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## PATENT SPECIFICATION

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## COMPLETE SPECIFICATION

## Improvements in Manipulating Knobs for Movable Members of Electric Apparatus, Radio Receivers, Measuring Appliances and the like

We, Fabrica Italiana Magnett Marelli, an Italian body corporate, of 22 Corso Venezia, Milan, Italy, do hereby declare the nature of this invention and 5 in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:

This invention relates to manipulating 10 knobs for movable members of electric apparatus, radio receivers, measuring appliances, and the like, which knobs consist of a member made of electrically insulating material, for example a thermoplastic material suitably moulded, this member being provided with an axial hole to fit the extremity of the spindle to be actuated and also with a transverse hole for a screw intended to fix the knob 20 on to the spindle.

Knobs of this kind are liable to break easily since the screw must exert a marked effort in order to fix the knob firmly on the spindle, especially when the 25 extremity of the spindle is not provided with a key to engage angularly the knob.

The present invention has for an object to provide a knob in which this drawback is eliminated. To this end, according to 30 the invention, the fixing screw engages a hole in a metallic member which is located in a recess or seat in the inner face of the hole in the boss of the knob, and this boss comprises a reinforcing ring 35 on which the said metallic member bears in the radial direction.

On the accompanying drawing is shown, by way of example, one embodiment of a knob according to the invention, Figure 1 being an axial section thereof, and Figure 2 a rear view of the same.

The knob comprises a body 1 which may be of any desired suitable shape and 45 which is provided with a boss having an axial hole 2 to fit the spindle (not shown) to be actuated. A radial hole 3 in the boss of the knob opens into the axial hole 2 and accommodates a screw 6 which 50 serves for fixing the knob on the spindle.

In register with the hole 3 a recess or longitudinal seat 4 is formed in the sur-

face of the hole 2 and in this recess a small plate 5 is freely held, this plate being provided opposite the hole 3 with a screw-threaded hole to receive the fixing screw 6.

On tightening the screw 6 it bears against the spindle and exerts on the plate 5 a thrust towards the outside; this plate therefore tightens firmly in its seat 4 and it ensures a satisfactory angular coupling between the spindle and the knob.

In order to reinforce the part of the knob which surrounds the hole 2, the boss of the knob is provided with a metallic ring 7 which can be incorporated in the insulating material when it is being moulded, upon which ring the said metallic plate 5 bears in the radial direction.

The surface of the plate 5 turned towards the interior of the hole 2 and possibly the surface of the hole 2 of the knob or a portion of the said surface are preferably cylindrical.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. A manipulating knob for movable members of electric apparatus, radio receivers, measuring appliances, and the like, provided with an axial hole to fit the spindle to be actuated, characterised in that the usual fixing screw engages a screw-threaded hole in a metallic member located in a recess or seat in the inner face of the said axial hole, and the knob comprises a reinforcing ring upon which the said metallic member bears in the radial direction.

2. A manipulating knob for the purpose described substantially as hereinbefore described and substantially as shown on the accompanying drawing.

Dated this 7th day of March, 1939.

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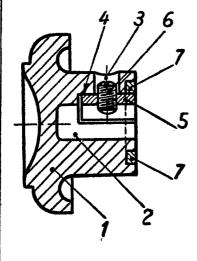


Fig. 2

