

No. 746,602.

PATENTED DEC. 8, 1903.

E. W. SUMMERS.
CAR BOTTOM.

APPLICATION FILED OCT. 9, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

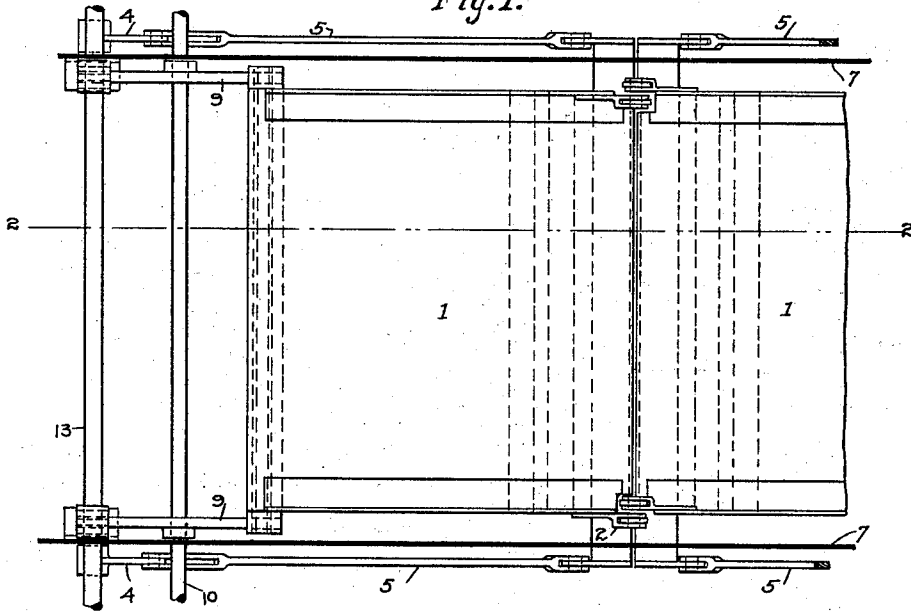
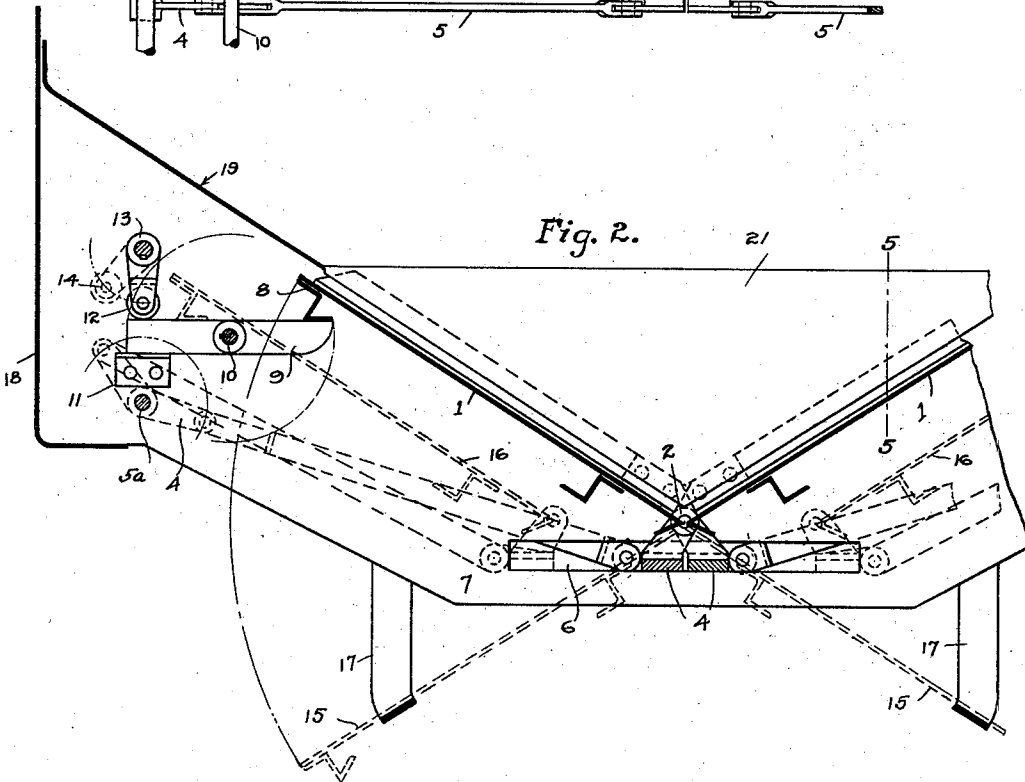


Fig. 2.



WITNESSES.

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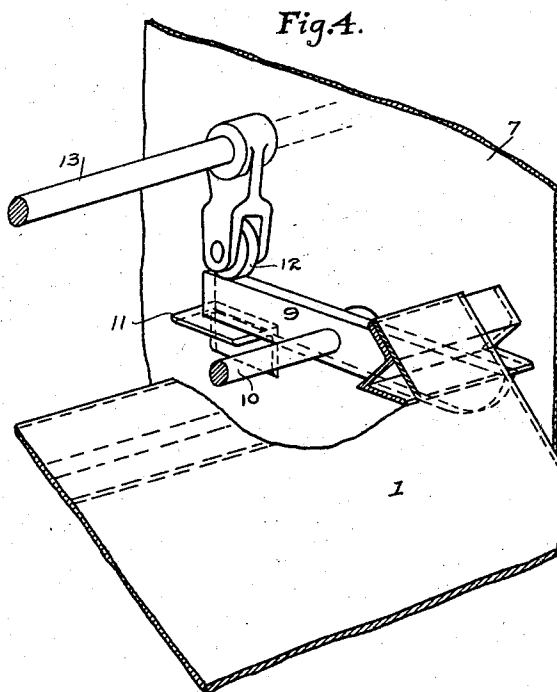
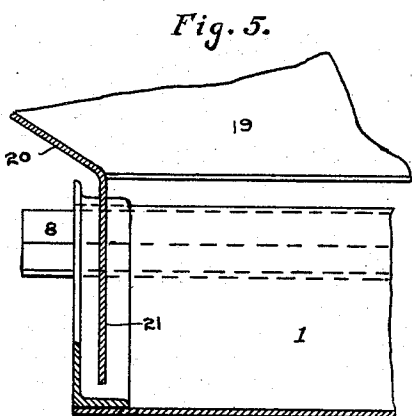
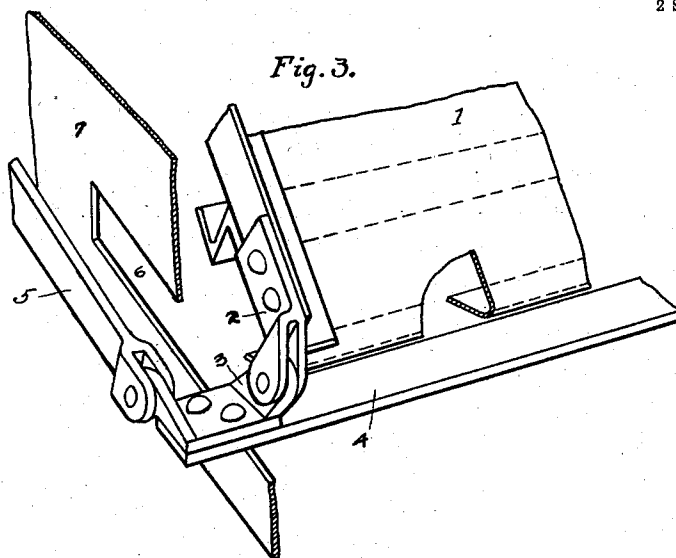
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2 SHEETS—SHEET 2.



WITNESSES.

F. H. Meyer.
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UNITED STATES PATENT OFFICE.

EDGAR WEBSTER SUMMERS, OF WILKINSBURG, PENNSYLVANIA.

CAR-BOTTOM.

SPECIFICATION forming part of Letters Patent No. 746,602, dated December 8, 1903.

Application filed October 9, 1903. Serial No. 176,416. (No model.)

To all whom it may concern:

Be it known that I, EDGAR WEBSTER SUMMERS, of Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented a certain new and useful Improvement in Car-Bottoms, of which improvement the following is a specification, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a partial plan view of the portion of the car-bottom wherein I claim improvement—namely, the discharge-doors and mechanism for operating the same. Fig. 2 is a sectional elevation taken transversely through the car, showing the doors in section. This section is taken in line 2 2 in Fig. 1. Fig. 3 is a perspective view of the inner edge of one of the doors, showing the hinge mechanism. Fig. 4 is a perspective view of the outer edge, partly broken away, of one of the doors. Fig. 5 is a sectional elevation taken in line 5 5 in Fig. 2, looking toward the outer edge of the door.

My invention relates to a class of cars having drop-bottoms for discharging the load and is designed to provide a simple and efficient means of discharging the load all on either side of the track, outside of the rail, or between the rails, as desired. This door arrangement is designed along the lines brought out in my Patents Nos. 646,195 and 646,196, both issued March 27, 1900, some of the changes being, first, the doors in this case hinge and rotate only about their inner and meeting edges and do not hinge or rotate about their outer edges; second, in order to open the doors in the center the doors are moved laterally outward. By "laterally" I mean that all parts of the door move in parallel lines.

In the drawings I show the doors 1, which are both alike, although the outer edge of one of the doors is shown broken away, the upper part of hinge 2, the lower part of hinge 3, the carrying-bar 4, the connecting-rod 5, which is pivotally connected at 3 at the inner end and to rotating lever 4 at the outer end, which rotating lever is fixed to any suitable operating-shaft 5^a. This operating-shaft 5^a (shown in Fig. 2) is superimposed in Fig. 1 by another shaft, and therefore does not show. The car-

rying-bars 4 are supported in a horizontal slot 6 in side plate 7 and are arranged to slide from and to each other in the operation of opening and closing the doors at their meeting edges.

In Fig. 2 the doors are shown by dotted lines in their several open positions.

The Z-shaped bars 8 are fixed to the outer edges of the door and project beyond the side edges and rest upon tilting bar 9, which tilting bar is fixed to any suitable rotating shaft 10 and has its outer end supported against downward movement by angle-lug 11 and is held against upward movement by latch-roller 12, which may move about any suitable rotating shaft 13 to dotted position 14, and thereby release the outer edge of door and let it drop to dotted position 15. When the doors are opened at their inner edges, the Z-bars 8 slide on tilting bars 9, and the door in its open position is shown in dotted position 16. When the outer edge of door is dropped to position 15, it is arrested from further downward movement by any suitable catch-bar 17.

In Fig. 2 a portion of the side sheet 18 of the car is shown and of the usual side-sloping floor-plate 19, which extends in from the side of the car to and covering the outer edge of the door.

In Fig. 5 a portion of the upper edge of the door is shown with a broken-away section of plate 19 in its position above the door. In this figure is also shown a hatched section of a portion of the endwise-sloping floor 20 and its turned-down portion 21, which extends down over the edge of the door. These are features common in my Patent No. 646,196, above referred to.

Many changes may be made in the form, arrangement, and position of doors in a car without departing from my invention.

I claim—

1. In a car-bottom, a door having a hinge on one edge, which can be released at the hinged edge and the door moved laterally away from the said hinged edge; substantially as described.

2. In a car, a pair of doors lying adjacent to each other, with hinges on their adjacent edges, which doors can be released at their

adjacent edges and moved laterally away from each other; substantially as described.

3. In a car, a pair of doors lying adjacent to each other, with their meeting edges hinged in a common axial line, which doors can be separated at their meeting edges and moved laterally away from each other; substantially as described.

4. In a car, a pair of doors lying adjacent to each other with their meeting edges hinged in a common axial line, which doors can be separated at their meeting edges and moved away from each other, each door having its hinge parts complete of itself and the adjacent door being notched out to permit of the

hinges lying in the said common axial line; substantially as described.

5. In a car, a pair of doors hinged at their meeting edges and which rotate about their hinged edges, the said doors being arranged to separate at their meeting edges and slide away from each other; substantially as described.

In testimony whereof I have hereunto set my hand.

EDGAR WEBSTER SUMMERS.

Witnesses:

F. H. MOYER,

F. E. GAITHER.