(No Model.)

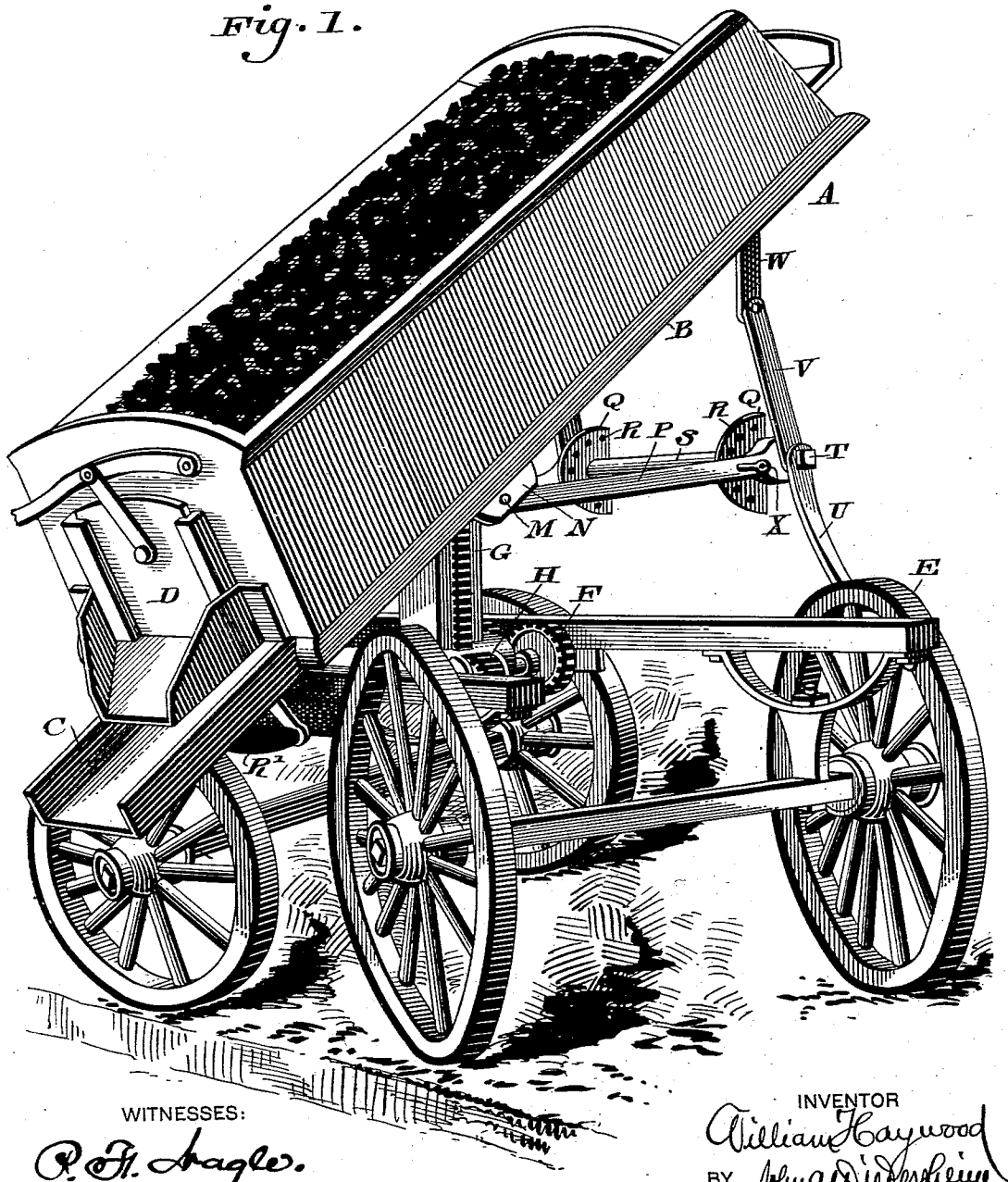
3 Sheets—Sheet 1.

W. HAYWOOD.

DUMPING WAGON.

No. 557,807. Patented Apr. 7, 1896.

Fig. 1.



WITNESSES:

R. F. Hagle.

L. Dowville.

INVENTOR

William Haywood

BY Munn & Co

ATTORNEY.

(No Model.) 3 Sheets—Sheet 2.

W. HAYWOOD.

DUMPING WAGON.

No. 557,807. Patented Apr. 7, 1896.

Fig. 2.

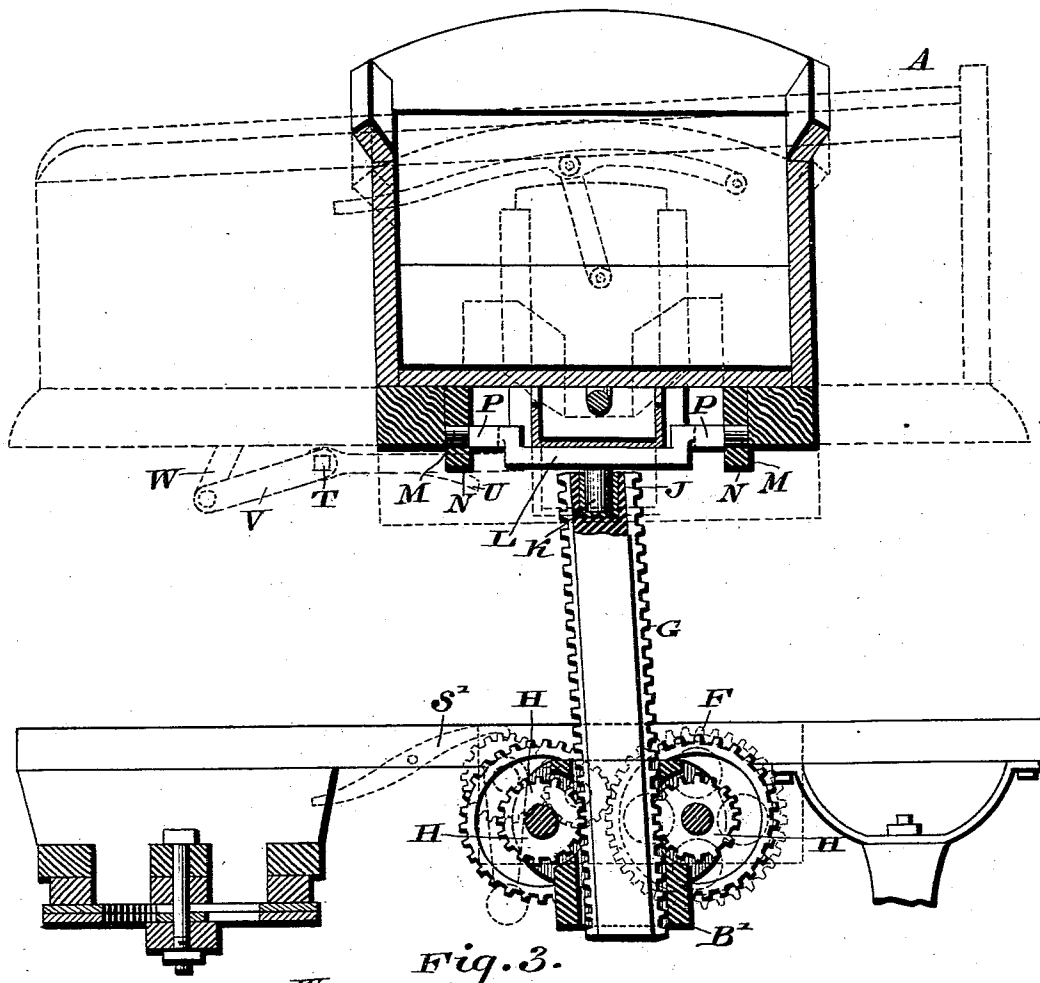
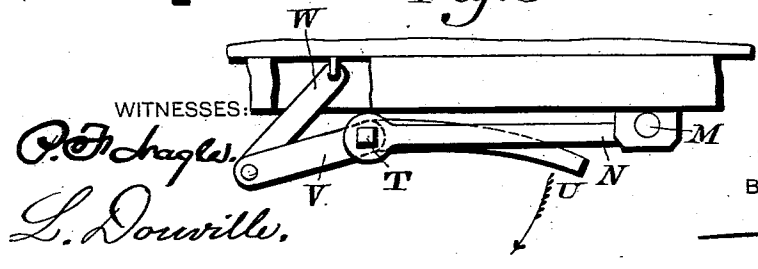


Fig. 3.



WITNESSES:

P. F. Hagles.

L. Dowville.

INVENTOR

William Haywood.

BY Edward Siebertheim

ATTORNEY.

(No Model.) 3 Sheets—Sheet 3.

W. HAYWOOD.

DUMPING WAGON.

No. 557,807. Patented Apr. 7, 1896.

Fig. 4.

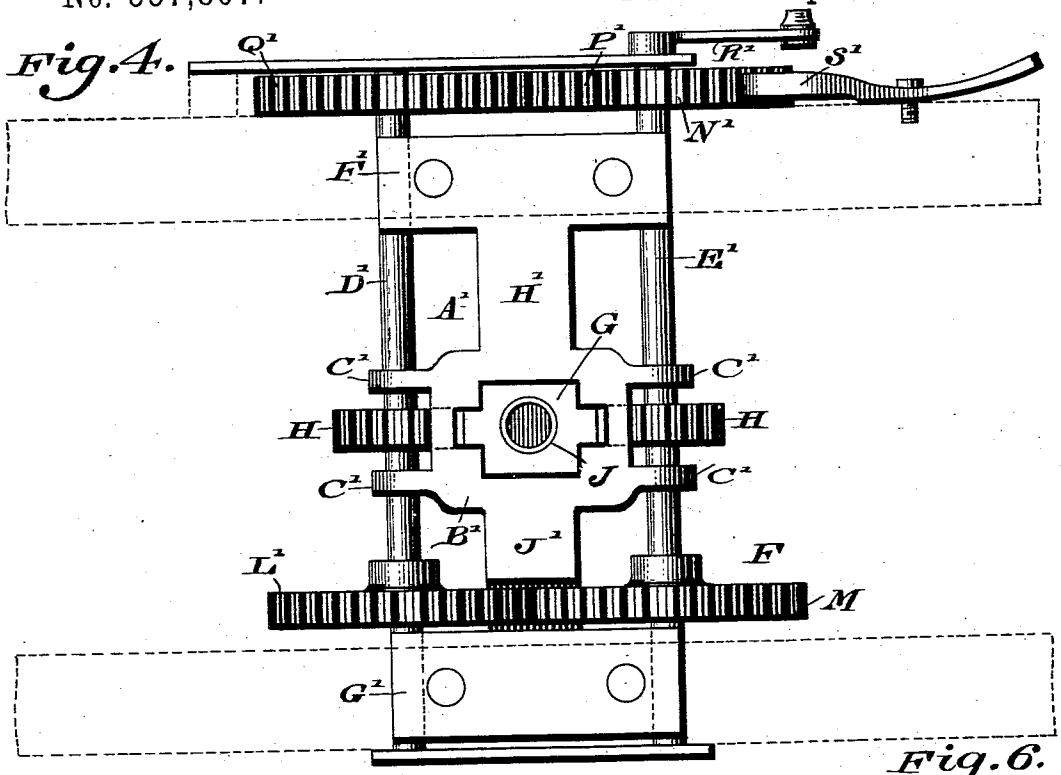


Fig. 6.

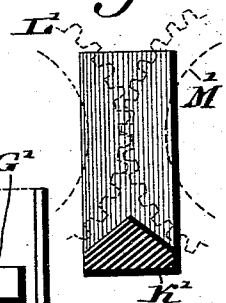
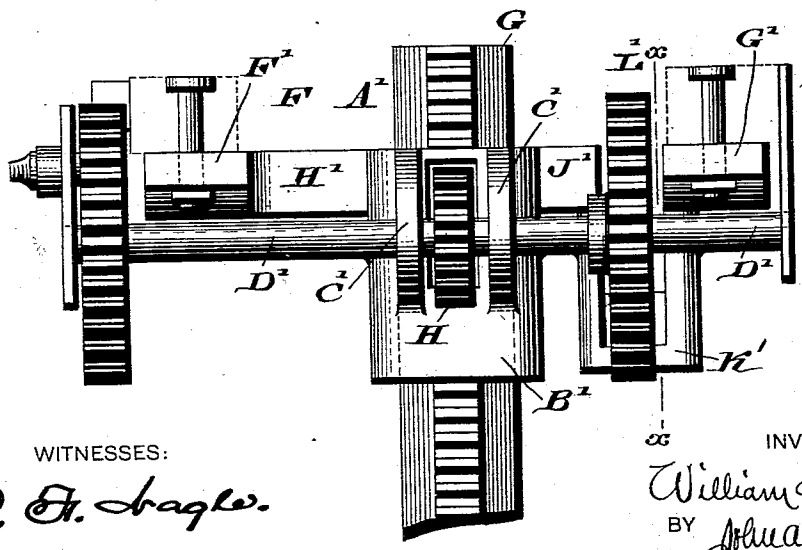


Fig. 5.



WITNESSES:

C. A. Snow.

L. Dowville.

INVENTOR

William Haywood

BY John A. Wiedersheim, Jr.

ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM HAYWOOD, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO WILLIAM B. GRIMES, OF SAME PLACE.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 557,807, dated April 7, 1896.

Application filed October 2, 1895. Serial No. 564,357. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HAYWOOD, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Improvement in Dumping-Wagons, which improvement is fully set forth in the following specification and accompanying drawings.

My invention relates to dumping-wagons; and it consists especially of novel means employed for enabling the body of said wagon, after the same has been elevated, to be turned on a pivotal support, whereby the discharge-chute can be pointed in any direction.

It also consists of novel means for raising and lowering said body and for holding the same in any desired position.

It further consists of novel details of construction, all as will be hereinafter set forth.

Figure 1 represents a perspective view of a dumping-wagon embodying my invention, the same being shown in elevated and tilted position. Fig. 2 represents a transverse sectional view of a portion of the body of said wagon, on an enlarged scale, showing the manner of mounting the same. Fig. 3 represents a side elevation of a portion of the mechanism employed for tilting the body after the same is in raised or elevated position. Figs. 4 and 5 represent plan and side elevations of the mechanism employed for raising the wagon-body. Fig. 6 represents a section on line *x x*, Fig. 5.

Similar letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A designates a dumping-wagon, the same consisting of the body portion B, which is provided with a chute C, door D, and other appurtenances, the whole being mounted upon the running-gear E.

F designates the mechanism whereby the raising of the body is effected, the same consisting of the rack G and the pinions H, the manner of supporting, mounting, and actuating of which will be hereinafter referred to. J designates a socket in the upper portion of said rack G, in which is seated or supported the pin or pivot K, which is attached to the bar L, the ends M of which are offset in the present instance and serve as journals, the latter being supported in the ears N, which are fixedly attached to any convenient portion of the body of the wagon. P designates arms, which are attached to and extend laterally from said bar L and have rotatably mounted in the free ends thereof the shaft S, near each end of which is secured the disk Q, which is provided with the holes R therein, said disk with the holes therein being adapted to rotate in unison with said shaft S and to be in alinement at intervals with a hole in the extremity of one of said arms P, whereby a pin X can be inserted thereinto, thus holding the disk Q and the shaft S stationary relative to said arms N, and thereby the body B, as will be explained. One extremity of said shaft S is provided with a squared portion T, from which depends the handle or lever U, said squared portion T being engaged by the link V, which is pivotally attached to one end of the arm W, which is secured to said body A, the arrangement of the parts, when said body is in substantially-horizontal position, being evident from Figs. 2 and 3.

The detailed description of the mechanism for raising and lowering the body of the wagon is as follows, reference being had to Figs. 4 to 6, inclusive: A′ designates a casting or frame, which is provided with a substantially central body portion B′, in which the rack G moves. C′ designates ears on each side of said portion B′, in which the shafts D′ and E′ are mounted, said shafts having the pinions H attached thereto, to which reference has been made. F′ and G′ designate ears attached to said body portion B′ by means of the necks H′ and J′, said ears being themselves secured to suitable portions of the running-gear. K′ designates a depression or offset in said neck J′, which is cut out, as seen in Figs. 4 and 6, in order to allow the gears L′ and M′ to intermesh. N′ designates a pinion suitably mounted in an attachment to the side bars of the frame of the truck and which is in mesh with the pinion P′, mounted on the shaft E′, which latter actuates the gear Q′. R′ designates a crank on the shaft of said pinion N′. S′ designates a pawl for holding said pinion N′ in place.

The operation is as follows: When it is desired to unload the wagon, the same is first

raised into elevated position by means of the rack and the gearing, as described, especial attention being called to the fact that the frame or casting A′, which supports the rack, gearing, &c., is in one piece. The wagon-body A can then be turned on the pin or pivot K in the desired direction, and after the same has been reached by pulling downwardly on the handle or lever U in the direction indicated by the arrow in Fig. 3 the parts will be caused to assume the position seen in Fig. 1, and when at the desired height may be locked by the insertion of the pin X, said pin engaging the desired hole in the disk or plate Q, and it will thus be evident that the wagon can be unloaded at any desired point and that the inclination of the same can be varied according to requirements.

If desired, the rack may have a passage extending therethrough and a bushing therein, and the pin K may extend throughout the rack.

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

1. In a dumping-wagon, a bar, ears attached to the wagon-body in which said bar is mounted, a pivot depending from the latter, a support for said pivot, arms projecting laterally from said bar, connections mounted upon said arms and leading to the wagon-body, and devices for locking said connections relative to said arms, in combination with means for actuating said connections in order to tilt said wagon-body, substantially as described.

2. A dumping-wagon, having the frame A′ provided with the ears F′, G′, adapted to be secured to the running-gear of the wagon, and with the ears C′ on opposite sides, the shafts E′, D′, journaled in said ears C′ and having the gear-wheels H thereon, gear-wheels on the opposite ends of each of said shafts meshing with the gear-wheels of the other shaft, and a vertical rack guided in said frame and engaged by said wheels H, said parts being combined substantially as described.

3. A dumping-wagon having the frame A′ with the attaching-ears F′, G′, connected therewith by the necks H′, J′, respectively, said neck J′ having the depression K′ therein, the shafts D′, E′, mounted in ears on said frame, the pinions H on said shaft, the meshing gears L′, M′, on said shafts and working in said depression K′ and means for rotating said shafts, said parts being combined substantially as described.

4. A dumping-wagon having a suitable body portion, the ears N, the bar L journaled therein, pivot K, suitable supports for said pivot, the arm W, the link V, lever U, the shaft S, arms P in which the latter are supported, the disk Q provided with holes R, and means for holding said disk in position relative to said arms P, substantially as described.

5. A dumping-wagon having a running-gear, a rack-and-pinion mechanism for elevating the body of said wagon, a socket in the upper portion of said rack, a pin seated in said socket, a cross-bar attached to said pin, journals at the extremities of said cross-bar, arms in which said journals are mounted, disks attached to the extremities of said arms, a shaft rotatably mounted in the latter, an arm W attached to the body of said wagon, a link V having one end pivotally attached to said arm, and the other end movable in unison with said shaft, and means for rotating the latter, substantially as described.

6. In a wagon, a body, a rack G, a frame A′ supporting the same, ears F′, G′, and C′ thereon, the necks H′ and J′, the latter being provided with an offset, the shafts D′, E′, the gears L′, M′ and pinions H mounted thereon, and means for rotating said shafts, substantially as described.

7. A dumping-wagon having a body with ears secured thereto, a bar journaled in said ears, and rigidly connected with a pivot depending therefrom, a socket in which said pivot is adapted to rotate, laterally-extending arms secured to said bar, a rotatable shaft journaled in the outer ends of said arms, disks common to the latter and said shaft and having openings therein, adapted to register with openings in said arms, fastening devices common to said disks and arms, the arms W attached to the wagon-body, links mounted in said arms and connected with said shaft, and means for rotating the latter, said parts being combined substantially as described.

WILLIAM HAYWOOD.

Witnesses:
JOHN A. WIEDERSHEIM,
WM. A. WIEDERSHEIM.