Aug. 14, 1928. 1,680,967

H. J. BERRY

MOTOR MOUNTING

Filed March 5, 1927

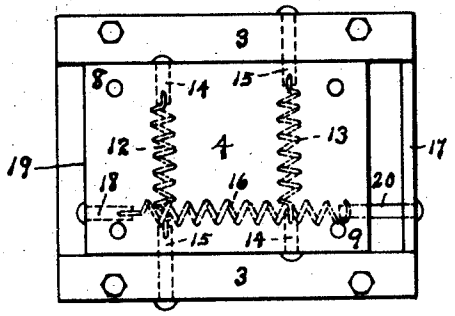


Fig. 5.

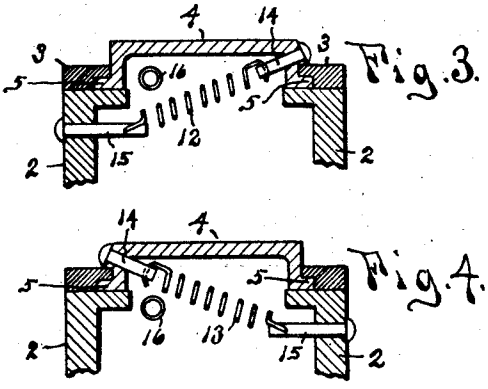


Fig. 3.

Fig. 4.

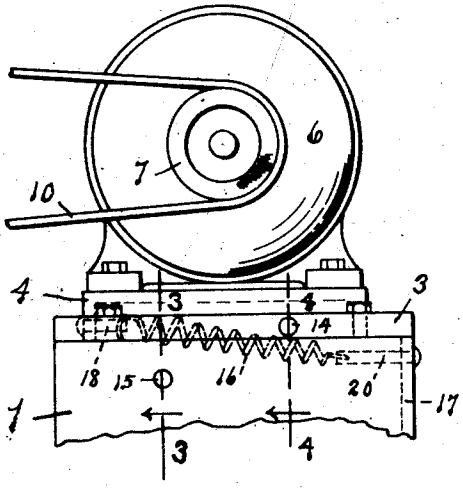


Fig. 1.

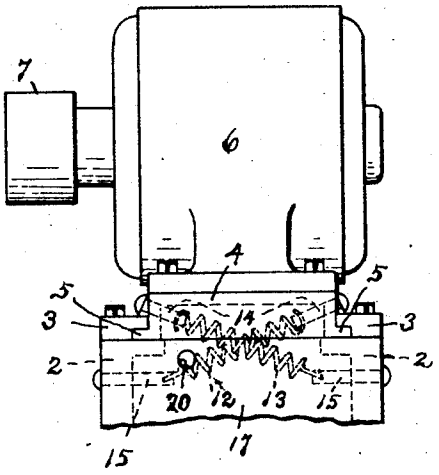


Fig. 2.

INVENTOR.

Henry J. Berry

BY

Edward N. Pagelsen.

ATTORNEY.

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UNITED STATES PATENT OFFICE.

HENRY J. BERRY, OF DETROIT, MICHIGAN, ASSIGNOR OF ONE-THIRD TO CARL W. FLOSS, OF DETROIT, MICHIGAN.

MOTOR MOUNTING.

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This invention relates to the adjustable or slidable bases of electric motors and dynamos, and its object is to provide automatic means for keeping substantially the same tension on the driving or driven belts leading to or from such machines and to provide for free sliding of such bases.

This invention consists, in combination with a support and the base of a belt driving or driven electric machine slidable thereon, of resilient means for keeping uniform a tension on the base and for counteracting the side stresses resulting from the pull of the belt. It further consists in the details of construction illustrated in the accompanying drawing and particularly pointed out in the claims.

In the drawing:—

Fig. 1 is a side elevation;

Fig. 2 is an end elevation of an electric machine provided with my improved mounting;

Figs. 3 and 4 are sections on the lines 3—3 and 4—4 of Fig. 1, respectively;

Fig. 5 is a plan of my improved mounting.

Similar reference characters refer to like parts throughout the several views.

Where an electric dynamo is driven by a single belt or where an electric motor transmits its power through a single belt, and such machines are slidably mounted to provide for taking up the slack of the belts, difficulty has been experienced in the attempt to provide springs to perform this function because the pull of the belt on the machine tends to press diagonally opposite corners of the base against the guides therefor, thus preventing the proper operation of the belt-tensioning mechanism.

In the present drawing a foundation 1 supports the top-plates 2 to which the guides 3 are attached. Slidable on the plates 2 and between the guides is the base 4 of the electric machine which base has flanges 5 extending beneath the guides. On the base is secured the electric machine 6, either motor or dynamo, which is provided with a pulley 7 on which runs the belt 10.

In the present case, the belt tends to turn the base 4 clockwise on the foundation (Fig. 5) causing the corners 8 and 9 of the base to press heavily against the guides. To counteract these pressures, the springs 12 and 13 are mounted between the base 4 and the top plates 2, the spring 12 extending from near the corner 8 to the opposite plate 2 and the spring 13 from near the corner 9 to the other plate 2. Pins 14 in the base and pins 15 in the plates 2 serve to mount these springs.

In order to automatically tension the belt, a third spring 16 is mounted between the base and a cross plate 17 extending across between the top plates 2, a pin 18 being preferably secured in the end 19 of the base from which the belt pulls and a pin 20 in the cross plate 17. This spring is positioned nearer the pulley side of the electric machine in order to resist the pull of the belt more effectually.

It will be understood that the mounting of these springs and in fact all the details of construction may all be changed by those skilled in the art without departing from the spirit of my invention as set forth in the following claims.

I claim:—

1. In a mounting for an electric machine provided with a belt pulley, the combination of a support comprising guides, a base for the electric machine slidable on the support between the guides, and resilient means between the support and base to stress the base against the pull of the belt on the pulley and additional resilient means to resist the lateral pressures between the base and support caused by such pull of the belt.

2. In a mounting for an electric machine provided with a belt pulley, the combination of a support comprising guides, a base for the electric machine slidable on the support between the guides, a coil spring extending from the base to the support and positioned between the pulley side of the machine and the central longitudinal line of the base, and resilient means to resist the lateral pressures between the base and support caused by the pull of the belt.

3. In a mounting for an electric machine provided with a belt pulley, the combination of a support comprising guides, a base for the electric machine slidable on the support between the guides, a coil spring extending

from the base to the support and positioned between the pulley side of the machine and the central longitudinal line of the base, and means to resist the lateral pressures between the base and support caused by the pull of the belt, comprising coil tension springs extending between the support and the corners of the base which press heaviest laterally against the guides.

4. In a mounting for an electric machine provided with a belt pulley, the combination of a support embodying parallel guides, a base for the electric machine slidable on the support between the guides, springs positioned transversely between the base and support to resist the turning action of the belt on the base, and means to slide the base to tension the belt.

HENRY J. BERRY.