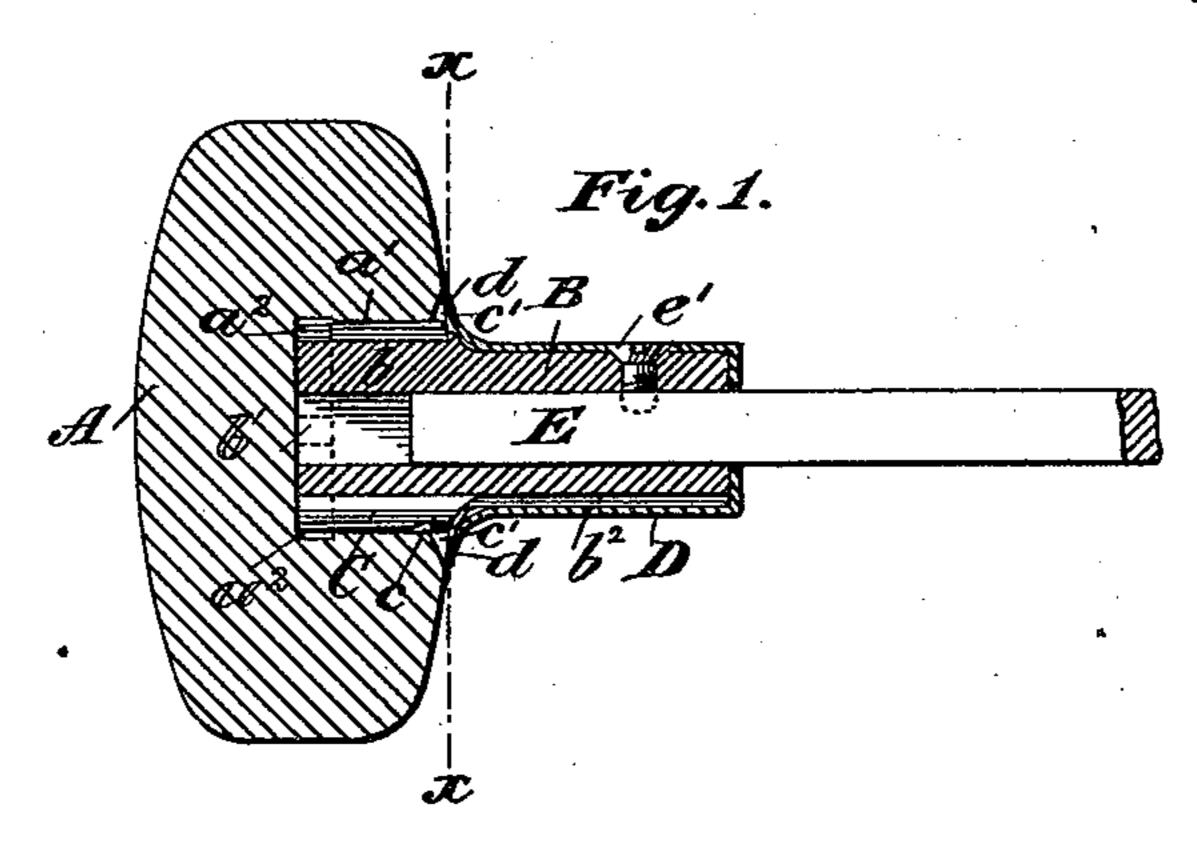
(No Model.)

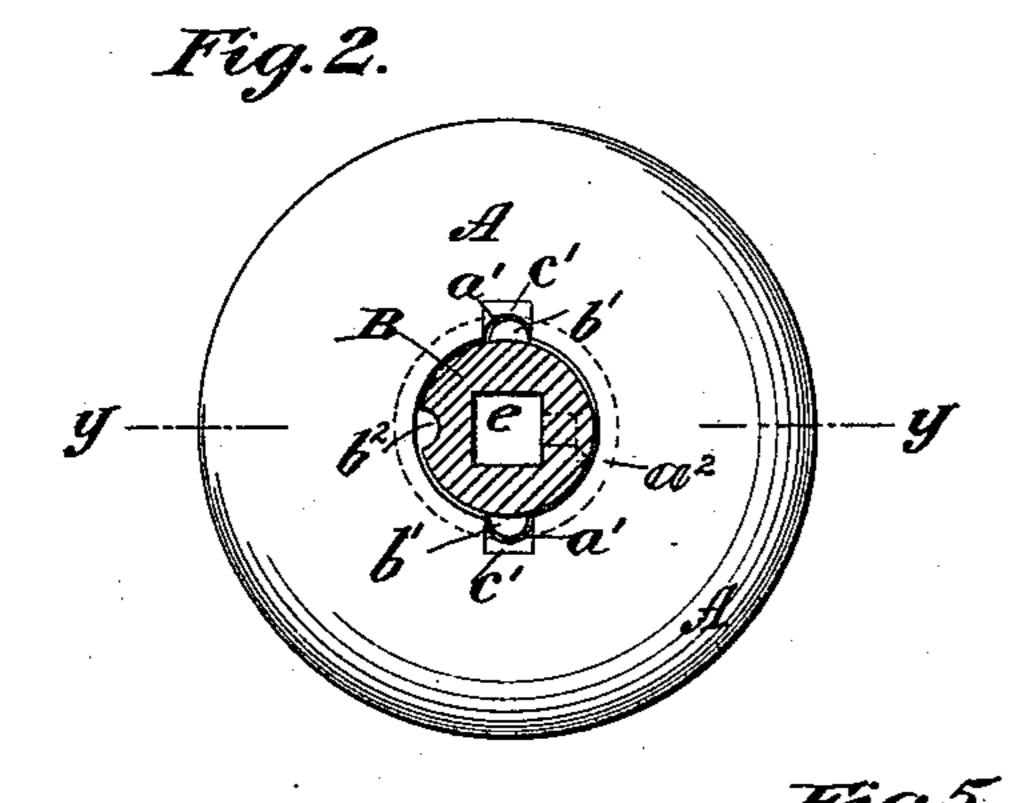
E. B. OWEN.

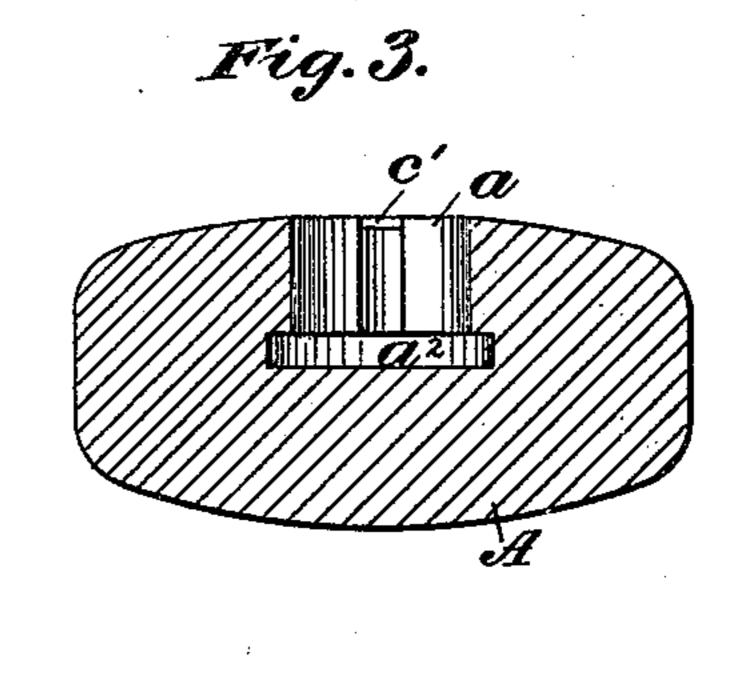
MEANS FOR ATTACHING DOOR KNOBS TO SOCKETS.

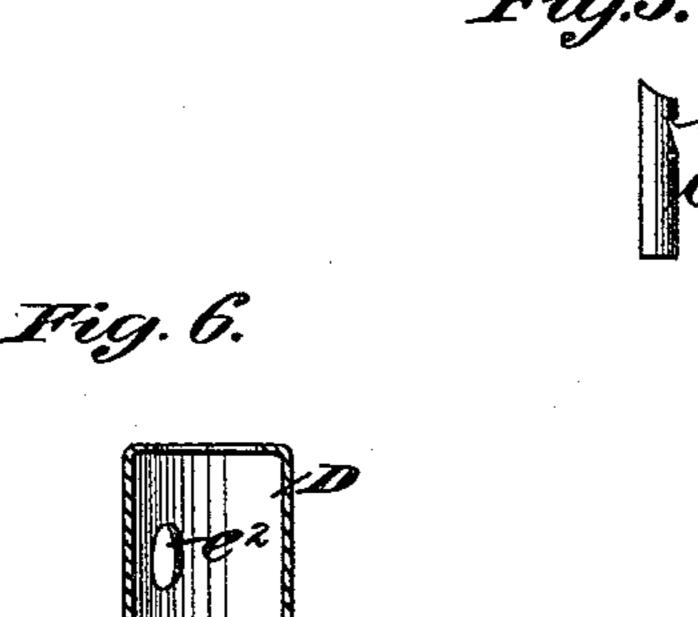
No. 428,285.

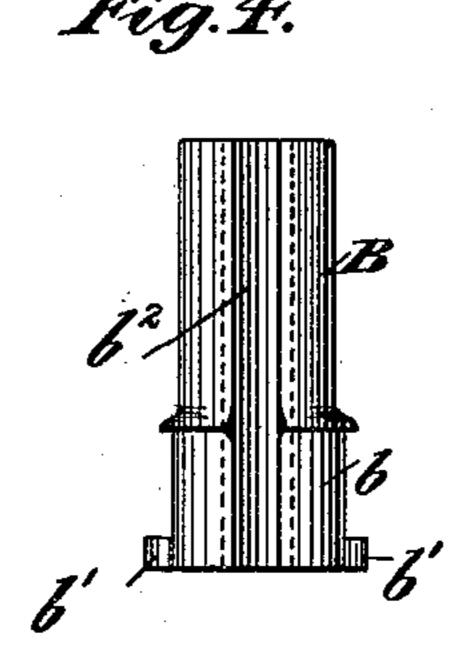
Patented May 20, 1890.











Witnesses:-D. H. Haymond Fred Hognes

Inventor-Edmund 13 Owen by his attorneys Kown Heward

## United States Patent Office.

EDMUND B. OWEN, OF JERSEY CITY, NEW JERSEY.

## MEANS FOR ATTACHING DOOR-KNOBS TO SOCKETS.

SPECIFICATION forming part of Letters Patent No. 428,285, dated May 20, 1890.

Application filed March 11, 1890. Serial No. 343,564. (No model.)

To all whom it may concern:

Be it known that I, EDMUND B. OWEN, of Jersey City, in the county of Hudson and State of New Jersey, have invented a certain new and useful Improvement in Means for Attaching Door-Knobs to Sockets, of which the following is a specification.

I will describe in detail my improvement, and then point out the novel features in claims.

The object of my invention is to provide a simple, cheap, and efficient means for attaching door-knobs to sockets without the use of any such substance as cement, lead, or the like; and to this end my invention consists in certain novel features of construction and combination of parts, as shall hereinafter be described.

In the accompanying drawings, Figure 1 represents a sectional elevation of my improvement. Fig. 2 is a view in cross-section taken on the line x x of Fig. 1. Fig. 3 is a cross-section of a door-knob I use, the section being taken on the plane of the line y y of Fig. 2. Fig. 4 is a detail view of a certain socket I employ. Fig. 5 is a detail view of a certain key, and Fig. 6 a detail view of a cap employed in carrying out my improvement.

Similar letters of reference designate corre-

sponding parts in all the figures.

A represents a door-knob, which is provided with a cylindrical cavity a, the sides of which cavity are provided with recesses a'. At the lower end of said cavity there is a circumferentially-extending groove  $a^2$ , into which the recesses a' extend at their lower ends.

B represents a socket, the lower portion b of which is adapted to enter the cavity a. Extending longitudinally along the side of the socket is a groove  $b^2$ . The portion b of 40 the socket is provided at its lower end with lugs b'. When the socket is inserted into the knob A, the lugs b' are adapted to enter the recesses a', as shown more clearly in Fig. 2. When the portion b of the socket has been 45 passed clear down the cavity a, the lugs b'will enter the circumferential groove  $a^2$ . The socket may now be rotated until the groove  $b^2$  comes opposite one of the recesses a'. The recess a' and groove  $b^2$ , coming together, will 50 then make an approximately round hole, into which can be inserted a locking-pin C, thus

effectually locking the socket from further rotation. I have shown a cap D, adapted to be placed over the socket B, and provided with an outwardly-flaring flange d, which 55 flange, when the cap is in position, will not only hide the edges of the cavity a and make a sightly joint, but has the more important function of holding the locking-pin C longitudinally in position, thereby preventing the 60 same from accidentally dropping out. Both the cap and the socket have cast or otherwise formed in them a square hole e, adapted to receive the spindle E, a screwe', passing through a hole  $e^2$  in the cap and also through the 65 socket into the spindle E, serving to keep the parts in position.

When necessary to withdraw the pin C in order to release the socket, the cap having first been removed, a tool can be inserted into 70 a notch c, formed in said pin, a slight depression c', formed in the knob A, permitting this. The pin can then be readily withdrawn.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with a door-knob having in it a cylindrical cavity, in which is a circumferential groove, and in the sides of which are recesses extending into said circumferential groove, of a socket provided with lugs 80 corresponding with said recesses and adapted to enter said circumferential groove and having provided on its periphery a longitudinal groove, and a locking-key engaging with said longitudinal groove and with one of said re-85 cesses, substantially as set forth.

2. The combination, with a door-knob having in it a cylindrical cavity, in which is a circumferential groove, and in the sides of which are recesses extending into said circumferential groove, of a socket provided with lugs corresponding with said recesses and adapted to enter said circumferential groove and having in it a longitudinal groove, a locking-key entering said longitudinal groove and one of 95 said recesses, and a cap, substantially as specified.

EDMUND B. OWEN.

Witnesses:

FREDK. HAYNES, GEORGE BARRY.