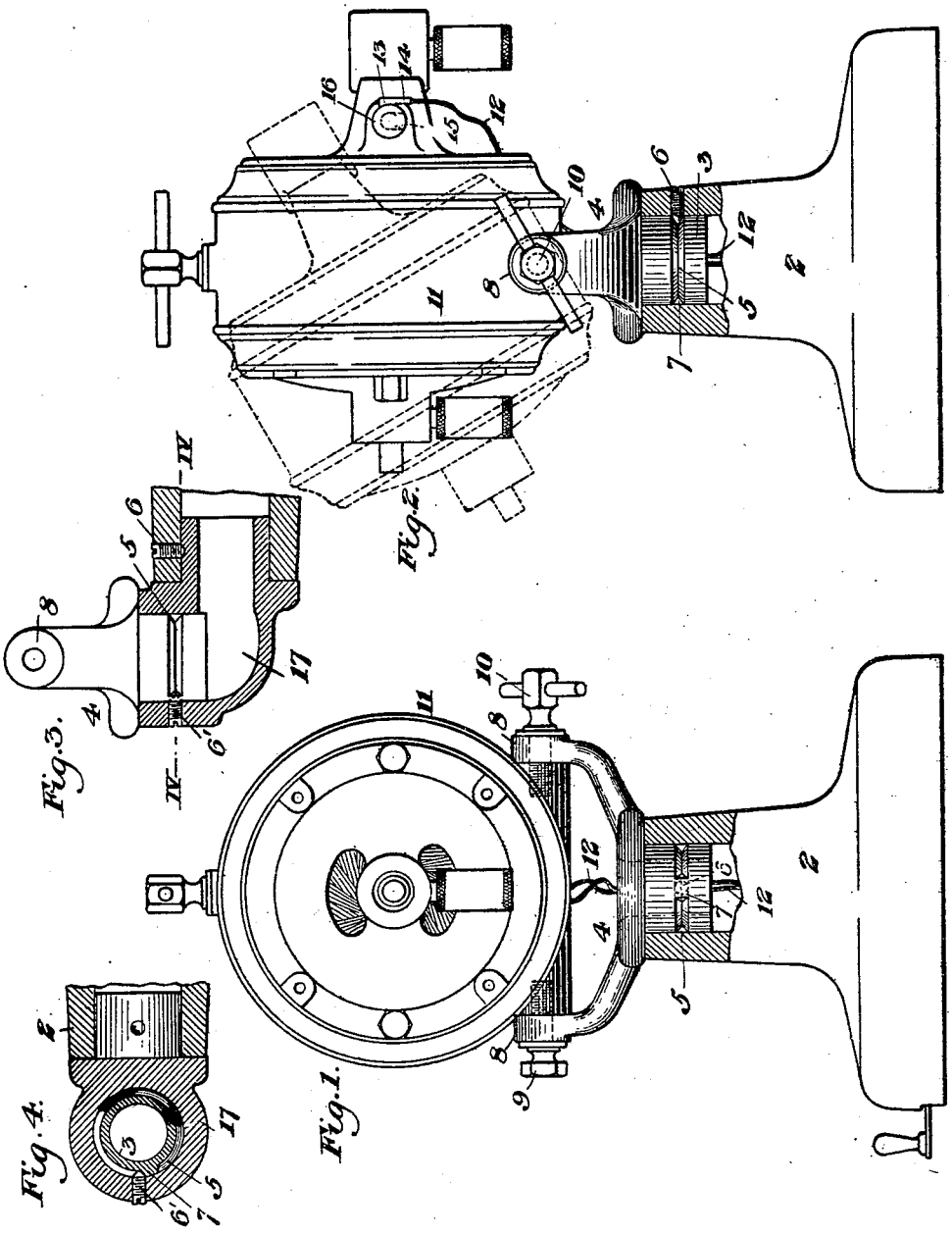
No. 676,441. Patented June 18, 1901.

F. P. McBERTY.

FAN MOTOR SUPPORT.

(Application filed June 12, 1900.)

(No Model.)



WITNESSES

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FRED P. McBERTY, OF WARREN, OHIO.

FAN-MOTOR SUPPORT.

SPECIFICATION forming part of Letters Patent No. 676,441, dated June 18, 1901.

Application filed June 12, 1900. Serial No. 20,017. (No model.)

To all whom it may concern:

Be it known that I, FRED P. McBERTY, of Warren, in the county of Trumbull and State of Ohio, have invented a new and useful Improvement in Fan-Motor Supports, of which the following is a full, clear, and exact description.

My invention relates to an improvement in supports for electric fans, and is designed to afford a support which enables the fan to be placed in any position in which it is desired to use the same.

It further consists in providing a suitable means whereby the motor and its support may be secured to the wall.

The construction of my support is simple, cheap, and durable and is not liable to get out of order, and the construction of the standard or base enables me to make the necessary electrical connection without liability of breakage of said connection in making the various adjustments of the fan-motor. This is true whether the motor stands upon the base in an upright position or is attached to the same in form of a bracket.

In the accompanying drawings, Figure 1 is a front elevation of my improved motor-support attached to the standard in an upright position. Fig. 2 is a side elevation of the same, showing one of the positions of the motor in dotted lines. Fig. 3 is a fragmentary sectional view showing the elbow which I employ when the motor is used with the standard in a horizontal position. Fig. 4 is a horizontal sectional view on the line IV IV of Fig. 3. Fig. 5 is a detail perspective view of the brush-connector.

In the drawings, 2 represents a base or standard, which contains the usual switch mechanism. The standard is made hollow and is adapted to receive a stud 3 of a yoke 4, which supports the fan-motor. In the stud 3 I form a groove 5, which affords a shoulder which is engaged by a retaining-screw 6. This groove preferably extends nearly around the circumference of the stud 3, only sufficient metal being left between the ends of the groove 5 to form a suitable stop 7, which prevents the complete rotation of the yoke 4 by reason of the engagement of the screw 6 with the stop 7. The twisting of the conductors and their breakage or short-circuiting is thus prevented.

The ears 8 of the yoke 4 receive the adjusting-bolt 9 and the clamping set-screw 10 for holding the fan in an inclined position. The threaded portion of the bolt and the set-screw enter a boss on the motor-casing 11 and form the trunnions, upon which the motor is swung in a vertical plane. One of the inclined positions of the motor is shown by dotted lines in Fig. 2.

The rotation of the motor in a horizontal plane is accomplished by turning the yoke upon the stud 3, which rotates within the hollow standard 2. It will thus be seen that a universal adjustment is afforded by the horizontal rotation of the yoke supporting the motor and the swinging of the motor upon the trunnions formed by the bolt 9 and the set-screw 10. This construction enables the fan to be set at any angle that is desired and permits the same to accommodate itself to various conditions in which it is found necessary to use it.

The leads 12 pass through the stud 3 of the yoke 4, which is made hollow, and terminate with a brush-connector plate 13, which is provided with a suitable clamp for the connector 14. The plate 13 is also provided with a slot 15, which fits around the screw 16, which secures the brush to the connector. By bringing the leads to the motor through the hollow standard 2 and stud 3 they are protected against injury, and liability to breakage and short-circuiting, as heretofore stated, is practically impossible.

In the form of my device shown in Figs. 3 and 4 the base 2 is turned in a horizontal position, so as to form a bracket-arm by which the motor may be secured conveniently to the wall or other suitable support. An elbow connection 17 is inserted within the hollow standard 2 and is secured by the screw 6 rigidly within the same. The elbow 17 is provided with a screw 6′, which engages the groove 5 of the stud 3 in the same manner as described with reference to the vertical standard. The yoke 4 supports the motor in an upright position, and it may be tipped up or down and rotated horizontally, thereby giving the universal adjustment to the fan in the same manner as when the motor is mounted upon the vertical standard. The coupling 17 readily converts the support for the

motor from a vertical to a horizontal arrangement and at the same time affords all the advantages of adjustment which are possible in the construction shown in Figs. 1 and 2.

The advantages of my invention will be apparent to those skilled in the art, and many changes may be made in the form of the device to adapt it to other uses. The construction and arrangement of parts may be varied by the skilled mechanic without departing from the spirit and scope of my invention.

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

1. A motor-support, comprising a hollow standard, a yoke having a hollow stem or stud secured thereto, a groove formed in said stem and having a stop therein, and a screw or other securing means adapted to engage said groove so as to prevent the withdrawal of the stem from the standard and to limit by means of said stop the rotation of the yoke, the opening in said stem and in the hollow standard affording a passage for the leads from the motor to the switch, substantially as described.

2. The combination, with a motor, of a motor-support, comprising a hollow standard, a yoke having ears formed thereon adapted to receive adjusting-screws which form the trunnions for said motor upon which it may be moved in a vertical plane, a stem or stud extending from said yoke and adapted to fit within the hollow standard, a groove in said stem and having a stop therein, and a screw or other securing means adapted to engage said groove so as to limit the rotation of the yoke in a horizontal plane, substantially as described.

3. The combination with a motor, of a motor-support, comprising a hollow standard, a yoke having ears formed thereon adapted to receive adjusting-screws which form the trunnions for said motor upon which it may be moved in a vertical plane, a hollow stud or stem formed on said yoke and adapted to fit within the hollow standard and hollow stem, connector-plates secured to leads passing through said hollow stem and hollow standard and adapted to be clamped to said motor by suitable securing devices, a groove formed on said stem, a screw or other securing means adapted to engage said groove, and a stop in the path of said screw, whereby the rotation of the yoke and the motor supported thereby is limited so as to prevent breaking or short-circuiting of the leads passing through the hollow standard and hollow stem, substantially as described.

4. In combination, a supporting-standard, a yoke rotatably mounted on said standard so as to be capable of movement in a horizontal plane, and a motor rotatably mounted on said yoke so as to be capable of movement in a vertical plane, substantially as described.

5. A motor-support comprising a standard, an elbow secured thereto, a yoke swiveled upon said elbow, a stud or stem formed on said yoke and provided with a groove, said groove having a stop partially closing the same, a screw, or other securing means, adapted to engage said groove to prevent withdrawal of the yoke from the elbow, and to prevent the complete rotation of the yoke within the same, substantially as described.

6. A motor-support comprising a hollow standard, a hollow elbow secured thereto, a yoke swiveled upon said elbow, a stud or stem formed on said yoke and provided with a groove, said groove having a stop partially closing the same, a screw or other securing means, adapted to engage said groove to prevent withdrawal of the yoke from the elbow, and to limit the rotation of the yoke within the same, substantially as described.

7. The combination with a motor of a motor-support comprising a standard, an elbow secured thereto, a yoke having ears formed thereon swiveled upon said elbow, adapted to receive adjusting-screws, said screws forming the trunnions for said motor upon which it is moved in a vertical plane, a stud or stem formed on said yoke, a groove formed on said stud, a screw or other securing means adapted to engage said groove, a stop in the path of said screw, adapted to limit the rotation of the yoke and the motor supported thereby, so as to prevent breaking or short-circuiting the leads connected to said motor, substantially as described.

In testimony whereof I have hereunto set my hand.

FRED P. McBERTY.

Witnesses:
T. H. GILLMER,
E. W. GILLMER.