

F. A. WINSLOW.
FIREPROOF STAIRWAY.
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913,087.

Patented Feb. 23, 1909.

Fig. 1.

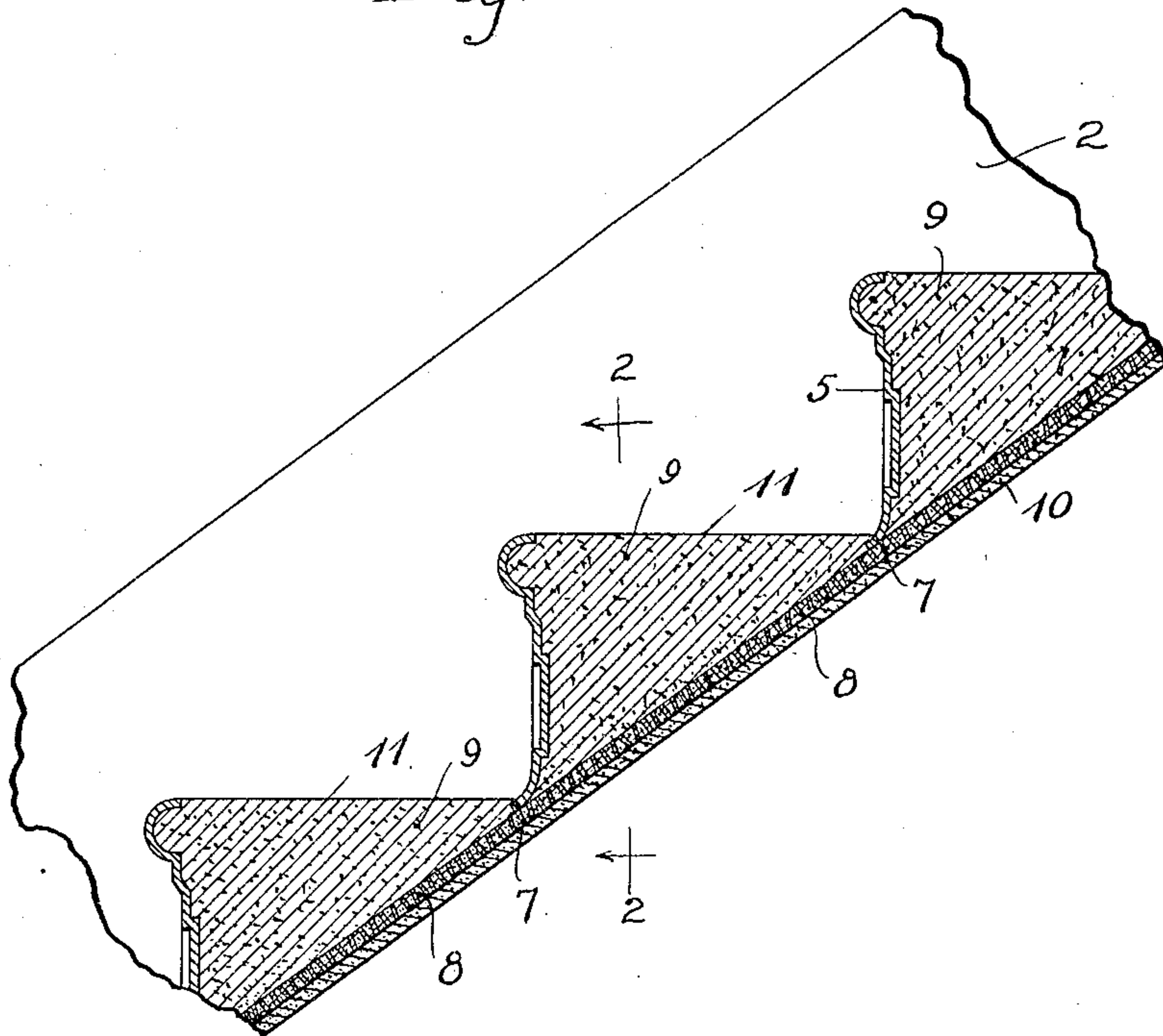
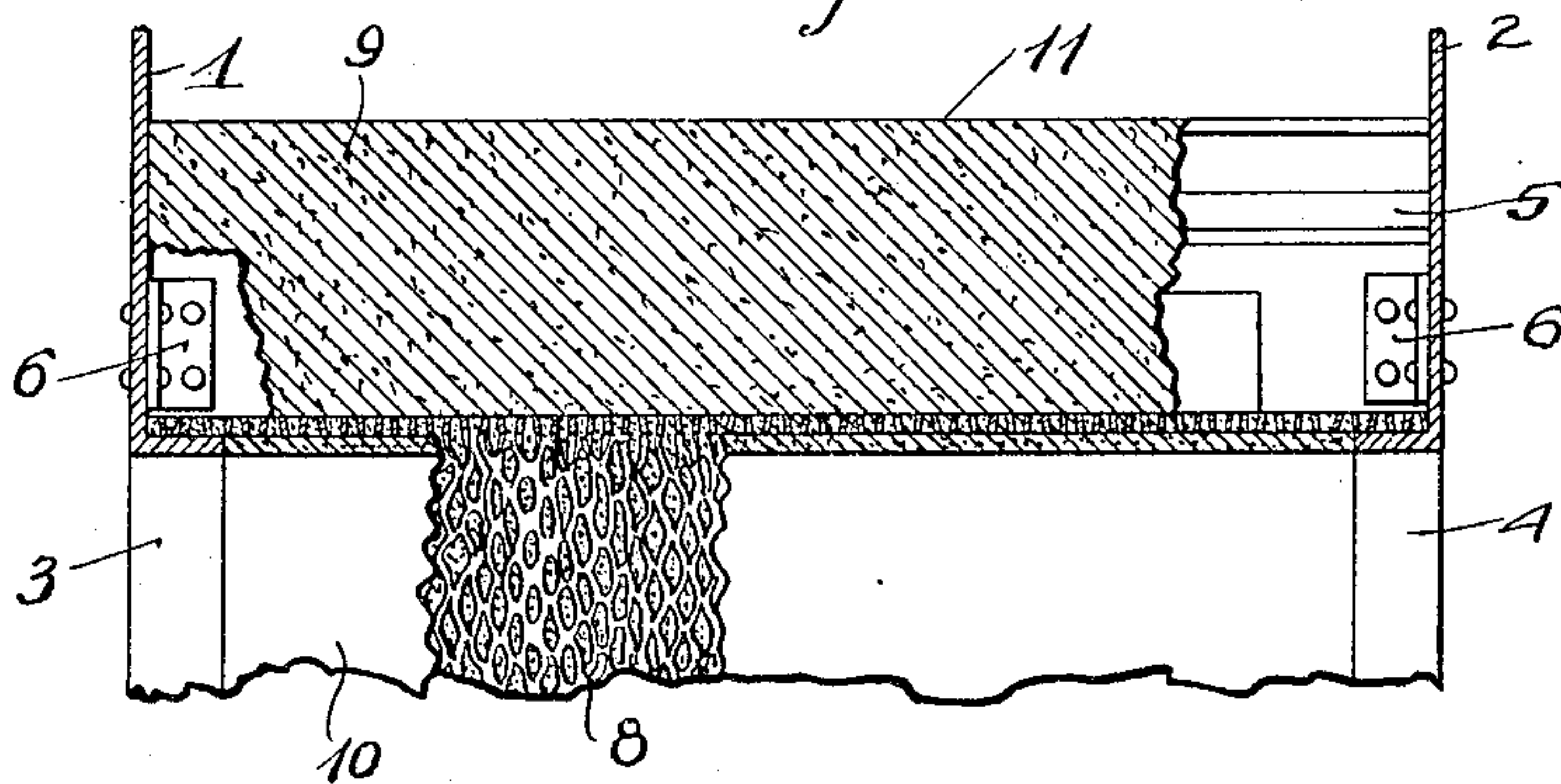


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANCIS A. WINSLOW, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WINSLOW BROS. COMPANY,
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FIREPROOF STAIRWAY.

No. 913,087.

Specification of Letters Patent.

Patented Feb. 23, 1909.

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To all whom it may concern:

Be it known that I, FRANCIS A. WINSLOW, citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Fireproof Stairways, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to fireproof stairways and may be considered as an improvement over the construction disclosed in my Patent No. 747,825 of December 22, 1903.

My present invention is a modification of the generic form of stairway shown in the patent referred to. It is intended for use where the heavier and stronger form shown in the patent is not necessary and where a finish of plaster is desired. Instead of an all-metal soffit, as shown in the patent, there is provided a soffit of lath preferably of expanded metal upon which plaster is spread in the usual way. The concrete filling which may be put in at any time but which is preferably put in at the same time that the plaster is put on the lath, forms with a plaster a compact cohesive body which binds the soffit to the risers, thus constituting practically a unitary structure. Obviously the risers are thus secured to the soffit, and risers and soffit mutually lend support to each other.

In the accompanying drawing I have illustrated my present invention.

Figure 1 shows a longitudinal sectional view of a stairway; Fig. 2 is a sectional view taken on line 2—2 of Fig. 1.

1 and 2 are suitable side plates which are supported at their ends to the floors to be connected by the stairway. These side plates have the inwardly extending flanges 3 and 4 at their lower edges. Between the side plates are disposed the risers 5, 5 secured by means of angle pieces 6, or in any other suitable manner. The lower edge of each riser is bent or curved to form a retaining flange 7, and the risers are so disposed that the end of one flange is below the top edge of the preceding riser. The soffit 8 instead of being of solid metal as in the patent referred to is some form of lath, as, for instance, expanded metal lath whose construction is well known in the art. This soffit is supported at its side edges on the flanges 3 and 4, and may be bolted or riveted thereto. This soffit

of expanded metal is secured to the risers by means of the filler 9 of concrete or other similar material applied between the risers, this filler forming with the plaster a body which clings to the lath and is supported on the lower ends of the riser flanges. The filler also supports itself on the surface provided by the irregular contour of the riser plates, and when it sets, it binds the soffit to the risers and constitutes with the iron work a unitary structure. At the same time a coat of plaster 10 or other finish may be applied to the outside of the soffit and between the meshes thereof to be firmly secured thereto. The top of the filler between the risers is, of course, leveled off or furnished with a top dressing to provide the stair treads 11.

This construction described and illustrated is less expensive than that shown in my former patent, as the riveting between the risers and soffit plate is eliminated, while at the same time a support is offered for plaster or other finish underneath the stairway. Where a solid soffit plate is employed, it is difficult to apply plaster or like finish. Concrete or other filler besides forming the stair treads serves an additional purpose of securely holding the soffit to the risers, and a very compact, inexpensive and thoroughly fireproof unitary structure is provided.

Modifications, of course, are possible, without departing from the scope of my invention. I do not, therefore, wish to be limited to the particular arrangement here shown, but

Having in general described my invention, I claim as new and desire to secure by Letters Patent:

1. In a fireproof stairway, the combination with side plates, of risers disposed between the side plates, a soffit below the risers, and a filler of concrete or like material between the risers and the soffit and engaging with the soffit to form the sole means for binding the soffit firmly to the risers.

2. In a fire-proof stairway, the combination with side plates, of risers between the plates, a soffit in the form of metal lath or expanded metal below the risers, and concrete or other filler material between the risers and engaging in the meshes of the soffit to bind said soffit to the risers.

3. In a fireproof stairway, the combination with suitable side plates supported at their upper and lower ends, of a substan-

5 tially flat soffit secured to the lower edges of the side plates, a plurality of risers secured at their ends to the side plates, and a filler of fireproof plastic material in the spaces behind the risers and engaging with the soffit to secure the soffit to the risers.

10 4. In a fireproof stairway, the combination of side plates, suitably supported risers between the side plates and having flanged lower edges, a soffit in the form of metal lath or expanded metal secured to the lower edges of the side plates below the risers, and concrete or other filler material behind the risers and engaging with the soffit to bind said soffit to the risers and to form therewith a unitary structure.

20 5. In a fireproof stairway, the combination of side plates, risers secured between the side plates, a soffit below the risers in the form of metal lath or expanded metal, concrete or other suitable filler material behind the risers and engaging in the meshes of the soffit to securely hold said soffit to the risers, and plaster or other finish applied to the exterior of the soffit.

25 6. In a fireproof stairway, the combination of side plates, risers secured between the side plates, the lower edges of each riser forming a retaining flange disposed below the upper edge of the preceding riser, a soffit below the riser in the form of expanded metal lath, and concrete or other suitable filler engaging between the risers to surround the flanged ends thereof, said filler engaging in the meshes of the soffit and forming the sole means for securing the soffit to the risers.

7. In a fireproof stairway, the combination of side plates having inturned flanges at their lower edges, riser plates secured to and between the side plates, each riser having a flanged lower edge extending below the plane of the top edge of the preceding riser, a soffit in the form of expanded metal lath supported at its edges on the side plate flanges, and concrete or other suitable filler material between the risers for forming the foundation for the stairway tread, said filler surrounding the flanged lower ends of the risers and engaging in the meshes of the soffit and forming the sole means for binding the soffit to the risers.

8. In a fireproof stairway, the combination of side plates having inturned flanges at their lower edges, riser plates secured to and between the side plates, each riser having a flanged lower edge extending below the plane of the top edge of the preceding riser, a soffit in the form of expanded metal lath supported at its edges on the side plate flanges, concrete or other suitable filler material between the risers for forming the foundation for the stairway tread, said filler surrounding the flanged lower ends of the risers and engaging in the meshes of the soffit and forming the sole means for binding the soffit to the risers, and plaster or other dressing applied to the exterior of the soffit.

In witness whereof, I hereunto subscribe my name this 29th day of July A. D., 1907.

FRANCIS A. WINSLOW.

Witnesses:

R. E. PAUL,
C. D. SAXE.