Aug. 12, 1930. B. W. CONNELY ET AL 1,773,030

TUBULAR STEEL TOWER

Filed Jan. 16, 1928

Fig. 1.

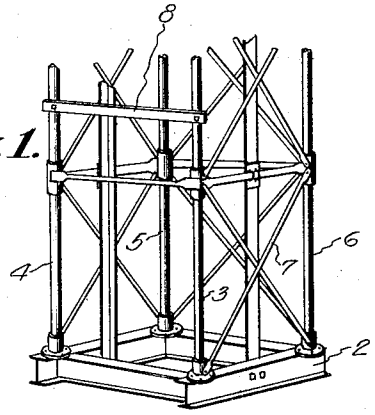


Fig. 2.

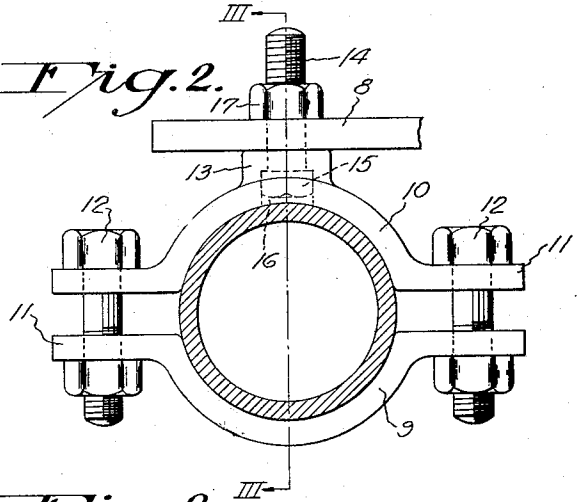
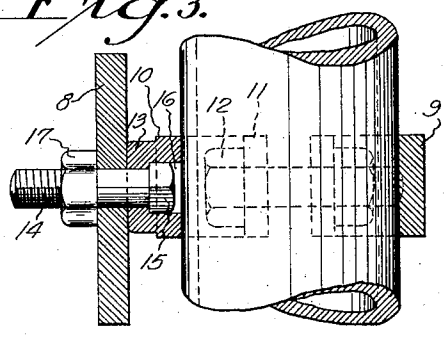


Fig. 3.



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UNITED STATES PATENT OFFICE

BUSH W. CONNELY AND OLIVER J. HALLER, OF PITTSBURGH, PENNSYLVANIA, ASSIGNORS TO AMERICAN TUBULAR ELEVATOR COMPANY, OF PITTSBURGH, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA

TUBULAR STEEL TOWER

Application filed January 16, 1928. Serial No. 246,948.

This invention relates to tubular elevator towers, such for instance as those adapted for use by contractors for transferring materials to and from scaffolds in the construction of a building, and more particularly to a landing panel for such towers.

Tubular elevator towers, as commonly constructed, are of a knock-down construction made up in sections. There is generally provided a tubular corner post in each corner of the tower. Some sides of the tower are braced by diagonally extending girts, while another side of the tower is free of diagonal girts. On this open side of the tower there is provided one or more horizontally extending girts which are adjustable vertically on the corner posts. This adjustable horizontal girt is commonly referred to as a landing panel and it can be adjusted to substantially the floor level of the scaffold so that a board or flooring can be set thereon at the level where material is to be loaded into or from the elevator.

According to the present invention there is provided a landing panel clamp of novel construction by means of which the landing panel can be firmly and easily secured at the height to which it is to set.

The invention may be readily understood by reference to the accompanying drawing in which—

Figure 1 is a perspective view of a portion of a tubular elevator tower having a landing panel thereon constructed in accordance with our invention;

Figure 2 is a top plan view of the landing panel clamp; and

Figure 3 is a vertical section in the plane of line III—III of Figure 2.

The particular form of tower shown in Figure 1 is that disclosed in the application of Morgan B. Schiller and Oliver J. Haller, Serial No. 701,952, filed March 26, 1924, but it will be understood that the invention is not confined for use with this particular form of tower.

In the drawings, 2 designates the base of a tubular elevator tower. Supported on the base are sectional corner posts 3, 4, 5 and 6. Diagonal cross girts are provided on the tower between the corner posts 4 and 5, 5 and 6, and 3 and 6, these cross girts being designated 7. The side of the tower between the corner posts 3 and 4 is relatively open, the cross girts being omitted, at least through portions of the height of the tower.

Secured to the corner posts 3 and 4 is an adjustable landing panel in the form of a horizontal cross girt 8. The landing panel 8 is clamped to the corner posts 3 and 4 by the novel form of clamp construction shown in detail in Figures 2 and 3.

The clamp is comprised of two members, 9 and 10. Each of the members 9 and 10 has a concave pipe engaging surface conforming substantially to the curvature of the corner posts 3 and 4. Each of the members 9 and 10 also has lateral projections 11 at each side thereof, and the two members are clamped together and clamped to the corner post by bolts 12 passing through the ears or extensions 11.

The member 10 has a boss 13 projecting from the outer face thereof. A bolt 14 passes through this boss, and the head 15 of the bolt is received in a non-circular recess 16 in the member 10. If the bolt 14 is a square-headed bolt, as shown, the recess 16 is also square, so as to hold the bolt 14 from turning. The bolt 14 passes through one end of the landing panel 8, and the landing panel is retained in place by a nut 17 on the bolt.

The advantages of the invention reside in the construction of a clamp which may be adjusted up and down on the corner posts without disconnecting the landing panel from the clamp structure, or without even loosening it. The bolt 14 is firmly secured in the clamp as long as the clamp is on the tower so that the bolt can not become detached from the clamp as long as the landing panel is in position. The landing panel can not become detached from the bolt without removing the nut 17, and the nut 17 is in a position where it can easily be seen so that it can be easily tightened up should it become loose. By reason of the fact that the bolt 14 is held from turning, the nut 17 can be firmly tightened up and conveniently loosened when necessary without applying wrenches to hold the bolt

from turning. The entire structure forms a strong, convenient and safe landing panel for towers of this kind. The load, being one side of the vertical center line of the clamp, causes the clamp to bind on the corner post in addition to the friction of the clamp.

While we have described one form of our invention in detail, it will be understood that various changes and modifications may be made in the construction thereof within the contemplation of our invention and under the scope of the following claims.

We claim:

1. A landing panel clamp for tubular elevator towers comprising a pair of cooperating members, means for clamping the members to the corner posts of a tower so that they contact with a major portion of the post circumference to prevent relative movement of post and member, and a bolt passing through one of the members with the shank of the bolt extending outwardly, the said member through which the bolt passes having a recess in its inner surface to receive the head of the bolt whereby the bolt can not be removed from the clamp when the clamp is secured to the corner post of a tower.

2. The combination with a tubular elevator tower having corner posts, of an adjustable landing panel comprising a cross bar, a clamp at each end of the cross bar engaging a major portion of the circumference of the corner posts of the tower to prevent relative movement of post and clamp, and a bolt in each clamp projecting outwardly from the clamp and passing through the landing panel, said bolt being confined against removal from the clamp by the corner post on which the clamp is mounted.

In testimony whereof we have hereunto set our hands.

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