(No Model.)

T. TAYLOR.

DOOR KNOB ATTACHMENT.

No. 301,303. Patented July 1, 1884.

Fig. 1

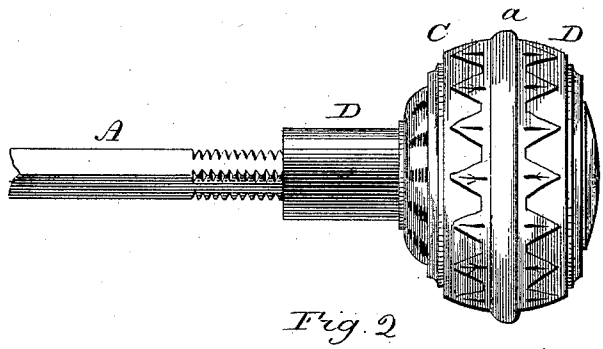


Fig. 2

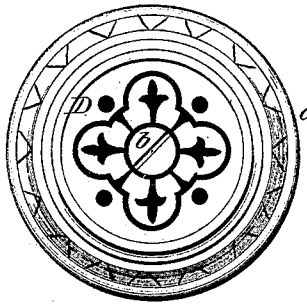


Fig. 4

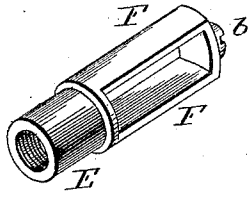
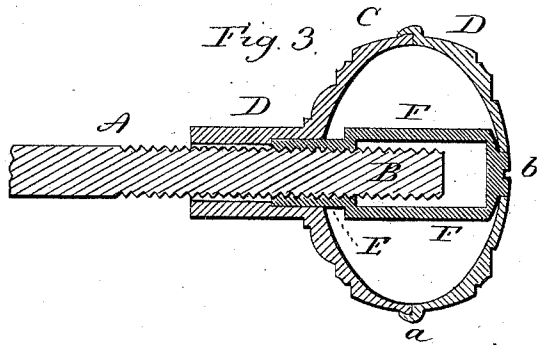


Fig. 3



Witnesses.
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Jos. C. Earle

Thomas Taylor Inventor
By Atty
Jno. C. Earle

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

THOMAS TAYLOR, OF SOUTH NORWALK, CONNECTICUT, ASSIGNOR TO THE NORWALK LOCK COMPANY, OF SAME PLACE.

DOOR-KNOB ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 301,303, dated July 1, 1884.

Application filed February 11, 1884. (No model.)

To all whom it may concern:

Be it known that I, THOMAS TAYLOR, of South Norwalk, in the county of Fairfield and State of Connecticut, have invented a new Improvement in Extension Door-Knobs; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, an outer end view of the knob; Fig. 3, a longitudinal central section; Fig. 4, a perspective view of the nut detached.

This invention relates to an improvement in door-knobs, with special reference to the connection of the spindle, whereby the knobs may be adjusted to different thicknesses of doors, and also that the usual knob-screw whereby the adjustable knob is secured to the spindle may be dispensed with, avoiding the annoyance experienced in this class of knobs in consequence of the knob-screw becoming detached; and the invention consists in the construction as hereinafter described, and more particularly recited in the claim.

A represents the knob-spindle, which is of the usual square or polygonal shape. One knob is fixed to one end in the usual manner. The other end, B, is screw-threaded, the thread being cut upon the angles. The knob is best made in two parts, C D, from cast metal, divided centrally and at right angles to the spindle. The part C is constructed with the usual neck, H, and as an integral part thereof, and which moves freely on the spindle, the opening in the neck corresponding to the angular shape of the spindle, and so that turning the knob necessarily turns the spindle. The two parts C D are united by an annular rib, *a*, around the edge of one part, to overlap and be struck down upon a corresponding annular projection on the other part, the part on which the rib is formed being constructed with an internal shoulder to abut against the edge of the other part, as seen in Fig. 3. The two parts may, however, be otherwise united.

E is the nut. Its outer surface is cylindrical and constructed to fit a corresponding cavity in the neck of the knob, which cavity forms a bearing upon which the nut E may turn, the axis of the nut being concentric with the axis of the spindle, and is internally screw-threaded, corresponding to the thread on the spindle A. From the nut an extension, F, is made in the form of a yoke, as seen in Fig. 4, across the interior of the knob. At its outer end this yoke is constructed with a stud, *b*, concentric with the axis of the nut and spindle, and in the center of the part D is a hole corresponding to the said stud *b*, and into which that stud sets, as shown in Fig. 3. The end of the stud is nicked to receive a screw-driver, or otherwise constructed to provide a means by which it may be rotated independent of the knob. This yoke and nut, taking a bearing in the neck of the spindle at one end, and the opposite end on the body of the knob, is prevented from axial or longitudinal movement, but is free for rotation.

To apply the knob the neck is passed over the nut until the nut comes against the end of the spindle. Then by the application of a screw-driver or other suitable device to the exposed end *b* the nut is turned to screw it onto the spindle, and which turning draws the knob with it until it arrives at the desired position. As the knob engages the spindle, so that by no possibility can it rotate independent of the spindle, it follows that the knob will be held in the position where the turning of the nut ceases, and cannot be moved therefrom without turning the nut independent of the knob, and because the knob cannot turn upon the spindle the turning of the knob has no tendency or effect to turn the nut in either direction; hence when the knob is properly adjusted it is securely held by that adjusting device.

If at any time it is desired to adjust the knob, it is only necessary to turn the nut in the direction to move the knob to the desired position; or if to remove the knob entirely from the spindle, turn the nut to unscrew it from the spindle, in which movement the knob is moved with the nut. By this construction the adjusting device is made a permanent part of the knob. There are no detached parts, no complicated mechanism for

adjusting, the construction is cheap, simple and easily understood, and no liability of loss of parts.

I do not claim, broadly, a door-knob having its neck constructed to fit the angular shape of the spindle, combined with a nut extending through the knob and arranged for rotation upon the axis of the knob, the nut and spindle correspondingly screw-threaded, as such, I am aware, is not new.

I am also aware that knobs have been made from sheet metal in two parts, united at their largest diameter in a plane at right angles to the axis of the knob by a lap or closed joint.

I claim—

A door-knob consisting of the two parts C D, constructed from cast metal, the one part, C, having the neck H cast as an integral part thereof, and constructed to slide freely upon the knob-spindle, and also with an internal seat concentric with the axis of the knob to receive the nut, the division between the two parts of the knob being at the largest diameter and in a plane at right angles to the axis, the one part constructed with a shoulder to abut against the other part, and one of the parts with a rib, *a*, overlapping and closed upon the other part, to unite said two parts, the said part D also constructed with a central opening to receive the outer end of the yoke, combined with the spindle screw-threaded upon its angles, the nut E within the knob, constructed with the yoke F, and the knob-nut resting in the seat in the part C of the knob, the outer end of the yoke extending through and taking bearing in the other part, D, of the knob, substantially as described.

THOMAS TAYLOR.

Witnesses:
DAVID SWORDS,
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