E. G. BUDD.

METALLIC PANELING.

APPLICATION FILED JULY 29, 1910.

1,045,507. Patented Nov. 26, 1912.

Fig. 1,

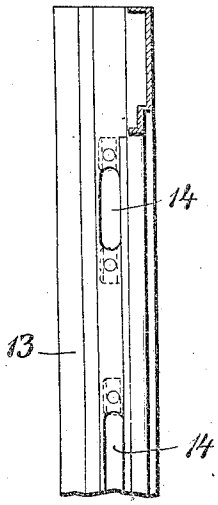


Fig. 2,

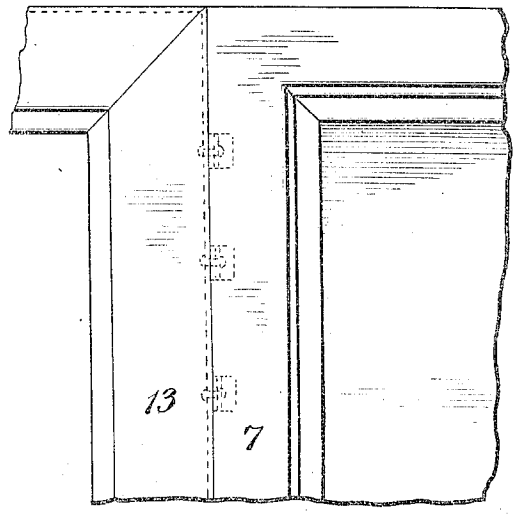


Fig. 3

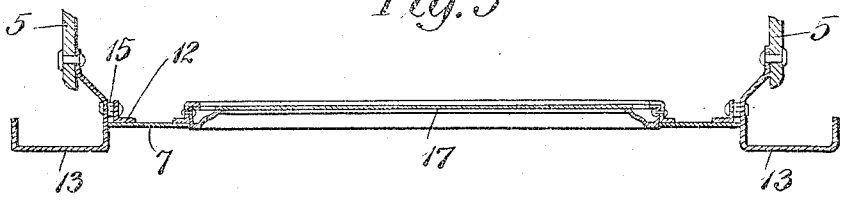
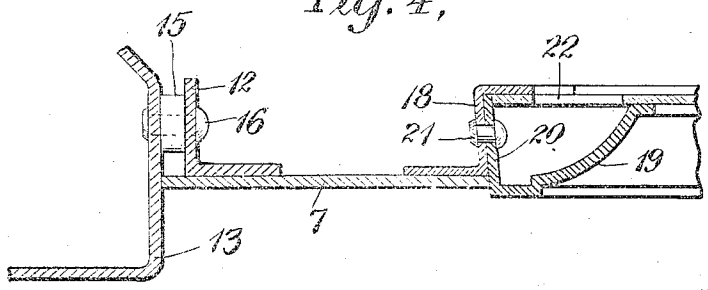


Fig. 4,



WITNESSES:

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EDWARD G. BUDD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HALE AND KILBURN COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF DELAWARE.

METALLIC PANELING.

1,045,507. Specification of Letters Patent. Patented Nov. 26, 1912.

Original application filed February 18, 1909, Serial No. 478,693. Divided and this application filed July 29, 1910. Serial No. 574,457.

To all whom it may concern:

Be it known that I, EDWARD G. BUDD, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Paneling, of which the following is a specification.

This invention is directed to the provision of an improved form of metallic paneling for use in the construction of railway cars and buildings.

More particularly, the invention concerns the provision of an improved paneling for use in the spaces between windows in the side wall of a railway car, on the inner side of the wall.

This application is a division of my copending application, Serial No. 478,693, filed February 18th, 1909.

The invention involves the construction of the panel itself and the means whereby the panel is mounted in its position in the wall. The openings in which the panels are placed frequently vary in size to a considerable extent, even though great care is exercised in constructing the car, and the securing means provided in accordance with the invention permits of conveniently compensating for such variations. This securing means also permits of readily removing the panel when such removal is necessary for inspection, repair or re-painting. The construction of the panel itself is such that a very attractive appearance is obtained in a panel which may be manufactured at low cost.

The preferred embodiment of the invention is illustrated in the accompanying drawings in which—

Figure 1 is a vertical sectional elevation of the window post to which the panel is secured, Fig. 2 is a view in elevation showing a portion of the panel and the window post to which it is secured, Fig. 3 is a horizontal section of the panel and window posts and Fig. 4 is an enlarged view of a portion of the structure shown in Fig. 3.

Referring to these drawings, the two window posts are indicated by the numerals 13, these posts being preferably formed of strips of sheet-metal bent along lines running lengthwise thereof to the desired sectional shape. Each window post 13 is secured to a metallic member 5 of angular cross-section, these members forming the supports for the side walls and the roof of the car. The panel 7 is mounted between two adjacent window posts 13 and is secured thereto at its lateral edges. I have found in practice that though great care be exercised in the construction of metallic railway cars, variations of size and shape exist in the openings between the window posts for the panels, and I have therefore provided means whereby the panel may be conveniently mounted in its opening and proper compensation made for such variation. The panel 7 has a plurality of angle-pieces 12 secured to the rear face thereof at intervals a slight distance back from the edges of the panel. The window posts 13 are provided with openings 14 therein in such positions as to lie opposite the spaces between the angle-pieces 12 when the panel is mounted in position. When assembling the parts for a car the workman is supplied with a plurality of separators 15 in the form of washers but varying slightly in length and in securing the panel in position, separators of such length are employed as may be found necessary, these being placed between the several angle-pieces 12 and the window posts 13. Rivets 16 are then inserted through the openings in the angle-pieces 12, the separators 15 and the window posts 13, and the heads of these rivets are turned over so as to secure the parts firmly together. Such riveting of the parts may be readily accomplished by means of a suitable tool inserted through the openings 14. By securing the angle-pieces 12 to the panel 7 adjacent to but set back from the edges thereof, more or less of the edge of the panel projecting beyond the angle-pieces may be cut away as may be found necessary, in order to make the panel fit snugly within the opening between adjacent window posts, though that opening depart slightly from the size and shape intended.

The panels 7 are preferably made complete in large quantities and they may be made of such size that in all cases they will be found large enough; then when fitting a

panel to its opening, the edges thereof may be trimmed down slightly so that the panel will properly close the opening.

The panel proper is constructed from a single piece of sheet-metal usually of rectangular shape and of the size required for the complete panel. In order to give the panel an ornate appearance, the central portion of this sheet-metal plate is sawed out so as to provide an edge portion of rectangular or other shape and a central portion 17. This central portion 17 is secured to the edge portion 7 by means of a strip 18 of sheet-metal of Z-shaped cross-section bent lengthwise to conform to the configuration of the central portion 17 of the panel. This strip 18 is secured at one edge to the edge portion 7 of the panel and at the other edge to the central portion 17 in any suitable manner, as by brazing it to these parts. A molding 19 is then secured to the panel, around the edges of the central portion 17. This molding may be made of sheet-metal, which can be readily pressed to embody any desired design, and is preferably provided with a backwardly extending edge portion 20 adapted to lie against the central portion of the Z-shaped strip 18. This flange 20 is then riveted to the Z-shaped strip 18, in order to hold it in position. To facilitate this operation, openings 22 may be provided in the central portion 17 of the panel, adjacent to the edges thereof, through which a suitable tool may be inserted when turning over the ends of the rivets 21. By this construction of the panel, a much more ornate appearance can be produced than would be the case if it were attempted to press a single piece of sheet-metal so as to make it embody a similar design, for the reason that the use to which these panels are ordinarily put requires that sheet-metal be employed of such thickness that a sharply defined design of attractive appearance cannot readily be produced therein in the pressing operation. Furthermore, with the construction above described, much less expensive dies may be used in the production of the panel and such dies may be used in producing panels of various sizes.

Having now described my invention, what I claim as new therein and desire to secure by Letters Patent is as follows:

A panel comprising a sheet-metal frame-plate having an opening therethrough, a sheet-metal panel-plate located opposite said opening and displaced from the plane of the frame-plate, a sheet-metal strip of Z-shaped cross-section having one flange thereof secured to the inner side of the frame-plate adjacent to the edge of the opening therethrough and having the other flange secured to the panel-plate, a sheet-metal molding of angular cross-section having the wall thereof adjacent to one edge lying against the body portion of said strip and the opposite edge abutting against said panel-plate, and rivets securing together the body portion of said strip and the wall of said molding which lies against it, said panel-plate having openings therein adjacent to said rivets and leading to the interior of said molding, substantially as set forth.

This specification signed and witnessed this 23rd day of July, 1910.

EDWARD G. BUDD.

Witnesses:
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