

(No Model.)

F. WINTER.
DUMPING WAGON.

No. 460,258.

Patented Sept. 29, 1891.

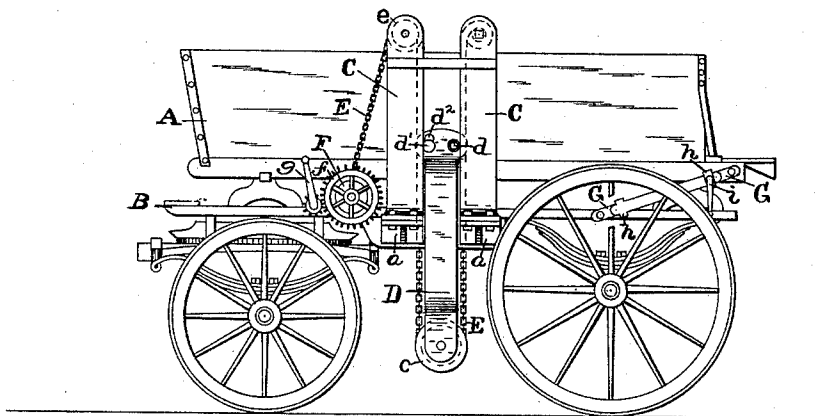


Fig. 1.

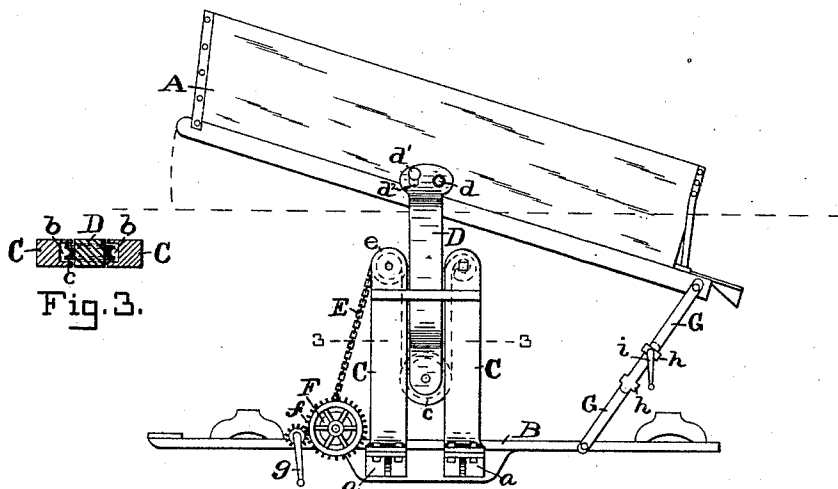


Fig. 2.

WITNESSES:

Otto H. Ehlers.
J. P. Davis.

INVENTOR:

Franz Winter,

BY Chas B. Mann
ATTORNEY.

UNITED STATES PATENT OFFICE.

FRANZ WINTER, OF BALTIMORE, MARYLAND.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 460,258, dated September 29, 1891.

Application filed February 26, 1891. Serial No. 383,015. (No model.)

To all whom it may concern:

Be it known that I, FRANZ WINTER, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented certain new and useful Improvements in Coal Wagons or Carts, of which the following is a specification.

This invention relates to an improvement in coal wagons or carts, and has special reference to that class of such vehicles in which the body is hoisted in the air and held in an inclined position while its contents are dumped down a coal-chute.

The object of the invention is to so arrange the parts that the wagon-body may be elevated entirely above the side standards supporting the hoisting-chains.

With this end in view the invention consists in certain features of construction and combinations of parts, described hereinafter, and pointed out in the claims.

In the accompanying drawings, illustrating the invention, Figure 1 represents a side elevation of a coal-wagon constructed upon my improved plan and shown with the body resting on the wagon-bed; Fig. 2, a similar view showing the body elevated and held in an inclined position, and Fig. 3 a section on line 3 of Fig. 2.

The letter A designates the wagon-body, and B the wagon-bed on the running-gear, which is of the ordinary construction. The construction and arrangement of parts are precisely the same on each side of the wagon, and a description of that at one side only will therefore be given, it being understood that it is duplicated on the opposite side.

A pair of parallel standards C are mounted rigidly at the middle of the wagon-bed on bases *a*, consisting of laterally-projecting brackets secured at the side of the wagon-bed. These vertical standards extend to the top of the wagon-body and are provided in their adjacent faces with vertical grooves *b*, extending their full length.

From the wagon-body projects downwardly an arm D, carrying at its lower end a grooved pulley *c* and fitting between the standards C. When the wagon-body is down and resting on the wagon-bed B, this arm projects below the said standards between the wheels of the wagon, as shown in Fig. 1. It is secured to

the wagon-body by a pair of bolts *d d'*, one of which *d* serves as a pivot, and the other one of which *d'* engages a curved slot *d²* in the upper broad end of the arm D, which here constitutes a plate fitting against the side of the wagon-body. It will be seen that the body will thus have a limited rocking movement on the pivot *d* to permit of the desired inclination. The arm D fits snugly between the standards C, and the latter constitute guides for the said arm and hold it in rigid vertical position at all times. A hoisting-chain E is secured at one end at the top of one of the standards, and thence extends down through the groove in the inner face of the same and along one side of the arm D, under the pulley *c* in the lower end of said arm, and up along the other side the latter, through the groove in the other standard, and over a pulley mounted in the top *e* of the latter standard. The chain then extends down to a windlass F, upon which it is wound. This windlass is operated by means of suitable gear *f* and a crank *g*.

A pair of rods or bars G are pivoted, respectively, to the wagon body and bed and lap across each other. Each bar has formed on its end a box or keeper *h*, through which the other extends loosely to allow lateral play. The bars are thus free to slide past each other. A clamp *i* is located in one of the boxes *h* to lock the sliding bars together at desired adjustments.

The operation of the device is as follows: To elevate and dump the wagon, the crank *g* is turned, which causes the hoisting-chain E to be wound upon the windlass F and to draw on the pulley *c* at the lower end of the arm D. The said arm is thus drawn up between the standards C, which serve as guides to hold the sliding arm rigid and perpendicular. In this manner the wagon-body is raised. The sliding arm D may be drawn up through the standards until the pulley in its lower end is brought near the top of said standards, and thus the body can be elevated to a position above the side standards, where it is a distance above the wagon-bed B nearly equal to the height of the standards added to that of the sliding arm, as seen in Fig. 2. The body is supported at its rear end by the extension-bar G, which, it will be observed, is brought

to an inclined position as the body rises and at the same time is extended. The members of this extension-bar are locked together by the clamp; when the body has been elevated to the desired height and tilted, and thus the said bar comprises a prop or support for the rear end of the wagon-body.

It will be seen that with this construction and arrangement of parts in a dumping-wagon the body may be elevated to as great a height as necessary, and at the same time the standards need be no higher than the sides of the vehicle. The advantage of this is that the standards do not then interfere with loading the wagon and the appearance of the wagon is improved.

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

1. In a dumping-vehicle, the combination of the body, the bed on which the latter rests, standards rising from said bed and comprising guides, arms depending from the said body between the said standards and guided thereby, said arms carrying pulleys in their lower ends, hoisting-chains supported by the standards and passing beneath the said pulleys of the depending arms, and means for operating the said chains.

2. In a dumping-vehicle, the combination

of the body, the bed on which the latter rests, standards rising from said bed and comprising guides, arms pivoted to the said body and depending therefrom between the said standards and guided thereby, said arms carrying pulleys in their lower ends, hoisting-chains supported by the standards and passing beneath the said pulleys of the depending arms, means for operating the said chains, and supports for the rear end of the vehicle-body in its elevated position.

3. In a dumping-vehicle, the combination of the body, the bed on which the latter rests, standards rising from said bed and comprising guides, arms pivoted to the said body and depending therefrom between the said standards and guided thereby, said arms having limiting slots at their upper ends engaged by bolts and carrying pulleys in their lower ends, hoisting-chains supported by the standards and passing beneath the said pulleys of the depending arms, means for operating the said chains, and supports for the rear end of the vehicle-body in its elevated position.

In testimony whereof I affix my signature in the presence of two witnesses.

FRANZ WINTER.

Witnesses:

F. P. DAVIS,

JNO. T. MADDOX.