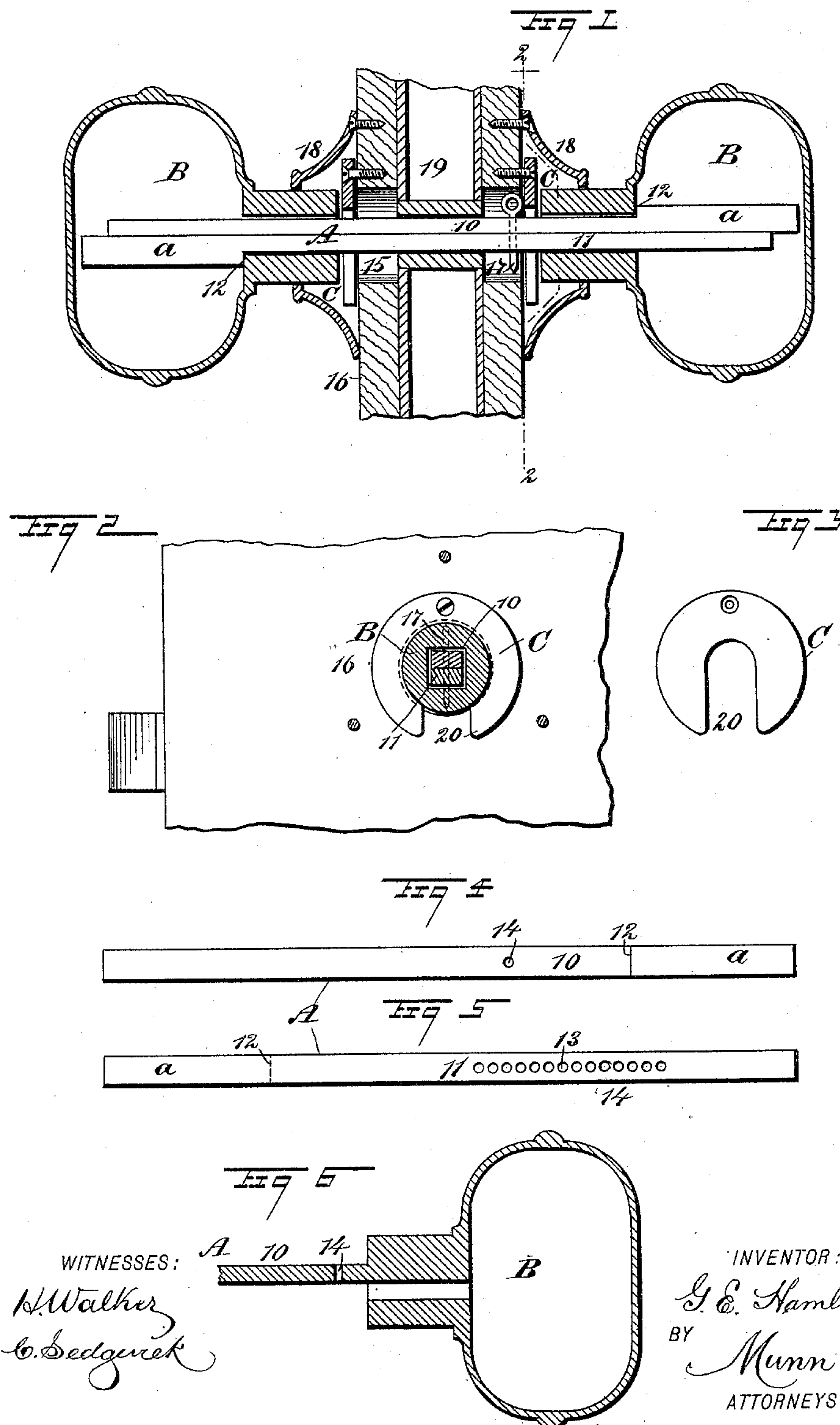


(No Model.)

G. E. HAMLIN.
KNOB ATTACHMENT.

No. 466,679.

Patented Jan. 5, 1892.



WITNESSES:
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GEORGE E. HAMLIN, OF NEW YORK, N. Y.

KNOB ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 466,679, dated January 5, 1892.

Application filed May 4, 1891. Serial No. 391,443. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. HAMLIN, of New York city, in the county and State of New York, have invented a new and Improved Knob-Spindle, of which the following is a full, clear, and exact description.

The invention is an improvement in that class of knob-spindles which are made of two parts (in the form of flat bars) and secured together by a screw.

The improvement consists in the construction and combination of parts hereinafter described.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a partial vertical section through a door and a longitudinal vertical section through knobs connected with the door, the spindles of the knobs being in side elevation. Fig. 2 is a vertical section taken on the line 2 of Fig. 1. Fig. 3 is a side elevation of one of the washers employed in connection with the spindle. Figs. 4 and 5 are plan views of sections of the spindle; and Fig. 6 is a vertical section through a knob, illustrating a modification in the attachment of the spindle to the knob.

The spindle A is constructed in two sections 10 and 11, and each section may have formed at one end a shoulder 12, whereby that portion of the section from the shoulder to the contiguous end is thicker than the other portions of the section, as illustrated at *a* in Fig. 1. The spindle may be loosely inserted in the knobs B, or a section of the spindle may be secured to or constitute an integral portion of the knob, as shown in Fig. 6. When the latter construction is employed, the spindle-sections are preferably of equal thickness throughout their length. When one spindle-section forms an integral portion of a knob, it is so cast as to form a portion of the shank of the knob, as shown in Fig. 6, and when it is attached to the knob the attachment is preferably made to the said shank at the inner portion thereof. When the spindles fit loosely in the knobs or are removable there-

from, the shoulders 12 are made to engage with the inner face of the knob-shank, as shown in Fig. 1, and the thicker portion *a* of the spindle-sections is preferably made of a length sufficient to cause the outer ends of those portions to engage with the inner face of the knob, or practically so, when the shoulder 12 is in engagement with the shank of the knob, as is likewise shown in Fig. 1.

One section 11 of the spindle is provided with a series of apertures 13, the other section being preferably provided with but a single aperture 14, and the apertures 13 and 14 extend through from the upper to the lower faces of the spindle-sections. The opening 15 in the door 16, through which the spindle is passed, is made of greater diameter than ordinarily to permit the spindle to be readily revolved, when its sections are connected by a pin 17 or the equivalent thereof, the said pin being adapted to pass through registering apertures 13 and 14, and when the knobs have been properly adjusted the pin revolves in the door-opening 15.

In operation the ordinary rose 18 is placed upon each knob-shank, and a spindle-section is introduced into the opening in a knob-shank, which opening is preferably made perfectly square, until the thicker end of a spindle is fully contained in the knob and its shoulder 12 is in engagement with the inner face of the knob-shank. The thinner ends of the two spindle-sections are then introduced from opposite sides into the opening 15 of the door and into the spindle-opening of the lock 19 and are slid in opposite directions, one on top of the other, until they enter the shanks of opposite knobs, and when this is accomplished the openings in the knob-shanks are completely filled. The spindle-sections are adjusted one upon the other until the inner ends of the knob-shanks are just a sufficient distance removed from the door to admit of the use of a washer C, the preferred form of which is illustrated in Fig. 3. When this adjustment is accomplished, the pin 17 is passed through the apertures 13 and 14, that are in register, thus locking the sections together. The pin is readily placed in position by pushing one of the knobs to a close engagement

with the lock within the door, which will double the space between the door and the opposite knob, and at this point the pin is entered. The washers C are then dropped in
5 place, one at each side of the door, said washers being dropped over the spindle, as they are provided with an opening 20, extending from the periphery to or past the center. When the washers are placed in position, they
10 may be screwed or otherwise attached to the door, and the pin 17 will at that time be contained in the door-opening 15. The roses 18 are attached to the door in the usual manner and completely conceal the washers and the
15 ends of the door-openings. It will thus be observed that by making the spindle in sections, which sections are adapted to slide one upon the other, a quick and effective adjustment of knobs to doors of different thicknesses
20 may be readily obtained, and that as the spindle-sections are not attached to the knobs, but

are simply wedged in, as it were, the knobs may be removed from the spindle and knobs of a different design or construction substituted at will.

I desire it to be understood that any other form of locking device may be substituted for the pin.

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

The combination, with the hollow knobs, of the spindle-sections 10 and 11, having shoulders 12 within the same and adapted in size to fill the cavities in the knob-shanks, the
35 fastening-key 17, the washers C, having a radial slot, and the roses 18, all as shown and described.

GEORGE E. HAMLIN.

Witnesses:

J. FRED ACKER,
C. SEDGWICK.