

P. M. ELLIOTT.
CAR DOOR HANGER.
APPLICATION FILED MAR. 6, 1908.

924,648.

Patented June 15, 1909.

2 SHEETS—SHEET 1.

Fig. 1.

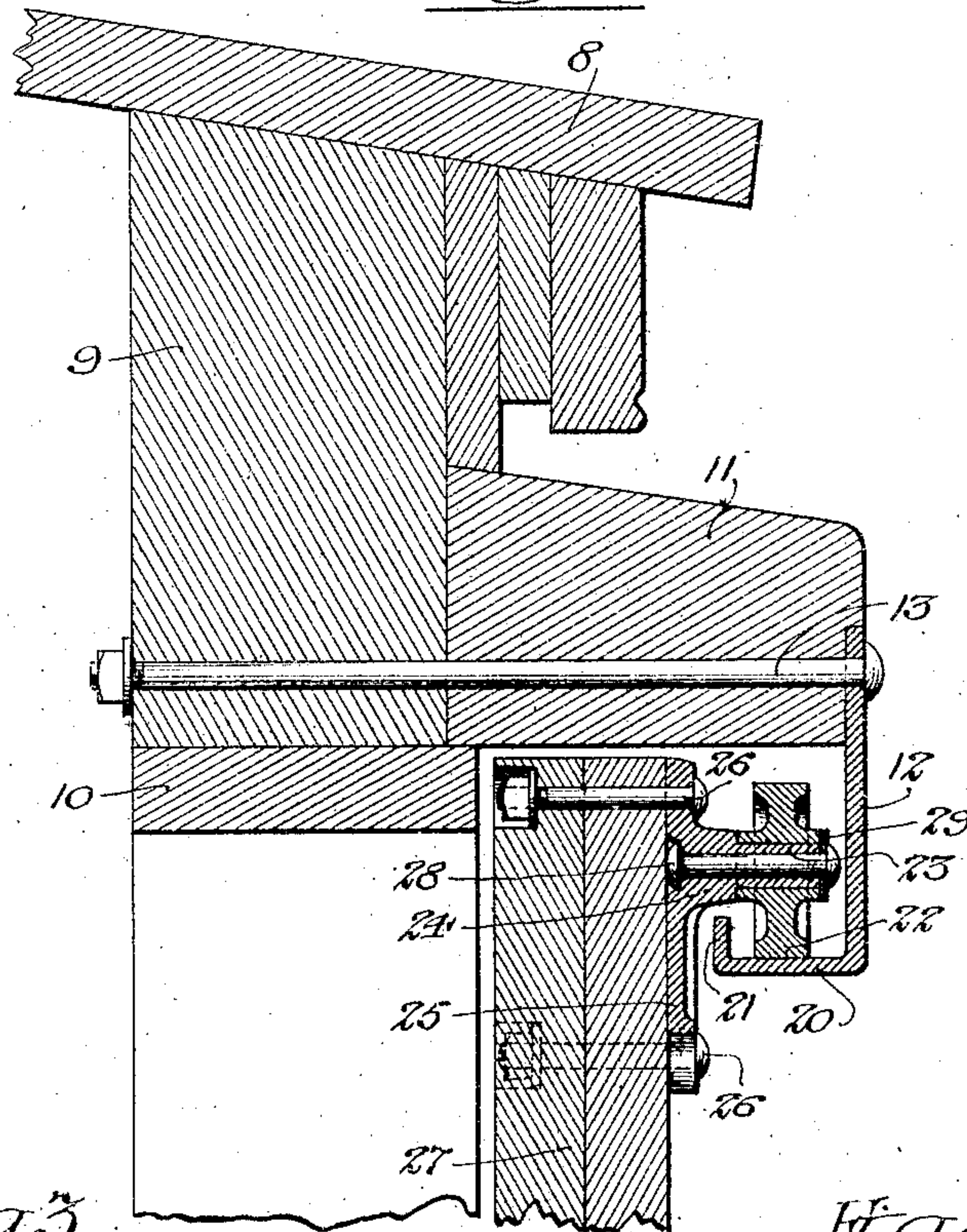


Fig. 3.

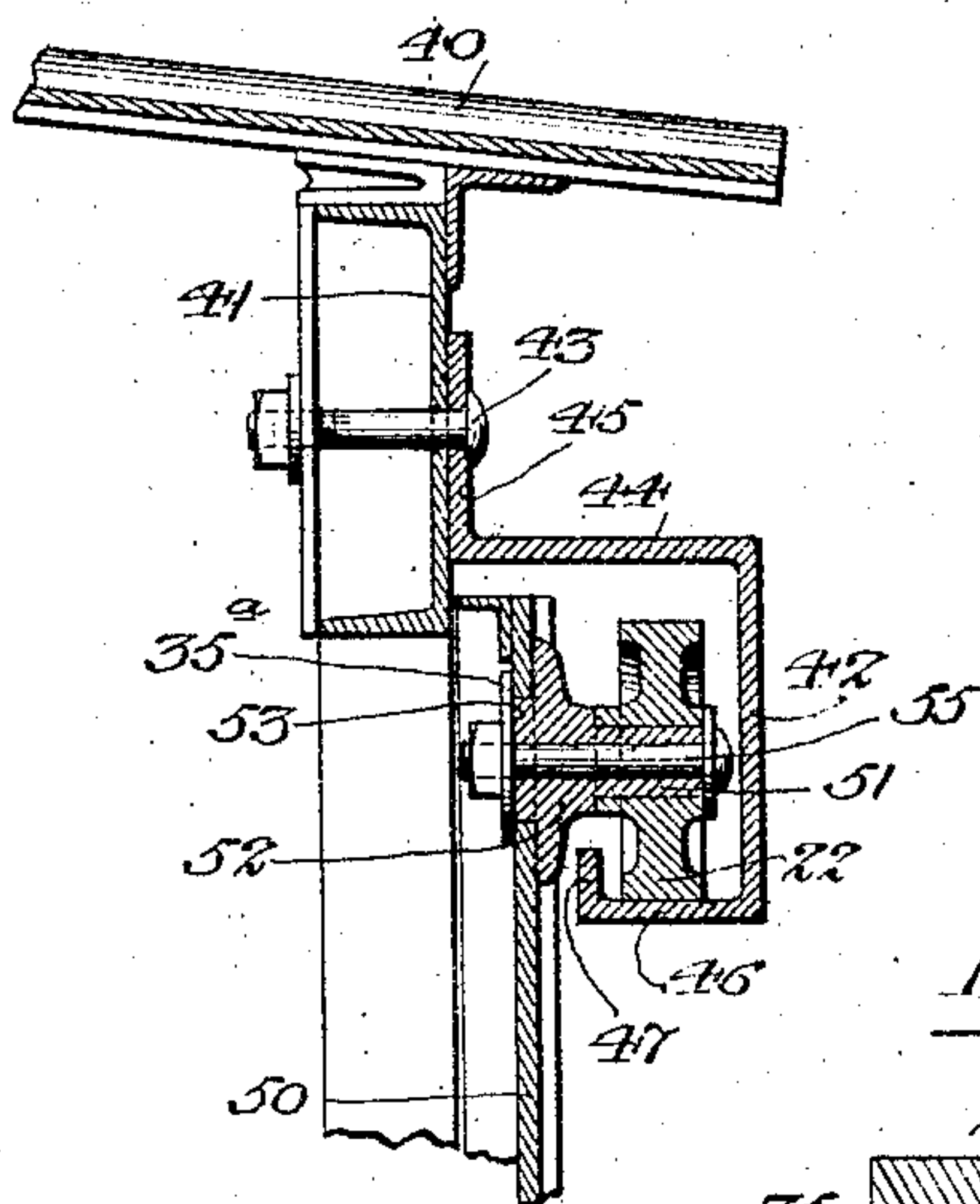


Fig. 4.

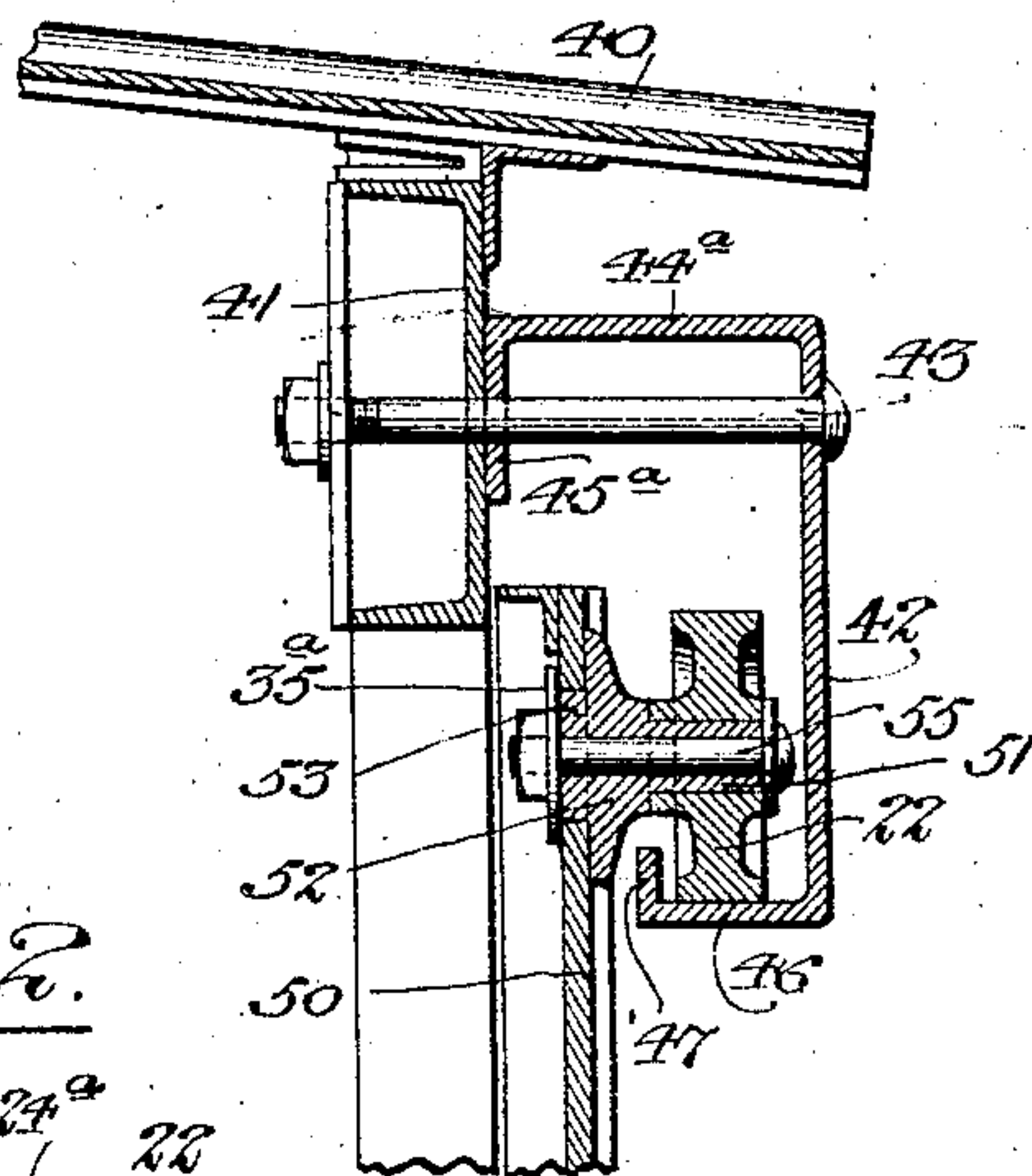
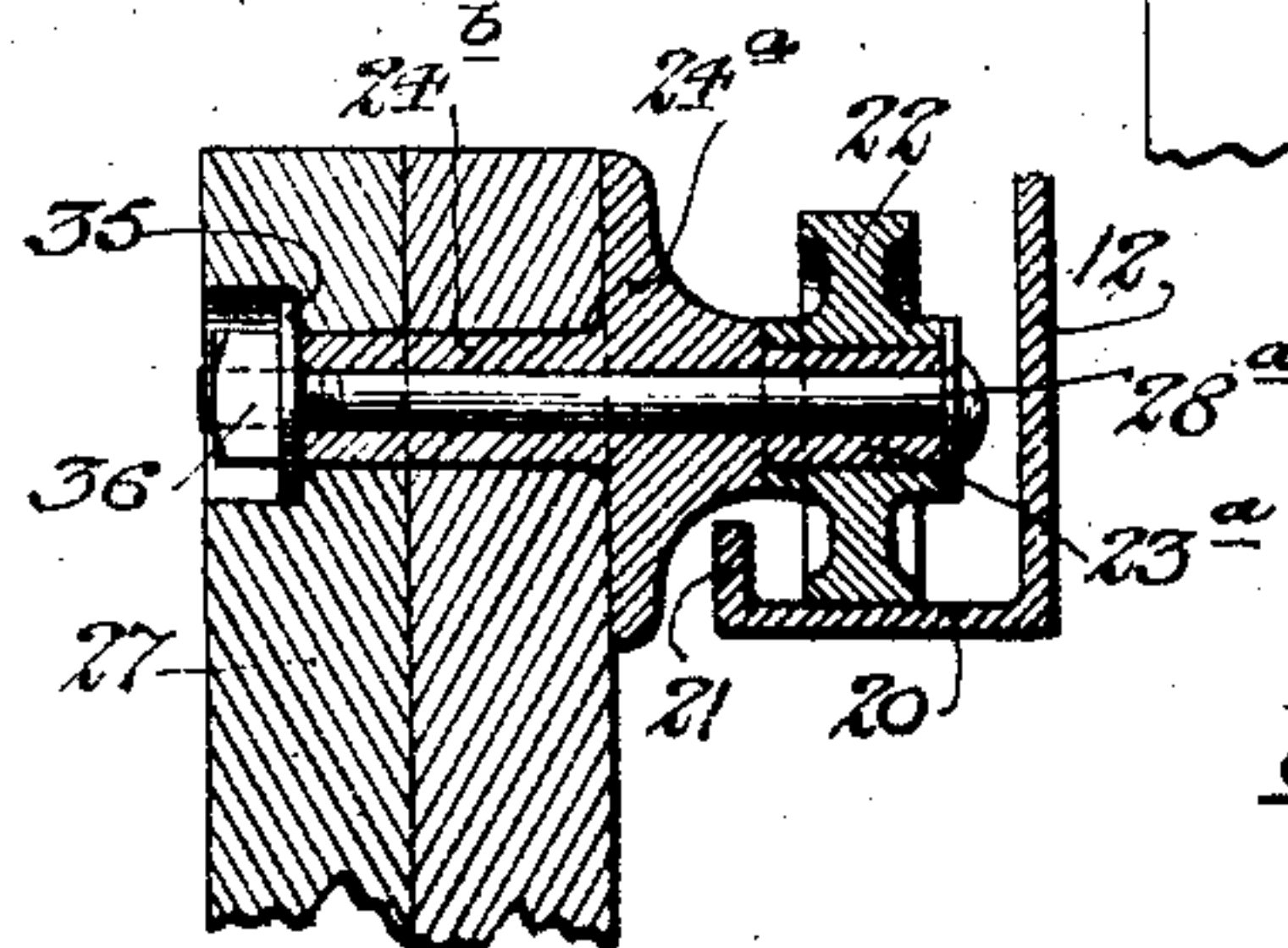


Fig. 2.



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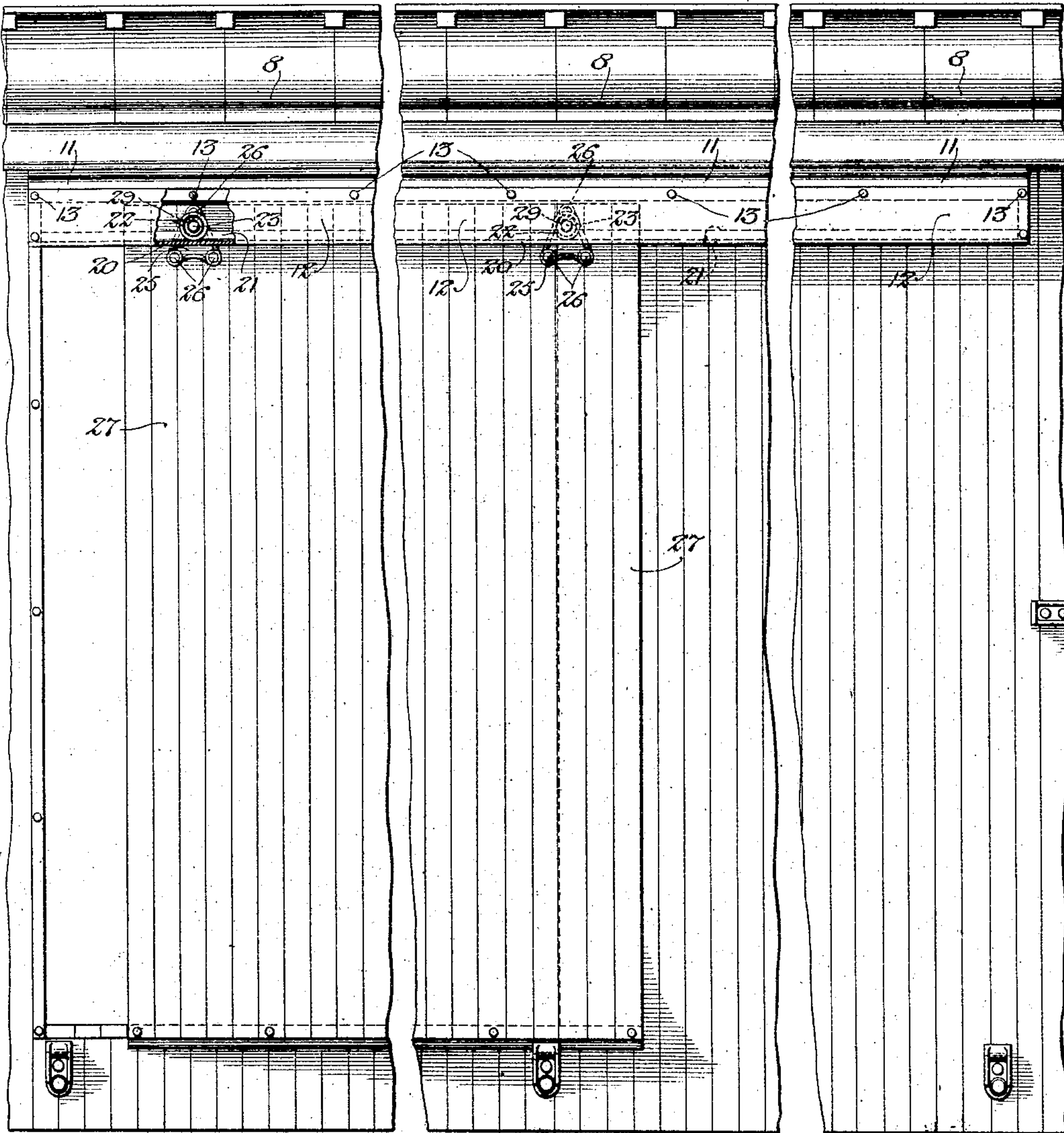
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2 SHEETS—SHEET 2.

Fig. 5.



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UNITED STATES PATENT OFFICE.

PERCY M. ELLIOTT, OF CHICAGO, ILLINOIS, ASSIGNOR TO Q. & H. COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION.

CAR-DOOR HANGER.

No. 924,648.

Specification of Letters Patent.

Patented June 15, 1909.

Application filed March 6, 1908. Serial No. 419,461.

To all whom it may concern:

Be it known that I, PERCY M. ELLIOTT, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Door Hangers, of which I do declare the following to be a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

The present invention has for its object more particularly to provide improved hanger mechanism for supporting the sliding doors of railway freight cars, and the invention consists in the features of novelty hereinafter described, illustrated in the accompanying drawing and particularly defined in the claims at the end of this specification.

Figure 1 is a view in vertical section through part of a railway freight car, through the upper part of a sliding door and through the hanger mechanism for sustaining the door. Fig. 2 is a detail view in vertical section through the upper part of the door showing a modified form of roller bracket. Fig. 3 is a view similar to Fig. 1, but showing the invention applied to a metallic freight car. Fig. 4 is a view similar to Fig. 3, but showing a modified form of the invention. Fig. 5 is a front elevation of part of the car body, its door, the track, etc.

Referring more particularly to the structure illustrated in Figs. 1 and 5 of the drawing, 8 designates the roof of the car beneath one of the eaves of which is shown a usual longitudinal plate 9 that extends from end to end of the car, and beneath this plate 9 and above the doorway of the car extends the header or jamb 10. Above the doorway of the car and to the outer face of the plate 9 is bolted a track support 11 by which the track 12 is supported. As shown, the track 12, which extends above and to a distance at one or both sides of the doorway, is suspended by through bolts 13 that pass through the track support 11 and the plate 9. The track support 11, extending as it does above and in close proximity to the top edge of the door, serves to prevent the access of snow, rain, dust, etc. to the car at such point. The lower end of the track 12 is formed with an inwardly turned, flanged portion 20 and with an upwardly turned, flanged portion 21, the flanged portion 20 serving to receive friction rollers

22, while the upturned part 21 serves to insure against the slipping of the roller from the track. Each of the rollers 22 is carried by a bracket that is secured to the outer face of the door adjacent its upper end and it will be understood, of course, that any desired number (*i. e.*, two or more,) of these rollers and brackets will be employed. As shown in Fig. 1, the roller 22 is mounted upon a spindle 23 that projects from the bracket 24, this bracket being formed with a base portion 25 that is connected by suitable bolts 26 to the upper part of the door 27. The roller is held in place upon the spindle 23 by means of a retaining bolt 28 that passes through the spindle 23 and the bracket 24, the inner end of the bolt 28 being upset or riveted and a washer 29 being preferably interposed between the outer headed end of the bolt and the end of the spindle 23.

From the foregoing construction it will be seen that the track 12 serves not only as an effective means of supporting the sliding door 27 but, inasmuch as it extends downward to a distance below the top of the door 27 and incloses its supporting rollers, it serves to effectually prevent the access of snow, rain, dust and the like to the bearing portion of the track and to the rollers. Moreover, by journaling the supporting rollers of the door upon its outer face and below the top edge of the door, I am enabled to bring the upper edge of the door in close proximity to the track support 11, thereby not only more effectually protecting the upper edge of the door, but also saving space and enabling the door to be supported in close proximity to the side of the car.

In Fig. 2 of the drawing is illustrated the preferred form of bracket for sustaining the roller 22. In this form of invention the bracket 24^a has cast integral therewith a shank 24^b that extends through a hole in the door 27, and, the retaining bolt 28^a passes through the bracket, through its spindle 23^a and through its shank 24^b. Upon the inner end of the bolt 28^a is set a washer 35 against which bears a threaded nut 36 that engages the correspondingly threaded inner end of the bolt 28^a, and this bolt 28^a therefore performs the double function of aiding in holding the roller bracket in place, as well as holding the roller 22 upon the bracket spindle 23^a.

In Figs. 3 and 4 of the drawing I have shown my invention as applied to freight cars, the parts of which are constructed of metal. Referring to the form of the invention shown in Fig. 3, 40 designates the metal car roof beneath which extends the plate 41. In this form of the invention the track 42 has formed integral therewith a part 44 which corresponds with and performs the function of a track rail and from this part 44 extends upwardly a flanged portion 45 that is bolted, as at 43, to the plate 41. For a metal car construction this forming of the track 42 integral with the overhanging track rail is particularly advantageous. In this form of the invention the track 42 consists of an angular plate of metal extending at the top of the doorway of the car, being suitably bolted as at 43 to the plate 41. The lower part of the track 42 is formed with an inwardly extending flange 46 and with an upwardly turned flange 47, the part 46 serving to receive the friction rollers 22 (one only of said rollers being shown) while the flange 47 guards against the displacement of these rollers. From the outer face of the metal door 50, shown in Figs. 3 and 4, and at a slight distance below the upper edge of the door are journaled the rollers 22, and, as shown in Figs. 3 and 4, each of these rollers will be mounted upon a spindle 51 projecting from the bracket 52 that bears against the outer face of the door 50. Each of the brackets 52 has an inwardly projecting boss or stem 53 that passes through a hole formed in the door 50 adjacent its upper edge. A headed through bolt 55 extends through the bracket 52 and the spindle 51 and the boss or stem 53. A washer is preferably set over the outer portion of the bolt 55 to retain the roller 22 in position upon the spindle 51 and a washer 35 sets over the inner portion of the bolt 55 to retain the bracket in place, a nut which engages the threaded end of the bolt 55 bearing against this washer to securely hold the parts in position on the door.

The form of the invention illustrated in Fig. 4 differs from that shown in Fig. 3 in the single particular that the upper part 44^a of the track 42, which constitutes the track support, has a downwardly depending flange 45^a at its inner edge and, through this flange 45^a and, as well also, through the upper part of the track 42, are passed the retaining bolts 43 that pass also through the plate 41 of the car.

The advantages of my present invention, both as applied to wooden freight cars and as well also to "all metal" cars, will be readily understood by those familiar with car constructions. Not only are the upper edge of the door, the wearing face of the track and the door supporting rollers effectually protected from the weather, but the inner face of the car door is brought into nearer proximity to the side wall of the car and an exceedingly simple, compact and efficient means for sustaining the car door is provided.

It is obvious that the precise details of construction above set out may be varied without departing from the spirit of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. In a car door hanger, the combination with a car door of a roller supporting bracket provided with an inwardly projecting stem or boss extending through an opening in the car door.

2. In a car door hanger, the combination with a car door, of a roller supporting bracket having an inwardly extending stem or boss and a bolt passing through said bracket and through said stem or boss and serving to retain the bracket in place upon the door and the roller in place upon the bracket.

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Witnesses:

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