

(No Model.)

J. D. VAIL.

INDICATOR FOR CLOSET AND OTHER DOORS.

No. 345,339.

Patented July 13, 1886.

FIG. 1.

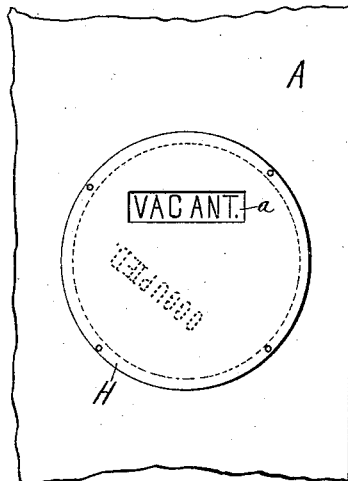


FIG. 2.

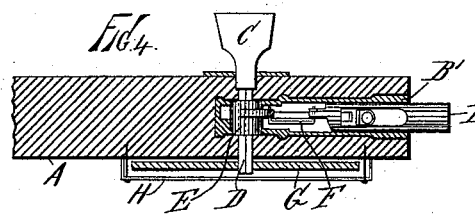
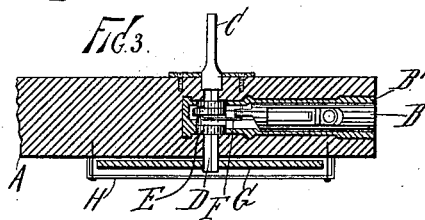
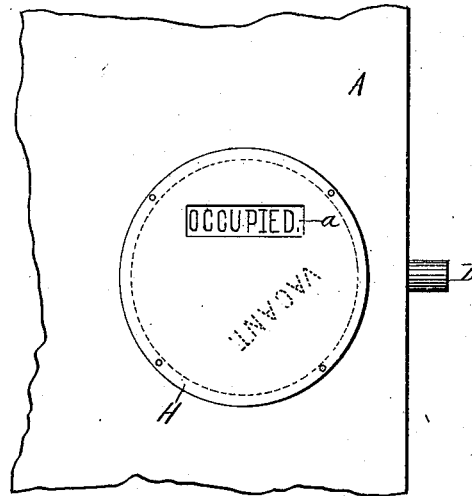
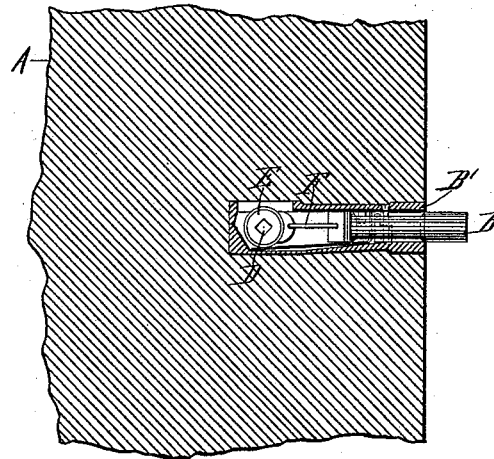


FIG. 5.



Witnesses:

John Mueller,

L. H. Osgood

John D. Vail,

Inventor.

By North Osgood,
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UNITED STATES PATENT OFFICE.

JOHN D. VAIL, OF BLAIRSTOWN, NEW JERSEY.

INDICATOR FOR CLOSET AND OTHER DOORS.

SPECIFICATION forming part of Letters Patent No. 345,339, dated July 13, 1886.

Application filed April 27, 1885. Serial No. 163,550. (No model.)

To all whom it may concern:

Be it known that I, JOHN D. VAIL, of Blairstown, county of Warren, and State of New Jersey, have invented certain new and useful Improvements in Indicators for Closet and other Doors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention has special relation to that class of indicators usually applied upon closet and other doors for the purpose of automatically displaying any sign or indication that the apartment is vacant or occupied; but obviously my improvements might be employed in connection with other indicators of an analogous character.

The object of my invention is to provide a simple, cheap, and effective appliance of the class named which may be readily mounted upon any door, and which is compact, simple, and not liable to damage or disarrangement.

To accomplish all of this, my invention consists in the production of a novel and useful device having certain peculiarities of construction or relative arrangements of parts, which will be herein first fully described, and then pointed out in the claim.

In the accompanying drawings, forming part of this specification, Figure 1 is a front elevation showing my improved indicator mounted in place for use, the door-bolt being withdrawn from its locking position and the word "Vacant" exposed to view; and Fig. 2 is a similar view showing the door-bolt turned into its locking position and the word "Occupied" exposed to view. Fig. 3 is a horizontal section through the center of the indicator shown in Fig. 1, some of the working parts of the bolt mechanism being represented in plan; and Fig. 4 is a similar view of the indicator shown in Fig. 2. Fig. 5 is a vertical section and partial elevation, showing the construction of the bolt-operating mechanism.

In all these figures like letters of reference, wherever they occur, indicate corresponding parts.

A represents a fragment of any door upon which it may be desired to mount the indicator.

B is the bolt by which the door is secured.

This bolt is mounted in a suitable casing, B', which enters an opening or slot provided for it in the door. At right angles to the bolt is the operating thumb-piece C, having an angular shank, D, passing through the block E, which block is journaled in casing B', and is connected with the locking-bolt by a suitable connecting-piece, F, and the whole arranged so that whenever the thumb-piece is partially rotated the locking-bolt is compelled to move out or in, as will be readily understood. The angular shank D is made long enough to pass through the material of the door, and to project through the side opposite the thumb-piece or to the outside of the door. Upon the projecting end of this shank I mount a thin circular indicator-plate, G, of wood, metal, paper, or other suitable material, and secure it in place so that it will always move with the shank and close to the face of the door. Over the indicator-plate I mount a thin cover, H, and secure it in place upon the door by screws or pins. The cover is provided with a horizontal slot or opening, (represented at *a*, Figs. 1 and 2.) Upon the indicator-plate are the words or signs "Vacant" and "Occupied," or other words or signs, the first being so disposed that when the lock-bolt is turned back by use of the thumb-piece it (the word) will appear opposite the opening *a*, and can be seen through, while the second word remains concealed beneath the cover, and when the plate is turned by turning the thumb-piece and shank in such direction as to throw the bolt out or into its locking position the word "Occupied" is brought to view, while the word "Vacant" remains concealed.

The general operation and uses of the device so far referred to will be readily understood. The bolt is applied to the door in the usual manner, the disk or indicator-plate affixed to the shank, and the cover secured in place. The proper location of the signs will depend upon the position of the shank when the bolt is in or out. The disk or plate can be easily marked through the aperture when the bolt is drawn in, and also when it is thrust out, and thus the signs accurately located by any method, so as to be properly and fully displayed at the times and under the circumstances required. The plate

and cover project but a trifle beyond the face of the door, and are not liable to damage, the stationary cover always affording protection to the movable plate beneath it.

5 The device may be easily and quickly mounted, and will be found to answer the purpose or object of the invention, as previously set forth.

So far as the door-locking mechanism is concerned no extra piece or part is employed.

10 The door is locked from the interior, and the signs displayed upon the exterior.

I am aware that in ordinary locks and lock-bolts journaled blocks are commonly employed in connection with the locking-bolt.

15 In the United States Patent No. 24,051, May 17, 1859, the index or pointer is exposed or unprotected, and the plate or dial is affixed to the door; and in the United States Patent No. 182,208, September 12, 1876, the indicator is

20 not mounted upon the end of the shank, but connected by intervening mechanism. I do not desire to be understood as making any claim herein to the devices shown in the said

patents, nor yet to the journal-blocks independently of other features.

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

The herein-described indicator for doors, composed of the locking-bolt mounted in the 30 bolt-casing, the journaled block connected with said bolt, the projecting angular shank extending through the door and block, the thumb-piece applied upon one end of the shank, the flat circular indicator-plate secured 35 upon the other end of said shank and movable beneath the protecting cover, and the stationary slotted cover secured upon the door over the movable indicator-plate, combined and arranged substantially as shown and de- 40 scribed.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

JNO. D. VAIL.

Witnesses:

ROBT. S. STOLL,
S. MCCONACHY.