Aug. 14, 1928. 1,681,073

H. A. WELCOME

STAIR NOSING

Filed Feb. 3, 1928

Fig. 1.

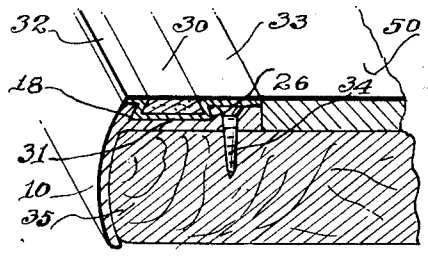


Fig. 5.

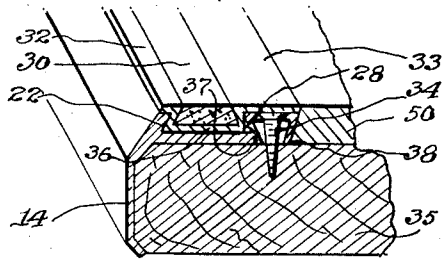


Fig. 2.

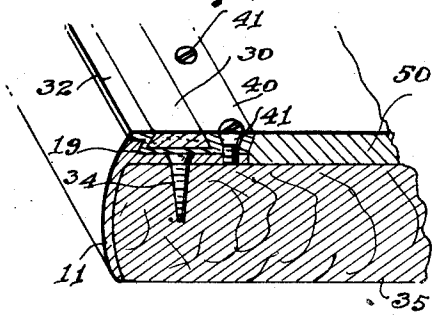


Fig. 6

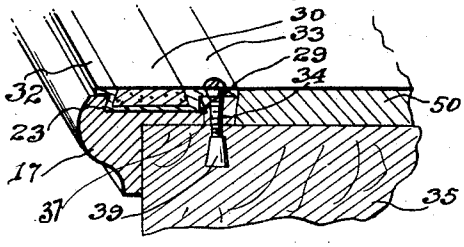


Fig. 3.

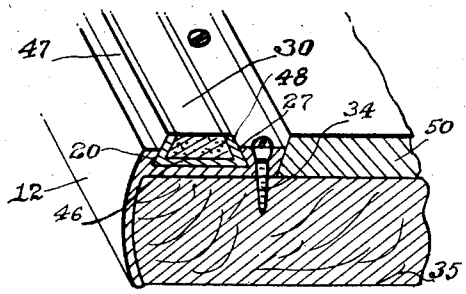


Fig. 7.

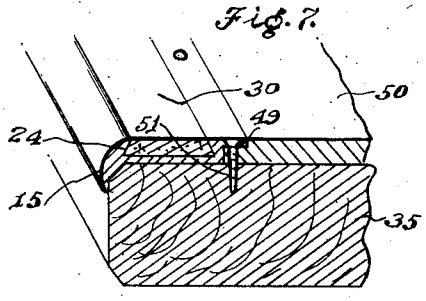


Fig. 4.

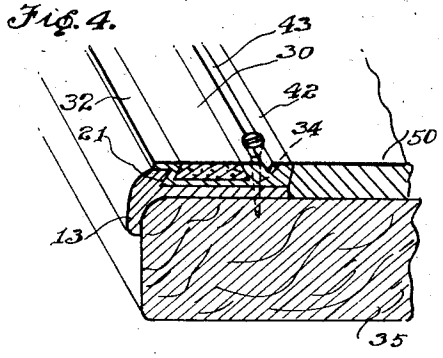
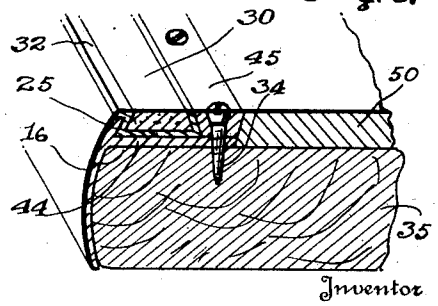


Fig. 8.



Inventor

Harold Ashley Welcome

By

Attorney

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UNITED STATES PATENT OFFICE.

HAROLD ASHLEY WELCOME, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO AMERICAN MASON SAFETY TREAD COMPANY, OF LOWELL, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

STAIR NOSING.

Application filed February 3, 1928. Serial No. 251,597.

This invention relates to stair nosings and has for an object to provide nosings for stairs of various types, materials and forms embodying in the organization a removable tread part, the entire organization being adapted to co-act with the resilient or cushioning stair treads ordinarily employed upon stairs.

A further object of the invention is to provide a stair nosing, preferably of metal, with improved means for attaching the nosing to the stair and an improved type of tread part for non-slipping which said part is removably attached to the body of the nosing.

With these and other objects in view, the invention comprises certain novel parts, elements, units, combinations, constructions, interactions and functions as disclosed in the drawings together with mechanical and functional equivalents thereof, as will be hereinafter more fully described and claimed.

Each of the figures of the drawings is a transverse section taken on a perspective substantially at right angles to the longitude of the nosing and representing in each case minor modifications involving the same general principle throughout.

The stair nosing which forms the subject matter of the present application comprises a metallic or other approved type of strip properly contoured to fit over and upon the forward edge of a stair tread. This strip is formed in various shapes as indicated at 10, 11, 12, 13, 14, 15 and 16, to conform more or less closely with the shape of the edge of the stair tread, or as shown at 17 in the form known as a bull nose extending beyond the edge of the tread. In each case the strip is provided with an undercut preferably of the type recognized as dove tailing and as shown respectively at 18, 19, 20, 21, 22, 23, 24 and 25.

Opposite this undercut as disclosed at 18 to 25 inclusive, provision for securing a non-slip tread in conjunction with the strip is provided. At 26, 27, 28 and 29, this comprises a shoulder integral with the undercut shoulders 18 to 25 inclusive for the receipt of tread strips.

To co-act with the specific type of nosing strip having the second integral shoulder a tread strip is employed having a dove-tailed or undercut furrow which is filled with any usual and ordinary compound or material preventing slipping as indicated at 30.

Such strip for co-acting with the two undercut shoulders may in itself be formed as a double dove tail strip 31 having a flange 32 extending over the top edge of the front part of the nose and a wider flange 33 extending over the rear shoulder and covering the screws 34 or other fastening means by which the entire organization is secured to the stair tread 35.

This type of organization must be slidably inserted from the end to occupy the interval between the dove-tail shoulders 18 and 26. In some locations introducing from the end is inconvenient or impossible, and for such locations the strip 36 is employed having a front flange 32 and a rear flange 33, but instead of employing a double dove tail, the rearward shoulder is substantially right angle as indicated at 37. This permits the strip to be snapped into place by introducing the forward edge under the undercut shoulder 22 or 23, and the rear edge forced downwardly to cover the screws 34.

This rear shoulder 38 may be formed upon a solid strip of material or may be formed hollow as indicated at 38 in Figure 5. It is to be understood, of course, that the two types of tread strips shown at Figures 1 and 5 are interchangeably usable with the two types of nosing strips as shown at said figures, and that the employment of either with the other is only a matter of convenience or of choice. As shown at Figure 6, the arrangement of the undercut shoulders 23 and 29 are the same as shown at Figures 1 and 5, the difference being in the formation of the front side of the nosing as a bull nose. At this figure also it is indicated as being attached to a stone, cement or other hard substance as a stair tread and attached by means of the ordinary expansion bolt 39.

In some locations and for some purposes, it is desirable to form the nosing strip without the rear undercut shoulder as indicated at Figure 2 in which case the flange 32 of the tread strip is as heretofore disclosed but the anti-slip material 30 is maintained in position by a strip 40, which is integral with the flange 32 but is secured upon the tread 11 not by engaging under or in relation to un-

dercut shoulders but by the screws 41 which pass through the strip 40 into the nosing member 11 which has before been secured to the stair tread by the screws 34.

As an enlargement upon the type shown at Figure 2, that shown at Figure 4 is substantially the equivalent but the strip 42 corresponding to the strip 40 is here shown as provided with a groove 43 which may and preferably will be V-shaped in cross section, although the invention is not limited to this particular shape of groove which is employed simply to add to the security of the tread.

In some locations and for some uses, one or both of the flanges 32 and 33 may be dispensed with. As shown at Figure 8, the flange 32 is still employed but the flange 33 is omitted so that the dove-tailed member 44 at its rearward side is substantially flush with the strip 45 carrying the rear undercut shoulder. In this particular case, the strip 45 is independent of the nosing strip and is secured in position by the screws 34 which serve to hold the nosing in position to hold the strip 45 in position upon the nosing and to retain the strip 44 intermediate such strip 45 and the undercut shoulder 25. As shown at Figure 3, both flanges have been eliminated and the strip 46 is provided merely with the two dove-tailed shoulders 47 and 48 which slide into contact with the shoulders 20 and 27.

As a simplification, the type shown at Figure 7 employs a single strip which covers the upper edge of the stair tread and provides a dove-tailed furrow for receipt of the anti-slipping material 30 with an overhanging flange 49 for covering the front stepped edge of the stair tread cover 50. This is a type which is used upon stairs not subjected to heavy traffic and may be secured in position by screws as indicated in the other figures or by the nails 51 indicated at said Figure 7.

In any of the modifications shown at the several figures, the one underlying principle has been adhered to of providing a stair tread with a strip of anti-slip material adjacent to the front edge of the stair tread so positioned as to be quickly and easily replaced when worn, making the maintenance of the stair in a relatively safe condition a comparatively cheap and economical matter.

What I claim to be new is:

1. A stair tread comprising a strip of rigid material properly contoured in cross section to fit and cover the upper forward corner of a stair tread, an upstanding rib formed upon said strip producing an undercut shoulder, means to secure said strip in position upon the stair tread, a second strip of material having an edge contoured complementary to the undercut shoulder and provided with a furrow having undercut walls, a traction increasing material filling the furrow, and means to secure the second mentioned strip with the complementary parts in co-acting relation.

2. A stair nosing comprising a strip of rigid material properly contoured in cross section to fit and cover the upper forward edge of a stair tread, ribs upstanding from said strip forming spaced undercut shoulders, means to secure said strip in position upon a stair tread, a second strip having its opposite edges properly proportioned and contoured to fit between the undercut shoulders of the first mentioned strip and embodying a furrow with opposed undercut walls, and a traction increasing material filling the furrow.

3. A stair nosing comprising a strip of rigid material properly contoured in cross section to cover the upper forward edge of a stair tread, ribs upstanding from said strip forming longitudinally extending overhanging shoulders, means to secure said strip in position upon a stair tread, a second strip having its opposite edges contoured for inter-engagement with the overhanging shoulders of the first mentioned strip and embodying a longitudinally extending furrow with opposed overhanging walls, and a traction increasing material filling the furrow.

4. A stair nosing comprising a strip of rigid material contoured in cross section to fit over and upon the upper forward edge of a stair tread, ribs upstanding longitudinally of the strip and forming overhanging opposed spaced shoulders, means to secure said strip in position upon the stair tread, a second strip embodying opposite edges contoured complementary to the overhanging shoulders of the first mentioned strip and to be secured therebetween, a flange extending from one side of the last mentioned strip and overhanging one of the shoulders, said strip being provided with a furrow having opposed overhanging walls, and a traction increasing material filling the furrow.

5. A stair nosing comprising a strip of rigid material properly contoured in cross section to fit and cover the upper forward edge of a stair tread, ribs upstanding from said strip forming spaced shoulders, one of which is undercut, means to secure said strip in position upon a stair tread, a second strip having its opposite edges properly proportioned and contoured to fit between the shoulders and under the undercut of the first mentioned strip and embodying a furrow with opposed undercut walls, and a traction increasing material filling the furrow.

6. A stair nosing comprising a strip of rigid material contoured in cross section to fit over and upon the upper forward edge of a stair tread, ribs upstanding longitudinally of the strip and forming opposed

spaced shoulders, one of which is an overhang, means to secure said strip in position upon the stair tread, a second strip embodying opposite edges contoured complementary to the shoulders of the first mentioned strip and to be secured therebetween, a flange extending from one side of the last mentioned strip and overhanging one of the shoulders, said strip being provided with a furrow having opposed overhanging walls, and a traction increasing material filling the furrow.

In testimony whereof I affix my signature.

HAROLD ASHLEY WELCOME.