

E. A. COOPER.
Carriage-Step.

No. 167,646.

Patented Sept. 14, 1875.

Fig. 1.

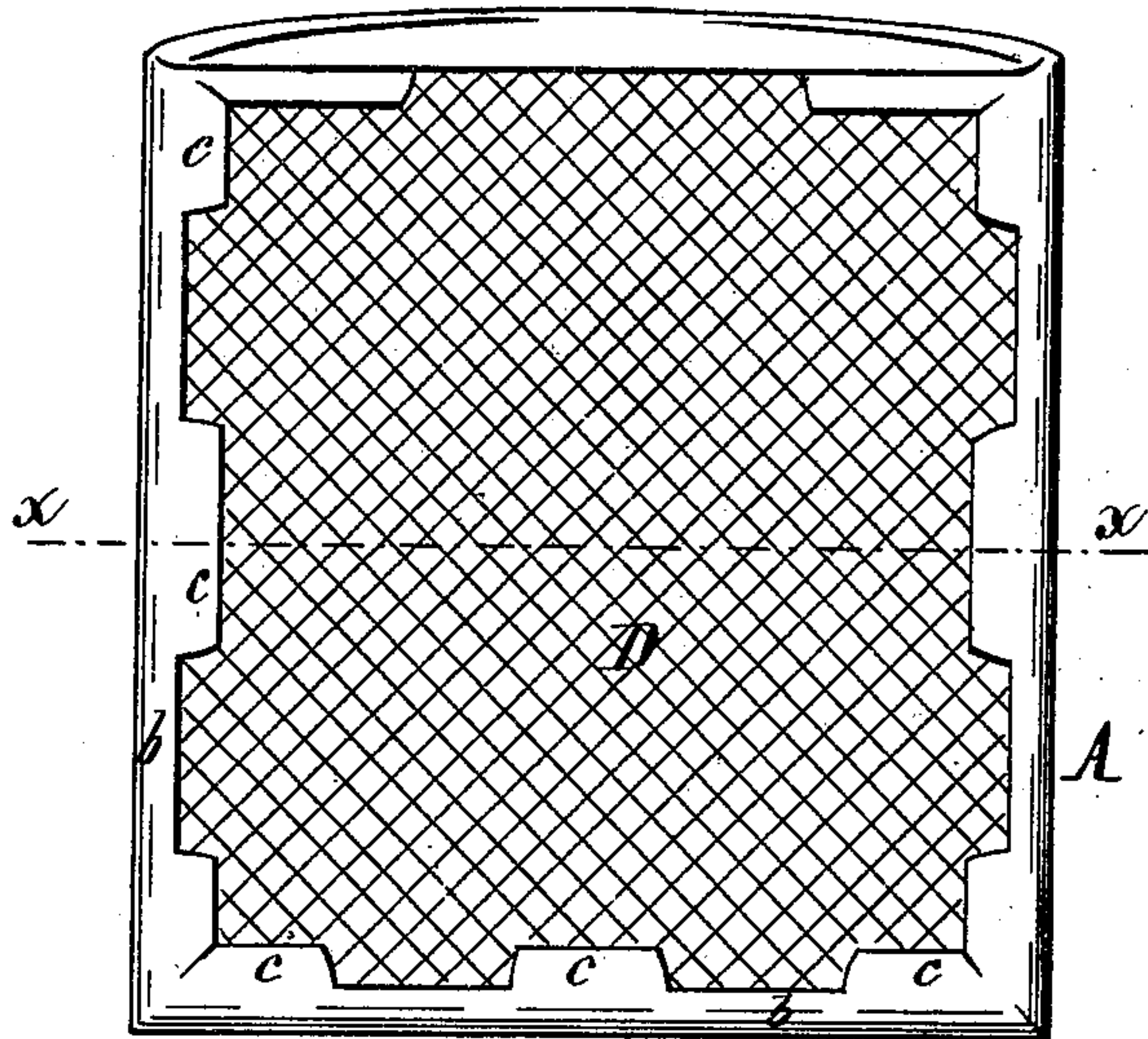


Fig. 2.

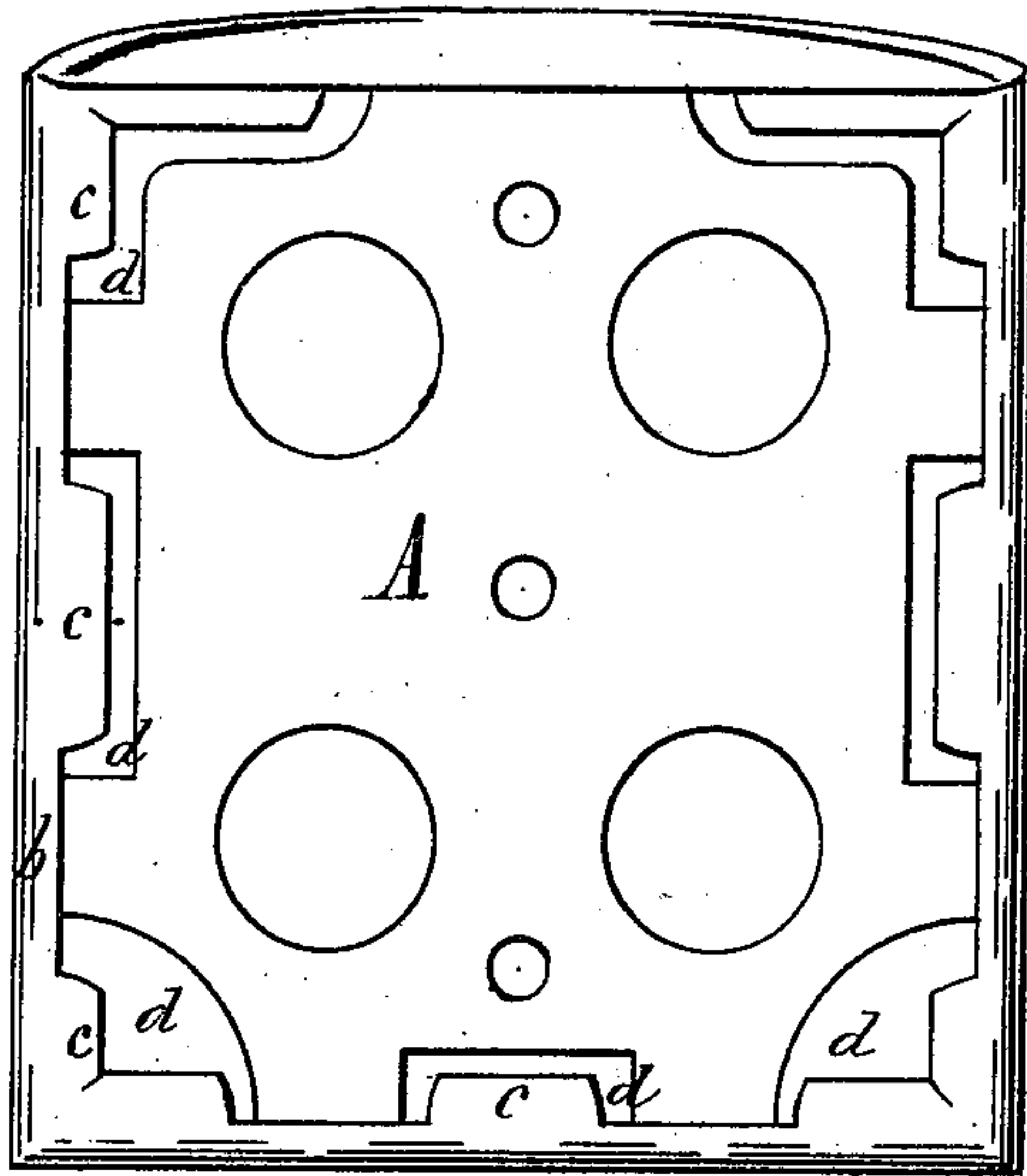
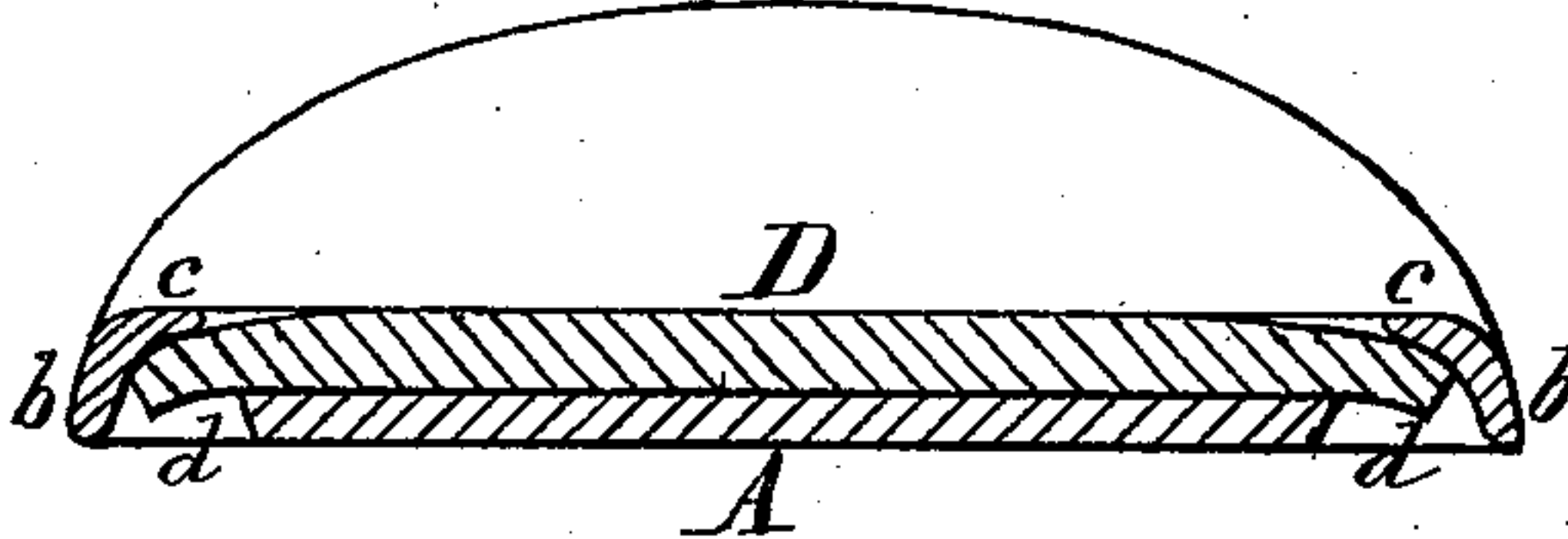


Fig. 3.



Edward Wilhelm
John J. Bonner } Witnesses

Ed. A. Cooper Inventor
by Jay Hyatt Atty.

UNITED STATES PATENT OFFICE.

EDWARD A. COOPER, OF LANCASTER, ASSIGNOR OF ONE-HALF HIS RIGHT
TO JOSIAH LETCHWORTH AND WILLIAM P. DARLING, OF BUFFALO,
NEW YORK.

IMPROVEMENT IN CARRIAGE-STEPS.

Specification forming part of Letters Patent No. **167,646**, dated September 14, 1875; application filed
August 6, 1875.

To all whom it may concern:

Be it known that I, EDWARD A. COOPER, of Lancaster, in the county of Erie and State of New York, have invented a certain new and useful Improvement in Carriage-Steps, which improvement is fully set forth in the following specification, reference being had to the accompanying drawing

My invention relates to a carriage-step consisting of a metallic frame of peculiar construction, and an elastic or yielding covering, secured thereto so as to be readily removed when worn out and new covering inserted in its place, as will be hereinafter more fully described.

In the accompanying drawing, Figure 1 is a top-plan view of my improved carriage-step. Fig. 2 is a similar view of the metallic frame, with the covering removed. Fig. 3 is a cross-section in line *x x*, Fig. 1.

Like letters of reference refer to like parts in each of the figures.

A represents the frame of the step, made of cast-iron or other suitable metal, and secured to the dependent supporting-arm in an ordinary manner. As shown in the drawing, the frame A is rectangular in form; but it may be made of any other desired configuration. The body or plate of the frame A is preferably cast open, as shown in the drawing, in order to render it light. The frame A is formed with an upwardly-projecting rim, *b*, provided with narrow flanges or ledges *c c*, projecting inwardly

from the rim. D represents the covering, of india-rubber, leather, or other suitable material. It is secured to the frame A by inserting it under the projecting flanges *c c*, the latter being arranged at a distance from the main body or plate of the frame corresponding with the thickness of the covering D. The latter rests on the body of the frame A, and is securely held in place by the rim *b* and flanges *c c*, while it can be readily inserted or detached from the frame when required, as the elasticity of the covering permits it to be withdrawn from under the flanges *c c*. The body or plate of the frame A is preferably provided with openings *d* under the flanges *c*, which enable the edges of the covering to be slightly turned downward, as shown in Fig. 3, whereby the covering is more securely clamped and held in place.

I am aware that carriage-steps consisting of a metallic frame and an elastic covering have been in use, and this I do not broadly claim; but

I claim as my invention—

The combination, with the elastic covering D, of the metallic frame A, provided with rim *b*, and inwardly-projecting flanges *c c*, so as to render the covering removable, substantially as hereinbefore set forth.

EDWARD A. COOPER.

Witnesses:

JNO. J. BONNER,
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