June 1, 1943. W. C. HEATH 2,320,593

GRATING ATTACHMENT

Filed March 27, 1941

FIG. 1.

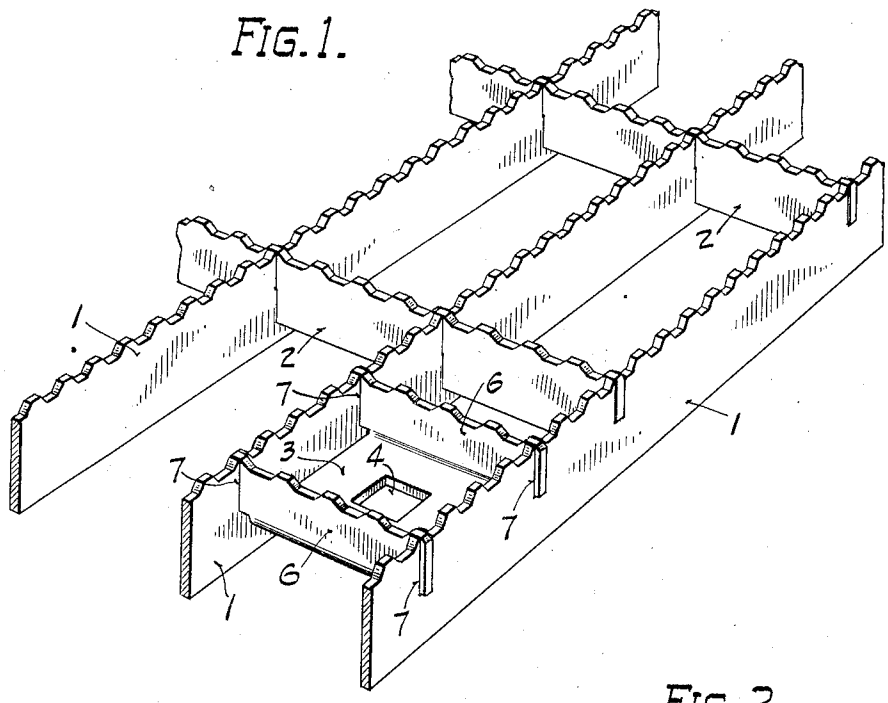


FIG. 2.

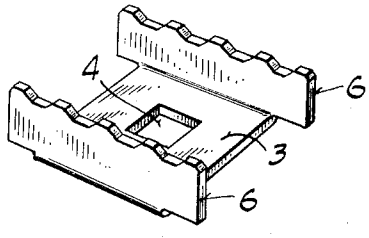
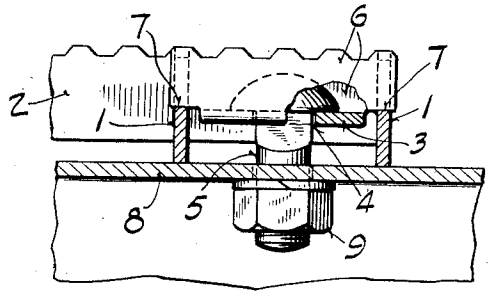


FIG. 3.



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GRATING ATTACHMENT

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Application March 27, 1941, Serial No. 385,480

4 Claims. (Cl. 189—84)

This invention relates to grating attachment, and more particularly to the holding structure for securing sections of grating to a foundation or support to provide a safety tread.

The object of the invention is to provide a holding lug integral with the grating bars and suitable for bolting to a foundation.

While various types of lugs might be provided for a grating, the present invention provides a structure which has advantages in that the lug is only lightly welded to the grating, and the weld is not relied upon either as a support or as a hold down for the grating.

The invention has been applied in the construction of grating of the general character set forth in co-pending application, Serial No. 385,478 filed on even date herewith by the present inventor.

This embodiment of the invention is illustrated in the accompanying drawing in which:

Figure 1 is a perspective view of a section of grating with parts broken away;

Fig. 2 is a perspective view of the lug prior to its being welded in place; and

Fig. 3 is a detail section showing the attachment of the grating to a support.

The grating comprises a series of spaced parallel longitudinal bars 1 and a series of spaced parallel transverse bars 2. The bars are of strip metal set on edge, and bars 2 rest in slots in the bars 1 to present a common safety tread therewith. The upper edges of the bars 1 and 2 are serrated for safety purposes. The bars 2 are lightly welded to the bars 1 at the bottom of the slots as set forth in applicant's co-pending application above referred to.

The lug of the present invention is blanked and formed from a sheet of metal. As illustrated in Fig. 2, it comprises a horizontal web 3 having a central, preferably square, opening 4 for receiving a bolt 5. The web 3 is about square and its width may be equal to or somewhat less than the distance between two adjacent longitudinal bars 1.

At each end, the web 3 has an upwardly bent flange 6 of about half the height of the bars 1, and longer than the width of the web 3. The top edge of each flange 6 may be serrated similar to the serrations of the longitudinal bars so that the flange may provide a part of the tread surface. Where the flange 6 is not serrated its upper edge should be below the level of the tread surface so as not to interfere with the latter.

The bars 1 to which the lug is to be attached have downwardly extending slots 7 in the top edges thereof to receive the flanges 6.

The ends of flanges 6 have their lower edges cut flat to rest directly upon the upper edges of bars 1 at the bottoms of slots 7 for the purpose of being welded thereto. The welding of flanges 6 to the respective bars 1 is similar to that of the bars 2 to the bars 1, and is preferably accomplished by applying a relatively light resistance welding current and light pressure.

As shown in Fig. 3 the grating is held down on a supporting bar 8 by means of the bolt 5 passing through the opening 4 in web 3 and an opening in bar 8. The nut 9 secures the bolt tight.

The lug has the advantage of not interfering with and preferably providing a part of the safety tread surface, and of clamping the grating down by vertically downward pressure on adjacent bars without any tendency to twist or turn the bars out of their vertical position.

Various embodiments of the invention may be employed within the scope of the claims.

The invention is claimed as follows:

1. In a grating, a plurality of spaced parallel bars having upper surfaces presenting a common safety tread, and a clamping lug extending between two adjacent bars and having a horizontal web and vertical upstanding flanges of greater length than the width of the web, said flanges being set on edge in vertical slots in said bars and welded thereto.

2. In a grating, a plurality of spaced parallel bars having upper serrated surfaces presenting a common safety tread, and a clamping lug extending between two adjacent bars and having upstanding flanges set on edge in vertical slots in said bars and welded thereto, the upper edges of said flanges being serrated and lying in the plane of the serrated tread surface to provide a part of said tread.

3. In a grating, a plurality of spaced parallel bars having upper surfaces presenting a common safety tread, and a clamping lug extending between two adjacent bars and having a horizontal web and upstanding flanges of greater length than the width of the web, said flanges being set on edge in vertical slots in said bars to provide a part of said safety tread, said flanges being of less depth than said bars and welded at their lower edges to said bars.

4. In a grating, a plurality of spaced parallel bars having upper surfaces presenting a common safety tread, and a clamping lug extending between two adjacent bars and having vertically disposed flanges resting on edge in substantially deep vertical slots in said bars to apply vertically downward pressure directly to said bars without interrupting or interfering with the safety tread and without twisting said bars out of upright position.

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