E. St. JOHN.
Knob Attachment.

No. 204,921. Patented June 18, 1878.

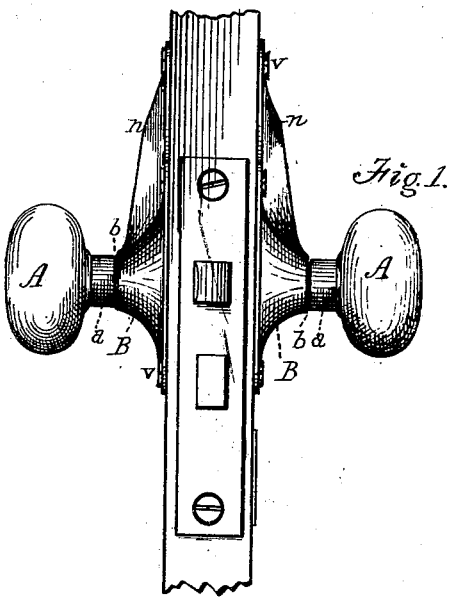


Fig. 1.

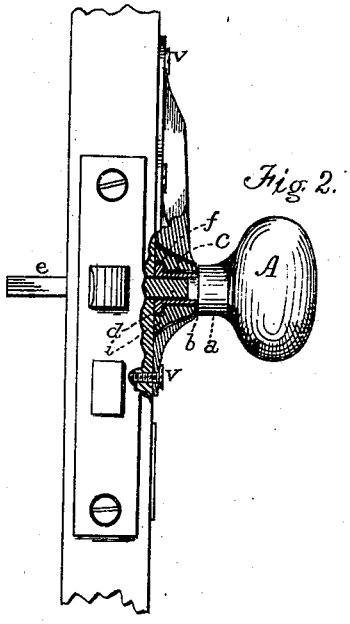


Fig. 2.

Fig. 3.

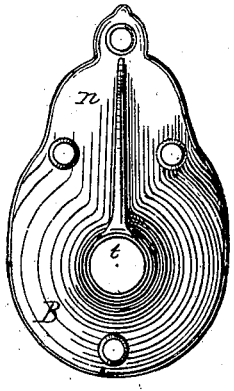


Fig. 4.

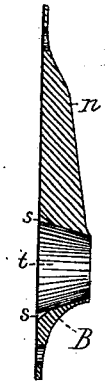
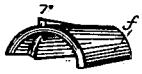


Fig. 5.

Fig. 6.



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UNITED STATES PATENT OFFICE.

EVON ST. JOHN, OF LELAND, ILLINOIS.

IMPROVEMENT IN KNOB ATTACHMENTS.

Specification forming part of Letters Patent No. **204,921**, dated June 18, 1878; application filed May 2, 1878.

To all whom it may concern:

Be it known that I, EVON ST. JOHN, of Leland, in the county of La Salle and State of Illinois, have invented a new and useful Improvement in Securing Door-Knobs, of which the following is a specification:

My invention relates to an improved method of securing door-knobs to locks; and consists in securing the door-knob by a two-part clamp, exteriorly enlarging from the outer to the inner end, and forming a box in which the shank turns and is held by a flange or shoulder on its end, and a plate secured to the door is provided with a tapering hole, largest on the side next to the door, in which the two-part clamp is wedged, the spindle having free play to enter the socket of the shank more or less, as the thickness of door may require.

My invention will first be described in connection with the drawing, and then pointed out in the claims.

In the accompanying drawing, Figure 1 is an edge view of a door, showing my improved knob. Fig. 2 is a view showing knob secured to a door, with the fastening part in section. Fig. 3 is a front view of a plate as a substitute for the usual rose-plate. Fig. 4 is a transverse sectional view of the same plate. Fig. 5 is a side view of the clamping-collar, by which the knob is held. Fig. 6 is a view of one piece of the two-part clamp.

The knob A may be made of any material that is usually employed in the manufacture of knobs.

The tapering neck *a* has a shoulder, *b*, from which projects a shank or hollow shaft, C, trued up by turning in the lathe, and having on the end a flange or shoulder, *d*. The socket to receive the spindle *e* is square, and extends quite through the metallic portion of neck, or into the knob.

The clamp consists of two half-collars, *f i*, together forming a box, in which turns the shank *c* of the knob, an enlargement being provided for the flange *d*. Exteriorly the clamp or box at one end is of a size to correspond with the neck *a* of the knob, from which part it gradually enlarges toward the other end, which is provided on the exterior part of rim with one or more lugs, *r*.

The plate B, which is substituted for the usual rose-plate, has a part, *n*, projecting above the mortise in the door, through which two screws may be inserted into the solid wood, and thus hold more firmly than when secured entirely by the shorter screws put in the wood on either side of the mortise. This particular form of projecting part *n*, however, is not essential to my improvement.

The plate is provided with a tapering hole, *t*, corresponding in shape and size to the exterior of the clamp or box, and has one or more notches or grooves, *s*, to receive the lugs *r* on the clamp.

To secure the knob, the spindle is placed in position in the hub of the lock, the shank *c* of the knob is passed through the tapering hole of the plate from its smallest side, and the two parts *f i* of the clamp are put in position on the shank from the largest side of hole. The knob is then drawn, so as to cause the clamp to wedge in the tapering hole and bring the lugs *r* into coincidence with the notches *s*. The socket in the knob is now placed over the end of the spindle, and the plate B is secured to the door by screws V.

The other knob is secured in the same manner on the opposite side of door.

By this arrangement the knob cannot get loose so long as the plate remains closely screwed to the door. No screw to enter the spindle is used. All necessity for washers to make the knob fit up snug is obviated. One size will readily fit, and may be applied to, any thickness of door, as the spindle can enter the socket of the knob more or less, as the varying thickness of door may require. The knob and the appurtenances for securing it are adapted for any kind of mortise-lock.

Having described my invention, I claim and desire to secure by Letters Patent—

1. In combination, a knob having on the end of its shank a flange or shoulder, *d*, and the plate B, adapted to be secured to the door, and provided with a tapering hole, *t*, which is largest on its inner side, and the two-part clamp *f i*, exteriorly enlarging from the

outer to the inner end, and interiorly forming a box in which turns the shank of the knob, as shown and described.

2. The improvement in securing door-knobs to locks, consisting of knob A, having on its shank shoulder *d*, plate B, provided with tapering hole *t*, and the two-part clamp *f i*, provided with lugs *r*, and forming a box for the shank, in combination with the free or self-adjusting spindle *e*, as and for the purpose described.

EVON ST. JOHN.

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