J. G. BRAUN.

PROTECTOR PLATE FOR EDGES OF CONCRETE STEPS.

APPLICATION FILED JAN. 29, 1909.

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Patented June 7, 1910.

Fig. 1.

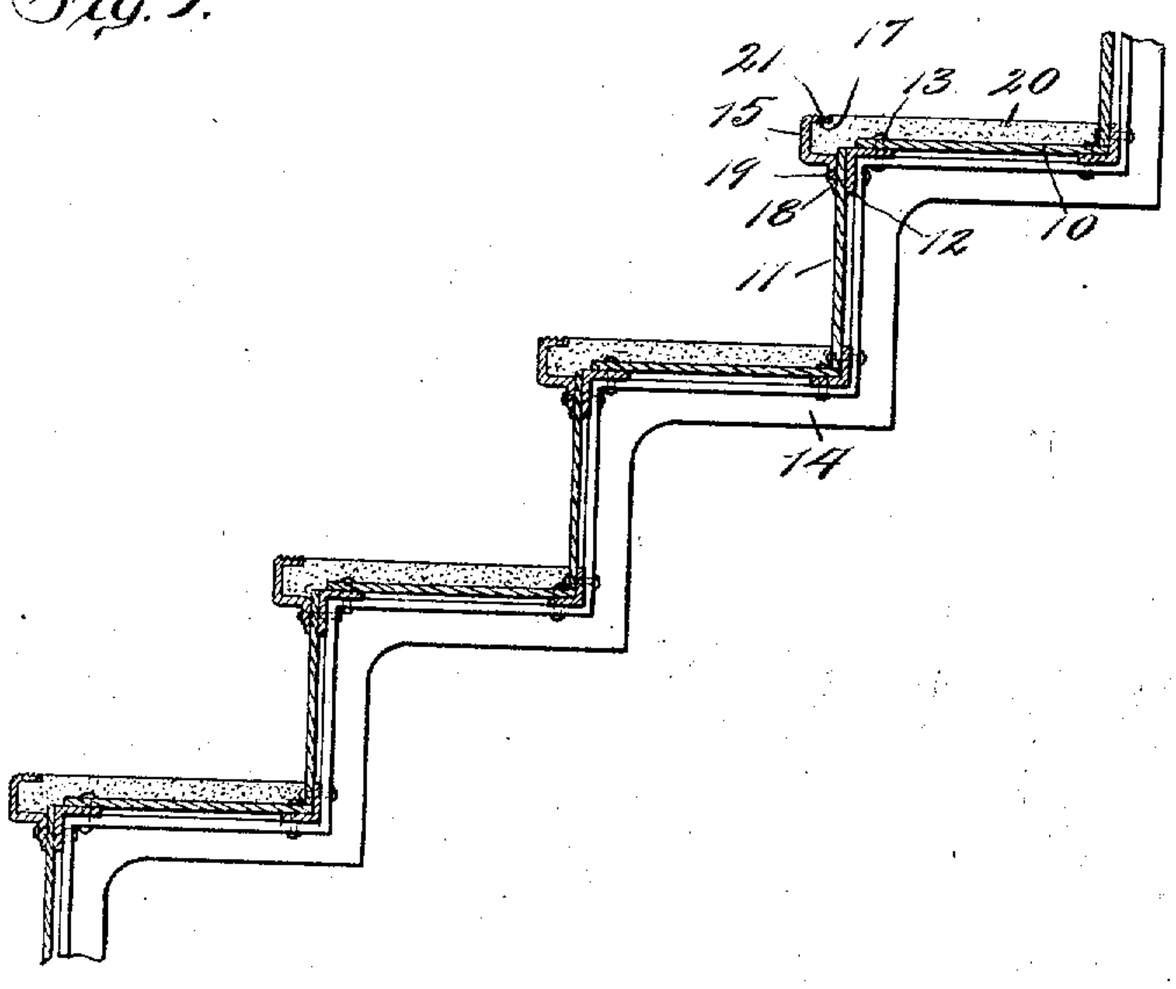
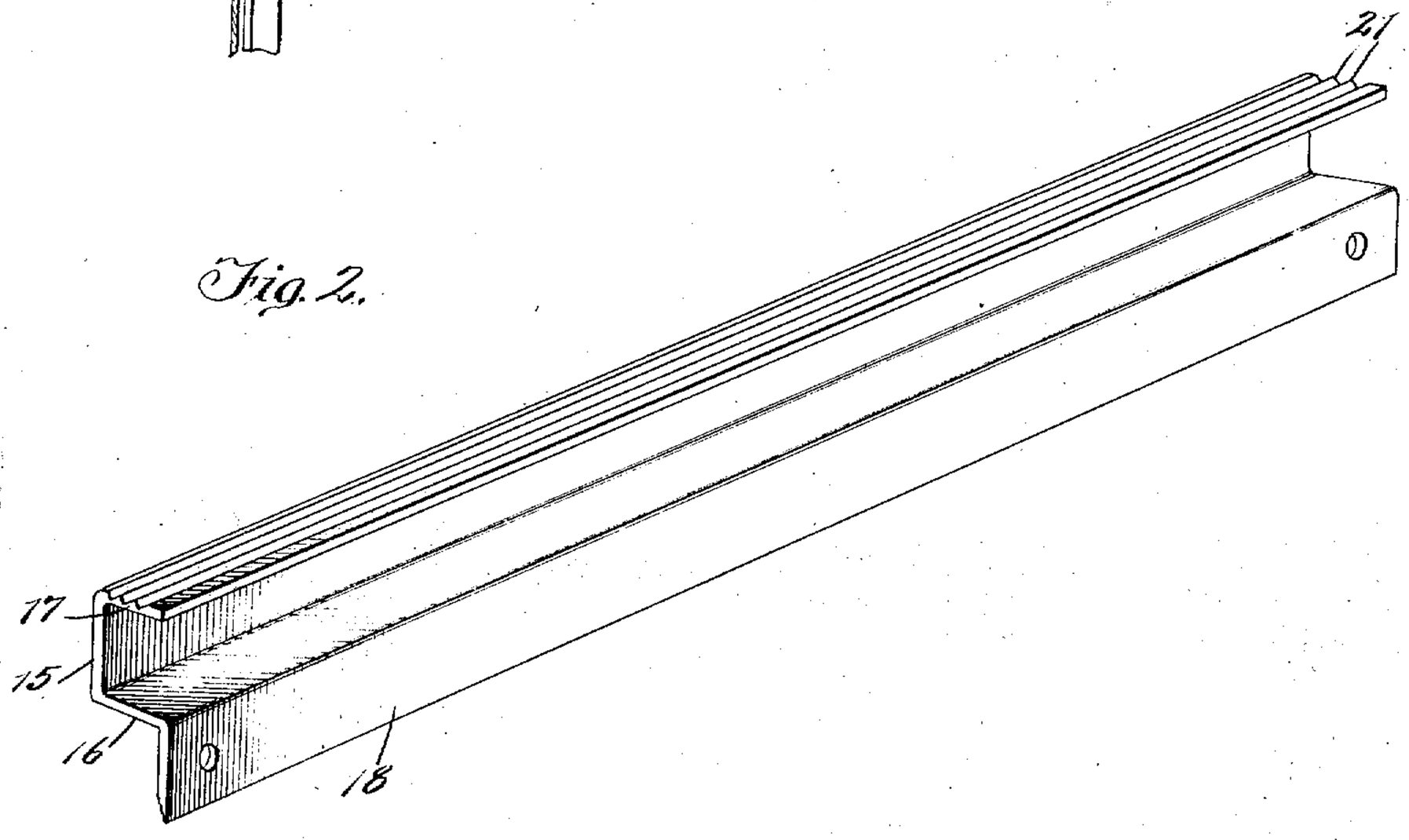


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

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PROTECTOR-PLATE FOR EDGES OF CONCRETE STEPS.

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Application filed January 29, 1909. Serial No. 474,972.

To all whom it may concern:

Be it known that I, JACOB G. BRAUN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Protector-Plates for the Edges of Concrete or Cement Steps or the Like, of which the following is a specification.

This invention relates to improvements in protector plates for the edges of concrete or cement steps or the like, and the primary object of the invention is to provide an improved device of this character which will not only protect the edge of the steps but will also prevent a person from slipping.

A further object is to provide an improved device of this character which will be simple, durable and cheap in construction and effective and efficient in operation.

To the attainment of these ends and the accomplishment of other new and useful objects, as will appear, the invention consists in the features of novelty in the construction, combination and arrangement of the several parts hereinafter more fully described and claimed and shown in the accompanying drawing, illustrating an exemplification of the invention and in which—

Figure 1 is a detail sectional view of a portion of a stairway having a protector plate for the edges of the step secured thereto, constructed in accordance with the principles of this invention. Fig. 2 is a detail perspective view of the protector.

Referring more particularly to the drawing and in the present exemplification of the invention, the numeral 10 designates the tread of the step, and 11 the upright or riser. The riser is arranged adjacent the front edge of the tread but spaced therefrom, and the riser may be connected by a suitable angle iron 12, which is secured in position by ordinary fastening bolts or rivets 13. The steps thus formed may be supported by the ordinary stringer 14 and all of the parts are preferably constructed of metal.

Secured to the outer front face of each riser and adjacent the top thereof is a detachable protector plate, which in the present exemplification of the invention is in the form of a rolled channel iron having a U-shaped body portion 15, with laterally spaced projecting portions 16, 17. Depending from the extremity of the laterally projecting portion 16 is a flange 18, by means of which the protector plate is adapted to be attached to the upright or riser without disturbing the position of said riser or its connections with other members of the stairway. Such attachment is secured preferably by means of fastening bolts or rivets 19, said bolts or rivets being arranged in bolt holes and extending successively through the protector, riser and angle iron 12 to rigidly secure said parts together.

The protector is made with the cross-section shown in the drawing so that it may be produced by simple rolling mill operation, and when secured in position the portion 16 thereof will hold the body portion 15 projected beyond the face of the riser to form an overhanging ledge and the laterally projecting portion 17 will be spaced above the upper face of the tread 10.

When the protectors are secured in position they will coöperate with the respective risers at the rear ends of the steps to form a channel for the reception of the plastic material or asphalt 20, which forms the step. Sufficient material is placed in the channel thus formed so that the upper surface thereof will be substantially flush with the upper surface of the laterally projecting portion 17 and the upper face of this portion 17 is roughened or corrugated as at 21 by forming a plurality of spaced ribs on the upper face which extend longitudinally thereof.

With this improved construction it will be apparent that the cement or asphalt 20 will be held against displacement and the front edges thereof will be protected at the same time the corrugated or roughened portion 21 of the frame 17 will prevent slipping as a person ascends or descends.

While in the present exemplification of the invention the protector is shown in the form of a channel iron, it is to be understood that any other form of protector may be provided, which may be embedded in the front edge of the cement or asphalt step, which protector may be roughened or corrugated to prevent slipping. It is also to be understood that although the protector is shown as being applied to the front edge of steps, it may be employed in any other manner, such, for instance, as on curb stones or cement walks and the like.

What is claimed as new is—

1. The combination with a step comprising a tread, a riser arranged adjacent to the

front edge of the tread and spaced therefrom and an angle bar closing the space between said tread and riser, of a protector plate provided with an attaching flange, and means for securing said riser, angle bar and flanged plate rigidly together.

2. The combination with a step comprising a tread, a riser adjacent to but spaced from the front edge of the tread, and an angle bar for closing the space between said tread and riser, of a protector plate provided with an attaching flange, and means rigidly securing together said riser, angle bar and the flange of said protector plate, said means comprising fasteners extending through said members.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 20th day of January A. D. 1909.

JACOB G. BRAUN

Witnesses:
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A. L. Sprinkle.