May 22, 1928. 1,670,798

D. S. CONNELLY

SAFETY TREAD

Filed May 12, 1927

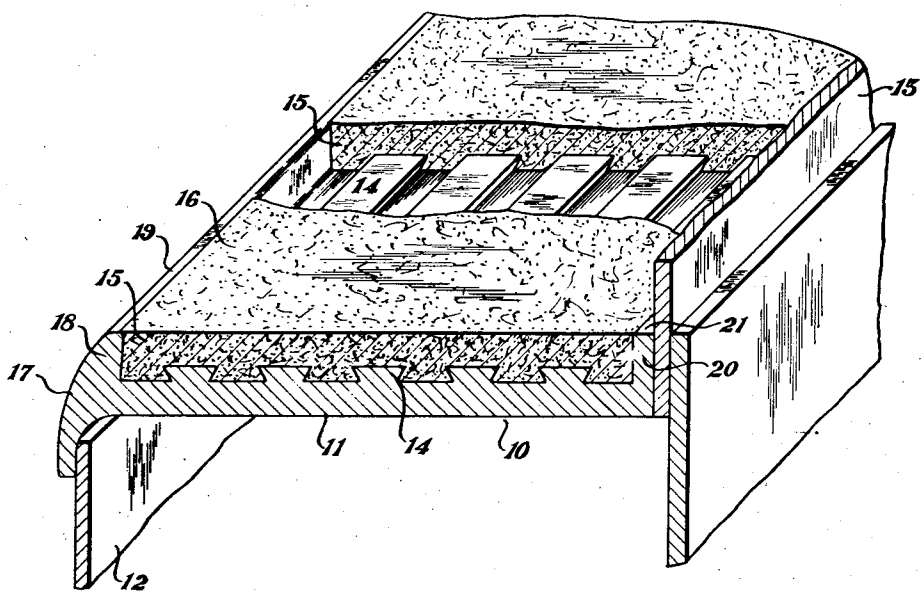


Fig. 1

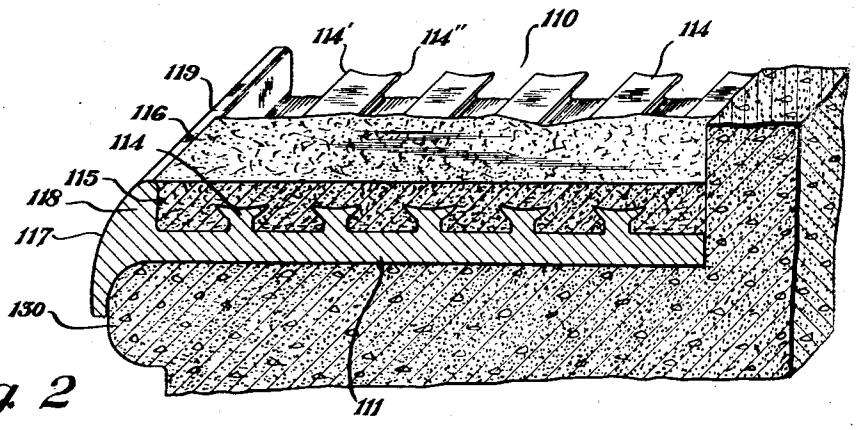


Fig. 2

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UNITED STATES PATENT OFFICE.

DONALD S. CONNELLY, OF CANTON, OHIO, ASSIGNOR TO THE SAFETY STAIR TREAD COMPANY, OF WOOSTER, OHIO, A CORPORATION OF OHIO.

SAFETY TREAD.

Application filed May 12, 1927. Serial No. 190,784.

My invention relates to safety or non-slipping treads for use in stair-ways and the like for preventing persons using the stairways from slipping and for providing a durable stair tread which will stand heavy usage.

More particularly my invention relates to treads which have a top wearing surface made up entirely of a suitable non-slipping material or composition, and which material is carried by a tread base provided with a suitable front edge or nosing.

The objects of my improvements are to provide a safety tread of the foregoing character and description, and whose base may be formed by rolling mill operations and provided with suitable and efficient means for securing and binding the non-slipping material thereon, and which is preferably formed integral with a suitable front edge or nosing, and when desired with a suitable rear flange.

Further objects of my improvement include the provision of an upper layer of non-slipping material entirely imbedding the locking means and securing the same to the base, whereby when the upper non-slipping material wears away, the same may be easily replaced without damage to the locking means.

In other types of safety treads including metallic locking members extending into the wearing surface, these metallic members are worn away together with whatever non-slipping material is used therewith.

The foregoing objects are attained by constructions and arrangements hereinafter described in detail, and which may be stated in general terms as including a preferably metallic base which may be strong enough to constitute a stair step and which is provided with longitudinally extending upwardly protruding dove-tailed key ribs adapted to lock into and secure a suitable non-slipping material placed thereon to constitute the upper wearing surface for the tread.

For attaining economy of manufacture, and strength and rigidity in the tread, the base and ribs are preferably rolled integral with a suitable front nosing, and when desired with a suitable rear flange.

Preferred embodiments of my improvements are illustrated in the accompanying drawing forming part hereof, in which

Figure 1 is a fragmentary oblique perspective view illustrating one embodiment of my improved safety tread; and

Fig. 2, a similar view illustrating a modified embodiment thereof.

Similar numerals refer to similar parts throughout the drawing.

The safety tread embodying my invention and indicated generally at 10 in Fig. 1, includes a preferably rolled metal base 11 which preferably has sufficient thickness so that it may constitute a stair step and be associated in a usual manner with risers 12 and 13, and carried as may be desired by end or intermediate supports not shown.

The base 11 is provided on its upper face with spaced longitudinally extending upwardly protruding dove-tailed key ribs 14 adapted to rigidly lock into and secure any suitable non-slipping material 15 placed thereon and preferably entirely imbedding the ribs so that an upper wearing surface 16 is provided for the tread consisting entirely of non-slipping material.

Preferably rolled integral with the base, a front nosing 17 may be provided for the tread, and the nosing preferably includes a flange 18 extending upwardly and having an upper face 19 preferably at the level of the upper wearing surface 16 of the tread.

A rear flange 20 may likewise be provided and may extend upwardly so that its upper face 21 is at the level of the upper wearing surface.

The front nosing and the rear flange thus form a trough for receiving the non-slipping material 15 imbedding and locking with the ribs 14.

While it is preferred to roll the bases for the treads, the same may be made by casting or the like.

The modified safety tread indicated generally at 110 in Fig. 2, includes a preferably rolled metal base 111, which preferably has sufficient thickness so that it may constitute a stair step, or may be placed as shown upon a built-in step 130, of concrete or the like.

The base 111 is provided on its upper face with spaced longitudinally extending upwardly protruding ribs 114 having upper laterally extending flanges 114′ and 114″ thereon, and the ribs and flanges are adapted to rigidly lock into and secure any non-slipping material 115 placed thereon and preferably entirely imbedding the ribs and

flanges so that an upper wearing surface 116 is provided for the tread consisting entirely of non-slipping material.

Preferably rolled integral with the base, a front nosing 117 may be provided for the tread, and the nosing preferably includes a flange 118 extending upwardly and having an upper face 119 preferably at the level of the upper wearing surface 116 of the tread.

I claim:

1. In safety treads and the like, a base, laterally spaced longitudinally extending key ribs outwardly protruding from one face of the base, and non-slipping material entirely imbedding and locked by the key ribs and constituting the wearing surface for the tread.

2. In safety treads and the like, a base, laterally spaced longitudinally extending dove-tailed key ribs outwardly protruding from one face of the base, and non-slipping material entirely imbedding and locked by the key ribs and constituting the wearing surface for the tread.

3. In safety treads and the like, a base, laterally spaced longitudinally extending key ribs outwardly protruding from one face of the base, laterally protruding flanges on the outer ends of the ribs, and non-slipping material entirely imbedding and locked by the key ribs and constituting the wearing surface for the tread.

4. In safety treads and the like, a base, laterally spaced longitudinally extending key ribs outwardly protruding from one face of the base, a nosing at one side edge of the base including a flange extending outwardly in the same direction as the ribs, and a flange at another side edge of the base opposite the nosing and extending outwardly in the same direction as the ribs and nosing, and non-slipping material entirely imbedding and locked by the key ribs and constituting the wearing surface for the tread.

5. In safety treads and the like, a base, laterally spaced longitudinally extending key ribs outwardly protruding from one face of the base, a nosing at one side edge of the base including a flange extending outwardly in the same direction as the ribs, and a flange at another side edge of the base opposite the nosing and extending outwardly in the same direction as the ribs and nosing, and the outer ends of the flanges extending further from the base than the outer ends of the ribs.

In testimony that I claim the above, I have hereunto subscribed my name.

DONALD S. CONNELLY.