

A. I. DAVIS.
SAFETY TREAD FOR STAIRS AND STEPS.
APPLICATION FILED NOV. 3, 1908.

973,346.

Patented Oct. 18, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

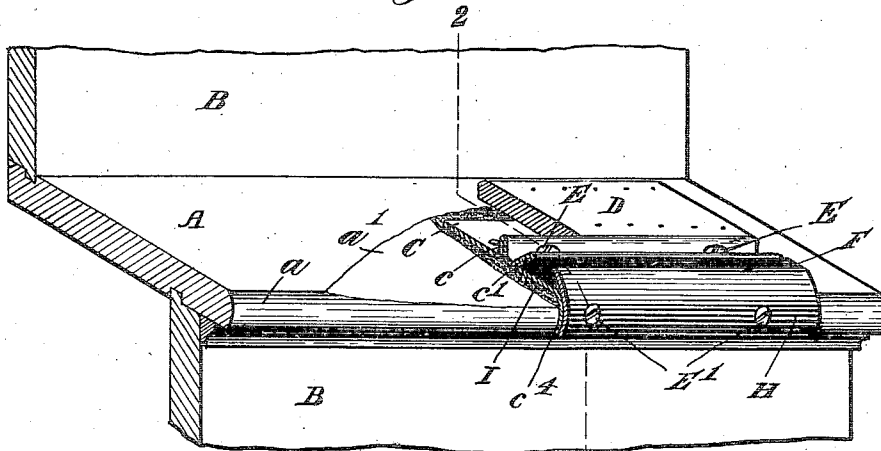


Fig. 2.

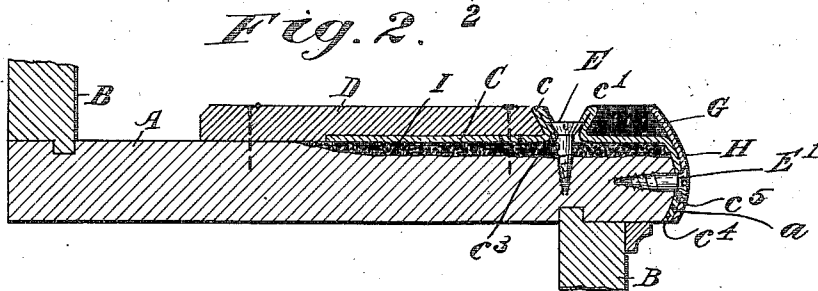
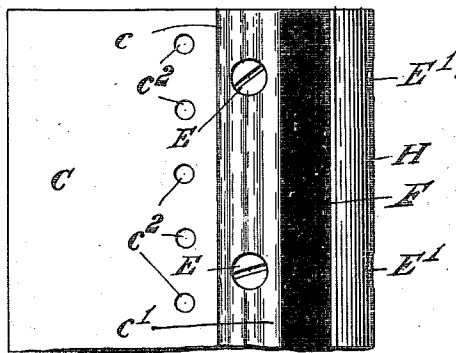


Fig. 3.



WITNESSES

Kirkley Hyde.
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2 SHEETS—SHEET 2.

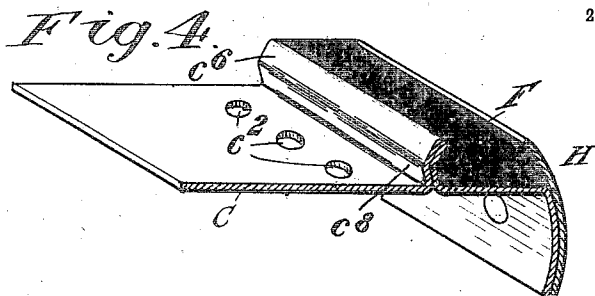


Fig. 5.

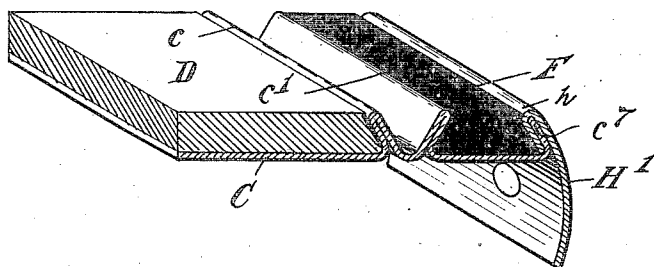


Fig. 6.

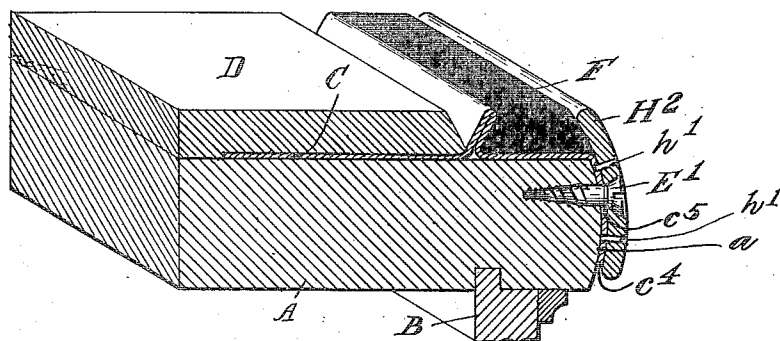
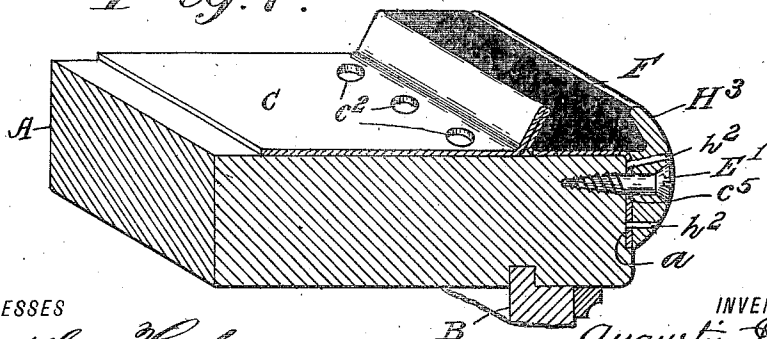


Fig. 7.



WITNESSES

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UNITED STATES PATENT OFFICE.

AUGUSTIN I. DAVIS, OF LOWELL, MASSACHUSETTS, ASSIGNOR TO AMERICAN MASON SAFETY TREAD COMPANY, OF SACO, MAINE, A CORPORATION OF MAINE.

SAFETY-TREAD FOR STAIRS AND STEPS.

973,346.

Specification of Letters Patent.

Patented Oct. 18, 1910.

Application filed November 3, 1908. Serial No. 430,927.

To all whom it may concern:

Be it known that I, AUGUSTIN I. DAVIS, a citizen of the United States, residing at Lowell, in the county of Middlesex and Commonwealth of Massachusetts, have invented a certain new and useful Improvement in Safety-Treads for Stairs and Steps, of which the following is a specification.

This invention relates to safety-treads for stairs and steps and the object of said invention is to produce, especially for indoor use, a comparatively inexpensive safety-tread, in which an ornamental appearance is combined with non-slipping qualities.

I form the body of the base of sheet metal bent or folded to form one side of a groove for the reception of non-slipping material, the other side of said groove being formed by a nosing-piece which may be of more durable or more ornamental material or which may combine both of these qualities. I have also shown the base provided with means for holding down the front edge of a mat which may be of any material commonly used for the purpose, as linoleum, rubber, cork-carpet or other suitable sheet material.

In the accompanying drawing, on two sheets, Figure 1, is an isometric perspective view of a part of a stair provided with my improvement, the stair-tread and risers and the safety-tread being in vertical sections on lines at right angles to the front edge or nosing of a stair; Fig. 2, a vertical section on the line 2 2 in Fig. 1; Fig. 3, a plan of a part of the base shown in Figs. 1 and 2; Fig. 4, an isometric perspective view of the base and filling, showing a modification of the groove; Fig. 5, a similar view of a mat and a base with a modification of the nosing-piece and means of attaching the same to the base; Fig. 6, a similar view of another modification of the base and nosing-piece showing also the tread of a step and a mat; Fig. 7, similar to Fig. 6, but omitting the mat and showing a modification of the nosing-piece.

A denotes a tread of a step or stair, and B, risers, all being of usual construction.

The safety-tread is represented in Figs. 1, 2 and 3 as having a sheet-metal base C, doubled upon itself at c c^1 and having these doubled portions or folds inclined away

from each other, the part or fold c receiving the front beveled edge of a mat D which may be of linoleum, rubber, cork-carpet or other sheet material suitable for the purpose, and thick enough to reach to the top of the fold c , said mat being secured in place by any usual means, preferably by tacks driven through said mat and through holes c^2 with which said base C is provided into the tread A. The base between the folds c c^1 is provided at intervals with holes c^3 to receive screws E by which said base is secured to the tread A of a step. The fold c^1 forms the back or inner side of a dovetail groove G for the reception of any non-slipping material as lead or other adhesive material or a suitable cement made non-slipping by containing grits or otherwise in any well known manner. The front side of said groove G is formed by a nosing-piece H which extends up to the same height as the folds c c^1 , the lower part of said nosing-piece being secured by solder, welding or equivalent means to the front part c^4 of the base which is turned down over and fits the nosing a or front edge of the tread A. The nosing-piece is preferably secured to the nosing a by screws E^1 which pass through holes c^5 formed at suitable intervals in said nosing-piece.

In the remaining figures (4-7) showing modifications, the letters of reference previously mentioned, indicate parts which are substantially like those above described. In Fig. 4, the upper half of the fold c^3 farthest from the nosing is bent forward at c^6 in such a manner that the lower part thereof serves to retain the front edge of the mat in place while the upper part of said fold overhangs in a forward direction and retains the filling F in place, the fold c^6 thus serving the purpose of the two folds c c^1 in Figs. 1-3. In Fig. 5, the front marginal part c^7 of the base is turned up instead of down and enters a fold h in the upper part of the nosing-piece H^1 . In Figs. 6 and 7, the nosing H^2 H^3 is represented as of thicker material, as of cast metal, and riveted at h^1 h^2 to the front or nosing part c^4 of the sheet metal base.

In all the forms of my invention the nosing is necessarily secured to the base before the anti-slipping material is applied and both of these operations will preferably be done at the factory. The mat D is put

in place after the base is secured in position.

The tread, if worn, will be leveled in the usual manner as by means of cement I laid in the depressions a^1 . (See Figs. 1 and 2.)

I claim as my invention:—

1. The combination of a sheet-metal base having an upwardly extending fold and a nosing secured to said base and extending downward in front of the tread of a step or stair and upward as high as the top of said fold, to form with said fold and the intervening portion of said base a continuous dovetail groove for the reception of anti-slipping material.

2. The combination of a sheet-metal base having an upwardly extending fold and a nosing-piece of different material secured thereto and arranged and adapted to form with said fold and the intervening portion

of the base, a continuous dovetail groove for the reception of non-slipping material.

3. The combination of a sheet-metal base having an upwardly extending fold, a nosing secured to said base and extending upward as high as the top of said fold, to form with said fold and the intervening portion of said base, a continuous dovetail groove for the reception of anti-slipping material and a mat arranged on said base, said base being provided with holes through which tacks may be driven to secure said mat in place.

In witness, whereof, I have affixed my signature, in presence of two witnesses.

AUGUSTIN I. DAVIS.

Witnesses:

ALBERT M. MOORE,
LUDGER A. NICOL.