

(No Model.)

C. SCHMALZRID.
DUMPING CAR.

No. 460,450.

Patented Sept. 29, 1891.

Fig: 1.

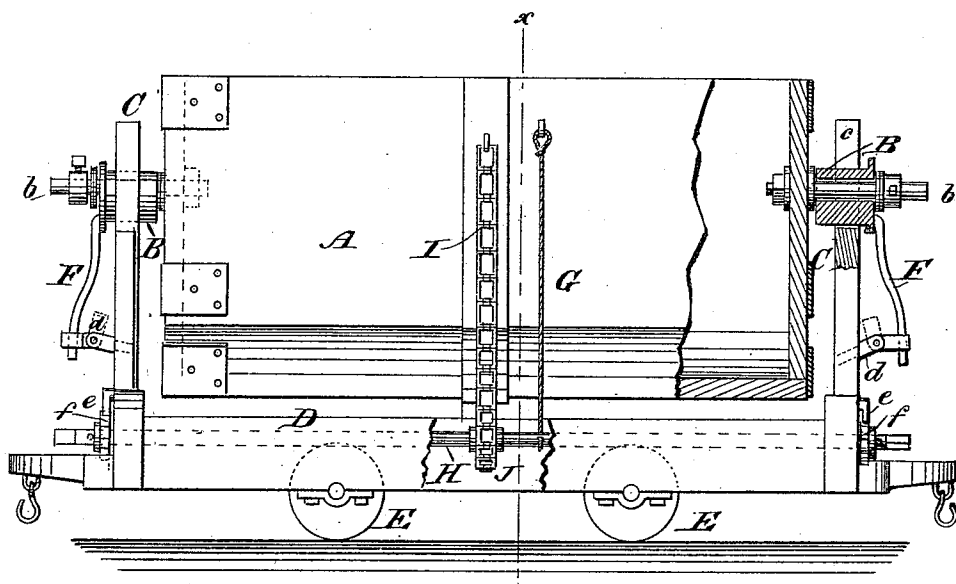


Fig: 2.

Fig: 3.

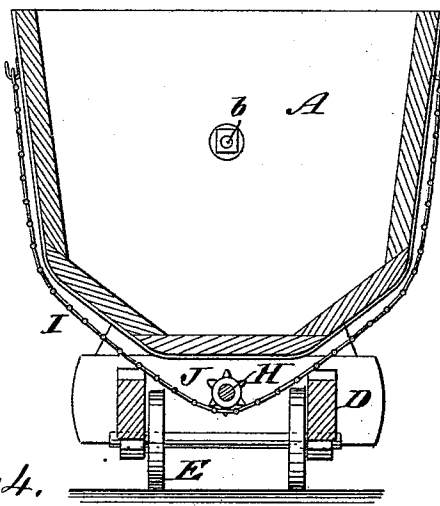
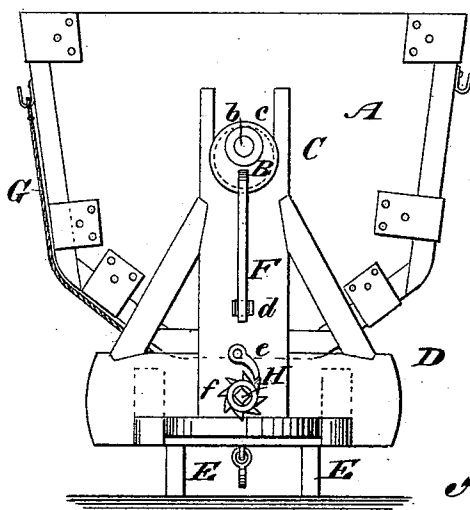


Fig: 4.

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UNITED STATES PATENT OFFICE.

CHRISTIAN SCHMALZRID, OF DONALDSONVILLE, LOUISIANA.

DUMPING-CAR.

SPECIFICATION forming part of Letters Patent No. 460,450, dated September 29, 1891.

Application filed July 1, 1891. Serial No. 398,122. (No model.)

To all whom it may concern:

Be it known that I, CHRISTIAN SCHMALZRID, of Donaldsonville, in the parish of Ascension and State of Louisiana, have invented a new and Improved Dumping-Car, of which the following is a full, clear, and exact description.

This invention relates to dumping or tilting cars which dump their load from the side at the top of the body of the car. It is applicable to hauling and dumping coal and various materials; but is more especially designed for the hauling of sugar-cane from the field to the mill and the quick dumping or discharging of said cane onto the usual or any suitable carrier while in motion, and said invention, for convenience sake and by way of illustration, will here be described accordingly.

The invention consists in a raising and lowering car-body in connection with a truck, on the wheel or base-frame of which it rests when not requiring to be tilted, but from which it is raised when necessary to tilt or dump. It also includes special means for raising and lowering the car-body and for tilting it laterally to dump when needed, substantially as hereinafter described, and more particularly pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a partly broken and sectional side elevation of a dumping-car embodying my invention; Fig. 2, an end elevation of the same; Fig. 3, a transverse section upon the line *x x* in Fig. 1 looking toward the left, and Fig. 4 a similar section in part on the same line *x x* looking toward the right.

A indicates the car-body, of polygonal or other suitable shape at its bottom, in transverse section and provided at its ends with longitudinally-central outwardly-protruding trunnions *b b*, that pass freely through rotating eccentrics *B B*. These eccentrics virtually form the bearings for the trunnions *b b* when the car-body is being tilted laterally; but they in their turn are supported in or on slotted standards *C C*, open above and projecting upward from the frame *D* of the truck, which is provided with running-wheels *E E*, to facilitate the hauling of the car and its

load. Thus the standards *C C* serve, through the intervention of the eccentrics *B B*, to bear or support the trunnions, and these standards being left open at the top of the slot *c*, in which the eccentric *B* at either end sits. Provision is made for lifting off the car-body from the truck-frame and transferring it onto a suitable cart-frame for the purpose of running it down between the rows of cane and bringing it out on the head-land. The loaded car-body then may be lifted out by means of a crane or other suitable means and be placed on its truck to avoid unloading.

When the loaded car-body *A* is on the truck, the eccentrics *B B* are turned down by raising levers *F F*, attached to or integral with them. This causes the whole weight of the loaded car-body to rest upon the base-frame *D* of the truck or sills thereof, which prevents any possible tilting of the car-body while the load is being hauled or when the whole car is turning a curve.

When the car is brought up alongside of the cane-carrier or the body of the car is required to be tilted, the eccentrics *B B* are turned upward by turning the levers *F F* downward, and if necessary engaging the latter with pivoted slotted pawls *d d*. This raises the car-body *A* sufficiently high to allow it to clear the base-frame *D* of the truck. The whole weight of the car-body then rests on the trunnions or eccentrics *B B*. The car-body can then be tilted laterally by its trunnions to dump or discharge its load from the top at either side either by directly pulling it over or on one side by the aid of a rope *G*, fastened at its one end onto the one side of the car-body and connected at its other end with a longitudinal shaft *H* underneath the car-body, which shaft may be rotated by cranks applied to its opposite ends, and has ratchet-wheels *f f* on it for pawls *e e* to engage with to hold the car-body at any desired angle. A pitch-chain *I* is also arranged to pass down the sides of the car-body and underneath its bottom, being hitched at its two ends to the sides of the body. This chain engages with a toothed wheel *J* on the shaft *H*, so that when laterally tilting the car-body by hand the chain *I* will turn the shaft and ratchets *f f* for the pawls *e e* to hold the car-body in any desired position. After the car has been

emptied of its load the eccentrics B B are again lowered and the car-body is made to again rest directly on the base-frame of the truck, and is supported independently of its trunnions, which protects the car from being upset or turned over on a narrow-gage track.

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

1. The combination, with a car-truck, of a raising and lowering dumping-car body supported thereon by end trunnions and operating when raised to swing or tilt laterally, but immovably resting when lowered on said truck, substantially as specified.

2. In a dumping-car composed of a truck and a raising and lowering laterally swinging or tilting car-body having trunnions on its opposite ends, the combination, with said body and with upright slotted standards on the base-frame of the truck, of eccentrics capable of being turned or rotated, receiving the trunnions freely within them, and arranged to work within the slotted standards, whereby the car-body may be raised to quickly and laterally tilt in either direction or belowered to immovably engage with the truck-frame, essentially as set forth.

3. The combination, with the base-frame of

the truck, having opposite end-slotted standards, and the raising and lowering laterally swinging or tilting car-body, of a longitudinally-arranged shaft beneath the said body provided with one or more ratchets and pawls engaging therewith, means for raising the car-body to admit of it being tilted, and means connecting said shaft and car-body for tilting the latter, substantially as specified.

4. In a dumping-car for hauling and laterally dumping various materials in either direction, the combination of the car-truck, the raising and lowering and laterally-swinging car-body mounted thereon, provided with end trunnions, rotatable eccentrics carried by the truck and receiving the trunnions freely within them for raising and lowering the car-body, the longitudinal shaft below the car-body, with its ratchets, pawls, and independent toothed wheel, and the pitched chain attached to and passing under the car-body and engaging with said wheel for operating said shaft to hold the car-body at any desired angle when tilted, substantially as specified.

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Witnesses:

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