(No Model.) 2 Sheets—Sheet 1.

J. H. HUMBLE & R. ZERNOTT.

SUGAR CANE CAR.

No. 538,586. Patented Apr. 30, 1895.

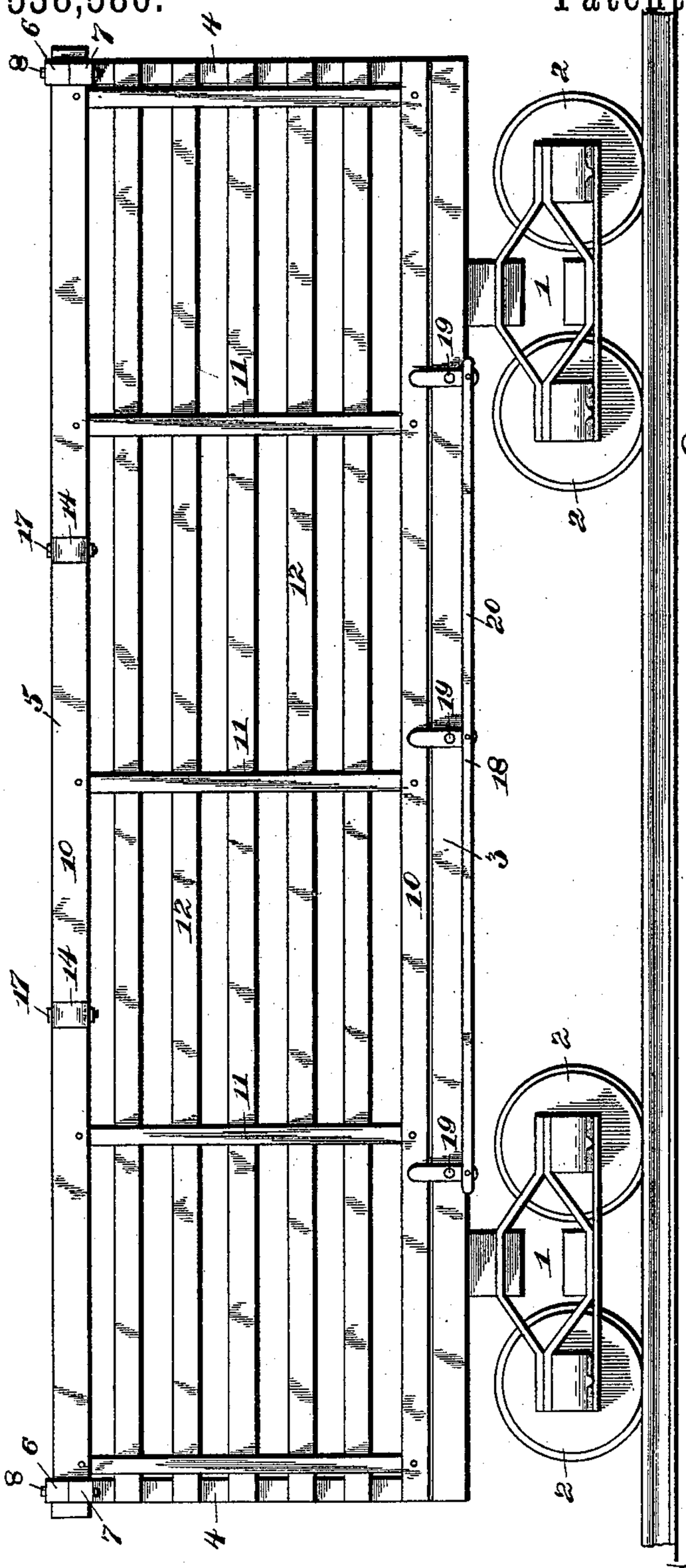

Fig. 1.

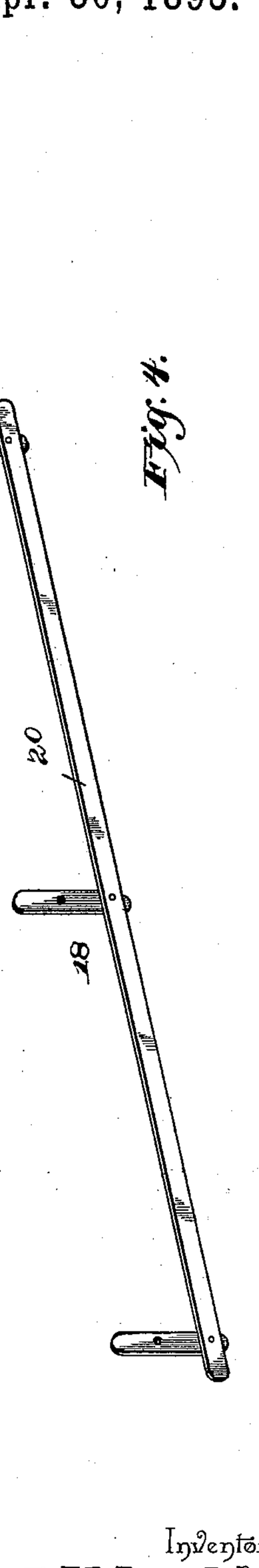

Fig. 4.

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(No Model.) 2 Sheets—Sheet 2.

J. H. HUMBLE & R. ZERNOTT.

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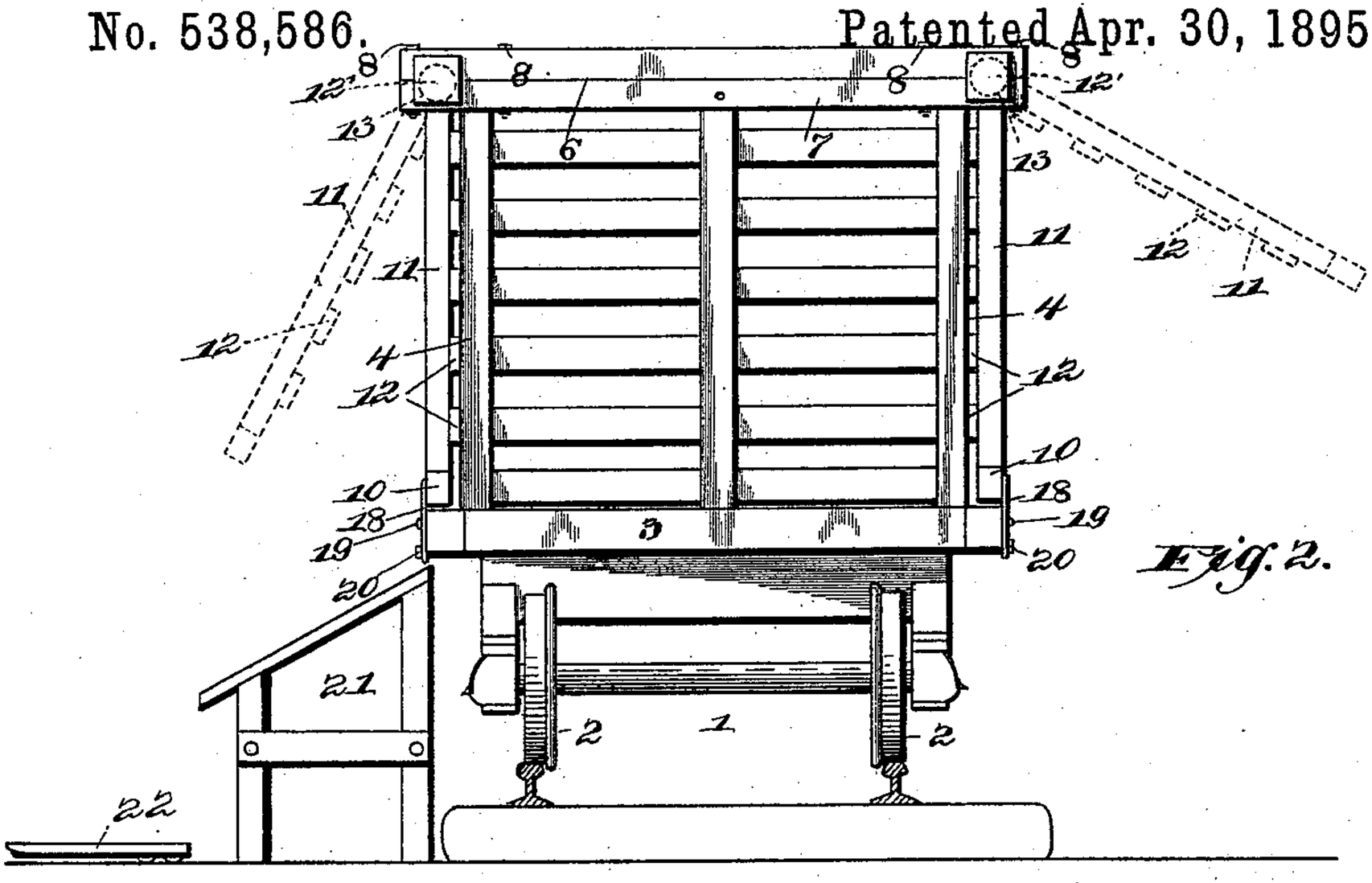


Fig. 2.

Fig. 3.

Fig. 5.

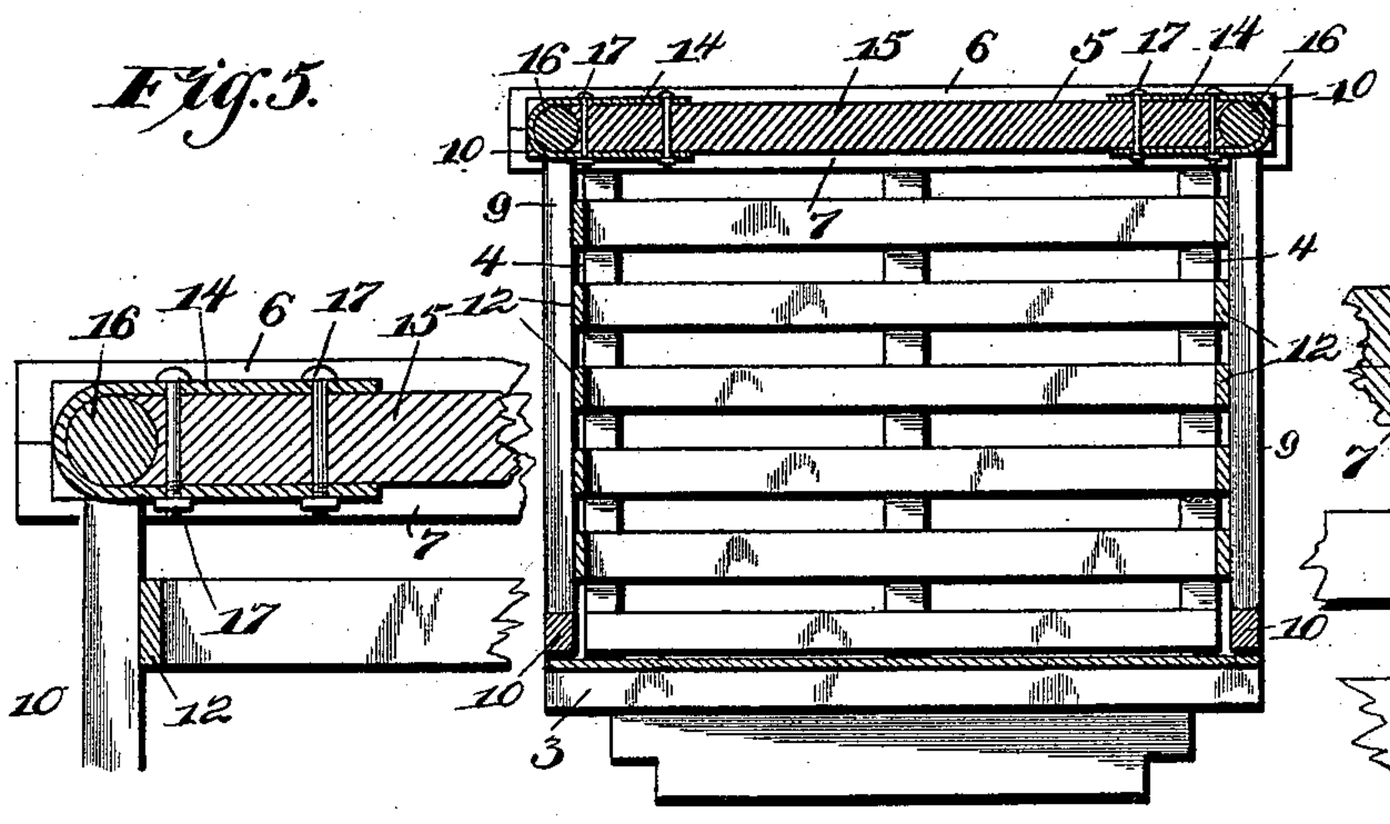
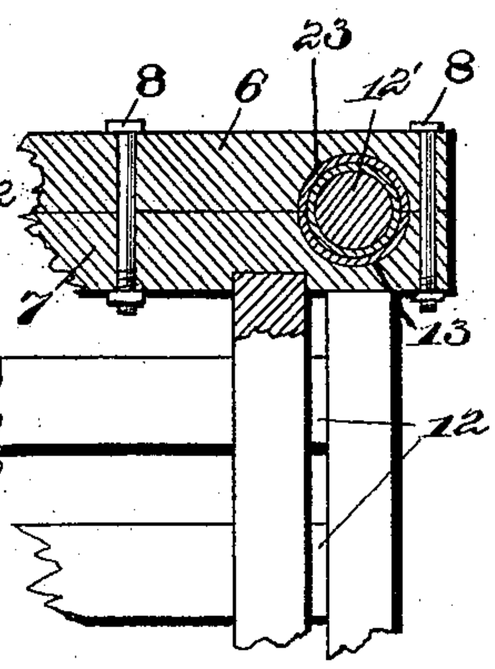


Fig. 6.



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UNITED STATES PATENT OFFICE.

JOHN HENDERSON HUMBLE AND ROBERT ZERNOTT, OF WASHINGTON, LOUISIANA.

SUGAR-CANE CAR.

SPECIFICATION forming part of Letters Patent No. 538,586, dated April 30, 1895.

Application filed April 16, 1894. Serial No. 507,743. (No model.)

To all whom it may concern:

Be it known that we, JOHN HENDERSON HUMBLE and ROBERT ZERNOTT, citizens of the United States, residing at Washington, in the parish of St. Landry and State of Louisiana, have invented a new and useful Sugar-Cane Car, of which the following is a specification.

The object of this invention is to provide a car which will be better adapted for carrying sugar cane from the plantations to the manufactories than any heretofore known. To this end we provide a car with swinging sides having peculiarly-constructed means for mounting them whereby the cane can be placed in the car and held so during transportation, and whereby it may be quickly and easily unloaded, all of which will be more fully described hereinafter, and the novel portions embodied in the claims.

In the accompanying drawings, Figure 1 represents a side elevation of a car constructed after the manner of our invention; Fig. 2, an end elevation showing the mode of discharging from our car and the relation which it bears to the platform and carrier apparatus of sugar manufactories; Fig. 3, a cross-section of the car; Fig. 4, an enlarged detail showing the catch for holding the swinging sides in place; Fig. 5, a detail sectional view of one of the middle hinges for the sides; Fig. 6, a similar view of one of the end bearings for the same.

The reference numeral 1 indicates the trucks of the car, which are supplied with the usual wheels 2, all of which may be of any construction.

3 indicates the bottom or bed of the car, and this has the ends 4 rigidly secured thereto and arising vertically therefrom, their upper ends being connected to the top or roof 5. These ends and top of the car are to be constructed of open slat work, as shown in the drawings, and are rigid on the bed of the car. Secured to the upper ends of the end portions 4, and extending horizontally to points slightly beyond the sides, are the two beams 6 and 7, which are two for each end of the car and are arranged one above the other.

Passing vertically through the beams 6 and 7, and operating to secure the two in rigid adjustment, are the bolts 8, which are preferably four in number, though this may, of course, be varied indefinitely.

9 indicates the sides, and these are formed of the longitudinal upper and lower beams 10 which extend the entire length of the car and are arranged at the upper and lower sides thereof respectively. Connected to the beams 10, and extending vertically from one to another, are the beams 11, to which the horizontal slats 12 are rigidly secured, thus forming the sides. Each of the upper beams 10 are formed at points adjacent to their extremities with the annular or rounded portions 12′, which form substantially axles for the sides, and are adapted to fit in the semi-circular openings 13, of the beams 7 and 6.

23 indicates iron bushings or bearings for the beams 10 and openings 13, whereby the friction between the parts is reduced and the wear which would otherwise result avoided.

The openings 13 are semi-circular in shape and are formed in the engaging sides of the beams and at each end thereof, so as to form a completely circular opening, in which the rounded portions 12′ are adapted to fit, so as to be capable of axial movement therein. By these means the sides 9 are hung capable of swinging outwardly, as will be better explained later on. In addition to the openings or boxes 13, we provide the hinge-plates 14, for assisting in the mounting of the sides, and these consist of metallic plates secured to the top and bottom ends of the beams 15 of the top of the car, and curving around the annular reduced portions 16 of the upper beams 10, the connection between the two being a pivotal one, so that the free movements of the sides will not be restricted.

17 indicates a series of bolts which pass through the beams 15 and plates 14 and operate to secure the latter in place.

In order to secure the doors from unnecessary outward movement, we provide the fastening devices 18, which are secured to the sides of the bed and which operate with the lower parts of the sides. These devices 18 consist of the normally vertically-extending rods or plates which are pivoted to the beds by means of the pins 19, and arranged to swing with their upper ends into engagement

with the lower beams 10, whereby the beams, and consequently the sides, are prevented from outward movement. The lower ends of the rods 18 are pivotally connected to the longitudinally-extending bar 20, which extends from one to another, and by which all of the parts may be moved in unison.

In using our improvements the car is filled with cane and the sides closed and secured as explained. When the cane has been carried to the manufactory, and it is desired to unload it, the car is drawn alongside the usual inclined platform 21, and the bar 20 moved longitudinally to swing plates 18 on their pivots and release the side which is adjacent to the platform. The cane can now be removed from the car by any means, preferably a hand-hook, and allowed to fall upon the platform 21, from whence it falls to the carrier 22, and is conveyed to the manufactory to be treated.

Having described our invention, what we claim is—

1. A car for carrying sugar cane, and consisting of a bed provided with rigid ends and with a rigid top extending across from one end to the other, the top having thereon a series of intermediate transverse beams extending entirely across the same and formed with concave and arc-shaped depressions in their ends, a pair of beams at each end of the top and arranged, in each pair, one above the other, the end portions of the said beams having formed in their adjacent faces matching semi-circular recesses, forming, when matched, circular openings in each end of each pair of beams, said openings being respectively aligned with the depressions in the intermediate beams of the top, swinging sides for the car, and each having at their upper ends longitudinal beams rounded at points so that their ends may be rotatably fitted in the openings in the pairs of beams at the ends of the top, and so that their middle portions may be seated within the depressions in the ends of the intermediate top beams, and a series of hinge-plates rigidly secured to the ends of the respective intermediate beams and embracing the rounded portions of the side beams at adjacent points, so as to form additional bearings, substantially as described.

2. A freight car having its sides hinged at their upper ends and capable of swinging in and out of a vertical position, the bed of the car being so formed that its sides will lie flush with the sides of the car when they are closed, a plurality of bars or rods pivoted at their middle to the bed of the car and at each side thereof, said bars or rods being capable of engaging the respective sides and of holding them closely against the sides of the bed, and a rod extending horizontally on each side of the car and respectively connected to the bars or rods thereof, and at the lower ends of said bars or rods, substantially as described.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

JOHN HENDERSON HUMBLE.
ROBERT ZERNOTT.

Witnesses:
WM. A. FLYNN,
S. DERLIES.