W. H. HUNT.

DUMPING BODY FOR COAL TRUCKS.

APPLICATION FILED SEPT. 19, 1913.

1,104,801.

Patented July 28, 1914.

2 SHEETS—SHEET 1.

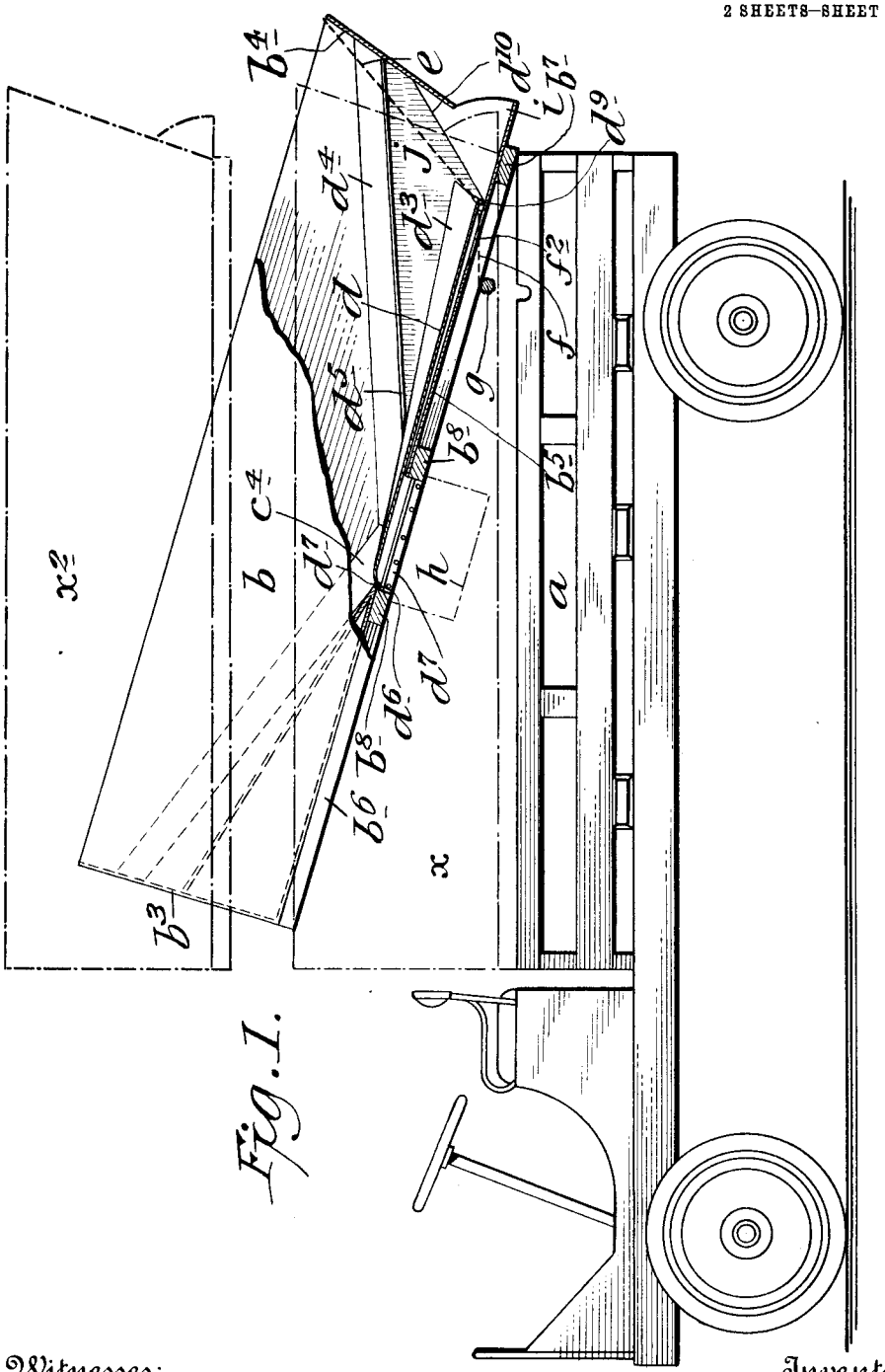


Fig. 1.

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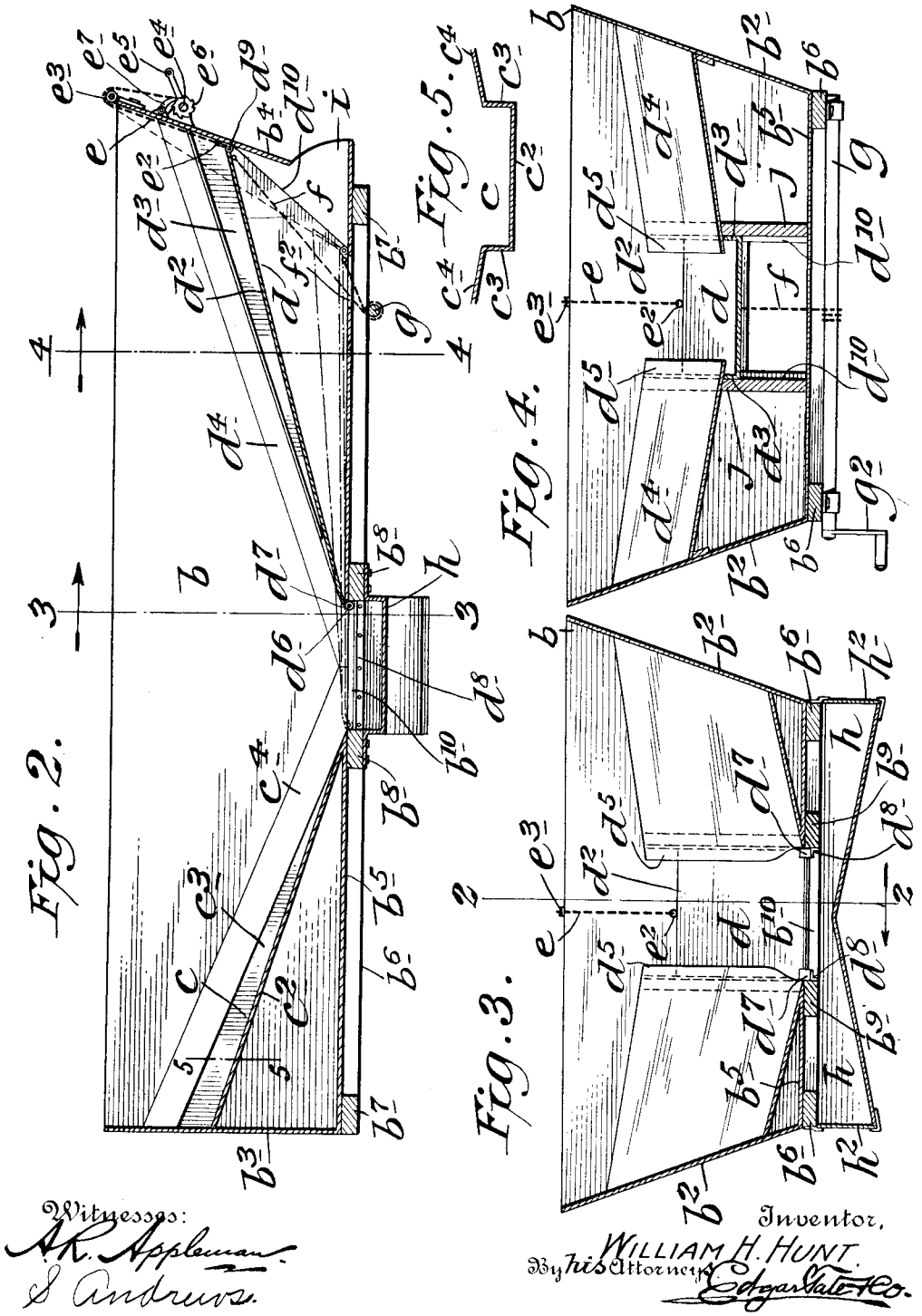
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UNITED STATES PATENT OFFICE.

WILLIAM H. HUNT, OF NEW YORK, N. Y.

DUMPING-BODY FOR COAL-TRUCKS.

1,104,801. Specification of Letters Patent. Patented July 28, 1914.

Application filed September 19, 1913. Serial No. 790,788.

To all whom it may concern:

Be it known that I, WILLIAM H. HUNT, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Dumping-Bodies for Coal-Trucks, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to dumping bodies for delivery coal trucks, and the object thereof is to provide an improved body for vehicles of this class whereby coal may be discharged from either side of the body centrally, or dumped from the stern thereof.

The invention is fully disclosed in the following specification of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which;—

Figure 1 is a side view of a power propelled truck provided with my improved body, said body being shown in full lines and partially in section with the front end thereof raised and being indicated in dotted lines in two different positions;—Fig. 2 a central longitudinal vertical section of the body on the line 2—2 of Fig. 3;—Fig. 3 a vertical transverse section on the line 3—3 of Fig. 2;—Fig. 4 a vertical transverse section on the line 4—4 of Fig. 2; and, Fig. 5 a partial vertical section on the line 5—5 of Fig. 2.

In Fig. 1 of the accompanying drawings, I have shown at a the truck frame of a coal transportation and dumping truck, preferably of the power driven type, and of the class shown and described and of the construction shown and described in U. S. Letters Patent No. 1,071,052, granted to me August 26, 1913, and in carrying my invention into effect, I provide a body b which is adapted to be mounted on a truck frame and connected therewith, and manipulated or raised and lowered for the purpose of discharging or dumping the contents thereof in the same manner and by the same mechanism shown and described in Fig. 7 of the patent referred to, and as the hoisting or raising and lowering mechanism employed forms no part of this invention, it is therefore not shown and described.

The body b comprises sides b^2, a front end b^3, a rear end b^4 and a bottom b^5, said bottom being mounted on and secured to a suitable frame-work comprising side bars or rails b^6, transverse end bars b^7, two centrally and transversely arranged bars b^8 and intermediate parallel longitudinal bars b^9 which, together with the transverse bars b^8, form a central rectangular opening b^{10}, the bottom b^5 being provided with a corresponding opening.

The front end portion of the bed is provided with a downwardly and inwardly inclined chute c which extends from the front end b^3 to the opening b^{10} and the rear end portion of the bed with a similarly inclined chute d which extends from the rear end portion of the bed to the opening b^{10}, and the side and rear end walls b^2 and b^4 of the bed are preferably downwardly and inwardly inclined, as clearly shown. The front end chute c is composed of a stationary bottom c^2 and raised side walls c^3 which are inclined to correspond with the taper of the inclination of the bottom c^2, and said side walls c^3 are also tapered from the front end b^3 of the bed to the opening b^{10}, and at each side of the chute c the body of the bed is provided with downwardly and inwardly inclined supplemental floor members c^4 which form, in effect, a part of the chute c and act as guides or guide plates leading into said chute.

The chute d comprises a movable bottom d^2 and vertical side walls d^3 formed integrally therewith or connected thereto, and which are inclined downwardly and inwardly in the same manner as the side walls c^3 of the chute c, and which are similarly tapered, and the opposite sides of the rear end portion of the body b are provided with supplemental downwardly and inwardly inclined bottom members d^4 similar to the bottom members c^4, except that, the inner edges or flanges d^5 of the bottom members d^4 overlap the side walls d^3 of the chute d, and the object of this construction is to prevent coal from interfering with the operation of the floor d^2 of the chute d, as hereinafter described. The front end of the floor d^2 of the chute d is provided with a transverse rod d^6 on the ends of which are mounted anti friction rollers d^7 movable on parallel tracks or ways d^8 secured to the bars b^9, and the rear end of the floor d^2 of the chute d is provided with rollers d^9 similar to the rollers d^7, and which are movable on downwardly and inwardly inclined tracks or ways d^{10} at the opposite sides of the rear end por-

tion of the body space beneath the floor d^2 of the chute d.

A chain or other flexible device e is connected centrally with the rear end portion of the floor d^2 of the chute d, as shown at e^2, and passed up over an anti-friction roller e^3 mounted centrally of the top of the rear end b^4 of the bed b, and passed down and around a shaft e^4 supported transversely of the rear end of the bed, and said shaft is provided with a crank e^5 by which it may be turned, and with a ratchet wheel e^6, and a pivoted pawl e^7 operates in connection with said ratchet wheel to prevent the backward movement of said shaft, and said pawl may be thrown out of engagement with said ratchet wheel whenever desired. I also preferably connect with the bottom of the rear end portion of the floor d^2 of the chute d, a chain or other flexible device f which is carried downwardly and forwardly and passed through an aperture f^2 in the floor b^5 of the bed and connected with a transverse shaft g mounted below the floor of the bed and which is provided at one end with a crank g^2.

From the foregoing description, it will be seen that the chutes c and d are downwardly inclined from the opposite end portions of the bed to the central portion thereof where they communicate with an opening b^{10}, and beneath said opening are placed transversely arranged discharge chutes h having doors h^2 of any preferred construction and operation, and in the operation of my improved coal dumping body for coal trucks, coal may be discharged from either side of the bed centrally thereof, or dumped at the rear end thereof through a discharge chute or opening i.

The normal position of the bed b is that indicated at x in Fig. 1, and by means of the hoisting mechanism employed, but not shown, said hoisting mechanism being that shown in Fig. 7 of the patent referred to, the bed b may be raised into the horizontal position indicated at x^2 in Fig. 1, and the contents thereof discharged from either side through the chutes h in the usual manner, or said bed may be raised into the position shown in full lines in Fig. 1, the front end only being raised, or said front end being raised higher than the rear end; during this operation, or at the end thereof, the pawl e^7 may be disengaged from the ratchet e^6, and the weight of coal lying on the floor d^2 of the chute d will force said floor downwardly into the position shown in full lines in Fig. 1, and in dotted lines in Fig. 2, in which operation, the front end of the floor d^2 of the chute d passes across and closes the opening b^{10} in the central bottom portion of the bed, and all the coal in the bed will pass out, or be dumped through the chute or opening i. If the weight on the floor d^2 of the chute d is not sufficient to force said floor downwardly and forwardly, the shaft g may be turned to aid this operation, or in other words, to pull the floor d^2 of the chute d downwardly and force it forwardly, and when the contents of the bed are discharged, as described, the floor d^2 of the chute d may be returned to its normal position by means of the shaft e^4 and the chain e.

It will be seen that the supplemental bottom members c^4 and the supplemental bottom members d^4 are inclined inwardly transversely and in the direction of the central portion of the bed, and this facilitates the passage of the coal into the chutes c and d when the coal is discharged from the opposite sides of the bed centrally thereof, and also when said coal is discharged at the rear end of the bed, as hereinbefore described, and it will also be seen that when the front end of the bed is raised, into the position shown in full lines in Fig. 1, and the floor member d^2 of the chute is in its bottom or lowered position, there is a continuous chute from the front end of the bed to the lower end thereof.

With the construction herein described, the tendency of the coal in the opposite end portions of the bed, when said bed is in the position indicated at x^2 is to flow both inwardly and transversely of the bed, and also inwardly and longitudinally toward the center thereof from both ends, and this facilitates the movement of the coal and renders the discharge thereof much more free in its movement than would otherwise be possible, and this is also true when the bed is in the position shown in full lines in Fig. 1.

With my improvement, pea coal or finely divided coal may be quickly and easily discharged either from the central portion of the bed or from the rear end thereof when desired, but in the operation of transporting and dumping or discharging what is known as soft or slack coal, or coal in large chunks it may be necessary to raise the body into the position shown in full lines in Fig. 1 or at an inclination, and by means of the hoisting mechanism referred to, any desired inclination may be given to the bed, and either end portion of said bed may be raised separately, or both end portions may be raised together, when desired.

The chute d is reinforced by longitudinally arranged side boards j which are inclined in the same manner as the walls of said chute, and which form a part of said chute when the bottom d^2 thereof is in its lowered position, and which also support the floor members d^4.

Although I have described my improved dumping body for trucks as particularly designed and adapted for use in transport-

ing or conveying and dumping coal, it must be understood that my invention is not limited to this use, and my improved body may be used for conveying and dumping gravel, sand and other material.

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

1. In a coal truck body having a central and rear discharge opening, supplemental bottoms inclined both toward the longitudinal center of the body and toward the transverse center thereof, inclined chutes arranged centrally in said bottoms, one of said chutes being operative in alternate positions to close either the rear discharge opening or the central opening for the purpose described.

2. A coal truck body having inwardly and downwardly inclined rear end and side walls and provided with central and rear discharge openings in combination with inclined supplemental front and rear bottoms having centrally and longitudinally disposed inclined chutes, one chute being fixed and the other being movable downwardly and toward and from the longitudinal center of the body to open or close either of said discharge openings.

3. A coal truck body having inwardly and downwardly inclined rear and side walls, and central and rear discharge openings, supplemental inclined bottoms and depressed chutes formed therein, one chute being movable downwardly and toward and from the longitudinal center of the body, tracks secured in the central opening and beneath the front end of the movable chute, and rollers on said movable chute adapted to ride over said tracks for the purpose described.

4. A coal truck body having central opposite side and rear delivery openings, the end portions of said body being provided with bottoms which are inclined downwardly and toward the central side openings, a fixed chute arranged in the bottom of the front end portion, and a movable chute arranged in the bottom of the rear end portion and adapted to register with the rear delivery opening when in its lowermost position.

5. A coal truck body having central side and rear delivery openings, the opposite end portions of said body being provided with supplemental bottoms which are inclined downwardly and inwardly toward the side openings and are adapted to discharge therethrough, the supplemental bottom of the front end portion of the body being provided with a fixed chute, and the supplemental bottom of the rear end portion of the body being provided with a chute having a movable bottom adapted, in one position, to register with the rear delivery opening.

6. A coal truck body having central side and rear discharge openings, the opposite end portions of the body being provided with bottoms which are both inclined toward the longitudinal center of the body and the transverse middle thereof, and inclined chutes arranged centrally in said bottoms, the chutes in the bottom of the rear end portion of the body being provided with a movable bottom operative in different positions to close either the rear discharge opening or the central side opening or openings, substantially as shown and described.

7. A coal truck body having central side and rear end discharge openings, the front and rear end portions of the body being provided with supplemental bottoms having depressed central chutes, adapted to communicate with the side discharge openings, the chute in the bottom of the rear end portion of the body being provided with a movable bottom adapted in one position, to close the communication with the central side openings and to register with the rear opening. and in another position, to close the rear opening and open the communication with the central side openings.

8. A truck body the bottom of which is provided centrally with an opening beneath which are transversely arranged chutes which discharge in opposite directions, the opposite end portions of the body being provided with downwardly inclined chutes which communicate with said central opening, the rear end portion of the body being also provided with a discharge opening, and the chute in the rear end portion of the body being movable and adapted in one position, to close the rear end discharge opening, and to form a communication with the central opening, and in another position to open the rear end discharge opening and to close the communication with the central opening.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 18th day of September 1913.

WILLIAM H. HUNT.

Witnesses:
C. MULREAMY,
S. ANDREWS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."