

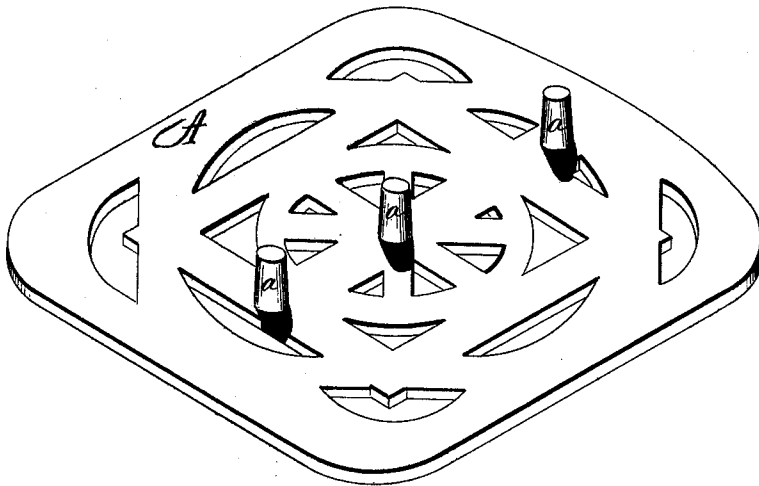
D. A. KIMBARK.

CARRIAGE-STEP.

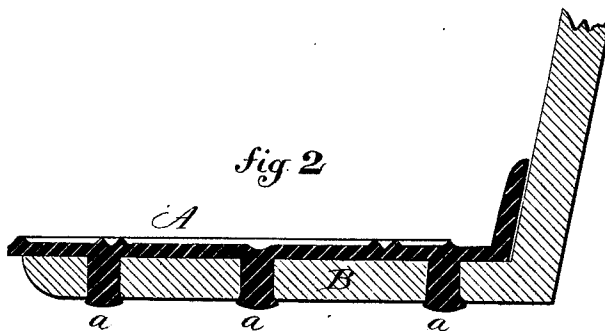
No. 185,755.

Patented Dec. 26, 1876.

*fig 1*



*fig 2*



Witnesses:  
*J. H. Chumney*  
*Clara Broughton.*

*Danl. A. Kimbark*  
Inventor.  
By atty.  
*John E. Earle.*

# UNITED STATES PATENT OFFICE.

DANIEL A. KIMBARK, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO GEORGE W. DAILEY, OF NEW HAVEN, CONNECTICUT.

## IMPROVEMENT IN CARRIAGE-STEPS.

Specification forming part of Letters Patent No. **185,755**, dated December 6, 1876; application filed December 6, 1876.

*To all whom it may concern:*

Be it known that I, DANIEL A. KIMBARK, of Chicago, in the county of Cook and State of Illinois, have invented a new Improvement in Carriage-Steps; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a perspective view of the under side of the step, and in Fig. 2 section of the same as applied to the brace.

This invention relates to an improvement in the manufacture of carriage-steps, whereby the attachment of the step to the brace is greatly facilitated. It consists in a malleable-iron step cast with two or more rivet-studs upon the under side, by means of which the step is secured to the brace.

A represents the step, which may be of any desirable form or style, and made from malleable material, or material made malleable, as iron. On the under side of the step there are formed, in the process of casting, two or more studs, *a*, in length a little more than the thickness of the brace-arm to which the step is to

be secured. This completes the article, and in this condition it is furnished to the trade.

The brace-arm B is bored or punched corresponding to the said stud, and so that when the studs are inserted into the said perforations the step will hold its proper relative position to the step-brace. These studs project through upon the under side of the brace-arm, and the projecting end is riveted down upon the arm, as seen in Fig. 2, thus firmly securing the step to the brace.

By this construction a great variety of patterns of steps may be furnished to the trade, either of which may be applied according to the taste of the manufacturer, and the cost of making such ornamental step very much less than the usual plain wrought-metal step.

I claim—

As an article of manufacture, the herein-described carriage-step, consisting of the step-plate, with two or more projecting rivet-studs upon the under side, formed, together with the step, from malleable metal.

DANIEL A. KIMBARK.

Witnesses:

JOHN E. EARLE,  
CLARA BROUGHTON.