

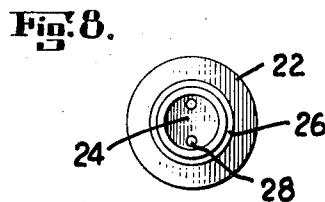
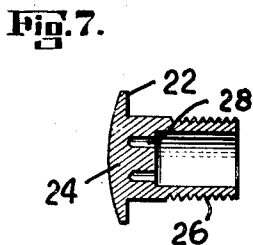
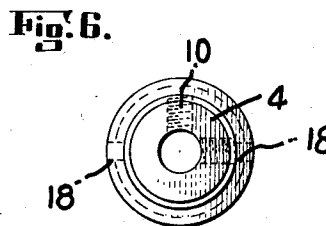
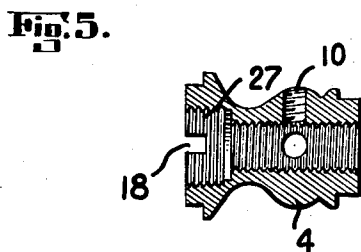
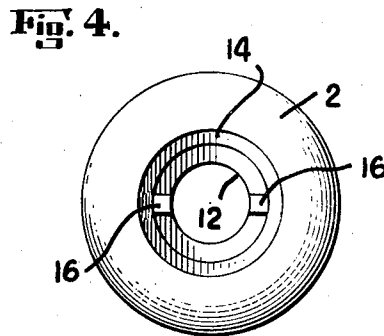
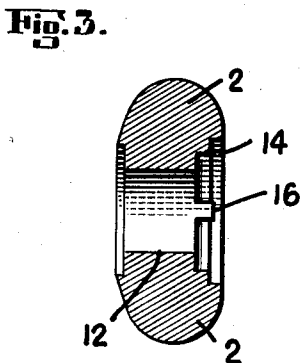
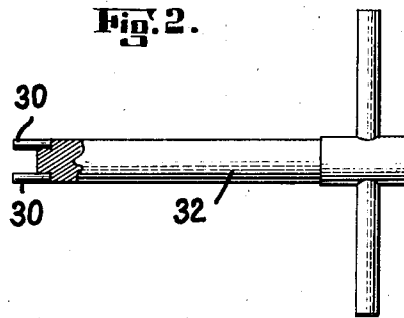
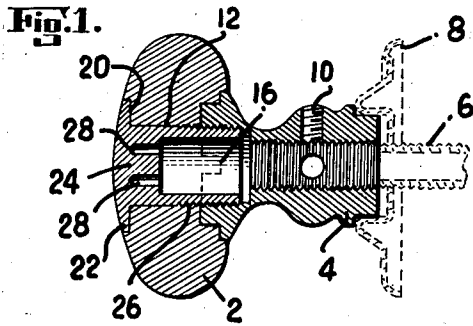
July 12, 1938.

S. P. MORGEN

2,123,539

DOORKNOB

Filed March 1, 1938



INVENTOR.

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## UNITED STATES PATENT OFFICE

2,123,539

## DOORKNOB

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Application March 1, 1938, Serial No. 193,233

2 Claims. (Cl. 292—347)

One of the objects of the present invention is to provide a door knob in which the component parts thereof may be easily and economically manufactured and assembled, and may be arranged in different colors or made from different materials.

Another of the objects of the invention is to provide a novel and improved door knob of the character indicated which is capable of being easily adjusted on the spindle for doors of different thicknesses.

The invention is illustrated by way of example in the accompanying drawing, in which:

Fig. 1 is a longitudinal sectional view of a door knob embodying the invention, shown applied to a spindle and rosette or escutcheon, the spindle and escutcheon being shown by broken lines;

Fig. 2 is a side elevation, partly in section, of a spanner-wrench which may be employed in assembling the parts of the knob;

Fig. 3 is a detail sectional view of the knob top or cap;

Fig. 4 is a side view of the cap;

Fig. 5 is a detail longitudinal sectional view of the knob shank;

Fig. 6 is an end view of the knob shank;

Fig. 7 is a detail longitudinal sectional view of a plug insert forming a component part of the knob; and

Fig. 8 is an end view of the same.

The knob is provided with a top or cap 2 and a shank 4 having an axial screw-threaded aperture to permit it to be screw-threaded on a spindle 6, the end of the shank being adapted to be received in a rosette or escutcheon 8. The shank may be held from turning on the spindle 6 by set screws, screw-threaded into apertures 10 on the shank. The knob cap is provided with an axial aperture 12, the inner end of which is counter-bored to provide a recess 14. The outer end of the shank is received in this counter-bored recess 14 and is held from turning therein by tongues 16 on the bottom wall of the recess 14 which are received in slots 18 in the end of the shank.

The outer end of the aperture in the knob cap 2 is counter-bored to form a recess 20. This recess receives a flange 22 on the outer end of the plug insert 24. This plug insert is made tubular and has its outer end closed and its inner end open. The outer surface of the inner end of the plug insert is provided with screw threads 26 screw-threaded into a counter-bored recess 27 in the inner end of the shank.

The plug insert is provided with holes or sockets 28 adapted to be engaged by the spanner-pins 30 on the end of a wrench 32.

To assemble the knob, the shank 4 is inserted in the recess 14 in the inner side of the knob

cap with the tongues 16 of the cap received in the slots 18 in the end of the shank. The plug insert 24 may then be inserted into the outer end of the aperture in the knob cap and screwed into the inner end of the shank so as to tightly clamp the knob cap between the flange 22 of the insert and the end of the shank. The screwing up of the insert may be accomplished by means of the spanner-wrench 32 which may be inserted through the aperture in the shank to position its spanners in the holes 28.

It will be apparent that the component parts of the knob may be cheaply manufactured and easily assembled and when assembled they are securely held together. The inner open end of the tubular insert 24 provides a clearance space into which the end of the knob spindle may extend, so that a wide range of adjustment of the knob on the spindle may be effected to accommodate doors of different thicknesses.

The parts of the knob may be made of different colors or made from different materials. The knob cap may be made of molded plastic material or pressed or cast metal, and the shank made of solid metal turned from bar stock or cast. The plug insert 24 may be made of cast metal or other suitable material.

As will be evident to those skilled in the art, my invention permits various modifications without departing from the spirit thereof or the scope of the appended claims.

What I claim is:

1. A door knob comprising a knob cap having an axial aperture and a counter-bored recess at the inner end of said aperture, a knob shank having one end received in said recess and having an axial aperture in alinement with the aperture in said knob cap for receiving one end of a spindle, said knob cap and said end of the knob shank having a tongue and slot connection between them to prevent relative turning movement thereof, and a tubular plug insert extending into the outer end of said aperture in the knob cap and having a flange engaging the outer side of said knob, the inner end of said insert being screw-threaded into the inner end of said shank, and the outer end of the insert being closed and its inner end open.

2. A door knob comprising a knob cap having an axial aperture, a knob shank having an axial aperture in alinement with the aperture in said knob cap for receiving one end of a spindle, and a tubular plug insert having its outer end closed and its inner end open and extending into the outer end of said aperture and arranged in screw-threaded engagement with the inner end of said knob shank to secure the cap and shank together.

SIGURD P. MORGEN.