H. C. TRIPP.

DUMP WAGON.

APPLICATION FILED NOV. 24, 1902.

NO MODEL.

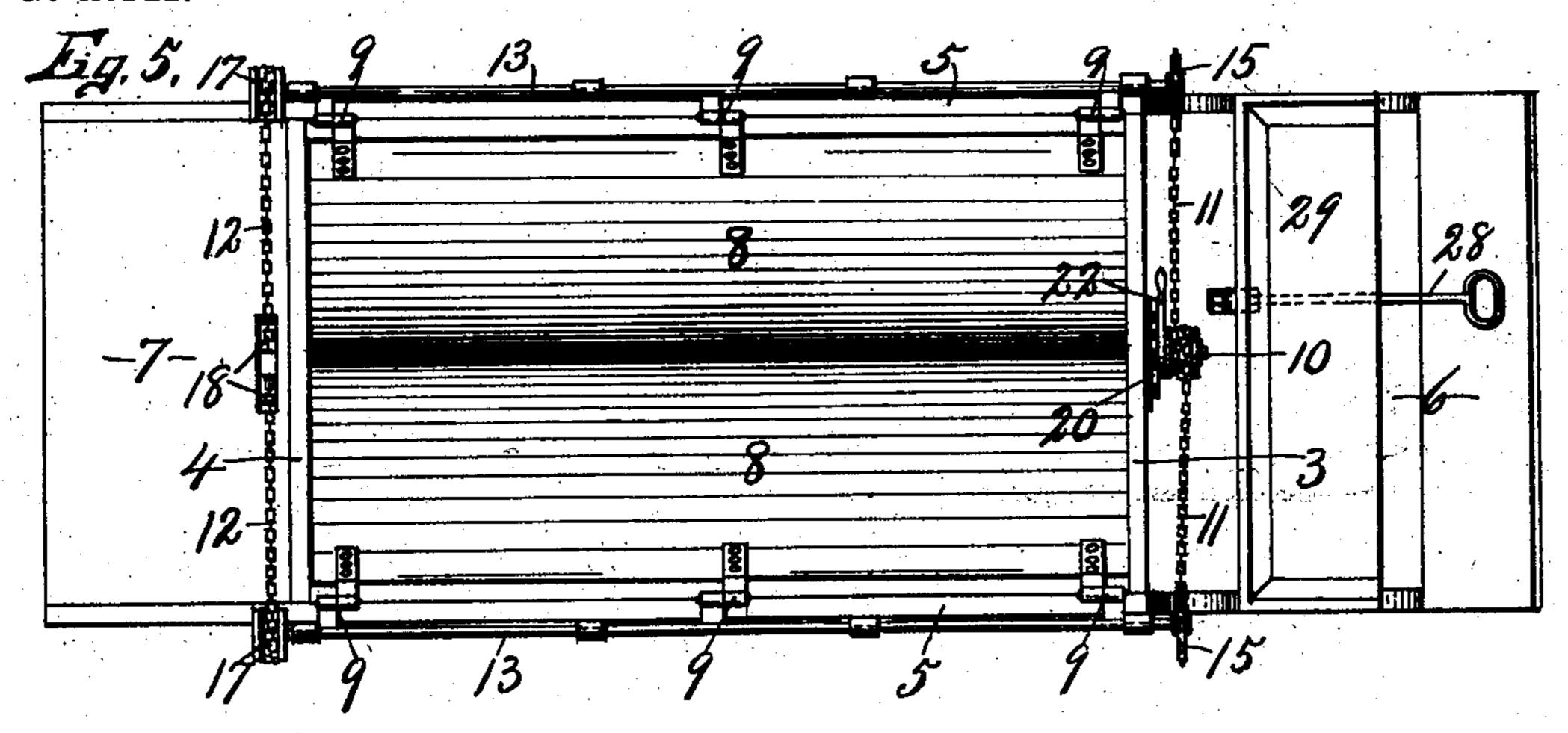
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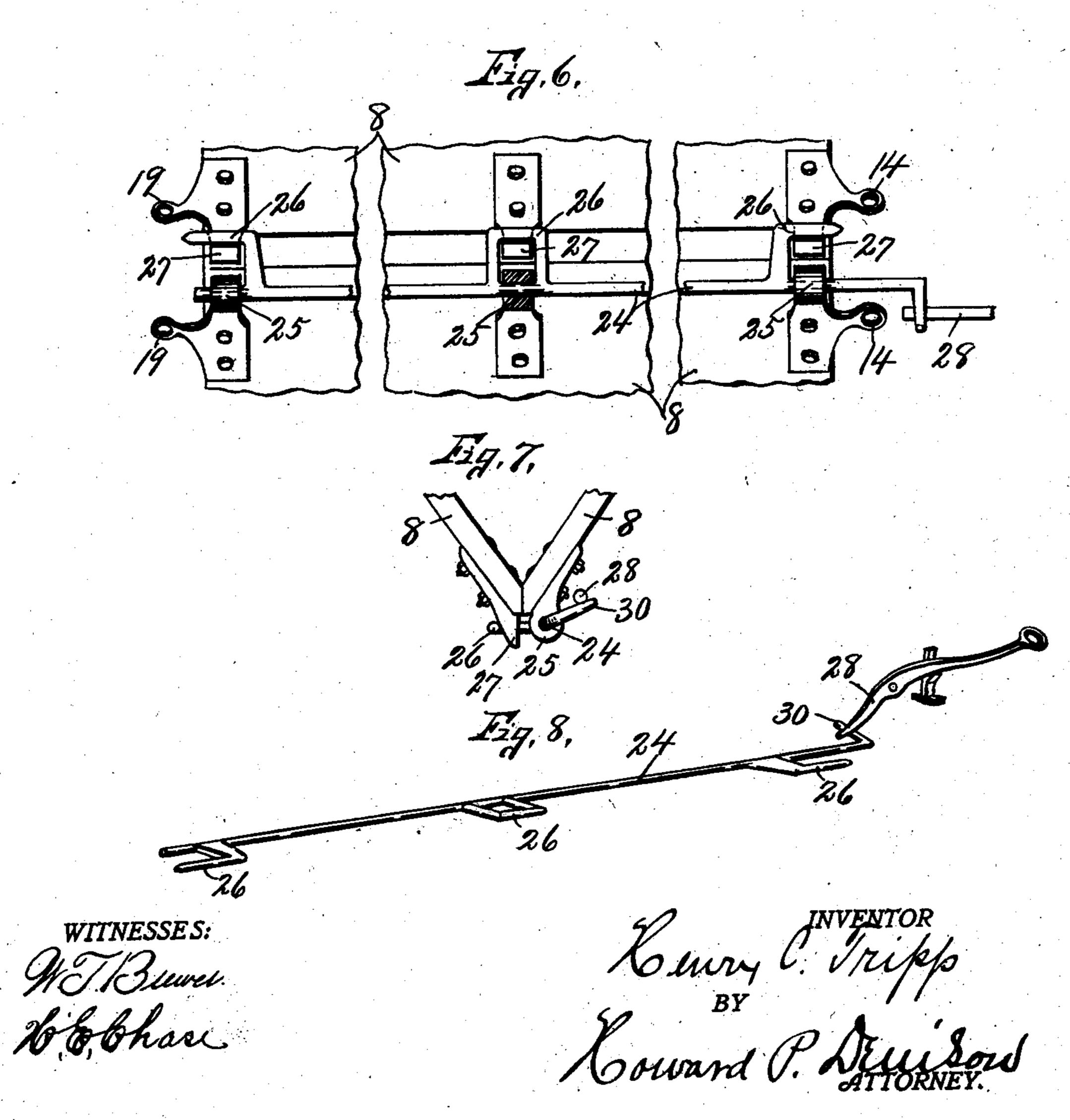
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2 SHEETS-SHEET 2.





United States Patent Office.

HENRY C. TRIPP, OF AUBURN, NEW YORK.

DUMP-WAGON.

SPECIFICATION forming part of Letters Patent No. 747,808, dated December 22, 1903.

Application filed November 24, 1902. Serial No. 132,674. (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 Im-5 provements 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 10 dump-wagons in which the load is dumped centrally and longitudinally from the bottom of the box.

One of the objects of this invention is to provide an open supporting-frame with swing-15 ing dump-box sections or walls which are pivotally suspended at their upper edges from the upper edges of the side walls of the supporting-frame and extend downwardly in converging planes to meet at their bottom edges 20 for retaining the load.

Another object is to provide a windingdrum and cable connections arranged so that both ends of the swinging walls are operated simultaneously.

A further object is to provide specific means for locking the bottom edges of the swinging walls in their closed position independently of the cable connections.

Referring to the drawings, Figure 1 is a 30 side elevation of my improved dump-wagon, the wheels nearest to the point of view being removed. Figs. 2, 3, and 4 are sectional views taken, respectively, on lines 22, 33, and 44, Fig. 1. Fig. 5 is a top plan of the detached 35 frame and box seen in Fig. 1. Fig. 6 is an enlarged vertical plan of the meeting edges of the box-sections and the locking mechanism therefor. Fig. 7 is an end view of the parts seen in Fig. 6. Fig. 8 is a perspective 40 view of the detached locking device and its operating-lever.

Similar reference characters indicate corresponding parts in all the views.

In carrying out the objects of my inven-45 tion I provide suitable front and rear trucks 1 and 2, upon which is mounted an open supporting-frame, consisting of front, rear, and side walls 3, 4, and 5, which are united to each other and disposed in substantially ver-50 tical planes, the side walls 5 being extended forwardly and rearwardly beyond the front |

by transverse bottom walls for forming suitable platforms 6 and 7.

The dump-box proper consists of oppositely- 55 arranged lengthwise sections or walls 8 of substantially the same length as the distance between the end walls 3 and 4, which form the end walls of the dump-box, the upper edges of the sections 8 being hinged at 9 to the up- 60 per edges of the side walls 5, and these sections incline downwardly and inwardly in converging planes and preferably meet at the bottom in a plane beneath the lower edges of the side walls 5 and together with the end 65 walls 3 and 4 normally serve to retain the load. It is thus evident that the sections 8 swing laterally upon their hinges 9 to open and close the lower meeting edges, the side walls 5 serving as abutments to limit the out- 70 ward swing of the sections 8, and when these sections are opened to their extreme limit a clear rectangular space may be formed of substantially the capacity of the inside of the

main supporting-frame. The means for controlling the operation of the sections 8 preferably consists of a drum 10, front and rear cables 1112, and separate rotary shafts 13, mounted upon and parallel with the sides 5, near the hinges 9. I preferably em- 80 ploy a pair of cables 11 and 12 for the opposite ends of each door, the inner upper ends of the cables 11 being secured to the opposite faces of the drum 10, and their lower ends are secured to suitable eyes 14, provided upon 85 the adjacent ends of the swinging sections 8, while the intermediate portions of said cables 11 are passed over sprocket-wheels 15 upon the forward ends of the shafts 13, and the lower ends of these cables 11 are engaged 90 with idlers 16, mounted upon the front plat-

form in close proximity to each other and preferably closer together than the eyes 14, so that the draft of the lower ends of the cables is inwardly, and thereby tends to draw 95 the meeting edges of the sections 8 into close engagement with each other.

The cables 12 at the rear ends of the sections 8 are fastened to suitable drums 17 upon the rear ends of the shafts 13, and their 100 lower ends are passed over idlers 18 upon the rear platform and are attached to eyes 19, which are secured to the lower rear ends of and rear walls, and these extensions are united I the sections 8, the relative arrangement of

the idlers 18 and eyes 19 being similar to that | described for the idlers 16 and eyes 14 for drawing the rear meeting ends of the sections

8 into close contact.

5 The drum 10 is preferably journaled upon the front wall with its axis parallel with and above the meeting edges of the swinging sections and is provided with a ratchet-wheel 20, which, together with the drum, is rotated 10 by means of a pawl 21 and hand-lever 22, a suitable detent 23 being provided to engage the ratchet and hold the drum in its adjusted

position.

It is evident from the foregoing description 15 and accompanying drawings that the movement of the sections 8 is always under the control of the operator through the medium of the hand-lever 22 and cables 11 and 12 and that these sections may be open a slight 20 distance for distributing the load evenly over the surface of the ground in any desired quantity, or they may be entirely opened, as shown by dotted lines in Fig 4, for discharging the load in bulk.

The shafts 13, carrying the sprockets 15 and drums 17, are located in proximity to the upper edges and at the outside of the main supporting-frame, so as not to interfere with the loading and unloading of the material.

In order to relieve the strain upon the cables and to insure a perfect closure of the lower meeting edges of the sections 8, I provide said lower edges with an additional locking mechanism, consisting of a rock-shaft 35 24, which is journaled in suitable lugs 25, provided upon one of the sections 8, said rockshaft being provided with loops 26, which swing into and out of engagement with lugs 27, provided upon the other section 8, so that 40 when the loops are operatively engaged with the lugs 27 the meeting edges of the sections 8 are held in contact, and when the loops are rocked downwardly out of the path of the lugs 27 the sections are free to swing laterally 45 and may then be controlled by the lever 22 and cables 11 and 12.

The means for rocking the shaft 24 preferably consists of a foot-lever 28, which is pivotally mounted upon the front platform in 50 proximity to the seat 29, one arm of the lever being detachably engaged with a suitable shoulder 30, provided upon the front end of a rock-shaft, whereby as the foot-lever 28 is rocked the shaft is similarly rocked and the 55 loops 26 are moved into and out of engagement with the lugs 27. It will be noted that the rock-shaft 24 and loops 26 and also lugs 27 swing with their respective sections 8, to which they are attached, and therefore leave 60 a clear open space for the discharge of the

material when the sections are open.

I do not limit myself to hinging the dumping-sections to the upper edges of the side walls, as it will be evident that they may be 65 hinged at some distance from the upper edges without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Pat-

ent, is—

1. In a dump-wagon, the combination of a supporting-frame, swinging bottom sections hinged at their upper edges and inclining downwardly and inwardly therefrom and meeting at their lower edges, separate shafts 75 at opposite sides of and parallel with the swinging bottom sections and a revoluble drum substantially midway between the front ends of the shafts and having its axis parallel therewith, means to rotate the drum, 80 sprocket-wheels on the front ends of the shafts, and separate cables passed over said sprocket-wheels and having their upper ends attached to the drum and their lower ends attached to the front ends of the swinging sec- 85 tions.

2. In a dump-wagon, the combination of op-

posite sides and ends of a supporting-frame, swinging box-sections hinged to the upper edges of the sides and inclining downwardly 90 and inwardly therefrom and meeting at their lower edges, revoluble shafts mounted on the upper edges of the side walls parallel to the swinging axes of the bottom sections, idlers mounted on the frame at the front and rear 95 ends of the swinging sections, separate cables connected to the front ends of the shafts and having their lower ends passed over the front idlers and connected to the front ends of the bottom sections, a drum for winding and un- 100 winding said cables, means for rotating the drum, and additional cables connecting the rear ends of the shafts to the rear ends of the swinging sections.

3. In a dump-wagon, a supporting-frame, 105 swinging bottom sections hinged to the supporting-frame and inclining downwardly and inwardly therefrom to meet at their lower edges, opposite revoluble shafts mounted on the frame parallel with the swinging axes of 110 the sections, a rotary drum operatively connected to rotate said shafts simultaneously. and connections between said shafts and swinging sections to transmit motion from the former to the latter and means for oper- 115

ating the drum.

4. In a dump-wagon, the combination with a supporting-frame having side walls, of dumping-sections hinged to the upper edges of the side walls and extending downwardly 120 and inwardly and meeting at their lower edges, rotary shafts mounted upon the supportingframe, parallel with and in proximity to the swinging axes of said sections, separate cables connected to the opposite ends of the shafts 125 and to the opposite ends of said swinging sections and means for rotating the shafts simultaneously.

5. In a dump-wagon, the combination with a supporting-frame having side walls, of 130 dumping-sections hinged to the upper edges of the side walls and extending downwardly and inwardly and meeting at their lower edges, a rotary drum at the front end of the sections

having its axis parallel with said meeting edges, means to rotate the drum, separate shafts lengthwise of said side walls, and cables connecting the drum to the front ends of the shafts and also to the front ends of the swinging sections, and additional cables connecting the rear ends of the shafts to the rear ends of the swinging sections, and means to lock the meeting edges of the swinging sections.

to tions in their closed position.

6. In a dump-wagon, the combination with a supporting - frame having side walls, of dumping-sections hinged to the upper edges of the side walls and extending downwardly and inwardly and meeting at their lower edges, a drum mounted upon the supporting-frame at the front end of the sections, rotary shafts mounted upon the side walls of the supporting-frame and having their forward ends provided with sprockets and their rear ends provided with drums, means for rotating the first-named drum, cables secured to the opposite faces of said drum and passed over the sprocket and secured to the front ends of the

sections, additional cables secured to the 25 drums upon the rotary shafts and connected to the rear ends of the sections for the purpose described

pose described.

7. In a dump-wagon, the combination with a supporting-frame having opposite length- 30 wise side walls, dumping-sections hinged at their upper edges to the upper edges of the side walls and having their lower edges movable into and out of engagement with each other, lugs provided upon one of the sections 35 and a rock-shaft carried by the other section and provided with loops movable into and out of engagement with the lugs for locking the meeting edges of the sections together and means for controlling the movement of 40 the sections.

In witness whereof I have hereunto set my hand this 20th day of November, 1902.

HENRY C. TRIPP.

Witnesses:

A. H. SEARING, BENJAMIN C. MEAD.