Feb. 5, 1929. 1,700,920

C. C. CAMPBELL

ELEVATOR CAR INCLOSURE

Filed July 1, 1927

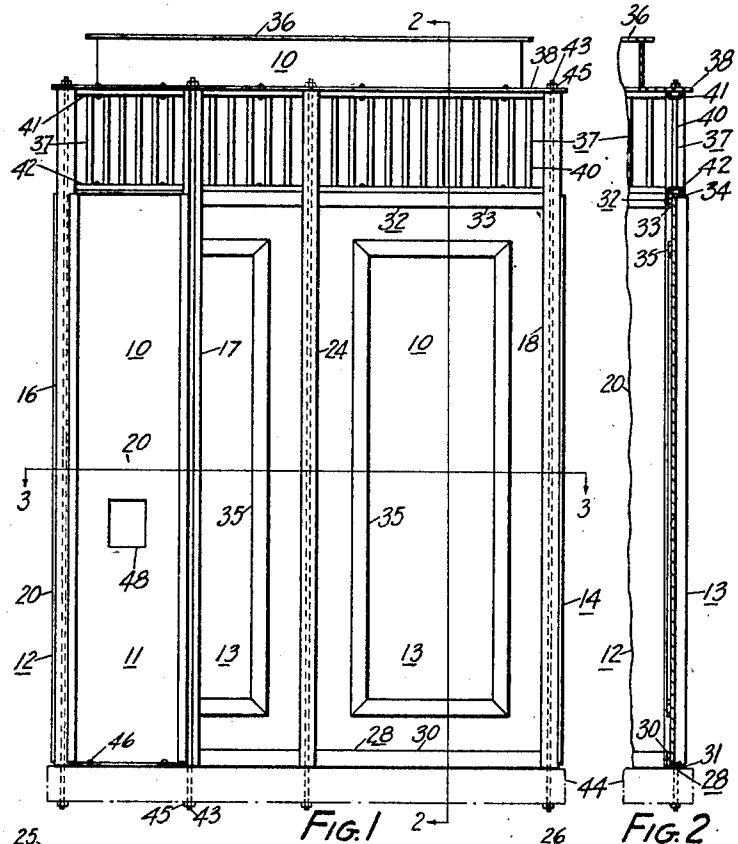


FIG. 1

FIG. 2

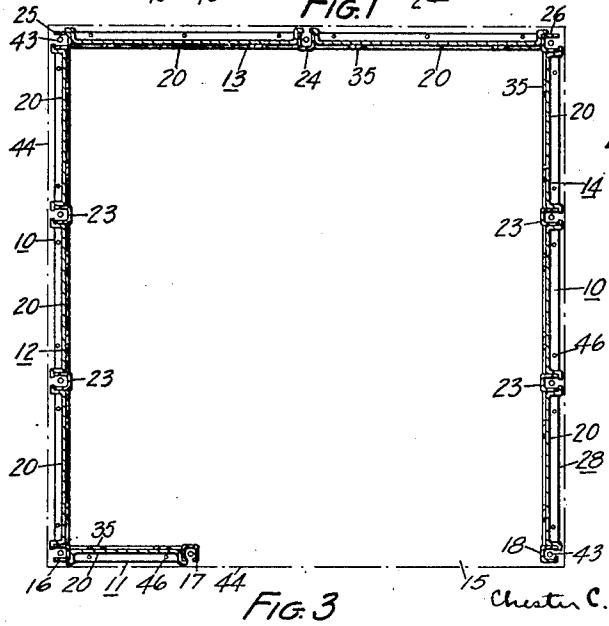


FIG. 3

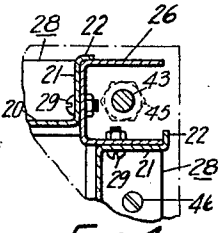


FIG. 4

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UNITED STATES PATENT OFFICE.

CHESTER C. CAMPBELL, OF WEST ORANGE, NEW JERSEY, ASSIGNOR TO OTIS ELEVATOR COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

ELEVATOR-CAR INCLOSURE.

Application filed July 1, 1927. Serial No. 202,880.

This invention relates to elevator car inclosures and particularly to elevator car inclosures for passenger elevators.

One feature of the invention is to provide an inclosure of the above type which is of rigid construction and which requires a minimum of material.

Another feature of the invention is the provision of an inclosure which may be readily constructed and installed and which is pleasing in appearance.

Still another feature of the invention resides in the provision of an inclosure that is light-tight at all joints.

Other features and advantages will become apparent from the specification, taken on connection with the accompanying drawings wherein one embodiment of the invention is illustrated.

In the drawings:—

Figure 1 is a view in front elevation of an elevator car inclosure;

Figure 2 is a view with parts broken away taken along line 2—2 of Figure 1;

Figure 3 is a sectional view taken along line 3—3 of Figure 1; and

Figure 4 is an enlarged detail view of a portion of Figure 3.

Referring to the drawings, the inclosure is designated as a whole by the numeral 10 and is made up of a front side 11, a left side 12, a rear side 13 and a right side 14. The front side 11 is left with an opening 15 for a car gate. This side includes three spaced posts 16, 17 and 18 of which posts 16 and 18 are corner posts. These posts are preferably vertical channels, thus forming hollow posts with one side open. The open side of post 16 faces the left, the open side of post 18 faces the right while the open side of post 17 faces the front. For purposes of appearance, it is preferred to form posts 17 and 18 so that the edges of each post are bent toward each other. A vertical panel 20 is arranged between posts 16 and 17. Both vertical edges of this panel are bent in such manner as to have a portion 21 in a plane at right angles to the panel and another portion 22 in a plane parallel to and extending beyond the panel. The width of the panel is such that it fits between posts 16 and 17. With the panel in place, the portions 21 and 22 of the left edge of the panel snugly fit about and against adjacent sides of post 16 while the portions 21 and 22 of the right edge of the panel snugly fit about and against a side and bent over edge of post 17.

The sides 12, 13 and 14 are similarly formed, except that two or more panels 20 are used, the number depending upon the size of the inclosure. For convenience of description, sides 12 and 14 have been illustrated as made up of three panels each, with the rear side 13 of two panels. Thus, there are two intermediate posts 23 for the sides 12 and 14 and one intermediate post 24 for the rear side 13. The remaining corner posts are designated 25 and 26. The edges of posts 23, 24, 25 and 26 are not bent over, these posts being of the same construction as post 16. Between the corners, the bent over portions 22 of adjacent panels extend over the edges of the intermediate posts. At the corners, however, where adjacent panels are at right angles to each other, the bent over portion 22 of one of these panels extends over an edge of the corner post while the bent over portion of the other panel extends around the corner of the post diagonally opposite this edge. The panels may be secured to the posts as by bolts 29 extending through the sides of the posts and the portions 21 of adjacent panels, this manner of connection being illustrated for corner post 26 in Figure 4. These bolts are arranged at spaced intervals to insure a rigid construction.

At the bottom of each panel is an angle bar 28, secured thereto as by spot welding. The vertical leg 30 of each angle bar is on the inside of the inclosure while the horizontal leg 31 extends outwardly. In a similar manner, each panel is provided with an angle bar 32 at its top, secured thereto as by welding. The vertical legs 33 of these angle bars extend downwardly on the inside of the inclosure while the horizontal legs 34 extend outwardly. This arrangement may be seen upon reference to Figure 2. The ends of the top and bottom angle bars abut against the sides of the posts, fitting snugly thereagainst to present a pleasing appearance. To further improve the appearance of the inclosure, the inside of each panel may be further provided with moulding 35, secured thereto as by spot welding, a suitable arrangement of the moulding strips being illustrated in Figure 1.

The inclosure may be provided with various arrangements of tops, a suitable form chosen for purposes of description being il-

lustrated in the drawings. The form illustrated consists of a dome 36 and a plurality of grille sections 37, one for each inclosure panel, extending from the inclosure panels to the soffit plate 38 of the dome. The grille sections may be formed in any suitable manner, as for example by a plurality of parallel vertical rods 40 extending between and welded to top and bottom channels 41 and 42 respectively. These channels are secured to the horizontal legs 34 of the angle bars 32 and to the soffit plate 38, as by bolts. All the posts, 16, 17, 18, 23, 24, 25 and 26 are extended above the inclosure panels to the bottom of the soffit plate and the grille sections are arranged between the posts. The top is secured to the inclosure as by tie rods 43 extending from the soffit plate to the platform 44. These tie rods extend through the posts, as may be seen upon reference to Figures 2 and 4, there being one tie rod for each post. Each tie rod is threaded at both ends and is provided with nuts 45, one above the soffit plate and one below the platform, for securing the top in place.

In assembling, the panels are secured to the posts to form the sides and the sides secured to the corner posts. It is to be noted that the open side of the posts permits the ready bolting of the panels to the posts and eliminates the employment of threaded holes for screws as where a post closed on all four sides is employed. The inclosure is secured to the car platform 44 as by screws 46 extending through the horizontal leg of angles 28. The dome is then put in place, the tie rods inserted and the nuts 45 tightened down. These tie rods also serve to assist screws 46 in securing the inclosure to the platform. The grille sections are then secured in place.

A hole or pocket may be provided in one of the panels to receive a flush type car switch, such a hole, designated 48, being illustrated as formed in panel 20 of the front side 11 (see Figure 1).

The panels 20 are of sheet steel and may be of various widths, depending upon the requirements of the particular installation and the number of panel sections to a side. Panels of standard widths may be made up, however, for a standard sized inclosure. These standard panels may thus be produced on a quantity basis and kept in stock so that a standard sized inclosure may be made up on short notice.

It will be seen that the panels are of very simple construction and therefore can be easily made at a minimum cost. Furthermore, the inclosure may be assembled in a minimum of time owing to the fact that the posts have one side open, permitting the ready bolting of the posts and panels together. Also, this arrangement involves only a small amount of welding. It is to be noted that the bent portions 21 and 22 of the vertical edges of the panels make a very strong construction and together with the posts make up a rigid steel inclosure with a minimum amount of material. Further, the bent portions 22 of the panels, fitting around the corners of the posts, entirely exclude the passage of exterior light through the joints to the inside of the inclosure.

As many changes could be made in the above construction and many apparently widely different embodiments of this invention could be made without departing from the scope thereof, it is intended that all matter contained in the above description or shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense.

What is claimed is:

1. An elevator car inclosure comprising; a hollow angular post having one side open; and a panel having a bent portion abutting one side of said post and another portion bent around the corner of said post.

2. An elevator car inclosure comprising; a pair of hollow angular posts, each post having one side open; and a panel disposed between said posts, said panel having its edges bent to abut against the adjacent sides of said posts and having its edges further bent to extend around the corners of said posts.

3. An elevtor car inclosure comprising; a pair of aligned hollow angular vertical posts, each post having a side on the outside of the car open; and a vertical panel having each of its vertical edges bent outwardly to form a flange, said panel being disposed between said posts with said flanges abutting the posts on the sides facing each other and each flange being further bent to extend around the outside corner of its post on the side which it abuts.

4. An elevator car inclosure comprising; a pair of aligned hollow angular vertical posts, each post having an outer side open; a vertical panel having each of its vertical edges bent outwardly to form a flange, said panel being disposed between said posts with said flanges abutting the posts on the sides facing each other and each flange being further bent to extend around the outside corner of its post on the side which it abuts; and means extending through said flanges and the sides of the posts abutted by the flanges for securing the panel to said posts.

5. An elevator car inclosure comprising; a pair of aligned hollow vertical square metal posts; a vertical sheet metal panel having each of its vertical edges bent outwardly to form a flange, said panel being disposed between said posts with said flanges abutting the posts on the sides facing each other and each flange being further bent to extend around the outside corner of its post on the side which it abuts; and bolts extending through said flanges and the sides of the posts

abutted by the flanges for securing the panel to said posts, each post having an open side to permit the assembly.

6. A side of an elevator car inclosure comprising; a series of aligned hollow square metal posts, each post having an open side to permit the assembly; a series of vertical sheet metal panels, each panel having each of its vertical edges bent outwardly to form a flange, said panels being disposed between said posts with the flanges of each panel abutting the posts between which the panel extends on the sides facing each other and each flange being bent at its outer edge to extend around the corner of its post on the side which it abuts; and bolts extending through said flanges and the sides of the posts against which the flanges abut for securing the panels to said posts.

7. An elevator car inclusure comprising; a plurality of hollow square metal posts forming the corners of said inclosure; a series of sides arranged at right angles to each other and disposed between pairs of said corner posts, each side comprising a pair of said corner posts and one or more hollow square metal posts intermediate said pair of corner posts and aligned therewith; a series of vertical sheet metal panels, each panel having each of its vertical edges bent outwardly to form a flange, said panels being disposed between the posts of the inclosure side and in the plane thereof with the flanges of each panel abutting against the posts between which the panel is disposed on the sides facing each other and each flange being bent at its outer edge to extend around the corner of its post on the side which it abuts; and bolts extending through said flanges and sides of the posts against which the flanges abut for securing the panels to said posts and thus the sides to the posts forming the corners, each post having an open side to permit the assembly.

In testimony whereof, I have signed my name to this specification.

CHESTER C. CAMPBELL.