

B. REVOIR.
DOOR KNOB ATTACHMENT.
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922,041.

Patented May 18, 1909.

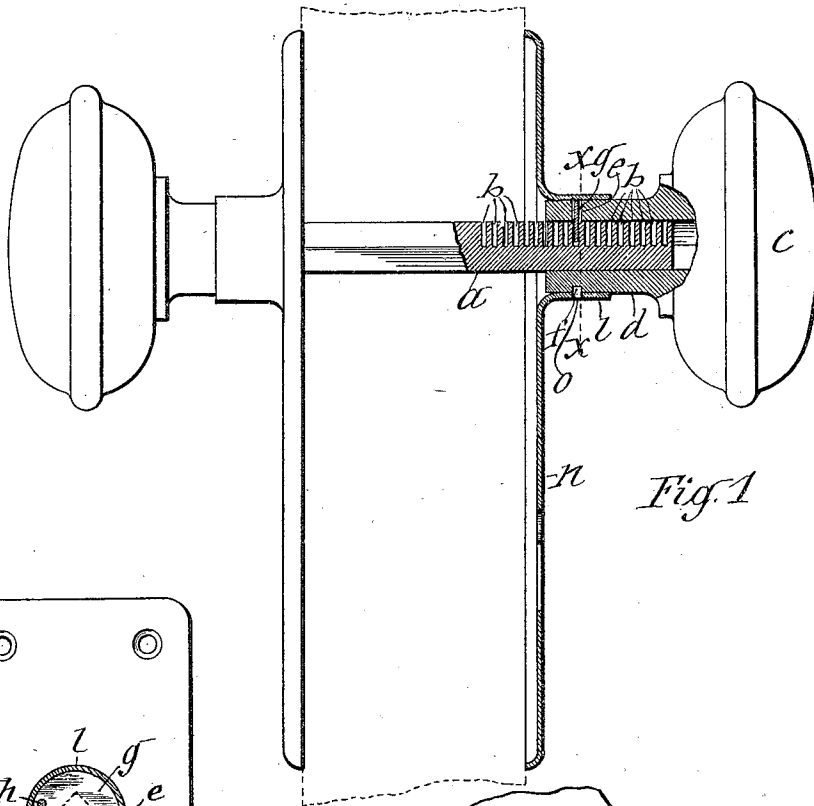


Fig. 1

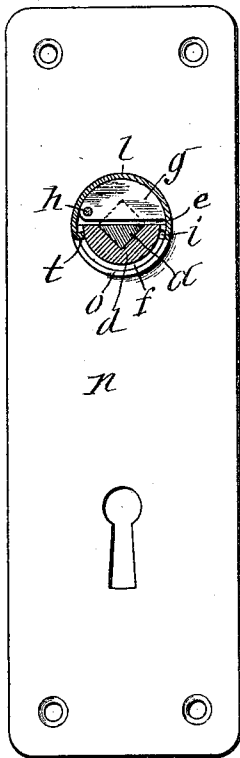


Fig. 2

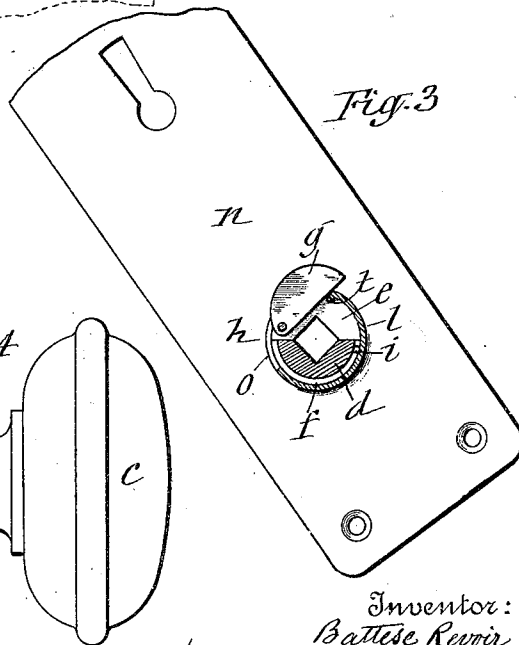


Fig. 3

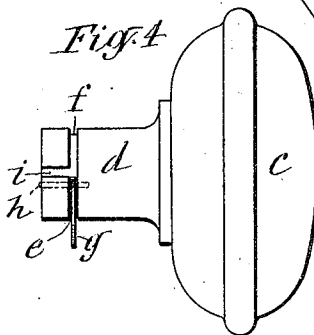


Fig. 4

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UNITED STATES PATENT OFFICE.

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DOOR-KNOB ATTACHMENT.

No. 922,041.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, BATTESE REVOIR, a citizen of the United States, and resident of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Door-Knob Attachments, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The object of this invention is to provide simple, convenient, and efficient means for attaching the knob to the spindle of the lock.

To that end the invention consists in the novel construction and combination of the component parts of the knob-attachment hereinafter described and claimed.

In the accompanying drawings Figure 1 is a side view, partly in section, showing the knob attached to the spindle in accordance with my invention; Fig. 2 is a transverse section on the line $-X-X-$ in Fig. 1; Fig. 3 is a transverse section showing the escutcheon-plate turned to a position in which its slotted sleeve is caused to lift the fastening-plate so as to permit the spindle to be inserted into the knob-shank; and, Fig. 4 is a detail side view of a knob showing the grooves in its shank.

$-a-$ represents the spindle which is provided in its top with a plurality of notches $-b-b-$ distributed lengthwise of the spindle and at short intervals to permit close adjustment of the knob to doors of varying thicknesses.

$-c-$ denotes the knob provided with the attaching shank $-d-$ which is provided with a transverse slot $-e-$ in its top and with a circumferential groove $-f-$ meeting the ends of the slot $-e-$. A longitudinal groove $-i-$ extends from the groove $-f-$ to the end of the shank for the purpose hereinafter explained. In the slot $-e-$ is the knob-fastener $-g-$ consisting preferably of a steel plate of semicircular or segmental shape permanently pivoted at one end to the knob-shank as shown at $-h-$. Said attaching-plate is of a thickness which allows it to enter into one of the notches $-b-$ of the spindle and is preferably beveled at its diametric edge to more easily enter into the notch $-b-$.

$-l-$ is a sleeve which is rigidly attached to or integral with the escutcheon $-n-$ and projects outward therefrom and loosely embraces the knob-shank $-d-$. Said sleeve is

provided with a transverse slot $-o-$ of a suitable size to form a passage for the protrusion of the free end of the fastening-plate $-g-$ when the latter is thrown out of engagement with the spindle as represented in Fig. 3 of the drawings. The sleeve $-l-$ is provided with an inwardly projecting tooth $-t-$ for engaging the free end of the fastening-plate $-g-$ so as to cause said plate to be thrown out of engagement with the spindle by the turning of the sleeve $-l-$ on the knob-shank as shown in Fig. 3 of the drawings.

The method of attaching the knob to the spindle is as follows: Before fastening the escutcheon $-n-$ to the door, the shank $-d-$ of the knob $-c-$ is inserted into the sleeve $-l-$ in which operation the shank $-d-$ is guided by the tooth $-t-$ of the sleeve $-l-$ passing through the longitudinal groove $-i-$ in the knob-shank. Said movement carries the tooth to the circumferential groove $-f-$. The fastening-plate $-g-$ having in the meantime been disposed in the knob-shank so as to be flush with the exterior thereof. Then, by turning the escutcheon into the position shown in Fig. 3 of the drawings, the tooth $-t-$ traveling in the circumferential groove $-f-$, and passing under the diametric edge of the fastening-plate $-g-$, pushes said plate outward sufficiently to allow the spindle to be inserted into the knob-shank, and the escutcheon $-n-$ to be placed on the face of the door, while the knob on the opposite end of the spindle is held close to the door. Then, by turning the escutcheon $-n-$ to its proper position on the door, as shown in Fig. 2 of the drawings, the tooth $-t-$ is caused to release the fastening-plate $-g-$ and allow it to enter into the notch $-b-$ of the spindle, into which said plate is pushed by the sleeve $-l-$ passing over the exterior of the plate, the diametric edge of which is thus interlocked with the spindle and retained in said position by the sleeve $-l-$.

It will be observed that in my herein-described knob-attachment the fastening-plate $-g-$ is permanently secured to the knob-shank and always ready and in convenient position for attaching the knob to the spindle.

What I claim as my invention is:—

1. In combination with the spindle provided with a plurality of notches, the knob-

shank provided with a transverse slot, a knob-fastening plate pivoted at one end to the knob-shank and movable in said slot to engage one of the notches, and a sleeve
5 loosely embracing the knob-shank and provided with a transverse slot for passage of the released fastening-plate, and an inwardly projecting tooth disposed to lift the plate out of engagement by the movement of the
10 sleeve.

2. In combination with the spindle provided with a plurality of notches, the knob-shank provided with a transverse slot, a circumferential groove meeting the ends of said
15 slot, and a longitudinal groove extending

through the end of the said shank, a knob-fastening plate pivoted at one end to the knob-shank and movable in the slot of said shank so as to engage the spindle, and a sleeve loosely embracing the knob-shank and
20 provided with a transverse slot for passage of the fastening-plate released from the spindle, and with an inwardly projecting tooth movable in the aforesaid grooves of the knob-shank as set forth.

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