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(54) IMPROVEMENTS IN OR RELATING TO CEILING FANS

(71) I, CHAU KWOK YUNG, of British nationality, of 1092, King's Road, Po Fung Garden, Room B2, 23rd Floor, Quarry Bay, Hong Kong, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:-

10 This invention relates to a device for connecting the stator axis of an electric ceiling fan to the down-rod and further relates to an electric ceiling fan incorporating such a device.

15 According to the present invention there is provided a device for connecting the stator axis of an electric ceiling fan to the down-rod, which device comprises the end of the down-rod being formed with a central end aperture in which the stator axis will fit, the end of the down-rod also being formed with an elongate slot in the wall of the end aperture, the slot being substantially aligned with the axis of the down-rod, and two opposed holes through the walls of the end aperture, the holes being substantially equidistant from the slot, a slot also being provided in the stator axis with two opposed holes through the walls of the stator axis, the pairs of holes being aligned and a single fastening means through the holes forming a bolt-like fastening of the down-rod to the stator axis.

20 such that, on fitting the down-rod onto the stator axis or the stator axis into the down-rod, the two pairs of holes are aligned so that a bolt-like fastening of the down-rod to the stator axis can be made through the holes using a single fastening means. Preferably, the down-rod is tubular throughout its length, so that cable can be passed there-through. It should be noted that it is not necessary, although preferred, that the down-rod and stator axis be circular in cross-section; they could for example be ovoid in cross-section.

25 Preferably, there is also provided a single fixing block suitable for mounting a capacitor and a wiring terminal to the down-rod of an electric ceiling fan, which fixing block comprises a substantially U-shaped member for fixing around the down-rod with a single screw, to which a capacitor and/or a wiring terminal can be

mounted.

The invention further provides an electric ceiling fan, wherein the stator axis of the fan is connected to the down-rod, the end of the down-rod being formed with a central end aperture in which the stator axis will fit, the end of the down-rod also being formed with an elongate slot in the wall of the end aperture, the slot being substantially aligned with the axis of the down-rod, and two opposed holes through the walls of the end aperture, the holes being substantially equidistant from the slot, a slot also being provided in the stator axis with two opposed holes through the walls of the stator axis, the pairs of holes being aligned and a single fastening means through the holes forming a bolt-like fastening of the down-rod to the stator axis.

For a better understanding of the present invention and to show how the same may be put into effect, reference will now be made, by way of example, to the accompanying drawings, in which

Figure 1 shows a front elevational view, partly in section, of an electric ceiling fan body, with the cowling shown in chain-dot line,

Figure 2 shows a rear elevational view of the electric ceiling fan body,

Figure 2A shows a side view in the direction A of Figure 2 of the connector, and

Figure 3 shows a top view of the electric ceiling fan of Figures 1 and 2.

Referring now to the drawings, the electric ceiling fan thereof has both features of the present invention, namely the special fastening of down-rod 1 to the stator axis 2 and the special mounting of the capacitor 3 and wiring terminal 4 to the down-rod 1.

The down-rod 1 is provided with a slot 5 and a pair of horizontal holes 6 (only one of which is shown). The stator axis 2 is likewise provided with a slot 7 and a pair of horizontal holes 8 (only one of which is shown). A bolt 9 is passed through the holes 6 and 8 and fastened by a nut 10 and a split pin 11. On tightening the nut 10, the two parts, namely the down-rod 1 and the stator axis 2 (and therefore the ceiling fan unit itself) are

tightly and securely fastened together.

The capacitor 3 and the wiring terminal 4 are connected to the down-rod 1 via a U-piece 12 fitted to the down-rod 1 by a single screw 13, above the nut and bolt fastening the down-rod 1 to the stator axis 2. The capacitor 3 is then conveniently fastened to one side of the U-piece 12 with a screw 14 and the wiring terminal 4 connected to the other side of the U-piece 12 with another screw or screws 15.

**WHAT I CLAIM IS:**

1. A device for connecting the stator axis of an electric ceiling fan to the down-rod, which device comprises the end of the down-rod being formed with a central end aperture in which the stator axis will fit, the end of the down-rod also being formed with an elongate slot in the wall of the end aperture, the slot being substantially aligned with the axis of the down-rod, and two opposed holes through the walls of the end aperture, the holes being substantially equidistant from the slot, a slot also being provided in the stator axis with two opposed holes through the walls of the stator axis, such that, on fitting the down-rod onto the stator axis or the stator axis into the down-rod, the two pairs of holes are aligned so that a bolt-like fastening of the down-rod to the stator axis can be made through the holes using a single fastening means.

2. A device according to Claim 1, in which the down-rod is tubular throughout its length, so that cable can be passed there-through.

3. A device according to Claim 1, in which the down-rod and stator axis are circular in cross-section.

4. An electric ceiling fan, wherein the stator axis of the fan is connected to the down-rod, the end of the down-rod being formed with a central end aperture in which

the stator axis will fit, the end of the down-rod also being formed with an elongate slot in the wall of the end aperture, the slot being substantially aligned with the axis of the down-rod, and two opposed holes through the walls of the end aperture, the holes being substantially equidistant from the slot, a slot also being provided in the stator axis with two opposed holes through the walls of the stator axis, the pairs of holes being aligned and a single fastening means through the holes forming a bolt-like fastening of the down-rod to the stator axis.

5. An electric ceiling fan according to Claim 4, in which a capacitor and a wiring terminal are mounted to the down-rod of the ceiling fan by means of a fixing block, which fixing block comprises a substantially U-shaped member for fixing around the down-rod with a single screw.

6. A device for connecting the stator axis of an electric ceiling fan to the down-rod, substantially as hereinbefore described with reference to, and as shown in, the accompanying drawings.

7. A ceiling fan, substantially as hereinbefore described with reference to, and as shown in, the accompanying drawings.

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COMPLETE SPECIFICATION

2 SHEETS

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the Original on a reduced scale  
Sheet 1

Fig. 1.

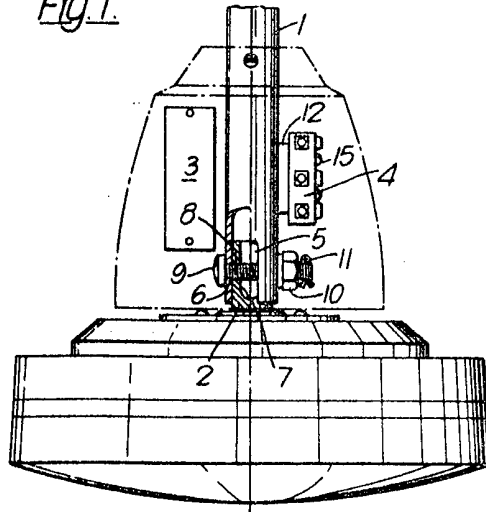


Fig. 2A.

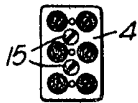
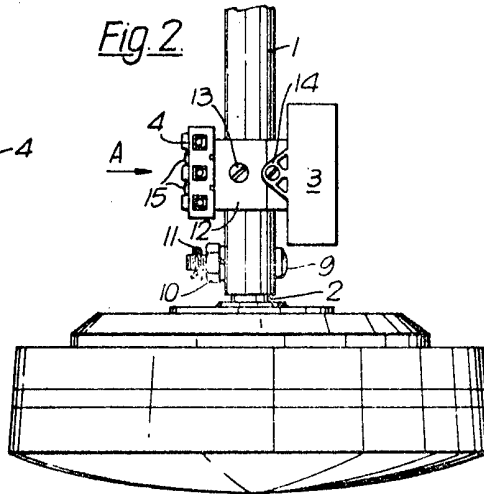


Fig. 2.



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2 SHEETS *This drawing is a reproduction of  
the Original on a reduced scale*  
Sheet 2

*Fig. 3*

