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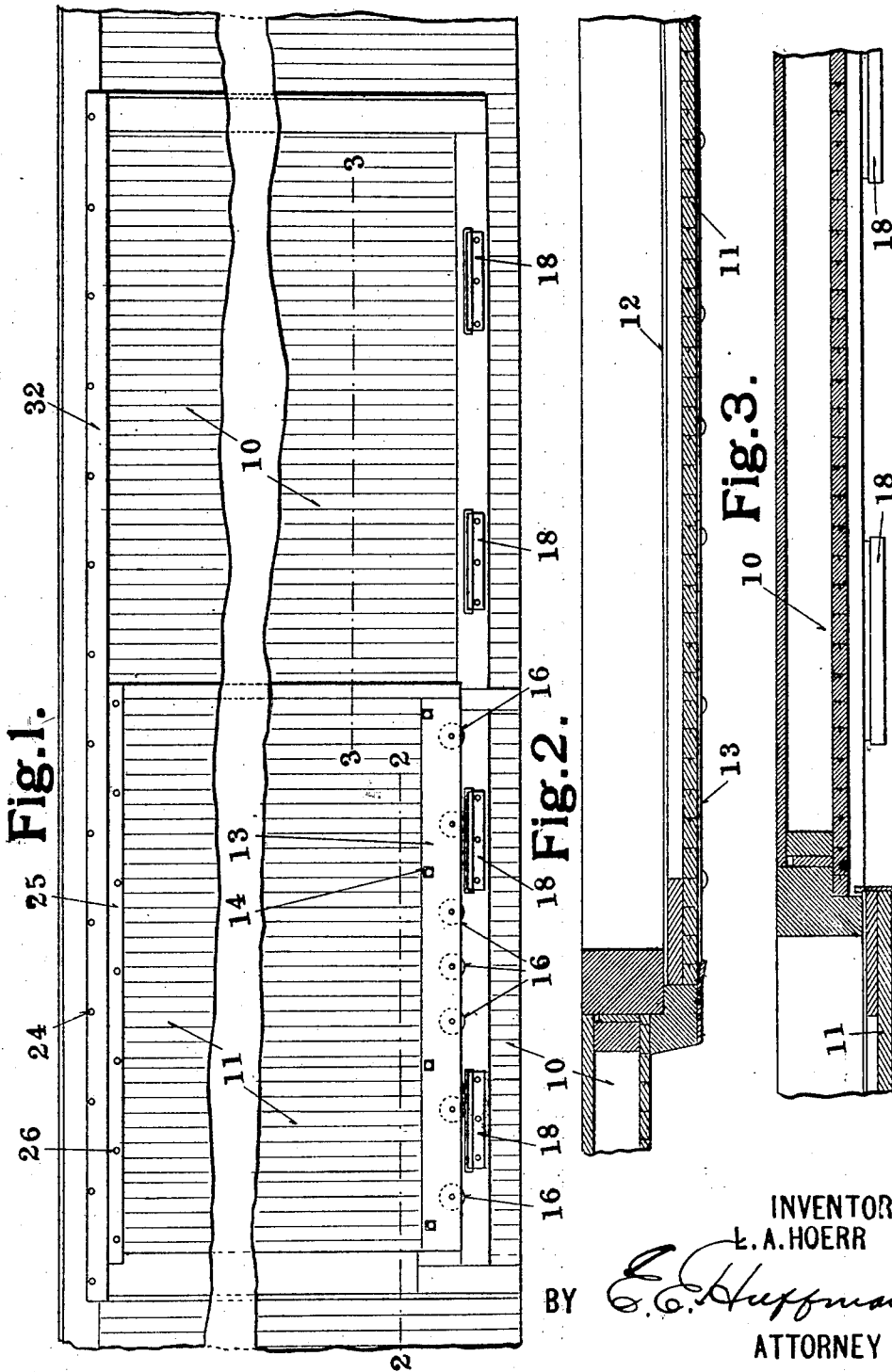
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L. A. HOERR

CAR DOOR HANGER

Filed Oct. 7, 1922

2 Sheets-Sheet 1



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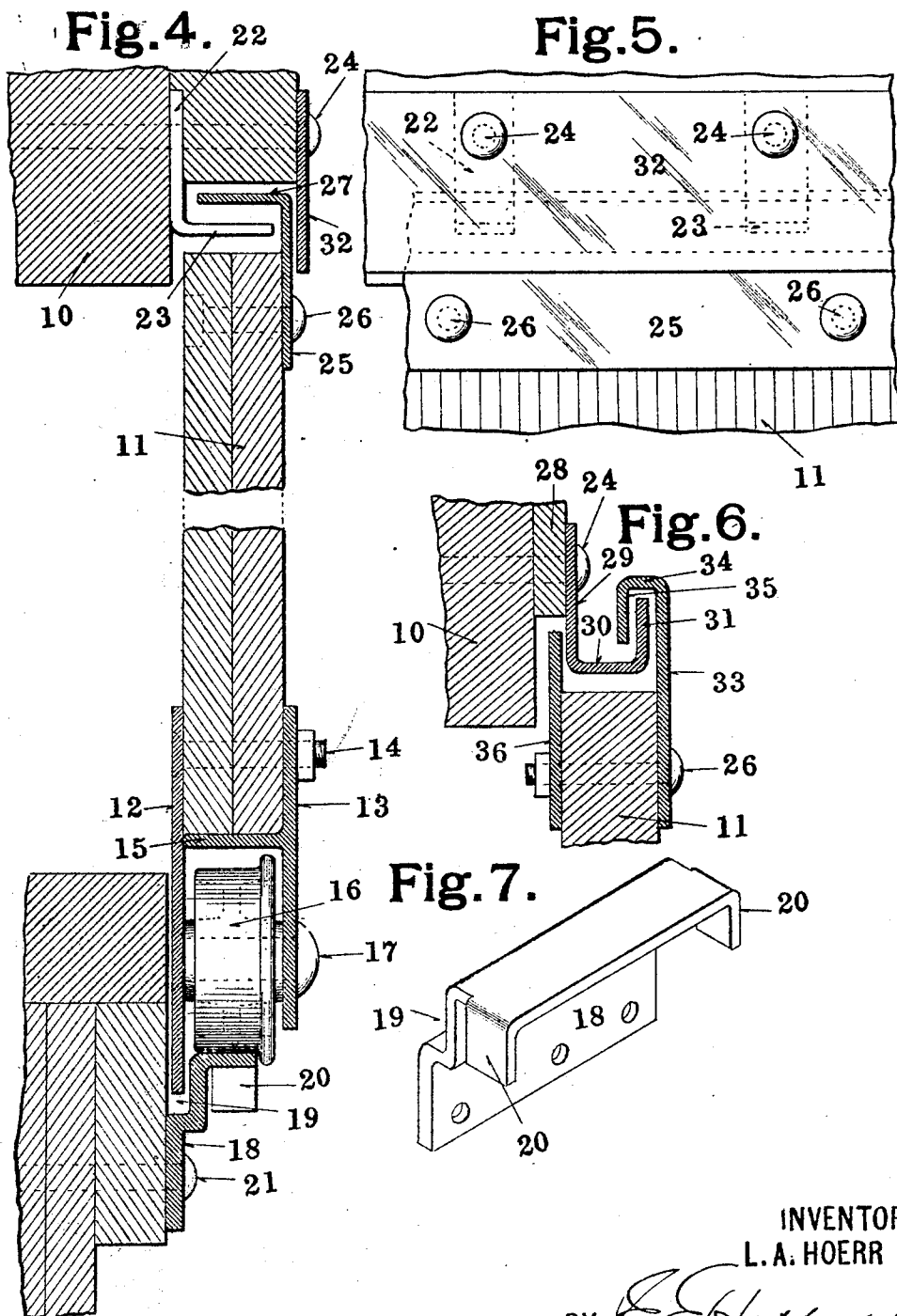
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CAR DOOR HANGER

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE.

LOUIS A. HOERR, OF ST. LOUIS, MISSOURI.

CAR-DOOR HANGER.

Application filed October 7, 1922. Serial No. 593,028.

To all whom it may concern:

Be it known that I, LOUIS A. HOERR, a citizen of the United States of America, residing at the city of Saint Louis, State of Missouri, United States of America, have invented certain new and useful Car-Door Hangers, of which the following is such a full, clear, and exact description, as will enable anyone skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to the construction of a car door hanger and particularly to that type of hanger which is supported at its lower edge by anti-friction devices.

The object of my invention is to improve and simplify, not only the supporting means at the lower edge of door, but also the co-operating guiding means at the upper edge thereof.

In the accompanying drawings which illustrate a portion of a railway car to which a door hanger, made in accordance with my invention is applied, Fig. 1 is a side elevation, on a reduced scale, Fig. 2 is a section taken on the line 2—2 of Fig. 1, Fig. 3 is a section taken on the line 3—3 of Fig. 1, Fig. 4 is a vertical section, Fig. 5 is a front view of the guiding means shown in Fig. 4, Fig. 6 is a vertical section showing a modified form of guiding means, and Fig. 7 is a perspective view of one of the supporting brackets.

10 indicates the side of a railway car and 11 the door therefor, which parts may be of any suitable construction. Secured to the lower edge of the door 11 by bolts 14 are an inner plate 12 and an outer plate 13, respectively. The outer plate 13 is provided with a laterally extending rib 15 forming a protecting strip for the door and also serving as spacing means for the plates 12 and 13. 16 are anti-friction rolls situated between the plates 12 and 13 and turning on studs 17. The rolls 16 are arranged along the lower edge of the door in unequally spaced groups. In the drawing, I have shown a central group of three rolls and two lateral groups of two rolls each. 18 are supporting brackets which are spaced along the side of the car at substantially equidistant intervals. With the roll spacing shown, I find four of these brackets sufficient to effectively support the door

throughout its entire length of travel. Each of the brackets 18 is provided with an offset 19 forming a pocket to receive the lower edge of the plate 12 and thus prevent the outward movement of the door. The upper horizontal face or tread of the bracket 18 terminates at each end in a down-turned portion 20 forming a roll guide to prevent injury to the rolls by striking against a sharp edge of the bracket. The brackets are held in position against the side of the car by bolts 21.

Secured to the side 10 of the car above the door 11, by bolts 24, are a number of guide members 22 each provided with an outwardly projecting flange 23. 25 is an angle bar secured to the door by bolts 26 with its horizontal flange 27 projecting inwardly somewhat above the edge of the door to form a way for the flange 23 of the member 22. A plate 32 for preventing the outward movement of the upper edge of the door is held in place, preferably by the bolts 24 holding the member 22.

In Fig. 6, I have shown a modification of the guiding means. In this construction, a filling block 28 is used to space a bar 29 from the side of the car, the bar being held in place by the bolts 24. This bar 29 is provided with a horizontal web 30 and a vertical web 31 parallel with the body of the bar. Secured to the door 11 by the bolts 26 is a plate 33 having a horizontal web 34, extending over the web 31, and a web 35, extending downwardly behind the same. In this construction, a rear plate 36 is secured to the door by the bolt 20 with its upper edge extending into the space formed by the filling block 28.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent of the United States is:

1. In a railway car, the combination with the side of the car, of a door therefor, a plurality of anti-friction rolls carried at the lower edge of said door, and spaced brackets carried by the side of the car and forming a plurality of disconnected supporting treads co-operating with said rolls.

2. In a railway car, the combination with the side of the car, of a door therefor, anti-friction rolls carried at the lower edge of said door and arranged in a plurality of unequally spaced groups, and spaced brackets carried by the side of the car and

forming a plurality of disconnected supporting treads co-operating with said rolls.

3. In a railway car, the combination with the side of a car, of a door therefor, anti-friction rolls carried at the lower edge of said door and arranged in a central group of three rolls and two lateral groups of two rolls each, and spaced brackets carried by the side of the car and forming a plurality of disconnected supporting treads cooperating with said rolls.

4. In a railway car, the combination with the side of a car, of a door therefor, anti-friction rolls carried at the lower edge of said door and arranged in a central group of three rolls and two lateral groups of two rolls each, the rolls of said lateral groups being more widely spaced than the rolls of said central group, and spaced brackets carried by the side of the car and forming a plurality of disconnected supporting treads cooperating with said rolls.

5. In a railway car, the combination with the side of the car, of a door therefor, a pair of plates one secured to the inner and the other to the outer face of said door, anti-friction rolls carried between said plates, and an off-set supporting bracket carried by the side of the car and cooperating with said rolls, the inner door plate extending directly downwardly into the off-

set of the bracket to prevent the outward movement of the door.

6. In a railway car, the combination with the side of the car, of a car door, anti-friction supporting means arranged at the lower edge of said door, an inner guide member carried by the side of the car and having an outwardly projecting flange, a guide member carried by the door and having an inwardly projecting flange overlapping said first named flange but normally out of contact therewith, and a guide strip carried by the car door and projecting downwardly in front of the guide member on the door.

7. In a railway car, the combination with the side of the car, of a car door, anti-friction supporting means arranged at the lower edge of said door, a plurality of inner guide members carried by the side of the car and having outwardly projecting flanges, a guide member carried by the door and having an inwardly projecting flange overlapping said first named flanges but normally out of contact therewith, and a guide strip carried by the car and projecting downwardly in front of the guide strip on the door.

In testimony whereof, I have hereunto set my hand and affixed my seal.

LOUIS A. HOERR. [L. S.]