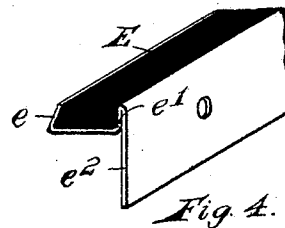
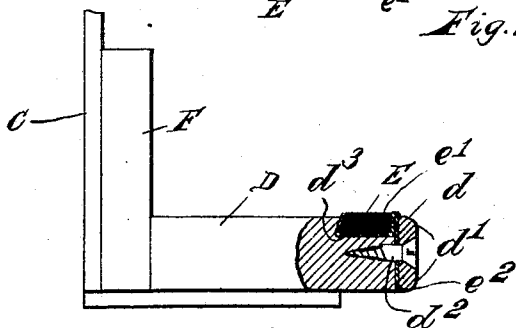
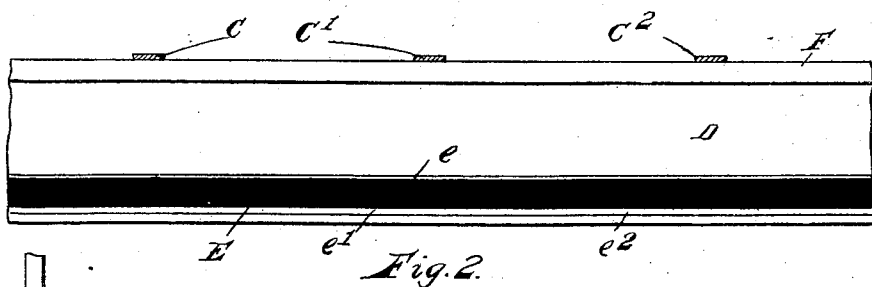
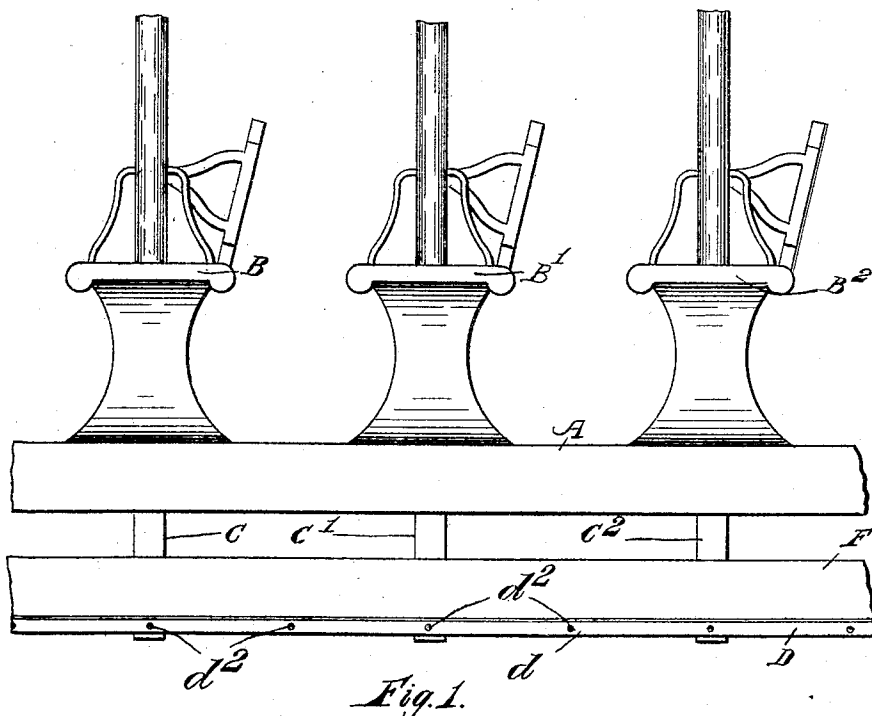


A. I. DAVIS.
SAFETY DEVICE FOR TREADS OF STEPS.
APPLICATION FILED FEB. 18, 1909.

942,031.

Patented Nov. 30, 1909.



WITNESSES.

Ludger A. Nicol.
Mark W. Rolfe.

INVENTOR

Augustin S. Davis.
By *Albert M. Moore.*
His ATTORNEY.

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 DEVICE FOR TREADS OF STEPS.

942,031.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed February 18, 1909. Serial No. 478,567.

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 Devices for Treads of Steps, of which the following is a specification.

This invention relates to safety devices for treads of steps and is designed for use on the running boards of open street cars and such other vehicles as have similar narrow platforms which serve as both steps and walk-ways. These running boards or platforms are of wood of considerable thickness and usually supported at intervals by metallic brackets and are provided at the outer edges with guard strips of metal, usually of wrought iron, which strips protect the boards from wear and also stiffen them. Such running boards or platforms in wet, frosty, and snowy weather are very slippery and the cause of many accidents.

The object of this invention is to provide the outer margin of the tread-surface of the running board with a non-slipping strip.

I have shown a metal plate provided with a groove for the reception of the anti-slipping material and an attaching flange, a construction which allows the safety device to be completed at the factory in readiness to be applied to the running board in a few minutes' time without losing the use of the car, while the anti-slipping material is hardening.

In the accompanying drawing, Figure 1 is a side elevation of part of the sill of an open street-car with seats, a running board provided with my improvement and the brackets which support said board; Fig. 2, a plan of part of the running board with said brackets in horizontal cross-section; Fig. 3, an end view of the running board, partly in vertical section through the safety-device and guard strip; Fig. 4, an isometric perspective view of the safety device detached.

A indicates a floor supporting sill; B B¹ B², seats; C C¹ C², brackets which support the step, tread or running-board D; F, a riser or plate; these parts being all of the usual construction, except as hereinafter stated. The outer edge of the running-board is provided as usual with a guard-

strip *d*, which is commonly a strip of wrought iron, flat on its inner surface and rounded at top and bottom on its outer surface as shown at *d*¹ and secured to said board at intervals by screws *d*².

In carrying out this invention I form by folding a sheet of metal a trough or groove E to receive the anti-slipping material which may be of any suitable substance as cement containing grits and adapted to be placed in the groove while in a plastic condition and of hardening into an artificial stone or the filling of the groove may be of any substance commonly used and suitable for the purpose. The side *e* of the groove farthest from the outer edge of the running board is preferably inclined toward the middle of the groove, the better to retain the anti-slipping material. The outer side *e*¹ of said groove is made by doubling the sheet metal as shown in Fig. 4, the edge of the metal at *e*² extending down below the groove to form a flange of about the depth of the guard-strip. The joint or fold at the top of the flange should be "sweated" or soldered to prevent the separation of said flange from the body of the sheet metal when worn.

The sheet metal piece consisting of the groove portion and flange *e*² may be prepared in advance of the demand for it and kept in stock. In order to apply the safety-device a rabbet *d*³ is formed in the front upper or outer edge of the running-board by any usual means after first removing the guard strip *d* by withdrawing the screws *d*². The grooved part of the safety device containing the anti-slipping material is placed in the rabbet which is made of the proper size and shape to fit the horizontal part of said device and the flange *e*² is placed against the edge of the running board. The guard-strip is then replaced and secured in position by the screws *d*² which are driven through holes in said flange to secure the safety device in place.

I claim as my invention:—

1. A metal plate or strip provided with a groove for the reception of anti-slipping material and adapted to be secured to a step or running-board and to be retained in place by a metallic guard-strip.

2. A metal plate or strip provided with a groove for the reception of anti-slipping

material and provided with a flange adapted to be secured to a step or running-board and to be retained in place by a metallic guard-strip.

- 5 3. The combination of a tread rabbeted at its outer edge and a plate or strip adapted to fit said rabbet and having an attaching flange, said plate or strip having a groove containing anti-slipping material, and a

guard between which and the outer edge of 10 said tread said flange is held.

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

AUGUSTIN I. DAVIS

Witnesses:

ALBERT M. MOORE,
GRACE CROWLEY.