

(No Model.)

H. A. BIERLEY.

DOOR BELL.

No. 347,221.

Patented Aug. 10, 1886.

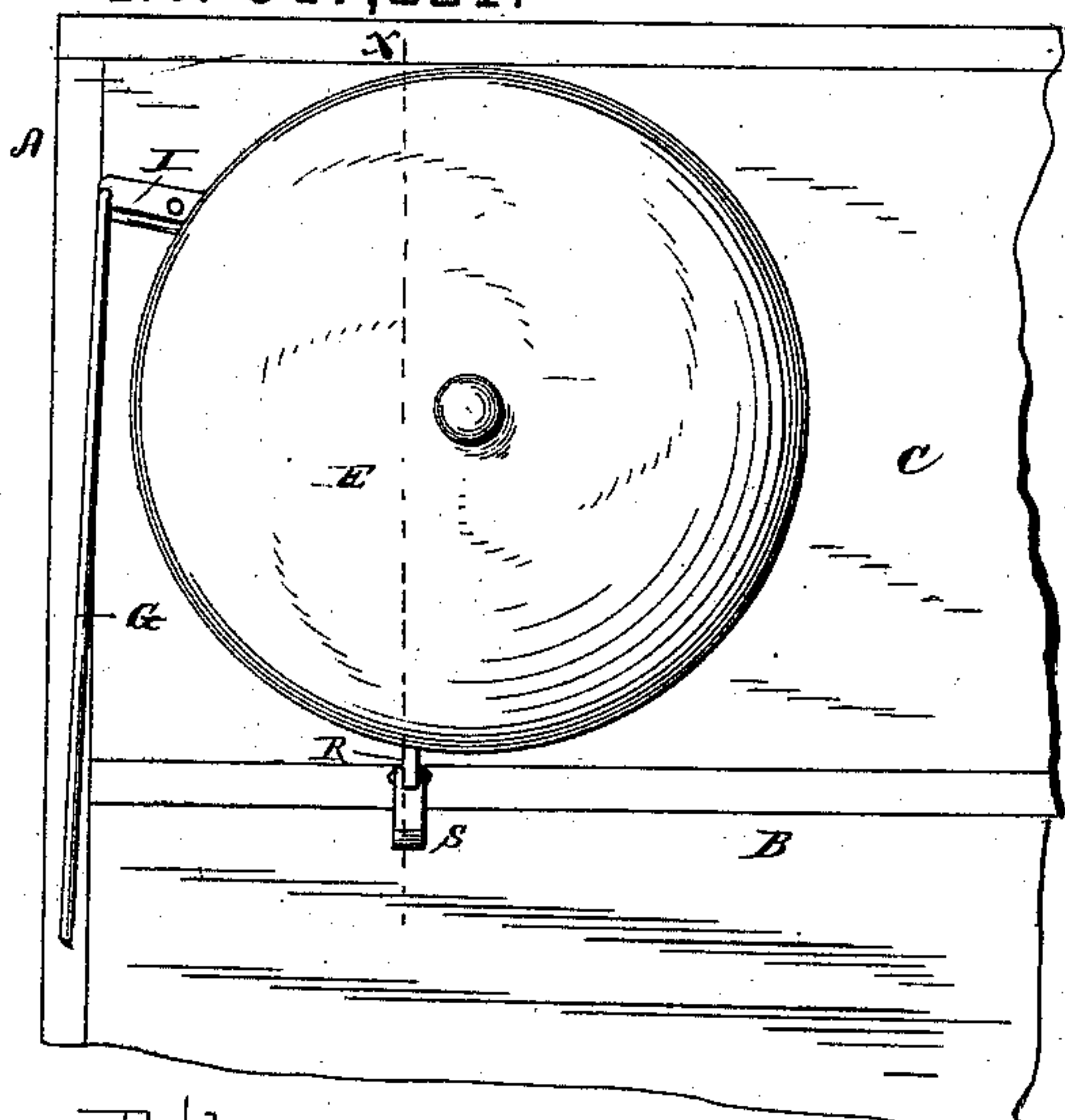


Fig. 1.

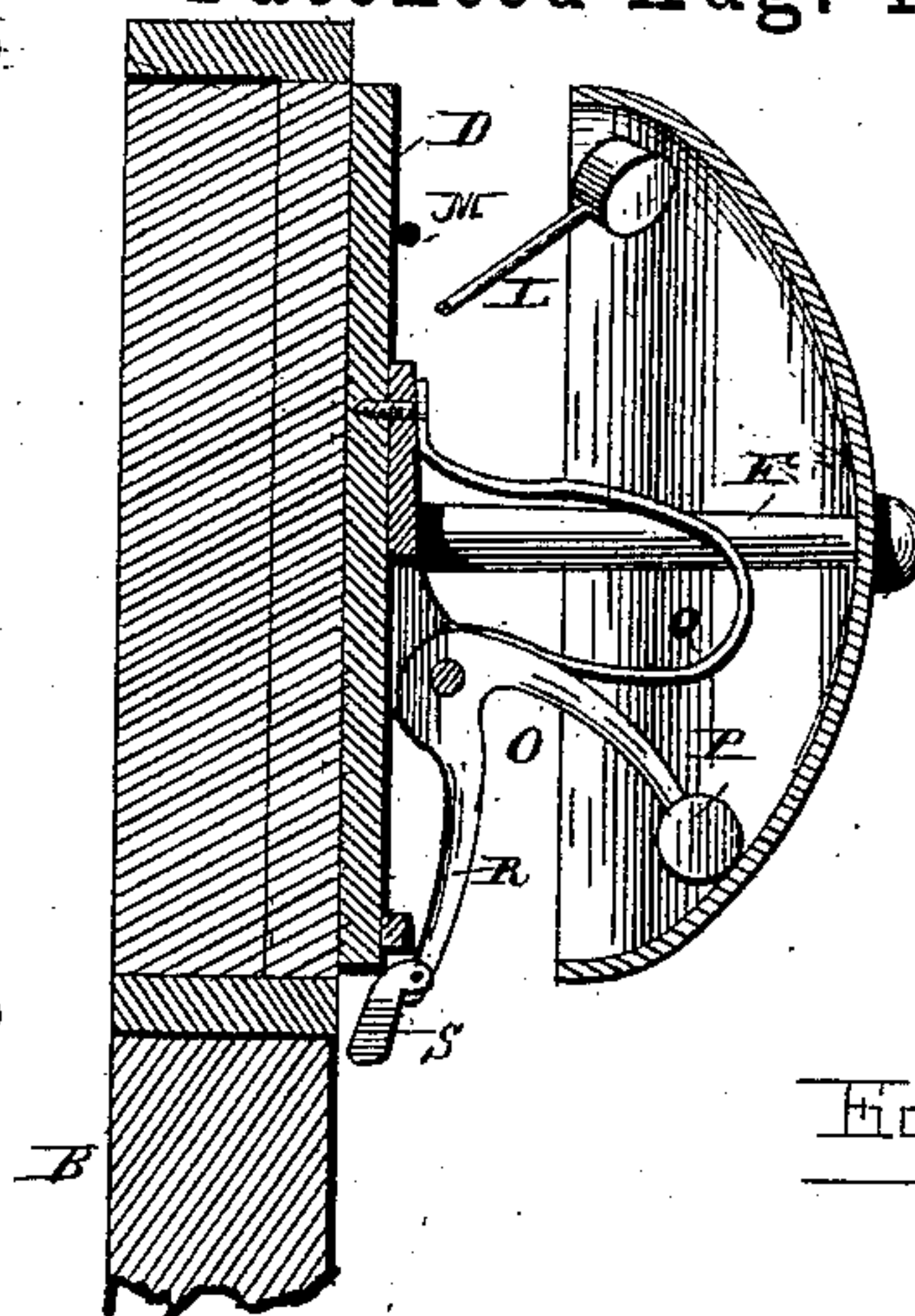


Fig. 2.

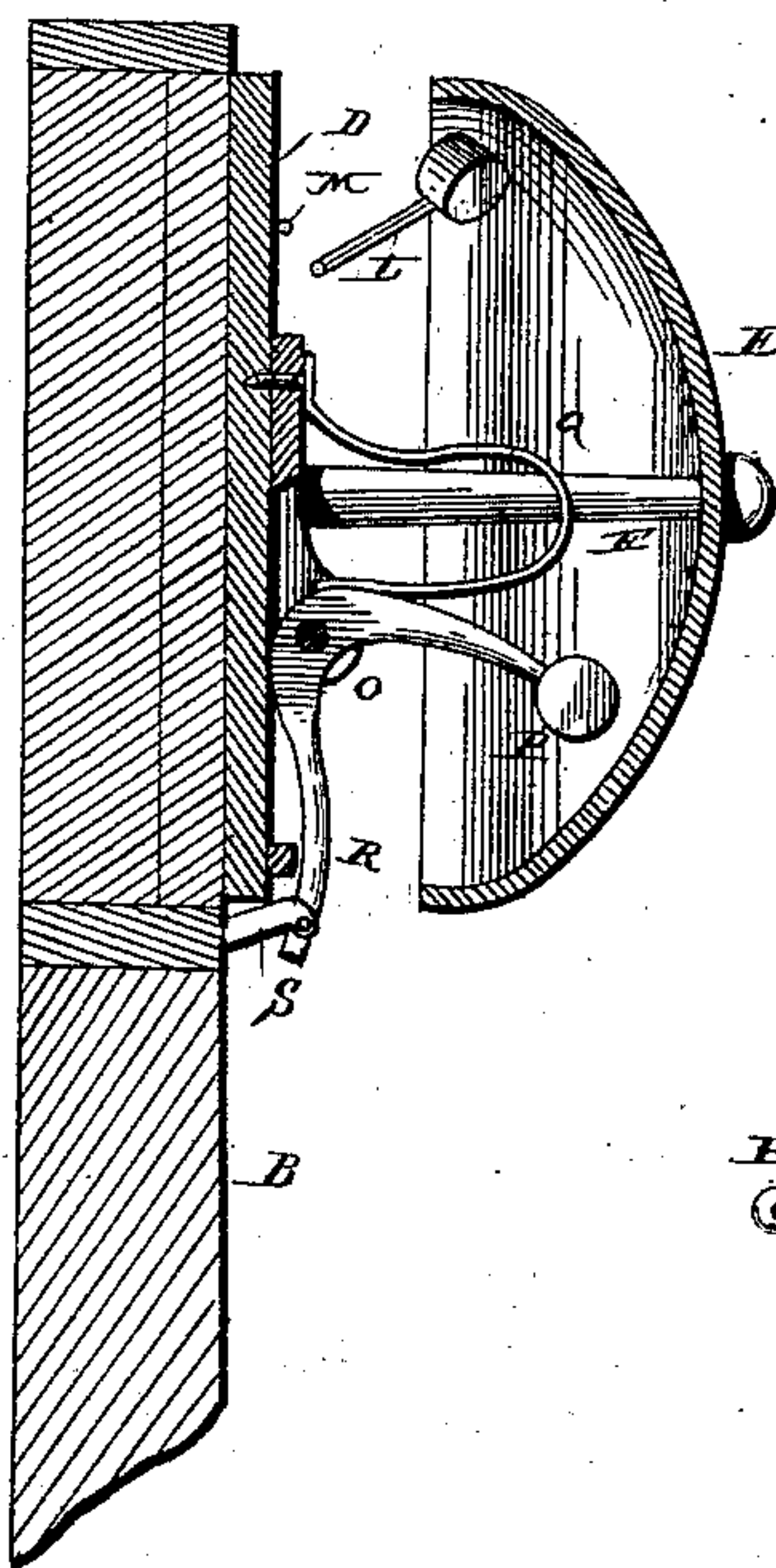


Fig. 3.

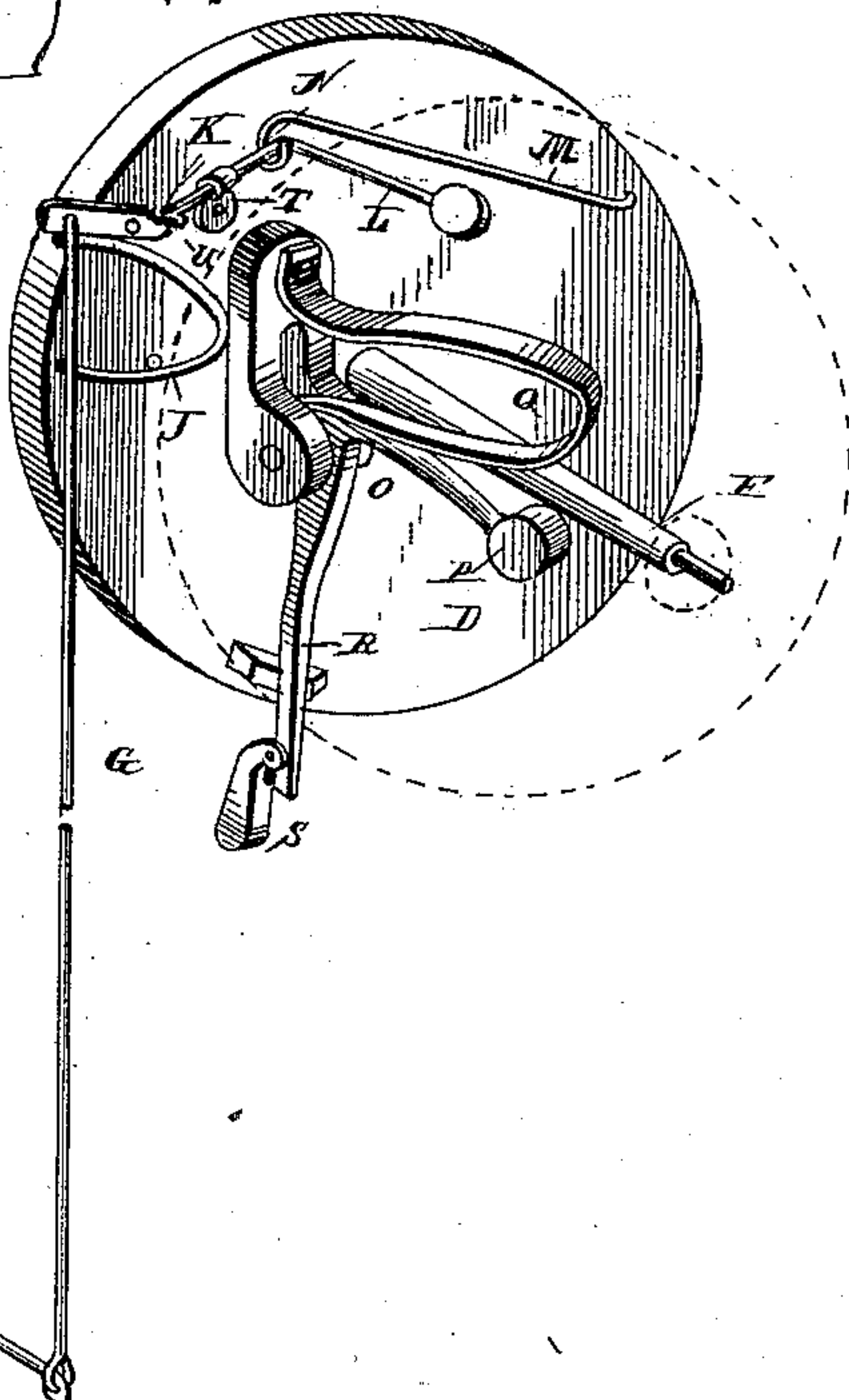


Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

HENRY A. BIERLEY, OF MANCHESTER, OHIO.

DOOR-BELL.

SPECIFICATION forming part of Letters Patent No. 347,221, dated August 10, 1886.

Application filed October 24, 1885. Serial No. 180,813. (No model.)

To all whom it may concern:

Be it known that I, HENRY A. BIERLEY, a citizen of the United States, and a resident of Manchester, in the county of Adams and State of Ohio, 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 view of the upper portion of a door-frame and door provided with my improved alarm-bell. Figs. 2 and 3 are vertical sectional views on line *x x*, Fig. 1, showing the alarm set in its operative position and set to be out of operation; and Fig. 4 is a perspective view, on an enlarged scale, of the apparatus, showing the bell in dotted lines.

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

My invention has relation to door-alarms; and it consists in the improved construction and combination of parts of an alarm, which may be operated as a common door-bell as well as an alarm sounding when the door is opened, and which is capable of being set so as not to be sounded by the opening of the door, if so desired, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter A indicates the upper portion of the door-frame, and B indicates the door, and the alarm is secured upon the top piece of the frame, which piece is indicated by C.

The apparatus consists of a base-plate, D, which is preferably round and covered by the bell E, which is secured upon the outer end of a post, F, projecting from the center of the base-plate. A connecting-rod, G, is pivoted at its lower end to a bell-pull, H, and at its upper end to the outer end of a lever, I, which is pivoted near its inner end at the edge of the base-plate. The free end of a V-shaped spring, J, bears against the outer end of the lever from below, the other end of the spring being secured to the base-plate, and the inner end of the lever is provided with an outwardly-projecting cam or lip, K, cut off inclined toward its lower end. A hammer-rod, L, which is

bent at nearly right angles and is provided with a hammer at its inner end, is rigidly secured near its other end within an eye, T, which is pivotally secured to the base-plate. The outer end of this rod is bent at right angles to form a short arm, U, which presents a wider bearing-surface for the end of the lever I, which bears against it and operates it, than would be the case if the wire were not so bent. A spring, M, is secured to the base-plate, and has its outer free end formed into an eye, N, which is secured around the inner portion of the inner arm of the hammer, forcing the said portion of the hammer upward when its outer end has been raised by the lip upon the lever and has been released from the same by slipping off from it, causing the hammer to strike the bell from the inside. A bell-crank-shaped hammer, O, is pivoted to rock in a vertical plane upon the base-plate, having its outwardly-projecting arm provided with the head P, and having a spring, Q, forcing the said headed arm against the inside of the bell, and the downwardly-projecting arm R of the bell-crank-shaped hammer has a rounded arm, S, pivoted to its lower end, which arm may be engaged by the upper edge of the door when the latter is opened or closed. The said rounded arm is so pivoted to the lower end of the arm of the hammer that it will swing loosely in toward the top piece of the door-frame when the door is closed, while it will bear against the lower end of the hammer-arm when the door is opened and tilt the hammer with it, so that when the door is opened the downwardly-projecting arm of the hammer will be forced outward and the outwardly-projecting arm of the hammer will be forced upward until the edge of the door releases the rounded arm, when the spring will force the head of the hammer against the bell or gong, sounding the same. When it is desired to set the alarm so that it will not be sounded by opening the door, the rounded arm is bent inward at a right angle to the downwardly-projecting arm of the hammer, with its end resting against the top piece of the door-frame, when the door may be opened and closed without engaging the rounded arm.

The bell-pull may be secured in the middle of the door, if desired, when the alarm will be secured upon the door at its upper end, and the alarm for sounding the bell or gong when

the door is opened is operated by a bar or rod projecting from the door-frame.

It will be seen that the alarm may be set so that it will not be sounded by opening or closing the door, but only by drawing the bell-pull, 5 and when it is desired to have the alarm set it is only necessary to tilt the rounded pivoted arm downward, when the apparatus is in working order, and will operate as often as the door 10 is opened.

The bell will cover the entire mechanism, so that the apparatus will not look different from a common door-bell, and consequently will not arouse suspicion in anybody inspecting it that 15 it is an automatic door-alarm.

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

The combination of a base-plate, a bell or

gong secured thereto, an eye pivotally secured 20 to said plate, a hammer-rod rigidly secured within said eye, said rod being bent at an angle, and having a hammer at its inner end, and having its outer end bent to form an arm, a spring-rod having an eye at one end engaging 25 with the hammer-rod, and having its other end secured to said plate, a spring-actuated lever pivotally secured to the said plate, the inner end of which is beveled, and a bell-pull secured to its outer end, substantially as and for 30 the purpose set forth.

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

HENRY A. BIERLEY.

Witnesses:

LOUIS BAGGER,

AUGUST PETERSON.