

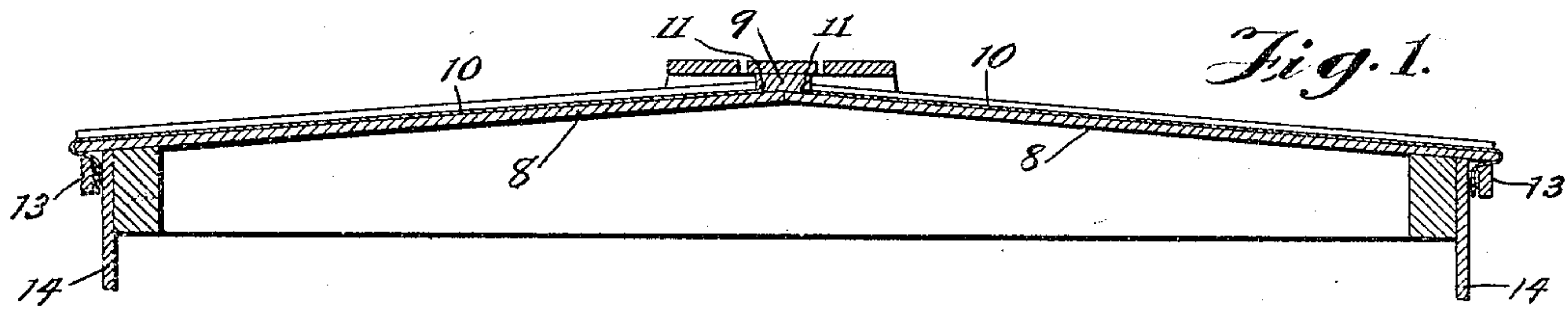
No. 773,667.

PATENTED NOV. 1, 1904.

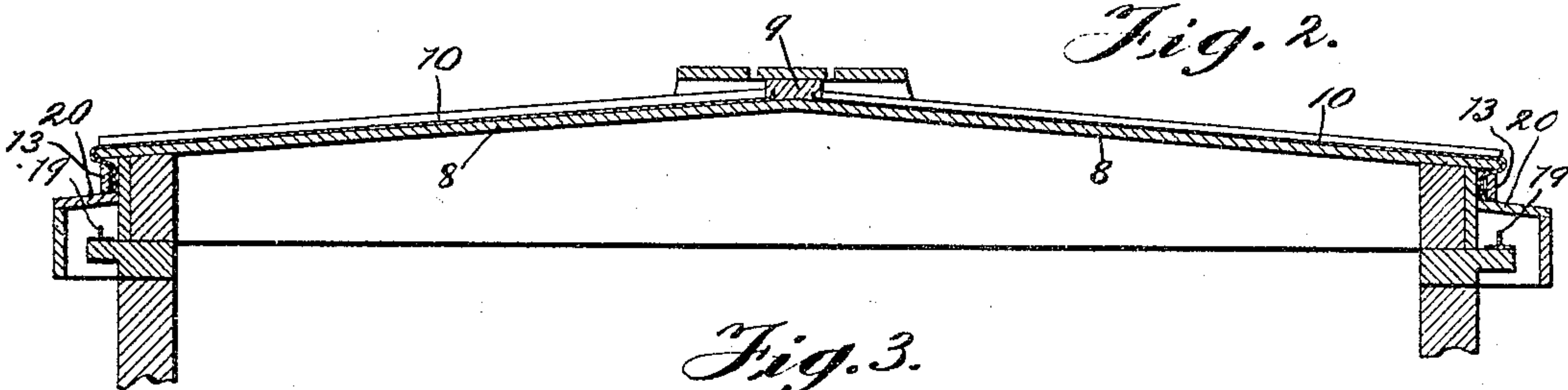
J. J. McCARTHY.  
CAR ROOF.

APPLICATION FILED JAN. 30, 1903.

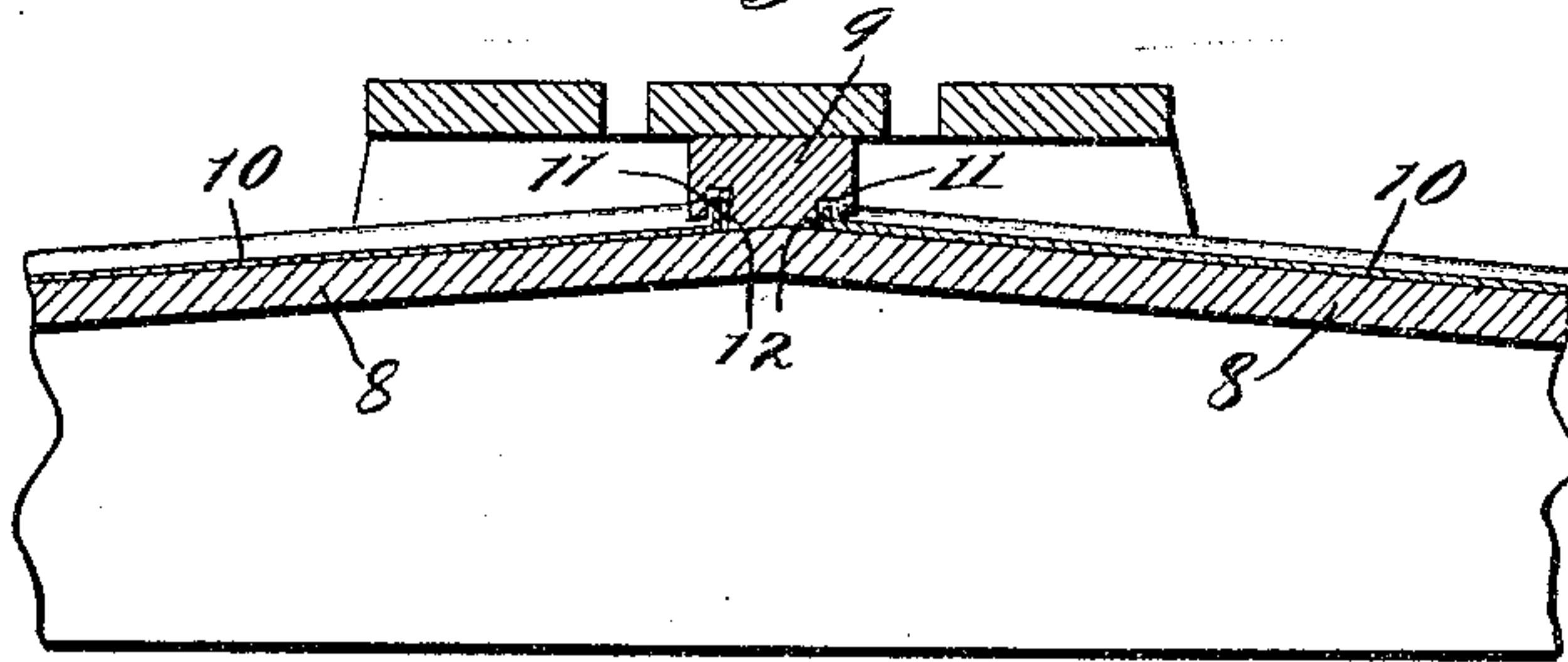
NO MODEL.



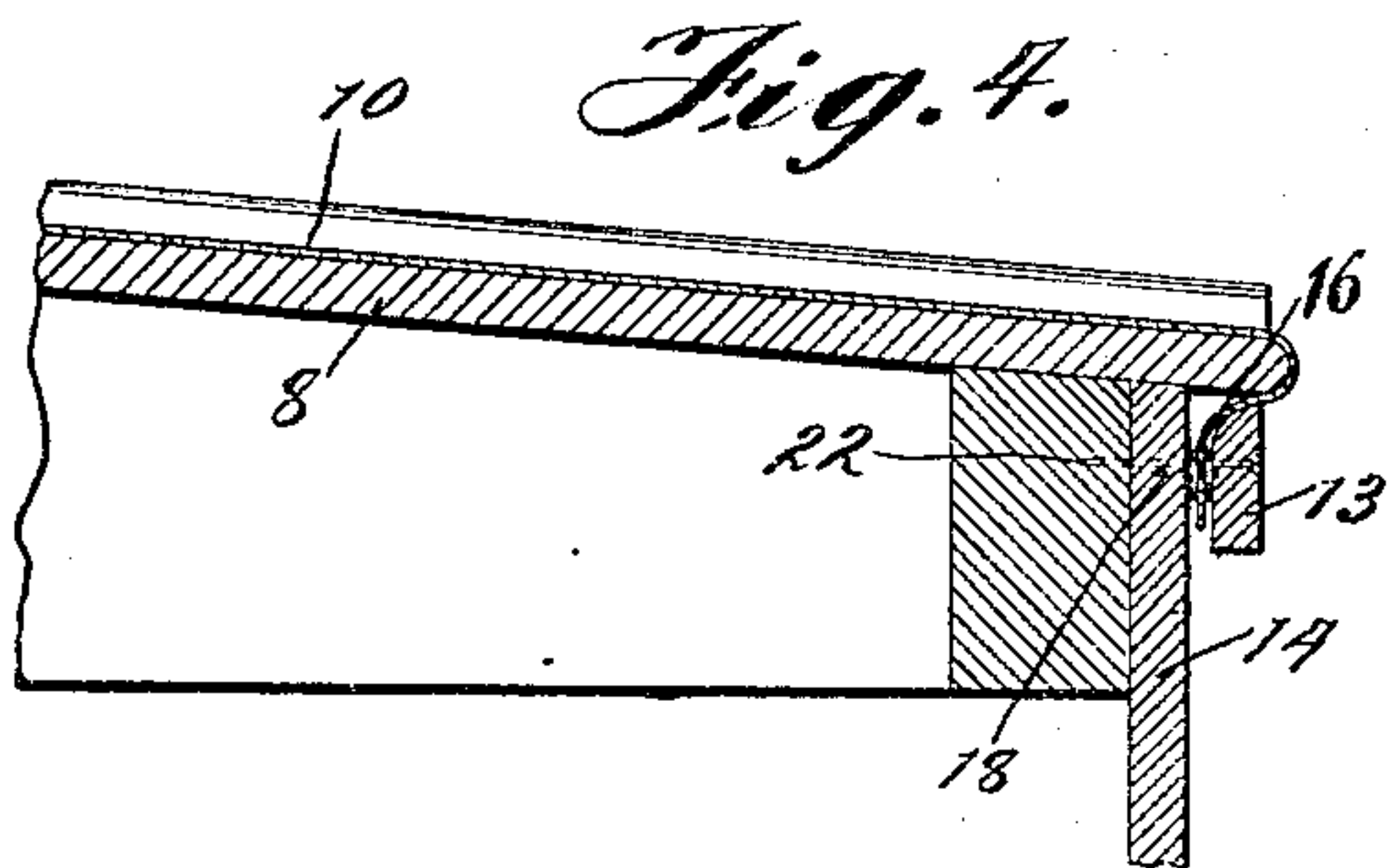
*Fig. 1.*



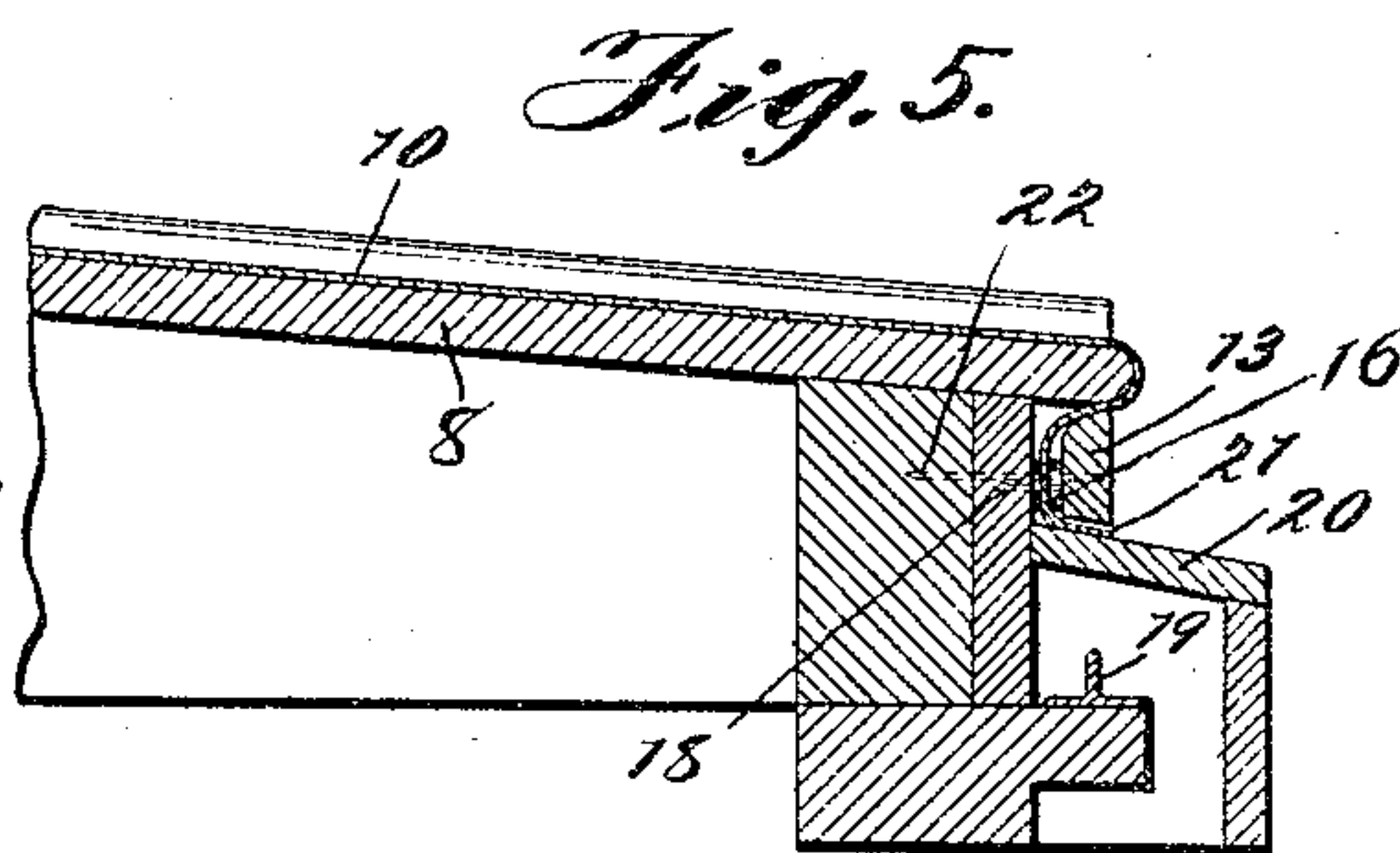
*Fig. 2.*



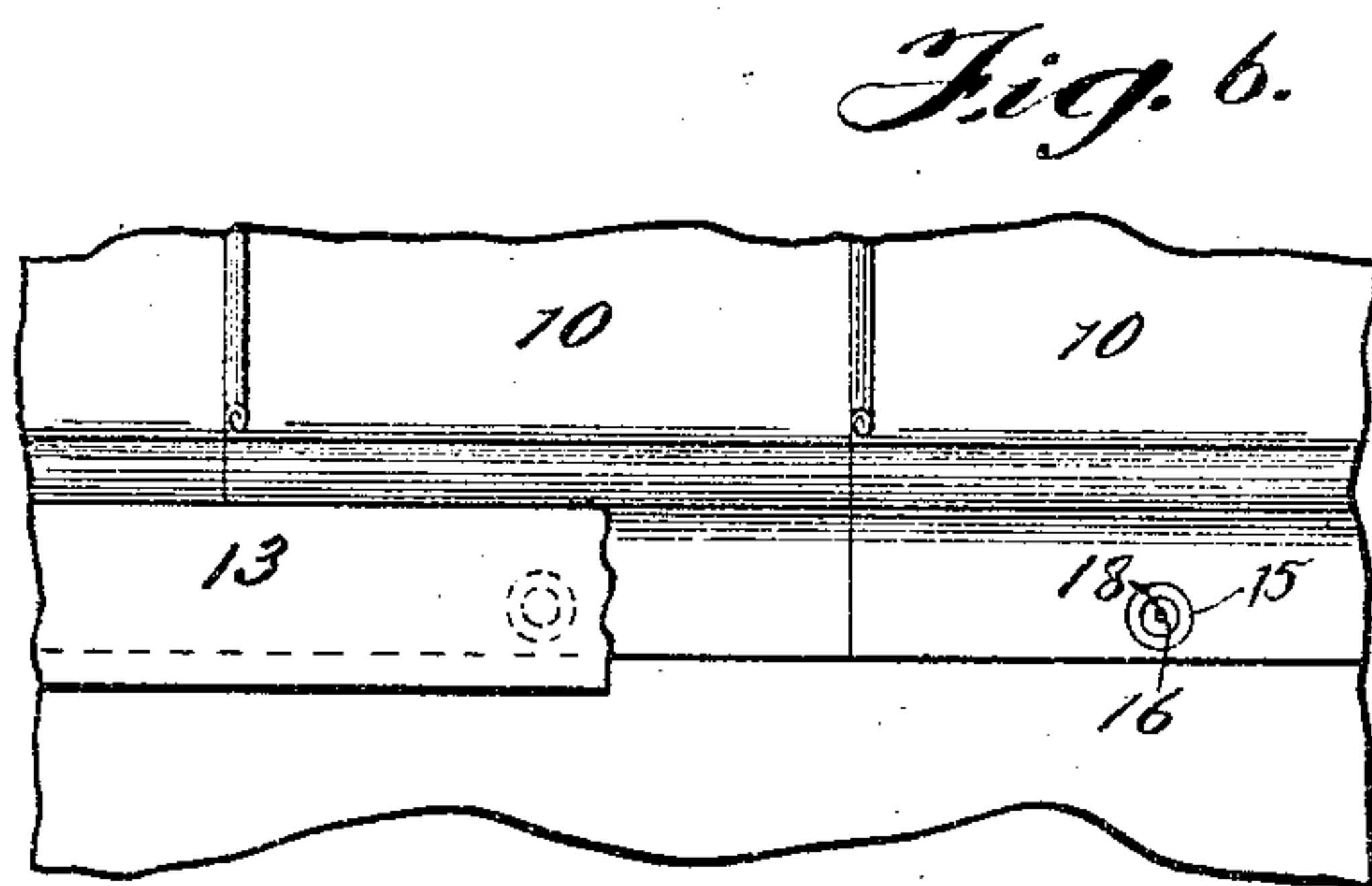
*Fig. 3.*



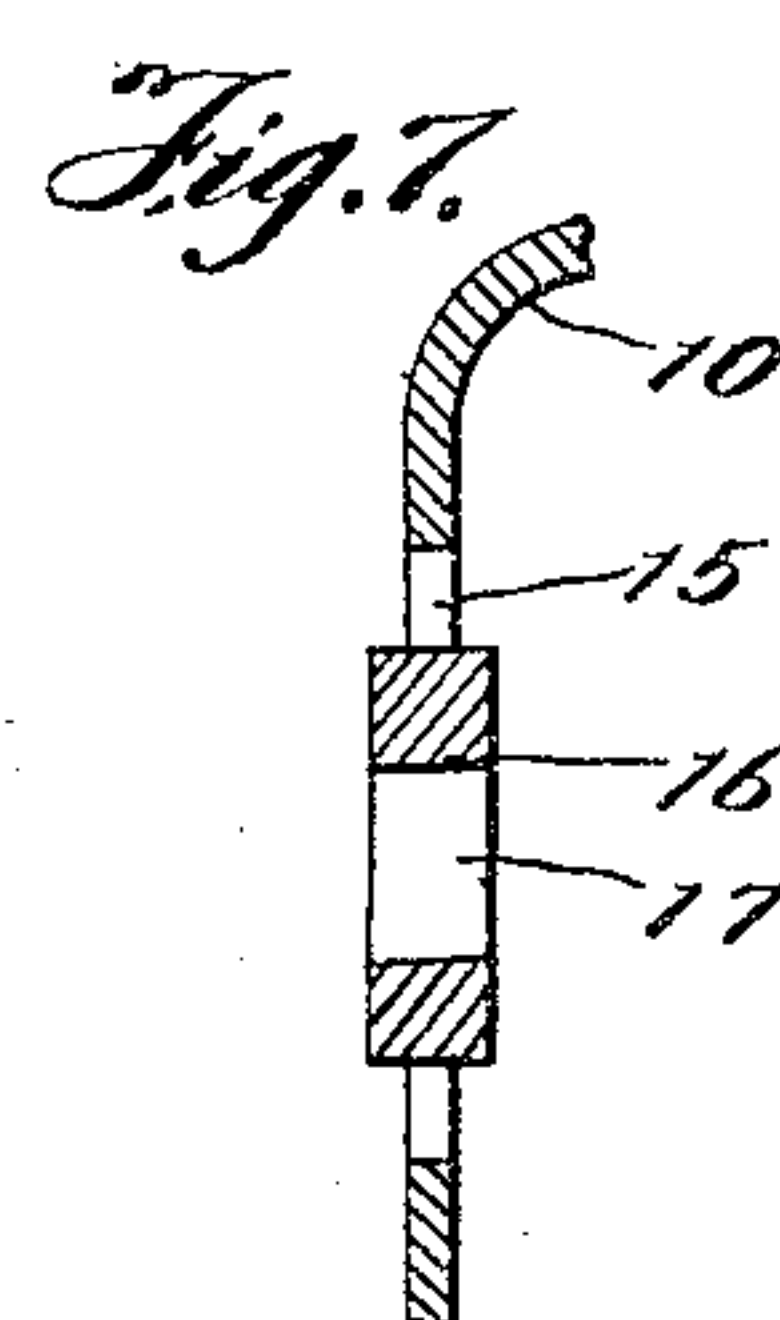
*Fig. 4.*



*Fig. 5.*



*Fig. 6.*



*Fig. 7.*

Witnesses:

*Chas D. Perry*  
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Inventor:

*James J. McCarthy,*  
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# UNITED STATES PATENT OFFICE.

JAMES J. McCARTHY, OF CHICAGO, ILLINOIS.

## CAR-ROOF.

SPECIFICATION forming part of Letters Patent No. 773,667, dated November 1, 1904.

Application filed January 30, 1903. Serial No. 141,151. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES J. McCARTHY, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Roofs, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to roofs, and has particularly to do with metallic roofs for cars and other structures. It has for its object to provide certain improvements in roofs adapted for use in exposed situations, such as that shown in my Patent No. 718,145, dated January 13, 1903.

The improvements which form the subject-matter of this application relate particularly to devices for securing the upper and lower ends of the roofing-plates. In the construction shown in my Patent No. 718,145, above referred to, the lower ends of the roofing-plates project beyond the side edges of the roof and are bent over such side edges, projecting into recesses between the facia-boards and the sides of the car. The ends of the roofing-plates are not, however, otherwise secured.

One feature of my present invention consists in providing means by which the lower ends of the roofing-plates are secured in place without interfering with the adaptability of the plates to accommodate themselves to wrenching strains of the car.

A further feature consists in providing for securing the upper ends of the roofing-plates at the ridge-pole.

In the accompanying drawings, Figure 1 is a cross-section of the roof of a car near one end, illustrating my improvements. Fig. 2 is a similar view taken nearer the middle of the car. Fig. 3 is an enlarged detail illustrating the arrangement of the upper ends of the roofing-plates and the ridge-pole. Fig. 4 is an enlarged view of the lower end of one of the roofing-plates and the supporting devices therefor, taken near one end of the car. Fig. 5 is a similar view taken near the middle of the car. Fig. 6 is a partial side view showing the lower ends of the roofing-plates and adjacent parts, and Fig. 7 is an enlarged

sectional view of the lower end of one of the roofing-plates.

Referring to the drawings, 8 indicates the wooden roof of a car, and 9 the ridge-pole.

10 indicates the roofing-plates, adjacent plates being united, preferably, in the manner shown in my patent above referred to.

As best shown in Fig. 3, the ridge-pole 9 is provided along its under side edges with grooves 11, adapted to receive loosely the up-turned ends 12 of the roofing-plates, thus preventing water from passing up over beyond the upper ends of the plates and leaving the plates free to accommodate themselves to wrenching strains. The lower ends of the plates extend beyond the side edges of the roof 8, as shown in Figs. 4 and 5, and are bent downward and inward in the manner described in my patent above referred to, lying between the facia-boards 13 and the siding 14 of the car. (Best shown in Figs. 4 and 5.) The upper inner edges of the facia-boards 13 are beveled in the manner described in my former patent referred to.

Near their lower edges the roofing-plates 10 are provided with perforations 15, adapted to receive washers 16, which are somewhat less in diameter than said perforations, so that they do not interfere with the requisite adjustment of the roofing-plates. This is best shown in Fig. 7. The washers 16 are somewhat thicker than the roofing-plates and fit closely between the inner surfaces of the facia-boards, as shown in Fig. 4. Each of said washers is provided with a perforation 17 for the passage of a nail 18, by which the washer is secured in place, thereby securing the lower edges of the roofing-plates in place.

19 indicates the rails upon which the car-doors slide, and 20 indicates the covering, which extends over the car-doors, as shown in Fig. 5. Over such covering 20 the lower edges of the roofing-plates are bent downward, as shown at 21 in Fig. 5, extending under the facia-boards 13, thereby directing any moisture outward and preventing it from passing down under the covering 20.

22 indicates the nails or bolts by which the facia-boards are secured in place.

I thus provide for supporting the roofing-



plates at the top as well as at the bottom in such manner that while they wholly prevent leakage of moisture into the car they are nevertheless free to accommodate themselves  
5 to wrenching strains of the car-body, which would otherwise weaken and ultimately destroy them.

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

10 1. In a car-roof, the combination of supporting devices, roofing-plates carried thereby, said roofing-plates having projecting ends, the lower end portions of said roofing-plates lying adjacent to the sides of the car, and washers  
15 secured to the car and lying loosely in perforations in the lower end portions of the roofing-plates, substantially as described.

2. In a car-roof, the combination of supporting devices, roofing-plates carried thereby, said  
20 roofing-plates having projecting ends, facia-boards secured to the sides of the car, the upper ends of said facia-boards being slightly removed from the sides of the car, thereby forming recesses adapted to receive the ends  
25 of the roofing-plates, and washers between said facia-boards and the sides of the car, said washers lying loosely in perforations in the lower end portions of the roofing-plates.

3. In a car-roof, the combination of supporting devices, roofing-plates carried thereby, said  
30 roofing-plates having projecting ends, facia-boards secured to the sides of the car, the upper ends of said facia-boards being slightly removed from the sides of the car, thereby forming recesses adapted to receive the ends of the  
35 roofing-plates, washers between said facia-boards and the sides of the car, said washers lying loosely in perforations in the lower end portions of the roofing-plates, and means se-  
40 curing said washers to the sides of the car, substantially as described.

4. In a car-roof, the combination of supporting devices, roofing-plates carried thereby, said  
45 roofing-plates having projecting ends, facia-boards secured to the sides of the car, and a covering secured to the side of the car and extending over the car-door, the lower end portions of said roofing-plates extending be-  
50 car and between said facia-boards and said car-door covering, whereby the joint between the

car-door covering and the side of the car is protected from leakage, substantially as described.

5. In a car-roof, the combination of support- 55 ing devices, roofing-plates supported thereby, the lower end portions of said roofing-plates being turned down and lying adjacent to the side of the car, and means secured to the car and lying loosely in perforations in the lower 60 end portions of the roofing-plates for loosely connecting said roofing-plates with the car, substantially as described.

6. In a car-roof, the combination of support- ing devices, a ridge-pole having longitudinal 65 grooves at its sides, roofing-plates carried by said supporting devices and having their upper edges fitted in said grooves, the lower end portions of said roofing-plates lying adjacent to the sides of the car, and means loosely con- 70 necting the lower end portions of said roofing-plates with the car, substantially as described.

7. In a car-roof, the combination of support- ing devices, a ridge-pole having longitudinal 75 grooves within its under side edges, and roofing-plates carried by said supporting devices and having upturned upper edges loosely fitted in said grooves, the lower ends of said roofing-plates extending down beyond the edges of said supporting devices and being loosely 80 secured to the sides of the car, substantially as described.

8. In a car-roof, the combination of support- ing devices, a ridge-pole having longitudinal 85 grooves in its under side edges, roofing-plates carried by said supporting devices and having upturned edges fitted loosely in said grooves, and means loosely securing the lower end portions of said roofing-plates to the car, substan- 90 tially as described.

9. In a car-roof, the combination of support- ing devices, a ridge-pole, roofing-plates car- ried by said supporting devices and having 95 their upper edges loosely connected to said ridge-pole, and means loosely connecting the lower end portions of said roofing-plates to the car, substantially as described.

JAMES J. McCARTHY.

Witnesses:

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L. L. BOND.