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PATENTED OCT. 4, 1904.

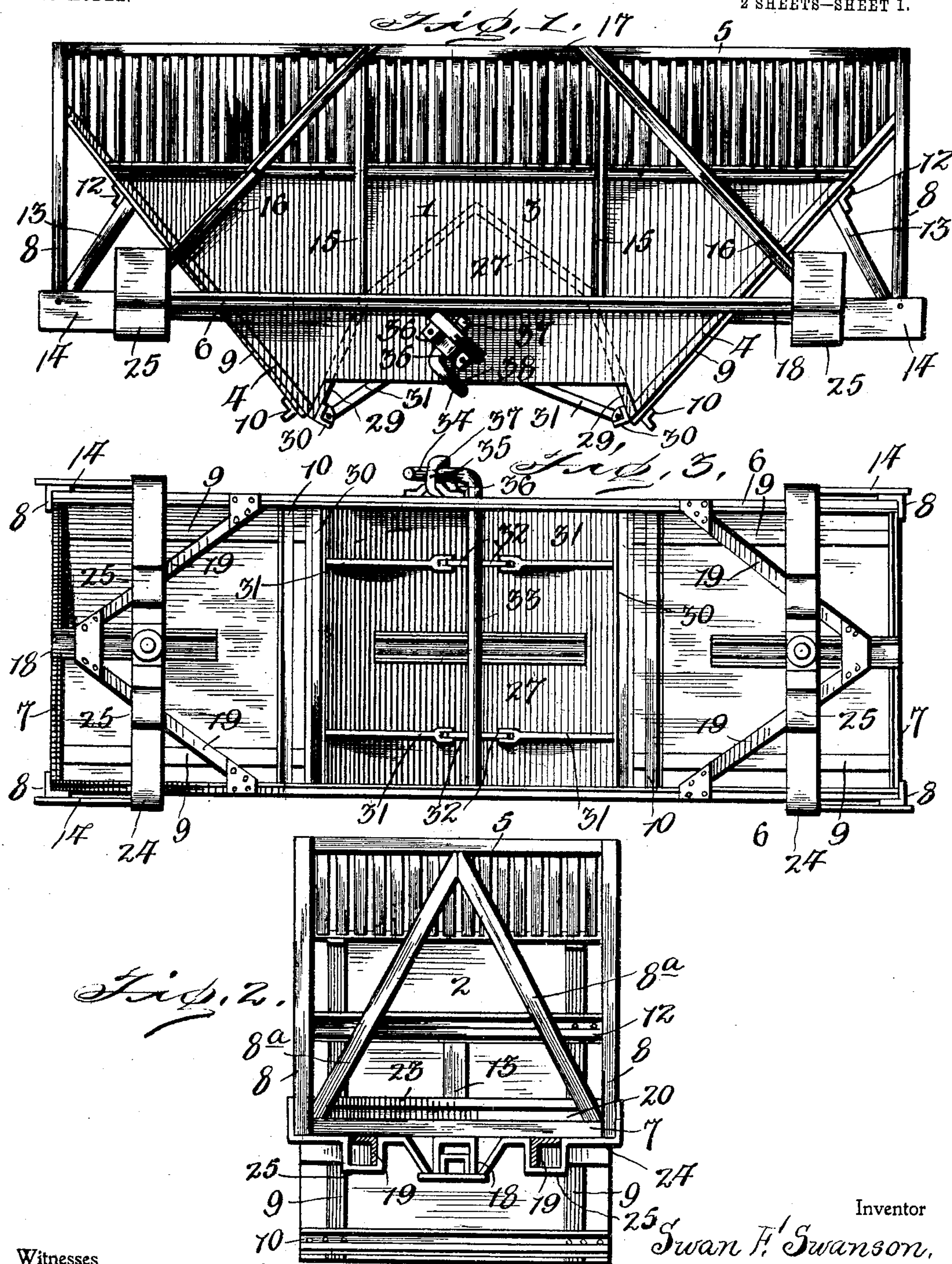
S. F. SWANSON.

DUMPING CAR.

APPLICATION FILED DEC. 15, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses

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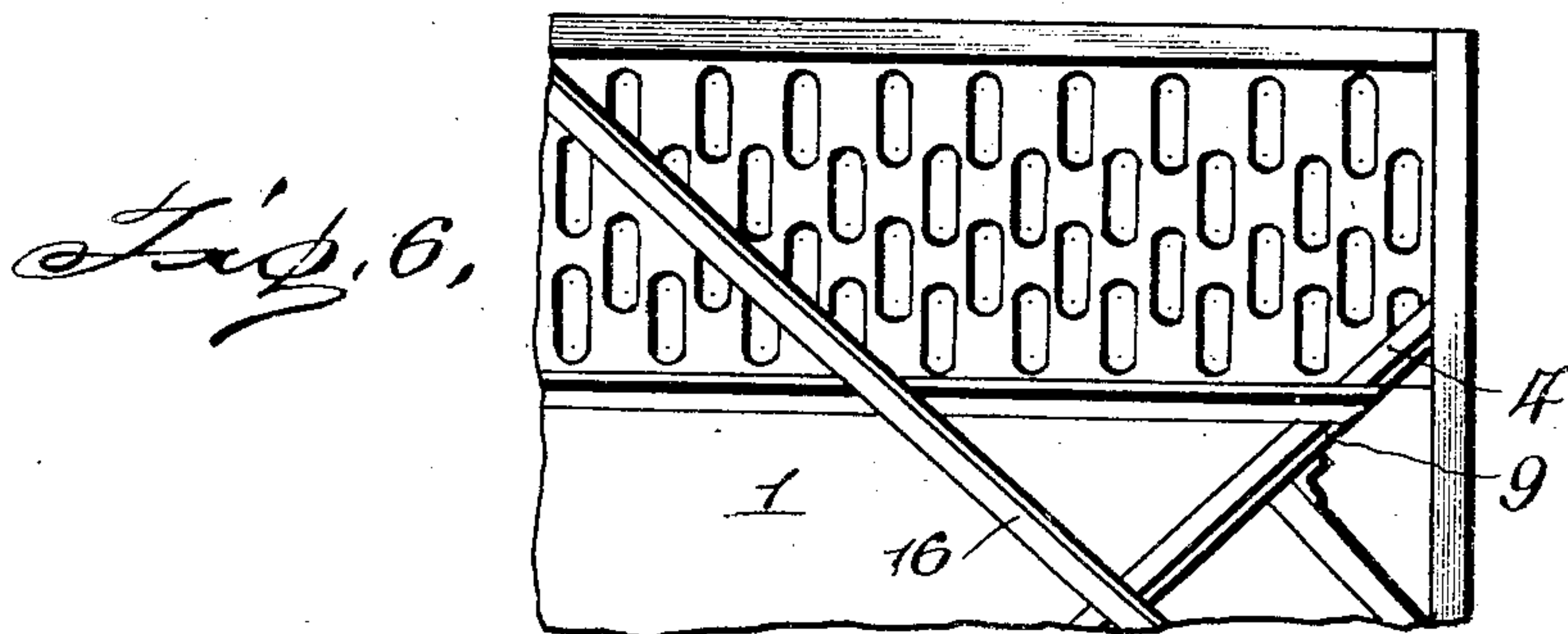
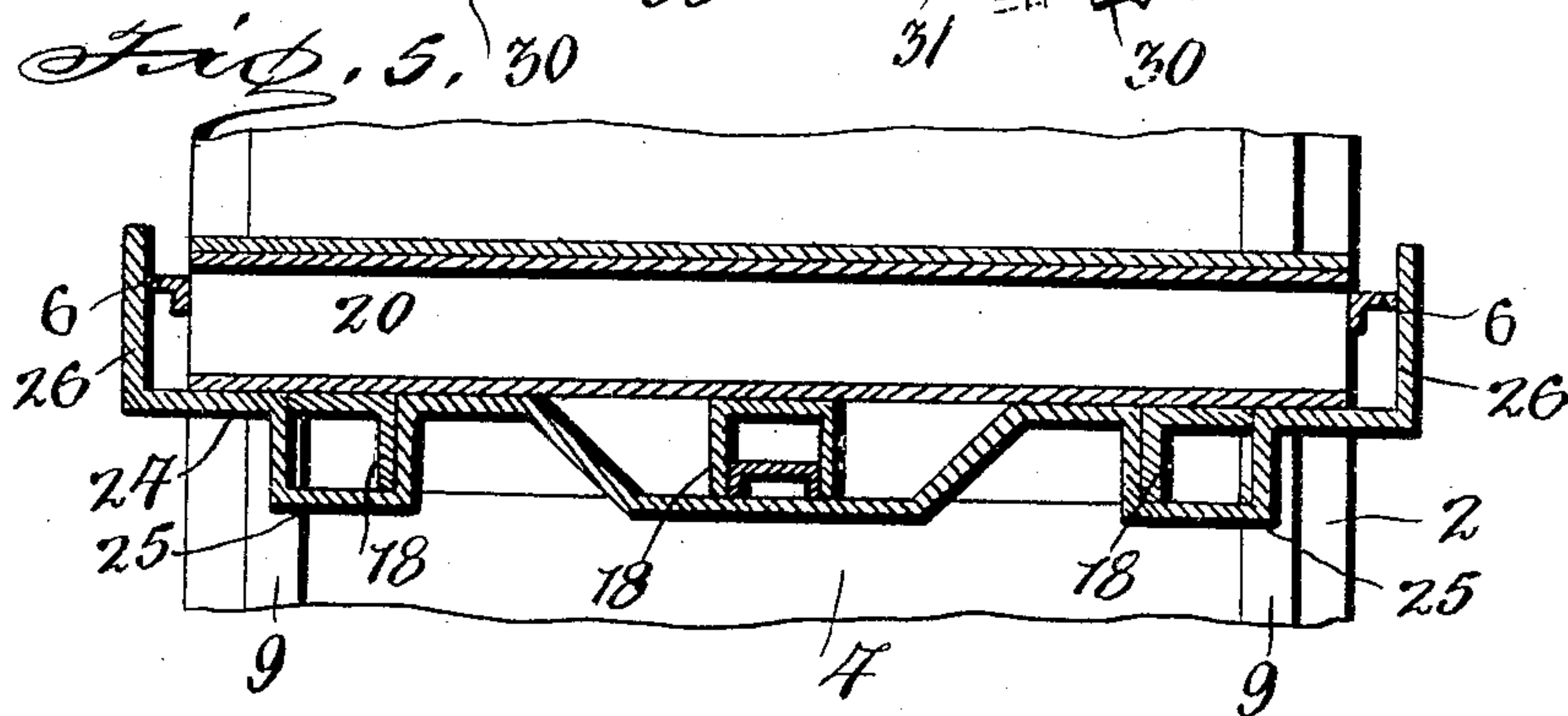
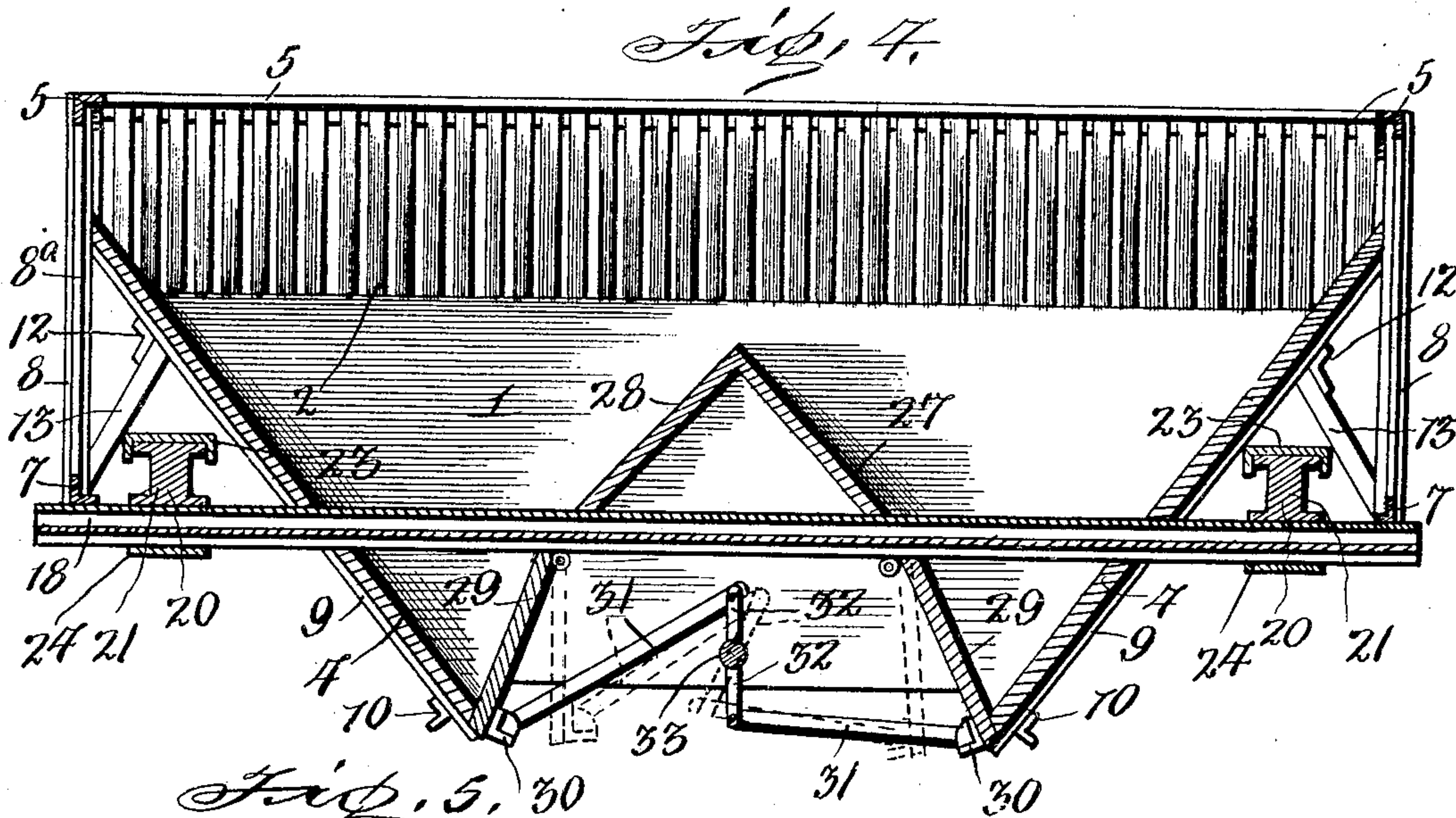
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Inventor

Swan F. Swanson.

Witnesses

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# UNITED STATES PATENT OFFICE.

SWAN F. SWANSON, OF PUEBLO, COLORADO.

## DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 771,685, dated October 4, 1904.

Application filed December 15, 1903. Serial No. 185,300. (No model.)

*To all whom it may concern:*

Be it known that I, SWAN F. SWANSON, a citizen of the United States, residing at Pueblo, in the county of Pueblo and State of Colorado, have invented certain new and useful Improvements in Dumping-Cars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in dumping-cars.

The object of the invention is to construct a car from which the contents may be quickly and easily discharged, means being provided to facilitate the discharge of the same and to prevent the lodgment and retaining of any of said contents in the car after the same has been dumped.

A further object is to construct a car which will be light, strong, and durable, firmly braced at all points, and having a maximum carrying capacity.

With these and other objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a side view of a car embodying the invention. Fig. 2 is an end elevation of the same. Fig. 3 is a bottom plan view. Fig. 4 is a vertical longitudinal sectional view showing in dotted lines the open or dumped position of the car. Fig. 5 is a vertical cross-sectional view. Fig. 6 is a view of a portion of one side of the car, showing a modified construction of the same.

Referring more particularly to the drawings, 1 denotes the sides of the car, and 2 denotes the ends of the same. In the sides midway between the ends is arranged a door 3. The upper half of the side and the end pieces are of slatted construction, as shown in Figs. 1, 2, and 4, or they may be of an open-work or perforated construction, as shown in Fig. 6. These constructions insure lightness and a saving of material.

The car is provided with a hopper-bottom. The sections or pieces 4 forming the same in-

cline from near the upper portion of each end downwardly and inwardly, as shown, and project to some distance below the car-body and together with the side pieces, which are also extended down, form a hopper. To the upper edges of the side and end pieces of the car are bolted angle-iron bars 5<sup>a</sup>, and along the lower edges of the side pieces are bolted angle-iron bars 6, which project beyond the ends of the car and are connected by angle-iron cross-bars 7. Secured to the meeting ends or corners of the bars 6 and 7 are upright standards or supports 8, which are secured at their upper ends to the corners of the bars 5. Inclined brace-bars 9 are bolted to each edge of the bottom-sections 4 and are connected at their lower ends by angle-iron cross-bars 10, which are bolted across the lower edges of the sections 4. The bars 9 are further connected at about midway the height of the car by another cross-bar 12, which is also bolted to the inclined bottom-sections 4. A stay-brace 13 is arranged at the center of each end of the car, and said braces are connected to the bars 6 at their lower ends and at their upper ends are bolted to the cross-bars 12. Inclined brace-bars 8<sup>a</sup> are bolted at their lower ends to the end cross-pieces 7 and at their upper ends to the center of the upper cross-pieces 5, as shown in Fig. 2. Plates 14 are bolted to the lower side of the side and end bars 6 and 7 at the corners formed by the same.

On each side of the doorway formed in the sides of the car are arranged upright angle-iron bars 15, which connect the upper and lower longitudinal side bars 5 and 6 and form the side pieces of the doorway. Inclined brace-bars 16 are connected at their upper ends to the top side bars 5 at the upper ends of the upright pieces 15, and at their lower ends the brace-bars 16 are connected to the bottom side bars 6, as shown. Centrally-arranged longitudinally-disposed brace-bars 15' are bolted to each of the side pieces of the car and to the intervening inclined brace-bars, as shown. The upper longitudinal side bars 5 are connected by cross or tie bars 17, arranged at each side of the upper end of the doorway. These brace or tie bars prevent the sides from spreading.



To the end bars 7 are bolted the ends of a central sill 18, which extends through the inclined bottom-sections 4 and is braced near each end to the lower side bars by diagonally-arranged brace-bars 19, as shown.

Cross-sills or bolsters 20 are arranged near each end of the car and are constructed of I-beams 21, which are securely bolted at their inner ends to the center sill and at their outer ends to the side pieces of the car by angle-plates 22. On top of the beams 21 is secured a channel-iron plate or bar 23, and to the lower sides of the same is bolted a truss-plate 24, which is bent down at its center and passes under and engages the lower side of the central sill 18 and is also bent down around the brace-bars 19, these latter bends forming bumpers 25. The ends of the plates 24 are bent upwardly and bolted to the sides of the car, as shown at 26.

To the center sill, where the same is crossed by the plate 24, are pivotally connected the usual truck-bolsters. (Not shown.) Midway between the ends of the car is arranged a transversely-disposed ridge 27, which is formed by an inverted-V-shaped plate 28, supported upon and secured to the central sill 18. To the lower edges of the plate 28 are hinged door-plates 29, across the lower edges of which are bolted angle-iron strengthening bars or braces 30. The lower ends of the door-plates are adapted to close against the lower ends of the inclined end pieces of the car. To each of the cross-braces 30 are pivotally connected one end of pairs of operating-levers 31, the opposite ends of which are connected to the oppositely-disposed ends of double crank-arms 32, which are mounted on a transversely-disposed crank-shaft 33, journaled in bearings in the downwardly-extending side pieces of the car.

On one end of the crank-shaft 33 is secured a crank-handle 34, by which said shaft may be turned to open and close the doors 29. In order that the handle 34 may be locked to hold the doors in closed position, a pivoted latch-bolt 35 is provided, said bolt being mounted to turn in a clip-bearing 36, secured to the side of the car. One end of the bolt is formed with a right-angularly bent end, forming a finger 37 to engage the handle-bar when the

same is turned down to close the door-plates 29. The opposite end of the bolt 35 is also bent at right angles, but in a different plane from end 37, and forms a handle 38, by which the bolt is turned to bring the finger 37 into and out of engagement with the crank-handle 34 to lock and release the same.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

A dumping-car body comprising side pieces, doors arranged in said side pieces, a center sill, transversely-arranged end bolsters secured to said center sill, downwardly and inwardly inclined end sections, a central transversely-disposed inverted-V-shaped ridge-plate superposed upon the central sill and arranged between said end sections and extending upwardly above said central sill, swinging door-plates hinged to the lower edges of said ridge-plate to close against the lower edges of said end section, constituting continuations of the sides of the ridge-plate and forming with said side and end pieces and ridge-plate a body of approximately W form in longitudinal section, a crank-shaft extending transversely within the dome or housing formed by said ridge-plate and doors and journaled in the lower ends of said side pieces, crank-arms upon said shaft, links between said crank-arms and the door-plates, a crank-handle fixed to said crank-shaft, and means for locking said crank-handle in position for holding said door-plates closed, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

SWAN F. SWANSON.

Witnesses:

GEO. M. DAVIES,  
R. A. CROSSMAN.