

No. 751,098.

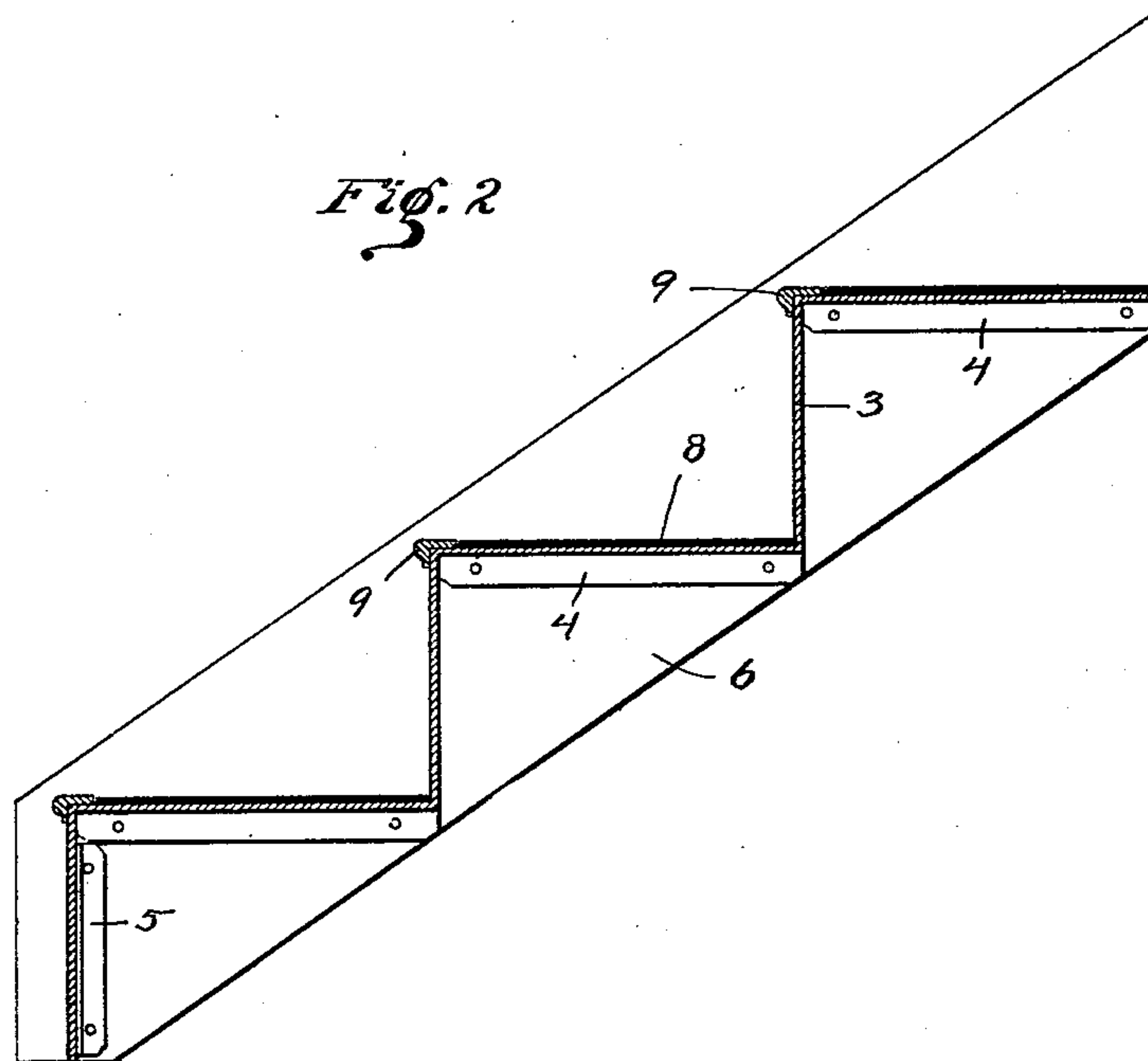
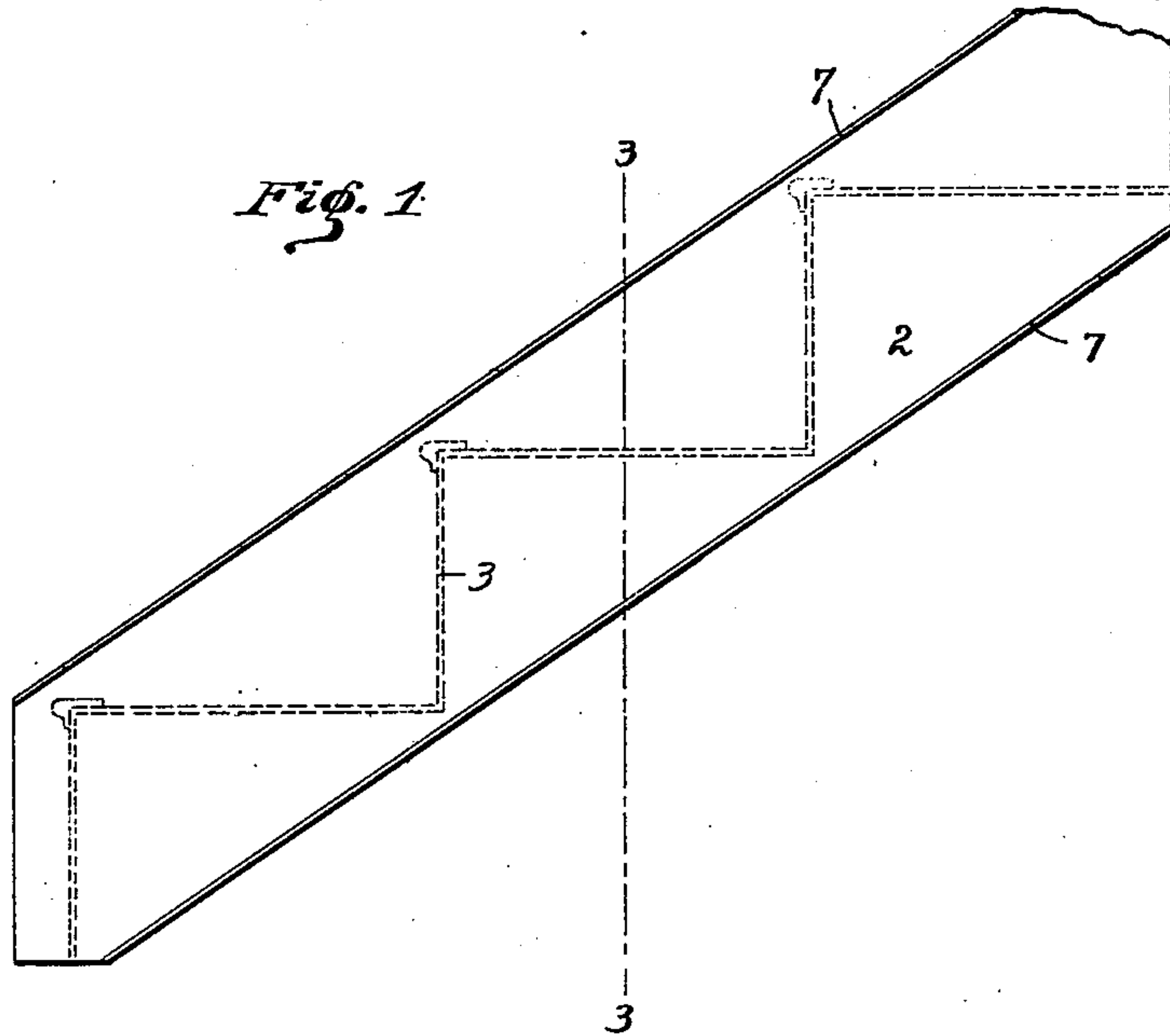
PATENTED FEB. 2, 1904.

E. OHNSTRAND.
STAIRWAY.

APPLICATION FILED FEB. 20, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses
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Robert C Totten

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Attorneys

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2 SHEETS—SHEET 2.

Fig. 4

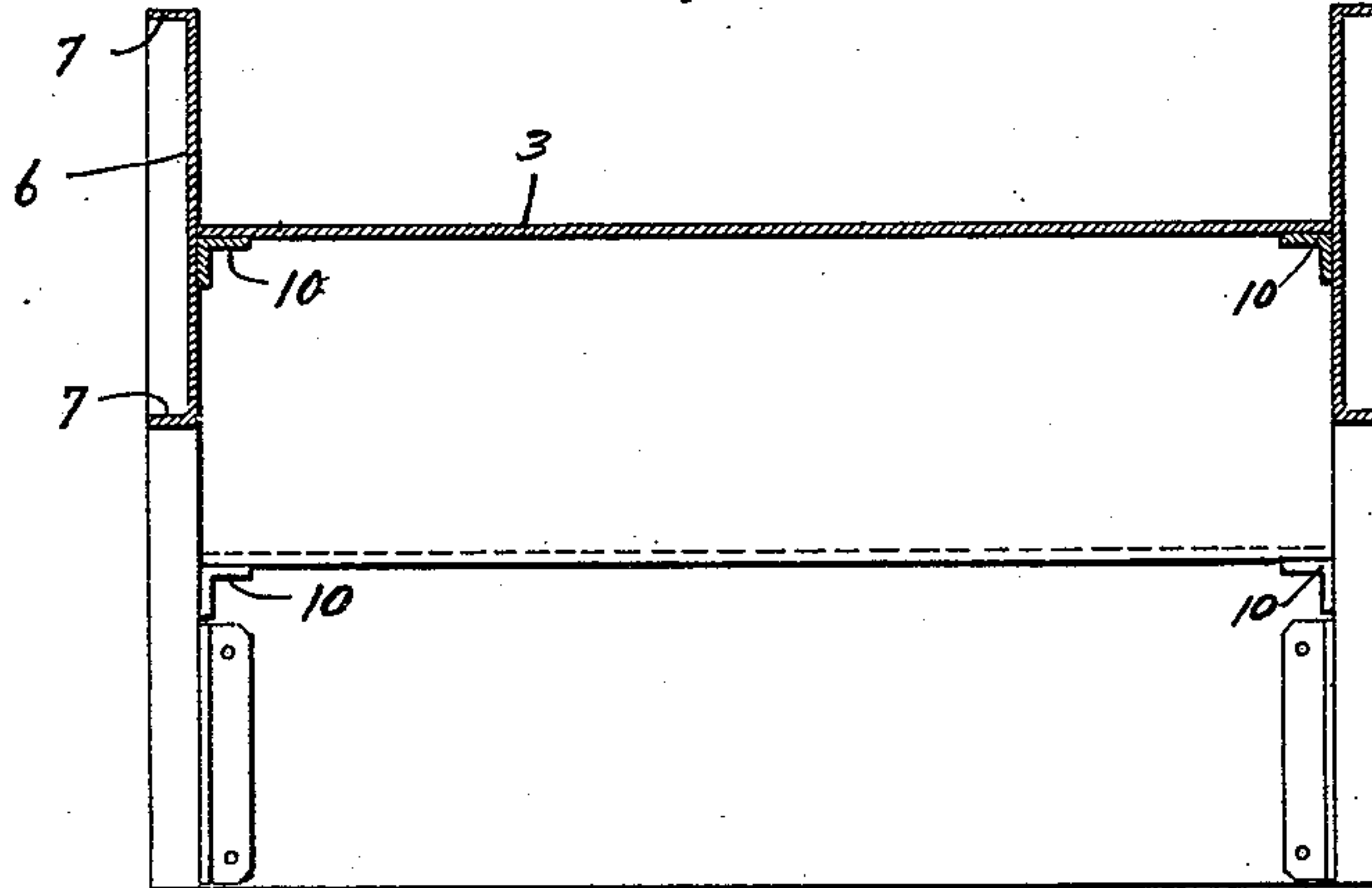
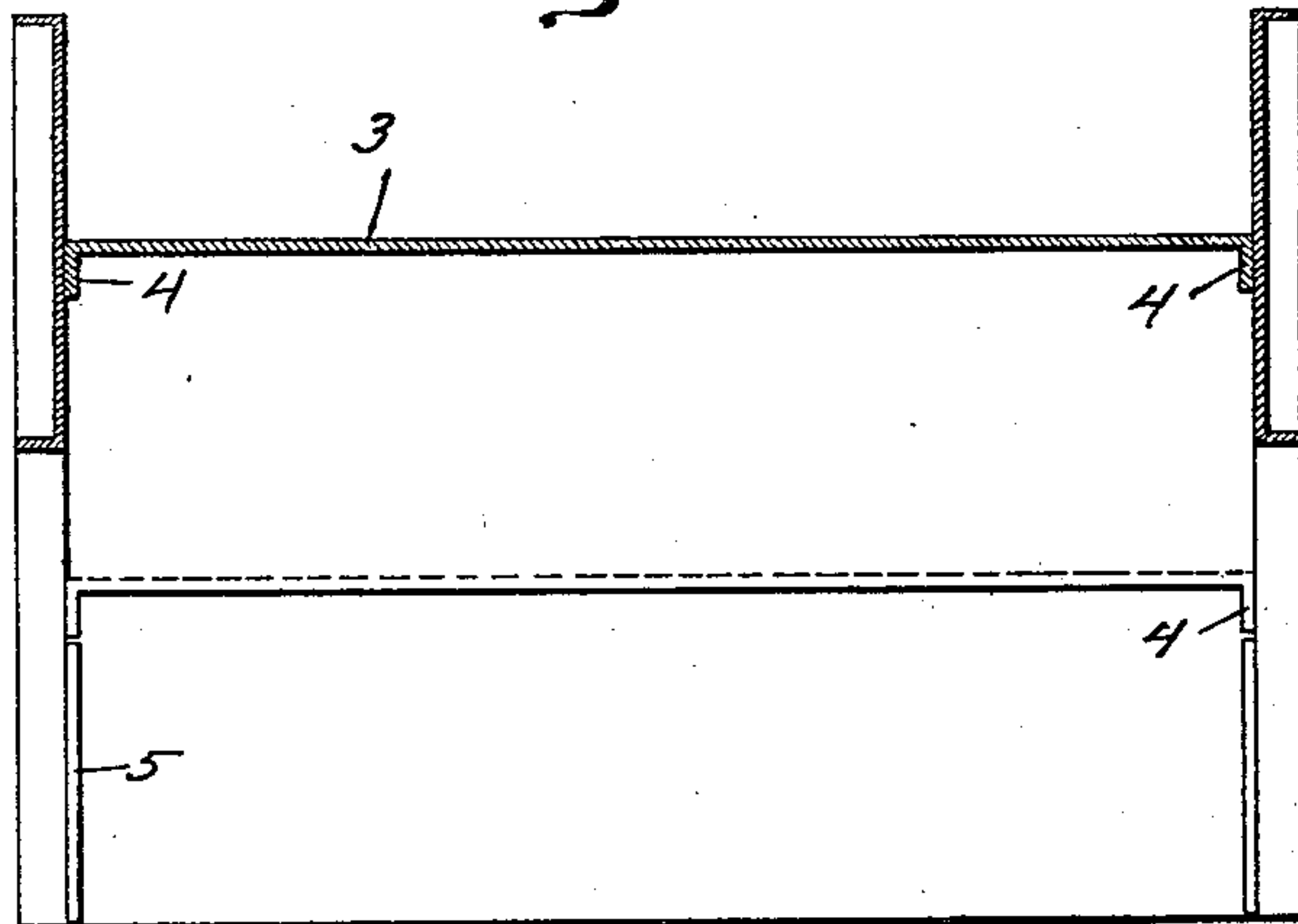


Fig. 3



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UNITED STATES PATENT OFFICE.

ENOCH OHNSTRAND, OF JAMESTOWN, NEW YORK, ASSIGNOR TO ART METAL CONSTRUCTION COMPANY, OF JAMESTOWN, NEW YORK, A CORPORATION OF NEW YORK.

STAIRWAY.

SPECIFICATION forming part of Letters Patent No. 751,098, dated February 2, 1904.

Application filed February 20, 1903. Serial No. 144,218. (No model.)

To all whom it may concern:

Be it known that I, ENOCH OHNSTRAND, a resident of Jamestown, in the county of Chautauqua and State of New York, have invented a new and useful Improvement in Stairways, (Case No. 2;) and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to metallic stairways, its object being to provide a stairway for use in fireproof buildings, banks, vaults, &c., formed of plate or sheet metal which will be light, stiff, and durable and composed of few parts, so that the joints or points of connection are greatly reduced and the strength and durability greatly increased.

To these ends my invention comprises the novel features hereinafter claimed.

To enable others skilled in the art to make and use my invention, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a side view of a section of stairway made in accordance with my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is a section on line 3 3, Fig. 1; and Fig. 4 is a modified form of my invention.

Like numerals indicate like parts in each of the figures.

In the accompanying drawings, 2 designates a stairway formed of plate or sheet metal of proper thickness to provide the necessary strength and rigidity. The steps 3, of any desired number, are all formed from a single continuous piece of metal bent or shaped in any suitable form of bending-machine. The flanges 4 may be formed integral with the steps and preferably on the treads thereof, although it is apparent that they may also be formed on the risers, if desired, as indicated at 5 at the bottom of the stairway.

The flanges 4 are riveted or otherwise secured to the stringers 6. These stringers 6 are formed from continuous pieces of suitable plate or sheet metal for the entire length of the stairway and they are provided with the outwardly-extending flanges 7. This gives the stringer the form of a channel-bar, whereby its strength and rigidity is increased.

As stated above, the risers of the steps may be provided with flanges 5, adapted to be secured to the stringers, and to brace the lower portion of the stairway, where the greatest stress comes, the bottom step is provided with such flanges on the riser.

The treads of the steps may be covered with rubber or other suitable material 8 to form an elastic and noiseless covering. Furthermore, the sharp corners where the treads and risers meet may be provided with a brass or like molding 9, so that a neat and durable finish is given to the steps.

In Fig. 4 I have illustrated a modified form of my invention, in which the flanges are not formed integral with the steps, but consist of separate angle-pieces 10, adapted to be riveted to the steps and to the stringers.

By my invention I provide a metallic stairway which is strong, rigid, and durable and at the same time fireproof. The bending or shaping of a series of steps from one continuous piece of plate or sheet metal of proper thickness increases the stiffness and rigidity, as the steps act in the manner of strengthening or stiffening ribs. By having the stringers formed of single pieces of metal the stairway is only composed of three parts and the joints and points of connection are greatly reduced, especially where the connecting-flanges are formed integral with the steps. There are no points of connection exposed to view, so that when the stairway is finished in imitation of mahogany or other finish a very handsome and rich effect is produced.

What I claim as my invention, and desire to secure by Letters Patent, is—

A stairway having a series of steps formed of a continuous piece of plate or sheet metal, and flanges formed integral with the risers of said steps and secured to the stringers.

In testimony whereof I, the said ENOCH OHNSTRAND, have hereunto set my hand.

ENOCH OHNSTRAND.

Witnesses:

GIFFORD WARNER,
HAROLD HERPST.