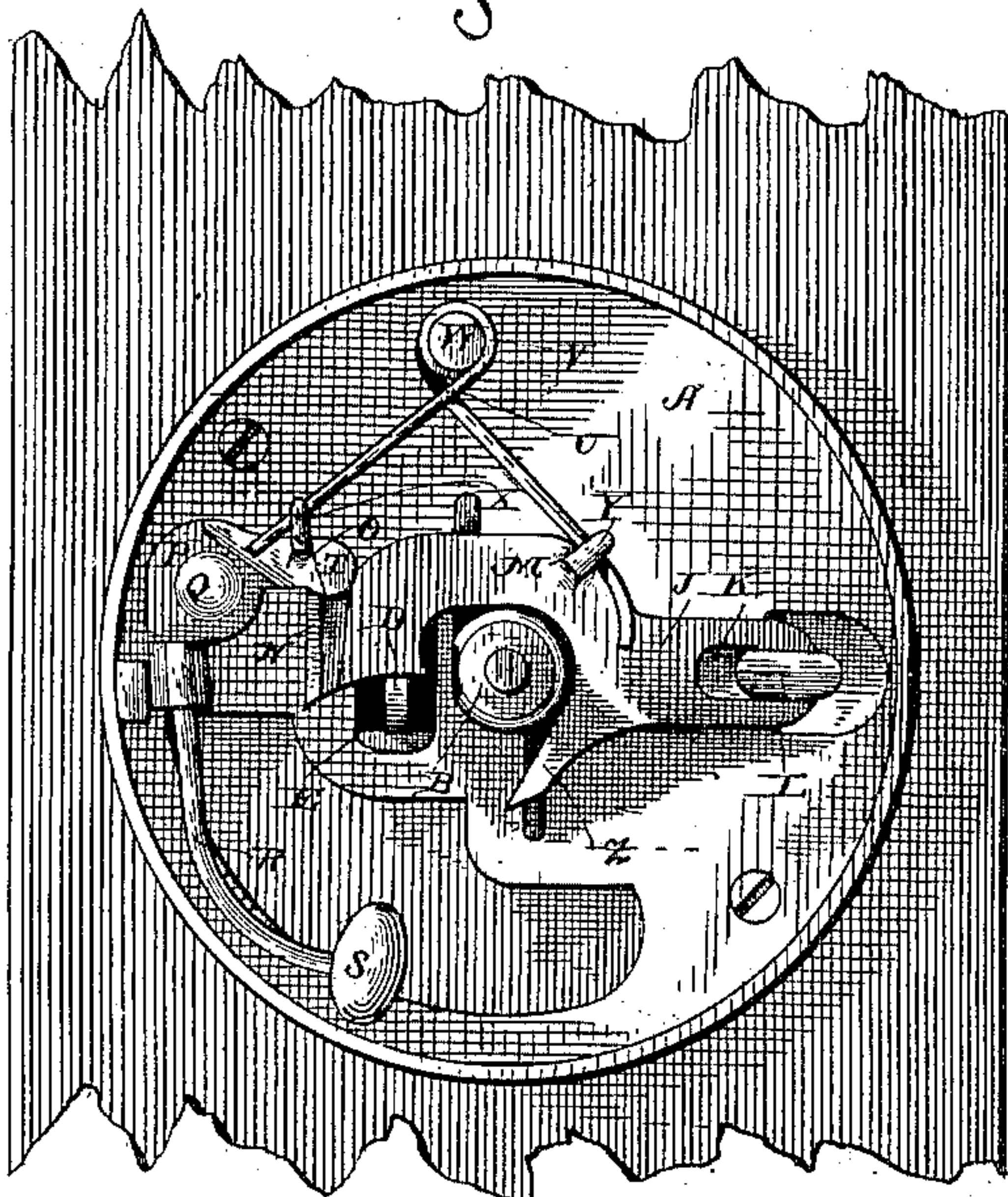


Fig. 2.

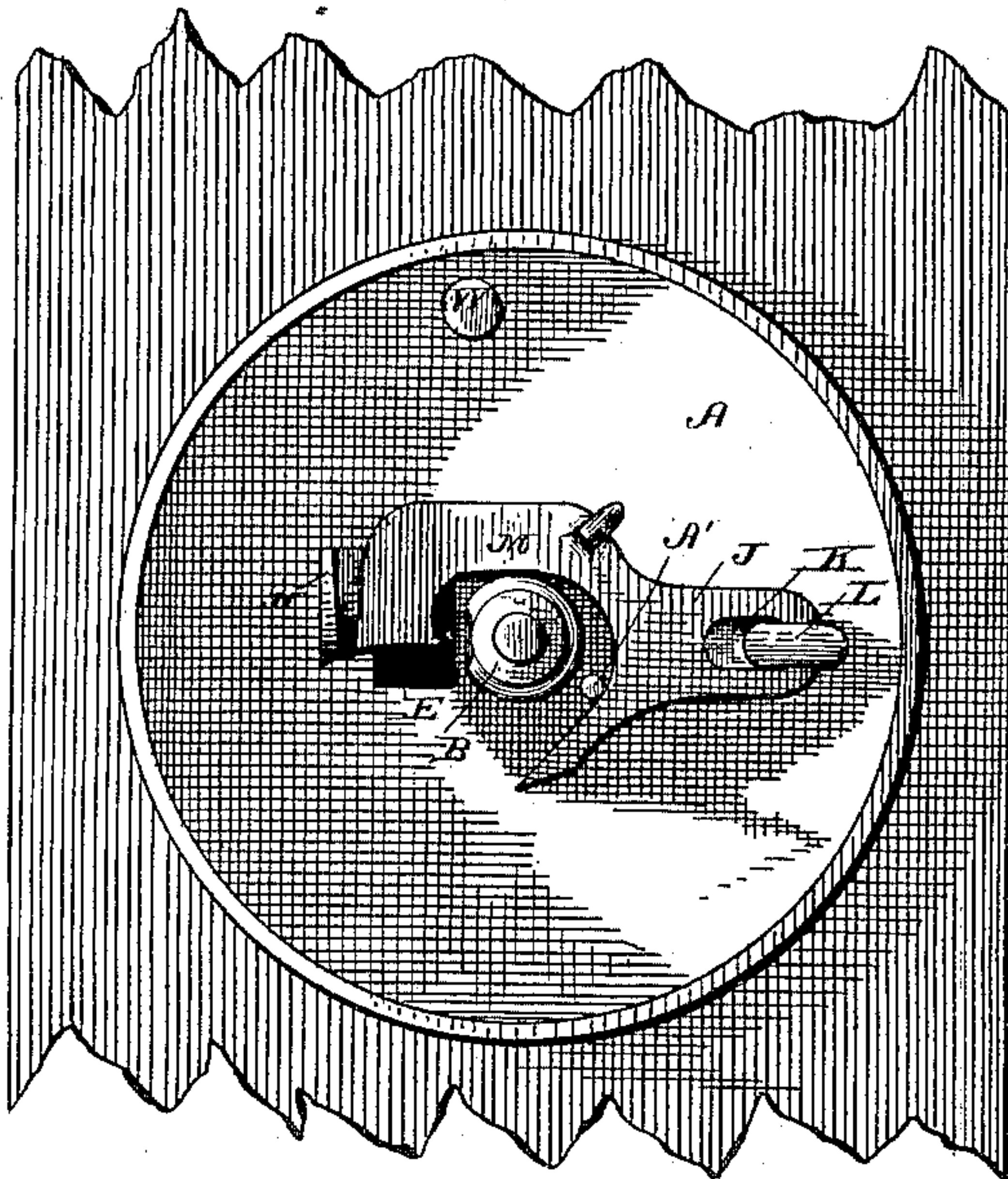


Fig. 3.

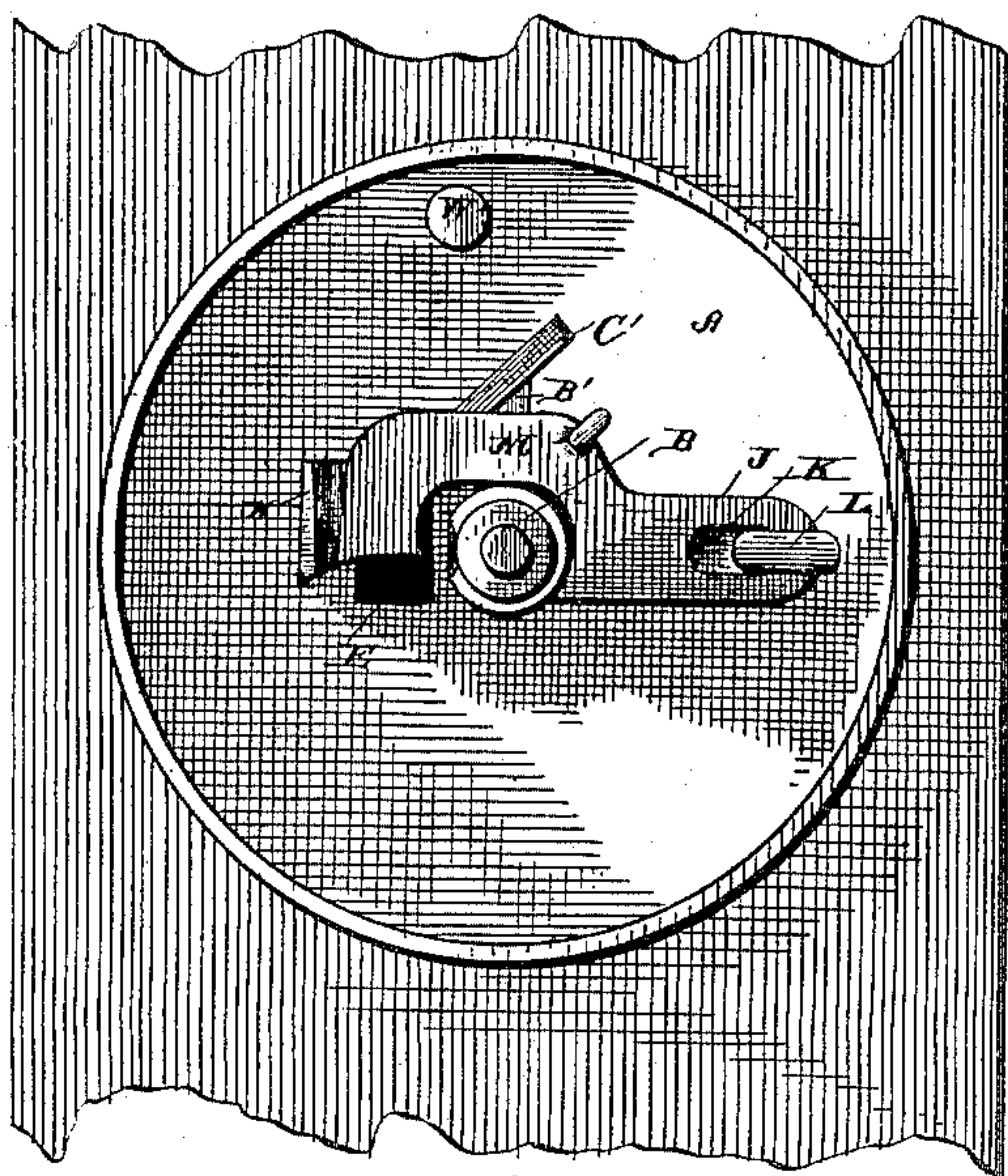
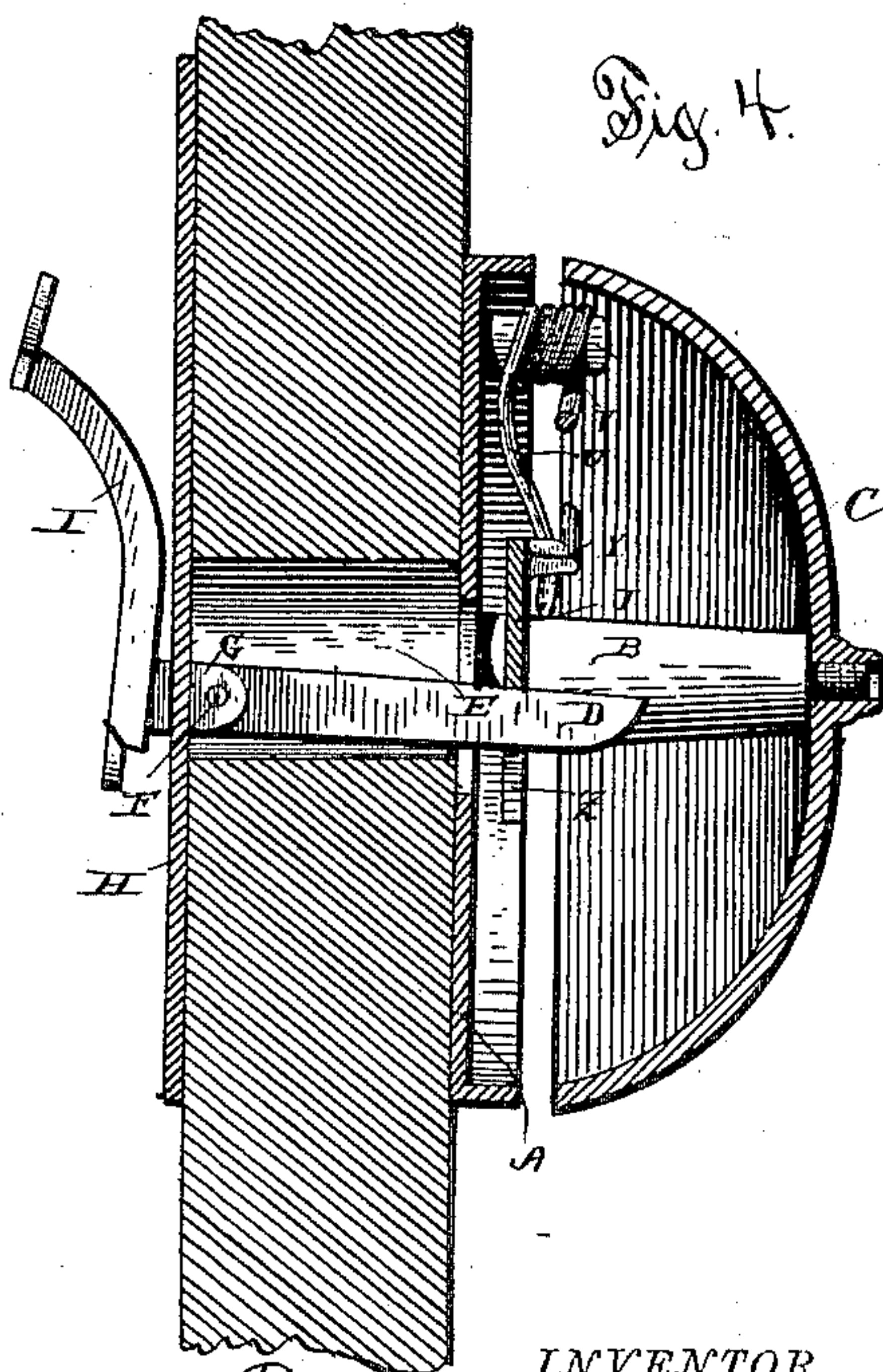


Fig. 4.



WITNESSES

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# UNITED STATES PATENT OFFICE.

RALPH A. WOODING, OF KENSINGTON, CONNECTICUT.

## DOOR-BELL.

SPECIFICATION forming part of Letters Patent No. 344,763, dated June 29, 1886.

Application filed April 21, 1886. Serial No. 199,607. (No model.)

*To all whom it may concern:*

Be it known that I, RALPH A. WOODING, a citizen of the United States, and a resident of Kensington, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Door-Bells; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a front view of the base-plate and the ringing mechanism of my improved door-bell, with the bell removed. Figs. 2 and 3 are similar views of slight modifications of the construction, and Fig. 4 is a vertical sectional view through Fig. 1.

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

My invention has relation to door bells or gongs; and it consists in the improved construction and combination of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the circular base-plate, which is secured upon the inner side of the door, and which is formed with the post B at its center, upon the outer end of which the bell or gong C is secured, the said bell covering the entire mechanism for sounding it. A lever, D, projects through a vertical slot, E, in the door and base-plate, and is pivoted upon a pin, F, in lips G G upon the inner side of the plate H, which is secured to the outer side of the door, the lever projecting through a slot in this plate, and having a handle, I, at its outer end; and the inner end of this lever bears against the lower edge of the free end of a lever, J, the inner end of which is formed with a longitudinal slot, K, which turns and slides upon an outwardly-pointing hook, L, upon the base-plate. The lever or arm having the longitudinal slot at one end has an upwardly-curved portion, M, which passes over the central post, and the other end of the arm is provided with a straight slightly-flanged edge, N, which may engage the inclined end O of one arm, P, of the hammer. This hammer is pivoted upon a bolt,

Q, and has its other arm at a right angle to the arm having the inclined end, and the said arm is provided with a curved rod, R, to which the head S of the hammer is secured which strikes the bell. The inclined end of the arm P is provided with a lip, T, which projects over the free end of the arm J, and this lip will confine the said arm J, preventing it from tilting outward out of engagement with the inclined end of the hammer-arm. A spring, U, is secured with a coil, V, upon its middle, upon a short post, W, at the upper portion of the base-plate, and the ends of this spring bear respectively against hooks or lugs X and Y, upon the bulged portion of the arm J, and upon the inwardly-projecting hammer-arm, forcing the said arms down. The lower edge of the bulged arm, immediately at the bulged portion, is provided with a downwardly-projecting oblique guide-arm, Z, the edge of which will bear against the base of the upright post, and it will be seen that when the arm is raised by the lever it will raise the inwardly-projecting hammer-arm against the spring, and the oblique guide-arm will force the arm to slide with its slot upon the hook while it is tilting upward, causing the straight end of the said arm to gradually slip the hammer-arm, allowing the spring to force the hammer-arm down and the headed arm against the inner side of the bell, sounding it, whereupon the spring will force the bulged arm down, slipping over the inclined end of the hammer-arm.

In Fig. 2 the oblique arm is shown bearing against a lug, A', upon the base-plate, instead of against the bell-post, and in Fig. 3 the inner side of the arm is provided with a stud, B', which bears against an oblique rib, C', upon the base-plate, which accomplishes the same result, drawing the arm to the side when it is tilted, and thus allowing it to slide upon the hook.

It will be seen that the entire mechanism is very easily constructed and put together, the slot of the arm being slipped upon the hook after the hammer-arm has been pivoted upon its bolt, whereupon the spring may be placed with its coil upon the post and the ends placed in engagement with its respective hooks upon the arms when, the lever and bell having been



secured in their respective positions, the device is in working order.

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

1. In a door-bell, the combination of a base-plate having a central post and an outwardly-projecting hook at one side of the post and a pivot at the other side of the post, a bell secured upon the end of the post, a lever projecting with its inner end through the base-plate, a hammer-lever having an inwardly-projecting arm provided with an inclined inner end, and with a lip at its outer side, and having a downwardly-projecting arm provided with a rod having a head for striking the bell, an arm having a longitudinal slot at one end fitting upon the hook, and having a curved portion passing over the central post, and having its straight free end bearing under the inwardly-projecting end of the hammer-arm, and having means for sliding it sidewise, as and for the purpose shown and set forth.

2. In a door-bell, the combination of a base-plate having a central post and an outwardly-projecting hook at one side of the post and a

pivot at the other side of the post, a bell secured upon the end of the post, a lever projecting with its inner end through the base-plate, a hammer-lever having a bell-crank shape, and having its inwardly-projecting arm formed with an inclined end, and with a lip at its outer side, and having the downwardly-projecting arm formed with a headed rod, an arm pivoted with a longitudinal slot upon the hook of the base-plate, and having a curved portion passing around the post and formed with an oblique and downwardly-projecting arm, and having its straight free end bearing against the inclined end of the hammer-arm, and a spring having a coiled central portion secured upon a post above the central post, and having its ends engaging hooks upon the hammer-arm and upon the curved arm, as and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

RALPH A. WOODING.

Witnesses:

CHARLES M. BROWNE,  
CORNELIA S. BROWNE.