No. 671,943. Patented Apr. 9, 1901.

C. E. SMITH.

KNOB ATTACHMENT.

(Application filed July 11, 1900.)

(No Model.)

Fig. 1.

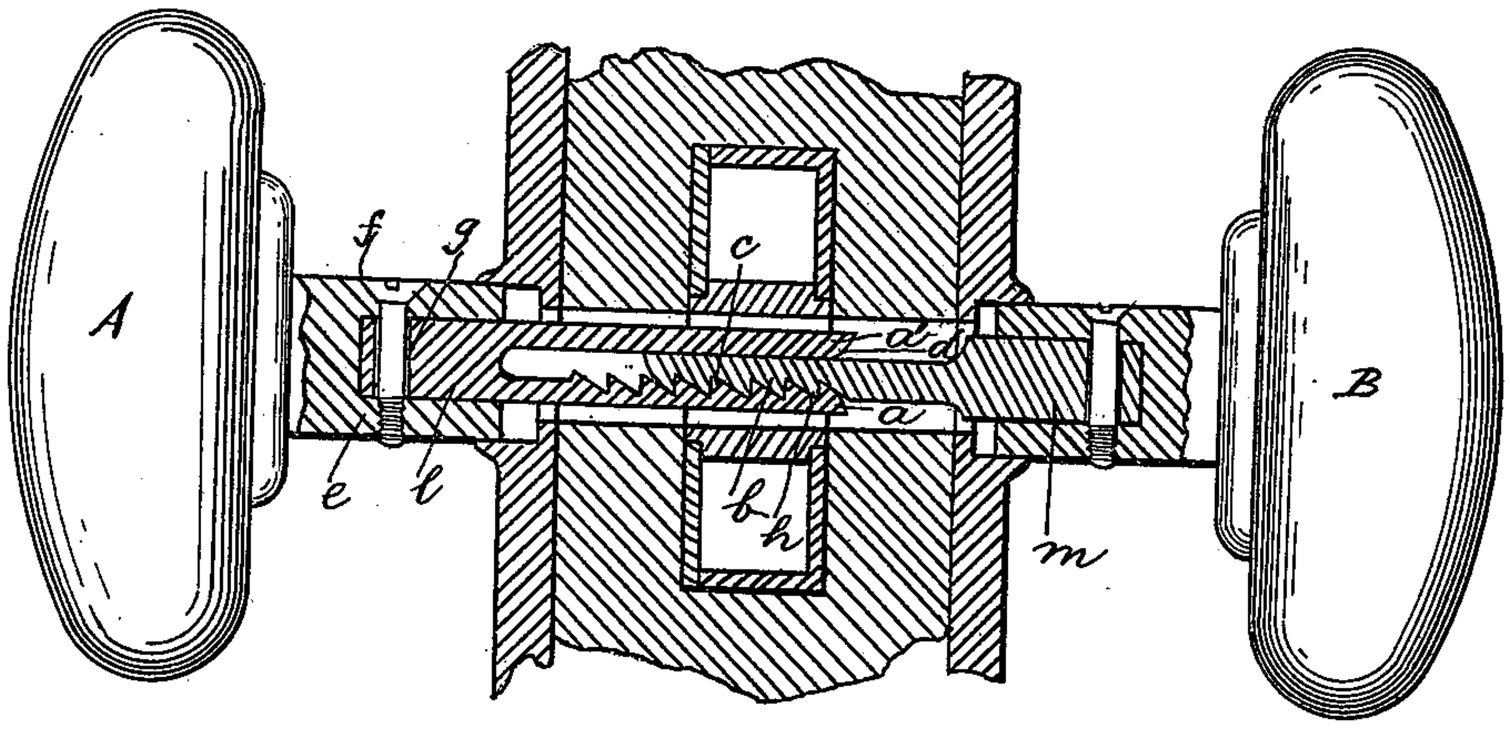

Fig. 2.

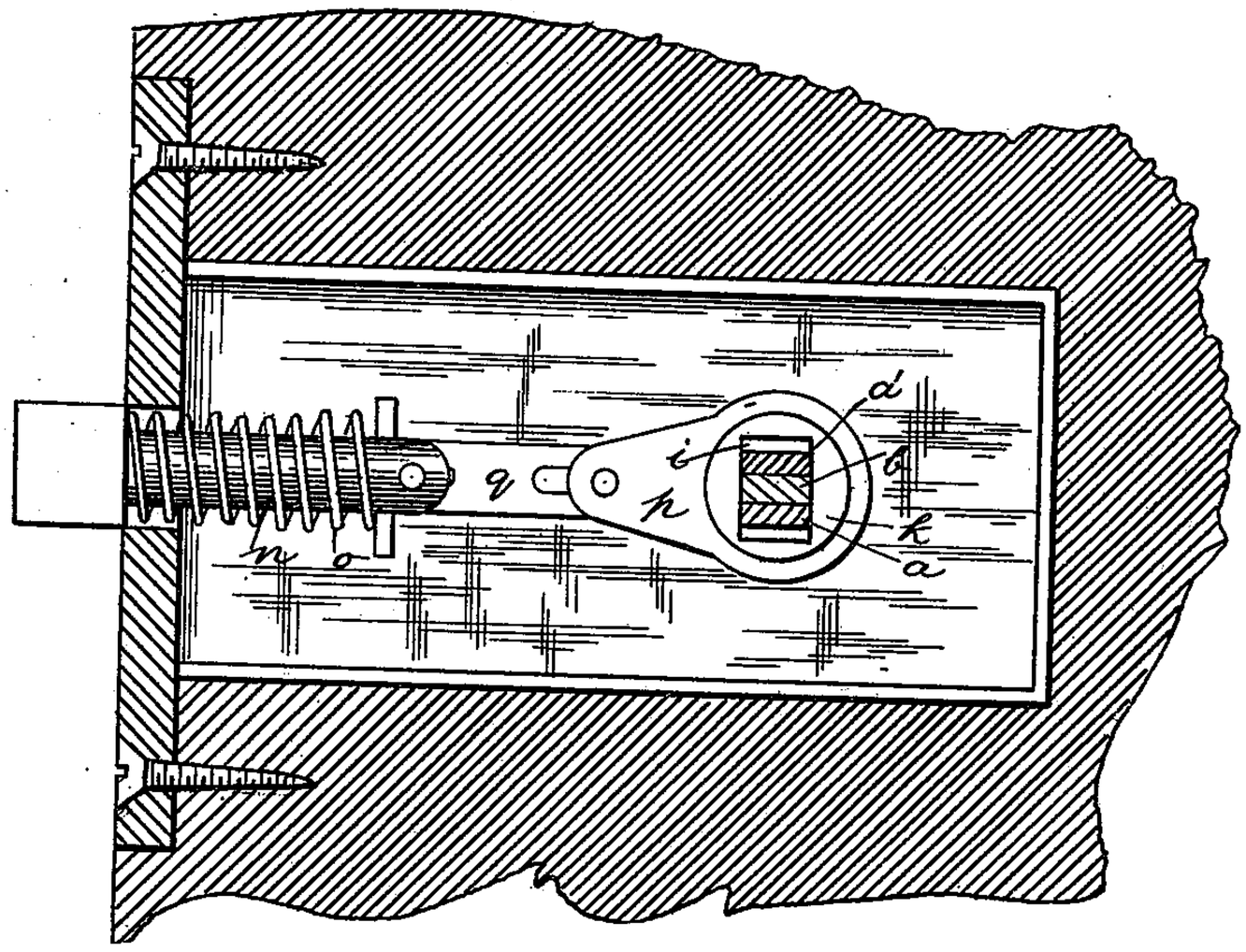

Fig. 3.

WITNESSES:

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BY

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CHARLES E. SMITH, OF OROVILLE, CALIFORNIA, ASSIGNOR OF ONE-HALF TO CHRIS KEISER, OF OAKLAND, CALIFORNIA.

KNOB ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 671,943, dated April 9, 1901.

Application filed July 11, 1900. Serial No. 23,246. (No model.)

To all whom it may concern:

Be it known that I, CHARLES EDMOND SMITH, a citizen of the United States, residing at Oroville, in the county of Butte and State of California, have invented certain new and useful Improvements in Knob Attachments, of which the following is a specification.

My invention relates to improvements in latch-spindles, one object of my invention being to provide a device of this character which can be secured in place with the least possible expenditure of labor and time, which shall be strong and durable, and which can be removed from the door by withdrawing a screw like that in the ordinary door-knob, thus presenting no difficulty in removing the knob to a person unacquainted with the internal construction of the fastening.

A further object of the invention is to provide a latch-spindle which can be secured in position in the manner above mentioned and which can be used in connection with door-knobs of the ordinary construction used at the present time, so that said shank can be brought into commercial use without the necessity of discarding the present style of door-knobs and the machinery necessary for the construction thereof.

My invention therefore resides in the novel construction, combination, and arrangement of the parts for the above ends hereinafter fully specified, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a longitudinal section of a latch equipped with my improvement, and Fig. 2 is a transverse section of the same.

Referring to the drawings, A and B represent two door-knobs, and in said knobs A and B are secured the shanks of the two parts *l m* of the latch-spindle. Each shank is secured in its knob by means of a small screw *e*, passed through an aperture *f* in the knob and also through an aperture *g* in the shank. The part *l* of the latch-spindle is forked, as shown, and the part *m* has a tongue *b*, fitting between the prongs *a a'* of said fork. The tongue *b* has teeth *h* on one side, which engage teeth *c* of the prong *a*, and said prongs *a a'* are made of spring metal to permit the tongue *b* to pass between them and the teeth *h* to engage the teeth *c*. The free ends of the prongs *a a'* are slightly beveled, as shown at *d*, to form a flaring entrance between the prongs. The tongue *b* and the prongs *a a'* are all of the same width and the width of the rectangular opening *i* in the socket *k*, which operates the latch-spindle. Said latch-spindle is operated in the manner disclosed in the patent granted to me December 5, 1899, No. 638,404—that is to say, by means of an arm *p* and link *q*, a spring *o* normally extending said latch-bolt. The other transverse dimension of the opening *i* is somewhat greater than its width and greater than the combined thickness of the prongs *a a'* and tongue *b*, thus permitting the teeth *c h* to pass each other. The snug fit of the prongs *a a'* and tongue *b* widthwise in the opening *i* causes the socket *k* to be turned with the turning of the handle or knob.

The device will be supplied to the trade with the prongs attached to the knobs. In putting on the door-latch all that is necessary is to pass the prongs *a a'* and tongue *b* through the two escutcheons and insert them into the holes in the door which aline with the sockets in the lock-casing and push them together as far as they will go and then screw on the escutcheons. The knobs A B will then be automatically secured in place. To remove the knobs, either screw *e* is withdrawn and the corresponding shank is drawn out of the knob and through the socket, and the prongs are then separated from each other by a side movement.

The advantages of my construction are that the device has great strength and durability, that it is quickly attached in place, and that it is removed in the same manner as the ordinary door-knob by unscrewing a screw in the said knob, so that a person not acquainted with the internal construction of the knob will find no difficulty in removing the knob from the door. A further advantage is that the shank can be readily applied to door-knobs of the ordinary construction as at present used without alteration thereof. A further advantage of this construction is the saving of time to the carpenter in putting the door-knobs on a door. Door-knobs are always sent out by the manufacturer and sold in the trade connected together as they

would be connected when placed in position on a door. This is done for convenience of packing. The first thing a carpenter has to do in putting such a pair of knobs on a door is to take off one of the knobs from the shank by unscrewing the screw through the knob. As likely as not he will take off the wrong knob, and this occasions additional delay. With my construction as soon as the knobs are lifted from the box they can be separated from each other, each containing its own shank, by simply sliding the tongue connected with one knob laterally out from between the prongs connected with the other knob. Indeed, this separation takes place of itself as soon as the carpenter takes up the knobs. They are at once ready for insertion in the door, and all that a carpenter has to do is to push the two parts of the latch-spindle through the socket from opposite sides, when they will automatically engage each other at the right time when the knobs are in exactly the proper position relative to the door. This easy disengagement of the two parts of the latch-spindle when not in position in the door is novel with my construction, so far as I am aware.

I claim—

A two-part latch-spindle, each part comprising a shank attached to a door-knob, one of said parts having a tongue and the other having prongs, said tongue being constructed to enter between said prongs, one of said prongs being resilient, and one of said prongs and said tongue having coengaging teeth whereby the two parts are automatically connected against longitudinal separation, said coengaging portions of the tongue and prong being outside the knobs, substantially as described.

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

CHARLES E. SMITH.

Witnesses:
FRANCIS M. WRIGHT,
Z. A. DANIELS.