

No. 843,052.

PATENTED FEB. 5, 1907.

M. WEBER.
KNOB ATTACHMENT.
APPLICATION FILED NOV. 29, 1905.

Fig. 1.

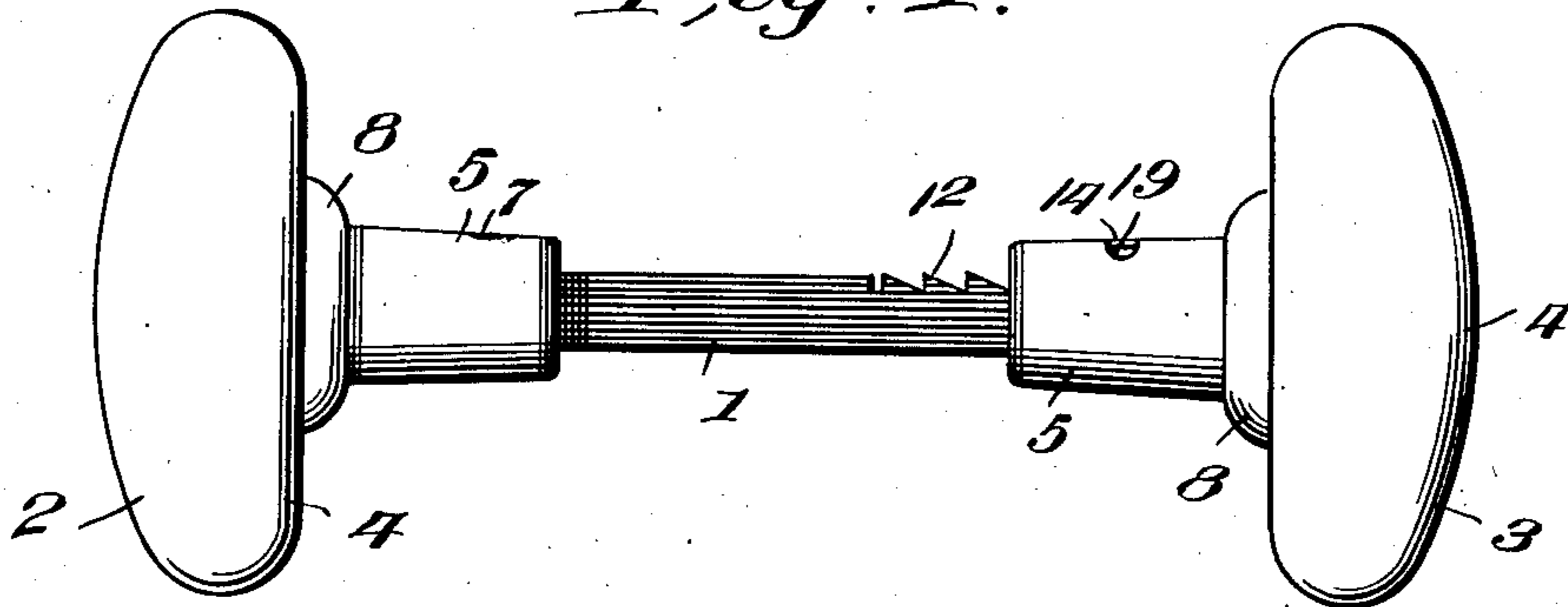


Fig. 2.

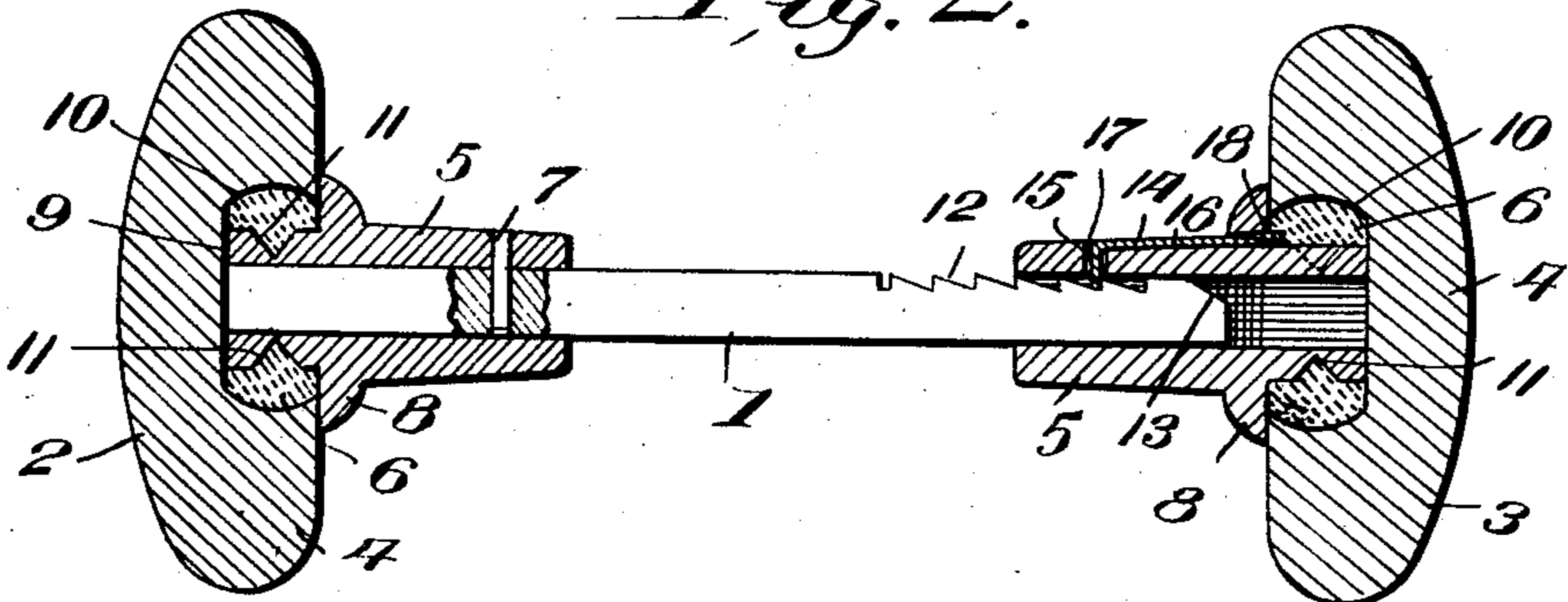


Fig. 3.

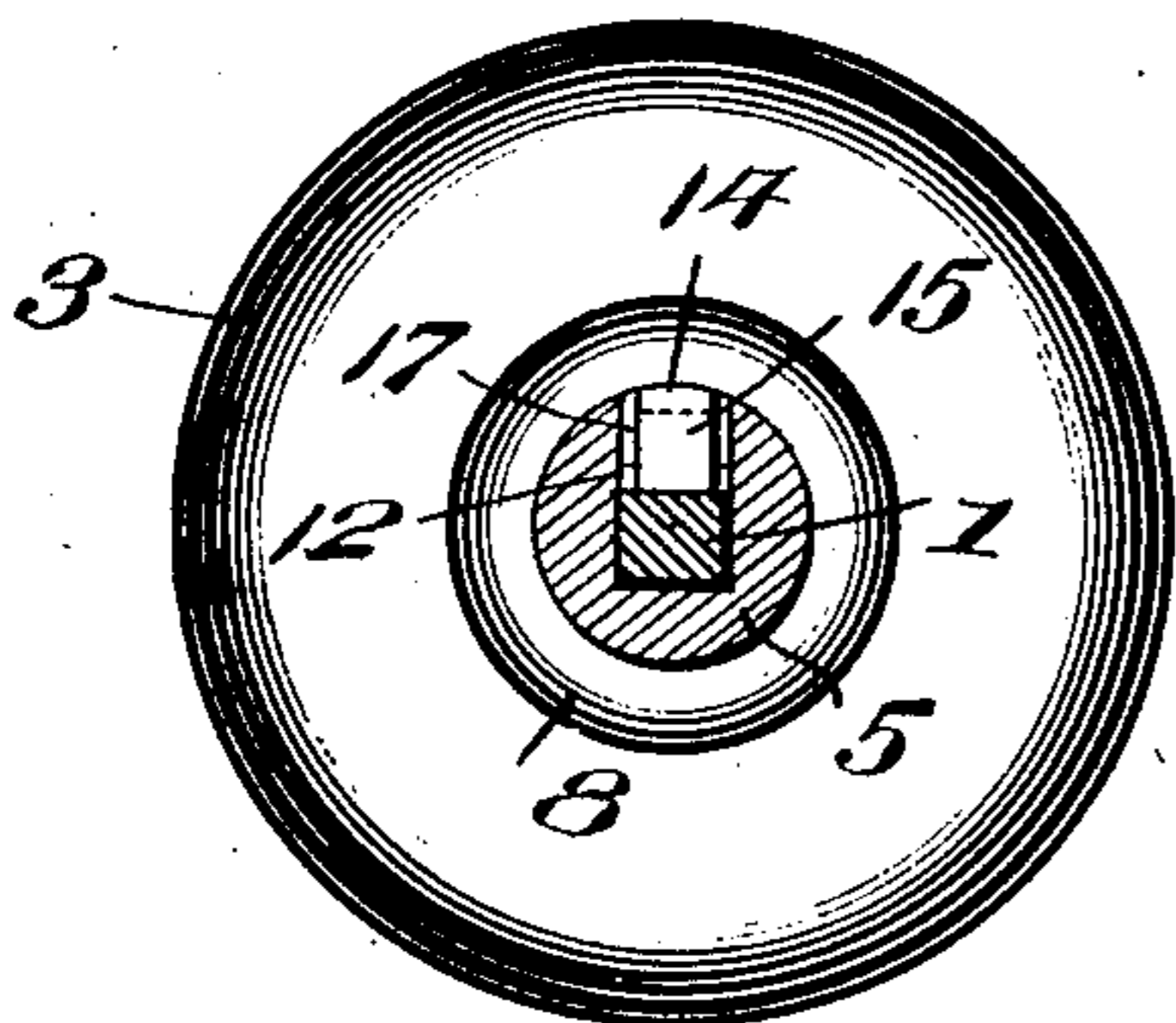
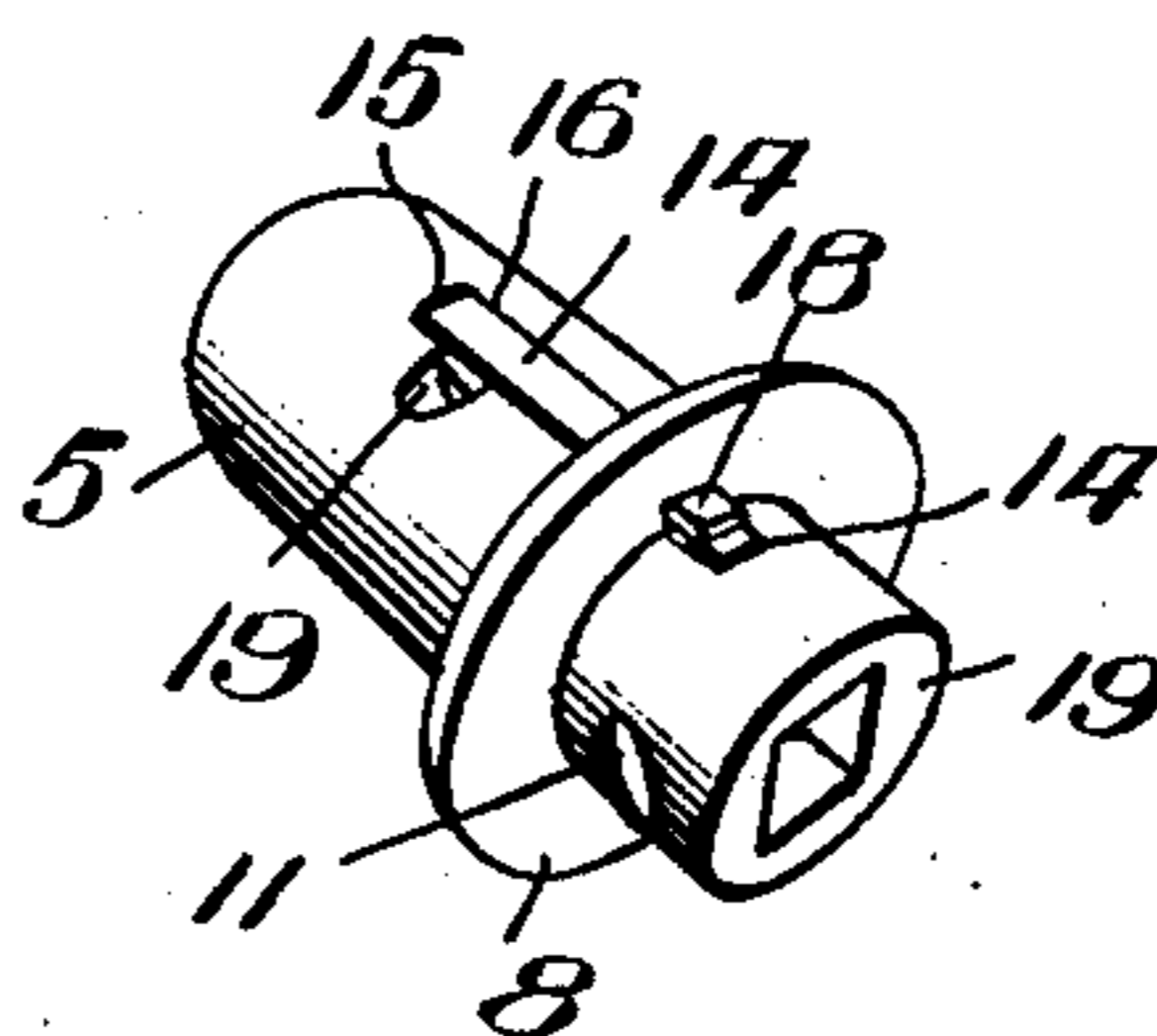


Fig. 4.



Witnesses

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KNOB ATTACHMENT.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MARTIN WEBER, a citizen of the United States, residing at Denver, in the county of Denver and State of Colorado, have invented certain new and useful Improvements in Knob Attachments; and I do 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 improvements in devices for attaching door-knobs to the spindles of locks.

The object of the invention is to provide a simple, inexpensive, durable, and efficient attaching device of this character by means of which the knob may be quickly applied to and adjusted upon the spindle and as quickly and easily removed therefrom.

With the above and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a side elevation of a lock-spindle with two knobs secured upon its ends in accordance with my invention; Fig. 2, partly an elevation and partly a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view, and Fig. 4 is a perspective view of one of the hubs or shanks of the door-knobs.

Referring to the drawings by numeral, 1 denotes the usual rectangular spindle of a lock which has door-knobs 2 3 secured upon its opposite ends. While these knobs may be of any desired form and construction, I preferably construct them of a body or hand-grip 4 and a hub or shank 5, which parts are united by soft metal, cement, or other suitable material 6. The hubs or shanks 5 are tubular in form and have rectangular bores to receive the ends of the spindle. The shank of the knob 2 is rigidly secured to the spindle 1 by a cross-pin, rivet, or the like 7, while the shank of the knob 3 is adjustably and detachably mounted, as presently explained.

Each of the shanks 5 is formed adjacent to its end with an annular collar 8, which is adapted to engage the inner face of the body or hand-grip 4 of the knob, as shown. The inner end 9 of the shank is adapted to project into an undercut recess or cavity 10 in the body 4 and is formed with an annular series of depressions or recesses 11, which are

adapted to receive the binding material 6, so that the handle or body 4 will be prevented from pulling off of the shank and spindle.

The knob 3 is detachably and adjustably secured upon the spindle by means of a pawl-and-ratchet connection, the pawl being carried by the shank of the knob and the rack by the spindle. This rack 12 is formed upon one face of the spindle 1, adjacent to its beveled end 13, and the pawl 14 is in the form of a straight strip of spring metal, having one of its ends 15 bent at right angles to engage the teeth of the ratchet 12. This spring 14 is disposed in a longitudinally-extending seat or recess 16, formed in the outer face of the shank 5 of the knob 3 and extending through and beneath the collar or flange 8, as shown. At the outer end of the recess 16 is formed a transverse opening 17, through which the end 15 of the spring projects, so that it may engage the teeth of the ratchet 12. The spring is secured in the seat or recess 16 by wedging its inner end under the collar 8 and also, if desired, by driving a small wedge 18 between its upper face and the recess or opening in the collar, as clearly shown in the drawings. It will be seen that when the spindle is inserted in the shank 5 of the knob 3 the end 15 of the spring-pawl 14 will be successively engaged with the teeth of the ratchet 12, so that the knob 3 will be prevented from slipping off. To permit the knob to be readily removed, I form to one side of the recess or seat 16 a notch 19, in which a nail or pointed instrument may be inserted to raise the spring-pawl 14 sufficiently to disengage its end 15 from the teeth of the ratchet.

The construction, operation, and advantages of the invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings. It will be seen that when one of the knobs is detachably and adjustably secured upon the spindle, as set forth, the parts may be quickly adjusted upon a door of any thickness and securely locked thereon, so that it will be impossible for the knobs to become detached without first manually lifting the spring-pawl 14.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of the invention.

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

In combination with a spindle having
5 ratchet-teeth on one of its faces, a knob having a recess and a shank having one end in said recess, said shank being provided with a bore to receive the spindle, and an annular collar bearing against one side of the knob
10 and provided with an inwardly-widened, wedge-shaped opening, said shank being provided with a transverse opening which extends to the ratchet-face of the spindle and with a longitudinal opening which extends
15 from said transverse opening to the wedge-shaped opening in the collar, a spring-pawl comprising a straight arm in said longitudinal opening of the shank and opening of

the collar, and a transverse arm in the transverse opening of the shank and engaging the ratchet-teeth of the spindle, a wedge in the opening of the collar and securing the end of the longer arm of the spring-pawl therein, the broadened end of said wedge extending into the recess in the knob, and a filling in said recess uniting the spindle to the knob and also bearing against the broadened edge of the wedge to lock the latter in place.

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

MARTIN WEBER.

Witnesses:

JOHN G. HOLZWARTH,
LUDOLF P. BISCHOFF.