

No. 753,806.

PATENTED MAR. 1, 1904.

A. C. PANNEPACKER.
COAL WAGON.

APPLICATION FILED OCT. 24, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig: 1.

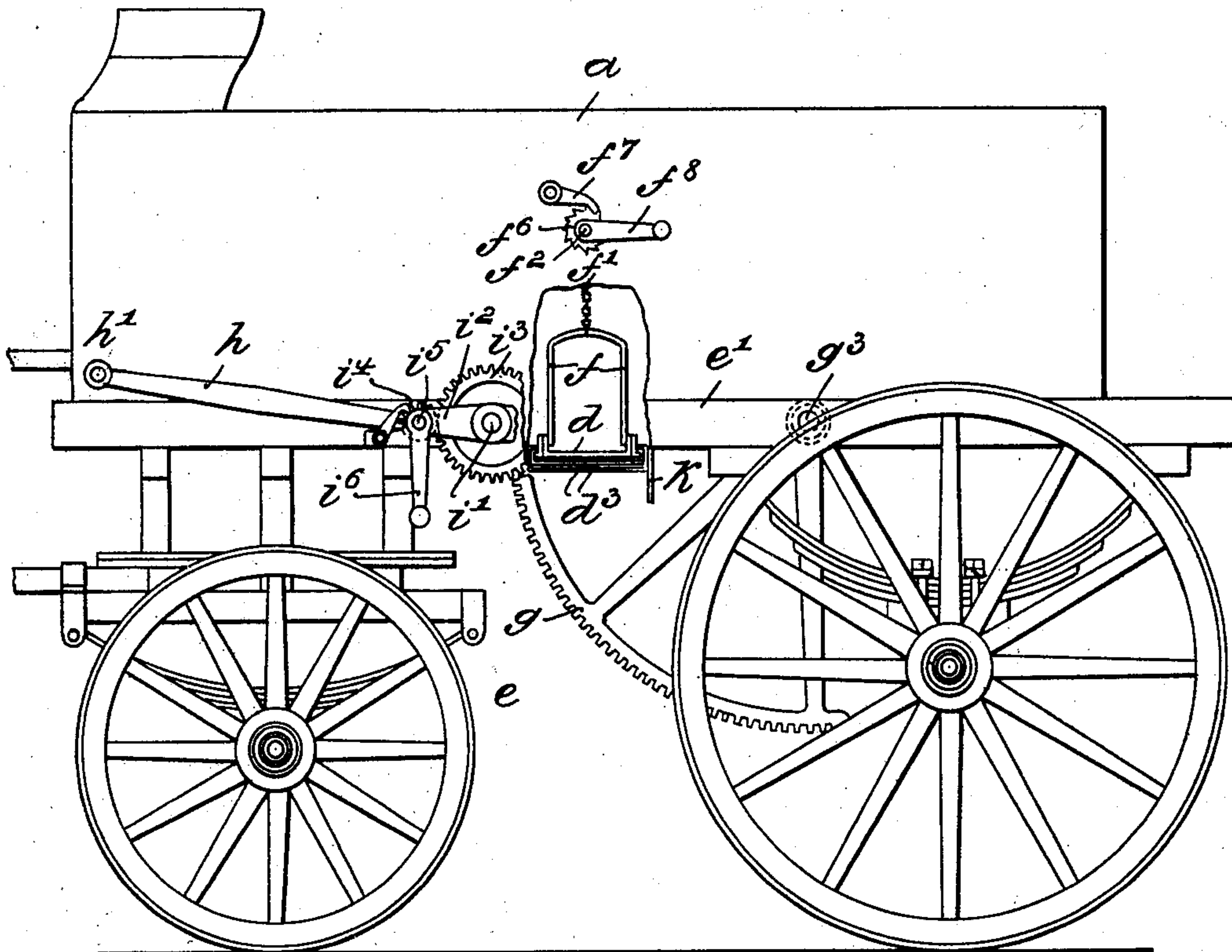
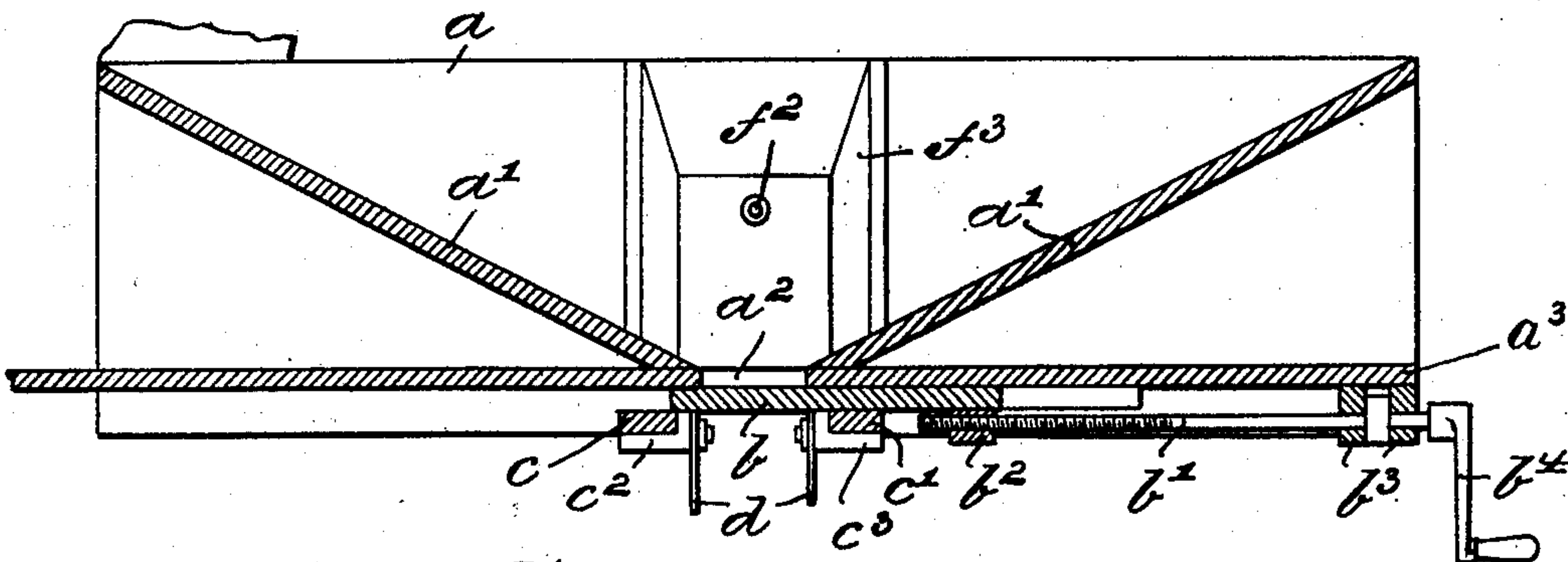
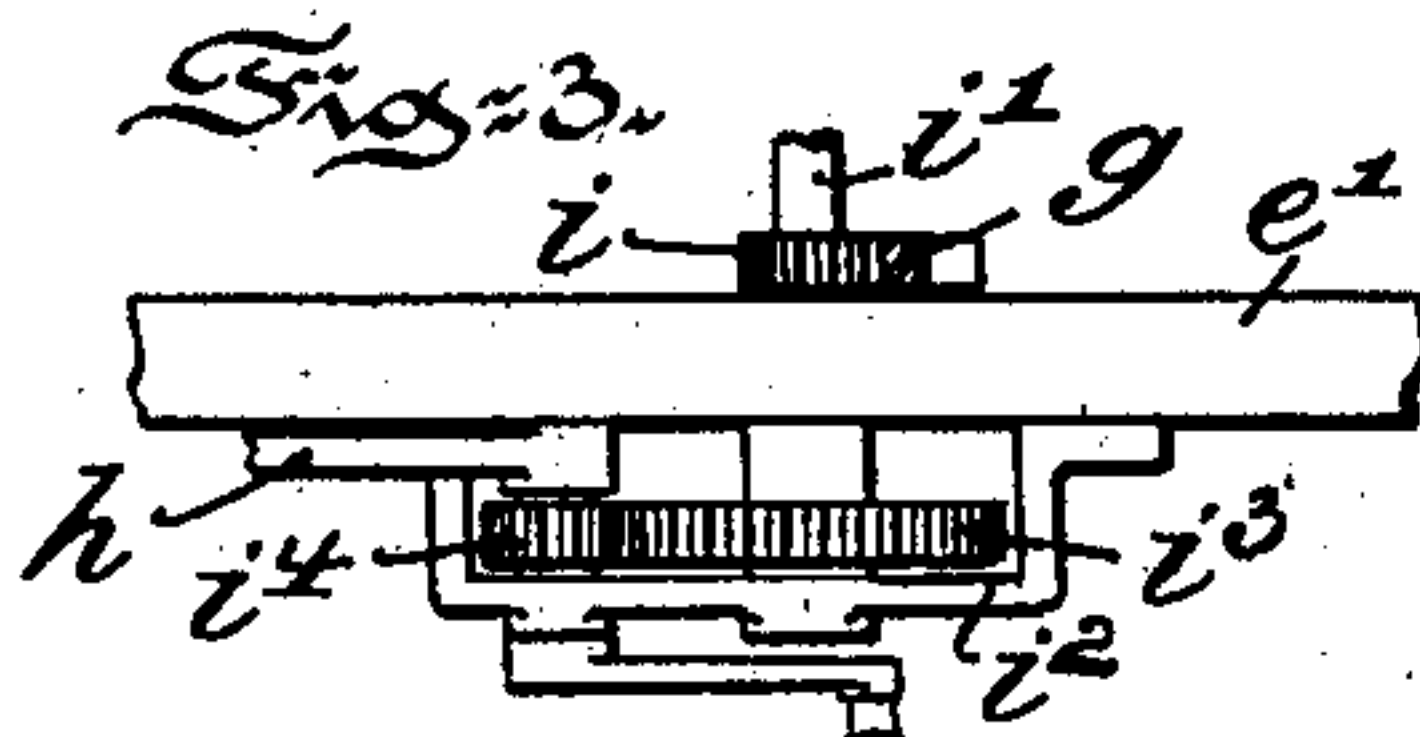


Fig: 2.



Witnesses:
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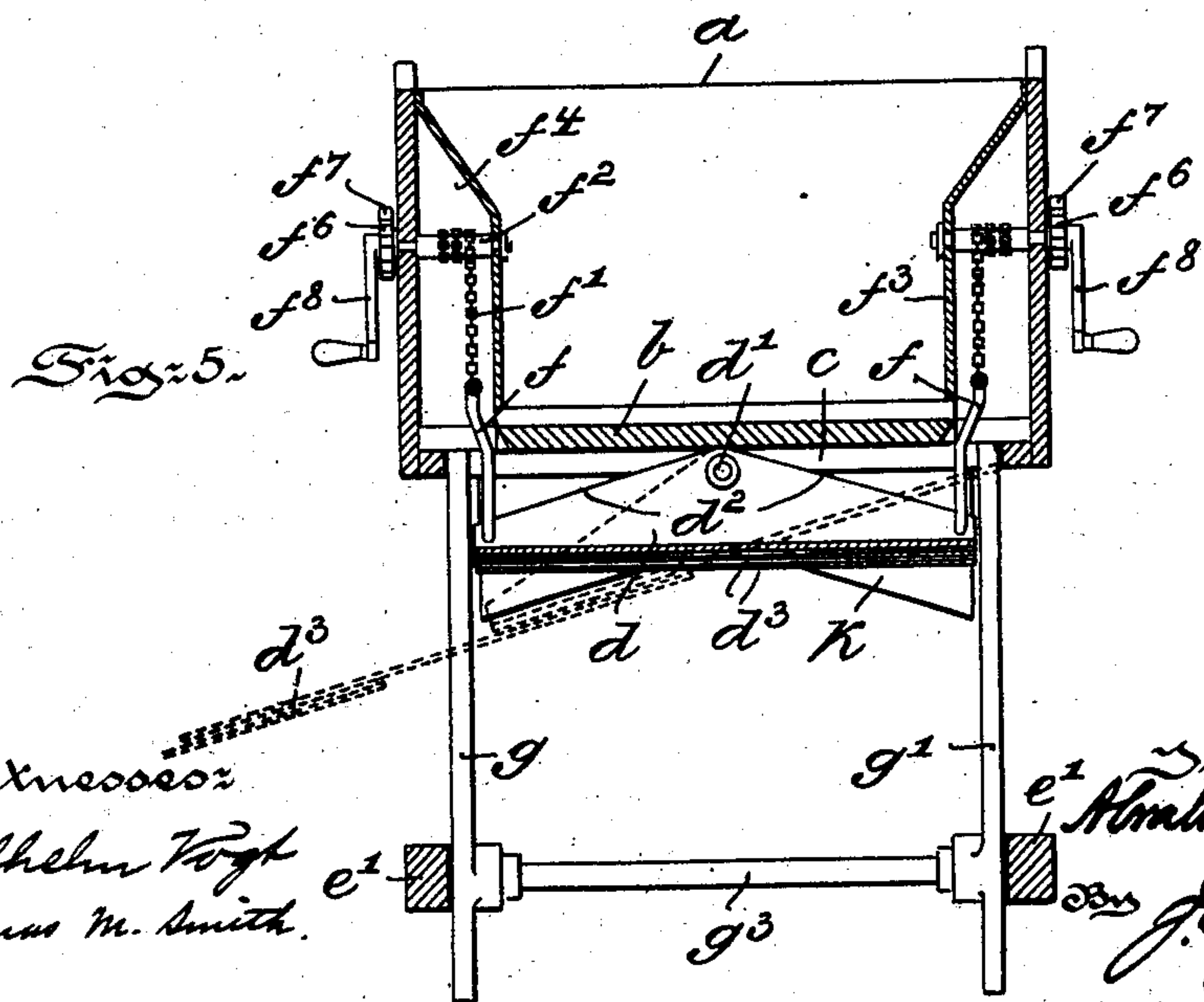
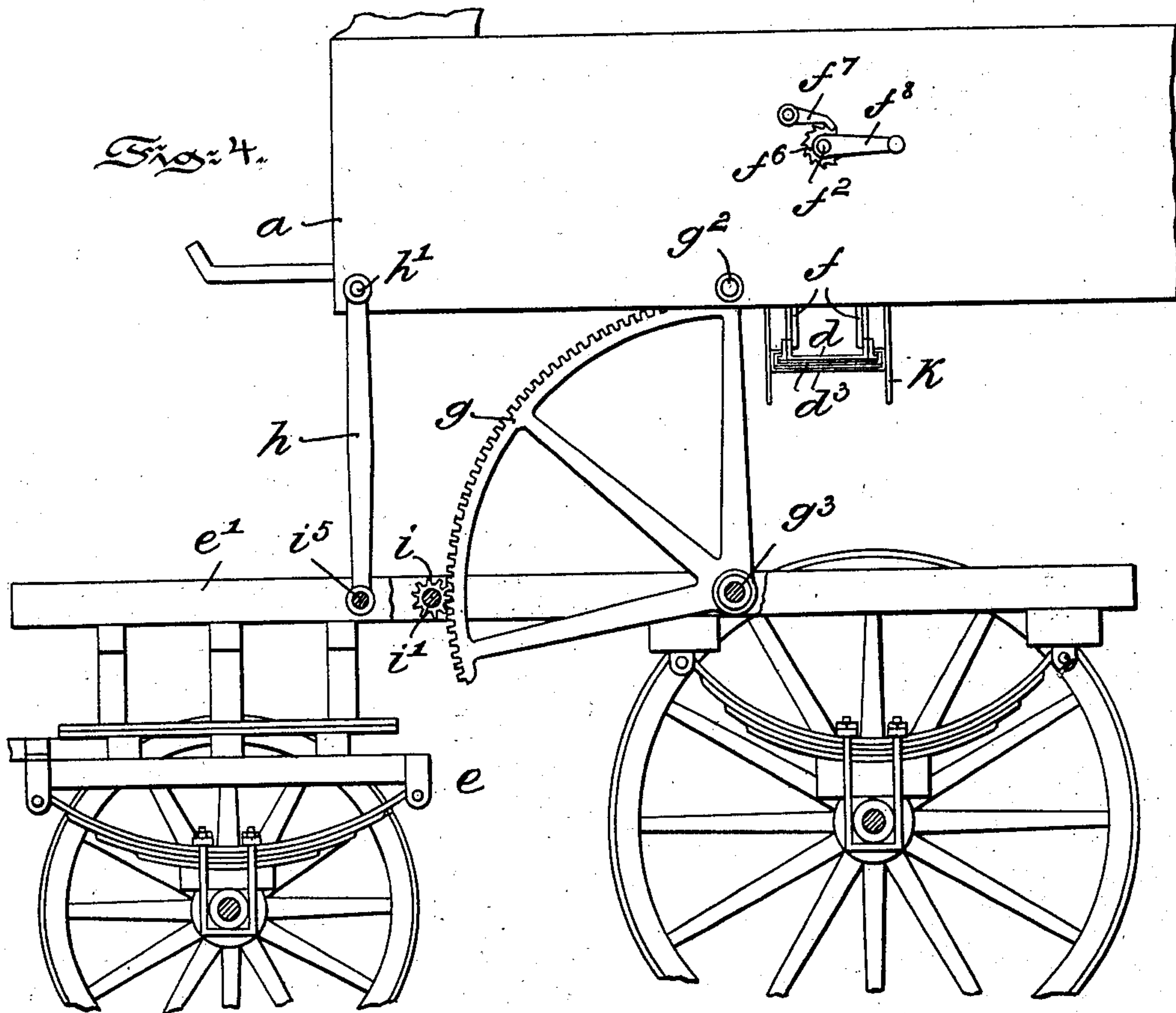
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COAL WAGON.

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NO MODEL.

2 SHEETS—SHEET 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

ABRAHAM C. PANNEPACKER, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF TWO-THIRDS TO HARMON B. AMERLING AND HENRY W. AMERLING, OF GERMANTOWN, PENNSYLVANIA.

COAL-WAGON.

SPECIFICATION forming part of Letters Patent No. 753,806, dated March 1, 1904.

Application filed October 24, 1903. Serial No. 178,306. (No model.)

To all whom it may concern:

Be it known that I, ABRAHAM C. PANNEPACKER, a citizen of the United States, residing at the city of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Coal-Wagons, of which the following is a specification.

My invention has relation to a coal-wagon; and in such connection it relates particularly to the mechanism for raising the wagon-body and the means for discharging the contents of the wagon-body at either side of the same.

My invention, stated in general terms, consists of a coal-wagon constructed and arranged in substantially the manner hereinafter described and claimed.

The nature and characteristic features of my present invention will be more fully understood from the following description, taken in connection with the accompanying drawings, forming part hereof, in which—

Figure 1 is a side elevational view, partly in section, embodying main features of my invention. Fig. 2 is a longitudinal sectional view of the wagon-body, illustrating the means for closing the discharge or outlet opening thereof and the pivotal connection of a chute-holder arranged transversely below the wagon-body. Fig. 3 is a detail view illustrating, partly in top plan view and partly in section, the means for raising and lowering the wagon-body. Fig. 4 is a side elevational view, partly sectioned, of the coal-wagon, illustrating the wagon-body in its elevated position; and Fig. 5 is a cross-sectional view of the upper portion of the coal-wagon illustrated in Fig. 4, showing in full and dotted lines the inoperative and operative positions of the chute-holder and chutes supported by the same and also illustrating means for respectively holding the chute-holder and chutes in substantially horizontal and inclined positions.

Referring to the drawings, a is the wagon-body, provided with an inclined bottom a' , terminating at or near a discharge or outlet opening a^2 , preferably arranged intermediate of the ends of the wagon-body a , as shown in

Fig. 2. The discharge or outlet opening a^2 is normally closed by a slide b , having a range of movement below and parallel to the portion a^3 of the wagon-body a . The preferred means for actuating the slide b to free or close the outlet-opening a^2 of the wagon-body a consists of a threaded spindle b' , engaging a bracket b^2 , secured to the slide b and passing through a supporting-bracket b^3 , secured to the portion a^3 of the wagon-body a . Preferably a crank-arm b^4 is secured to the free end of the threaded spindle b' , by means of which the same may be turned in either direction, so as to move the slide b below or away from the outlet-opening a^2 . Adjacent to the outlet-opening a^2 and suitably secured to the wagon-body a are arranged bars c and c' , serving as a support for a chute-holder d , which is pivotally secured thereto by means of brackets c^2 and c^3 , as shown in Fig. 2. This chute-holder d is provided with inclined sides d^2 , diverging from the centrally-arranged fulcral point d' thereof, to permit the same to assume an inclined or tilted position—such, for instance, as shown in dotted lines in Fig. 5—or a position opposite thereto. To this chute-holder d are slidably secured a suitable number of nested chutes d^3 , normally occupying a position directly below the holder d , which may be extended, as shown in dotted lines in Fig. 5, in the usual well-known manner to permit of the discharge of the contents of the wagon-body from either side thereof after the slide b has been withdrawn from the outlet-opening a^2 thereof. In the inoperative or lowered position of the wagon-body a , in which the same rests directly upon the running-gear e of the wagon, as shown in Fig. 1, the chute-holder d and chutes d^3 occupy a position between the upper frame e' of the running-gear e and the means to raise and lower the wagon-body, to be hereinafter more fully described. To hold the chute-holder d^3 and the nested chutes d^3 in a substantially horizontal position when not in use and to support the same in an operative or inclined position, the following preferred mechanism is employed: At either end of the chute-holder d and pivotally secured

thereto are arranged curved or bail-shape brackets f ; each of which by means of a chain f' is connected with a shaft f^2 , supported by the wagon-body a , and a partition f^3 , which partition in conjunction with the wagon-body form a chamber f^4 , into which the bracket f may be drawn. Each of the shafts f^2 is provided with a ratchet-wheel f^6 , engaged by a pawl f^7 , secured to the wagon-body a , and may be turned by a crank-arm f^8 , secured thereto to wind the chain f' upon the shaft f^2 or unwind the same therefrom, as occasion may require, to either hold the chute-holder d and chutes d^3 in a horizontal position or in an inclined position, as shown in Fig. 5. In each of these positions the chute-holder and chutes are securely held by the ratchet-wheel f^6 and pawl f^7 .

The preferred means for raising and lowering the wagon-body a are as follows: To the frame e' of the running-gear e and preferably to a shaft g^3 are pivotally secured toothed sectors g and g' , which in the point g^2 are pivotally connected with the wagon-body a , as shown in Fig. 4. The wagon-body a is, moreover, connected with the frame e' by links h , which are secured at one end to a shaft i^5 of the frame e' and at the other end to a bolt h' of the body a . Each of the toothed sectors g and g' is engaged by a pinion i , fixed to a shaft i' , arranged in the frame e' and terminating in brackets i^2 . The shaft i' at either end is provided with a gear-wheel i^3 , which meshes with a pinion i^4 , secured to the shaft i^5 , which forms one of the fulcral points for the links h at either side of the wagon-body a . By turning the pinion i^4 by means of a crank-arm i^6 , secured to the shaft i^5 , the toothed sectors g and g' are actuated by the pinions i and will raise the body a , which by the intervention of the links h is held in a position parallel to the running-gear e of the wagon, as shown in Fig. 4. In the raised position of the wagon-body a the chute-holder d and chutes d^3 are inclined to the side on which the contents of the body a are to be discharged, and after the same have assumed proper position the slide b is opened. It will, however, be understood that the discharge of the contents of the wagon-body a can also take place in the normal or lowered position of the same, (shown in Fig. 1,) in which instance only the chute-holder d is inclined to permit of the discharge of the contents through the outlet-opening a^2 after the slide b has been withdrawn therefrom by means of the threaded

spindle b' . Wings k are arranged at either side of the chute-holder d to prevent the side-wise discharge of the contents of the body a .

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

1. In a coal-wagon, a body provided with an outlet-opening, a slide adapted to open and close said opening, a chute-holder pivotally secured intermediate of its ends below the outlet-opening of said body, a series of nested chute-sections arranged below said chute-holder and adapted to be carried by the same, means adapted to hold said chute-holder and sections inclined, in operative position, and means adapted to raise and lower said body.

2. In a coal-wagon, a body provided with an outlet-opening, a slide adapted to open and close said opening, a chute-holder pivotally secured below the outlet-opening of said body and open at both ends, means adapted to swing said chute-holder on its pivotal connection with said body into an inclined operative position, and means adapted to raise and lower said body.

3. In a coal-wagon, a body provided with an outlet-opening, a slide adapted to open and close said opening, a chute-holder pivotally secured below the outlet-opening of said body and open at both ends, wings arranged on both sides of said chute-holder and adapted to confine the contents of said body in its discharge to said chute-holder, and means adapted to swing said chute-holder on its pivotal connection with said body into an inclined operative position.

4. In a coal-wagon, a body provided with an outlet-opening, a slide adapted to open and close said opening, a chute-holder pivotally secured below the outlet-opening of said body and open at both ends, wings arranged on both sides of said chute-holder and adapted to confine the contents of said body in its discharge to said chute-holder, means adapted to swing said chute-holder on its pivotal connection with said body into an inclined operative position, and means adapted to raise and lower said body.

In testimony whereof I have hereunto set my signature in the presence of two subscribing witnesses.

ABRAHAM C. PANNEPACKER.

Witnesses:

J. WALTER DOUGLASS,
THOMAS M. SMITH.