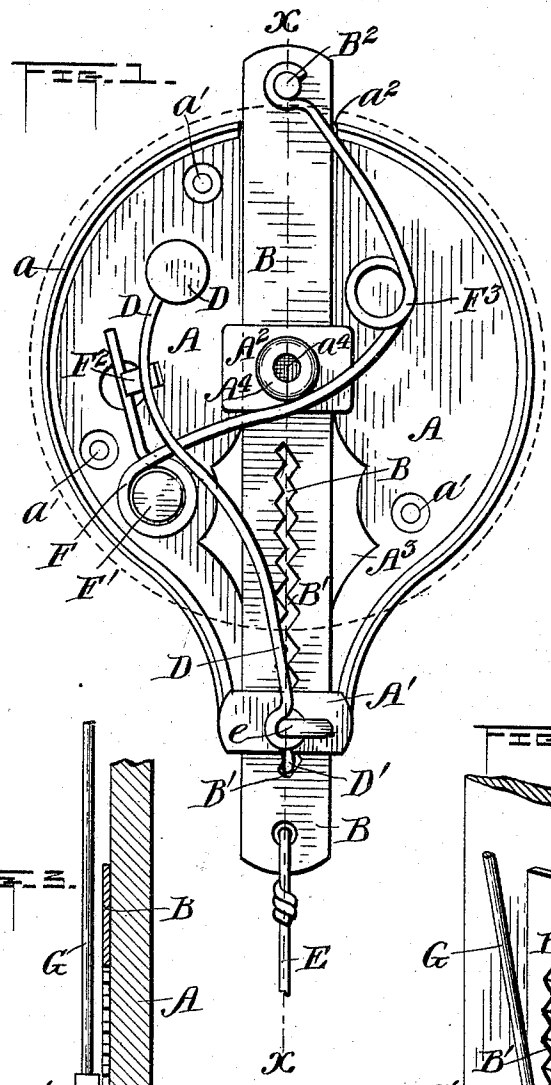
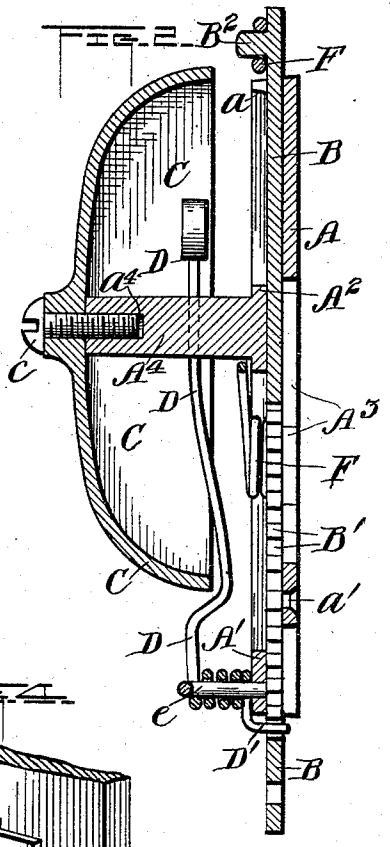
(No Model.)

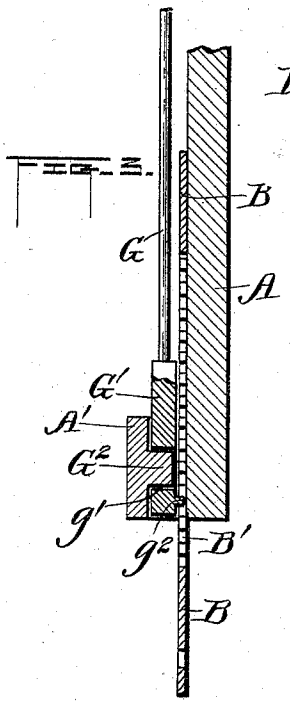
A. ISKE.

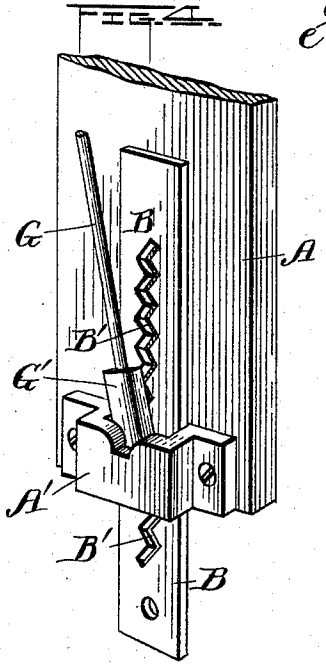
DOOR BELL.

No. 488,244. Patented Dec. 20, 1892.









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UNITED STATES PATENT OFFICE.

ANTHONY ISKE, OF LANCASTER, PENNSYLVANIA, ASSIGNOR TO J. WALTER MILLER, OF SAME PLACE.

DOOR-BELL.

SPECIFICATION forming part of Letters Patent No. 488,244, dated December 20, 1892.

Application filed January 28, 1892. Serial No. 419,500. (No model.)

To all whom it may concern:

Be it known that I, ANTHONY ISKE, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain new and useful Improvements in Door-Bells; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to door-bells operated by a sliding bar; and it consists chiefly in the combination of a sliding-bar having a zigzag or tortuous path formed therein preferably by slotting it with a bell-hammer or alarm-sounding device the tail of which engages the slot in the said bar.

It also consists in the combination of a retracting spring with the said bar, upon which it acts, the hammer and the bell, so that the zigzag or tortuous path in the said bar will cause the hammer to give two series of strokes, the first when the said bar is drawn out by the bell-pull, the second when the said spring draws the said bar back again.

The said invention finally consists in certain additional details of construction hereinafter more particularly set forth and claimed.

In the accompanying drawings Figure 1 represents a plan view of a door-bell constructed in accordance with my invention, the gong being indicated by dotted lines: Fig. 2 represents a vertical section of the same on the line x—x of Fig. 1; Fig. 3 represents a view similar to Fig. 2, but of a part of the devices only, showing another form of hammer; Fig. 4 represents a perspective detail view of the sliding bar and hammer belonging to the construction shown in Fig. 3.

In the said drawings, A designates the flat base of my bell, which base is preferably metallic and pear-shaped it being also provided with a low raised rim a, and with screw-holes a' for fastening it to a door-frame or other woodwork. At the neck of this pear-shaped base A, the side-walls formed by this rim are connected by a cross-plate, forming a flat-arched guideway A′. A second guideway A^2 of similar form is raised in the middle of this base. Through these guideways a flat sliding bar B reciprocates as hereinafter described, the said rim being cut away at a^2 for allowing the rearward protrusion of the said bar. The material of the said base is partly cut away at A^3 to lessen the friction against the under side of the said bar but enough is left to complete the guiding underneath. On the guideway A^2, in the center of the said base, a post or standard A^4 is raised, this being provided in its top with a screw-threaded recess a^4, to receive a screw c, by which the gong C is fastened in its place in the usual manner. The edge of the said gong and the top of the rim a leave only a very narrow open space between them; so that the interior devices are very well protected by these parts.

D designates, in Figs. 1 and 2, a bent hammer for striking the said gong, formed of a wire which is wound about a raised stud e on the top of the guideway A′ a second stud f, taller than e, being bent over at the top to hold the coiled part of the said wire in its place. The stud e constitutes the pivot on which the said hammer vibrates. The hammer-tail D′, constituting practically a stud, enters from above a zigzag slot or channel B′, which is formed longitudinally in the bar B. The bell-wire E is attached to the forward end of said bar, and when the said wire is pulled the bar B, moving forward, causes the said hammer-tail to move from side to side in rapid vibration, each bend or angle of the path channel or slot B′ corresponding to one lateral motion of the said hammer tail. Of course each such motion of the latter is accompanied by a stroke on the gong C when the said gong is in place. To retract the said bar after the pull on the bell-wire E has ceased I employ a spring F, which is coiled about a stout stud F′ raised on the base A, at one side thereof, one end of the said spring bearing against a fixed lug F^2 of the said base, and the other end of the said spring being bent around a stud B^2 on the said bar at or near its lower end. Between the two studs F′ and B^2, the spring, for greater strength and resiliency is wound into a helix or coil F^3.

Of course I do not confine myself rigidly to this peculiar construction of the spring as it may be largely varied. But I find it a very efficient form and easy and cheap to manufacture.

Instead of the bent wire hammer above described, I sometimes, as in Figs. 3 and 4, make use of a hammer G, consisting of a straight rod, having the usual hammer head g and set into a long block G′, which is constructed with a central hole g' receiving, and pivoted upon, a stout stud G^2, extending downward from the top of the guideway A′. This block or stock G′ is also provided behind the said pivot-stud with a downwardly extending stud or pin g^2 which enters the path channel or slot B′ the operation being otherwise as hereinafter described.

Of course a small bell may be mounted in place of the hammer-head, the gong being omitted. Also the path B′ may be raised on the bar B instead of being cut or sunk as a slot or groove therein.

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

The hammer handle G provided at its inner end with a block G′, having a stud g^2 formed on it and central hole g' formed in it in combination with a longitudinally movable bar B provided with a zigzag groove B′ receiving the said stud, and a fixed guideway A′ provided on its inner side with a stud G^2 integral with the said guideway fitting into the said hole g' and serving as a pivot for the said hammer substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

ANTHONY ISKE.

Witnesses:
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