

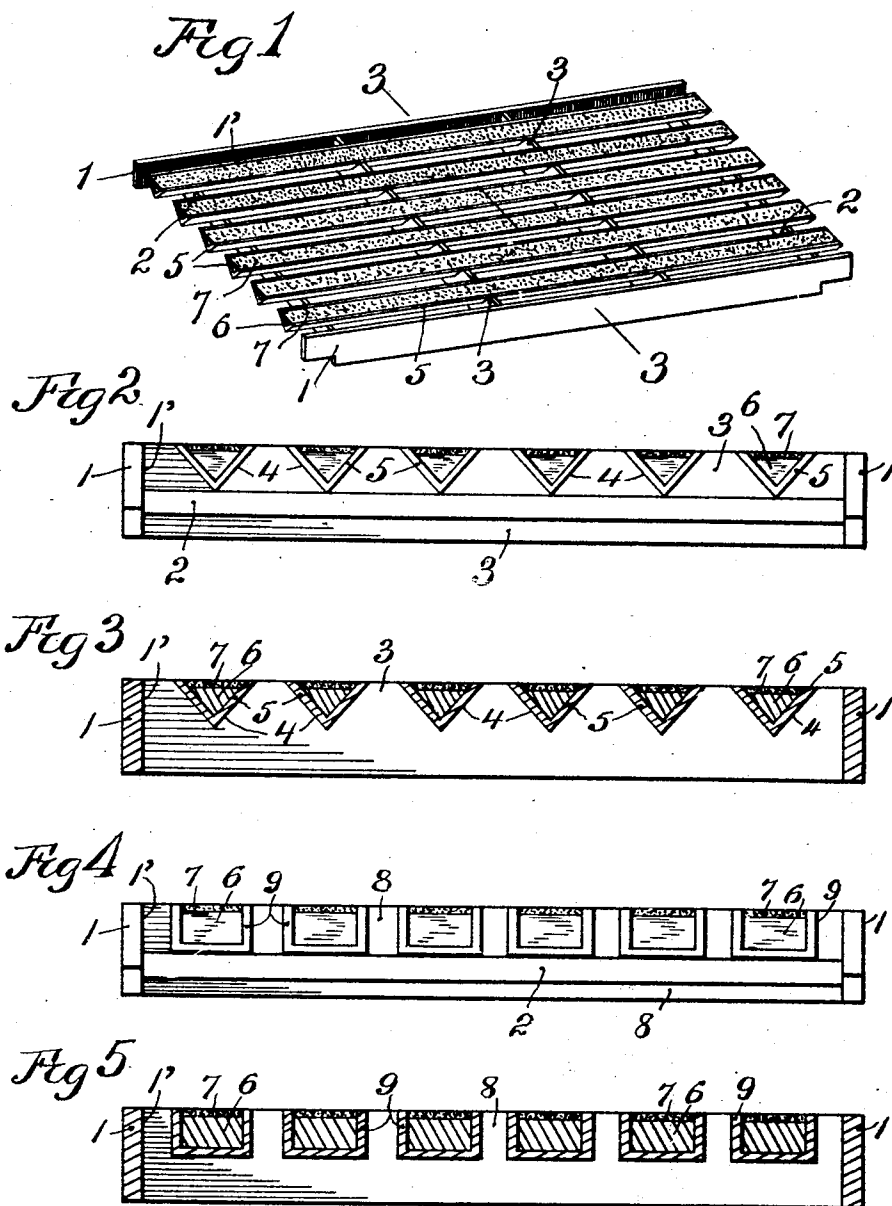
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GRATING

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GRATING.

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My invention relates to improvements in gratings. One of the objects of my invention is to provide a novel grating having a practically nonskid upper surface so as to eliminate danger or liability of any one treading thereon slipping with possible resulting injury to himself.

My invention is adapted for floor surfaces, the covering of areas, or for side walks or steps.

A further object of my invention is to provide a grating step the front edge of which will be readily distinguishable to any one coming down the stairs and viewing the step from above. With the usual types of gratings used for stairways, it is difficult for any one coming down the steps to easily distinguish the front edges thereof, particularly when the grating steps have air and light passages through them. Such inability to distinguish from the other bars the bar which forms the front edge of the step has resulted many times in persons becoming confused and injury to them has resulted due to falls occasioned by such cause.

With my improvement such accidents may be eliminated or greatly reduced in number.

My invention provides further a novel grating which is simple, cheap, strong, durable, not likely to get out of order, and which may be used for the usual purposes of gratings.

The novel features of my invention are hereinafter fully described and claimed.

In the accompanying drawing which illustrates my invention,

Fig. 1 is a perspective view of a grating embodying the preferred form of my invention.

Fig. 2 is an end elevation of the same.

Fig. 3 is a section on the line 3—3 of Fig. 1.

Fig. 4 is an end elevation of a modified form of my invention.

Fig. 5 is a cross section of what is shown in Fig. 4.

Similar reference characters designate similar parts in the different views.

Referring to Figs. 1 to 3, 1 designates two horizontal parallel side bars disposed edge up, and having fastened to their inner sides respectively the ends of two transverse end bars 2, and also the ends of two intermediate transverse bars 3, the bars 2 and 3 being disposed edge up, and the bars 3 having each in their upper edges V shaped notches 4 in which are respectively fitted V shaped chan-

nel bars 5 which are fastened in any suitable manner as by welding to the bars 3 and to the upper edges of the bars 2.

The upper edges of the bars 3 and the upper edges of the bars 5 are, preferably, in the same plane as the upper edges of the bars 1.

By reason of this the channel bars 5 are well braced and a strong structure is afforded.

The channel bars 5 are spaced apart, preferably, as shown so as to form passages which extend through the grating, and which permit the passage of light and air therethrough.

The channel bars 5 are disposed with their concave sides up. This enables the flanges of the channel bars to afford foot holds to keep a shoe from slipping thereon, which would not be afforded by a smooth unbroken surface. To further eliminate liability of slipping thereon, the channel bars 5 may be filled with a material having a nonskid upper surface, such as tar or asphalt 6 the top portion 7 of which may be coated or mixed with sand or cinders.

While other forms of channel bars than the V form may be advantageously used for the purpose described, I prefer the V form, as requiring the least material for the width of channel, and as also requiring the least material being cut out of the upper edges of the bars 3 to make the notches for receiving the channel bars. Also the form requires the least filling material 6 for the surface exposed. However, other forms of channel bars, such as channel bars 8, Figs. 4 and 5, may be used. These channel bars are bars having the usual U form with the flanges at right angles to the base. In such a structure the transverse bars 9, corresponding in function and location to the bars 3, are provided with notches in the upper edges thereof in which the channel bars 8 are fitted and secured as by welding.

The bars 8 may be filled with the filling nonskid material, the same as has been described with reference to the material 6 having the upper nonskid surface 7.

To enable any one going down stairs having steps, comprising gratings, such as are shown in the drawings, to readily distinguish the front edge of each step from the bars adjacent thereto, and thus avoid confusion and possible falling, the rear side 1' of the front side bar 1, which forms the front edge of the step, is colored, as by being

painted white, the visible portions of the adjacent bars of the grating step, and those of the one next below, being of a darker color. Thus one coming down the stairs will see the
 5 white rear side 1' of the front side bar of the step, and will thus know and see the front edge of each step as he proceeds downwardly, the light color of the front bars readily distinguishing them from the adjacent ones.

10 I do not limit my invention to the structures shown and described, as many modifications, within the scope of the appended claims, may be made without departing from the spirit of my invention.

What I claim is:—

1. A grating having two side bars, transverse bars supported by said side bars, one of said transverse bars having transverse
 20 notches in its upper edge, and channel bars mounted concave sides up on said transverse bars and respectively in said notches with their upper edges in the plane of the upper edges of said side bars.

25 2. A grating having two side bars transverse bars supported thereby, one of said transverse bars having transverse notches in its upper edge, and channel bars mounted concave sides up on said transverse bars and
 30 respectively in said notches with their upper edges in the plane of the upper edges of said side bars, and spaced apart to form between them passages extending through said grating.

35 3. A grating having two side bars, transverse bars supported thereby, one of said transverse bars having transverse V shaped notches in its upper edge, and V shaped channel bars mounted concave sides up on
 40 said transverse bars and respectively fitted in said notches with their upper edges in the plane of the upper edges of the side bars.

45 4. A grating having two side bars, transverse bars supported thereby, one of said transverse bars having transverse V shaped notches in its upper edge, and V shaped channel bars mounted concave sides up on said transverse bars and respectively fitted

in said notches with their upper edges in the
 50 plane of the upper edges of said side bars, and spaced apart to form between them passages extending through said grating.

5. A grating having two side bars, transverse bars supported thereby, one of said
 55 transverse bars having transverse notches in its upper edge, and channel bars mounted concave sides up on said transverse bars and respectively in said notches, the upper edges of said transverse bars and the upper edge
 60 of the notched bar being in the plane of the upper edges of said side bars.

6. A grating having two side bars, transverse bars supported thereby, one of said
 65 transverse bars having transverse notches in its upper edge, channel bars mounted concave sides up on said transverse bars and respectively in said notches, the upper edges of said channel bars being in the plane of
 70 the upper edges of said side bars, and material filling said channel bars and having a nonskid upper surface.

7. A grating having two side bars, transverse bars supported thereby, one of said
 75 transverse bars having transverse notches in its upper edge, channel bars mounted concave sides up on said transverse bars and respectively in said notches with their upper edges in the plane of the upper edges of said
 80 side bars, and spaced apart to form between them passages extending through said grating, and material filling said channel bars and having a nonskid upper surface.

8. A grating having two side bars, transverse bars supported thereby, one of said
 85 transverse bars having V shaped notches in its upper edge, V shaped channel bars mounted concave sides up on said transverse bars and respectively fitted in said notches with their upper edges in the plane of the
 90 upper edges of said side bars, and spaced apart to form between them passages extending through the grating, and material filling said channel bars and having a nonskid upper surface.

95 In testimony whereof I have signed my name to this specification.

HARRY DENNI.