No. 691,064. Patented Jan. 14, 1902.

J. O. LIPPINCOTT.

ALARM OR CALL BELL.

(Application filed Sept. 13, 1901.)

(No Model.)

Fig. 1.

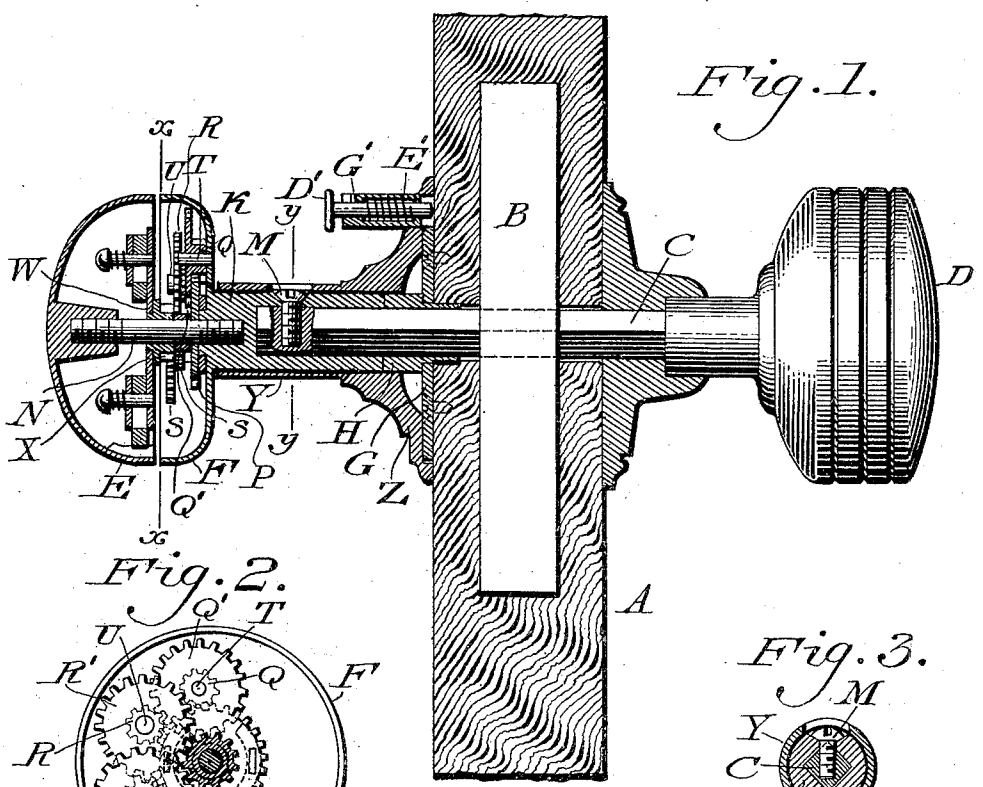


Fig. 2.

Fig. 3.

Fig. 5.

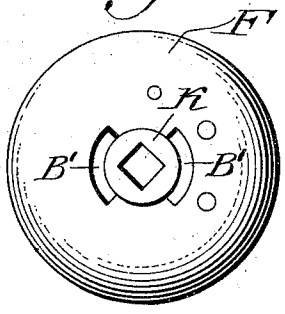


Fig. 4.

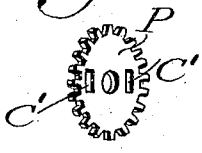


Fig. 6.

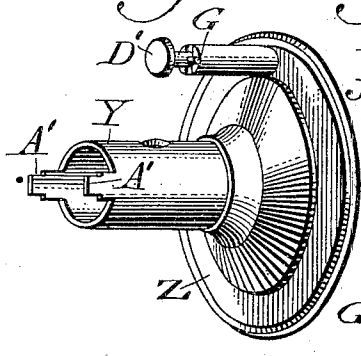
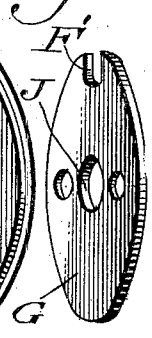


Fig. 7.



Witnesses

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JESSE O. LIPPINCOTT, OF PHILADELPHIA, PENNSYLVANIA.

ALARM OR CALL BELL.

SPECIFICATION forming part of Letters Patent No. 691,064, dated January 14, 1902.

Application filed September 13, 1901. Serial No. 75,255. (No model.)

To all whom it may concern:

Be it known that I, JESSE O. LIPPINCOTT, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Alarm or Call Bells, of which the following is a specification.

My invention consists of an improvement in alarm or call bells that are adapted to be operated by the turning of the knob operating a door-latch.

My invention further consists in details of construction, as will be hereinafter specifically described and claimed.

Figure 1 represents a sectional view of an alarm constructed in accordance with my invention. Fig. 2 represents a sectional view thereof, taken on the line *x x* of Fig. 1. Fig. 3 represents a section taken on the line *y y* of Fig. 1. Figs. 4, 5, 6, and 7 represent detail views of different portions of the device, which will be understood in connection with the following description.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings, A designates a portion of a door, and B a lock of ordinary construction, the latch of which is operated by the spindle C in the usual manner.

D designates the knob on the outside of the door, while the knob on the inside of the door consists of a bell E and the casing F of a familiar type of bicycle-bell. On the inside of the door is suitably secured a plate G, Fig. 7, through which the spindle C passes. A collar or washer H is provided with a reduced neck or end which enters the opening J in the plate G and within which said spindle can turn freely. The bell is mounted upon the outer end of the spindle by means of the stem K and into the ends of which the spindle C extends and is secured by a screw M in a familiar manner.

The casing F, forming part of the bell as a whole, is rigid with the outer end of the stem K, while projecting from the end of the stem is a pin or reduced portion of said stem N, upon the outer end of which the bell proper, E, is screwed, as shown in Fig. 1. The bell-sounding devices consist of a train of gears—namely, the gear P—mounted loosely upon the pin or reduced stem N, which intermeshes with the pinion Q, that is rigid with the gear-wheel Q′, the latter intermeshing with the pinion R, rigid with the gear R′, while the latter intermeshes with the pinion S, rigid with the gear S′. The gears Q′, R′, and S′ are mounted upon the studs T, U, and V, carried by the casing F, and the rotating bell-sounder (indicated as a whole by W) is mounted upon the pin or stem U and is provided with a pinion X, intermeshing with the gear S′. Surrounding the stem K is a sleeve Y, forming a post or support for the gear P, having an enlarged base Z, suitably recessed to inclose the plate G. The said sleeve is shown in detail in Fig. 6 and is provided at its outer end with fingers A′, that extend through the slots B′ in the casing F, said fingers entering openings C′ in the gear P and being suitably secured thereto.

Means are provided for holding the base Z and sleeve Y against rotation and for allowing it to rotate with the knob, a convenient means for securing this result being a spring-actuated detent D′, mounted in a socket E′, carried by the base Z, the spring-actuated detent being normally pressed inwardly toward the door to enter an opening F′ in the plate G, while by means of a pin G′, carried by the detent, the latter can be withdrawn from engagement with the opening F′ in a familiar manner.

The operation is as follows: When the parts are in the position shown in Fig. 1, when either of the knobs are turned the bell will be rung because the detent D′ prevents the base Z and sleeve Y from turning, and consequently when the spindle C is turned the train of gears Q′, R′, and S′, with their pinions, are rotated around the gear P, which is held against rotation by reason of the fact that it is secured to the end of the sleeve Y. This will cause the rapid rotation of the sounding device W and the ringing of the bell. When, however, the detent D′ is withdrawn from the opening F′ of the plate, the sleeve is free to rotate, and when the spindle is turned by either knob the said sleeve with its gear P rotate also, and consequently the bell is not sounded.

The uses to which this alarm and call bell can be put are of course obvious, although it might be well to mention the fact that it can

be placed upon the doors of flats, apartments, front doors of dwellings, and, in fact, upon any other place where it is desired to have an alarm or call bell, although it will be found especially useful as an alarm for protection against thieves, since the mere fact of turning the knob to find whether the door is locked will sound the alarm.

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

1. The combination with the spindle of a door-latch, of a bell secured to one end thereof and provided with a knob therefor, a sounding device connected with the train of gears mounted upon and carried by said bell, a support, said spindle and support being relatively rotatable, a gear rigidly mounted upon said support and intermeshing with said train of gears, and devices for preventing the rotation of said support, handle and the gear carried thereby, so that the sounding devices will be operated by turning the spindle.

2. The combination with the spindle of a door-latch, of a bell secured to one end thereof, a rotatable post or support mounted upon the door and upon said spindle, sounding devices mounted upon and connected with the train of gears, a gear rigid with said post or support and intermeshing with one of said train of gears, said spindle and post or support being relatively rotatable, and means for holding said post or support and the gear carried thereby against rotation.

3. The combination with a spindle of a door-latch, of a bell secured to one end thereof, sounding devices and gearing for operating the same carried by said bell, a gear intermeshing with said gearing, a sleeve surrounding said stem and carrying said gear, and means for preventing the rotation of said sleeve whereby when the sleeve is held against rotation the bell will be sounded upon the turning of the spindle.

4. The combination with a spindle of a door-latch, of a bell secured to one end thereof, sounding devices connected with a train of gears carried by said bell, a gear intermeshing with one of said train of gears, a post or support for said gear, and a detent carried by said post or support adapted to engage a stationary part and prevent the rotation thereof.

5. The combination with a spindle of a door-latch, of a bell secured to one end thereof and having a sounding device, a train of gears for operating the same, a gear intermeshing with one of said train of gears, openings through the casing of said bell, a sleeve rotatably mounted upon said spindle and having fingers extending through said openings in the casing, and upon which said gear is secured, and a spring-actuated detent carried by said sleeve, and adapted to engage a suitable socket upon the door.

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