(No Model.)

H. TATE.

INDICATOR FOR WATER CLOSETS AND BATH ROOMS.

No. 438,505. Patented Oct. 14, 1890.

Fig. 1.

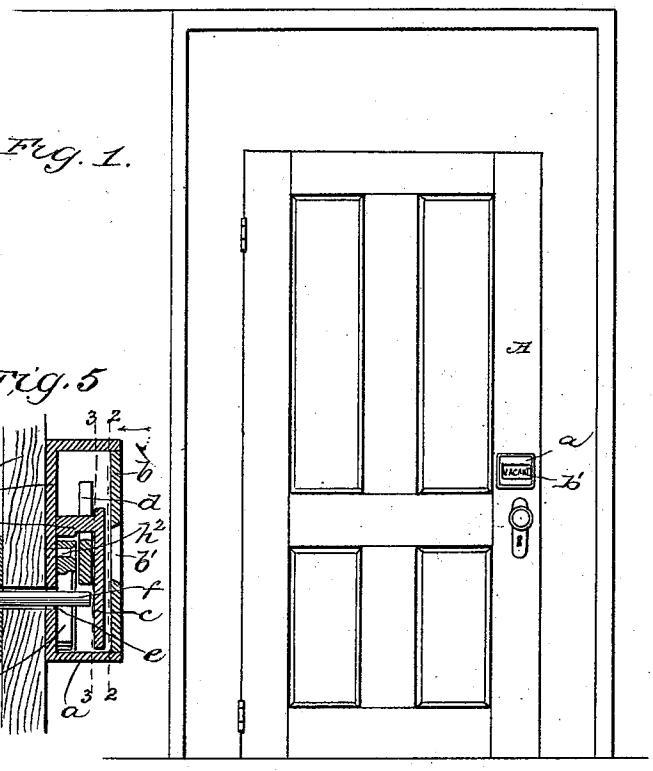


Fig. 5.

Fig. 2.

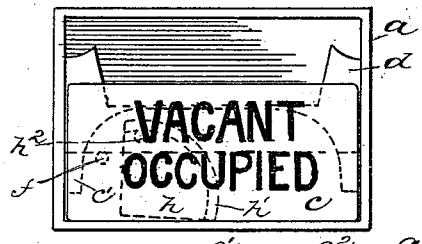
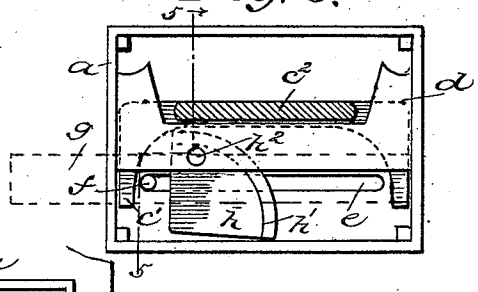


Fig. 3.



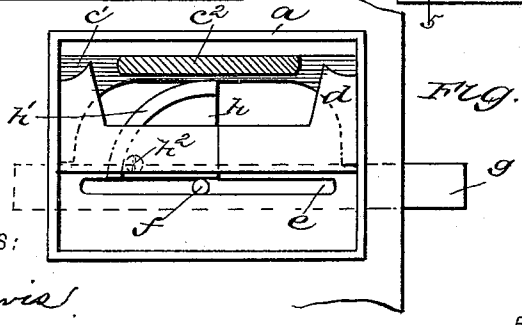


Fig. 4.

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HENRY TATE, OF VERPLANCK, NEW YORK.

INDICATOR FOR WATER-CLOSETS AND BATH-ROOMS.

SPECIFICATION forming part of Letters Patent No. 438,505, dated October 14, 1890.

Application filed March 11, 1890. Serial No. 343,505. (No model.)

To all whom it may concern:

Be it known that I, HENRY TATE, of Verplanck, in the county of Westchester and State of New York, have invented a new and useful Indicator for Water-Closets and Bath-Rooms, of which the following is a full, clear, and exact description.

My invention relates to an improved device for indicating when a water-closet or bath-room is occupied or vacant; and it consists in the construction and combination of parts, as is hereinafter described, and indicated in the claim.

Reference is to be made to the accompanying drawings, forming a portion of this specification, in which similar letters of reference indicate corresponding parts in all of the figures.

Figure 1 represents a side elevation of a door with the device in position thereon. Fig. 2 is an enlarged front elevation of the device with the front plate removed on the line 2 2 in Fig. 5. Fig. 3 is a front elevation in section of the indicator, taken on the line 3 3 in Fig. 5, showing the relative position of parts when the door on which the device is secured is unbolted and the indicator set to notify that the room is vacant. Fig. 4 shows a front elevation, in section, taken on the line 3 3 in Fig. 5, with the parts adjusted to indicate that the door is locked or bolted and the room occupied. Fig. 5 is a cross-section of the indicator in position upon the door, taken on the line 5 5 in Fig. 3, the parts being adjusted to indicate that the door is unbolted and the room vacant.

A rectangular casing *a* is provided of suitable dimensions to receive the operating parts of the device, the casing being in the form of a shallow box with a removable front plate *b*, (see Fig. 5,) in which an elongated slot *b'* is cut at a proper distance from the lower edge to expose appropriate legends that are placed upon a movable piece *c* behind the same. The piece *c* is constructed with a vertical plate on which the indicating words "Vacant" and "Occupied" are affixed or imprinted in parallel lines; preferably the word "Occupied," or one of similar significance, is placed on the lower line and the word "Vacant" above it.

A guide-piece *c'* is integrally connected to the plate *c* by a web c^2. The latter being projected inwardly from the upper edge of the plate *c* engages the top edge portion of the guide-piece and retains it parallel to the front plate, leaving a space between these flat pieces of suitable width to receive the bracket-plate *d*, on which the plate *c* may slide vertically. The bracket-plate *d* extends across the casing *a* and is affixed by any preferred means to the side walls of the same removably, its position being such with relation to the plate *c* and its attached guide-plate *c'* that the web c^2, which connects these parts, will rest on the upper edge of the bracket-plate, when by action of gravity the plate *c* and its attachments slide downwardly so as to expose the upper legend "Vacant" through the slot *b'*, the guide-piece *c'* being of a proper length to loosely engage its parallel side edges with the adjacent side walls of the casing *a* and thus cause the plate *c* to move in parallel planes.

A longitudinal slot *e* is made in the back plate *a'* of the casing *a*, which extends a suitable length for reciprocal movement of the pin *f*, that projects through a similar slot in a door to which the casing *a* is secured, said slots being properly aligned. The pin *f* is projected from the body of the slide-bolt *g*, to which it is secured, said bolt and its supports being placed upon the inside surface of the door A, whereon the casing *a* of the indicator is attached oppositely.

Within the casing *a* a rocking cam-plate *h* is pivoted to swing loosely from its point of suspension on the back plate *a'* of the casing, said cam-plate being a flat plate having a curved edge *h'* and two straight sides, which, as represented, produce a right angle at their intersection. This is not essential, however, as the cam-plate will operate if it has one edge straight and a right angle is not produced. At one corner, where a straight side of the cam-plate joins the curved edge *h'*, a perforation is made in the plate for the introduction of a supporting-pivot h^2, whereon the plate *h* may rock.

It will be noticed in Figs. 2 and 3 that when the pin *f* is at one end of the slot *e* and the pendent cam-plate has one of its straight edges nearly vertical and adjacent to the pin, the curved edge *h'* will be so located that the web c^2 will be free to rest on the upper edge

of the bracket-plate *d* and permit the word "Vacant" to appear before the slot in the front plate *b*.

The pin *f* should be so located on the locking slide-bolt *g* that when said bolt is moved to unlock the door on which it is placed the parts of the indicator mechanism will be adjusted as has been described.

When the bolt *g* is slid in its keepers to retain a door closed, the pin *f* will strike against the upright edge of the rocking cam-plate *h* and cause the curved edge *h'* to rise and impinge against the lower surface of the web c^2, which will cause the plate *c* to slide upwardly and expose the word "Occupied" to view, a reversal of movement to unbolt the door allowing the parts to resume their first position by the action of gravity.

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

The combination, with a slide-bolt on a door, having a pin *f*, projecting from the side of said bolt through a horizontal slot in the door, a rectangular casing secured oppositely on the door, having a slot *e* in its back plate to receive the pin *f* loosely, and a slot in its front plate to expose a legend on a vertically-movable plate, of a plate *c*, having two parallel legends formed horizontally on one face and adapted to receive the impinge of a cam-plate at its upper edge, and a quadrantal cam-plate pivoted at one of its corners to the casing above the slot *e*, so as to receive the impinge of the pin *f* on its depending portion and be rocked upwardly, thereby elevating the legend-plate *c* when the slide-bolt *g* is moved endwise to lock the door, substantially as set forth.

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Witnesses:
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E. M. CLARK.