

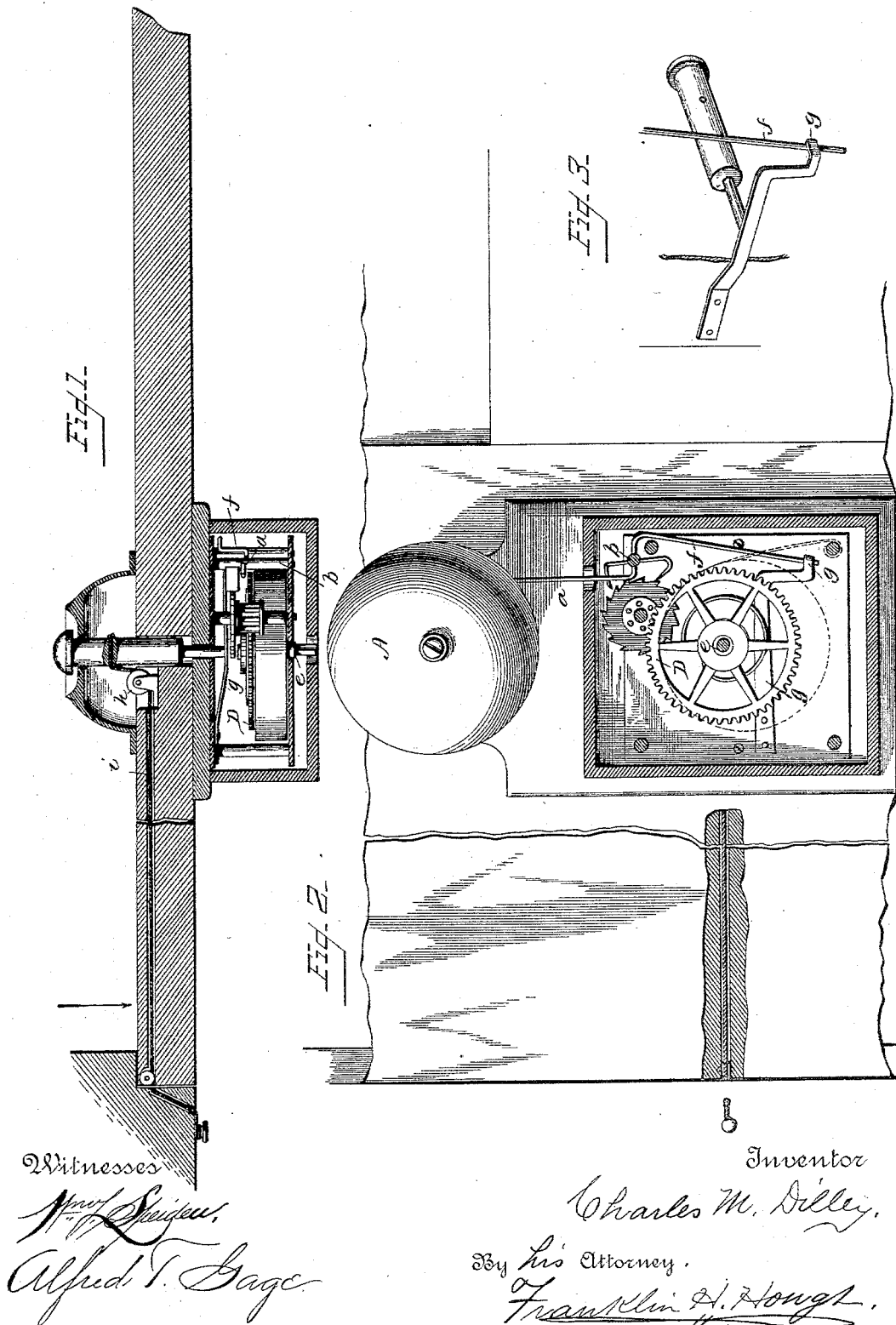
(No Model.)

C. M. DILLEY.

COMBINED DOOR BELL AND ALARM.

No. 381,539.

Patented Apr. 24, 1888.



UNITED STATES PATENT OFFICE.

CLARENCE M. DILLEY, OF JACKSON, MICHIGAN.

COMBINED DOOR-BELL AND ALARM.

SPECIFICATION forming part of Letters Patent No. 381,539, dated April 24, 1888.

Application filed March 26, 1887. Serial No. 232,534. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE M. DILLEY, a citizen of the United States, residing at Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in a Combined Door-Bell and Alarm; 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, reference being had to the accompanying drawings and letters of reference marked thereon, which form a part of this specification.

Like letters refer to the same parts throughout the several views.

In the drawings, Figure 1 is a horizontal section through a door, showing my improved signaling attachment and connections therewith. Fig. 2 is a section through the mechanism and the bell-handle, and Fig. 3 is a detail view.

My invention relates to signaling devices for use in all locations where such devices are necessary to call attention to the entrance of unauthorized persons, or where it is desirable to give notice of the entrance into the dwelling, money-drawer, or other place where the alarm is to be used.

The object of the invention is to provide a simple and efficient signaling mechanism which may be operated as an ordinary door-bell and also as an alarm, taking the place of the ordinary electric alarms in every particular without necessitating the expense incumbent upon such an alarm.

A further object of the invention is to so construct the device as to make it applicable to all situations where such alarms are desired.

The invention consists of an alarm in connection with suitable clock-work, with intermediate connection between said mechanism and a push-button, whereby the operation of said push-button will cause the alarm to sound.

The invention also consists of a suitable alarm operated by mechanical devices, with a push-button in connection therewith adapted to operate the same, and a supplemental operating device in connection said push-button and adapted to operate the said alarm.

To these ends, and to such others as the in-

vention may relate, the same consists in the devices and combination of devices hereinafter described, and shown in the drawings.

In the drawings I have represented my signaling device as used in connection with a door; but it will be understood that I do not limit myself to this particular use, as it is evident that it is adapted for use with equally good results as a signaling device for other parts of the house, or for use on money-drawers and every other location where such devices are necessary or desirable.

Referring to the details of the drawings, A represents the bell, and *a* the hammer, which is carried upon the rocking shaft *b*, carrying upon one side a barrel which is in engagement with a spring-actuated gear-wheel, D, carried upon a main or central shaft, E. From the rocking shaft *b* an arm, *f*, extends downward, being bent so as to bring it into proper position, the lower end bearing against a detent on a spring arm, *g*, which is secured at one end to one of the plates of the frame of the clock-work mechanism. The yoke of the rock-shaft bears alternately at one end or the other on the teeth of the spur-gear, and in its normal position is held stationary by reason of the detent bearing against the lower end of the arm *f*, which, thus being held, prevents the passage of the teeth of the spur-gear wheel past the points of the yoke. The spring-plates *g* must be capable of being removed from the path of the arm *f*, so as to permit the sounding of the bell.

An opening is made through the frame of the door or other place to which the alarm is attached, in line with the spring-plate, and in this opening the end of a push button or knob is inserted in proximity to the said plate. This push-button may be of ordinary construction and surrounded with a supporting and guiding casting, or arranged in any desired way.

When it is desired to operate the gong, it is only necessary to push in the button, which action will lift the spring-plate *g* free from the path of the arm *f*, which arm, by reason of the spring-pressure exerted through the train of gearing upon the teeth of the yoke, will be thrown inward or outward, as the case may be, and the spur-gear, being thus freed from the retaining-points of the yoke, will be rapidly re-

volved, and in its revolution, its teeth striking alternately first one point and then the other, will rock the shaft to which the bell-hammer is secured, and in this manner cause the hammer to strike the bell in a succession of blows. It is also desirable, when such alarms are used upon doors of dwellings, or in situations where notice is desired of the entrance of unauthorized persons, to provide means which will, upon opening the door, window, or money drawer, instantly sound the alarm automatically. I have shown in Fig. 1 a means for attaining this object as applied to a door. In this figure, alongside of the opening in the door through which the push-button passes I arrange a pulley, *h*, supported suitably, over which passes a wire or cord, *i*, which is in connection with the push-button at some suitable point in front of the point where it passes over the roller. This wire then passes through an opening in the door over suitable pulleys, (or it may extend across the back of the door.) It then passes through an opening in the frame, and a suitable loop is provided at this end, which may be hooked over a pin or other support. The wire may be divided and a coupling provided at any convenient point in its length, so as to disconnect it during the day or when this precaution is not needed.

It will be seen that should the door be opened while this connection is in place a direct pull will be given to the button, which will be equivalent to a push, and the alarm would instantly be sounded. This same arrangement or slight modification of it can be arranged to connect different rooms, the connecting-wires simply passing over a pulley before its connection with the push-button, which would thus transmit the action of a push to sound the bell.

A suitable key is provided for rewinding the spring after it has run down. A neat case may surround the working parts, and when in place there is nothing to distinguish it from the expensive electric bells now in use.

Having thus described my invention and set forth its merits, what I claim to be new, and desire to secure by Letters Patent, is—

1. In a signaling device, the combination, with the bell, the hammer, and the clock-work

mechanism, of an arm, a spring-plate having a suitable stop at its free end to engage with and hold said arm in its normal position, a push-button arranged at right angles to said arm and operating directly thereon, and a cord connected with said push-button and passing over suitable pulleys or guides, serves as an auxiliary means of operating the push-button, substantially as and for the purpose described.

2. A signaling device consisting of a bell, a hammer mounted on a rocking shaft, clock-work mechanism in connection with the shaft, an arm, also connected with the rocking shaft, and a spring-plate having a stop on its free end to engage with and to limit the movement of said arm, and a push-button arranged at right angles to and adapted to operate the spring-plate, substantially as described.

3. In a device for the purpose described, a bell, clock-work mechanism, a hammer, an arm connected therewith, and a push-button engaging with a spring-plate, which is secured at one end, its free end having a suitable stop to engage with and limit the movement of said arm, and arranged at right angles to the push-button, and a cord secured at one end to said push-button and passing over suitable guides or pulleys and connected with some movable part of the building, as a door or window, to serve as an auxiliary or supplemental alarm mechanism, substantially as and for the purpose described.

4. In a signaling apparatus, a bell, a hammer, clock-work mechanism for operating the same, an arm in connection with the hammer through a rocking shaft, a spring-plate having a stop on its free end to engage with and to limit the movement of said arm, and thus prevent the bell from sounding, a push-button arranged at right angles to and adapted to operate the said plate, and an auxiliary alarm-cord, *i*, connected with said push-button and extending over suitable guides or pulleys, as a door or window frame, substantially as described.

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

CLARENCE M. DILLEY.

Witnesses:

WILLIAM DILLEY,
HORACE HUNT.