

No. 779,793.

PATENTED JAN. 10, 1905.

P. H. MURPHY.

CAR ROOF.

APPLICATION FILED FEB. 25, 1904.

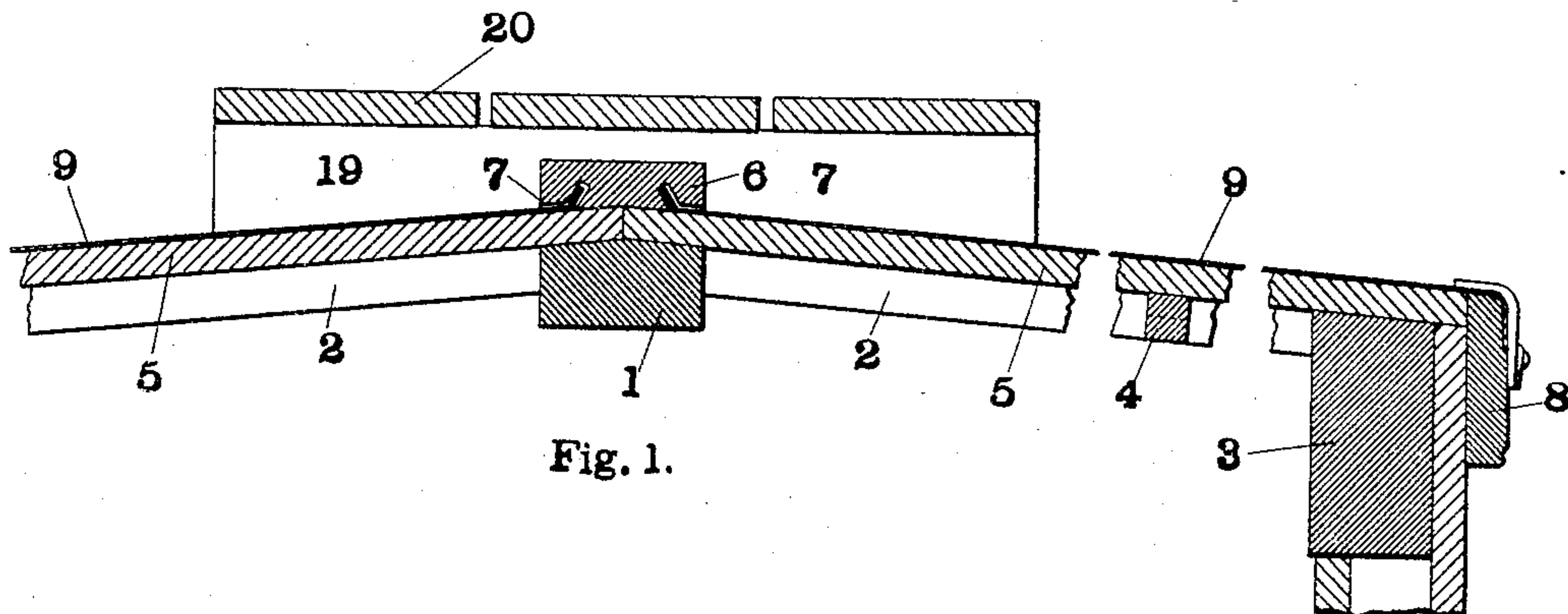


Fig. 1.

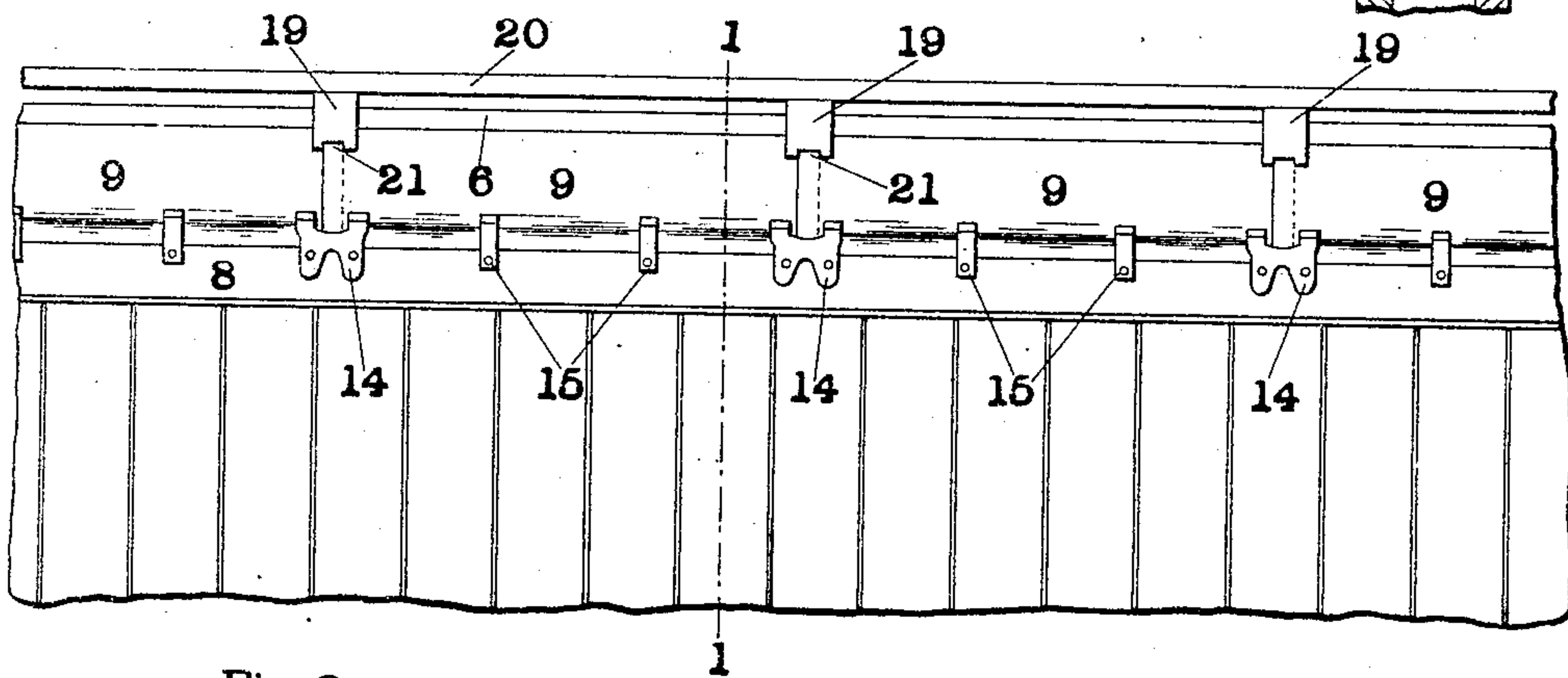


Fig. 2.

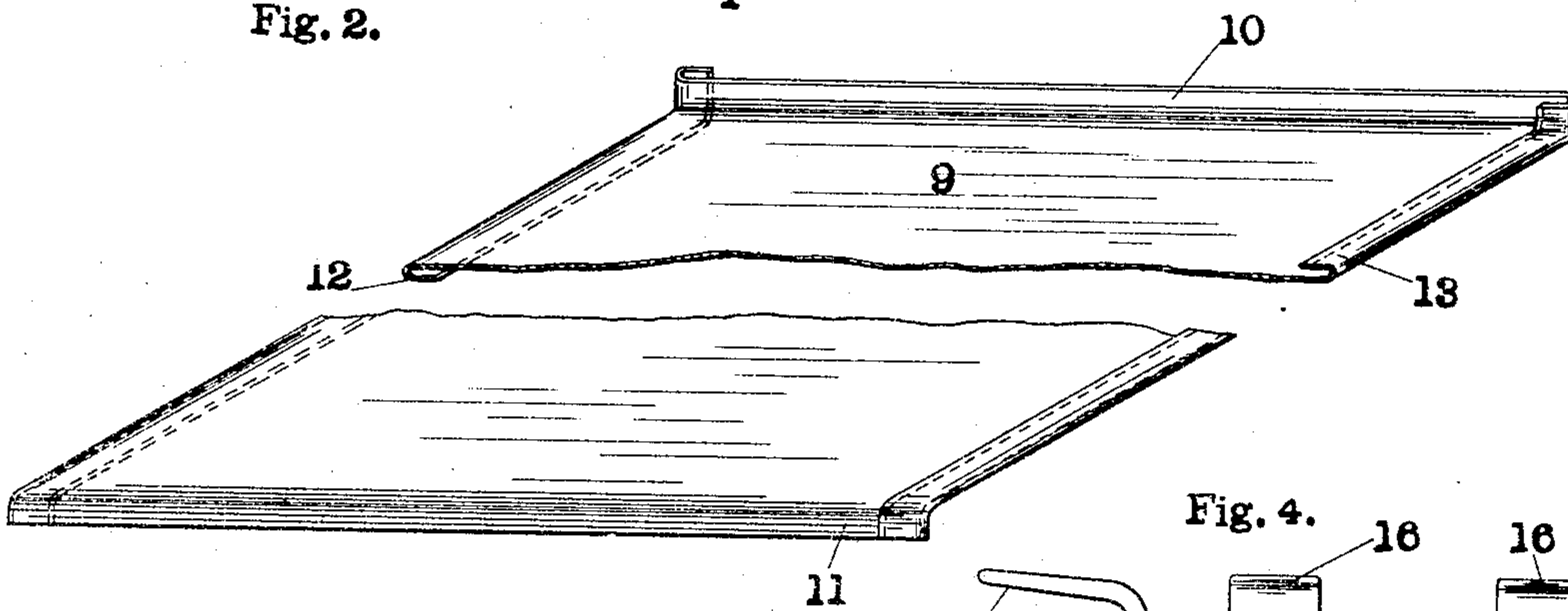


Fig. 3.

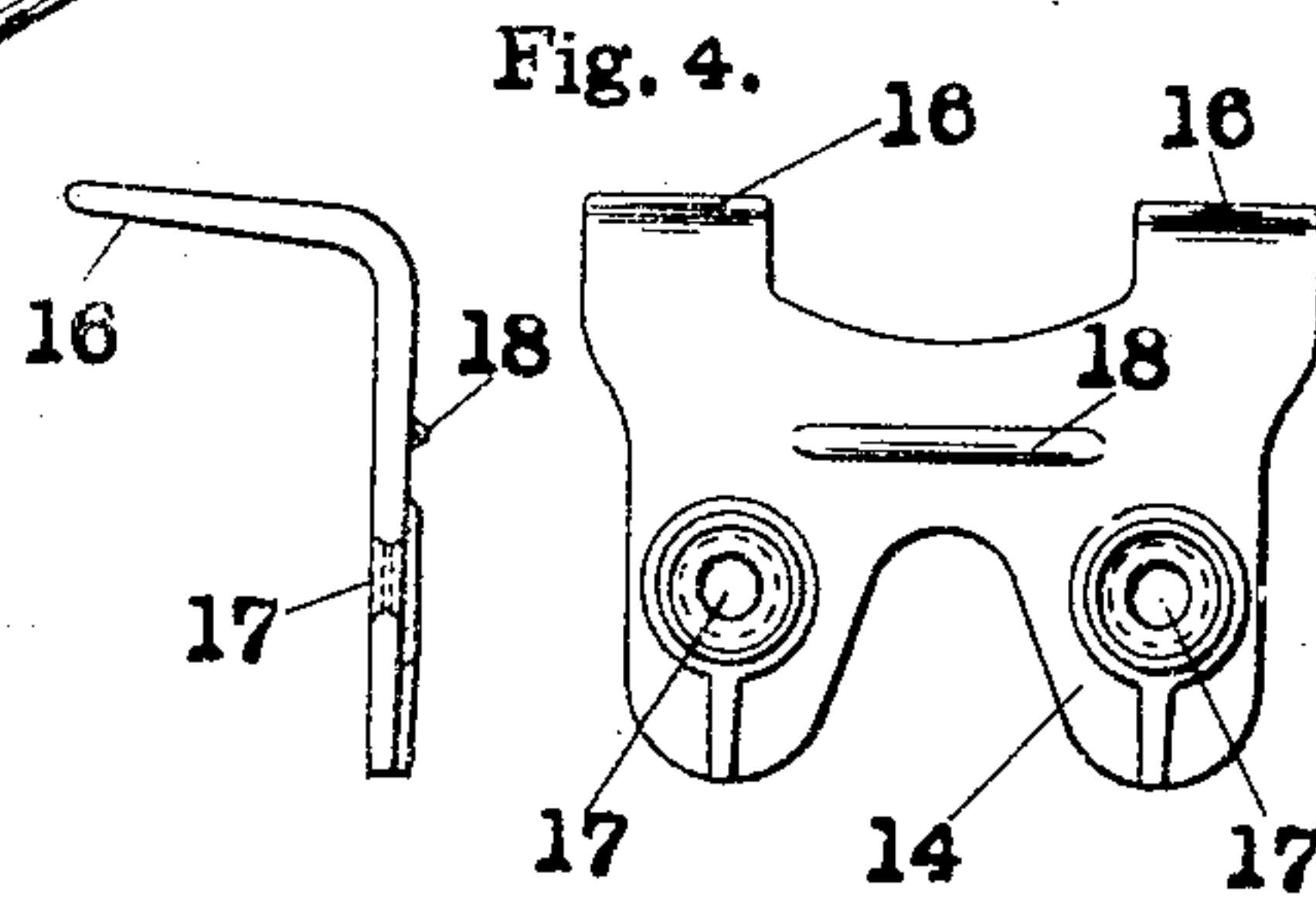


Fig. 4.

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UNITED STATES PATENT OFFICE.

PETER H. MURPHY, OF ST. LOUIS, MISSOURI.

CAR-ROOF.

SPECIFICATION forming part of Letters Patent No. 779,793, dated January 10, 1905.

Application filed February 25, 1904. Serial No. 195,137.

To all whom it may concern:

Be it known that I, PETER H. MURPHY, a citizen of the United States, and a resident of the city of St. Louis and State of Missouri, have
5 invented a new and useful Improvement in Car-Roofs, of which the following is a specification.

My invention relates to car-roofs, and has for its principal objects to provide for the
10 inevitable warping of car-roofs in turning curves, to secure the sheet-metal sheathing without puncturing it by any fastening means, to simplify and cheapen the construction of car-roofs, and other objects hereinafter more
15 fully appearing.

My invention consists in the parts and in the arrangements and combinations of parts hereinafter described and claimed.

In the accompanying drawings, forming a
20 part of this specification, and wherein like symbols refer to like parts wherever they occur, Figure 1 is a broken sectional view on the line 1 1 of Fig. 2. Fig. 2 is a side elevation of a portion of a freight-car equipped
25 with my improved roof. Fig. 3 is a perspective view of one of the sheets of the sheathing, and Fig. 4 is a side and front view of my improved clip for use at the seam between the sheets.

30 Extending longitudinally of the car at the center is the ridge-pole 1, from which rafters 2 extend upon each side to beams 3 under the eaves. Purlins 4 rest upon the rafters 2, and a wooden covering 5 is secured thereto, consisting of boards laid with their length trans-
35 verse to the car. Directly over the ridge-pole is placed a cap-plate 6, having its under side conformed in shape to the ridge of the roof. On both sides of the under side it is grooved and channeled so that when in place on the roof
40 a substantially L-shaped groove 7 is formed on both sides. A molding-strip 8 extending along the side of the car at the eaves completes the wooden substructure.

45 The metal sheathing consists of sheets 9, each having an upwardly-turned upper margin 10, a downwardly-turned lower margin 11, and oppositely-rebent side margins 12 13. The rebent side margins 12 13 extend around
50 the curves of and to the edges of the upper

and lower margins 10 11. The rebent margin 12 is thus in position to hook into the rebent margin 13 on the adjacent sheet, and this engagement extends from end to end of the sheets. The upwardly-turned margin 10 ex-
55 tends into the L-shaped groove 7 in the cap-plate 6. The downwardly-turned margin 11 fits snugly over the eaves. At the eaves the sheets are secured by bifurcated clips 14 and simple clips 15. Both forms of clips have
60 shanks long enough to extend below the sheets, and the fastening means may thus be inserted without passing through the sheets. The bifurcated clips each have two fingers 16 separated widely enough to straddle the seam
65 between the sheets. They are provided with two holes 17 for the fastening means and a projection 18, by means of which they may be handled conveniently. As these clips are open between their fingers, slight relative
70 movement of the sheets is permitted. Cross-pieces 19 for the run-boards 20 are secured in the lines of the seams between the sheets. They conform on their under sides to the shape of the roof and cap-plate and are se-
75 cured to the latter, thus avoiding any necessity for puncturing the sheathing. Longitudinally of their under sides the cross-pieces 19 are provided with grooves 21 to accommodate the welts made by the seams.
80

By my improved construction the sheathing is securely held to the roof; but a slight amount of relative movement of the parts thereof is permitted. Buckling of the sheets when the body of the car is strained, as in
85 turning curves, is thus prevented. The joints all have such tortuous passages that water cannot find its way through them. The parts can all be made at the factory and assembled where it is desired to use them, and the sheets
90 can be put in place without piercing them at any point.

Obviously my construction admits of modification within the scope of my invention, and therefore I do not wish to be limited to the
95 specific construction shown and described.

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

1. An outside car-roof comprising sheets extending substantially from ridge to eaves, 100

each of said sheets having an upwardly-turned upper margin, a downwardly-turned lower margin, and oppositely-rebent side margins, said rebent side margins extending from end
5 to end of the sheet and being arranged to interlock with the rebent margins of adjacent sheets to form flat seams.

2. An outside car-roof comprising sheets extending substantially from ridge to eaves,
10 each of said sheets having an upwardly-turned upper margin, a downwardly-turned lower margin, and oppositely-rebent side margins, said rebent margins extending from end to end of the sheet and being arranged to inter-
15 lock with the rebent margins of adjacent sheets, a cap-plate arranged to cover the upper margins of the sheets upon opposite sides of the roof, and clips secured below the lower edges of said sheets and extending over the
20 lower margins thereof.

3. An outside car-roof comprising sheets extending substantially from ridge to eaves, each of said sheets having an upwardly-turned upper margin, a downwardly-turned lower

margin, and oppositely-rebent side margins, 25
said rebent side margins extending from end to end of the sheet and being arranged to interlock with the rebent side margins of adjacent sheets, a cap-plate extending longitudi-
nally of the roof and having substantially L- 30
shaped grooves upon opposite sides of its center line, the upper margins of said sheets upon opposite sides of the roof extending into said grooves, respectively, and the lower margins of said sheets extending over the eaves, and 35
angular clips secured below the lower edges of said sheets and extending thereover.

4. A sheet for car-roofs having an upturned upper margin, a downturned lower margin, and oppositely-rebent side margins extending 40
from end to end of the sheet.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER H. MURPHY.

In presence of—

FRED F. REISNER,
J. B. MEGOWN.