

(Model.)

W. I. ALVORD.
KNOB ATTACHMENT.

No. 330,186.

Patented Nov. 10, 1885.

Fig. 1.

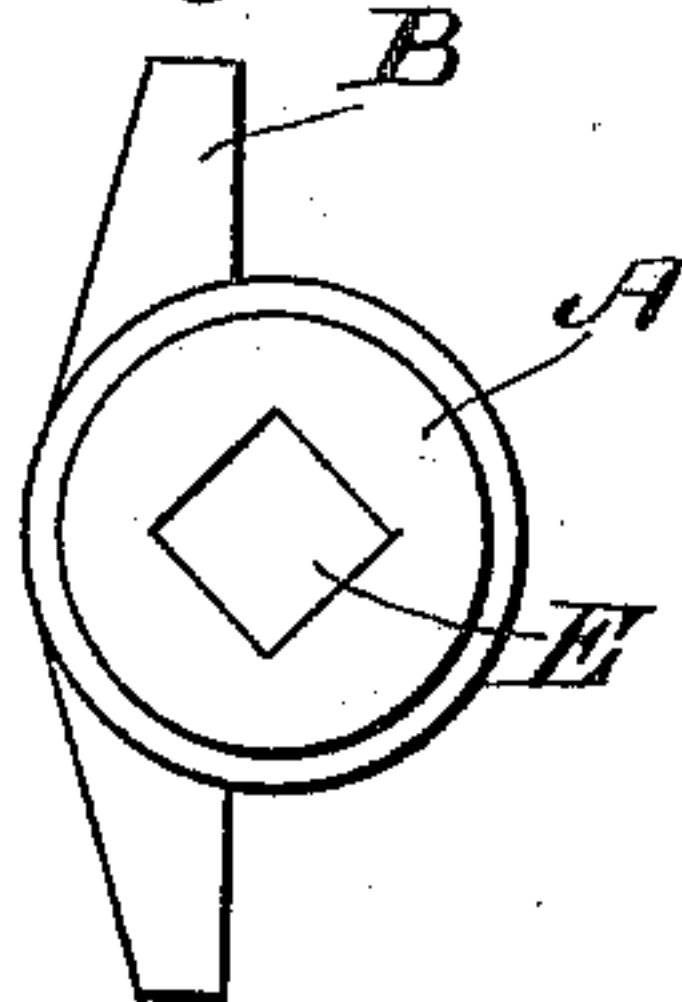


Fig. 2.

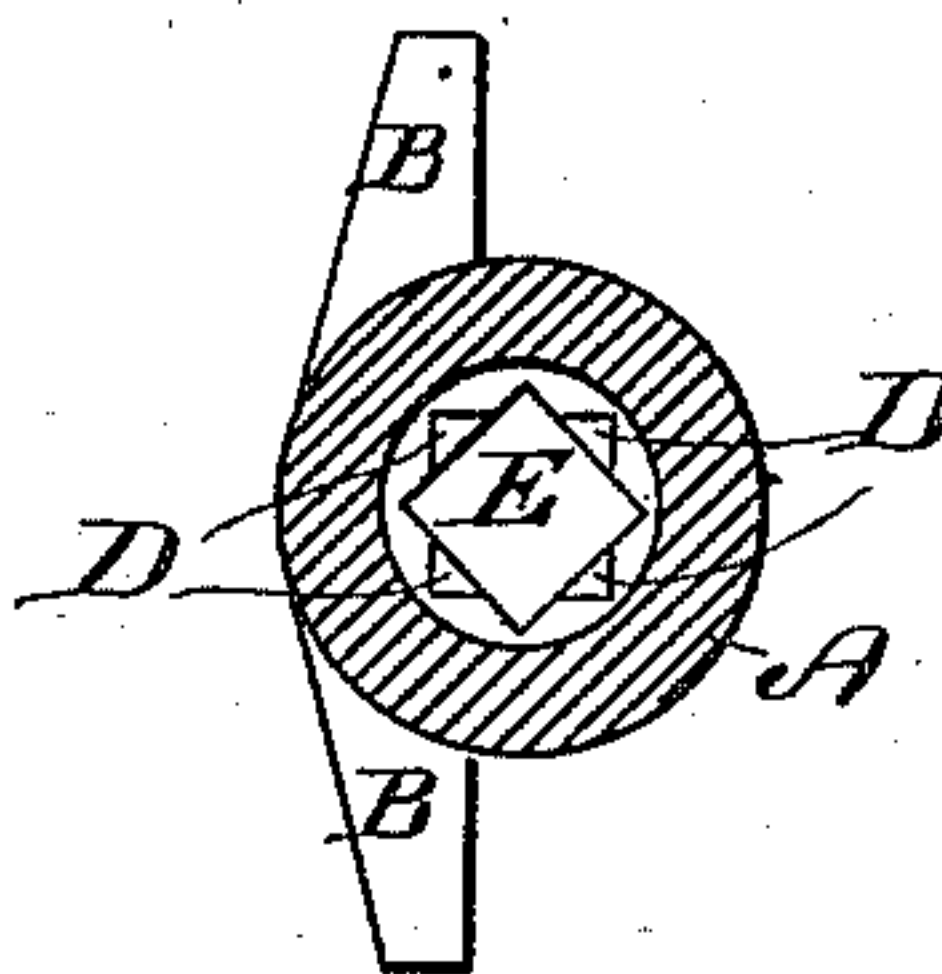


Fig. 3.

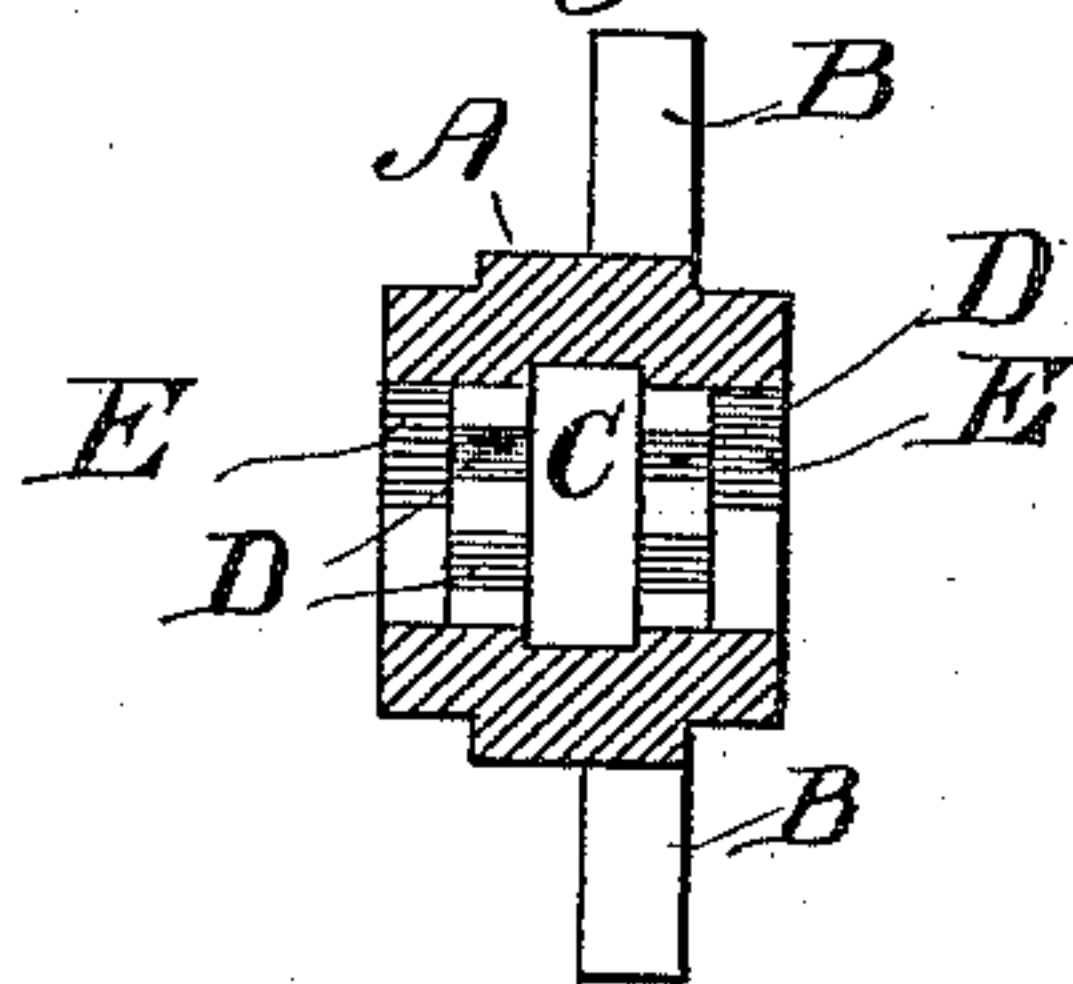


Fig. 4.

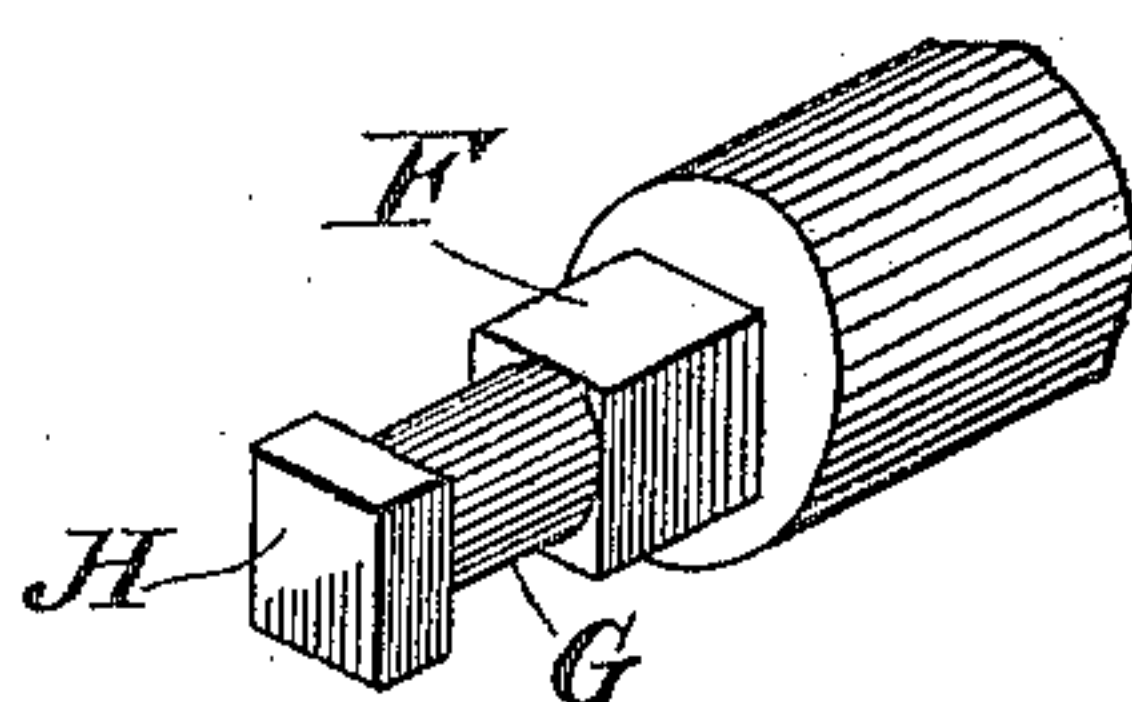


Fig. 5.

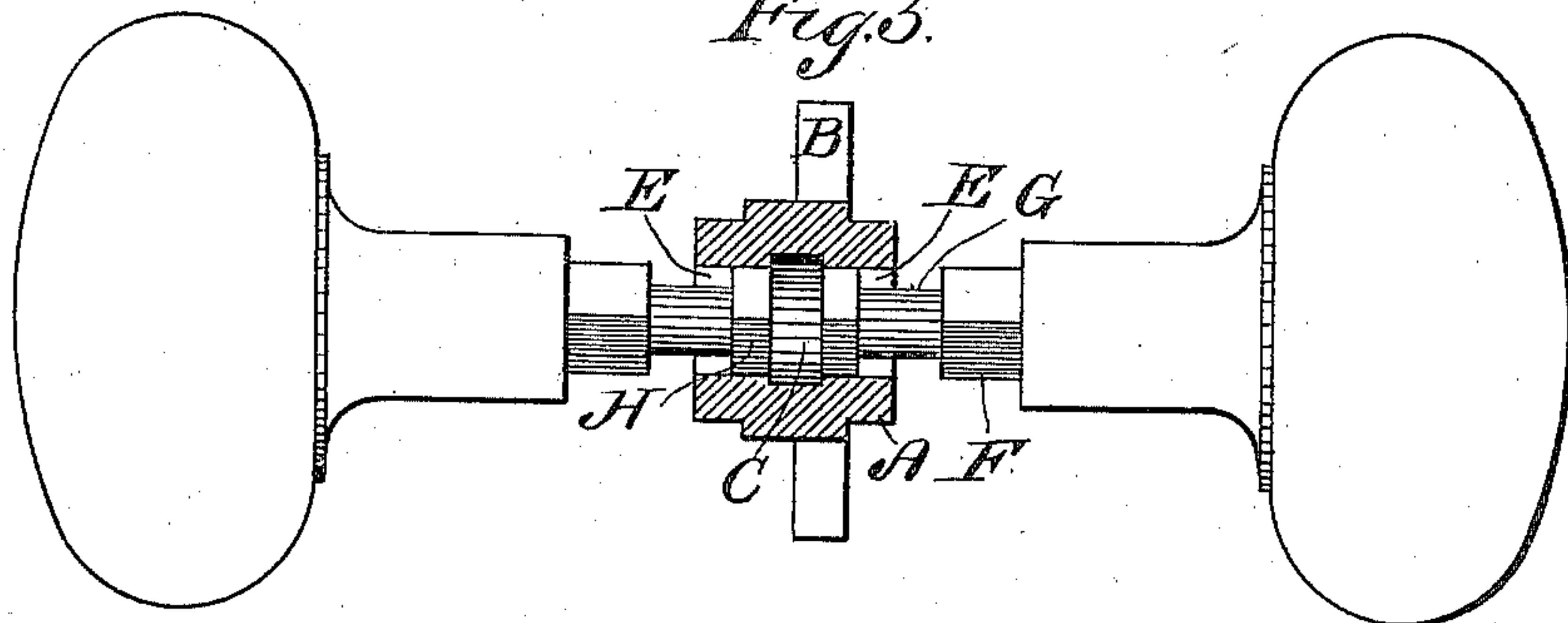
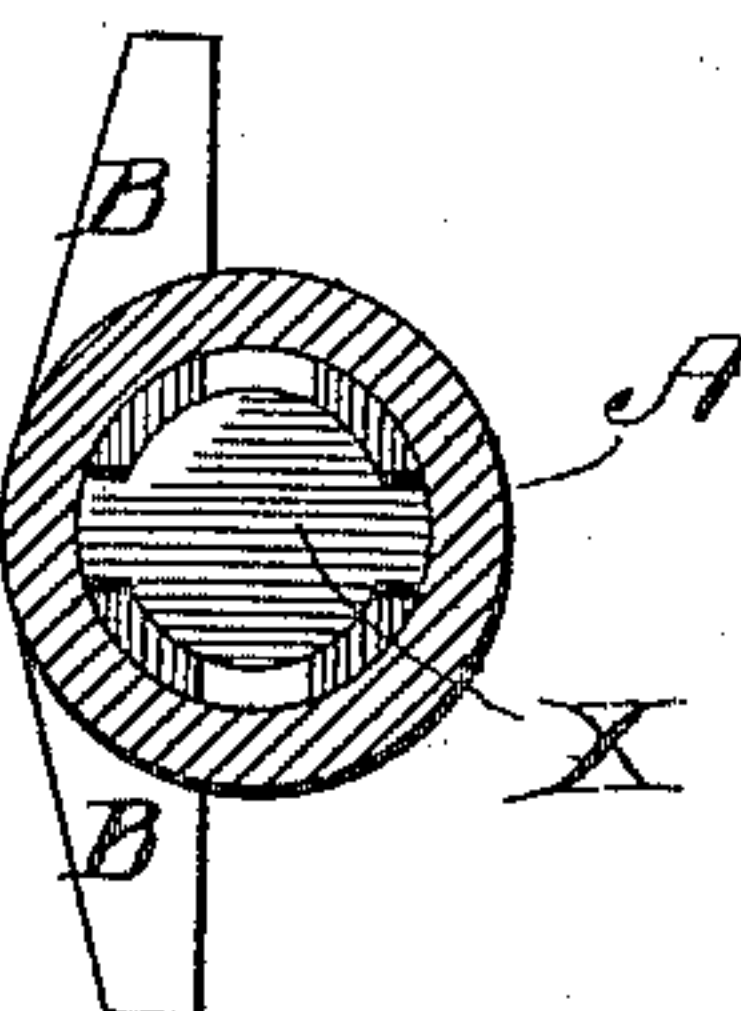


Fig. 6.



Witnesses

S. Williamson
W. T. Haviland

Inventor

Williston I. Alvord

By Smith Hubbard

Att'y

UNITED STATES PATENT OFFICE.

WILLISTON I. ALVORD, OF BRIDGEPORT, CONNECTICUT.

KNOB ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 330,186, dated November 10, 1885.

Application filed April 16, 1885. Serial No. 162,404. (Model.)

To all whom it may concern:

Be it known that I, WILLISTON I. ALVORD, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Knob Attachments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to certain new and useful improvements in knob attachments, and has for its object to provide a simple device whereby the knob-shanks may be readily inserted and held within the lock; and with these ends in view my invention consists in the details of construction and combination of elements hereinafter fully explained, and then specifically designated by the claim.

In order that those skilled in the art to which my invention appertains may fully understand its construction, I will describe the same in detail, referring by letter to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is an end elevation of the latch-hub; Fig. 2, a central cross-section, showing the arms in elevation; Fig. 3, a central longitudinal section of the hub; Fig. 4, a perspective view of the knob-shank; Fig. 5, a central longitudinal section of the hub having the shanks therein, and shown with the hub-arms in elevation, and Fig. 6 a section showing a different form of head and recesses in the hub.

Similar letters denote like parts in the several figures of the drawings.

A is the latch-hub, having the arms B projecting therefrom. This hub is journaled, as are ordinary hubs, in the two shells of the lock, and the arms engaging with lugs upon the yoke at the rear of the latch-bolt retract the latter when the hub is turned. This retraction of the bolt by the contact of the arms with the yoke-lugs forms no part of my invention, whose purpose is to provide simple and efficient means for the attachment of the knobs. The opening through the hub is irregular, and its peculiarities are as follows: In the center of the hub is a recess, C, circular in cross-section and concentric with the outside contour

of the hub. Upon either side of this central recess, and formed in the inner surface of the hub, are eight triangular cavities, D, so that the opening at these points of the hub is in shape an eight-pointed star. At either end of the hub the opening outward is a square, the corners of which are coincident with four alternate points of the star-shaped orifice just mentioned.

The peculiarities of contour just described will be readily understood by reference to Figs. 2 and 3, and the purpose of said peculiarities will be presently explained.

F is the shank, square in cross-section, but turned to cylindric form at G, so as to leave the extremity square, as at H. In adjusting the knob-shank its head is inserted within the opening whose interior contour has been set forth. In its entrance it passes through the square, and through the star-shaped opening behind it, into the circular recess in the center of the hub. It is then turned one-eighth of a turn and withdrawn into the square recess made by the four alternate cavities which do not coincide with the corners of the square opening E. By the withdrawal of the head into the square just mentioned the central recess is left clear, so that the opposite shank-head may be inserted, turned, and withdrawn in the manner just explained. The square heads fit tightly within the recesses, and the hub is readily turned by the turning of the shank.

In Fig. 6 I have shown another form of head, X, which I am able to use equally well with the square by changing the internal contour of the hub to correspond with its peculiar shape.

In my invention I do not wish to be confined to the exact shape of head and recesses shown and described, for I can employ any form of head other than round—as elliptic or triangular—together with an interior contour of the hub to correspond therewith.

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

In a knob attachment, the combination, with the shanks provided with heads, as described, of a hub whose central longitudinal opening is as follows: in the center a recess within which one of the heads may turn, upon either

side thereof a second recess formed by cavities in the walls and corresponding with said heads, and upon either side of the last-named recesses openings out through the ends of the
5 hub, also corresponding in shape to the heads and having angles or corners coinciding with each alternate angle or corner of the recess next within, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

WILLISTON I. ALVORD.

Witnesses:

S. S. WILLIAMSON,
H. T. SHELTON, Jr.