OLNEY L. SMITH.

Improvement in Attaching Knobs to their Spindles.

No. 115,650. Patented June 6, 1871.

Fig 1.

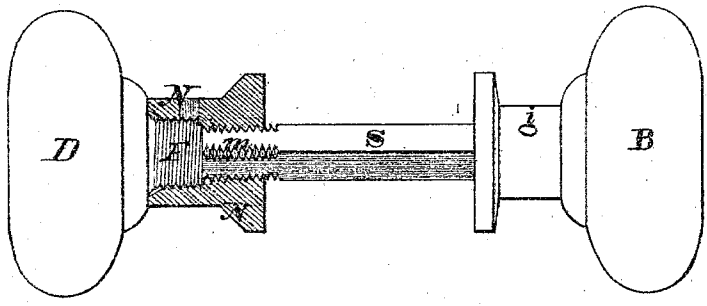


Fig 2.

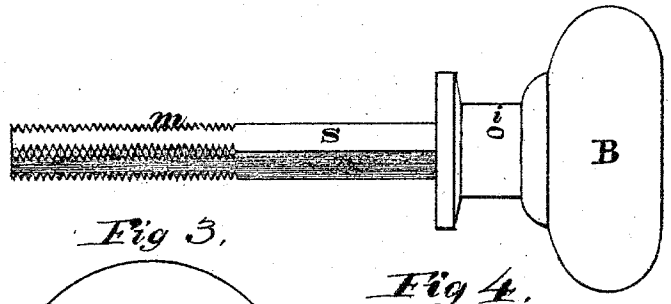


Fig 3.

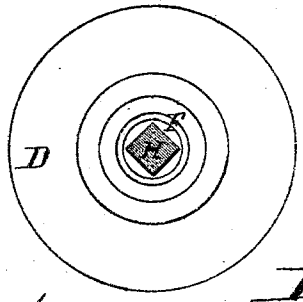
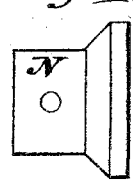


Fig 4.



Witnesses.

Isaac A. Brunell.

John F. Polden

Inventor,

Olney L. Smith

AM. PHOTO-LITHOGRAPHIC CO. N.Y. (OSBORNE'S PROCESS.)

UNITED STATES PATENT OFFICE.

OLNEY L. SMITH, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN ATTACHING KNOBS TO THEIR SPINDLES.

Specification forming part of Letters Patent No. 115,650, dated June 6, 1871.

I, OLNEY L. SMITH, of the city and county of Providence and State of Rhode Island have invented a new and useful Improvement in Door-Knobs, of which the following is a specification, reference being had to the accompanying drawing making part of the same, in which—

Figure 1 is a plan view and section of my improved door-knob. Fig. 2 is a plan view of the same with the improved knob removed from the spindle. Fig. 3 is a view of the improved knob, separately. Fig. 4 is a view of the knob-shank, separately.

Similar letters indicate corresponding parts in all the figures.

My improvement relates to the combination and arrangement of a knob, a screw-sleeve forming the shank of a knob, and a threaded square spindle, in such a manner that by screwing the parts together the knob becomes securely attached to the spindle in proper relation to the door.

In the drawing, S is the square spindle threaded at the corners, with the fixed knob B on one end, the other knob D being removable, to provide for putting it through a hole made for the purpose in the door, and for adapting its position on the spindle to the thickness of the door. The removable knob D is constructed with a square hole or socket to fit the spindle S, as shown in Fig. 3, and with a short screw-nipple, F, Figs. 1 and 3, provided with a left-hand thread on the outside. The knob-shank N is constructed with a left-hand thread inside at one end, to screw upon the nipple F of the knob, and a right-hand thread at its other end fitted to screw upon the spindle S. The knob is secured to the spindle in the door by screwing the sleeve or shank N on the spindle up to within the length of the screw-nipple F of its intended position against the door; the knob D is then put on the spindle up to the end of the knob-shank, which is then turned and screwed upon the nipple F of the knob and up against the door on the spindle to its final position, where, by the screwing of the knob and shank firmly together, both become permanently attached to the spindle.

It will be seen that the knob turns the spindle by means of its square socket; that the screw-sleeve or shank holds the knob on the spindle, and, by its arrangement of right-and-left screw-thread, provides for fixing the knob at the position on the spindle required by the thickness of the door.

Having described my invention, I claim—

The combination of the knob D with a square socket and screw-nipple F, the sleeve or shank N with a right-and-left screw-thread, and the threaded square spindle S, substantially as described, for the purpose specified.

OLNEY L. SMITH.

Witnesses:

ISAAC A. BROWNELL,

JOHN F. POLDEN.