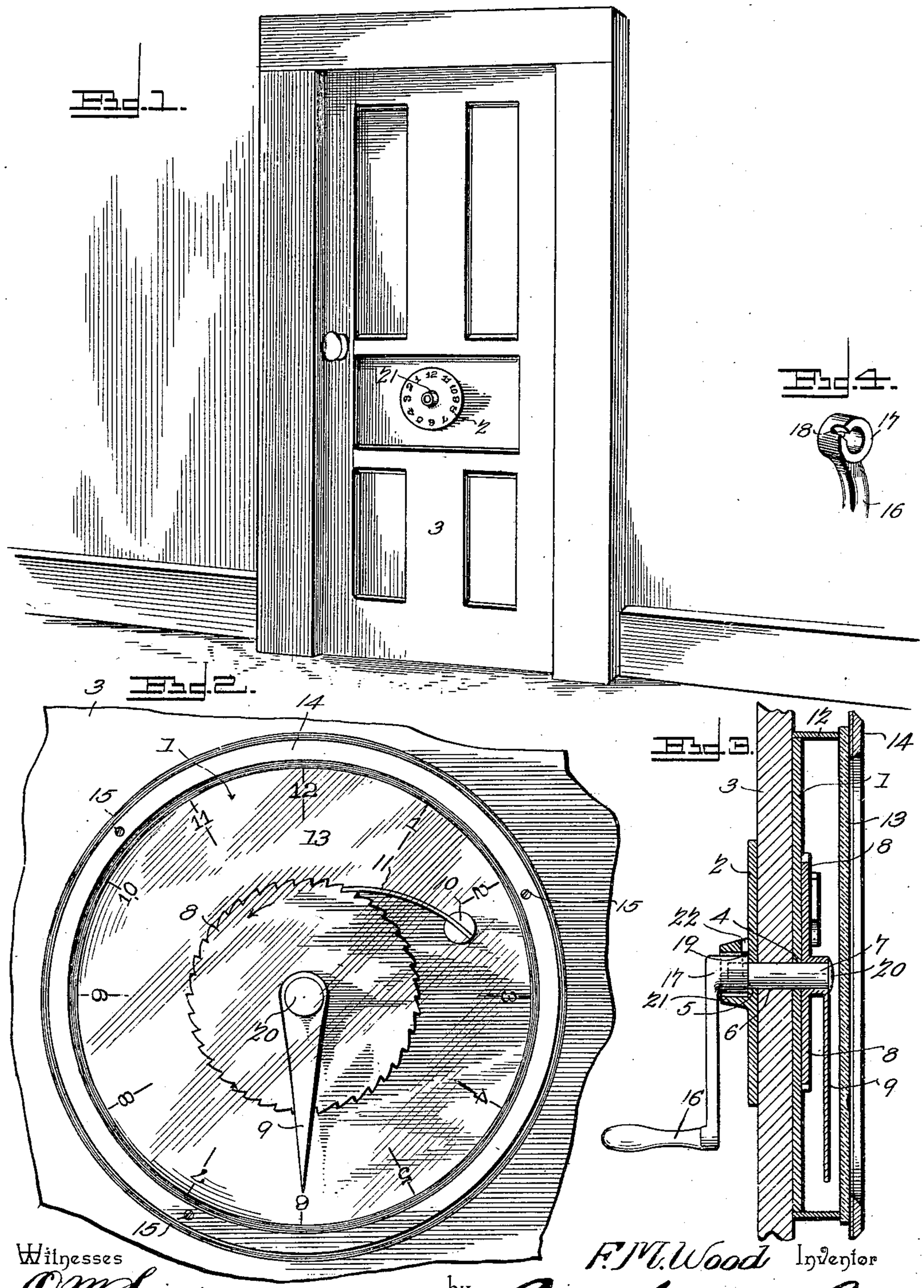
No. 680,515. Patented Aug. 13, 1901.

F. M. WOOD.

CALL SIGNAL.

(Application filed Apr. 18, 1901.)

(No Model.)



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UNITED STATES PATENT OFFICE.

FRANK MARIAN WOOD, OF CHICAGO, ILLINOIS.

CALL-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 680,515, dated August 13, 1901.

Application filed April 18, 1901. Serial No. 56,511. (No model.)

To all whom it may concern:

Be it known that I, FRANK MARIAN WOOD, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Call-Signal, of which the following is a specification.

This invention relates to signals, and has for its object to provide improved means for awakening a sleeper at a predetermined hour without requiring that the operator or attendant enter the room occupied by the sleeper. It is furthermore designed to provide a device of this character which is especially adapted for use in hotels and the like, so that a guest may be conveniently awakened by a bell-boy at any predetermined hour, and, finally, to arrange for the operation of the device only by a key especially prepared therefor and normally deposited at the office of the hotel, so as to obviate unauthorized operation of the device.

A further object resides in providing for indicating to the person called the hour at which the call has been made and also to register such hour for the purpose of placing a check upon the bell-boy, and thereby insuring prompt and careful attention to the signal.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a perspective view illustrating the application of the present device to a door. Fig. 2 is an enlarged detail face view of the inner side of the device. Fig. 3 is a longitudinal sectional view thereof. Fig. 4 is a detail perspective view of the removable operating handle or key.

In carrying out the invention there are provided an inner and an outer dial 1 and 2, which are secured to the corresponding sides of a door, which has been indicated at 3. The inner dial has the numerals arranged thereon as on the dial of a clock, while the outer plate is provided with a reversely-arranged series of numerals for a purpose as will hereinafter appear. The dials are provided with corresponding central circular openings 4 and 5, and the door is also provided with an intermediate corresponding opening 6, which openings are for the rotatable reception of a shaft or spindle 7, whereby the device is operated. The ends of the spindle project at opposite sides of the door, and its inner end is provided with a fixed ratchet or buzzer disk 8, and upon the outer side of this disk there is provided a radial pointer or index 9, the outer end of which is designed to coöperate with the numerals of the inner dial to indicate at what time the signal was operated. A stud or projection 10 is carried by the outer side of the inner dial and outwardly from the marginal edge of the ratchet-disk, there being a spring-pawl 11 connected thereto, with its free end in frictional engagement with the toothed periphery of the disk, thereby forming a spring buzzer-finger to produce a whirring or buzzing noise when the spindle is rotated.

For the protection of the parts on the inner side of the door there is provided a casing in the form of a band or ring 12, that snugly embraces the marginal edge of the inner dial or plate and projects outwardly beyond the plane of the inner end of the spindle and the index-finger 9. A glass plate 13 is applied flat against the outer marginal edge of the casing, and a marginal retaining flange or ring 14 is applied to the outer side of the glass plate, with its outer edge projected beyond the glass and the casing for the reception of the fastenings 15, that are set through the projected edge of the ring and into the door at the outer side of the casing, thereby securing the latter to the door.

To operate the device, there is provided a removable key or handle 16, as shown in the drawings, in the form of a crank, having a terminal eye 17 to be removably fitted to the projected outer end of the spindle, there being a radial notch or seat 18 in the inner end of the eye or sleeve and communicating with the interior thereof for the reception of a radial projection or stud 19, carried by the projected end of the spindle, whereby an interlocked connection is had between the handle and the spindle for rotation of the latter by

operation of the former. The projection is in the form of a pin applied to the spindle after the latter has been thrust through the door from the outer side thereof, the inner end of the spindle having an enlarged head 20 to retain the same in place. The pin or projection 19 bears against the outer plate or dial, and thereby forms a stop to prevent inward endwise movement of the spindle.

In explanation of the operation of the device it will be understood that the guest indicates at the office that he desires to be called at a predetermined hour, and at such hour the bell-boy takes the handle or key from the office and applies said handle to the projected end of the rotatable spindle for the purpose of quickly rotating the same, whereby the ratchet-disk rotates against the spring-pawl and produces an audible signal sufficient to awaken the guest if asleep and in any event to call his attention to the inner dial. The attendant stops the rotation of the spindle with the handle or key opposite the ordinal upon the outer dial corresponding to the hour at which the call is to be made, and the index-finger 9 upon the inner side of the door is arranged to also stop at the corresponding ordinal upon the inner dial, thereby indicating to the guest at what time the call has been made. After the operation of the device the handle or key is removed and returned to the office, whereby unauthorized operation of the device is obviated. It will here be observed that both dials indicate at what time the call is made, as the projection 19 forms an index either to point to the hour of the call or to the opposite numeral.

In order that the outer end of the spindle may be housed against access except by the key expressly prepared therefor, the outer dial is provided with a tubular boss or marginal cylindrical flange 21, encircling the opening in the dial and projected outwardly beyond the outer end of the spindle and adapted to receive the eye portion 17 of the operating-key. This boss or flange is provided with a radial perforation 22 to permit of the pin 19 being passed therethrough and into the spindle, and the socket formed by the boss or flange being of a diameter to accommodate the projection 19 during the operation of the key.

What is claimed is—

1. A call-signal, comprising an inner dial, an outer reversely-arranged dial, a rotatable spindle projected centrally through the dials, a toothed buzzer-disk carried by and movable with the inner end of the spindle, an elastically-yieldable buzzer device loosely mounted upon the inner dial with its free portion in frictional engagement with the toothed portion of the buzzer-disk, a pointer or index carried by the inner end of the spindle and in coöperative relation to the inner dial, and an operating device constructed for application to the outer end of the spindle.

2. A call-signal for rooms, comprising a time-dial for the interior of the room, a reversely-arranged time-dial for the outer side of the room, a rotatable spindle projected centrally through the dials, a peripherally-toothed buzzer-disk carried by and movable with the inner end of the spindle, a spring buzzer device having one end carried by the inner dial with its opposite free end in frictional engagement with the toothed periphery of the buzzer-disk, a pointer or index carried by the inner end of the spindle and in coöperative relation to the inner dial, and removable operating means constructed for application to the outer end of the spindle and for coöperation with the outer dial, there being a fixed relation between the pointer or index and the operating means when the latter is applied to the spindle.

3. A call-signal, comprising opposite dials having corresponding central openings, the outer dial having a marginal flange surrounding the central opening thereof and upon the outer side, a rotatable spindle projected through the openings of the dials, and having a lateral projection upon its outer end and within the flange upon the outer dial, a peripherally-toothed buzzer-disk fixed to the inner end portion of the spindle and at the outer side of the inner dial, a spring buzzer-finger having one end carried by the inner dial and its free end in frictional engagement with the toothed periphery of the buzzer-disk, a radial pointer or index carried by the inner end of the spindle and in coöperative relation to the inner dial, and an operating crank-handle having a socket for the detachable reception of the outer end of the spindle, said socket having a lateral notch for the reception of the projection on the spindle, the projection and the pointer having a predetermined relation.

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

FRANK MARIAN WOOD.

Witnesses:
GEO. R. MITCHELL,
ELIZABETH R. KING.