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STAIR NOSING

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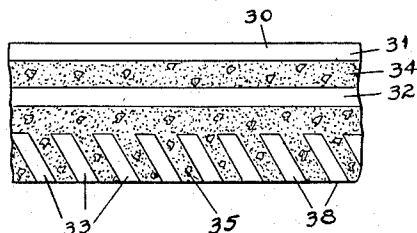


Fig. 2.

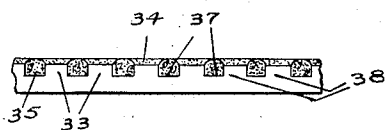


Fig. 3.

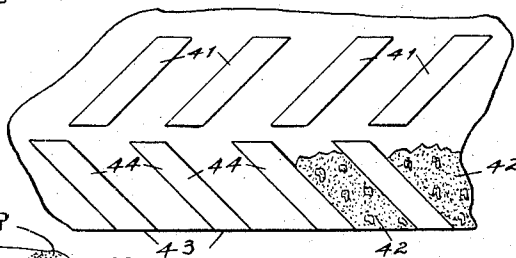


Fig. 4.

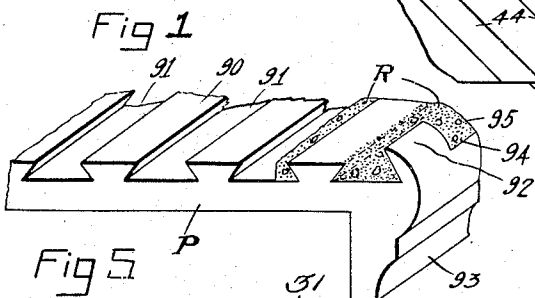
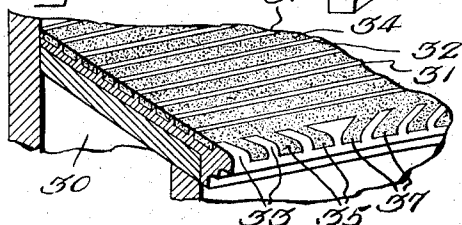


Fig. 1.



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UNITED STATES PATENT OFFICE.

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STAIR NOSING.

Continuation of application Serial No. 697,357, filed March 5, 1924. This application filed November 30, 1924. Serial No. 751,013.

This invention relates to safety treads, or non-slipping treads, such as are desirable for use on stair-ways, bus and car steps, and other places where there is danger of persons slipping, and where there is excessive wear.

This present application is a continuation of application filed by me March 5, 1924, Serial No. 697,357.

My purpose is to provide a cheap, relatively light tread which can be readily transported, and attached without being injured. For various reasons, including cheapness, cleanness and lightness, I wish to provide a tread the top surface of which is substantially flat, and which is made up principally of an artificial stone composition such as corundum, alundum, alloxite. Preferably I use carborundum combined and mixed with a cement capable of use in any artificial stone which will harden quickly, and bind gritty non-slipping material together.

Such material is lighter and less expensive than lead, or other relatively tough metal, but is generally more or less brittle or friable, and therefore requires reinforcing at certain points.

This application has reference to the application of artificial non-slipping stone to what is known in the trade as a structural or self-supporting tread having a substantially rigid base in connection with the front edge or nosing. Where this front edge, or nosing is made of artificial stone it is apt to break and wear too rapidly, and I therefore have devised suitable protection and reinforcing which will not however cause this edge to be slippery, as is the case where an all steel, bronze, or other similar continuous metallic edging is used.

While I may use a tread in which transverse strips of metal extend to or near the surface, I expressly disclaim any construction in which there are metal strips from front to back which reach the top surface of the stone as the foot will slip on such strips.

Fig. 1 is a sectional perspective of a structural stair tread of my construction showing some of the channels filled with composition, and others not so filled.

Fig. 2 is a plan view of a modified type of base plate, holding members and front teeth.

Fig. 3 is a front view of the tread shown in Fig. 2.

Fig. 4 is a plan view of another modification.

Fig. 5 is a perspective view showing the construction of Fig. 2 but with ribs at the front extending in both directions.

In Fig. 1 the structural base plate P is strong enough to be self-supporting and has channels 91 which are shown as dovetailed but may be of any other shape, between which are upwardly projecting dovetail shaped ribs 90.

Plate P also has at the front a downward projection 93 and an upward projection having teeth 92, 92, between which are spaces 94, 94.

The non-slipping composition R fills these channels 91, 91 up to the top surface of the holding ribs 90, thus forming a substantially flat smooth top surface for the tread, and one which can be easily cleaned.

This composition also extends at 95 between the front and top faces of front teeth 92, 92 so that the nosing is also smooth. The whole tread is thereby made light, strong and easily cleaned.

In Fig. 2 I show a base 30 which may be of cast iron, having transverse channels filled with artificial stone non-slipping composition such as 34, between ribs 31 and 32. Toward the front or nosing edge, I show diagonal ribs 33 separated by spaces 37 which are filled with composition 35 as shown.

The front or nosing edge as shown in Fig. 3 therefore presents the edges of ribs 33 indicated by 38 which serve as protecting and reinforcing teeth, and between these is the composition 35.

In Fig. 4 I show a slight modification of what I may call a herringbone construction in which there are short diagonal ribs 41, 41, extending in one direction, and in staggered relation thereto, other ribs 44 extending nearly at right angles.

Between these and extending out to the nosing edge 43 is the composition 42. The front or nosing edge will appear substantially like Fig. 3, the edges 43 of the ribs forming front teeth.

My tread is of the structural type which is self-supporting, the base plate being rigid and strengthened and stiffened by upwardly projecting integral ribs with the spaces between filled up flush with an artificial stone non-slipping composition which is lighter

than lead and the front edge or nosing has upwardly projecting front teeth between and flush with which the composition extends.

I claim:

- 5 1. In a stair tread, the combination of a rigid base plate from which a plurality of integral ribs extend upwardly, there being proximate the front edge, a plurality of parallel diagonally disposed ribs, the ends of
10 which are exposed and slope upwardly and backwardly; with a non-slipping artificial stone composition which extends between and

flush with the top faces of the ribs and teeth.

2. In a stair tread, the combination of a rigid base plate from which a plurality of
15 integral ribs extend upwardly, there being proximate the front edge, a plurality of parallel diagonally disposed ribs, the ends of which are exposed; with a non-slipping artificial stone composition which extends be-
20 tween and flush with the top faces of the ribs and teeth.

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