

(No Model.)

R. G. TIPPETT & D. MADLEM.

DOOR KNOB.

No. 346,566.

Patented Aug. 3, 1886.

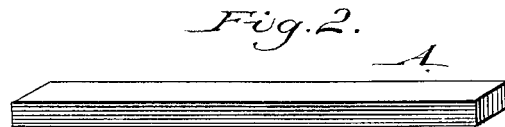
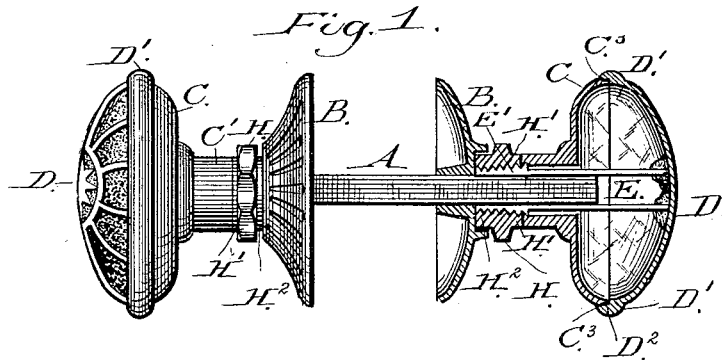


Fig. 3.

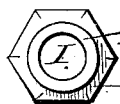


Fig. 5.

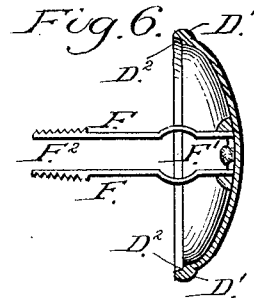
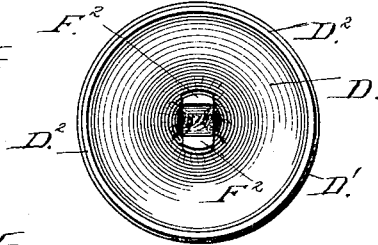


Fig. 4.

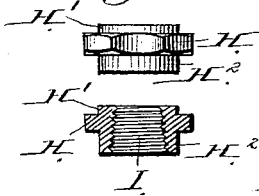


Fig. 7. *Fig. 8.*

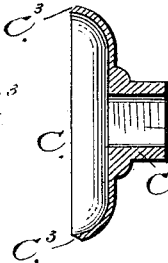
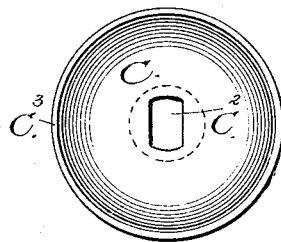
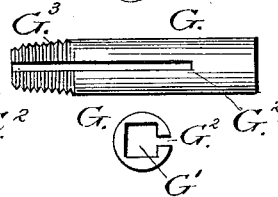


Fig. 9.



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DOOR-KNOB.

SPECIFICATION forming part of Letters Patent No. 346,566, dated August 3, 1886.

Application filed December 11, 1885. Serial No. 185,356. (No model.)

To all whom it may concern:

Be it known that we, ROBERT G. TIPPETT and DANIEL MADLEM, citizens of the United States, residents at the city of Reading, county of Berks, State of Pennsylvania, have invented a new and useful Improvement in Door-Knobs, of which the following is a specification.

This improvement relates more particularly to the class of door-knobs made in separable parts, being cast hollow and secured in position upon a plain, smooth-surfaced, square-sectioned, non-perforate spindle.

The object of the improvement is to admit of casting the door-knob hollow, in two parts, if desired, of an inferior metal, (cast-iron,) and to secure the same together upon the spindles in a simple and positive manner at the same time, with a removable grip, securing the knobs adj-
15 justably as to distance between each other.

20 Carpenters, joiners, and builders are well aware of the time consumed in securing a nice working adjustment of the knobs within the rose-seats of the door, frequently requiring several trials before the proper adjustment is secured. Our knob and spindle overcomes the
25 above annoyance, as from their construction it is only necessary to insert the spindle with one knob in place, then slip on the remaining knob, tighten up a nut, and the whole is held se-
30 curely in place without any readjustment being necessary.

The drawings herewith, fully detailed, will show to an expert the nature of our improve-
35 ment in door knobs and spindles and their connection with each other, like letters of reference indicating like parts throughout.

Figure 1 represents a pair of knobs with their spindles, the right-hand knob shown in section. Fig. 2 represents the spindle detached
40 from the knobs; Fig. 3, a clamping taper-threaded nut by which adjustment of the knobs upon the spindle and the locking of the separable parts of the knob upon each other is secured; Fig. 4, a side elevation and verti-
45 cal section of the same; Fig. 5, a reversed plan of the outer convex or cap portion of the door-knob; Fig. 6, a sectional elevation of the same piece, showing the binding and frictional grip-tangs secured within and forming
50 an integral portion of the shell; Fig. 7, an end plan showing the oblong perforation in the

base of the knob for the admission of the binding screw tangs and spindle; Fig. 8, a detached sectional elevation of the convex base portion of the door-knob; Fig. 9, an alternative
55 device for securing the cap and base of the knob together and as a frictional grip for adjustment of the knobs upon the spindle.

In the drawings, A represents the ordinary bar-spindle as used, without threading or drill-
60 ing, with our improved knobs.

B is the rose as used with the generality of knobs.

C represents the hollow convex base portion of the knob; C', the shank of the same; C², an
65 oblong perforation in the shank; C³, a beveled edge to the rim of the said convex portion.

D is the front convex portion or cap of the knob, having a re-enforce rim, D', and an off-
70 set seat, D², within the same, for the purpose of forming a connection with the base portion C².

In Fig. 1, E represents tangs having re-en-
force taper-threaded ends E', which are stamped or formed of suitable metal, with the
75 thread upon the same. These are placed in the molds when the cap is formed, and become by burning together of the parts an integral portion of the cap D.

In Fig. 6 we show an alternative construction in which the tangs are stamped as an in-
80 tegral piece, F, and are subsequently bent at right angles with a central base portion, and with a corrugate bend, F', a short distance above the base. The object is to provide for
85 any non-conformity of the taper threads of the opposite tang ends, F², as the corrugation gives liberty for adjustment when the nut exerts
its tensional pull upon the tangs, and the nut will come to a fair bearing upon the base of
90 the knob.

In Fig. 9 we show as an alternative means of connection a tube, G, having a longitudinal square perforation, G', through the same, adapted
95 to receive the spindle A, one or more slots, G², being cut therein, as shown, and the free end G³ threaded tapering to suit the nut H. When the piece G is used, the perforation C²
in the shank of the base-piece C is made circular instead of oblong, as shown in plan view
100 Fig. 7. These several parts are all cast with brazed upon, or suitably secured to the convex central portion of the cap D. We give prefer-

ence to the single-piece tangs E', arranged to grip a square cross-sectioned spindle, as shown in Fig. 1.

In Figs. 3 and 4 we represent our gripping and adjusting nut H, having projected offsets H' H², the portion H² adapted to enter the rose B, and to contact with its seat, and the portion H' to conform with the base C' of the knob, the threaded apertures I being tapered to correspond with the tapered threaded ends of the tangs E, F, or G.

The parts C and D, after cleaning, require inspection to see that the beveled edge C³ and the seat D² will enter and interchange with each other, and that the tangs are parallel with each other, and that they are properly secured to the cap D, and that the perforation C² will pass freely over the tang ends of any of the knob-castings.

To use the device, the parts are properly prepared, the lock and roses being in place upon the door. A cap, D, is taken in hand and the base-piece C slipped over the tangs with its bevel-edge C³ within the re-enforce D' and resting upon the seat D². The threaded tangs E', F², or G³ will then project above or beyond the base of the knob. The nut H is then screwed down upon the same. The spindle A is now inserted between the tangs and within the knob, and the nut tightened to a full bearing upon the base. This brings the flat face of the tangs in contact with the corresponding faces of the spindle and securely holds the same, and at the same time draws the cap D into close connection with the base C. The spindle is then pushed through the door and lock and the knob held in the rose-

seat, while the opposite knob, already put together, as described, is slipped upon the spindle until its base contacts with the rose-seat, when the nut H is tightened up and the knobs are removably held together and in place by the frictional grip of the tangs. It will be seen that this construction gives a ready adjustment of length of spindle or distance between knobs to suit any variation of thickness of doors within reasonable limits. As the spindle may be moved in or drawn out of either or both knobs to suit the thickness of the door, and as there are no trial fits to make, time is gained and neatness insured upon every door using our improved device in combination with the locks of the same.

Having shown the construction, use, and advantages of our improvement, we desire to secure by Letters Patent the following claim thereon:

A separable door-knob consisting of a base portion, C, having an oblong longitudinal perforation, C², through its shank, a beveled edge, C³, to its bowl, in combination with a cap portion, D, provided with a re-enforce, D', seat D², and tangs E, having taper-threaded ends E' and taper-threaded nut H, whereby these separable portions CD are securely held together, substantially as shown, described, and for the purpose set forth.

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