

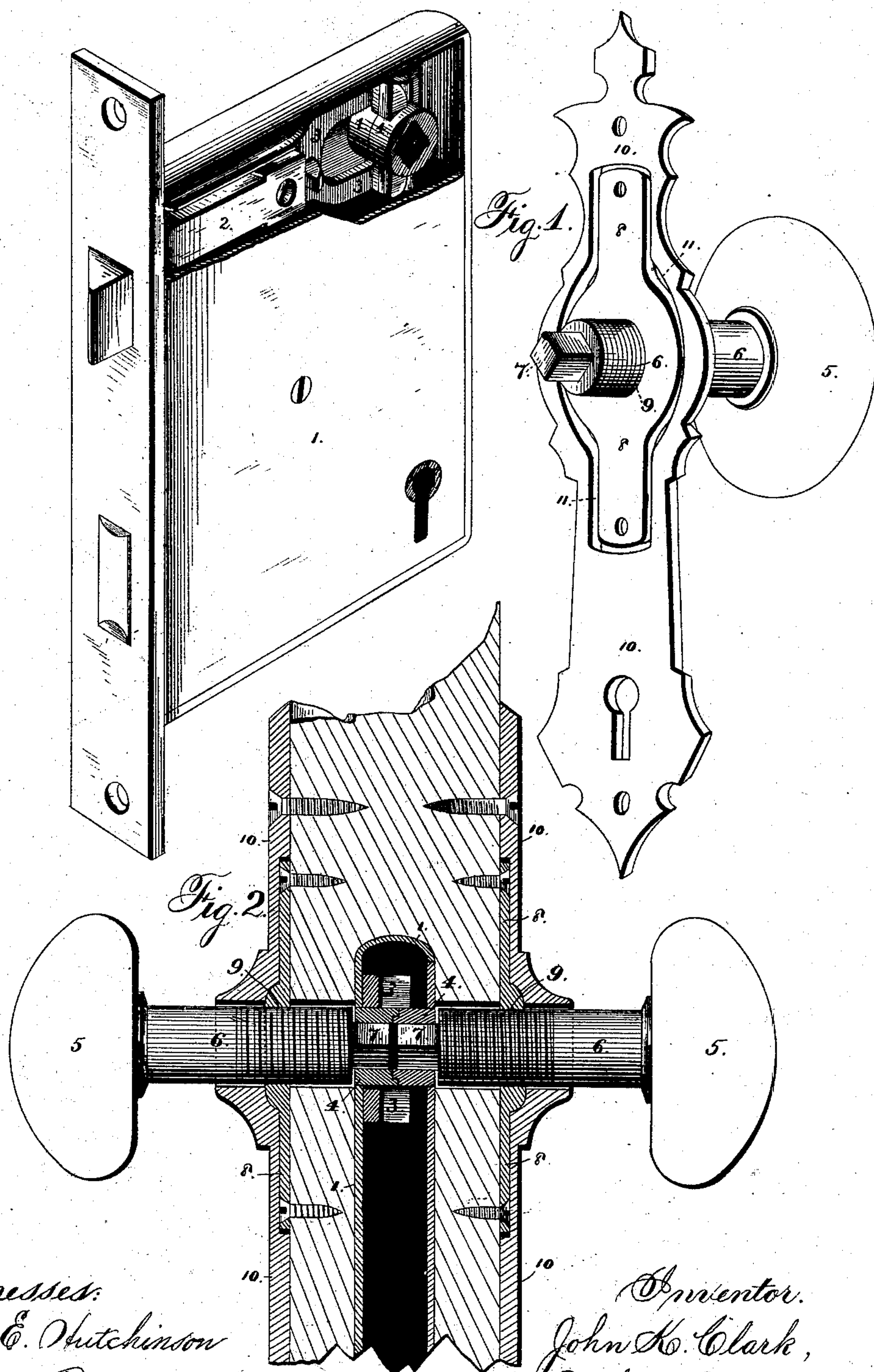
(Model.)

2 Sheets—Sheet 1.

J. K. CLARK.
KNOB ATTACHMENT.

No. 284,381.

Patented Sept. 4, 1883.



Witnesses:
Jas. E. Hutchinson
J. A. Rutherford

Inventor.
John K. Clark,
By his Attorney,
James L. Norris.

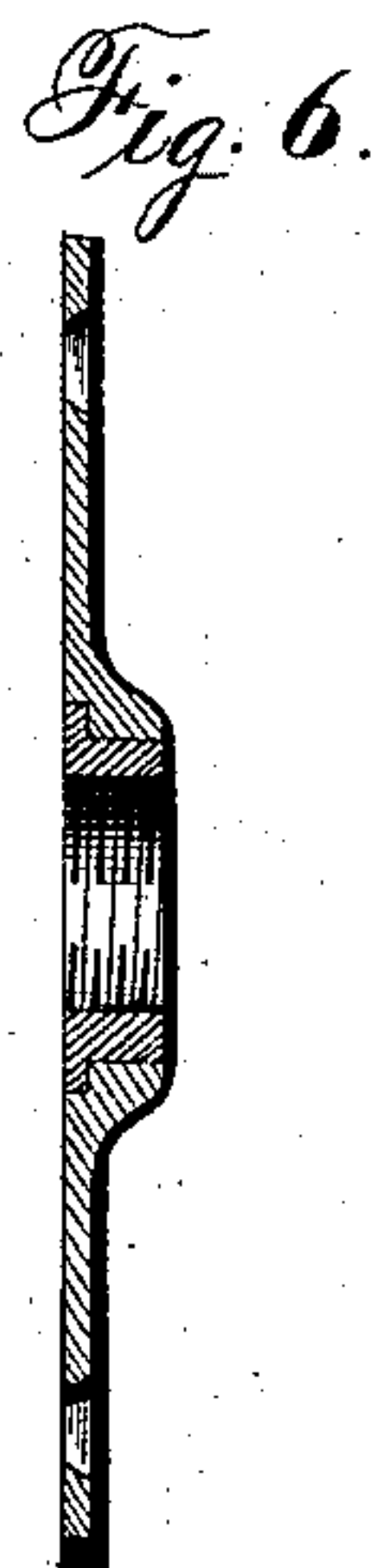
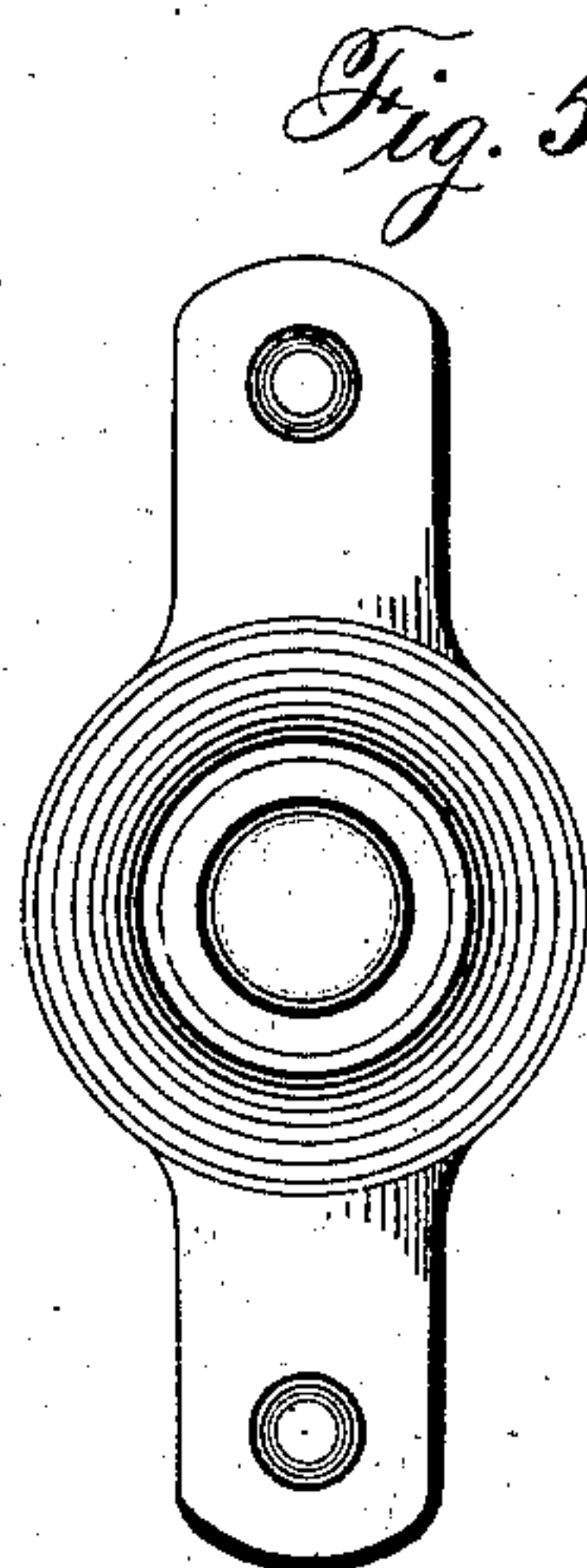
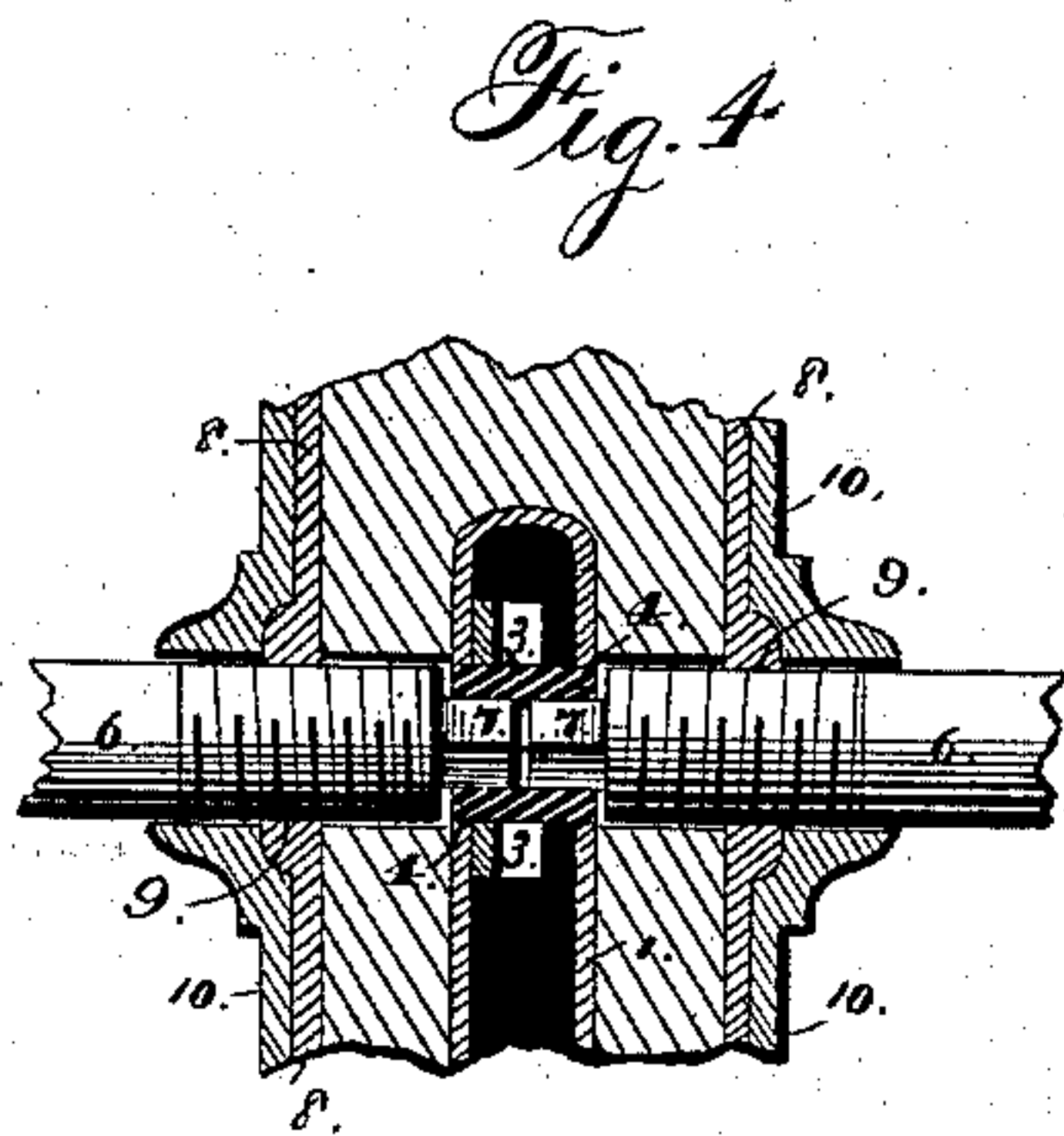
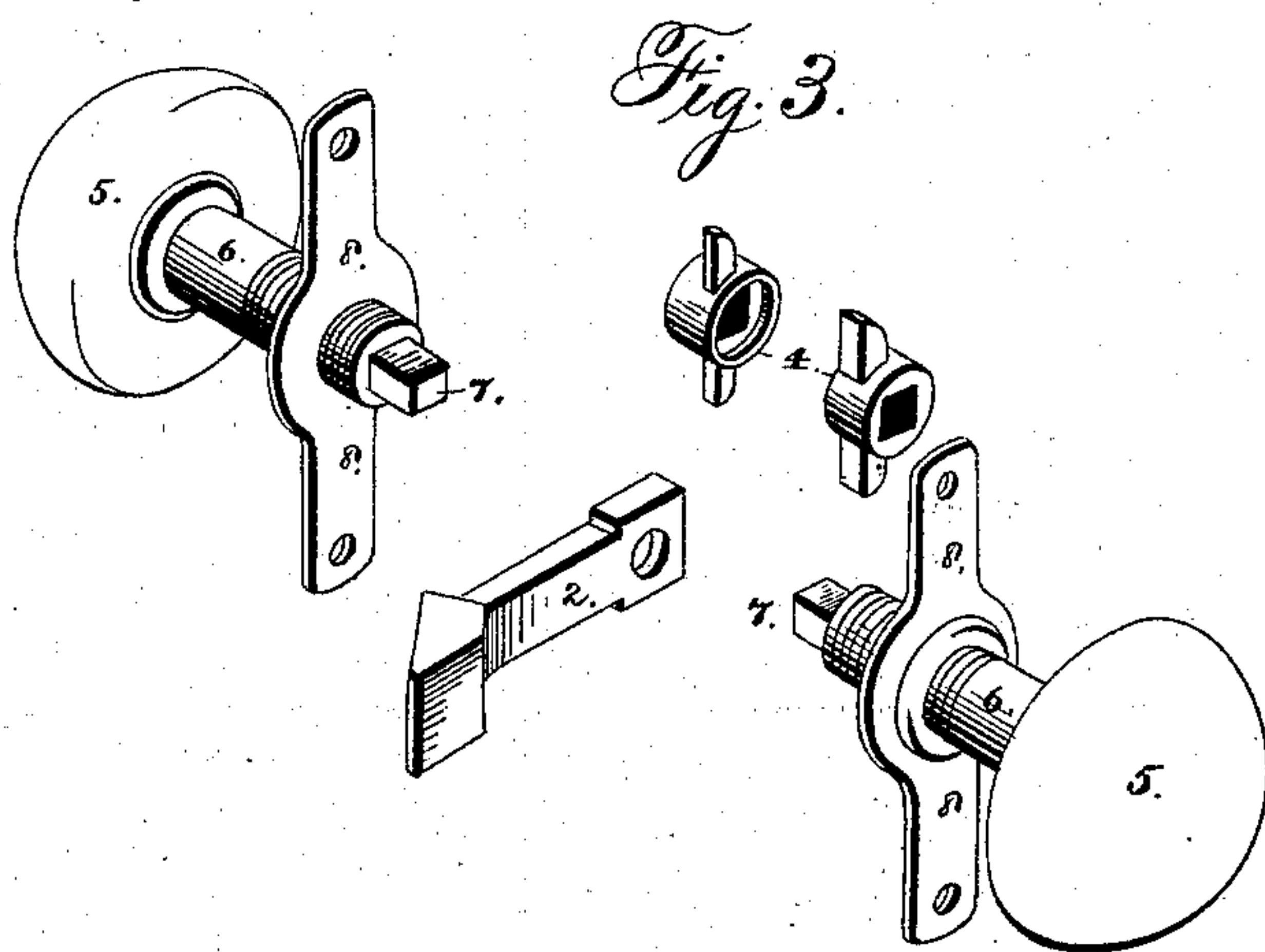
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2 Sheets—Sheet 2.

J. K. CLARK.
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UNITED STATES PATENT OFFICE.

JOHN K. CLARK, OF BUFFALO, NEW YORK.

KNOB ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 284,381, dated September 4, 1883.

Application filed June 7, 1883. (Model.)

To all whom it may concern:

Be it known that I, JOHN K. CLARK, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Knob Attachments, of which the following is a specification.

This invention relates to knob attachments for doors in which independently-swiveled knob-shanks are employed to actuate the latch-bolt of a mortise-lock; and my invention has for its objects to provide simple and efficient means for adjusting and firmly securing an independent knob-shank and its spindle to varying thicknesses of doors, to avoid the use of long spindles on the knob-shanks, to dispense with the necessity of employing screws for attaching the knobs to their independent shanks or spindles, and to render it unnecessary to use washers in adjusting knobs to varying thicknesses of doors. These objects I accomplish in the manner and by the means hereinafter described, and illustrated in the accompanying drawings, in which—

Figure 1 represents a perspective view of a mortise-lock case, with the cover-plate broken away to illustrate the latch-bolt and the yoke, also showing the knob shank and spindle and its attaching and adjusting device in perspective; Fig. 2, a vertical sectional view through the hub of the lock, showing portions of a door in section and two knobs and their spindles adjusted and secured in position according to my invention; Fig. 3, detached perspective views of the knob shanks and spindles, the devices for adjusting and securing them to a door, and the hub and latch of the lock; and Fig. 4, a vertical sectional view similar to Fig. 2, showing a modification of the invention; Fig. 5, a perspective view of a modified form of plate or collar, and Fig. 6 a vertical central sectional view of Fig. 5.

In the drawings I have shown only sufficient of the lock mechanism to illustrate my invention, the number 1 indicating the lock-casing; 2, the latch-bolt; 3, the yoke for moving the latch-bolt, and 4 the hub of the latch-case for operating the yoke, this hub, as shown in Figs. 1, 2, and 3, being made in two halves, in order that the independent knobs, shanks, and spindles can be rotated independently of each other. The knob 5 is rigidly fixed to a shank,

6, which is screw-threaded approximately one-half its length, and is provided at its inner end with a short angular projection, forming a spindle, 7, which is of such length as to enter but one section or half of the hub of the latch, the hub having an angular socket and the spindle being correspondingly shaped, whereby rotation of the shank will rotate one section or half of the hub and operate the latch-bolt.

The device by which the knob shank and spindle are adjusted and secured firmly in position is composed of a plate or collar, 8, having a screw-threaded orifice, 9, said plate or collar being arranged against the side of the door, in rear of the escutcheon or rose 10, with its screw-threaded orifice in line with the opening in the hub, in such manner that the angular spindle, after being properly passed through the escutcheon and the plate or collar and inserted in one section or half of the hub, the plate or collar can then be rotated on the screw-shank until it bears against the side of the door, after which the escutcheon or rose is secured in position on the door by means of screws or otherwise, the plate or collar being held against rotation by a seat in the rose, as at 11. The knob can now be rotated to operate the hub, and thereby actuate the latch-bolt, and all strain or thrusts incident to opening or closing the door or pulling on the knob will be directly received and resisted by the threads of the plate or collar and the shank, thus relieving all parts of the latch-casing and its contained mechanism from injury or displacement.

Where two knobs are used to move independent of the other, each, with its shank and spindle, will be applied as above set forth; and where the attachment is to be applied to a latch having a single or undivided hub, as shown in Fig. 4, the parts will be applied in the same manner; but in this instance the rotation of one knob will rotate the other knob through the medium of the hub; but still the advantage of independent swiveled knob-shanks is obtained and an exceedingly simple and efficient means provided for adjusting and firmly securing the knobs and shanks to doors of varying thickness, which is of considerable importance in this class of lock-latches.

By my invention I can use a single knob at

one side of the door. I avoid the necessity of providing the spindle with a hook to engage the lock-case or the hub, which greatly strains these parts of the latch in pulling on the knob; 5 and the attachment is applicable to any style of latch, even though already manufactured or in use.

I have shown the plate or collar as secured to the door by screws 12; but this is not essential, as the seat 11 provided in the escutcheon or rose will prevent rotation of the plate or collar in operating the knob. In some instances the plate or collar can be made in two parts—that is, of a flanged collar having a screw-threaded orifice, and a plate in which the 15 flanged collar is adapted to set. By this construction the plate can be screwed down tightly against the door, and yet not interfere with the two-and-fro movement of the shank in the 20 screw-threaded orifice.

Having thus described my invention, what I claim is—

1. The combination of the plate or collar,

having a screw-threaded orifice, with the independent knob, having a spindle adapted to 25 pass through the orifice of the plate or collar and have its end enter the rotating hub of a latch, substantially as described.

2. The combination, with a mortise-latch case having a rotating hub to actuate the 30 latch-bolt, of an independent knob having a screw-threaded shank and a short angular spindle at the inner end thereof, which partially passes through the hub, and a plate or collar having a screw-threaded orifice engaging 35 the knob-shank between the spindle and the knob for adjusting and securing the knob, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses. 40

JOHN K. CLARK.

Witnesses:

CHARLES B. HILL,
WM. A. ALLEN.