No. 766,123. PATENTED JULY 26, 1904.

H. C. TRIPP.

DUMP WAGON.

APPLICATION FILED NOV. 19, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

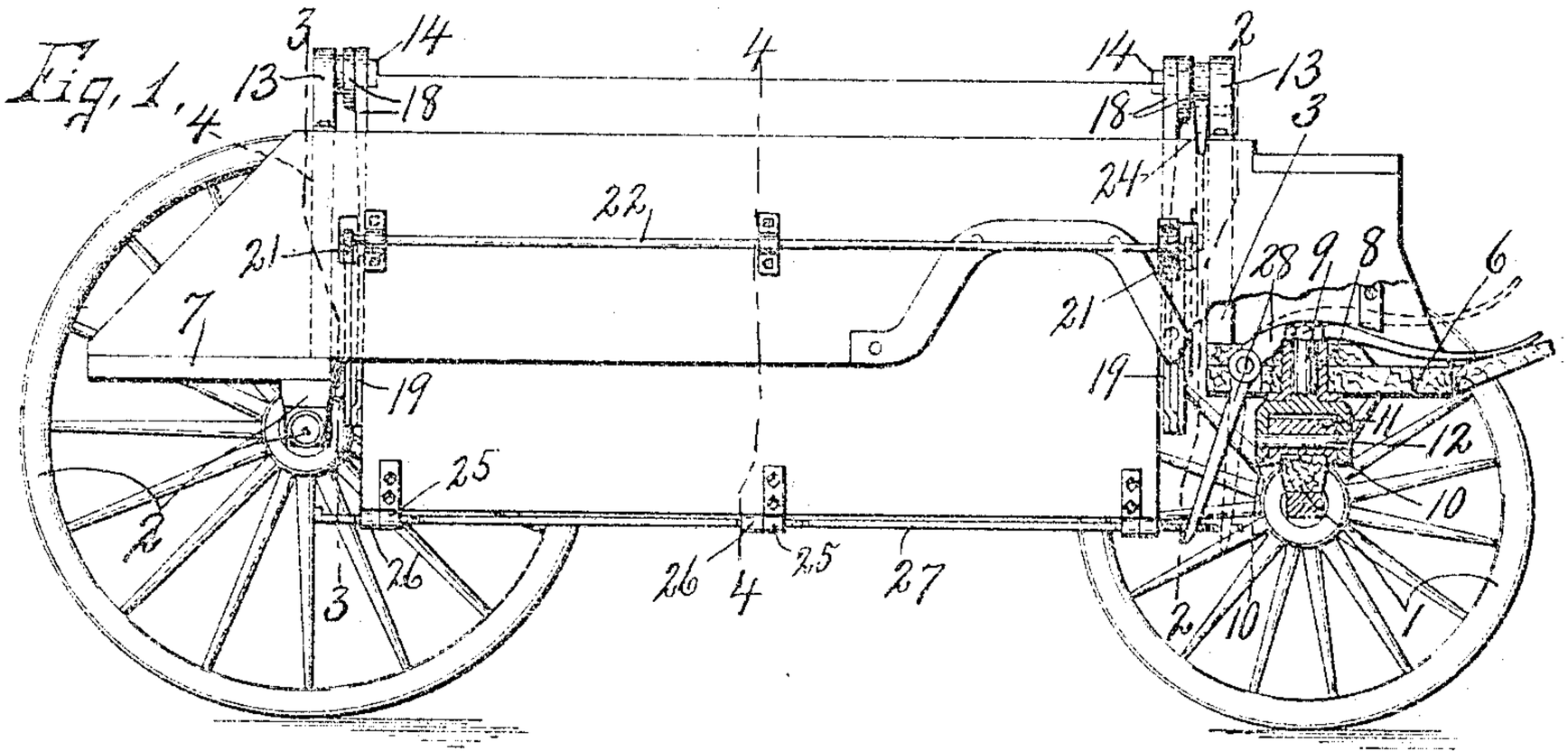


Fig. 2.

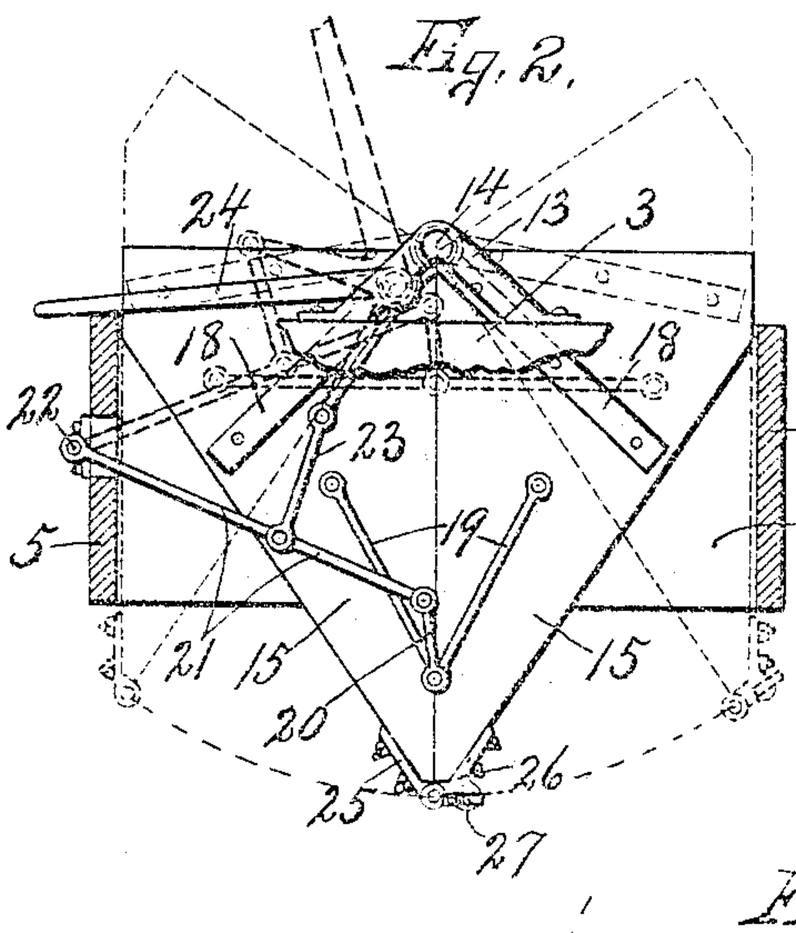


Fig. 3.

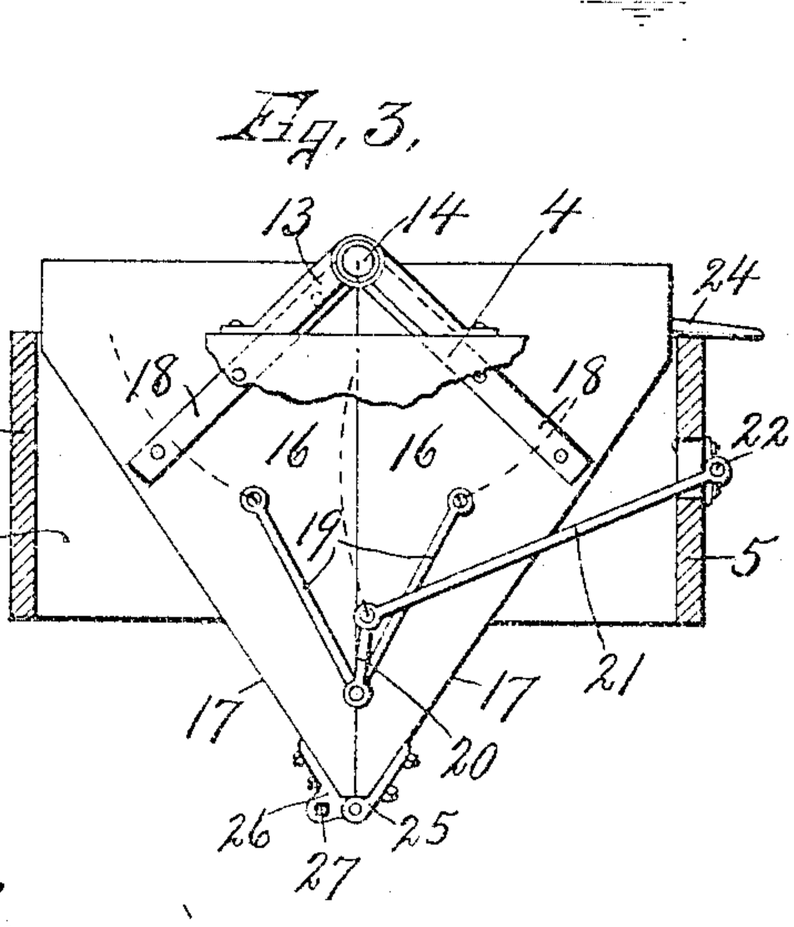
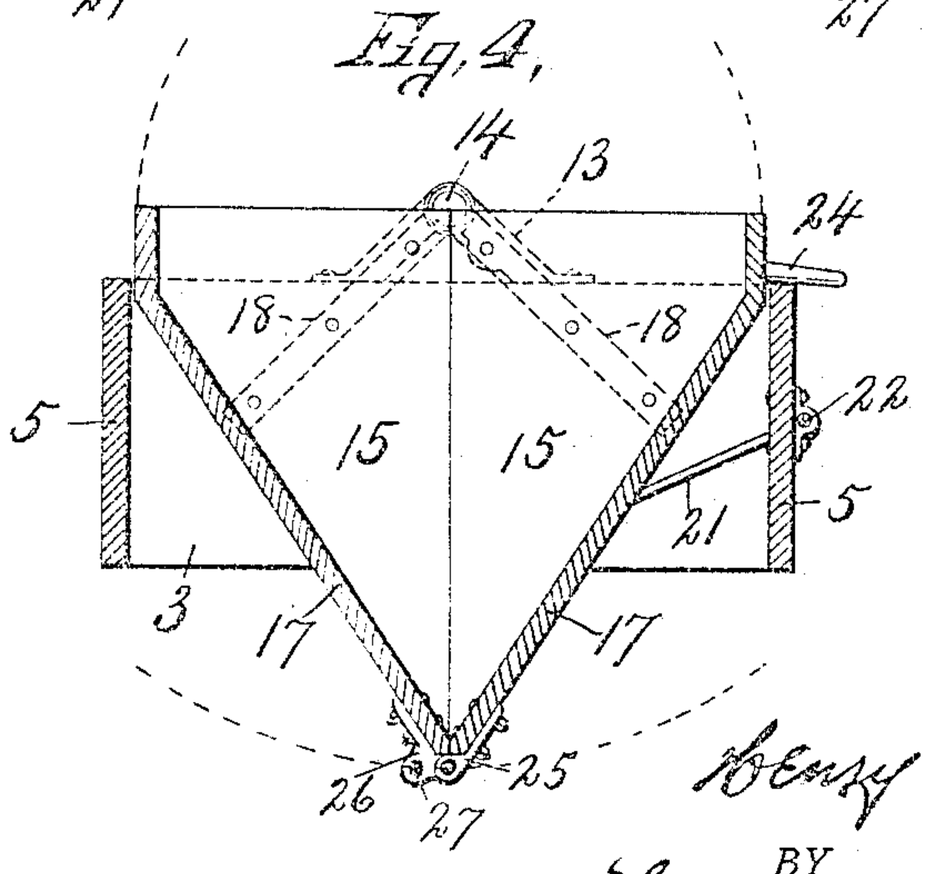


Fig. 4.



WITNESSES:

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H. C. TRIPP.

DUMP WAGON.

APPLICATION FILED NOV. 19, 1902.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 5.

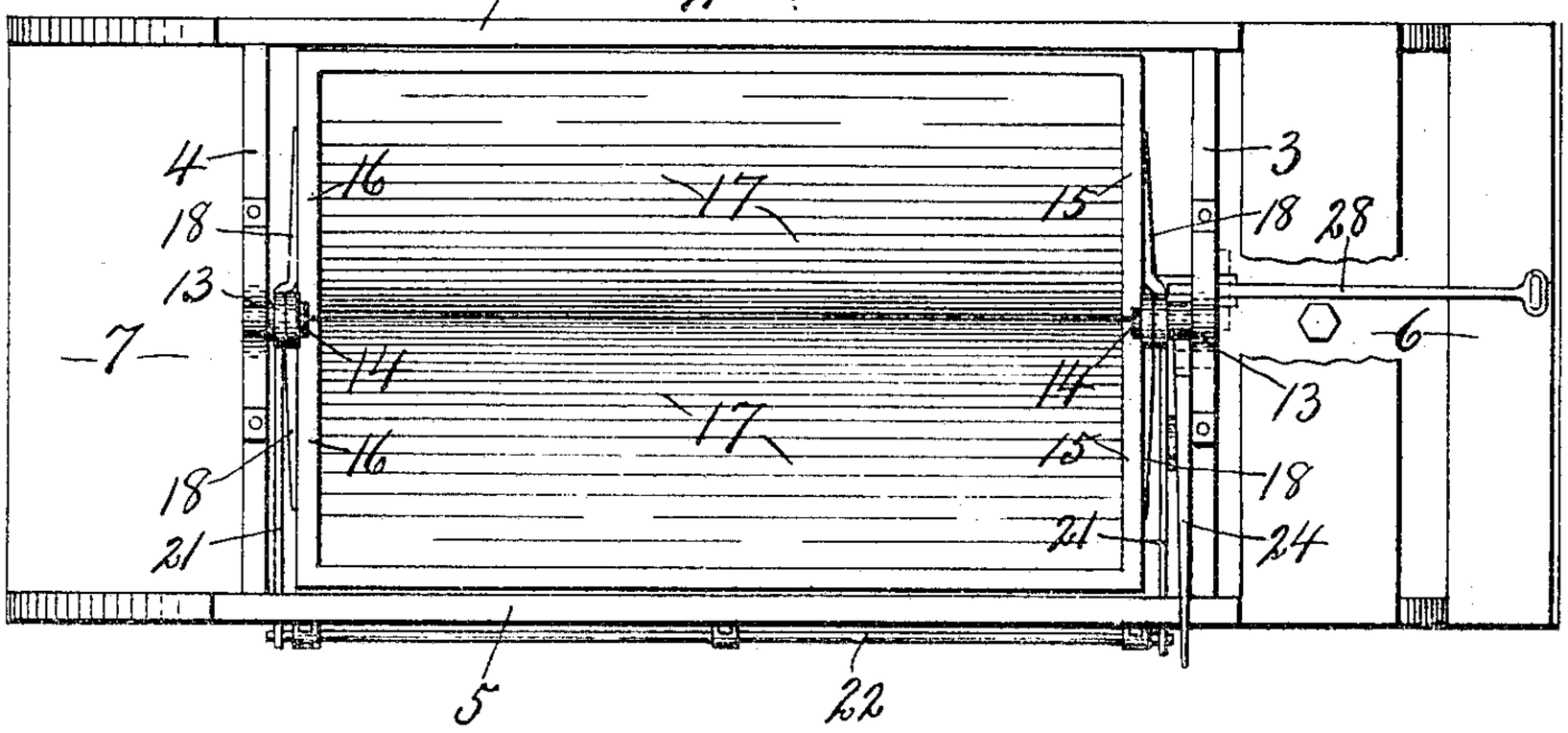


Fig. 6.

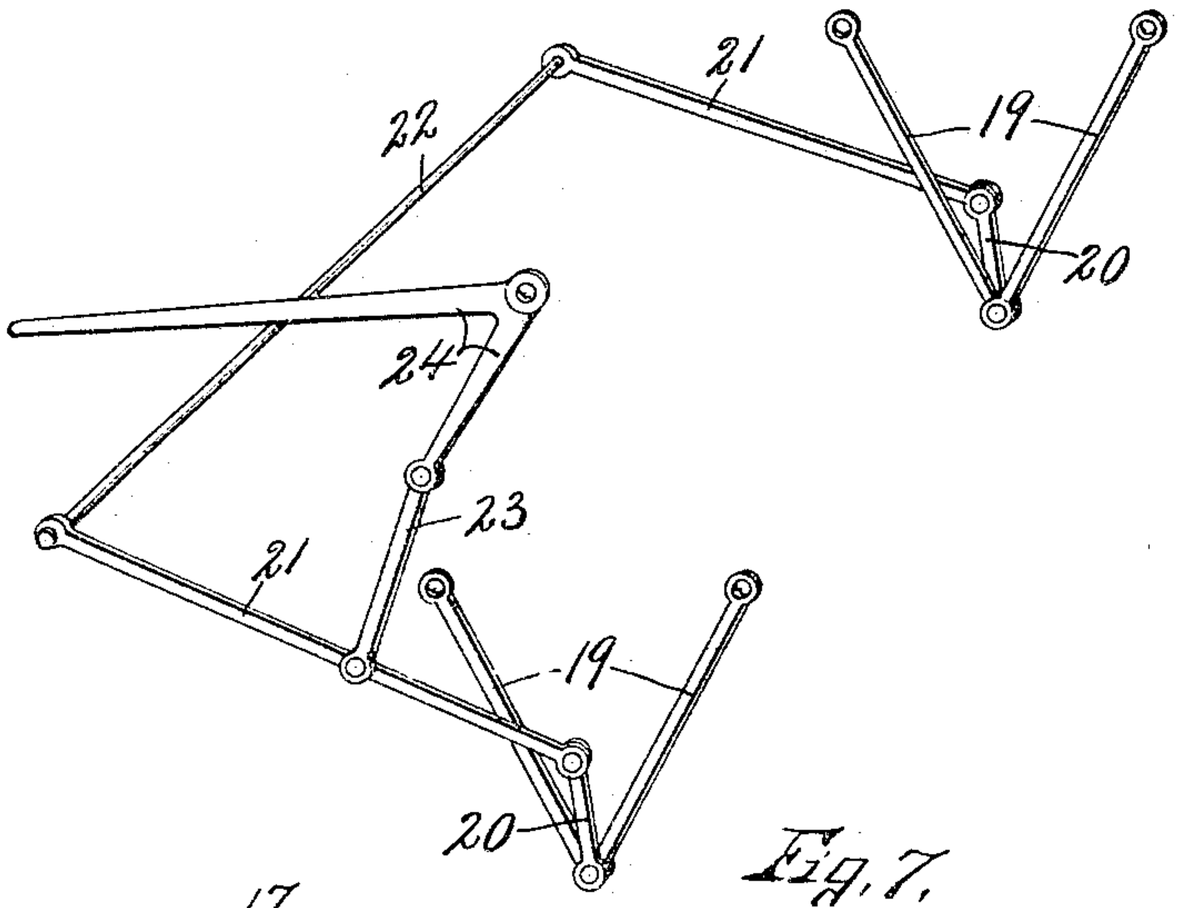
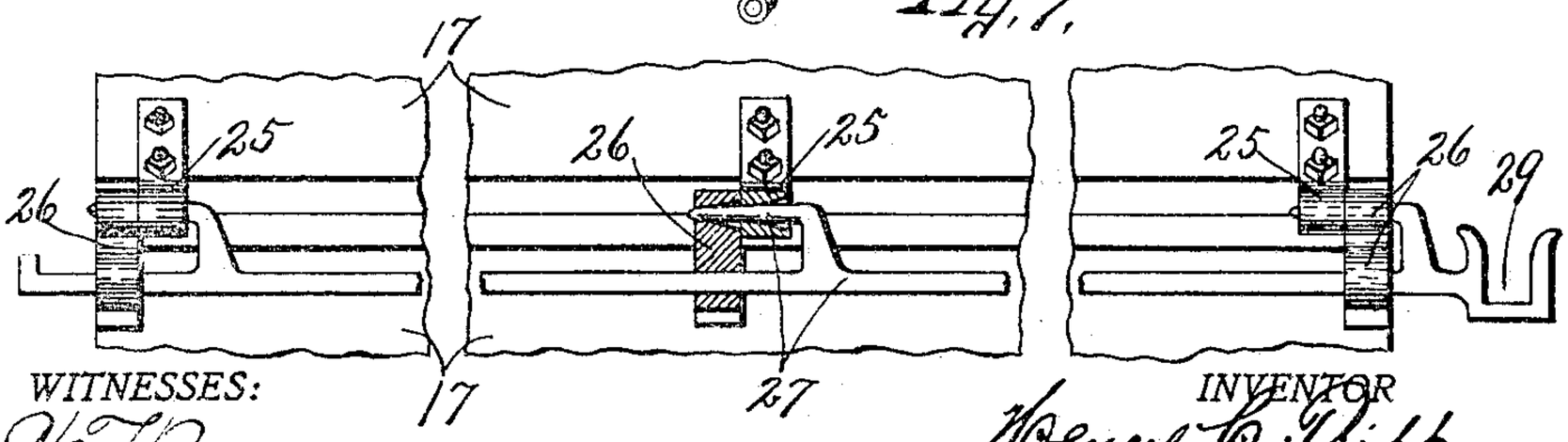


Fig. 7.



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UNITED STATES PATENT OFFICE.

HENRY C. TRIPP, OF AUBURN, NEW YORK, ASSIGNOR TO MILLARD C. ERNSBERGER, OF AUBURN, NEW YORK.

DUMP-WAGON.

SPECIFICATION forming part of Letters Patent No. 766,123, dated July 26, 1904.

Application filed November 19, 1902. Serial No. 131,999. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. TRIPP, of Auburn, in the county of Cayuga, in the State of New York, have invented new and useful Improvements in Dump-Wagons, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to improvements in dump-wagons, having more particular reference to that class in which the load is discharged at the bottom centrally and longitudinally between the front and rear trucks.

One of the objects of my invention is to provide a dump-box which is divided longitudinally and centrally for forming opposite dump-box sections which are counterparts of each other and interchangeable and are each pivotally suspended upon suitable trunnions having their axes alined with the upper ends of the meeting edges of said sections, so that the sections may swing or open laterally at the bottom to any desired degree of an angle for distributing the contents over a large area or dumping the load in bulk at one point.

Another object is to provide lever-and-toggle connections whereby the attendant may control the movement of the dump-box sections.

A further object is to provide suitable locking mechanism for holding the lower longitudinal edges of the dump-box sections in their closed position, said locking mechanism being under the control of the attendant.

Referring to the drawings, Figure 1 is a side elevation, partly in section, of my improved dump-wagon. Figs. 2, 3, and 4 are sectional views taken, respectively, on lines 2 2, 3 3, and 4 4, Fig. 1. Fig. 5 is a top plan view of the detached dump-box and its supporting-frame and also the mechanism for controlling the movement of the dump-box sections. Fig. 6 is a perspective view of the detached mechanism for controlling the movement of the dump-box sections. Fig. 7 is an inverted plan view of the lower portions of the dump-box sections and the means for locking the same in their closed position.

Similar reference characters indicate corresponding parts in all the views.

In carrying out the objects of my invention I provide suitable front and rear trucks 1 and 2, upon which is mounted a dump-box-supporting frame consisting of front, rear, and side walls 3, 4, and 5, and front and rear platforms 6 and 7, the front platform being provided with an aperture in which is located a bearing-sleeve 8 for receiving a king-bolt 9.

The lower end of the king-bolt is bifurcated for forming depending apertured ears 10, between which is inserted a perforated lug 11, secured to the front axle, a suitable pivotal pin 12 being passed through the apertures in the ears 10 and lug 11 for locking said parts to each other and permitting the axle to oscillate vertically upon the lower bifurcated end of the king-bolt, it being understood that the king-bolt permits the horizontal oscillating movement of the axle.

Rising from the upper edges of the end walls 3 and 4 are brackets 13, which are provided with axially-alined bearings, consisting of inwardly-projecting trunnions 14, and pivotally mounted upon these bearings or trunnions is a dump-box which is divided longitudinally in a plane coincident with the axis of the trunnions. These trunnions are located substantially midway between the side walls 5 of the supporting-frame, and therefore the longitudinal dividing-line of the box-section is also substantially midway between said side walls and divide the dump-box into symmetrical and interchangeable sections, each of which is provided with front, rear, and side walls 15, 16, and 17, the side walls converging downwardly from their upper edges and meeting at the bottom—that is, the bottom edges of the side walls normally abut against each other and the meeting edges of the side walls are normally disposed in a substantially vertical plane.

The trunnions are alined with each other, and the upper ends of the meeting edges of the end walls 15 are substantially coincident with the axes of the trunnions, so that the dump-box is divided into two identical sections

which are triangular in cross-section with their apexes at the bottom.

I preferably provide each of the end walls with hinge-straps 18, which are pivotally mounted upon their respective trunnions and extend downwardly and outwardly therefrom across the outer faces of the end walls 15, to which they are secured by suitable fastening means, as bolts or rivets.

The dump-box sections swing between the end and side walls of the supporting-frame and preferably project beneath said frame, the side walls 5 forming suitable stops for limiting the outward swing of the box-sections, and it is evident that when the box-sections are opened their lower edges swing upwardly from the ground, and therefore afford ample clearance in driving over the dump.

Pivotally secured to each other and to the outer faces of the opposite end walls 15 are toggle-arms 19, to which are connected links 20, having their free ends connected to suitable rock-arms 21, which in turn are secured to the rock-shaft 22, mounted in suitable bearings upon the outer face of one of the side walls 5 of the supporting-frame. This rock-shaft extends from front to rear of the dump-box, and the rock-arm 21 at the front of the dump-box is connected by a link 23 to one arm of a bell-crank lever 24, which is adapted to be operated by the attendant for controlling the movement of the box-sections.

The operation of the mechanism just described will be better understood upon reference to Fig. 2, in which it is shown in full lines in its normal position and in dotted lines in the position assumed when the box-sections are open. When desired to swing the box-sections to their open position, the attendant engages the hand-lever 24 and rocks the same upwardly, thereby elevating the rock-arms 21 and pivotal connections of the arms 19 with each other, which operation rocks the box-sections upon their supporting-trunnions.

In order to hold the swinging box-sections in their closed position, I provide their lower edges with apertured lugs 25 and 26, and upon one of the lugs, as 26, of one of the sections is mounted a sliding bolt 27, which is movable into and out of the apertures in the lugs for holding the sections in their closed position or permitting them to be opened when desired. Any desired means may be employed for moving this locking-bolt longitudinally, and I have shown a lever 28 pivoted to the front platform of the supporting-frame and having one arm registered with an open-sided slot 29 in the front end of the locking-bolt, whereby as the lever 28 is rocked in reverse directions the locking-bolt is reciprocated and the open-sided slot permits the bolt to swing with its section without in any way interfering with the lever 28.

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

1. In a dump-wagon, a support, a dump-box divided longitudinally to form opposite dump-box sections, said sections being pivotally suspended from the support to swing laterally, the swinging axis being fixed and common to both sections, and means to control the movement of the box-sections.

2. In combination with a supporting-frame of a dump-wagon, trunnions mounted on the frame, a dump-box pivotally suspended on the trunnions and divided longitudinally in a plane coincident with the axis of the trunnions for forming oppositely-swinging sections, said axis being fixed and common to both sections, and means for controlling the swinging movement of the box-sections.

3. In a dump-wagon, the combination with a supporting-frame, brackets rising from the front and rear ends of the frame, separate box-sections pivotally mounted on the brackets and both having the same axis in line with the meeting edges of the sections and means to open and close the box-sections.

4. In a dump-wagon, the combination with fixed front and rear bearings alined axially, a dump-box pivotally suspended on the bearings and having downwardly-converging side walls, said box being divided longitudinally in a plane coincident with the axes of the bearings for forming oppositely-swinging box-sections, and means for opening and closing said sections.

5. In a dump-wagon, the combination with fixed front and rear bearings alined axially, a dump-box pivotally suspended on the bearings and having downwardly-converging side walls, said box being divided longitudinally in a plane coincident with the axes of the bearings for forming oppositely-swinging box-sections, means for opening and closing the sections, and movable means for locking the sections in their closed position.

6. In a dump-wagon, the combination with fixed front and rear bearings alined axially, a dump-box pivotally suspended on the bearings and having downwardly-converging side walls, said box being divided longitudinally in a plane coincident with the axes of the bearings for forming oppositely-swinging box-sections, means for opening and closing the sections and movable means carried by one of the sections for locking the sections in their closed position.

7. In a dump-wagon, the combination with fixed axially-alined bearings, of a dump-box pivotally suspended on the trunnions, and divided longitudinally in a plane coincident with the axes of the bearings for forming oppositely-swinging box-sections, toggle-arms connected to open and close the sections, and means to operate the toggle-arms.

8. In a dump-wagon, the combination, with

fixed supporting-trunnions alined axially, of a dump-box pivotally suspended on the trunnions, and divided longitudinally in a plane coincident with the axes of the trunnions for forming oppositely-swinging box-sections, both of which are hung in the same trunnions, separate toggles connected to the opposite ends of the sections to open and close the same, a rock-shaft connected to operate the toggles, and a hand-lever connected to rock the shaft.

9. In a dump-wagon the combination with a frame having fixed front and rear bearings midway between the sides of the frame, of dump-box sections arranged side by side and having the upper ends of their meeting edges pivotally hung on said bearings.

10. In a dump-wagon the combination with a frame having fixed front and rear bearings midway between the sides of the frame, of dump-box sections arranged side by side and having the upper ends of their meeting edges pivotally hung on said bearings and means for swinging the sections on said bearings.

11. In a dump-wagon the combination with a frame having front, rear and side walls forming a central opening, fixed alined bearings on the end walls midway between the side walls, dump-box sections arranged side by side in the opening and meeting in a plane coincident with the axis of the bearings, said sections being pivotally hung on the bearings and means to swing the sections laterally.

12. In a dump-wagon, the combination with front and rear alined trunnions, a dump-box pivotally suspended on the trunnions and divided longitudinally in a plane coincident with the axes of the trunnions for forming oppositely-swinging box-sections, the side walls of the sections converging downwardly and meeting at the bottom, apertured lugs secured to the bottoms of said sections, and a sliding bolt carried by one of the sections and movable into and out of said apertures for the purpose described.

13. In a dump-wagon, the combination with a frame having fixed front and rear bearings midway between the sides of the frame, of dump-box sections arranged side by side and having the upper ends of their meeting edges pivotally hung on said bearings, the bottom edge of one of the sections being provided with an apertured lug, and a locking-bolt carried by the other section and movable into and out of the aperture for the purpose described.

14. In a dump-wagon, the combination with front and rear alined trunnions, a dump-box pivotally suspended on the trunnions and divided longitudinally in a plane coincident with the axes of the trunnions for forming oppositely-swinging box-sections, the side walls of the sections converging downwardly and meeting at the bottom, apertured lugs secured to the bottoms of said sections, a sliding bolt carried by one of the sections and movable into and out of the apertures, means to actuate the bolt, a toggle connected to open and close the box-sections, and means to operate the toggle.

15. In a dump-wagon the combination with a frame having fixed front and rear bearings midway between the sides of the frame, of dump-box sections arranged side by side and having the upper ends of their meeting edges pivotally hung on said bearings, toggle-arms connected to the sections, means to actuate the toggle-arms to open and close the sections, apertured lugs secured to the lower edges of the sections, and a sliding bolt movable in the lugs of one section and adapted to interlock with the lug of the other section.

In witness whereof I have hereunto set my hand this 17th day of November, 1902.

HENRY C. TRIPP.

Witnesses:

A. H. SEARING,

CLARA G. BENNETT.