

UNITED STATES PATENT OFFICE.

SPENCER OTIS, OF CHICAGO, ILLINOIS, ASSIGNOR TO NATIONAL DUMP CAR COMPANY, OF AUGUSTA, MAINE, A CORPORATION OF MAINE.

DUMP-CAR.

No. 823,631.

Specification of Letters Patent.

Patented June 19, 1906.

Application filed March 3, 1906. Serial No. 304,058.

To all whom it may concern:

Be it known that I, SPENCER OTIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Dump-Cars, of which the following is a specification.

My invention relates to dump-cars of the type which has a bottom comprising hinged dumping-doors, and has for its object to provide an improved locking means for the dumping-doors which may not be tampered with by any unauthorized person.

My invention consists in the combinations and details hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a transverse section of a portion of a car, showing my invention applied thereto. Fig. 2 is an enlarged detail view of the locking device. Fig. 3 is a view similar to Fig. 2 viewed from the opposite direction. Fig. 4 is an end view of the parts shown in Figs. 2 and 3.

In the accompanying drawings, *a* indicates the dumping-door hinged to the center sill of a car. *b* is a bar movable longitudinally of the door to open and close the same. *c* and *d* represent compound lever mechanism connected to an operating-shaft *e* for moving the bar *b*. *f* is a wedge-track having a horizontal end portion *f'*, against which the bar *b* rests when the door is in closed position. These elements form no part of my present invention.

The transverse members of the car-frame are provided with inclined metallic tracks *g*, having a lower horizontal portion *g'* and an upper recessed portion *g''*. The operating-bar *b* travels on this track in opening and closing the door, as will be readily understood. When the door is in closed position, the bar rests in the recessed portion *g''*, and it is desirable to provide a locking device to retain the bar in this position. For this purpose I provide a pivoted gravity latch or dog *h*, pivoted at *h'* above the locking-bar when the latter is in closed position and provided at *h''* with a recess engaging the locking-bar. As shown in Figs. 1 and 2, the tendency of the gravity-latch *h* is to fall inward toward the center of the car owing to the eccentric location of this pivot *h'*. To prevent this inward movement to any undue extent, I provide a stop-pin *i* in the transverse members. It will be understood that by this construction

the operating-bar *b* as it approaches the locking-dog will lift the same slightly and cause the dog to ride over the operating-bar in the position shown in Fig. 2. To securely lock the door in this position, I provide a locking-pin *k*, which passes through perforations in the transverse frame of the car and in the upper end of the locking-dog, these perforations being in register when the parts are in locking position. This pin may be attached to the car-frame by a chain *k'* and is provided at its opposite end with a perforation *k''* for the reception of an ordinary sealing device, such as is commonly used on railroad-cars. The locking-pin *k* serves to prevent any movement of the dog while the pin is in locking position, and this pin after the seal has been applied can not be withdrawn without breaking the seal, thus preventing the unauthorized operation of the dumping-doors. The operation of my invention will be readily understood without further description.

I claim—

1. A dump-car having a bottom comprising a hinged door, means movable longitudinally of the door to open and close the door, a track supporting the door-operating means, and a gravity-latch pivoted above the track and engaging the door-operating means when the door is in closed position.

2. A dump-car having a bottom comprising a hinged dumping-door, means comprising a transversely-moving bar for operating the door, a latch pivoted to one of the transverse members of the car-frame and engaging the bar for locking the door-operating means when the door is in operative position, and means for sealing the lock to prevent tampering therewith.

3. In a dump-car, a hinged dumping-door, a bar movable longitudinally of the door to open and close the same, a track upon which said bar is supported, a gravity-latch pivoted above the track and engaging the bar when the door is in closed position, said latch being provided with a perforation at one end, a locking-pin passing through the perforation thereof and a similar registering perforation in the car-frame.

SPENCER OTIS.

Witnesses:

ANNIE C. COURTENAY,
ANNA L. SAVOIE.