No. 641,662. Patented Jan. 16, 1900.

J. G. WILLIAMS.

KNOB ATTACHMENT.

(Application filed Apr. 7, 1899.)

(No Model.)

FIG. 1.

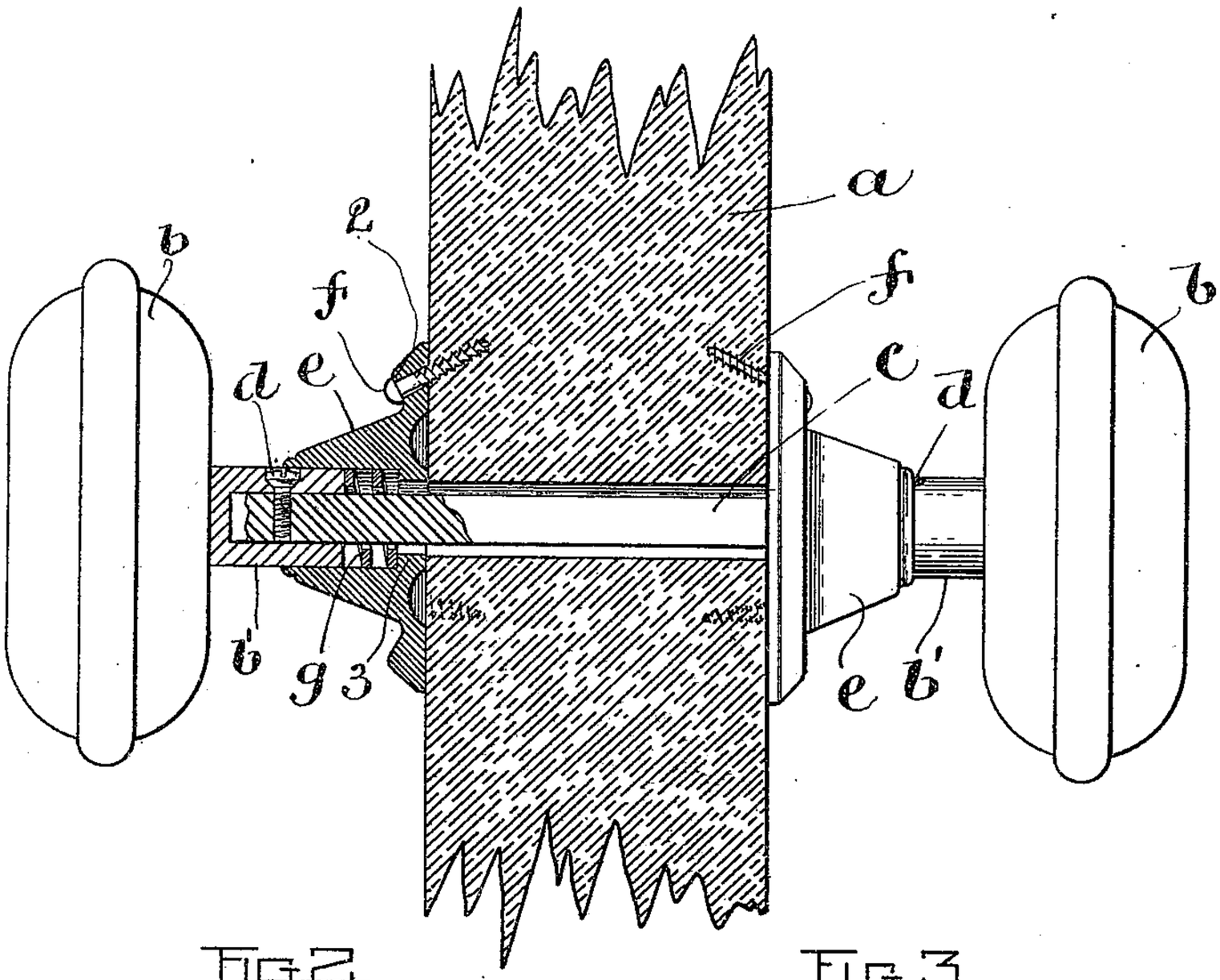


FIG. 2.

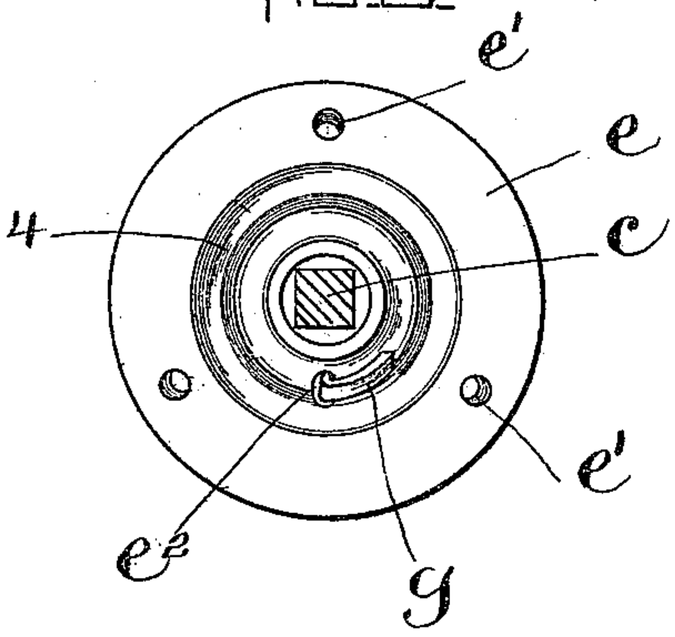
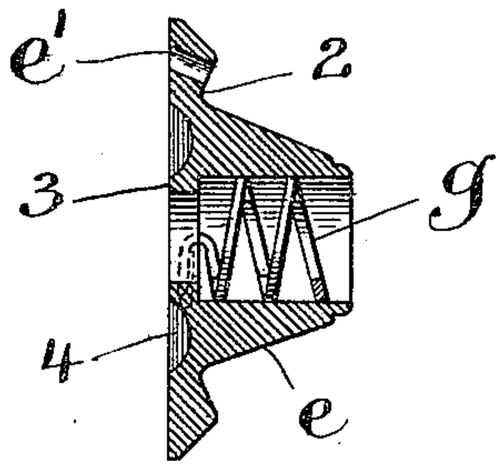


FIG. 3.



WITNESSES

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JOHN G. WILLIAMS, OF EVERETT, MASSACHUSETTS.

KNOB ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 641,662, dated January 16, 1900.

Application filed April 7, 1899. Serial No. 712,141. (No model.)

To all whom it may concern:

Be it known that I, JOHN G. WILLIAMS, of Everett, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Door-Knob Attachments, of which the following is a specification.

This invention has relation to door-knobs; and it has for its object to provide improvements in such devices, whereby the liability of accidental loosening or detachment of the knob is overcome and the rattling of the knob and connected parts is prevented.

The invention consists in the improvements which I shall now proceed to describe and claim.

Of the accompanying drawings, Figure 1 represents a view in section and side elevation of a door and knob attachment constructed in accordance with my invention. Fig. 2 represents a view of the inner face of the rose. Fig. 3 represents a detached sectional view of the rose and spring.

The same reference characters indicate the same parts in all the figures.

Referring to the drawings, *a* represents a door. Although the latch usually employed on doors is not shown in the drawings, it will be well understood that the door *a* may be provided with a latch to be operated by the knobs in the ordinary manner.

b b are the knobs, and *c* is the spindle passing through the door and attached to said knobs by means of screws *d d* in the ordinary manner, the said screws passing through holes in the shanks *b'* of the knobs and screwing into threaded holes in the spindle.

e e are roses attached to the door *a* on opposite sides thereof by means of attaching-screws *f f*, passing through holes *e' e'*, placed near the margins of the roses. The holes *e'* are inclined or divergent, as shown, and are surrounded by seats 2 for the screw-heads, disposed at right angles to the longitudinal axes of the holes and having a general inclination at an angle outwardly with respect to the door-abutting faces of the roses. The screw-seats may be conveniently formed by grooving the rose annularly near its margin, as shown, and giving the bottom of the groove an inclination or bevel from the margin toward the inner or door-abutting face of the rose. The screws *f*, when placed in position, are then caused to diverge or spread outwardly at an angle to the face of the rose, and their hold on the door is thus increased, making them less liable to be pulled out than when they are driven in straight.

The roses *e e* are each formed with sockets for the reception of the knob-shanks *b'*, and between the ends of said shanks and the inwardly-directed flange 3, formed on each rose and constituting the end wall of its socket, are interposed helical springs *g*. One function of these springs is to operate in place of the washers commonly interposed between the knob-shank and the rose to take up the loose motion of the parts. The springs act effectively to prevent rattling of the knob and its attachments. Each spring *g* is shown in the drawings as engaged with its rose, the inner end of the spring being for this purpose passed through a hole e^2, formed in the rose at the end of the socket, and bent around so as to engage the inner side of the rose, as shown in Figs. 2 and 3. The rose may be annularly grooved, as at 4, on its inner face to form a receptacle for the inner end of the spring. In accordance with my invention I also dispose the parts so that the rose normally overlaps the head of the screw *d*, either partially or wholly covering the head of the screw, so as to prevent the screw from being accidentally loosened or removed and the knob from coming off or getting loose. The drawings show the central sleeves or flanges on the roses *e* as partly covering the heads of the screws *d* when the knobs and spindle are in their normal central position, due to the opposed tension of the two springs. The knobs and spindle may be moved in either direction from this central position, compressing one or the other of the springs *g* when so moved, and the arrangement of the parts is such that either of the screws *d* may be completely exposed by such movement, whereby access to the screws may readily be obtained.

I claim—

In combination a door, a spindle, two knobs having their shanks fitted to the ends of said spindle, screws attaching said shanks to said spindles, two roses attached to opposite sides

of the door and normally overlapping the heads of the screws, each of said roses having a socket and a spring confined between the end wall or bottom of said socket and the end of the knob-shank, the two springs acting to hold the spindle in an intermediate longitudinal position with the two shank-attaching screws overlapped by the outer ends of the roses, and permitting said spindle to be moved in either direction to expose either screw.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN G. WILLIAMS.

Witnesses:
C. F. BROWN,
A. D. HARRISON.