July 18, 1933. F. R. DIPPMAN 1,918,837

TROLLEY BASE

Filed Nov. 20, 1931

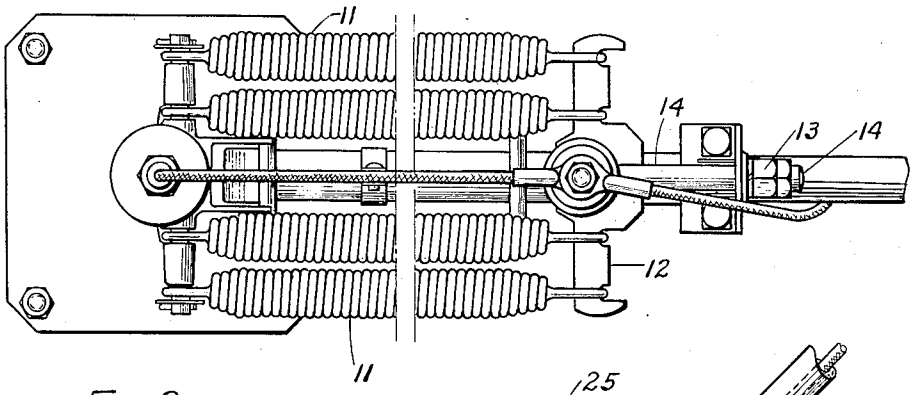


FIG. 2

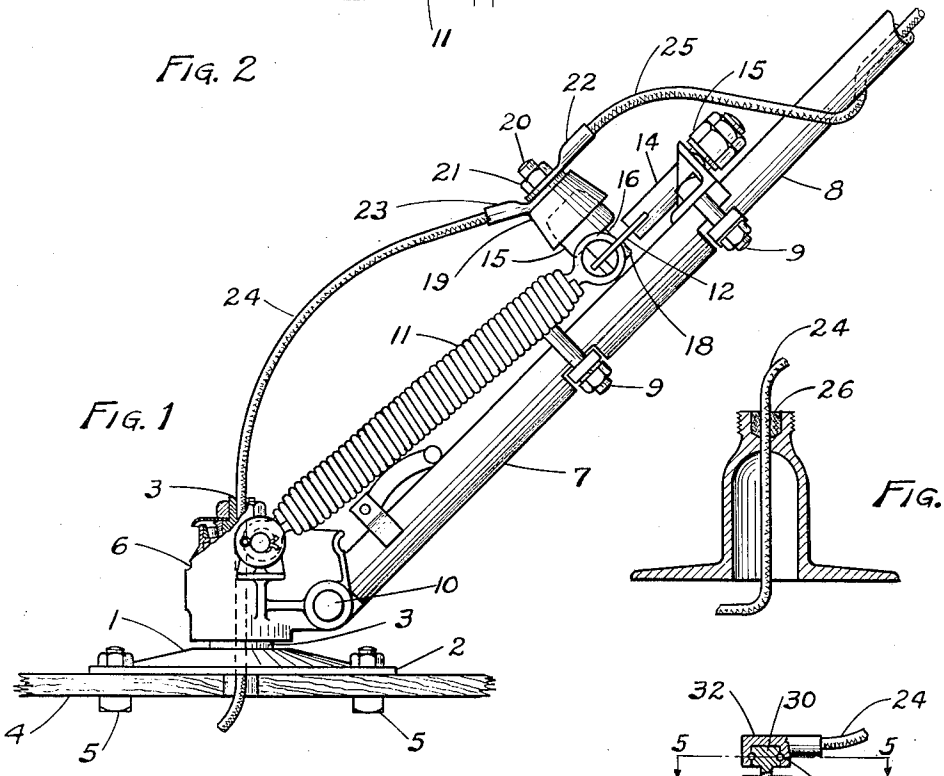


FIG. 1

FIG. 3

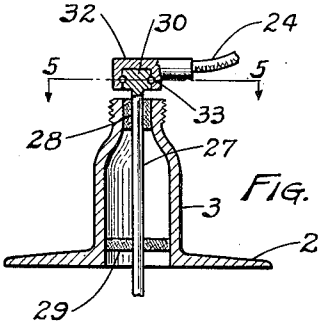


FIG. 4

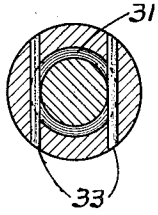


FIG. 5

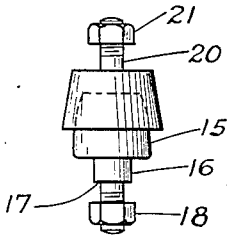


FIG. 6

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UNITED STATES PATENT OFFICE

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TROLLEY BASE

Application filed November 20, 1931. Serial No. 576,313.

My invention relates to trolley bases and particularly to bases which are adapted for use with trolley busses on which the base and pole are preferably insulated from any conductors.

The object of my invention is to provide means for insulating the trolley base from the conductors and maintain such insulation without interfering with the normal operation of the base in its pivotal movement in a horizontal plane and the pivotal movement of the pole in a vertical plane.

My invention resides in the new and novel construction, combination and relation of the various parts hereinafter described and shown in the drawing accompanying this application.

In the drawing:

Fig. 1 is a side view of a trolley base with a portion of a trolley pole and mounted upon a platform.

Fig. 2 is a top view of Fig. 1.

Fig. 3 is a modification of the pedestal portion of the base.

Fig. 4 is a further modification of the pedestal portion.

Fig. 5 is a sectional view on the line 5—5 of Fig. 4.

Fig. 6 is a view in elevation of an insulated cable support.

In the preferred embodiment of my invention I employ a pedestal 1 having a flanged portion 2 and upright stem 3. The flange may be secured to the top of the bus 4 by means of bolts 5.

Mounted upon the stem 3 is a turret 6 adapted to pivot in a horizontal plane upon the stem 3.

Pivotally mounted upon the turret 6 is a trolley pole holder 7 adapted to pivot in a vertical plane. The holder 7 is arranged to receive a trolley pole 8 and hold the same in position by means of fastening means 9. The pole is biased to move upwardly about the pivot 10 by means of the springs 11 which have one end secured to the turret 6 and the other end secured to the member 7 through the medium of an adjustable holder 12. Adjustment is secured through the movement of the nuts 13 on the threaded stem 14.

Mounted upon the holder 12 is an insulating member 15 secured thereto by means of the stem 16 having shoulder 17 and a nut 18. Mounted upon the insulator 15 is a cap 19 having a projecting stud 20 and a nut 21 by means of which the cable terminals 22 and 23 may be secured together and held in predetermined relation to the holding member 7 and the other parts.

The steam 3 is drilled to permit the cable 24 to pass through the stem 3. This passage for the cable is on the vertical axis of the stem 3 and about which the turret 6 pivots.

The cable 25 is shown as being passed upwardly through the pole 8. It may, however, be extended along the outer surface of the pole and secured thereto by clamps or taping if desired. The upper end of the cable 25 is electrically connected to the current collector and the practice is to insert an insulating member between the connector support and the trolley pole 8. Thus it will be seen that the trolley pole and the trolley base will be "electrically dead" with the current collector insulated therefrom and the cables 24 and 25 provided with insulation.

The terminals 22 and 23 may be very easily disconnected from the insulating support if desired and are held up out of contact with the parts of the base and permits of readily replacing a pole 8 if desired when the same may become bent. The cable 24 forms a flexible loop passing through the vertical axis of the stem 3 and is subject to the least amount of twisting movement as the pole swings laterally. The lateral movement of the pole is greatly in excess of the vertical movement of the pole.

In Fig. 1 I have shown the cable as passing loosely through the stem 3 but in the modification shown in Fig. 3 I have shown the cable 24 as fixed in position by means of a cement 26, such as Portland, sulphur or asphaltic compound.

In Fig. 4 I have shown a still further modification in which the stem 3 is drilled and a rod 27 extends vertically through the stem and is secured in fixed relation to the stem 3 by means of insulating members 28 and 29. The upper end of the metal rod 27 has an en-

largement 30 which is provided with an annular groove 31. Mounted upon the member 30 is a cap-shaped terminal 32 to which the cable 24 is secured. The terminal 32 is secured to the portion 30 by means of the transverse pins 33 which engage in the groove 31 thus permitting the member 32 to rotate relative to the member 27 but maintaining the terminal 32 in position. This modification provides a swivel joint as it were thus permitting sealing of the joint between the members 3 and 27 against the entrance of moisture and avoiding the twisting action upon the cable 24 as the turret pivots upon the stem 3.

The cable may be secured to the lower end of the conductor 27 and passed into the terminal board in the bus.

The supporting insulator 15 with its parts may be arranged to be mounted if desired upon the holding member 7 and it may also be mounted upon the turret 6 but I prefer to have it much closer to the free end of the member 7. To mount it upon the pole 8 would mean considerable work in changing the pole in case of accidental injury.

Having described my invention, I claim:

1. The combination with a trolley base having a pole pivotal in a vertical plane and to swing in a horizontal plane of a vertical passage through the base, a multi-part cable extending through the opening, a support member mounted on and secured to the base, insulating means mounted on the support member and securing means mounted on the insulating means to receive and to support the cable at a point distant from the said opening and to electrically connect the said cable parts.

2. The combination of a pedestal and a turret thereon rotatable in a horizontal plane, a pole holder pivoted to the turret to move in a vertical plane, a passage through the pedestal, a divided conductor having one part extending through the passage, an insulated support mounted on the holder and means on the support to connect the conductor parts and secure the parts thereto.

3. A trolley base comprising a pedestal and a turret movably mounted thereon to swing about a vertical axis, a pole holder mounted on the turret to swing in a vertical plane, a passage through the base coinciding with the said axis, an insulated support secured to the base, a pole and a divided cable extending through the passage and along the pole and the adjacent ends of the cable detachably connected and secured to the support.

4. A trolley base comprising a pedestal and a turret movably mounted thereon to swing about a vertical axis, a pole holder mounted on the turret to swing about a horizontal axis, a passage through the pedestal coinciding with the said vertical axis, springs biased to move the pole, means to adjust the spring tension, an insulated support mounted on the adjustable means, a cable extending through the passage and secured to the support.

5. A trolley base comprising a pedestal and a turret movably mounted thereon to swing about a vertical axis, a pole holder mounted on the turret to swing in a vertical plane, a passage through the base coinciding with the said axis, an insulated support secured to the base and a cable insulated from the base extending through the passage and secured to the insulated support, and a sealing material between the cable and the pedestal to keep out water.

6. A trolley base comprising a pedestal and a turret movably mounted thereon to swing about a vertical axis, a pole holder mounted on the turret to swing in a vertical plane, a passage through the base coinciding with the said axis, a metal rod extending through the passage and projecting beyond the pedestal and insulated from the base, a swivel rotatably mounted on the projecting end of the rod, a cable connected to the swivel and an insulated support secured to the base to support the cable.

7. A trolley base comprising a pedestal and a turret movably mounted thereon to swing about a vertical axis, a pole holder mounted on the turret to swing in a vertical plane, a passage through the pedestal and the turret coinciding with the said axis, a metal rod mounted in the passage and secured to the pedestal against relative rotation and having one end projecting outside the pedestal, conducting means secured to the projecting end of the rod in rotatable relation thereto, an insulated support mounted on the base and a cable connected to the conducting means and secured to the support.

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