

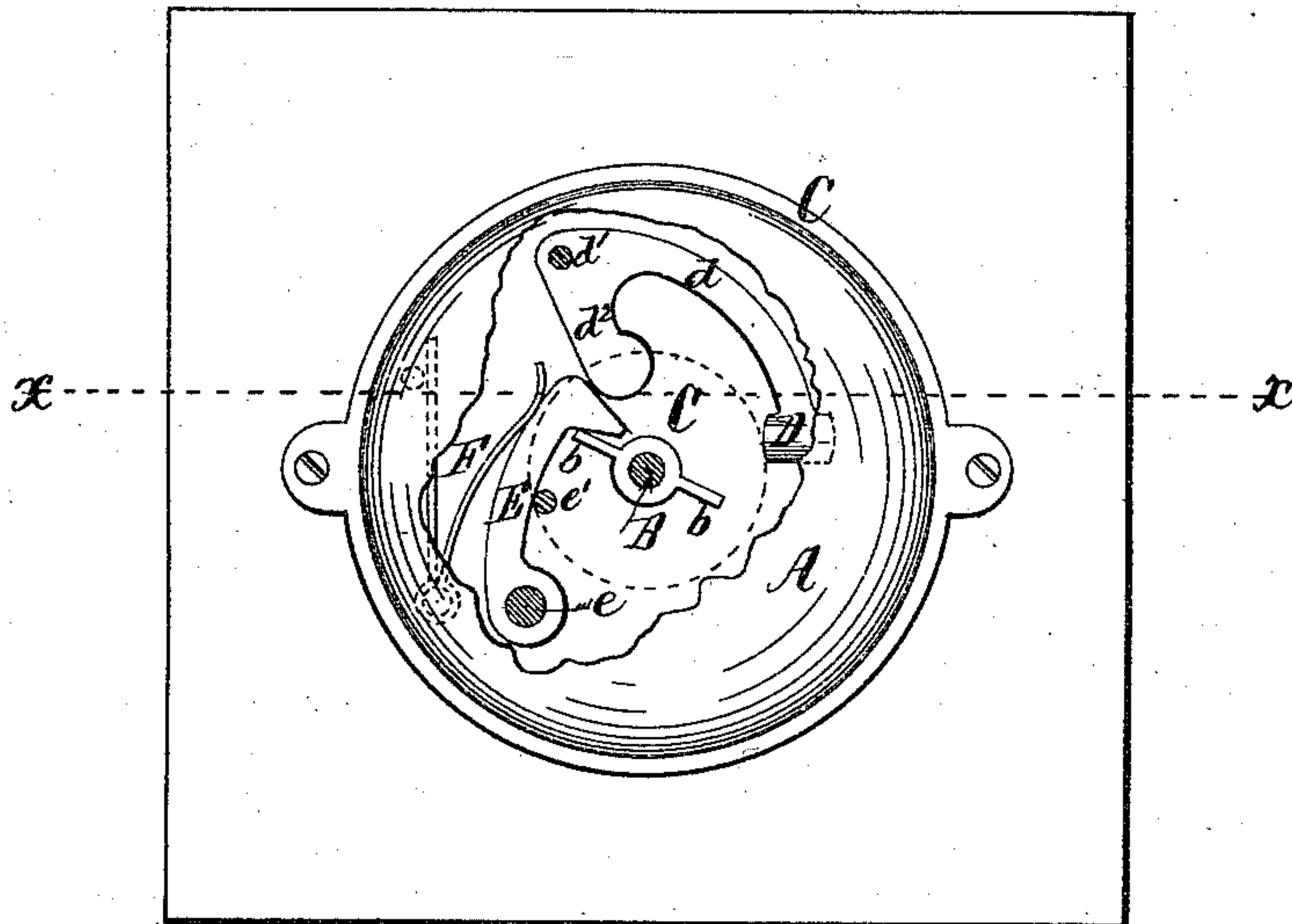
H. A. DIERKES.

Door-Bells.

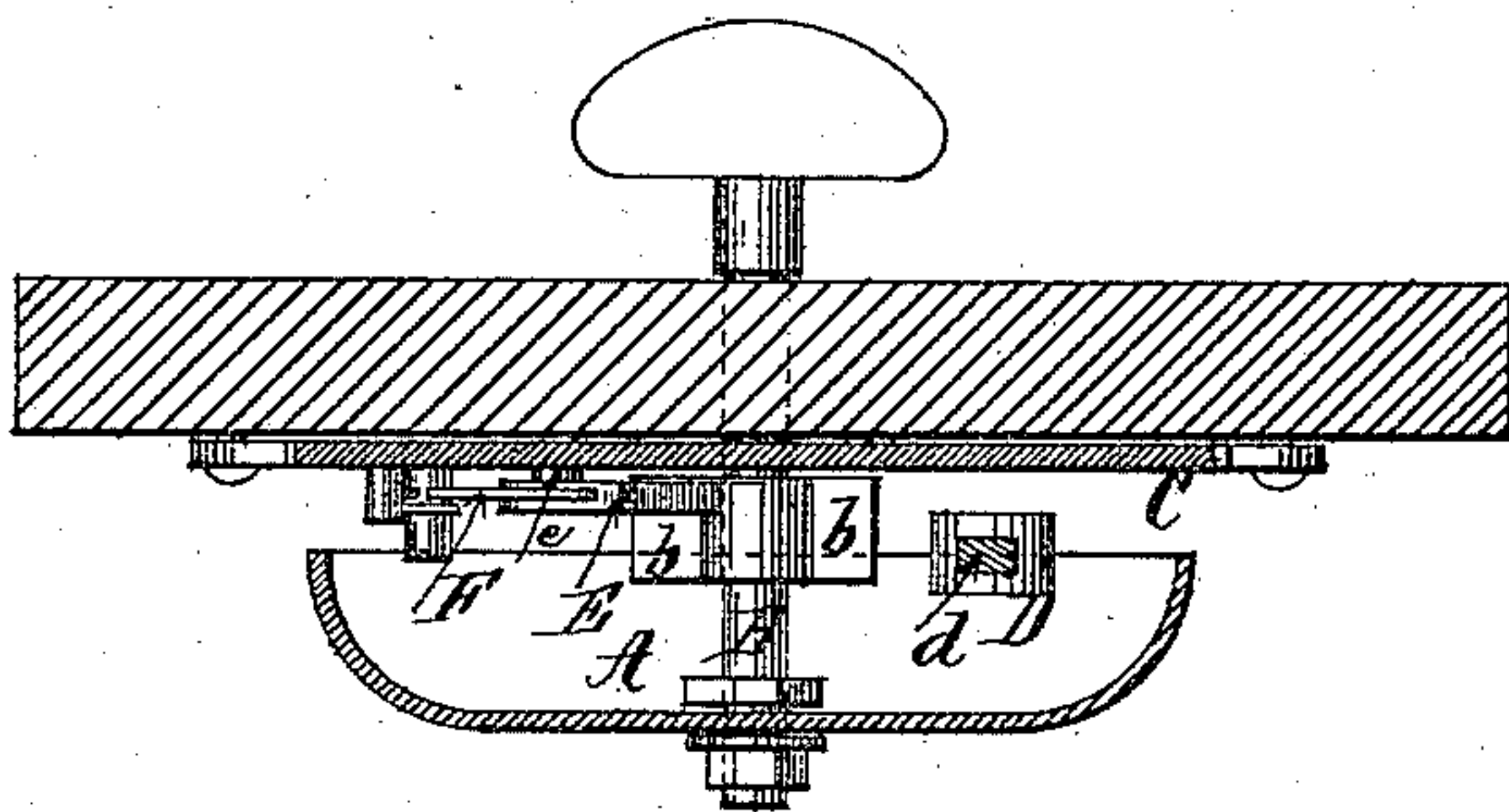
No. 157,802.

Patented Dec. 15, 1874.

*Fig. 1.*



*Fig. II.*



*Witnesses:*  
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# UNITED STATES PATENT OFFICE.

HENRY A. DIERKES, OF NEW YORK, N. Y.

## IMPROVEMENT IN DOOR-BELLS.

Specification forming part of Letters Patent No. **157,802**, dated December 15, 1874; application filed October 22, 1874.

*To all whom it may concern:*

Be it known that I, HENRY A. DIERKES, of the city, county, and State of New York, have invented a new and useful Improvement in Hanging and Operating Bells; and I hereby declare the following to be a full and clear description thereof, which will enable others to adopt and use my improved system of hanging and ringing bells.

This invention consists in a device for hanging the bell so as to rotate it a short distance with every stroke of the hammer, thereby securing a change of location for each successive stroke, and a consequent preservation of the tone of the bell. The invention also relates to the peculiar mechanism employed to operate the hammer.

The accompanying drawings fully illustrate the peculiarities of the invention.

Figure I is an elevation view, with part of the bell broken away to show the mechanism behind it. Fig. II is a sectional plan of the same, taken on the line *xx* of Fig. I.

The bell A may be of any approved form or adapted to any use, and will be mounted on a central post or axle, B, which will constitute the sole support of the bell. This post or axle will be revolved on its axis, and the bell with it, when the bell is to be rung. In the case of small bells, located near the operator, the post and its bell may be rotated by simply turning a knob forming the lower end of the post with the hand; but in the case of bells at some distance from the operator, or in the use of large bells, suitable machinery or gearing would have to be introduced to operate or turn the axle. There will be a base-plate, C, located just below the mouth of the bell, in which the post or axle B will find its bearings. This base-plate may be a single plate of metal, or, as in the case of the large bells, it may be built of several pieces of metal or timber, or both; but in either case the operative parts of the bell—that is, the post B and the bell-hammer—will be secured to this base-plate. The hammer D has a curved arm, *d*,

which is pivoted to the base-plate at *d*<sup>1</sup>, and a curved extension, *d*<sup>2</sup>, of this arm passes beyond and inward from the pivot-point *d*<sup>1</sup>, and rests against the end of the spring-follower E, as shown in Fig. II. The follower E is pivoted to the base-plate at *e*, and is habitually thrown forward against the stop *e'* by means of the spring F.

In operating the hammer the free end of the follower is drawn back a sufficient distance by some suitable mechanism and then suddenly released, when the spring F throws it forward with violence, and with it the arm of the hammer, until the stop *e'* arrests the forward motion of the follower, and permits the motion of the hammer and its carrying-arm to proceed until the hammer shall have struck the bell a smart blow, when the hammer falls back immediately until its arm rests again on the end of the follower ready for another blow. The follower may be drawn back by any suitable device, applied either externally or internally; but one of the most simple arrangements for the purpose is that shown in the drawing. In this case there are two or more arms, *b*, projecting from and attached to the post or axle B, and revolving with it. As these arms are rotated they come in contact with a projection on the end of the follower E, and force it backward until they shall have revolved past the end of the projection, when they suddenly slip off the said projection of the follower, and permit the spring F to throw it and the hammer forward in the manner described.

Having described my invention, I desire to claim—

The hammer and its arm *d* *d*<sup>2</sup>, when arranged as described and operated by the spring-follower E, substantially in the manner shown and set forth.

HENRY A. DIERKES.

Witnesses:

FRANKLIN BARRITT,  
RICHARD GERNER.