## G. H. REICHOLD. BURGLAR ALARM.

Patented June 16, 1896. No. 562,197. INVENTOR WITNESSES:

## United States Patent Office.

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## BURGLAR-ALARM.

SPECIFICATION forming part of Letters Patent No. 562,197, dated June 16, 1896.

Application filed February 3, 1896. Serial No. 577,830. (No model.)

To all whom it may concern:

Be it known that I, Gustav H. Reichold, a resident of Ozone Park, Queens county, State of New York, have invented certain new and useful Improvements in Door-Alarms, of which the following is a specification.

My invention relates to door-alarms, and has for its object to produce an efficient door-alarm, having special reference to the qualities of reliability of operation and ease of adjustment.

My invention consists in the construction hereinafter set forth and claimed.

My invention will be understood by reference to the accompanying drawings, in which—

Figure 1 is a side elevation, partly in section, showing a door-alarm embodying my invention. Fig. 2 is a side elevation thereof, the direction of view being at right angles to the direction of view in Fig. 1. Fig. 3 is a section on line 3 3 of Fig. 1. Fig. 4 is a section on line 4 4 of Fig. 1.

In the drawings, A is a door or analogous movable object. Mounted upon the door is a yoke or guide B. This yoke is shown as consisting of a fastening-plate b, which is secured to the door by suitable fasteners c, side bars b'  $b^2$ , which are offset and slotted at  $b^3$  and are united at their ends by slotted crossbars  $b^4$ .

Working in the slotted offsets of the yoke are standards d d', which are united at their upper ends by a bow-yoke  $d^2$  and near their 35 lower ends by a pivot  $d^3$ , which carries an operating-wheel  $d^4$ , adapted to run on the floor and provided with a toothed track  $d^5$ . A sounding device e is supported by a stud e'from the bow-yoke  $d^2$ . The standard d' sup-40 ports a pivot f, which carries a pinion f', which meshes with the track  $d^5$  on the operatingwheel and carries a hammer  $f^2$ . The manner of mounting this hammer is shown clearly in Figs. 1, 3, and 4, whence it will be observed 45 that the pinion f' carries a disk  $f^3$ , from which project pins  $f^4$ , which extend through pinions  $f^5$  in the hammer  $f^2$  and are capped and connected by a bar  $f^6$ .

It will be observed that the apertures  $f^5$  are

much larger than the pins  $f^4$ , so that the ham- 50 mer  $f^2$  may have considerable lateral play, so that it may strike the sounding device e, the pins  $f^4$  being long enough to support the cap  $f^6$  at such a height as to leave the hammer  $f^2$  free to yibrate

free to vibrate.

The operation of my device will be as follows: The standards moving freely in the yoke, the periphery of the wheel  $d^4$  will, when the device is mounted as shown, rest upon the floor or other surface B. If now the door be 60 swung, the wheel  $d^4$  will roll along the floor, thereby rotating the pinion f', together with the plate or head  $f^3$ , revolving the hammer, which is vibrated by centrifugal force until the edges of the apertures  $f^5$  come against the 65 pins  $f^4$ , the hammer striking the sounding device e at the point g.

What I claim, and desire to secure by Let-

ters Patent, is—

1. In a door-alarm, the combination of an 70 operating-wheel carried by the door and resting upon the floor, a rotary hammer-carrying device operated by the wheel, a sounding device and a longitudinally-reciprocating hammer carried by the rotary hammer-carrying 75 device and adapted to strike the sounding device.

2. In a door-alarm, the combination of a slotted yoke carried by the door, standards working freely in the slotted yoke, a sounding so device carried by the standards and partaking of the movement thereof, an operating-wheel also carried by the standards and partaking of the movements thereof, the said operating-wheel resting upon the floor and being rotable ted by the movement of the door, a hammer for striking the sounding device and intermediate mechanism intervening between the operating-wheel and hammer, whereby the sounding device will be struck when the door 90 is moved and the operating-wheel rotated.

3. The combination in an alarm device of a slotted yoke carried by a door, vertically-moving standards working in the yoke and carrying a sounding device, a pinion carried 95 upon a standard, a reciprocating hammer carried and operated by the pinion, an operating-wheel resting on the floor and carried by the

standards, the said operating-wheel gearing with the pinion, substantially as described.

4. In an alarm device, the combination of a bell and hammer, a rotary hammer-supporting device, a slotted yoke carried upon a door, an operating-wheel gearing with the hammer-supporting device to rotate the said hammer-

supporting device and provided with supports cooperating with the slotted yoke, substantially as described.

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Witnesses:
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