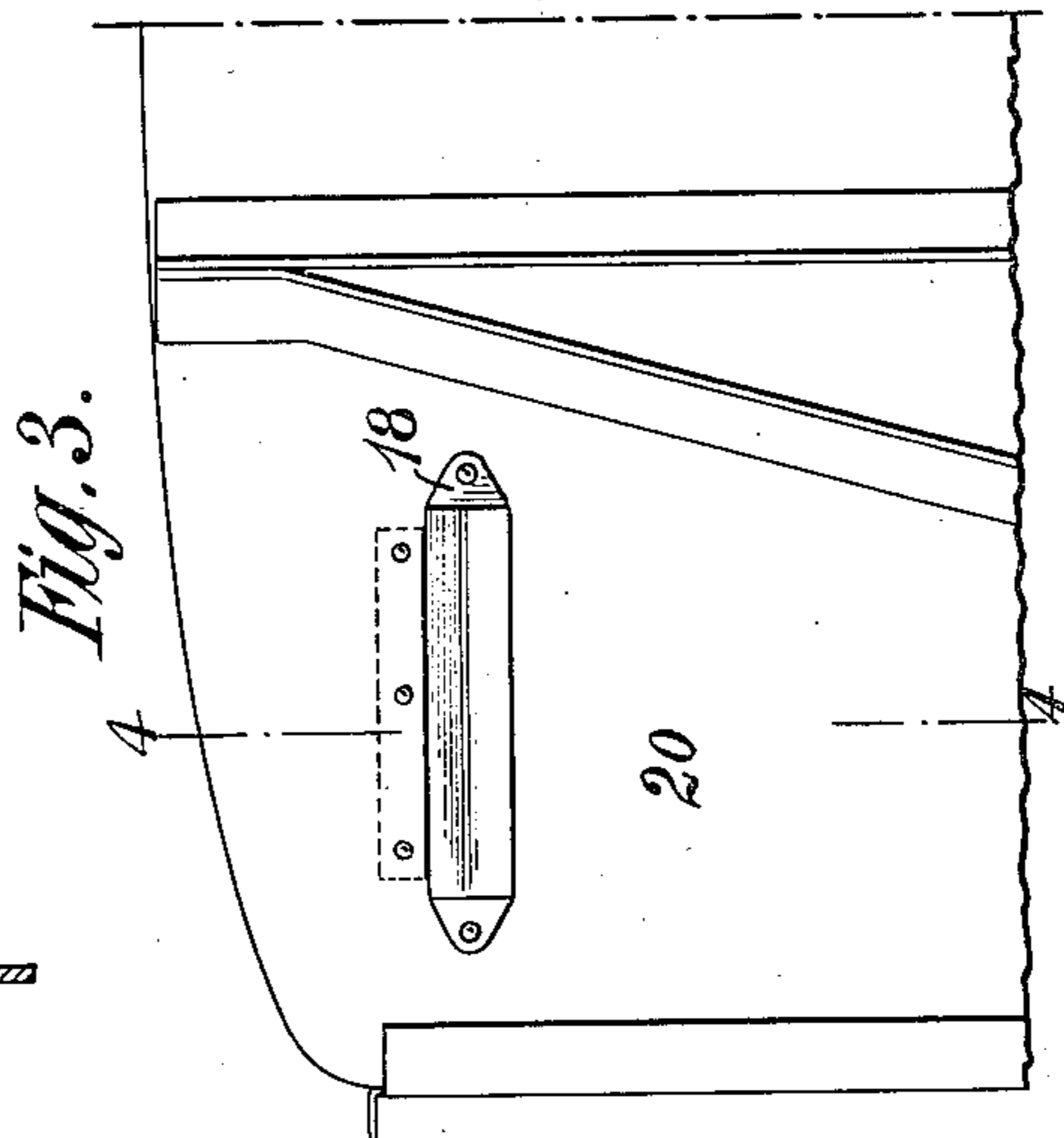
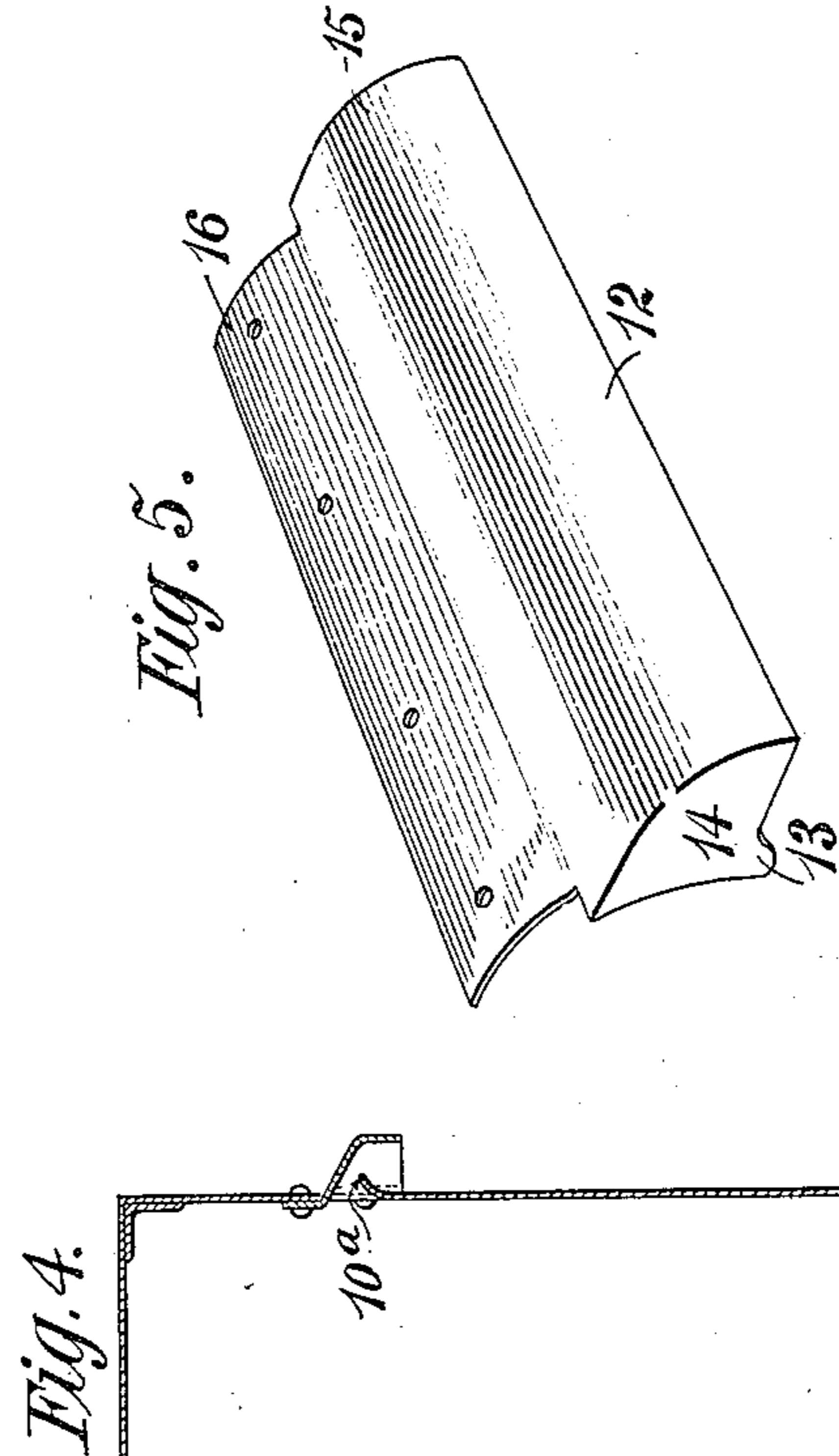
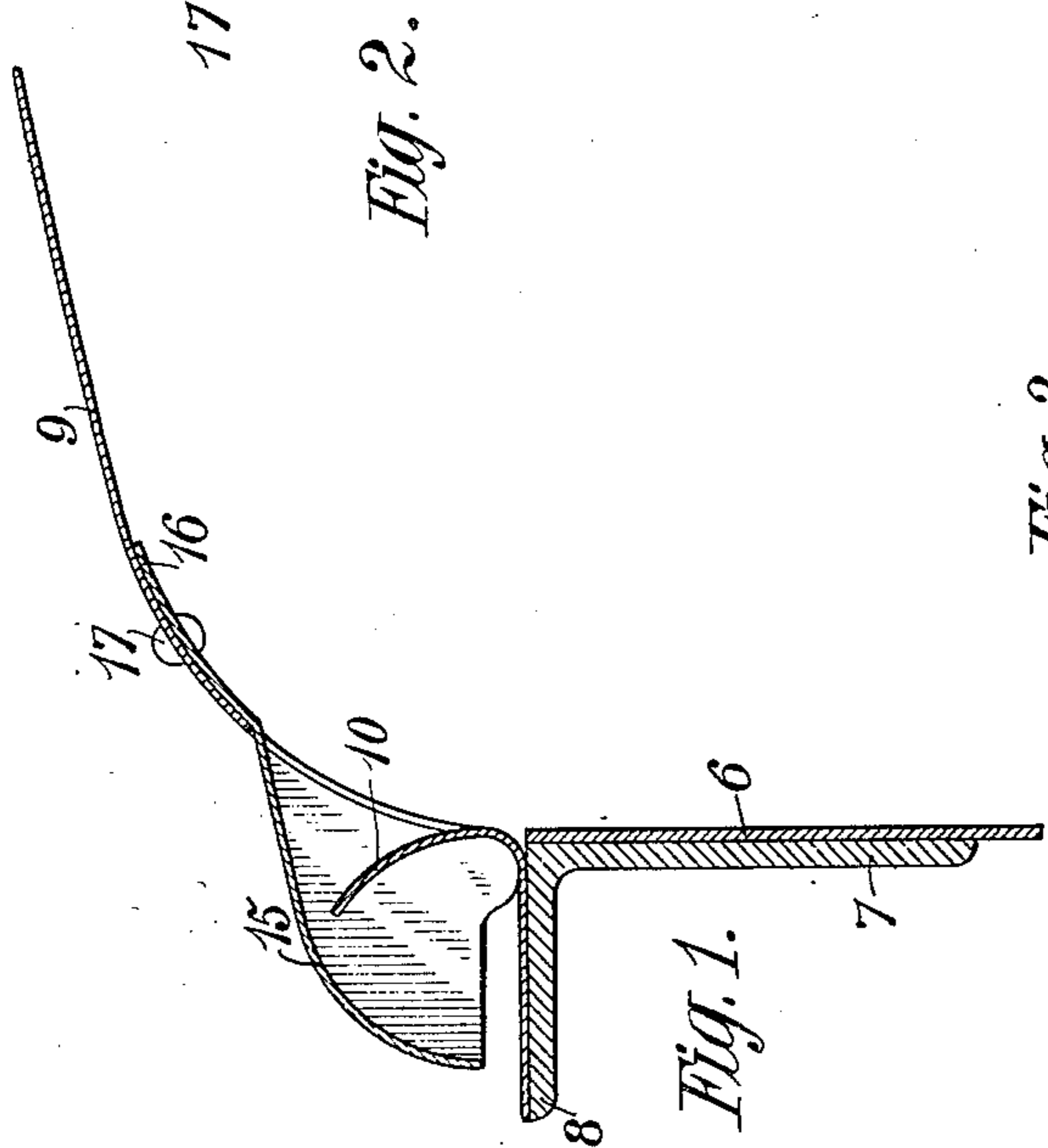
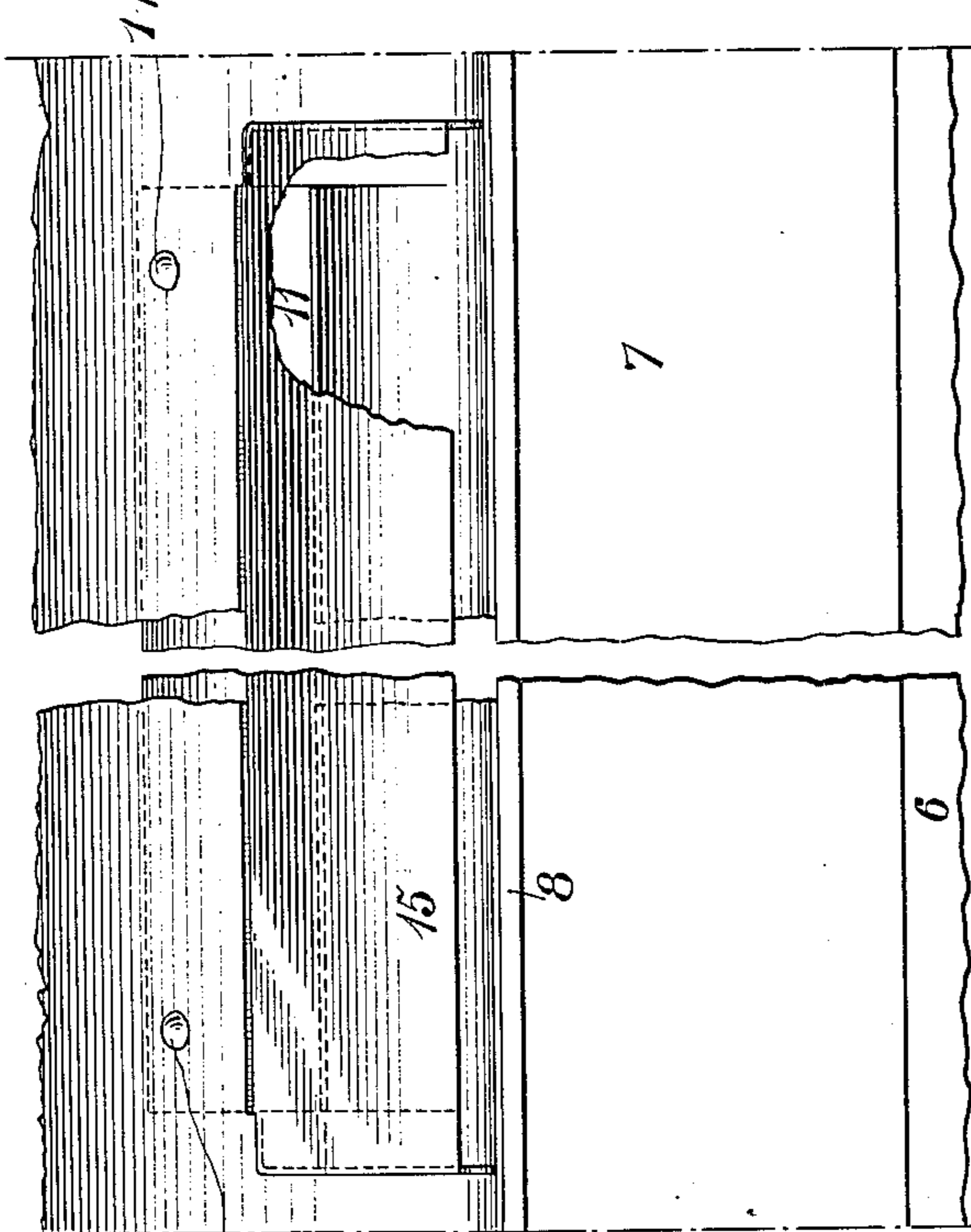


R. E. FRAME.
CAR VENTILATOR.
APPLICATION FILED OCT. 8, 1908.

954,509.

Patented Apr. 12, 1910.



Witnesses:
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Annette Harrington.

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UNITED STATES PATENT OFFICE.

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FOUNDRY COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF NEW JERSEY.

CAR-VENTILATOR.

954,509.

Specification of Letters Patent.

Patented Apr. 12, 1910.

Application filed October 8, 1908. Serial No. 456,788.

To all whom it may concern:

Be it known that I, ROBERT E. FRAME, residing at St. Louis, Missouri, and being a citizen of the United States, have invented certain new and useful Improvements in Car-Ventilators, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and to use the same, reference being had to the accompanying drawings, which illustrate the preferred form of the invention, though it is to be understood that the invention is not limited to the exact details of construction shown and described, as it is obvious that various modifications thereof will occur to persons skilled in the art.

In said drawings: Figure 1 is a fragmentary transverse sectional view of a car equipped with the invention. Fig. 2 is a fragmentary side elevational view, partly broken away, showing the preferred construction used at the side of the car. Fig. 3 is a partial end elevational view of a car equipped with the invention. Fig. 4 is a vertical sectional view taken on line 4-4 of Fig. 3. Fig. 5 is a detached view illustrating the hood hereinafter referred to.

The invention consists of a simple, durable and economical ventilating device which is especially adapted for use in all steel cars, either at the end or side of the car as may be preferred, though the device is preferably attached above the side plate at the side and relatively just below the line of side plate when applied to the end of the car.

While the invention comprises nothing but the ventilator and its peculiar relation to the parts of the car herein described, it is illustrated as applied to a car provided with metal sheathing for convenience of illustration.

Referring to the parts, 6 is a metal plate and 7 is an angle side plate, these parts forming the upper portion of a plate-girder side of a car and it will be noted that the horizontal flange 8 of the angle side plate projects outwardly from the body of the car. The plate and angle 7 may be suitably connected in any manner common to car construction. Extending upwardly from horizontal leg 8 of the angle side plate is a roof sheet 9 which is cut vertically and horizontally and the portion between the verti-

cal and horizontal slits is bent outwardly to form a deflecting tongue 10 which rises from the side plate 8 in a curved line upwardly and outwardly as best shown in Fig. 1, thereby leaving a clear space or opening 11 between the free end of this tongue and the body of the metal roof sheathing plate 9.

Resting in position upon the side plate is a hood 12, shown detached in Fig. 5, which hood is provided with the downwardly extending portions 13 which rest upon the said plate. The hood 12 is also provided with end walls 14, with a curved cap portion 15 and an inwardly and upwardly projecting attaching flange 16, which attaching flange is projected through the opening 11 and under the roof sheathing 9 and is secured thereto by means of the rivets 17, as shown in Figs. 1 and 2. If desired, the end walls 14 may be provided with ears, or extensions 18, as shown in Fig. 3, which ears serve as extensions by means of which the hood may be connected to the sheathing plate if desired and this is the preferred construction when the device is placed in any position except resting upon the side plate, or some equivalent supporting means, forming a part of the car. Thus the ventilating device is provided for the end of the car as shown in Figs. 3 and 4 with the extension 16 resting back of the end plate 20 from which a tongue 10^a projects, as shown in sectional Fig. 4, while the ears 18 and extension 16 are riveted in position as shown in Figs. 3 and 4.

The upwardly and outwardly curved tongue portions 10 and 10^a will serve as deflectors for any dust which may be carried by air currents within the hood of the ventilator and the hood being elevated above the horizontal leg 8 of the angle at its ends will provide a clearance whereby the draft incident to travel of the cars will carry away any dust which might otherwise accumulate under the hood. The hood projects outwardly beyond the upper end of tongue 10—10^a sufficiently far to make the ventilator proof against inclemencies of the weather and is preferably formed of sheet metal as shown.

What I claim as new and desire to secure by Letters Patent is:

1. In a metal car construction, a sheet of metal forming a part of the car body structure, a ventilator deflector formed of a por-

tion of said structural sheet and a hood therefor formed of a separate sheet of metal.

2. In a metal car construction, a sheet of metal forming a part of the car body structure, a ventilator deflector formed of a portion of said structural sheet and a hood therefor formed of a separate sheet of metal, formed with an extension projecting into the car.

3. In a metal car construction, a sheet of metal forming a part of the car body structure, a ventilator deflector formed of a portion of said structural sheet and a hood therefor formed of a separate sheet, with laterally projecting ears adapted to rest against the outer side of said sheet.

4. In car construction, a sheet of metal forming a part of the body structure, a ventilator deflector formed of a portion of said structural sheet and a hood therefor formed of a separate sheet, with vertical and oblique extensions secured to said structural sheet.

5. In a metal car construction, a sheet of metal forming a part of the car body structure, a ventilator deflector formed of a portion of said structural sheet and a hood therefor formed of a separate sheet, with end walls and an upwardly extending attaching flange, said flange being secured to said structural sheet above the deflector.

6. In a car construction a side plate with lateral flange, an overlapping roof sheet secured to said flange, an outwardly deflected tongue bent from the metal of said roof sheet and a hood extending within the car and outwardly beyond said tongue.

7. In a car ventilator, a metal sheathing

plate of greater area than the ventilator, said plate having a tongue portion cut therefrom and deflected outwardly, a hood covering said tongue and spaced therefrom and means for securing said hood in position.

8. In a car ventilator, a metal sheathing plate having an integral deflected tongue portion, a hood extending over said tongue portion and substantially parallel with said plate for a portion of its length and means for securing the hood in position.

9. In a car ventilator a metal sheathing plate having an integral outwardly curved tongue portion projecting beyond the normal line of said sheathing, a hood member covering the opening thus provided and having an upward extension projecting beyond said opening, below said sheathing plate.

10. In car construction, a metal sheet forming part of the body structure and having an opening formed therein and a hood therefor, formed from a separate piece of metal with an extension projecting into the car and secured to the inner face of the structural sheet.

11. In car construction a sheet of metal forming part of the body structure, a ventilator formed of a portion of said structural sheet and a hood therefor, with laterally projecting ears or extensions adapted to rest against said sheet.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ROBERT E. FRAME.

Witnesses:

J. H. WEISBROD,

A. W. CLARKE.