

MOTOR SADDLE.

963,755.

2 SHEETS—SHEET 1.



J. V. Jochem, Jr.

by Brown & Sons of Boston
At the

H. W. FORSLUND.
MOTOR SADDLE.
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2 SHEETS—SHEET 2.

Fig. 2.

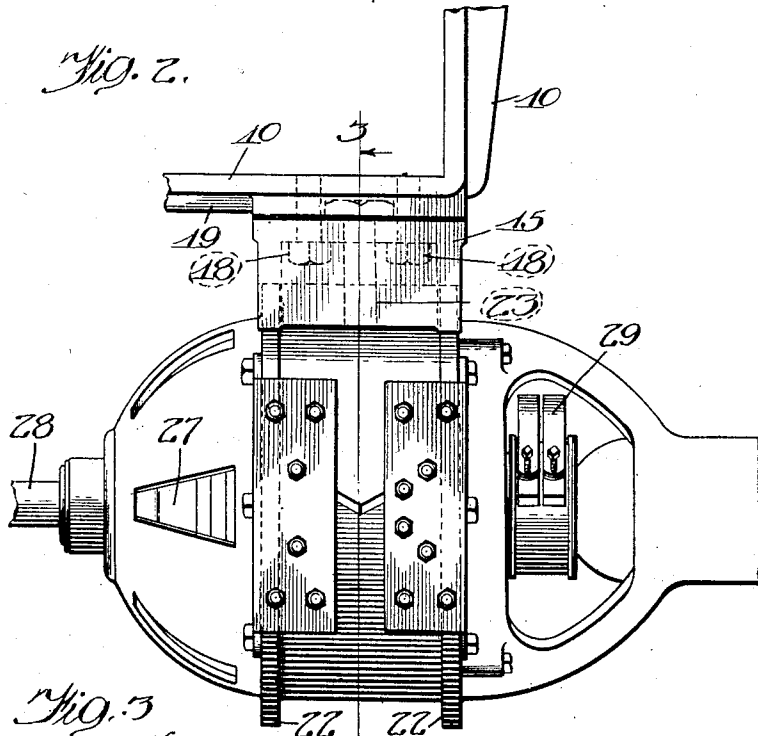


Fig. 3.

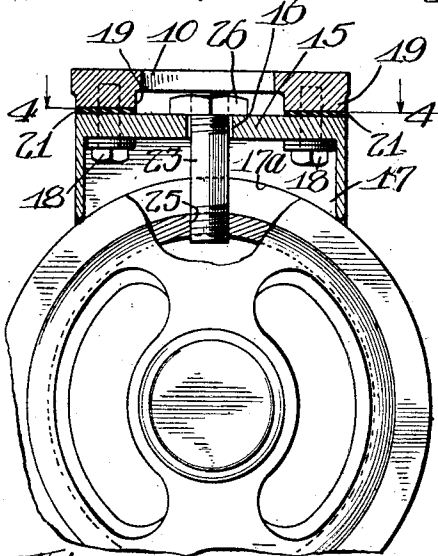


Fig. 4.

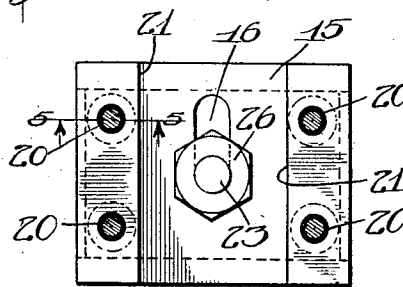
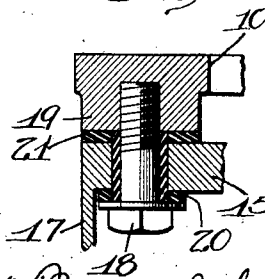


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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MOTOR-SADDLE.

963,755.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HUGO W. FORSLUND, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Motor-Saddles, of which the following is a full, clear, and exact specification.

This invention relates in general to electric hoisting machinery for elevators or the like, especially to that type or class of machines in which the motor is suspended from the ceiling or an overhead support, and more particularly to the saddle for supporting the motor and to which the motor is secured.

The object of the invention is to provide an improved form of motor saddle, which will be thoroughly insulated from the supporting frame.

A further object is to provide an improved saddle and casing for the motor, the contacting faces of which are constructed on a true circle to cause the motor shaft to always assume a direct alinement with its bearings, no matter how frequently the motor may be detached from the supporting saddle.

A further object is to provide an improved device of this character which will be simple and strong in construction, cheap to manufacture, and effective in operation.

In the attainment of these ends and the accomplishment of other new and useful objects, as will appear, the invention consists in the features of novelty in the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawings, illustrating an exemplification of the invention, and in which—

Figure 1 is a view partly in longitudinal section, of a machine constructed in accordance with the principles of this invention. Fig. 2 is a side elevation of the motor frame and its support. Fig. 3 is a sectional view on line 3—3 of Fig. 2. Fig. 4 is a sectional view on line 4—4 of Fig. 3. Fig. 5 is a sectional view on line 5—5 of Fig. 4.

Referring more particularly to the drawings, and in which the same reference numerals designate similar parts throughout the several views, the numeral 10 designates generally a frame of any desired size and construction, which is secured in any manner to, and depends from, an overhead sup-

port or ceiling indicated by the line 11. This frame is preferably constructed of metal and is provided with a controller space 12, and a space 13, for a shaft 14, which latter is adapted to be driven and is mounted in suitable bearings, not shown.

A suitable saddle is provided for the motor, and comprises a base or body portion 15 having an elongated aperture 16 therein and spaced parallel flanges 17.

The base or body portion 15 of the saddle is secured to the frame 10, in any suitable manner, but preferably by means of bolts 18, which pass through the saddle and into ribs or projections 19 on the frame 10, which are preferably provided for the purpose of strengthening that portion of the frame. Suitable insulating material 20 surrounds the portion of the bolts 18, to prevent the same from contacting with the saddle or support, and additional insulating material 21 is disposed between the saddle or support and the ribs or projections 19 on the frame, for thoroughly insulating the frame and saddle.

The motor frame 22 is preferably machined upon a true circle, and is placed against the flanges 17, the edges 17^a of the latter being also shaped on a circle to conform to the contour of the frame 22, and a bolt 23 is passed through the aperture 16, in the base or body 15 of the saddle, and engages the frame 22 of the motor, preferably by means of its threaded end 24 entering a suitable threaded aperture 25 in the motor frame. A nut 26 preferably engages the bolt 23 on the other side of the base or bottom 15 of the saddle for securely holding the motor frame in position, the frame 10 being cored out to permit the ready insertion of the bolt 23, as more clearly shown in Fig. 5.

The motor 27 is mounted within the case 22 and is provided with a shaft 28 and the ordinary brushes 29. The shaft projects for some distance beyond one end of the motor, and passes through a suitable box or bearing 30, and the free end thereof is journaled in a box 31 which is provided with a bolt or screw 32 adapted to take up the end thrust of the shaft 28. The shaft is provided with a worm-screw 33, which is adapted to engage and mesh with a worm-wheel 34, keyed or otherwise secured to the shaft 14, so that when the motor operates the

shaft 28, the worm 33 and pinion 34 will drive the shaft 14.

A suitable brake-pulley 35 may be provided on the shaft 28, which is adapted to be engaged by bands 35, one end of each of which is pivoted as at 37 to the frame 10; the other ends being connected in the usual manner to a shaft 38 journaled in the frame 10, and a suitable operating means 39 may be secured to the shaft for rocking the same to cause the bands 36 to grip the brake pulley 35, as will be understood.

It will thus be seen that with this improved construction of motor saddle, the motor will always be retained in a horizontal position, and no matter how often the motor may be removed, when replaced it will always assume a position that its shaft 28 will be in a direct alinement with the boxes 30—31, owing to the fact that the motor case or frame is machined on a true circle and is adapted to rest against the edge of the spaced flanges 17 which are also machined on a true circle and coincide with the periphery of the case, or, if the motor-shaft and the worm-shaft are made separate and coupled in the ordinary manner (not shown) the end of the motor shaft will be always brought into a direct alinement with the end of the worm shaft.

The slot 16 in the base or body of the saddle permits the motor case or frame 22 to be adjusted into direct alinement with the faces 17^a of the supporting flanges 17. Thus it will be seen that with such an arrangement the motor casing or frame will be firmly secured to the supporting frame and be thoroughly insulated therefrom, and that the motor shaft will always assume a position in a direct line with the boxes and will not pinch or bind therein, thereby obviating the necessity of adjusting the boxes.

In order that the invention might be fully

understood, the details of an embodiment thereof have been thus specifically described. 45

What is claimed as new is:—

1. The combination of a motor case the periphery of which is constructed on a true circle, a motor, a shaft, bearings for the shaft, a saddle for the case provided with spaced supporting surfaces constructed to coincide with the periphery of the casing, a support for the saddle and means disposed between said supporting faces and engaging the motor case for securing the case to the saddle for bodily and longitudinal adjustment with relation thereto, said saddle being adapted to cause the motor to always assume a level position to place the shaft in alinement with the bearings. 50 55 60

2. The combination of a motor provided with a case, portions of which are constructed on true circles, a saddle provided with spaced supporting faces coincident with the said portions of the case, a support for the saddle, means for insulating the saddle from the support, a single fastening device between the said faces and engaging the motor case for securing the case to the saddle for bodily and longitudinal adjustment with relation thereto for causing the said portions of the case to engage the coincident faces of the saddle, a shaft, and bearings for the shaft, said saddle being adapted to hold the case in such a position that the shaft will always be in alinement with the bearings. 65 70 75

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 12th day of December A. D. 1906. 80

HUGO W. FORSLUND.

Witnesses:

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CHAS. H. SEEM.