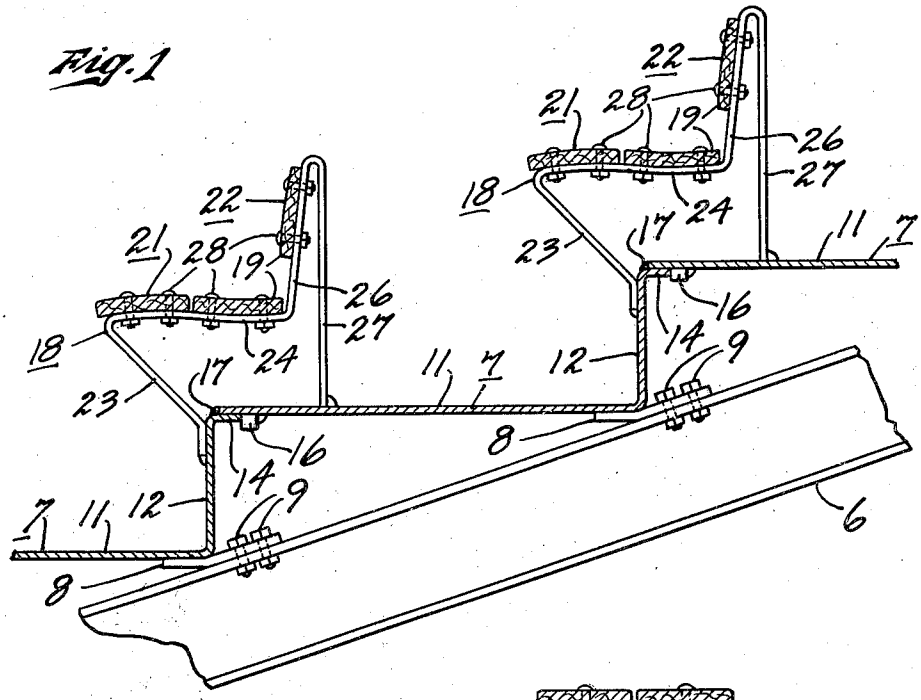
Aug. 29, 1939. R. W. RYAN ET AL 2,171,374

SEAT AND DECK CONSTRUCTION FOR STADIA

Filed June 24, 1938

Fig. 1



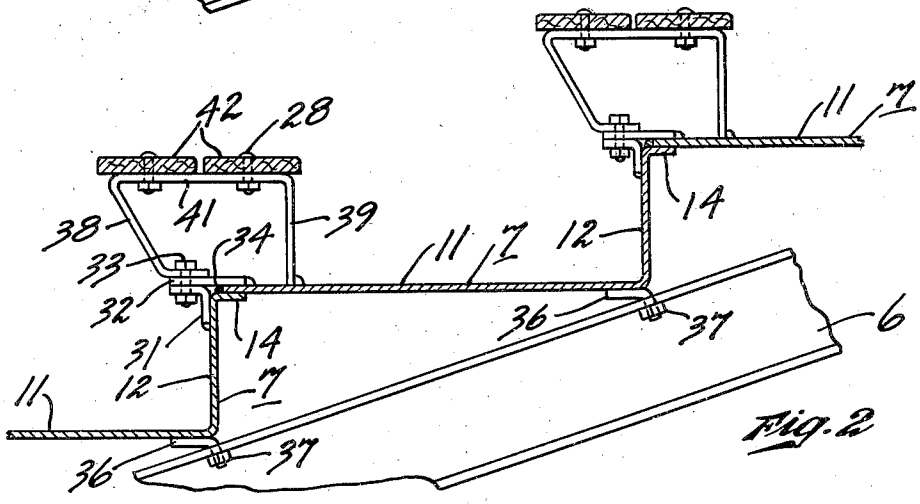


Fig. 2

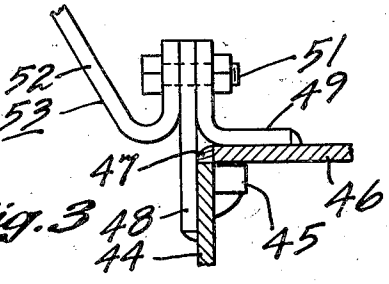


Fig. 3

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Patented Aug. 29, 1939 2,171,374

UNITED STATES PATENT OFFICE

2,171,374

SEAT AND DECK CONSTRUCTION FOR STADIA

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Application June 24, 1938, Serial No. 215,556

2 Claims. (Cl. 189—1)

Our invention relates to a seat and deck construction for stadia and more particularly contemplates the provision of a steel construction in which the various parts are completely formed in the shop for erection into a strong, unitary structure in the field.

Our invention further contemplates the provision of a seat and deck construction embodying the minimum number of parts and in which the parts are so designed and arranged as to afford the maximum strength.

Our invention further contemplates the provision of a deck construction in which the structure is formed of individual units arranged in overlappng relation adapted to permit the use of greater allowances in dimensional requirements than other designs heretofore employed.

Our invention further contemplates the provision of individual deck units formed with a tread portion and a riser portion and having an outturned supporting flange formed on the riser portion to engage under the forward edge of the tread portion of the adjacent deck unit.

Our invention further contemplates the provision of a deck construction comprising individual deck units mounted in overlapping relation in which aligning means are provided on each unit to facilitate the erection of the deck and also to insure that the engaging edges of adjacent units are properly positioned to permit a continuous weld joint therealong.

Our invention further contemplates the provision of a deck construction formed of individual deck units which are so designed, arranged, and welded together as to form a water-tight roof for the space under the deck. The deck is also free of grooves, pockets, or other like formations which tend to prevent a free drainage of rain water from the deck.

Our invention embodies other novel features, details of construction, and arrangement of parts which are hereinafter set forth in the specification and claims and illustrated in the accompanying drawing, forming part thereof, wherein:

Fig. 1 is a transverse sectional view showing our improved deck and seat construction;

Fig. 2 is a transverse sectional view showing a modified form of our invention; and

Fig. 3 is a transverse sectional view showing another modified form of our invention in which the riser flange is omitted and the adjacent edges of the deck members are held in position for continuous welding by means of the seat brackets, the deck members being otherwise similar in construction to the deck members illustrated in Fig. 2.

Referring now to the drawing for a better understanding of our invention and more particularly to Fig. 1 thereof, we show a seat and deck construction comprising deck supporting beams 6 having individual deck members 7 secured thereon by means of plates 8. The plates are welded to the deck members and have their projecting ends secured to the beams by means of bolts 9.

The deck members 7 are formed with a horizontally disposed tread portion 11 and a vertically disposed riser portion 12 which is bent at substantially right angles to the tread portion. A supporting flange 14 is bent outwardly at right angles at the upper end of each riser portion for engagement under the tread portion of the adjacent deck member. Positioning lugs 16 are welded to the under side of the tread portions and are disposed from the forward edge thereof a distance approximately equal to the width of the flanges 14. The deck members are secured to each other to form a water-tight joint by means of a continuous weld at 17 which connects the forward edges of the tread portions to their supporting flanges 14. The deck members are secured to each other along their side edges by means of the usual butt welding which is commonly employed in this art.

The seats comprise brackets 18 formed of bar stock and mounted at spaced intervals on the deck to carry the planks 19 which form the seat portion 21 and back portion 22. The brackets are formed with a forward leg 23 welded to a riser, a horizontal portion 24 to receive the seat planks, an upwardly extending portion 26 to receive the seat back planks, and a downwardly extending portion 27 to be welded to a tread portion and form a back leg for the seat. The planks are secured to the brackets by means of bolts 28.

Referring now to Fig. 2 we show a modified form of seat and deck construction in which the deck members 7 are the same as shown and described in Fig. 1 form but employ different aligning means and fastening means. The aligning means comprises an angle plate 31 having its one leg welded to the upper end of its respective riser portion 12, and a flat plate 32 having its inner end welded to its respective tread portion 11. Aligning apertures are formed in the projecting ends of the plates 31 and 32 to receive a bolt 33 which serves to hold the connected deck members together. The deck mem-

bers may also be welded continuously at 34 if it is desirable to provide a water-tight deck. The deck members are connected to the supporting beams 6 by means of bolts 36 which are welded to the deck members and have their threaded ends extending through apertures formed in the beams and secured thereto by nuts 37.

The seats comprise brackets formed of bar stock and having a front leg 38 secured to the aligning plates by means of the bolt 33, a back leg 39 welded to a deck member, and a horizontal portion 41 to receive the planks 42.

In Fig. 3 we show another modified form of construction in which the riser 44 is formed without a supporting flange but has lugs 45 welded thereto and is continuously welded to the forward edge of the tread portion 46 at 47. Prior to welding, the deck members are secured in position by means of plates 48 and 49 which have their one ends welded to the riser and tread, respectively, and have apertures formed in their projecting ends to receive a bolt 51 which also serves to secure the forward leg 52 of a seat bracket 53.

In the erection of the construction herein described, the deck members 7 are mounted progressively on the supporting beams 6 by starting at the bottom thereof and working up the beam. After the first deck member is secured to the beams the second deck member is mounted with its back portion on the beams and its forward end of the tread portion resting upon the flange 14 of the first deck member. While the second deck member is being secured to the beams the aligning lugs or plates hold the upper edge of the first riser in its proper position with the forward edge of the second tread portion to be welded at 17.

While we have shown our invention in several forms it is obvious to those skilled in the art that it is not so limited but is susceptible of various changes and modifications without departing from the spirit thereof; and we desire, therefore, that only such limitations shall be placed thereupon as are imposed by the prior art.

We claim:

1. In a seat and deck construction for stadia, supporting beams, a plurality of deck members each formed with a tread portion and a riser portion, a flange turned outwardly at right angles from the upper end of each riser portion, means for connecting the back ends of the deck members to the beams, the forward part of the tread portion having a bare edge which rests on the flange and terminates short of the front face of the adjacent riser portion, and continuous weld joints connecting the forward edges of the tread portions upon the flanges of adjacent deck members.

2. In a seat and deck construction for stadia, supporting beams, a plurality of deck members each formed with a tread portion and a riser portion, a flange turned outwardly at right angles from the upper end of each riser portion, aligning lugs provided on the under side of each tread portion for engagement with the front edge of the flange of the adjacent deck member, means for connecting the back ends of the deck members to the beams, the forward part of the tread portion having a bare edge which rests on the flange and terminates short of the front face of the adjacent riser portion, and continuous weld joints connecting the forward edges of the tread portions upon the flanges of adjacent deck members.

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