A. G. GRAY.

Improvement in Attaching Knobs to their Spindles.

No. 126,694. Patented May 14, 1872.

Fig. 1

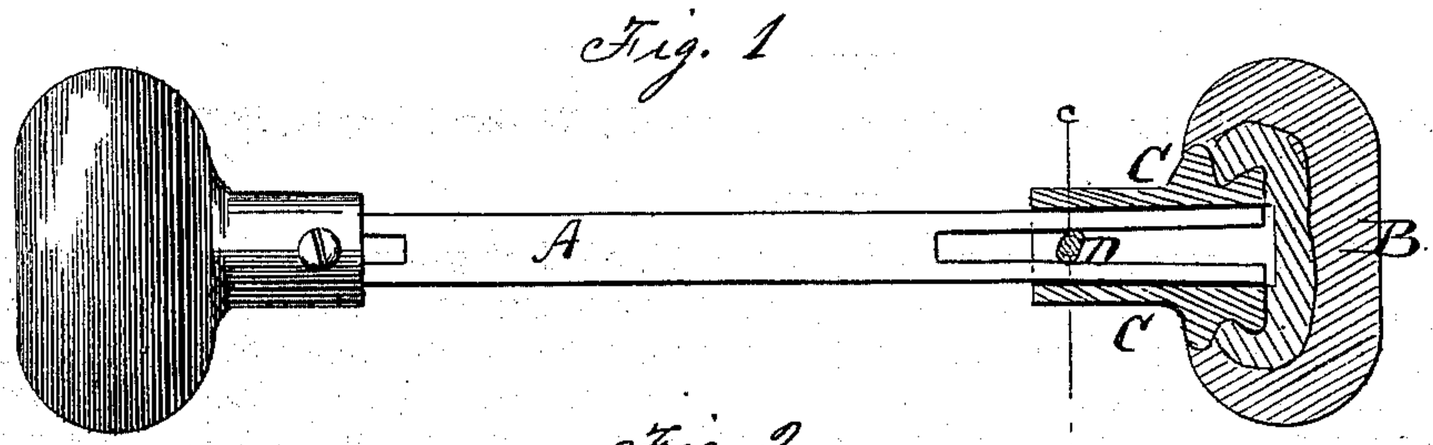


Fig. 2

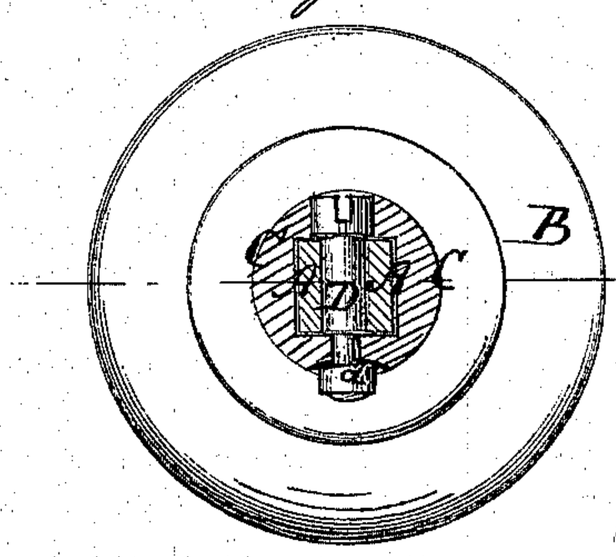
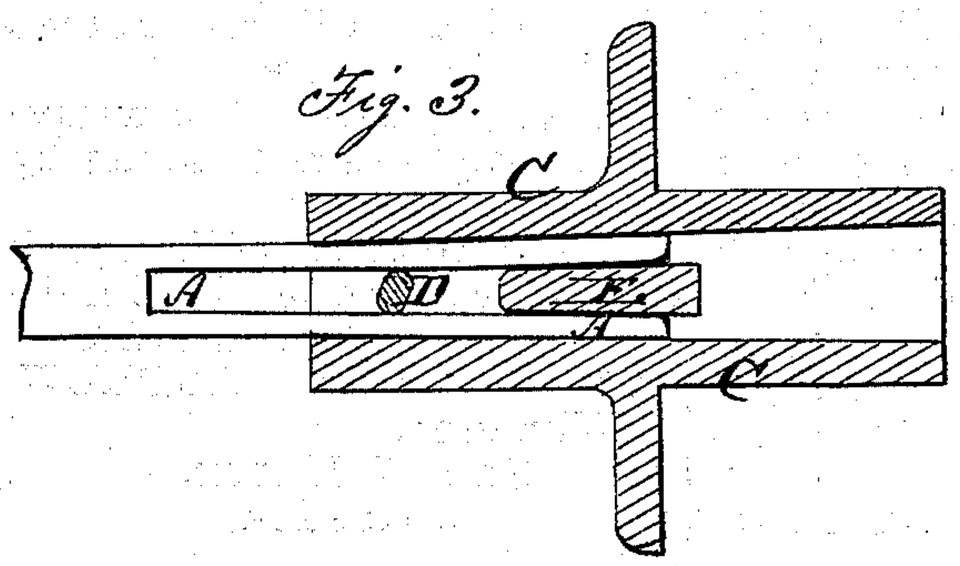


Fig. 4.

Fig. 3.



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UNITED STATES PATENT OFFICE.

ANDREW G. GRAY, OF ST. JOHN, CANADA.

IMPROVEMENT IN ATTACHING KNOBS TO THEIR SPINDLES.

Specification forming part of Letters Patent No. 126,694, dated May 14, 1872.

Specification describing a new and Improved Door-Knob and Spindle, invented by ANDREW G. GRAY, of St. John, in the Province of New Brunswick and Dominion of Canada.

Figure 1 represents a side view, partly in section, of my improved door-knob and spindle. Fig. 2 is a transverse section of the same on the line *c c*, Fig. 1. Fig. 3 is a detail longitudinal section of a modification of the same; and Fig. 4, a detail side view of the fastening-pin.

Similar letters of reference indicate corresponding parts.

The invention consists in the arrangement of a forked spindle, a knob with a tubular shank, and an eccentric or cam which can be turned to clamp the spindle and fasten the knob to it.

This arrangement will be a substitute for the screw-fastening now in use, and will dispense with the necessity of perforating the spindle at certain places to fit the thickness of doors most in use and not fit such of other size.

A in the drawing represents the door-lock spindle, forked at one or both ends. B is the door-knob, of suitable style, formed on a tubular shank, C, within which the forked end of the spindle is inserted to straddle a pin, D, that is fitted transversely through said shank, as shown. The pin D is eccentric within the shank C, so that when it is turned to bring its larger cross-section at right angles to the axis of the spindle it will bear firmly against the prongs of the fork of the latter and clamp the spindle, as indicated in Fig. 1. The pin can be turned by means of a screw-driver, it being grooved at one end, as shown in Fig. 4, or by other means. I prefer to provide it with a head, *a*, which has a cam-edge bearing against the outer side of the shank, so that when the pin is turned to clamp the spindle it will also be drawn lengthwise to be tightened on the shank. By having the spindle forked, as stated, it is readily adjustable to any thickness of door, which is evident.

Fig. 3 shows a modification or addition, in form of a wedge, E, firmly secured within the knob-shank to enter between the prongs of the fork and slightly spread them, as indicated. This will still further insure the security of the knob on the spindle.

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

The combination of the door-knob B, shank C, and eccentric pin D with the forked spindle, substantially as specified.

ANDREW G. GRAY.

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