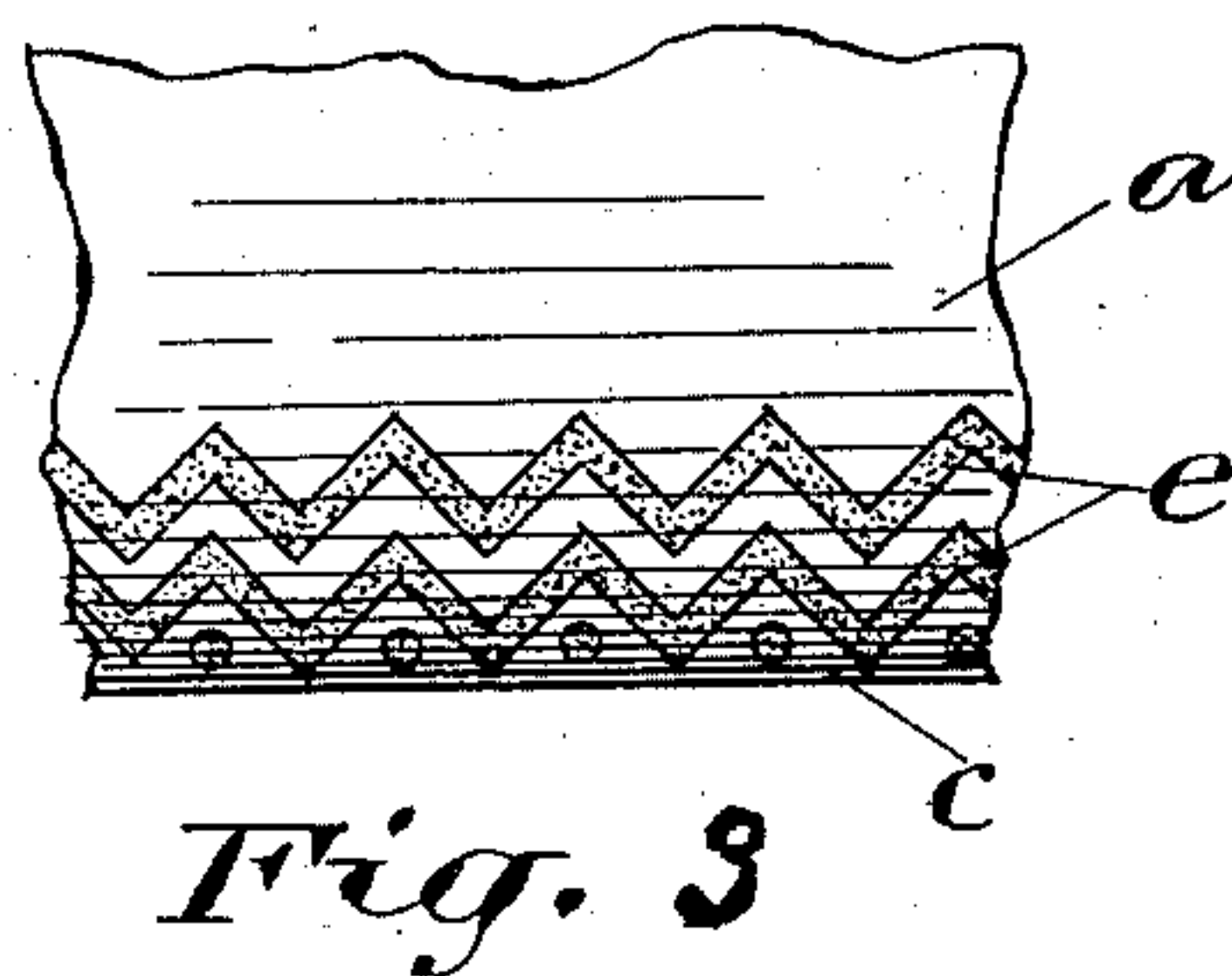
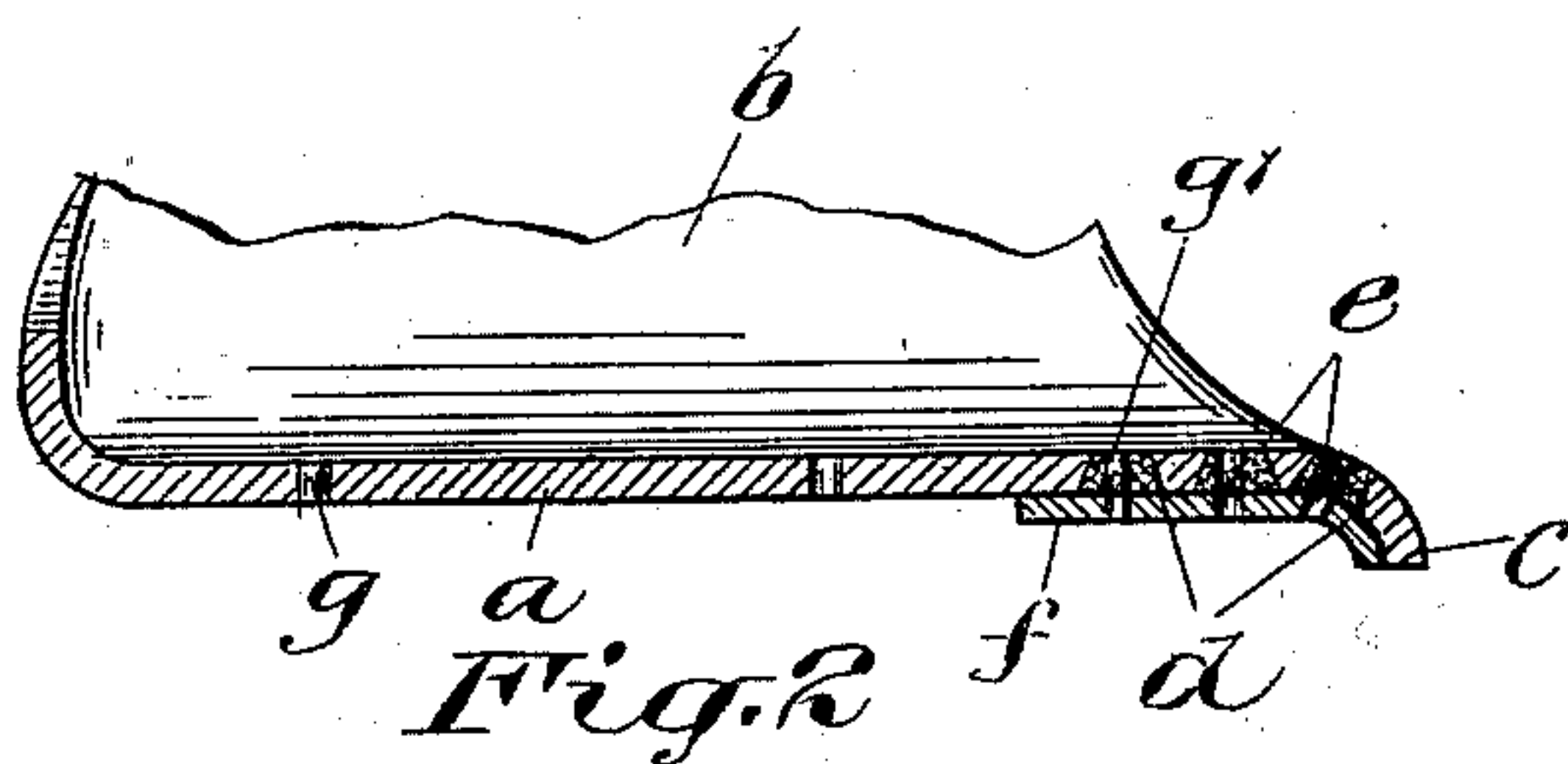
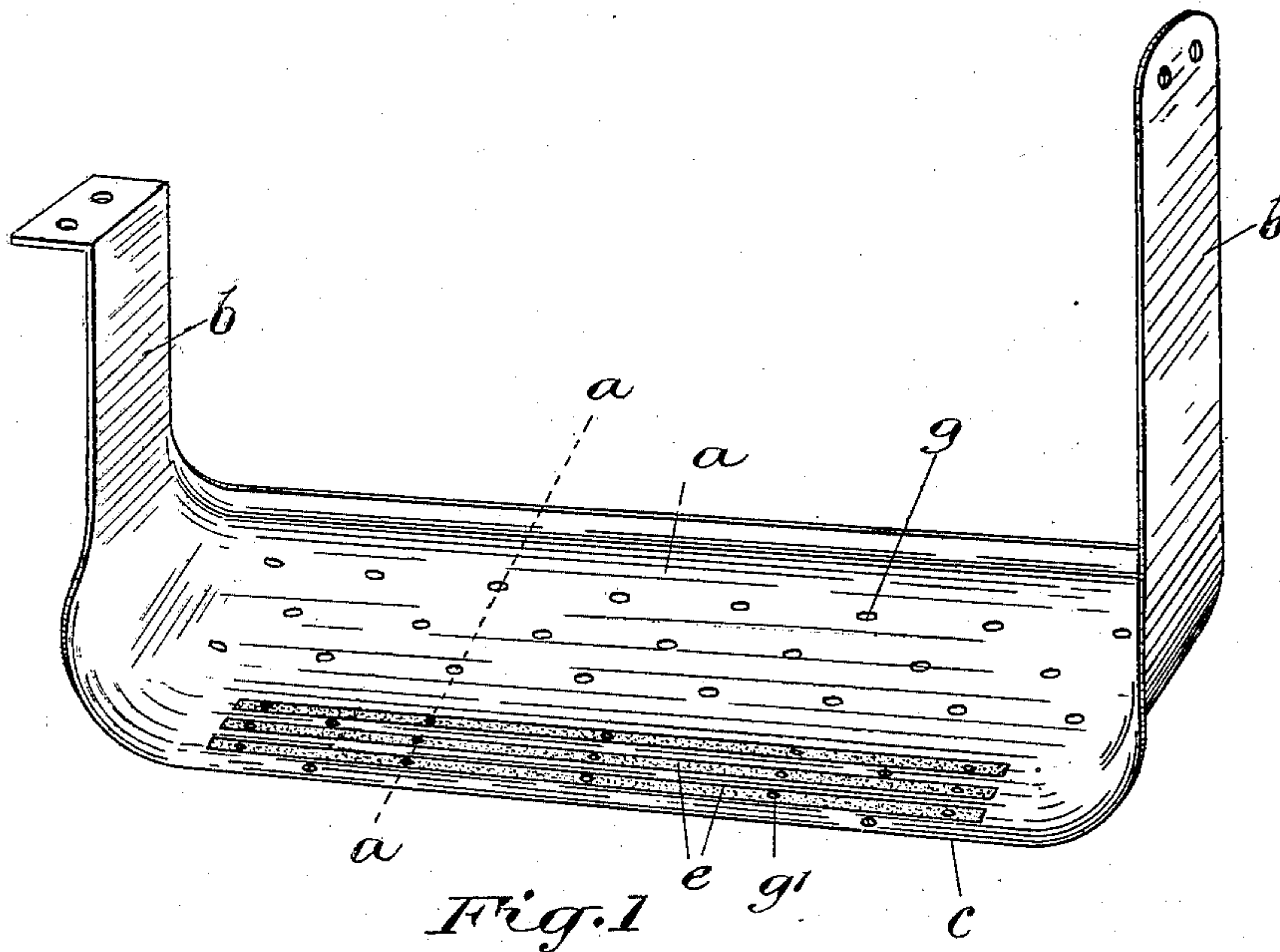


No. 665,900.

Patented Jan. 15, 1901.

H. J. HAMILTON.
STEP FOR CARS, STAIRWAYS, &c.
(Application filed June 18, 1900.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

HENRY J. HAMILTON, OF TORONTO, CANADA.

STEP FOR CARS, STAIRWAYS, &c.

SPECIFICATION forming part of Letters Patent No. 665,900, dated January 15, 1901.

Application filed June 18, 1900. Serial No. 20,724. (No model.)

To all whom it may concern:

Be it known that I, HENRY JAMES HAMILTON, a subject of the Queen of Great Britain, residing at 538 Ontario street, in the city of Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Steps for Cars, Stairways, &c.; and I hereby declare that the following is a full, clear, and exact description of the same.

This invention relates to a step suitable for the platforms of street-cars, railway-cars, and other conveyances, as well as stairways for public buildings, hotels, and other places subject to heavy traffic. In designing the step the principal object to be attained is an antislipping-surface which will not only prevent the slipping of the feet, but will also, when used in connection with the platforms of street and railway cars, provide a means for draining off the melted snow and ice which accumulates upon them during the winter traffic; and the invention consists, essentially, of a step embracing in its construction a body portion having longitudinal grooves in its top surface contiguous to and parallel with the front edge and antislipping material contained in the grooves, a plate secured to the under side of the step to hold the antislipping material in place, and holes formed through the body of the step, the antislipping material, and the plate for the purpose of providing a means for draining the step, as hereinafter more fully set forth and more particularly pointed out in the claims.

In the drawings, Figure 1 represents a perspective view of the step such as is used for the platforms of street and railway cars. Fig. 2 is a cross-sectional view on the lines *a*, Fig. 1. Fig. 3 is a plan view of a section showing alternate ways of arranging the antislipping-strips.

Like letters of reference refer to like parts throughout the specification and drawings.

a represents the body of the step, which is provided with upwardly-directed arms *b* to be attached to the platform of the car, the front of step being curved downward to provide a nose *c*. Formed in the nose *c* and in the body of the step *a* contiguous to the nose *c* are longitudinal grooves *d*, preferably of dovetailed formation and extending through

the step. Contained in the grooves *d* are strips of antislipping material *e*, such as lead, rubber, &c. Instead of making the grooves *d* longitudinal, as shown in Fig. 1 of the drawings, they can be made curved, corrugated, zigzag, or of any other shape which will satisfactorily answer the purpose. By making the grooves dovetailed in cross-section the antislipping material can be readily placed and securely held in the grooves.

To strengthen the step *a* and prevent the displacement of the antislipping material *e*, a plate *f* is bolted or otherwise fastened to the under side of the step contiguous to the back of the antislipping material *e*, the front of the plate *f* being curved to correspond with the curvature of the nose *c*. The nose *c* being provided with a groove containing antislipping material requires the plate *f* to be curved to correspond to its own curvature in order that this antislipping material can be held firmly in place, and the plate *f* not only holds this antislipping material in place, but it also strengthens the nose *c* and prevents it being bent or injured under ordinary circumstances.

As the step during the winter season is subject to the accumulation of ice and snow, it is found advisable to provide it with a means of drainage, and this consists of forming in the step *a* holes *g* at predetermined distances apart and forming through the antislipping material and plate *f* similar holes *g'*. By means of these holes the water as it accumulates and the snow and ice as they melt upon the step drain through to the roadway below.

It is possible to employ this step not only for street-car and railway purposes, but it is also possible to employ it for stairways.

Instead of using the holes in the body of the step and in the antislipping material I may provide the antislipping material only with drainage-holes or the body of the step only with drainage-holes, or I may provide both the body of the step and antislipping material with the drainage-holes.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A step embracing in its construction a body portion the sides of which are provided with upwardly-directed arms and the front of

- which is provided with a downturned nose, slots formed in the body portion and nose, dovetailed in cross-section, dovetailed strips of antislipping material contained in the said slots, a plate secured to the under side of the step to prevent the displacement of the antislipping material the front of the plate being curved to correspond to the curvature of the nose, substantially as specified.
2. A step embracing in its construction a body portion the sides of which are provided with upwardly-directed arms and the front of which is provided with a downturned nose, slots formed in the body portion and nose, dovetailed in cross-section, dovetailed strips of antislipping material contained in the said slots, a plate secured to the under side of the step to prevent the displacement of the antislipping material the front of the plate being curved to correspond to the curvature of the nose, and the body portion and nose of the step and plate being provided with perforations, substantially as specified.

Toronto, Canada, June 11, 1900.

H. J. HAMILTON.

In presence of—

J. E. CAMERON,

G. SNYDER.