W. J. HOSCEIT.

DUMP CAR.

APPLICATION FILED JUNE 12, 1920.

1,389,359. Patented Aug. 30, 1921.

2 SHEETS—SHEET 1.

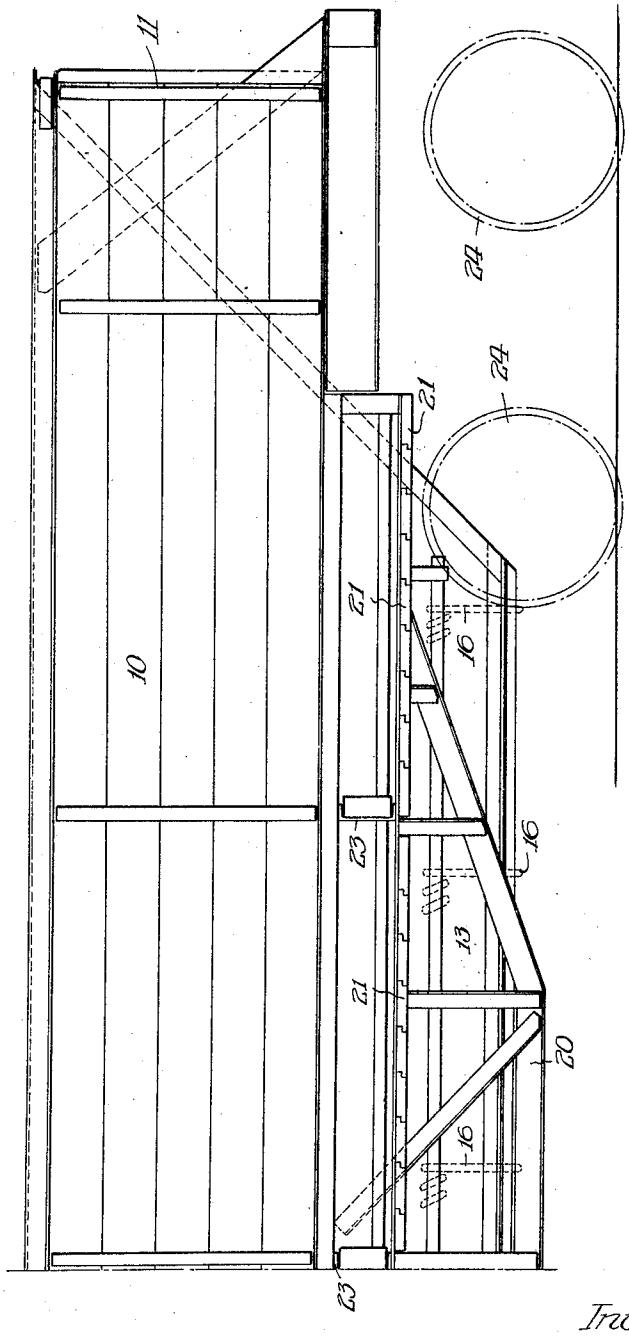

Fig. 1

Witness:
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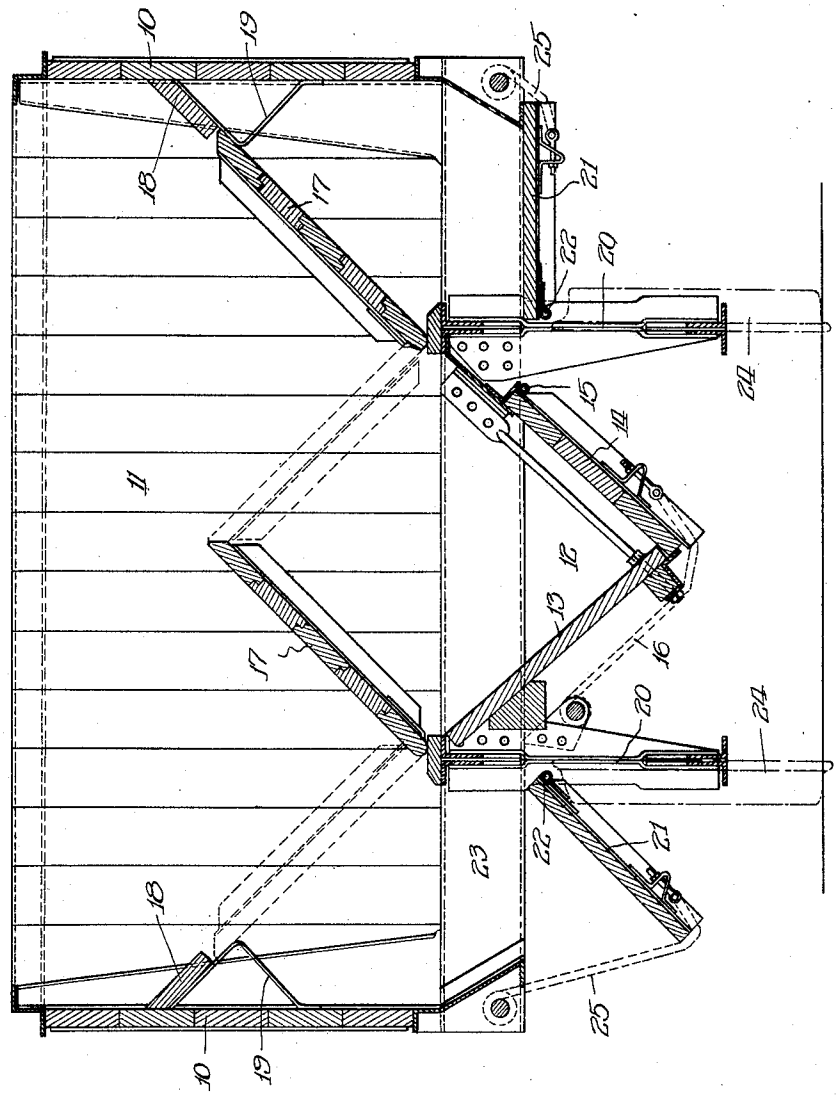
2 SHEETS—SHEET 2.

Fig. 2



Witness:
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UNITED STATES PATENT OFFICE.

WILLIAM J. HOSCEIT, OF CHICAGO, ILLINOIS, ASSIGNOR TO RODGER BALLAST CAR COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF MAINE.

DUMP-CAR.

1,389,359. Specification of Letters Patent. Patented Aug. 30, 1921.

Application filed June 12, 1920. Serial No. 388,400.

To all whom it may concern:

Be it known that I, WILLIAM J. HOSCEIT, 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 Dump-Cars, of which the following is a specification.

This invention relates to dump cars.

One object is to increase the carrying capacity of dump cars in a simple and improved manner and at the same time control the flow of the dumpable material by a simple and novel arrangement whereby the dumpable material will be deposited on the ground a proper distance from the rails, for a given door opening, to prevent piling of such material on the track rails.

Another object is to provide a simple and efficient dump car door arrangement adapted to meet service requirements.

These and other objects are accomplished by means of the arrangement disclosed on the accompanying sheets of drawings, in which—

Figure 1 is a fragmentary side elevation of a dump car embodying my invention; and,

Fig. 2 is a transverse sectional view of the same.

The various novel features of my invention will be apparent from the following description and drawings and will be particularly pointed out in the appended claims.

Referring to the figures of the drawings, it will be noted that I have disclosed my invention in connection with a dump car having sides 10, ends 11 and a bottom of a convertible nature, whereby the lading may be dumped centrally between the track rails or laterally to the outer sides thereof. The bottom of the car includes a central hopper 12, one inclined side wall 13 thereof being stationary and the other being in the form of a door 14 pivotally connected at 15 and controlled by any suitable door operating mechanism 16. When the bottom is arranged as a central hopper car, certain movable floor members 17 extend downwardly and inwardly from the sides of the car to form continuations of shedding members 18 carried by brackets 19 secured to the car sides 10. When the floor members 17 form sides of the central hopper, the upper ends thereof rest upon the brackets 19 and the lower ends on top of longitudinally extending sills 20 which are spaced substantially equal distances from the center of the car and the sides of the car. The floor members 17 may also occupy a central position in which their swinging edges meet along the longitudinal center of the car to form in effect two side hoppers. When the car floor is thus arranged, the lading is dumped to the sides of the car. The floor of the car outwardly from the longitudinal sills 20 takes the form of dump doors 21 which are pivotally mounted at points 22 preferably on the longitudinal sills 20, said doors when in closed position being arranged in a horizontal plane. It will be noted that these side floor dump doors 21 are pivotally mounted intermediate the depth of the longitudinal sills 20, and, as a matter of fact, considerably below the upper one-third of said sills. By thus pivotally mounting the side floor dump doors, the carrying depth, and accordingly the carrying capacity of the car, is greatly increased. When these dump doors 21 are in their horizontal closed position, they are located at the lower edges of transverse frame members 23 which connect the sides of the car. The upper edges of these transverse frame members lie substantially in the same horizontal plane with the upper edges of the longitudinal sills 20. By thus lowering the position of the side floor dump doors 21 to a point intermediate the depth of the longitudinal sills 20, not only is the carrying capacity of the car increased, but also the flow of the lading for a given door opening may be controlled in a manner whereby said material may be deposited outwardly at the sides of the track rails a proper distance to prevent piling of said material on the rails. At best the dumpable material must be deposited relatively close to the outer sides of the rails, but to direct the flow of the bulk of the material to a given point at the outer sides of the rails, and at the same time to prevent piling of the dumped material on the rails, the door opening must be increased beyond a certain predetermined limit. It will be seen that if the side floor dump doors are located at a higher point, the doors would have to be opened an increased amount to locate the dumped material in the same position with respect to the rails. However, by opening the doors an

increased amount, the control of the flow of the material would be decreased and there would be a greater tendency for the material to pile up on the rails. However, by lowering the position of these side floor dump doors and pivoting same intermediate the depth of the longitudinal sills 20, the material is dumped at the outer sides of the rails in a controlled manner adapted to meet service requirements. It will be noted that the longitudinal sills 20 and the pivotal points of the doors 21, lie substantially in the same vertical planes with the wheels 24 of the car. The dump doors 21 may be controlled by any suitable door operating mechanism 25.

It is my intention to cover all modifications of the invention falling within the spirit and scope of the following claims.

I claim:

1. In a dump car having a longitudinal sill, sides, ends and a bottom, a portion of the bottom comprising a swinging dump door hinged at a point intermediate the depth of said sill for increasing the carrying capacity of the car and for controlling the flow of dumpable material to a given point beyond a track rail for a given door opening.

2. In a dump car having a longitudinal sill, sides, ends and a bottom, a portion of the bottom comprising a swinging dump door arranged at a point intermediate the depth of the sill and occupying a horizontal position when closed and swinging inwardly for controlling the flow of dumpable material to a given point to the outer side of the track rail for a given door opening.

3. In a dump car, the combination of longitudinal sills, transverse frame members at the upper portions of said longitudinal sills and connecting the car sides, and a car floor including dump doors pivotally mounted beneath said cross frame members and intermediate the depth of said longitudinal sills for increasing the carrying capacity of the car and for controlling the flow of dumpable material to a given point beyond the track rails for a given door opening.

Signed at Chicago, Illinois, this 4th day of June, 1920.

WILLIAM J. HOSCEIT.