April 22 , 1924. 1,491,424

W. ROBERTSON

CRANE CAB

Filed May 22. 1922 2 Sheets-Sheet 1

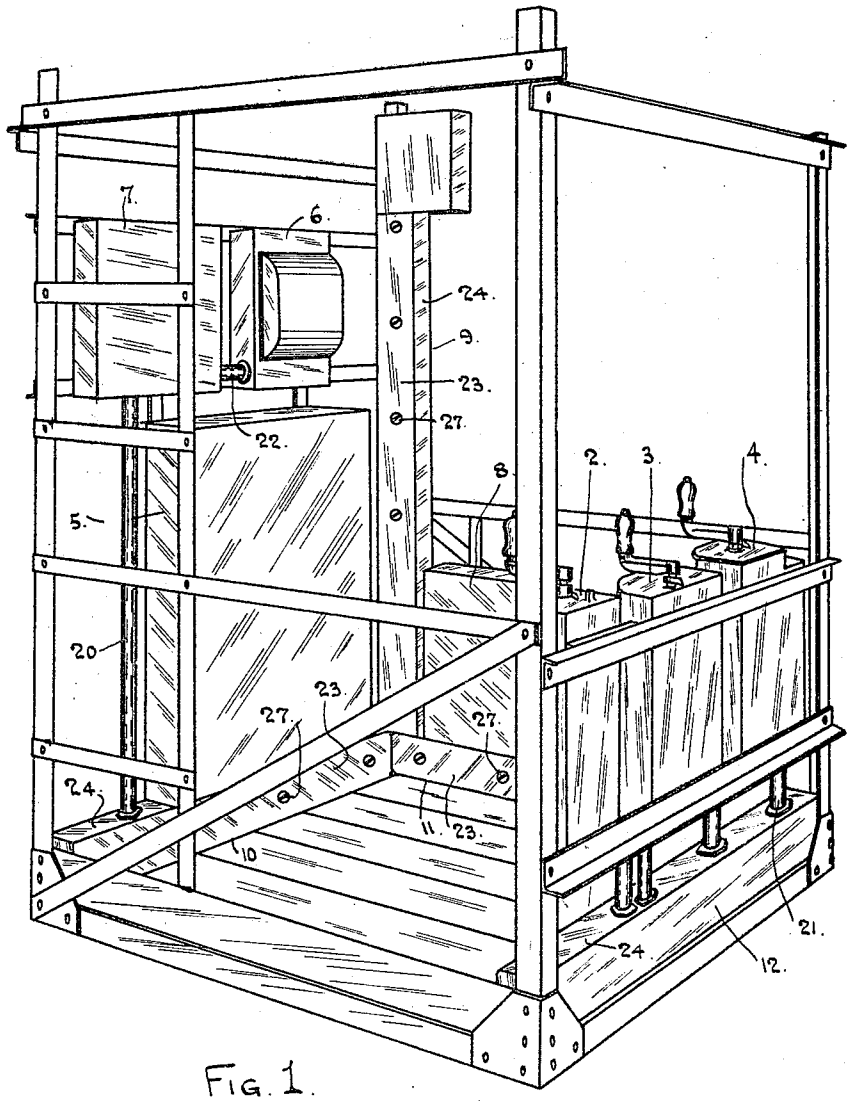

FIG. 1.

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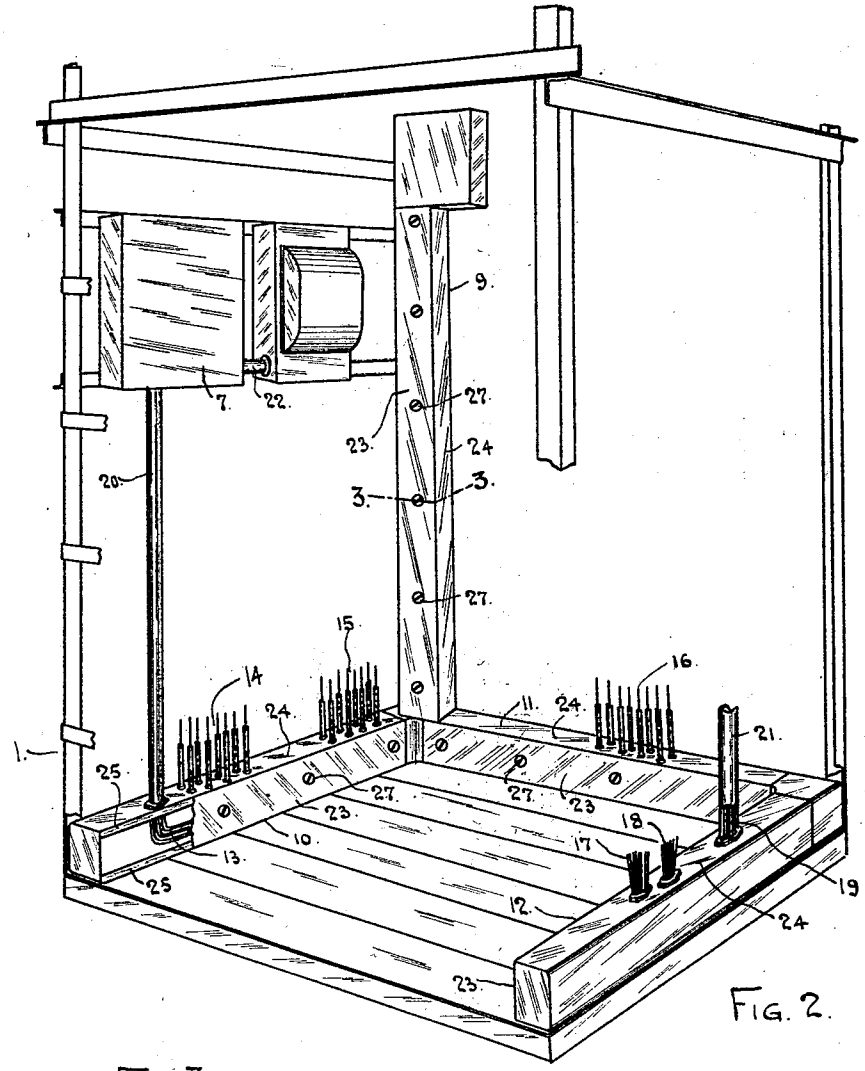
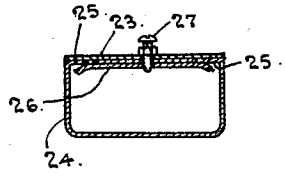


FIG. 2.

FIG. 3.



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UNITED STATES PATENT OFFICE.

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CRANE CAB.

Application filed May 22, 1922. Serial No. 562,918.

To all whom it may concern:

Be it known that I, WILLIAM ROBERTSON, a citizen of the United States of America, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Crane Cabs, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates to cranes of the electric travelling type and more particularly to the wiring of the crane cab. One of the objects of the invention is to provide a housing for the wiring having a removable cover so that the wiring may be easily installed or removed and examined. Another object is to arrange the wiring housing to form a toe guard at the base of the cab. Further objects of the invention reside in the novel features of construction and combinations and arrangements of parts as more fully hereinafter set forth.

In the drawings:

Figure 1 is a perspective view of a crane cab embodying my invention;

Figure 2 is a similar view with parts removed;

Figure 3 is a cross section on the line 3—3 of Figure 2.

1 is the cab of an electric travelling crane of that type having a carriage movable longitudinally of the bridge through a rack motor, the carriage in turn being provided with hoisting mechanism actuated through a hoist motor upon the carriage and the crane also having mechanism for moving the bridge upon its tracks actuated by a bridge motor. The cab has at its front side the bridge motor controller 2, the rack motor controller 3 and the hoist motor controller 4, and has upon its rear side the housing 5 inclosing the hoist motor and bridge motor resistances as well as the housing 6 for the main line switch, and the cabinet 7 for the fuses, the latter two being above the housing 5. 8 is a housing at the girder side of the cab for inclosing the rack motor resistance.

To inclose the wiring on the crane cab to protect the same and at the same time to secure a neat and pleasing appearance, I have provided the vertical conduit 9 at the rear girder side corner of the cab, from the upper end of which the bridge motor, hoist motor, and rack motor leads extend, and also the conduits 10, 11 and 12 at the rear side, girder side and front side respectively of the cab and resting upon its base. Extending upwardly through the top of the conduit 10 are the leads 13, 14 and 15 which pass respectively to the fuse cabinet 7, and the bridge motor resistance and the hoist motor resistance in the housing 5. Extending upwardly through the top of the conduit 11 are the leads 16 to the rack motor resistance, while the leads 17, 18 and 19 extend upwardly through the top of the conduit 12 to the controller for the bridge, rack and hoist motors respectively. The leads 13 between the conduit 10 and cabinet 7 are inclosed by the vertical conduit 20, and the leads between the conduit 12 and the controllers 2, 3 and 4 are inclosed by the vertical conduits 21 at the sides of the controllers. There is also the conduit 22 between the cabinet 7 and the main switch housing 6 for inclosing wires connecting the main switch and the leads 13.

With the above arrangement, the cab wires are completely inclosed, and furthermore, the conduits 10, 11 and 12 upon the base and at three sides of the cab form a toe guard. In this connection, it is evident that the fourth side of the cab might be provided with a conduit upon the base so that the toe guard will extend completely around the cab.

In order to provide for easy installation of the wiring as well as ready removal for inspection purposes, the conduits 9, 10, 11 and 12 are provided with covers 23 which may be easily detached and applied. In detail, and as shown particularly in Figure 3, these conduits are in the form of channels 24 having inwardly extending flanges 25 at the edges of the channel flanges. The cover 23 is clamped against the outer faces of these inwardly extending flanges by means of the revoluble clips 26 which have inclined ends engageable over the inner faces of the inwardly extending flanges, these clips being rotated by means of screws 27 secured there to and passing through the cover 23.

From the above description, it will be readily seen that I have provided a compact, neat appearing wiring arrangement for the crane cab in which the wiring is completely inclosed but is readily accessible due to the arrangement of removable covers upon the conduits. Furthermore, with this arrangement, damaging of the wires in installing is

avoided. Still another important feature is that I have so arranged the wiring housing that it forms a toe guard for the crane cab.

What I claim as my invention is:

1. The combination with a cab of an electric travelling crane, of motor controlling apparatus mounted upon said cab, and conduits for the wiring leading to said apparatus having removable covers.

2. In a cab for an electric travelling crane, the combination with motor controlling apparatus mounted upon said cab, of means for inclosing the wiring leading to said controlling apparatus, said inclosing means forming a toe guard for said cab.

3. In a cab for electric travelling cranes, the combination with housings for a plurality of motor resistances, said housings being mounted upon said cab at different sides thereof, of a plurality of motor controllers mounted upon said cab at still another side thereof, and means for inclosing the wiring to said housings and controllers, said means being mounted upon the base of said cab and forming a toe guard therefor.

4. In a conduit, the combination with a channel shaped body having inwardly extending flanges at the edges of its channel flanges, of a cover adapted to be secured against the outer faces of said inwardly extending flanges, and clips having wedge engagement with said inwardly extending flanges for removably securing said cover in place.

5. In a conduit, the combination with a channel shaped body having inwardly extending flanges at the edges of its channel flanges, of a cover adapted to be secured against the outer faces of said inwardly extending flanges, rotatable clips upon said cover having inclined portions engageable with the inner faces of said inwardly extending flanges for securing said cover in place, and means extending through said cover for rotating said clips.

6. In a cab for electric travelling cranes, the combination with housings for a plurality of motor resistances, said housings being mounted upon said cab at different sides thereof, of a plurality of motor controllers mounted upon said cab at still another side thereof, and means for enclosing the wiring to said housings and controllers including a vertical conduit and conduits communicating therewith and located at the sides of said cab occupied by said housings and controllers, said conduit having removable sides.

7. The combination with a cab of an electric travelling crane, of motor controlling apparatus mounted upon said cab, and conduits for the wiring leading to said apparatus forming a part of the frame-work of said cab and having removable covers.

8. In a cab for an electric travelling crane, the combination with a motor controlling apparatus mounted upon said cab, and conduits for the wiring leading to said apparatus forming toe guards and part of the vertical frame-work, said conduits having covers removably secured by means of clips with inclined ends engageable with the edges of the inwardly extending side flanges of said conduits.

In testimony whereof I affix my signature.

WILLIAM ROBERTSON.