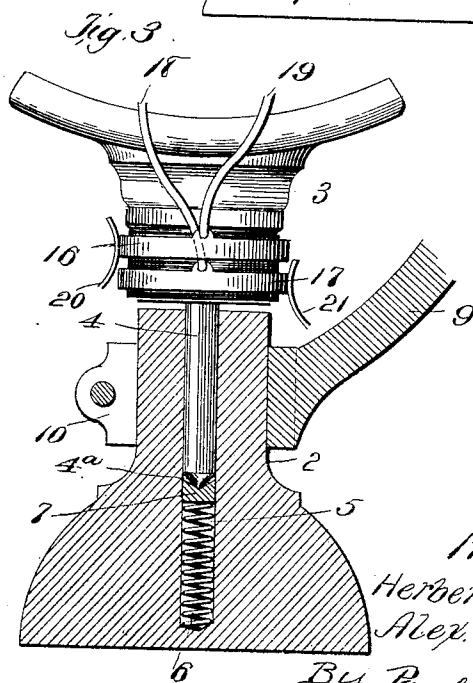
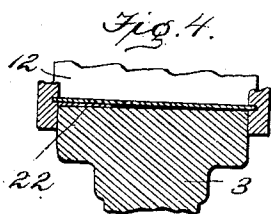
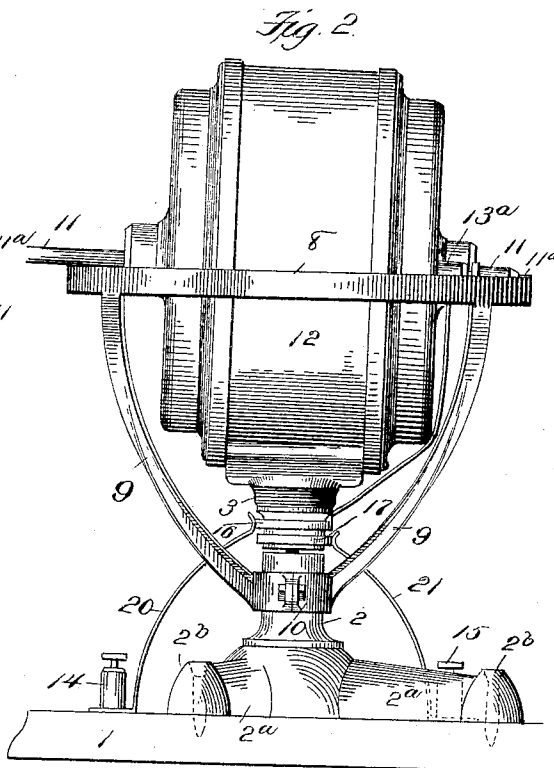
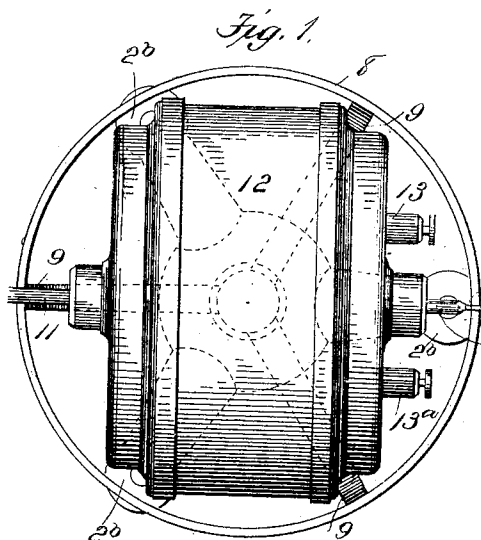


(No Model.)

H. L. PARKER & A. W. MESTON.
REVOLVING MOTOR.

No. 501,482.

Patented July 11, 1893.



Witnesses:
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UNITED STATES PATENT OFFICE.

HERBERT L. PARKER AND ALEXANDER W. MESTON, OF ST. LOUIS, MISSOURI.

REVOLVING MOTOR.

SPECIFICATION forming part of Letters Patent No. 501,482, dated July 11, 1893.

Application filed October 22, 1892. Serial No. 449,612. (No model.)

To all whom it may concern:

Be it known that we, HERBERT L. PARKER and ALEXANDER W. MESTON, citizens of the United States, residing in the city of St. Louis, State of Missouri, have invented certain new and useful Improvements in Revolving Motors, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, wherein like symbols of reference refer to like parts wherever they occur, in which—

Figure 1 is a top plan view of our improved motor. Fig. 2 is a side elevation thereof. Fig. 3 is an enlarged sectional view of the supporting standard; and Fig. 4 is a detail, partial side elevational, view, similar to Fig. 2.

The object of our present invention is to construct a motor adapted to be interchangeable; either into a stationary or revolving motor, and consists, generally stated, in mounting the motor upon a divided or sectional supporting standard, and providing means for elevating the motor proper away from the stationary section of the standard to relieve the same of the frictional contact between the contiguous ends thereof, and in providing mechanism for revolving the motor when so elevated.

A second feature resides in inclosing a pivoted motor with a continuous encircling track, and utilizing the rotations of the armature shaft held in contact therewith, as a propelling medium to rotate the entire motor on its axial support, with its attached fan.

A third feature resides in the means for making and maintaining a continual electrical connection with the revolving motor, and finally, other details of invention reside in the construction, arrangement and combination of parts, all as will hereinafter be described.

In the drawings, 1 indicates a stationary sub-base, upon which our improved motor is preferably mounted, to increase its supporting area. Rigidly mounted upon this sub-base 1, by screws or other means, is the lower section 2, of the divided or sectional supporting standard 2—3 of the motor, which section is provided with radially projecting feet 2^a through the outer enlarged ends 2^b of which, are passed screws for securing the same to the sub-base 1. The upper, or revoluble sec-

tion, 3, is provided with a downwardly projecting pin 4, which fits into a socket 5 formed therefor in the lower section.

Slidingly and yieldingly mounted on a compression spring 6 in the lower portion of the socket 5, is a follower 7, the upper face of which is concaved to form a cup bearing in which is supported and centered the conical bearing end 4^a of the pin 4. The resistance of the compression spring 6 is such as to relieve the armature shaft of the weight of the motor when one end of the same is bearing on the track.

8 indicates the track encircling the motor, upon which rests and turns one end of the armature shaft. This track is supported by arms 9, which project upwardly and outwardly, (preferably in the form of a curve as shown, to escape the body of the moving motor,) from an adjustable split or pinch-bind 10, slidingly mounted on the stem portion of the stationary section 2 of the supporting standard 2—3.

11 indicates the armature shaft of the motor 12, one end, 11^a of which is preferably turned down, or reduced diametrically, where it contacts with the track, in order to reduce the number of revolutions of the motor body, proportionately to the speed of the armature shaft.

To insure a positive contact of the armature shaft with the track at one end, and permit the opposite end to rotate freely thereabove, we tilt the body 12 out of a true vertical line, by introducing under one end thereof, between it and the cap of the section 3, a piece of felt or cardboard 22 (see Fig. 4).

The track 8 is made vertically adjustable on the stationary section 2 through the medium of the sliding connection of the pinch bind 10 therewith. This is done to permit the track to be lowered out of engagement with the armature shaft, in which instance the two sections will abut at their contiguous ends, and the armature shaft will not contact with the track, and the motor will remain in a fixed or stationary position.

To make connection with the binding posts 13 and 13^a on the revolving motor, and feed the current thereto, we attach the main line or feeder terminals to binding posts 14 and 15 on the base 1, and make connections there-

between and the posts 13 and 13^a as follows: On the revoluble section 3, and insulated therefrom for obvious reasons, we mount individual contact rings 16 and 17, and establish connection between said rings and the binding posts 13 and 13^a through the wires 18 and 19. To establish electrical connection between the rings 16 and 17 and the binding posts 14 and 15 of the main line or feeder terminals, we employ two brushes or spring contact plates 20 and 21, the upper or free ends of which are curved and engage with their respective rings, and their opposite or lower ends being bent at substantially a right angle, and introduced under the binding posts 14 and 15 respectively, whereby they not only serve to maintain a continual electrical connection therewith, but serve also as wearing plates for the posts.

We are aware that many minor changes in the details of arrangement and combination of the several parts of our device can be made and substituted for those herein shown and described, without in the least departing from the nature and principle of our invention.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

1. The combination with a motor, its armature shaft, and a pivotal support for the motor, of an encircling track adjustable relative to the armature shaft which is adapted to engage with the same, substantially as and for the purposes described.

2. The combination with a revolubly supported motor, its armature shaft, and a fan secured on the armature shaft, of an encircling track with which the armature shaft is adapted to engage, substantially as and for the purposes described.

3. The combination with a revolubly supported motor, its armature shaft, one end of which is diametrically reduced, and a fan secured on the other end of the armature shaft, of an encircling track adapted to be engaged by the diametrically reduced end of the armature shaft, substantially as and for the purposes described.

4. The combination with a motor, its armature shaft and a yielding pivotal support for the motor, of an encircling track adjustable relative to the armature shaft, which is adapted to engage with the same, substantially as and for the purposes described.

5. The combination with a motor, of a divided or sectional supporting standard, of means for elevating the motor to relieve the same of the frictional contact between the contiguous faces of the divided standard, and mechanism for revolving the motor when so elevated; substantially as and for the purposes described.

6. The combination with a revolubly supported motor and its armature shaft, of an encircling track, with which the armature

shaft is adapted to engage in all revoluble positions of the motor and thereby completely rotate the motor by the rotations of the armature shaft, and means for making electrical circuit to the exciting coils of the revoluble motor, substantially as and for the purposes described.

7. The combination with a revolubly supported motor, of a stationary track completely encircling the motor, and means for completely rotating the motor, substantially as described.

8. The combination with a motor, of a supporting standard composed of a stationary and a revoluble section upon which the motor is mounted, a track adjustably mounted on the stationary section, and an armature shaft engaging with the track; substantially as and for the purposes described.

9. In a revolving motor, the combination with the motor body mounted upon a pivot pin, of a supporting base provided with a socket therefor, and a yielding cup bearing in the socket upon which the pin rests; substantially as and for the purposes described.

10. In a revolving motor, the combination with the motor body, of a divided supporting standard composed of a stationary section and a revoluble section upon which the motor is mounted, a pivot pin projecting from one of said sections and fitting in a socket formed in the other section, a compression spring in the socket, and a follower in the form of a cup bearing interposed between the spring and the pivot pin; substantially as and for the purposes described.

11. In a revolving motor, the combination with a motor body pivoted in its supporting standard, of a standard, an adjustable track surrounding said motor, and an armature shaft, one end of which is adapted to engage the track while its other end rotates freely; substantially as described.

12. The combination with a revoluble motor, comprising a field-magnet and armature, of a supporting standard for the motor comprising a stationary section and a pivotal section to which the motor is secured, contact rings, to which the terminals of the exciting coils of the motor are directly connected, secured to the pivotal section, and stationary terminal plates, to which the terminals of the exterior supply circuit are connected, held in yielding contact with the rings, respectively, substantially as and for the purposes described.

In testimony whereof we hereunto affix our signatures, in presence of two witnesses, this 18th day of October, 1892.

HERBERT L. PARKER.
ALEXANDER W. MESTON.

Witnesses:

HUGH K. WAGNER,
W. M. BYRNE.