J. B. RHODES.

DUMP CAR.

APPLICATION FILED MAY 15, 1908.

940,893.

Patented Nov. 23, 1909.

2 SHEETS—SHEET 1.

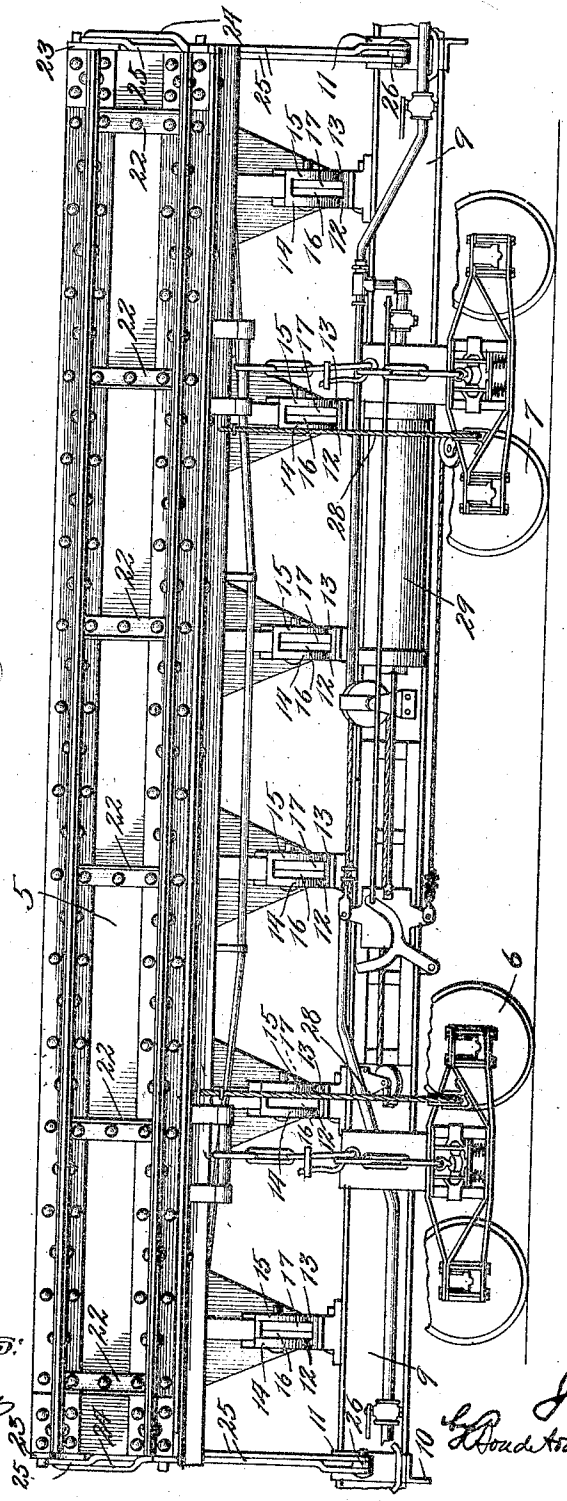

Fig. 1.

Witnesses:

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his Attys.

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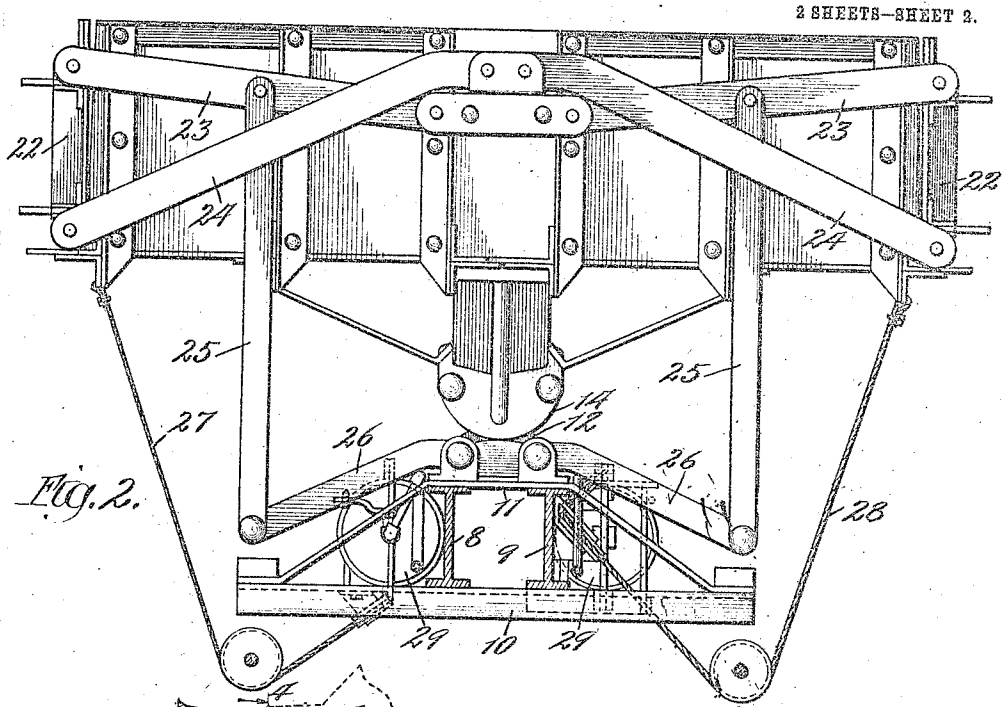

Fig. 2.

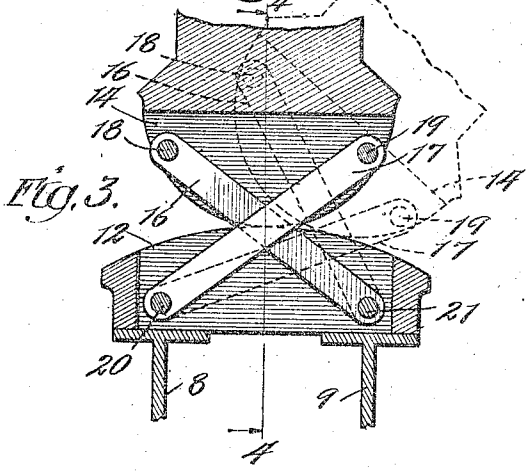

Fig. 3.

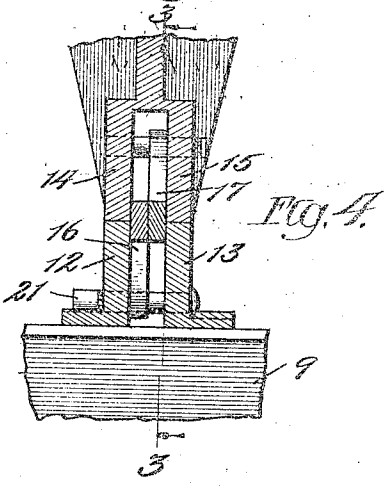

Fig. 4.

Witnesses:

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UNITED STATES PATENT OFFICE.

JAY B. RHODES, OF KALAMAZOO, MICHIGAN, ASSIGNOR TO WESTERN WHEELED SCRAPER COMPANY, OF AURORA, ILLINOIS, A CORPORATION OF ILLINOIS.

DUMP-CAR.

940,893. Specification of Letters Patent. Patented Nov. 23, 1909.

Application filed May 15, 1908. Serial No. 433,038.

To all whom it may concern:

Be it known that I, JAY B. RHODES, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Dump-Cars, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to dump-cars and particularly to cars provided with movable side gates in which provision is made for dumping the load at one or both sides.

It has for its object to provide new and improved means for supporting the car-body so that when it is dumped at one side or the other the car-body will be carried over toward the side at which the load is to be dumped and the appropriate side gate automatically opened thereby facilitating the delivery of the load.

In the drawings I have shown my improvements applied to a car of the type shown and described in patent of Thomas R. McKnight, No. 920,616, issued May 4, 1909, in which the dumping of the car-body is effected by compressed air supplied from the engine, but it may also be applied to cars of other types.

In the drawings,—Figure 1 is a side view of a car embodying my improvements; Fig. 2 is an end view; Fig. 3 is an enlarged detail, being a section on line 3—3 of Fig. 4; and Fig. 4 is a section on line 4—4 of Fig. 3.

Referring to the drawings,—5 indicates the car body and 6—7 the trucks upon which it is carried.

8—9 indicate I-beams extending longitudinally upon the trucks and secured together by cross-beams 10 and braces 11, thereby constituting a frame which directly supports the car-body.

12—13 indicate segmental bearing-blocks which are supported in parallelism upon the I-beams 8—9 and, as shown in Figs. 3 and 4, are fixedly secured in position in any suitable way, so that they extend transversely of the car and have their highest point at the center. 14—15 indicate similar segmental bearing-blocks which are preferably cast in one piece, as shown in Fig. 4, and overlie the bearing-blocks 12—13 upon which they rock, as shown in Figs. 3 and 4. The upper and lower bearing-blocks are held together and their movement restricted by crossed straps 16—17 which at their upper ends are connected by pivots 18—19 with the bearing-blocks 14—15 and at their lower ends are connected by pivots 20—21 with the bearing-blocks 12—13; thus the extent to which the upper bearing-blocks may rock upon the lower ones is limited and at the same time the parts are held in proper position.

As shown in Fig. 4, the straps 16—17 are placed between the two members of each pair of bearing-blocks so that they are in a measure inclosed and protected. It will be noted that the radius of the curve of the lower bearing-blocks is greater than that of the upper bearing-blocks, thus causing the car-body to move farther to one side or the other and at the same time insuring its being tilted to a sufficient angle to discharge its load.

22 indicates the side-gates of the car-body, which are arranged to be automatically raised and held up to permit the discharge of the load in the usual way by means of straps 23—24 operated by straps 25—26. The straps 26 are connected with the trucks so that they are not affected by lateral movement of the upper rocker bearing.

The tilting of the car-body is effected, in the construction shown, by means of cables 27—28 actuated by compressed air operating in cylinders 29, one at each side of the car, in the manner shown and described in the McKnight application above referred to. This forms no part of my present invention and therefore need not be further described herein.

Any desired number of transverse bearings for the car-body may be employed, depending upon the conditions of service for which the car is designed. In Fig. 1 I have shown six of such bearings.

That which I claim as my invention, and desire to secure by Letters Patent, is,—

1. In a dump car, the combination of a truck, a car-body mounted to swing laterally on rocker bearings on said truck, crossed links for limiting the extent to which the car-body may be rocked on said bearings, one or more movable side gates for said car-body, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

2. In a dump-car, the combination of a support having a transversely-disposed

lower bearing, an upper segmental bearing coacting with said lower bearing, a car-body connected with said upper bearing and having one or more side gates, crossed links connecting said upper and lower bearings together and limiting the extent to which the car-body may be rocked, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

3. In a dump car, the combination of a support, a transversely-disposed lower segmental bearing, an upper segmental bearing coacting with said lower bearing, a car-body connected with said upper bearing and having one or more side gates, means connecting said upper and lower bearings together and limiting the extent of their rocking movement, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

4. In a dump-car, the combination of a support, a transversely-disposed lower segmental bearing, and upper segmental bearing coacting with said lower bearing, a car-body connected with said upper bearing and having one or more side gates, means connecting said upper and lower bearings together and limiting the extent of their rocking movement, the radius of the curve of one of said bearings being greater than that of the other, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

5. In a dump car, the combination of a support, a transversely-disposed lower segmental bearing, an upper segmental bearing coacting with said lower bearing, a car-body connected with said upper bearing and having one or more side gates, means connecting said upper and lower bearings together and limiting the extent of their rocking movement, the radius of the curve of said lower bearing being greater than that of the upper bearing, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

6. In a dump-car, the combination of a support, a transversely-disposed lower segmental bearing, an upper segmental bearing coacting with said lower bearing, a car-body connected with said upper bearing and having one or more side gates, crossed links connecting said upper and lower bearings together and limiting the extent of their rocking movement, and means for automatically actuating one or the other of said side gates when the car-body is rocked.

7. In a dump-car, the combination of a support, a lower bearing comprising a pair of separated transversely-arranged segmental bearing-blocks, an upper bearing also comprising a pair of segmental bearing-blocks coacting with said lower bearing-blocks, a car-body connected with said upper bearing, crossed straps between said separated bearing-blocks and connected therewith, side-gates connected with the car-body, and means for automatically actuating one or the other of said side-gates when the car-body is rocked.

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