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Patented Jan. 2, 1900.

G. RUSSELL.

METALLIC PLATE FOR WALLS AND CEILINGS OF BUILDINGS, &c.

(Application filed Oct. 6, 1899.)

(No Model.)

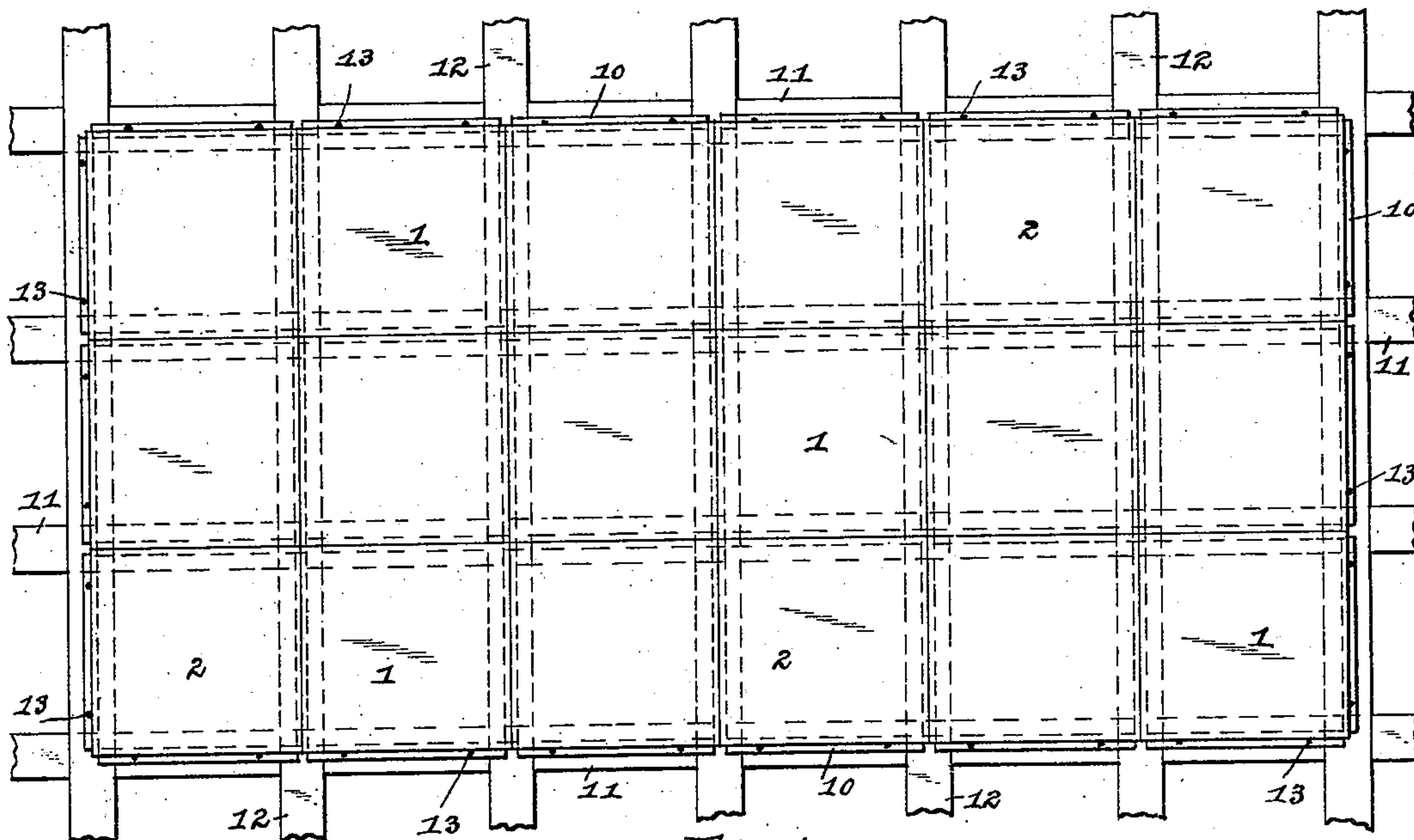


Fig. 1.

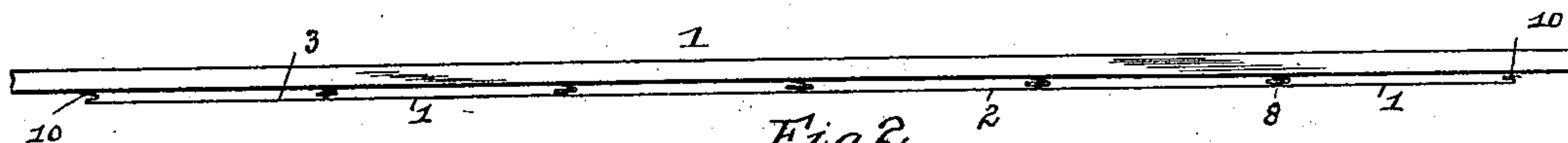


Fig. 2.

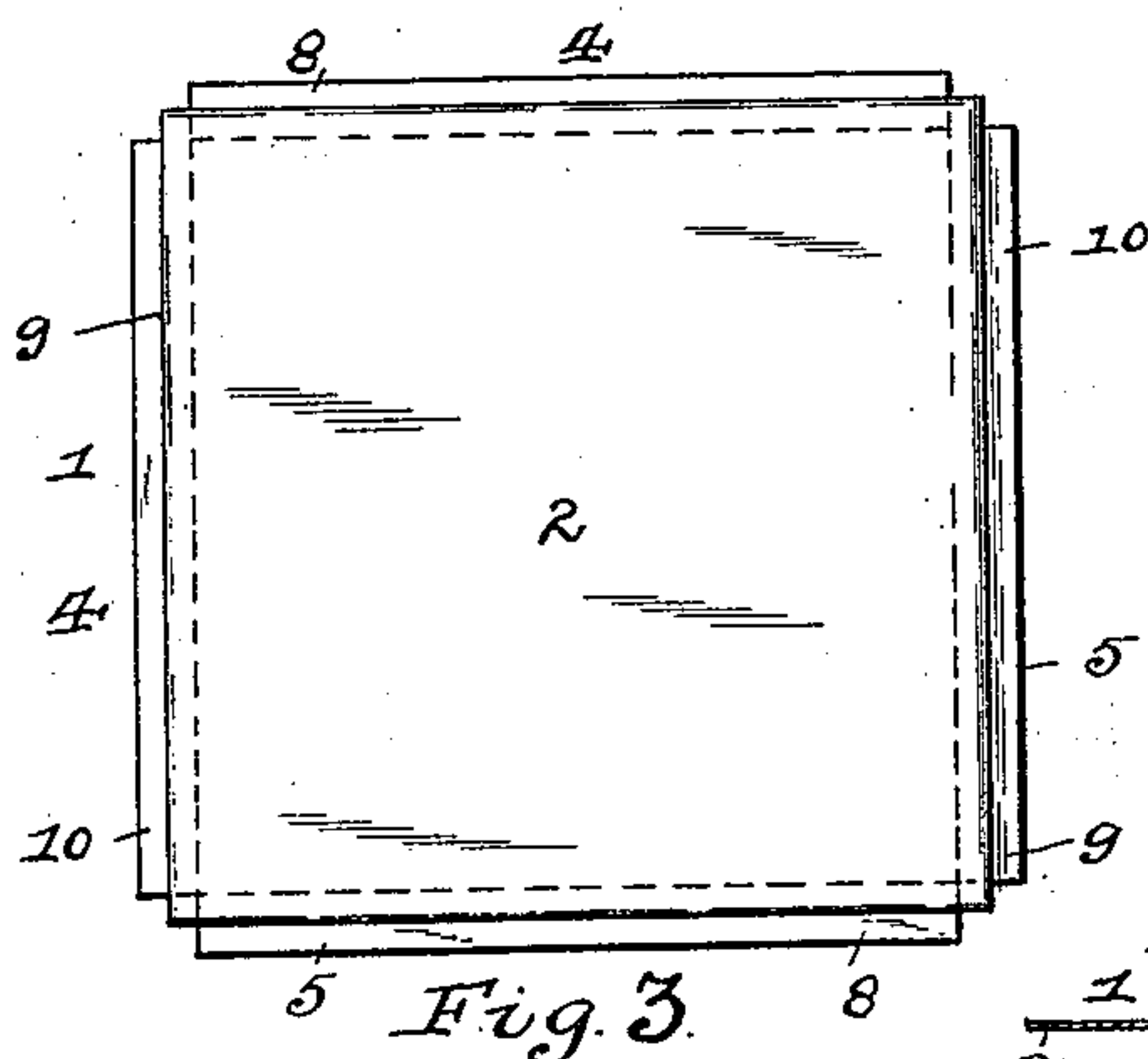


Fig. 3.

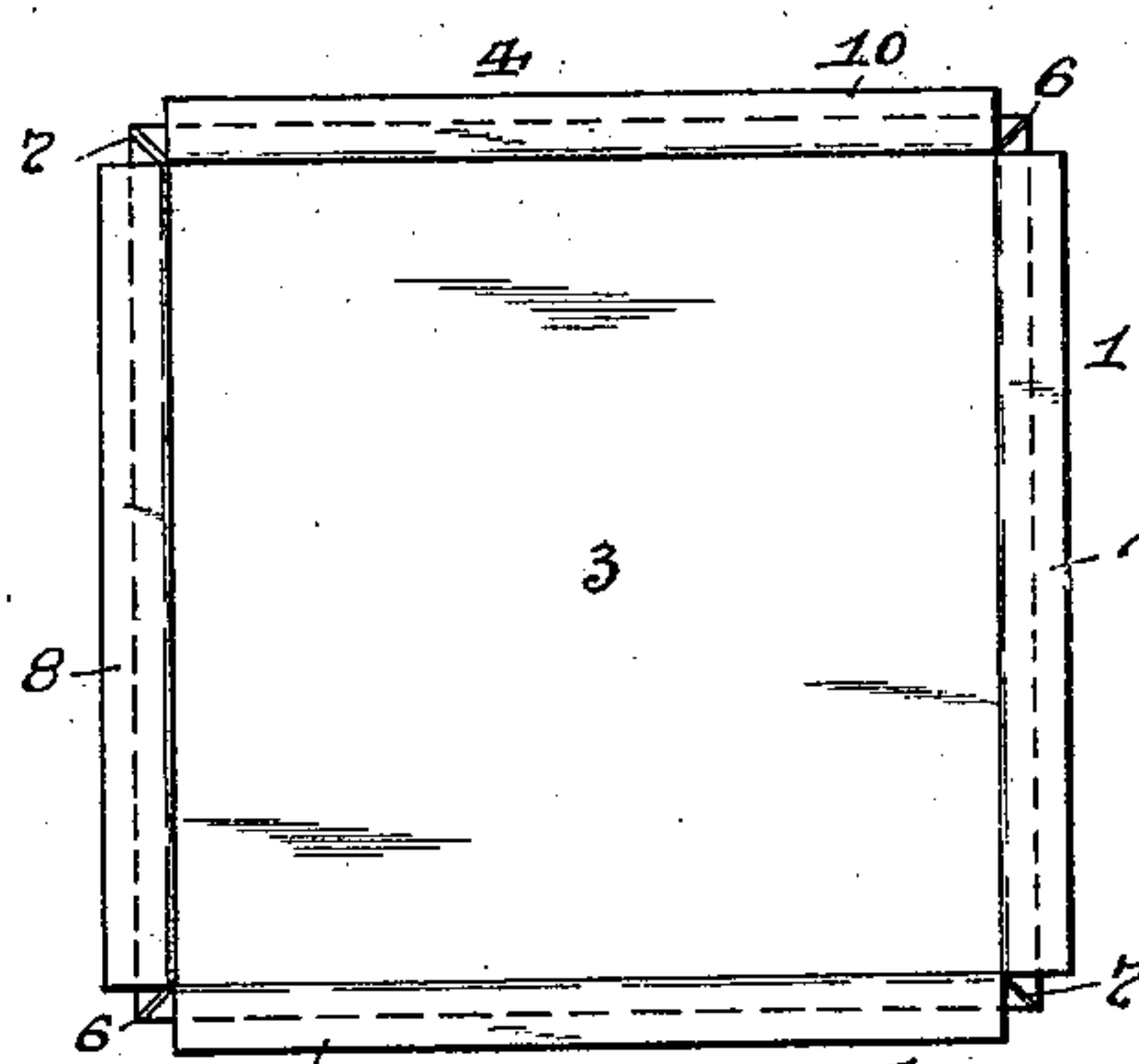


Fig. 4.

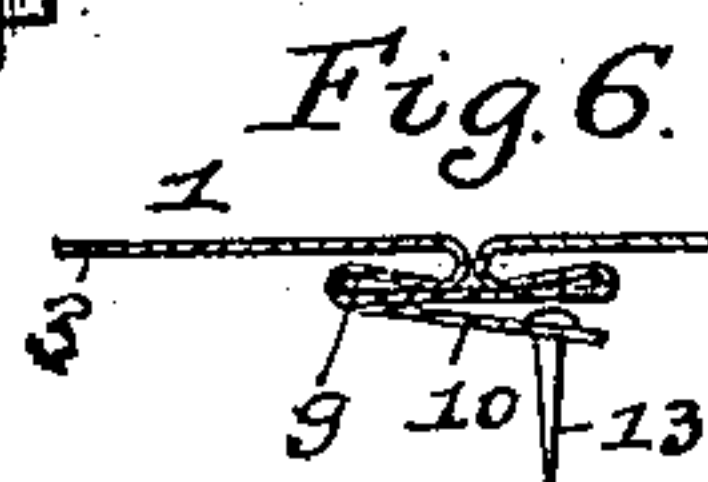


Fig. 6.

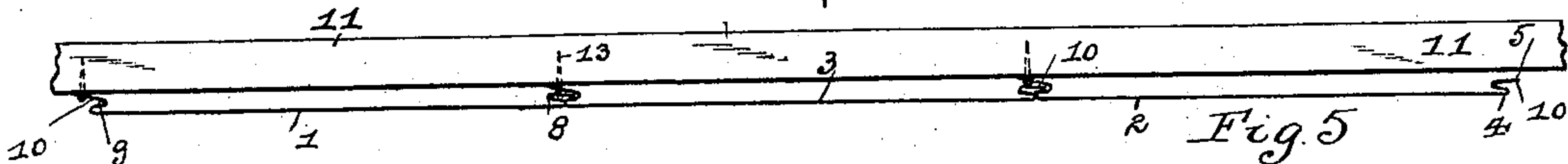


Fig. 5.

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UNITED STATES PATENT OFFICE.

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METALLIC PLATE FOR WALLS AND CEILINGS OF BUILDINGS, &c.

SPECIFICATION forming part of Letters Patent No. 640,593, dated January 2, 1900.

Application filed October 6, 1899. Serial No. 732,809. (No model.)

To all whom it may concern:

Be it known that I, GEORGE RUSSELL, a resident of McKeesport, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Metallic Plates for the Walls and Ceilings of Buildings, &c.; and I do hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to metallic plates for walls and the ceilings of buildings, &c. Heretofore in the use of these metallic plates for interior wall and ceiling coverings the great objection has been on account of the irregularity in the surface of the metal caused by buckles, hinges, &c., and in order to overcome these objections it has become necessary to emboss the metallic plates with various ornamental designs and figures, and while this removes the irregularities in the surface it also produces another very serious objection—viz., the embossed parts of the metallic plates being pressed out from the exterior of the plate leave numerous recesses, which act as shelves for the dust to accumulate thereon and be held there, especially when used on walls. This is well known to every observer and presents a dusty appearance to the plates, as well as an unsanitary condition, so preventing these plates from coming into general use.

One object of my invention is to overcome these objections and to provide a cheap and simple metallic plate which has an interlock joint, so that it will fit any edge of the adjoining plates when they are joined together.

Another object of my invention is to provide such a form of metallic plates which when so arranged and placed in position with each other that they will be flush at the joint and present no overlapping or projections whatever, and a still further object of my invention is to provide such a form of metallic plates as will present a double-locking, interchangeable, dust, and waterproof sheathing.

My invention consists, generally stated, in the novel arrangement, construction, and combination of parts, as hereinafter more specifically set forth and described, and particularly pointed out in the claims.

To enable others skilled in the art to which my invention appertains to construct and use

the metallic plates, I will describe the same more fully, referring to the accompanying drawings, in which—

Figure 1 is a front elevation of a portion of a wall or ceiling embodying my invention. Fig. 2 is a longitudinal section of the same. Fig. 3 is an enlarged face view of one of the metallic plates. Fig. 4 is an enlarged rear view of the same. Fig. 5 is an enlarged longitudinal section through several plates. Fig. 6 is an enlarged detail section of the joint of two plates.

Like letters herein indicate like parts in each of the figures of the drawings.

My improved metallic plate for walls and ceilings is shown at 1 and is preferably formed of sheet metal having the exposed surface or face 2 and the back 3. This plate 1 is cut from a blank and is formed square in shape, provided with the four sides 4, having the edges 5 thereon, and each corner 6 is cut at 7 at an angle and bent to shape to form the joints 8. These joints 8 are made in the form of an S-shaped fold on all the four sides 4 of the plate 1, and such S-shaped fold forms a groove 9 in each one of the joints 8, which are bent down against the back 3 of the plate 1, so as to leave an extension or tongue 10 projecting beyond the four sides 4 of the plate 1.

The manner of constructing and using my improved metallic plates for the walls and ceilings of buildings is as follows: The metallic plate 1 is cut from a blank of sheet metal in any suitable manner, and the corners 6 are cut at 7 into the plate so formed for a short distance at an angle, after which the plate 1 has each one of the edges 5 on all four sides 4 bent back against the back 3 in any suitable manner to form the joints 8, which have the grooves 9 therein and the extensions or tongues 10 projecting out beyond the sides 4 of the plate 1. The plate 1 is now ready to be enameled or painted with any suitable design on the face 2 thereof, after which it can be heated in any suitable manner to burn said painted or enameled design into said face 2 of the plate, so as to finish the same in its entirety before putting it into use. After a number of the plates have been so made and finished and it is desired to place them upon walls or ceilings, as shown in Fig. 1, all that

is necessary is to secure a number of strips 11 upon the wall or ceiling at suitable distances apart to meet the joints 8 on two of the four sides 4 of the plates and secure a number of cross-strips 12 between the strips 11, so arranged at suitable distances apart that they will meet the joints 8 on the other two of the four sides 4 of the plates. The first plate 1 in a row, such as the one shown in the lower left-hand corner of Fig. 1, can then be applied and secured to said strips 11 and 12 by driving nails 13 through the tongues 10 of the joints 8 on two of the four sides 4 of the plate 1 into the strips 11 and 12, after which the next plate in the lower horizontal row can be secured to said first plate by inserting the tongue 10 on any one of the sides 4 into the groove 9 of the joint 8 and driving nails 13 into the tongue 10 of the joint 8 on the opposite side of the second plate and into the strips 11. The next or third plate can be secured in like manner to the second plate and continued until the lower horizontal row is completed, after which the next or second plate of the vertical row can be secured to the first plate by inserting the tongue 10 of the joint 8 on one of its sides 4 into the groove 9 of the joint 8 in the first plate and driving nails 13 into the tongue 10 on the opposite side 4 of the second plate from the tongue 10 in the groove 9 of the first plate and such nails 13 entering the cross-strips 12 of the wall or ceiling. After all the plates have been secured to the strips 11 and 12 to form the wall or ceiling the exposed tongues 10 on all the joints 8 of the plates can be nailed or secured to the strips 11 and 12 by the nails 13 and any suitable molding or covering strip placed over such exposed joints, and it is obvious that after the first plate is nailed or secured to the strips 11 and 12 the vertical row can be started from the same or the horizontal row, as desired. In the use of these plates for corner-pieces the plates are bent at right angles to fit within the corners of the wall or ceiling, and all the joints on such corner-plates are used. It is also obvious that strips can be run within a suitable distance of such corner-walls, to which these corner-plates can be secured.

It will thus be seen that my improved metallic plate for walls and ceilings of buildings, &c., is cheap and simple in its construction, and in its use the nails holding the joints are rendered invisible to the eye on account of the tongue of the next succeeding plate covering the tongue of the joint so nailed as such joint is completed. It will also be seen that all the joints connecting the plates are flush with each other, so rendering them dust and water proof, as well as double-locking and interchangeable. There are no overlapping or projections at the joints of the plates and the joint of each panel or plate will fit any side or edge of the adjoining panel or plate, so forming a double-locking male and female joint. The particular form of joint employed has also the advantage of bracing and

strengthening the panel or plate without requiring the embossing of the plates or the employment of dies and presses in the formation of such embossing, and the use of such plate and joint is economical in the use of the metal, inasmuch that every part is utilized in giving the full benefit of its covering-surface without requiring the metal to be shrunk through the embossing process. This flush double male and female joint has also the advantage that when the plate is decorated it is almost impossible to see such joint except upon close inspection of the same, and it has the further advantage of bracing and strengthening the plate all around its edges, which is not obtained or possible on a single male and female joint, and it is also obvious that the plate can be made of any shape other than square, such as octagon and hexagon, &c.

Various modifications in the construction and design of the various parts of my improved metallic plate for walls and ceilings may be resorted to without departing from the spirit of the invention or sacrificing any of its advantages.

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

1. As a new article of manufacture, a metallic plate for covering the walls and ceilings of buildings, &c., formed of a plain equilateral outline and having all of its sides provided with S-shaped folds to form a tongue-and-grooved joint, so that each plate connected thereto may be interlocked at any one of said sides with another plate of similar outline by the tongue on the side of one plate engaging with the groove in the opposite plate, and each of said plates being secured to the structure to be covered.

2. As a new article of manufacture, metallic plates for covering the walls and ceilings of buildings, &c., having a plain equilateral outline of four sides and all of said sides being provided with S-shaped folds to form a tongue-and-grooved joint, so that each plate may be interlocked at any one of said sides with another of similar outline by the tongue on the side of one plate engaging with the groove on the side of the opposite plate, and each of said plates being secured to the structure to be covered.

3. A sheathing or covering for the walls and ceilings of buildings, &c., consisting of metallic plates, each having a similar plain equilateral outline of four sides, and each having such four sides provided with S-shaped folds to form tongue-and-grooved joints, said plates being secured to each other and to the surface to be covered.

In testimony whereof I, the said GEORGE RUSSELL, have hereunto set my hand.

GEORGE RUSSELL.

Witnesses:

J. N. COOKE,
J. S. TREFALLIS.