R. W. DISBRO.

ELEVATOR CAR CONSTRUCTION.

APPLICATION FILED MAR. 13, 1919.

1,307,187.

Patented June 17, 1919.

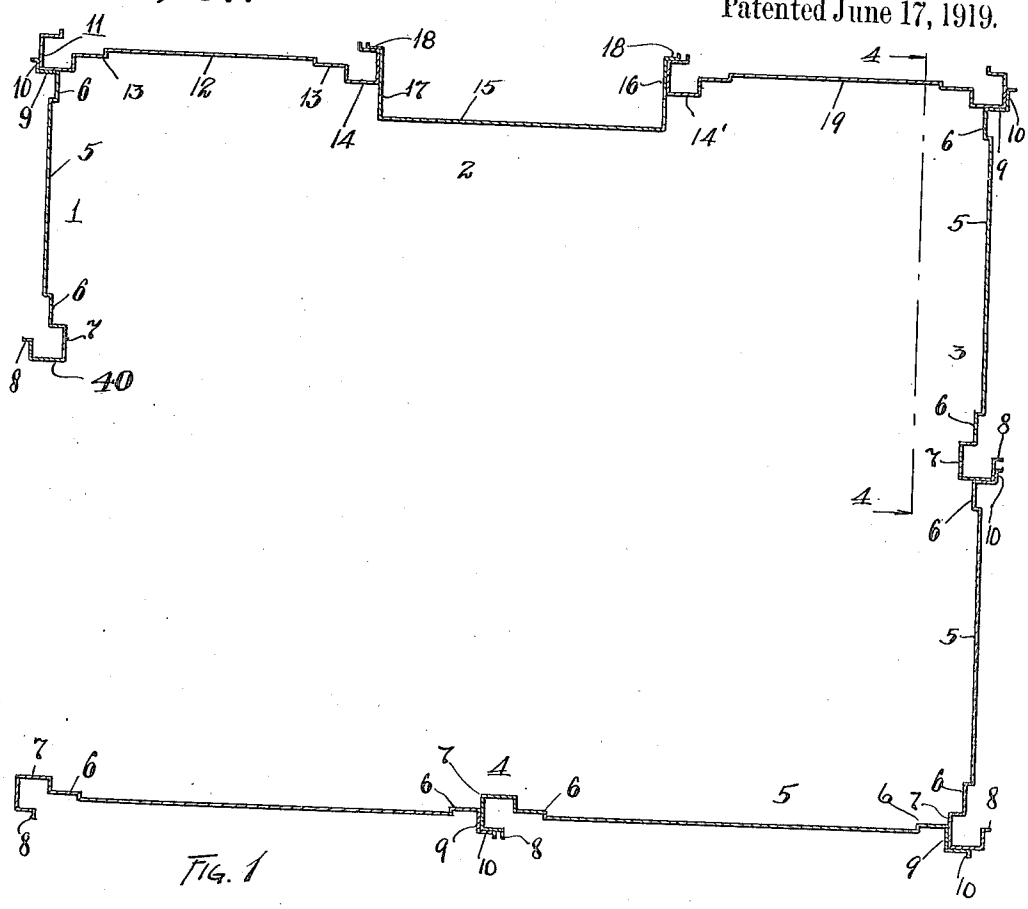


FIG. 1

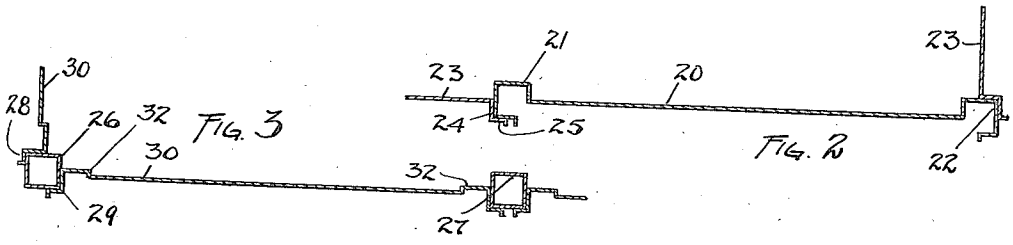


FIG. 3

FIG. 2

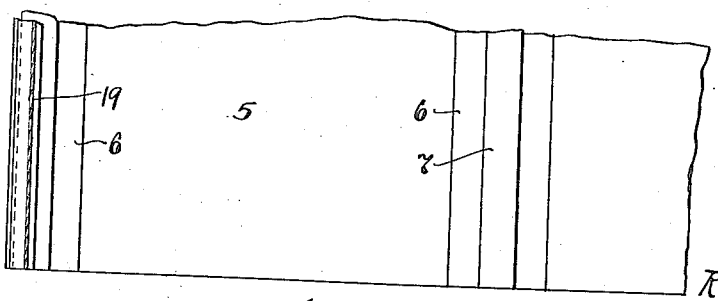


FIG. 4

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ELEVATOR-CAR CONSTRUCTION.

1,307,187. Specification of Letters Patent. Patented June 17, 1919.

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To all whom it may concern:

Be it known that I, ROGER W. DISBRO, a citizen of the United States, and a resident of Cleveland Heights, county of Cuyahoga, and State of Ohio, have invented a new and useful Improvement in Elevator-Car Construction, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle, so as to distinguish it from other inventions.

The present invention, relating, as indicated, to elevator car construction, is particularly concerned with an improved construction for the walls or sides of elevator cars. In metal elevator cars it is customary to divide each side into two or more panels, each panel consisting of a flat sheet of metal attached at either side to an angular piece which is fitted around a square post. The panel proper, the angular strip, and the post are then fastened together to make up the side of the car, and this necessitates a considerable amount of assembly work, and is also open to the objection that the sides of the car are often not tight at the joints. My improvements provide for a much simpler and more easily assembled elevator side than is possible by the old method, while at the same time the separate sections which go to make up the entire car are simple and inexpensive in their manufacture. To the accomplishment of the foregoing and related ends, said invention, then, consists of the means hereinafter fully described and particularly pointed out in the claims.

The annexed drawing and the following description set forth in detail certain mechanism embodying the invention, such disclosed means constituting, however, but one of various mechanical forms in which the principle of the invention may be used.

In said annexed drawing:—

Figure 1 is a transverse sectional view showing more or less diagrammatically an elevator car constructed in accordance with my invention; Fig. 2 is a similar partial section showing a modification of the invention; Fig. 3 is a view corresponding to Fig. 1 and showing another modification; and Fig 4 is a section on the line 4—4 in Fig. 1.

In Fig. 1 there is shown in outline an elevator car having sides 1, 2, 3 and 4, of which the side 1 is left with an opening 40 for the mounting of a door or gate. At the corners of the car are shown hollow posts 11 connected together by the intermediate strips or sheets of metal, and my improvements relate particularly to the formation and connection of these plates and posts. In Fig. 1 the section 1 on the door side of the car consists of a panel 5 comprising a flat single sheet of metal and having at either side an angular portion 6. This angular portion at one side is then integrally connected to a hollow post 7 which is provided with an extending flange 8 from one of its outer edges. At the other side the angular portion 6 is provided with a post engaging angle 9 and flange 10 against which may be fitted the hollow post 11 of the adjacent section 12 which is similarly provided with angular plates 13 at either side of the panel proper, while a second hollow post 14 is formed integrally with the angular plate 13 in such a way that the hollow post projects partly inwardly and partly outwardly beyond the plane of the panel proper 12.

It is sometimes desired to insert a projecting portion at the side of the car, and such a portion is shown in Fig. 1 in the center of the upper side. This projecting panel, or, as it is commonly termed, stile 15, is provided with two parallel flanges 16 and 17, each of which is formed with outwardly extending flanges 18 adapted to be engaged by the post 14 on one side and by a similar post 14′ at the end of a panel 19 on the other, the panels 12 and 19 and the stile 15 comprising that side of the car. The other sides of the car are constructed of similar panels, but without any intermediate stiles, each panel consisting of a central panel proper, angular portions at either side and a post attached to one angular portion, while the other is formed with a flanged post engaging part such as is shown at 9 and 10 in the door side of the car, which has already been described.

Under some circumstances it may be desired to omit the angular portion 6 from the individual panels, and to form the posts at the ends of the panel proper. Such a construction is shown in Fig. 2, where a panel 20 is provided at either end with hollow posts 21 and 22 fitting into flanged panels 23 at either side. The formation of the flanges 24 and 25 on the panels 23 is similar to the

construction of the flanges 9 and 10 in the panel 5 already described.

If desired the posts may be formed separately and may be true and complete hollow members as I have shown in Fig. 3, in which case these posts 26 and 27 are engaged by flanged portions 28 and 29 on panels 30 and 31 respectively, the flange construction being the same as that previously described, although I have here shown also angular portions 32 at the sides of the panel which are similar to the angular portions 6 in the panel 5. The appearance of the interior of such a car side is shown in Fig. 4.

The chief advantage of my improved car is that the assembly is very much more convenient than in the ordinary types of construction, while this type of panel plates and posts lends itself easily to any desired car interior, whether one with angular portions at the edges of the panels or one where the panels are joined directly to the posts. Furthermore, the car sides are entirely tight, as all joints are flanged, and the abutting surfaces of the posts and panels may either be riveted, bolted or welded to provide a rigid construction.

Other modes of applying the principle of my invention may be employed instead of the one explained, change being made as regards the mechanism herein disclosed, provided the means stated by any of the following claims or the equivalent of such stated means be employed.

I therefore particularly point out and distinctly claim as my invention:—

1. In elevator construction, the combination of a wall section comprising a flat panel having an off-set angular plate integral therewith, and a hollow angular post also formed integral therewith, and a second adjoining wall section provided with flanged portions abutting against said post and fitting about one edge thereof.

2. In elevator construction, the combination of a series of interfitting wall sections, each section comprising a flat panel, an integral angular hollow post formed along one edge thereof, and angularly related flanges integral with the other edge of said panel, and said sections being fitted together with the angularly related flanges of one panel abutting against one side and about one edge of the post of the next adjacent section.

3. In elevator construction, the combination of a series of interfitting wall sections, each section comprising a flat panel, a square hollow post integrally formed along one edge of said panel and two integral angularly related flanges along the other side of said panel, said flanges being at right angles to each other and said sections being fitted together with such right-angled flanges of one section abutting against adjacent right angled sides of the square post of the next adjacent section.

Signed by me, this 6 day of March, 1919.

ROGER W. DISBRO.