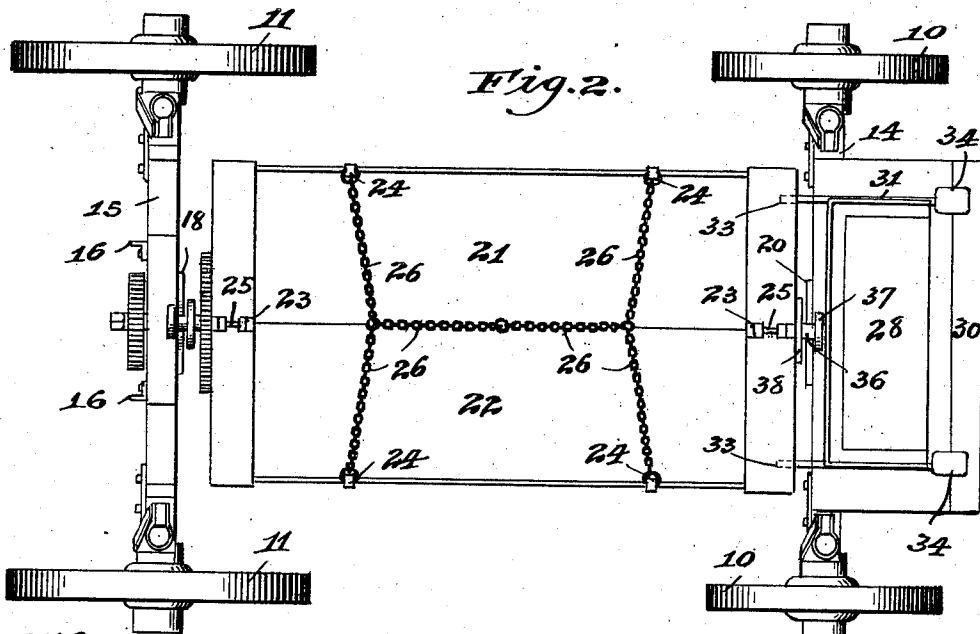
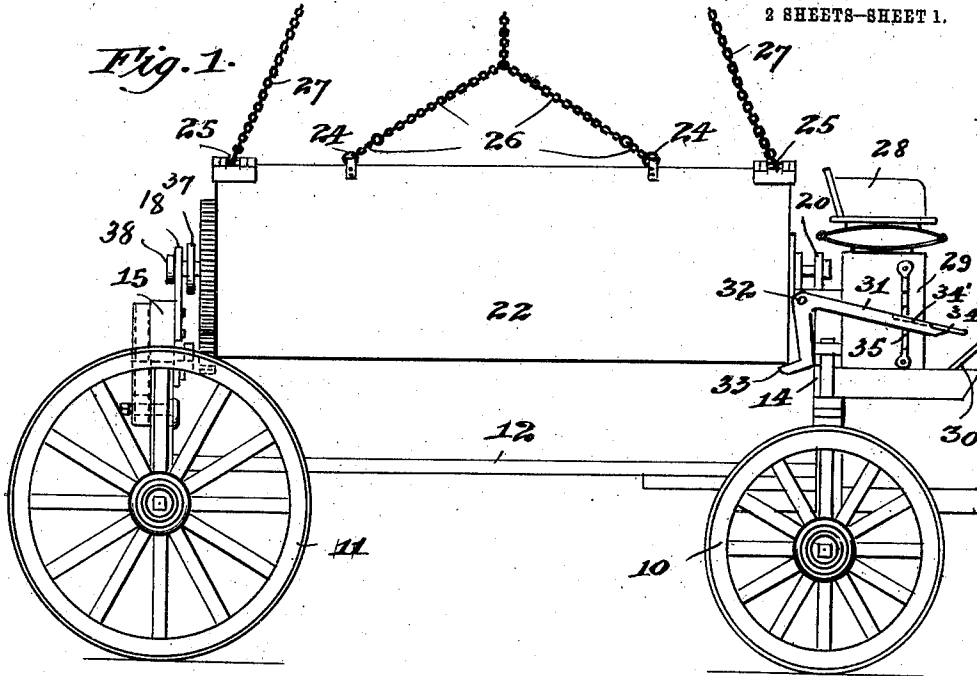


C. LYNCH.
DUMPING WAGON.
APPLICATION FILED APR. 26, 1910.

986,582.

Patented Mar. 14, 1911.

2 SHEETS-SHEET 1.



Witnesses,
S. Mann,
S. N. Tond

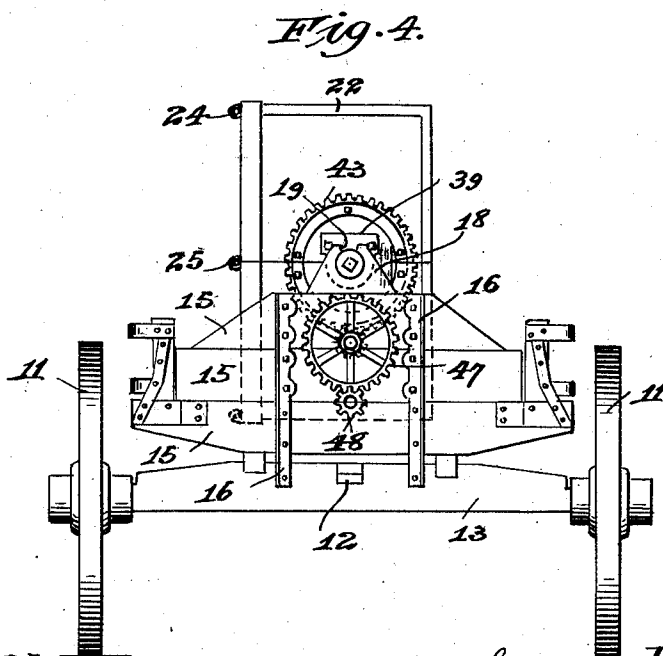
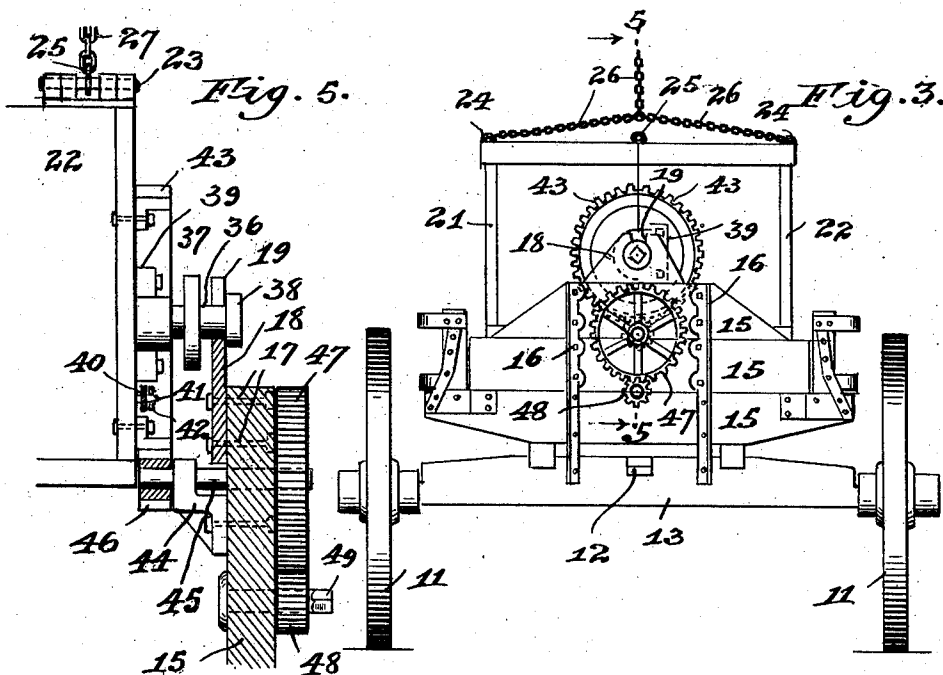
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UNITED STATES PATENT OFFICE.

CHARLES LYNCH, OF CHICAGO, ILLINOIS.

DUMPING-WAGON.

986,582.

Specification of Letters Patent.

Patented Mar. 14, 1911.

Application filed April 26, 1910. Serial No. 557,806.

To all whom it may concern:

Be it known that I, CHARLES LYNCH, 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 Dumping-Wagons, of which the following is a specification.

The purpose of my invention is the provision of an improved dumping wagon having a box or body-portion with trunnions at its ends mounted in bearings on the wagon-frame and in which they may be turned so that the contents or load of the box can be discharged at either side. The bearings which support the trunnions are open at the top, permitting the box with its trunnions to be lifted bodily by any hoisting means, such as a crane. This box or load receptacle is made in two parts hinged together at the top, and is provided on its ends and sides with means for attaching hoisting and dumping chains or cables, and it is also provided with a hasp or similar means on one or both ends to fasten the parts together in order to prevent the box from opening up and unloading its contents when not desired. If the load is to be dumped through the wagon-frame or directly beneath the running gear, the hasp is released, so that when the box is raised it will open and empty its contents. The wagon is equipped with mechanism for turning the box upon its trunnions in order to dump the load at either side of the wagon, and is also supplied with one or more catches operated by foot or hand to prevent the box from turning on its trunnions except at the proper time.

My invention, in its preferred form, is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved dumping wagon. Fig. 2 is a top plan view of the same. Fig. 3 is a rear end elevation of the same. Fig. 4 is a view similar to Fig. 3, but shows the body or box of the wagon turned on its trunnions so as to discharge its load at one side; and Fig. 5 is a vertical section of the rear end of the wagon, on an enlarged scale, on the line 5—5 of Fig. 3.

Referring to the drawings, the wagon includes the usual forward and rear wheels

10 and 11, respectively, and a reach-pole 12 connecting the front and back portions of the running gear. Above the rear axle 13 is provided the usual bolster which, in the present instance, is composed of a series of planks 15 superposed on each other and secured to each other and to the axle 13 by upright angle-bars 16 bolted to and across the several parts. On the inner side of the bolster thus formed is attached, by means of bolts 17, a vertical plate 18 notched at its top at 19 to receive the rear trunnion of the box or body hereinafter described. The front bolster 14 is similarly built up or raised, but the angles which correspond to the angles 16 do not extend below the lower edge of the bolster, and to the inner side of said bolster is attached a notched plate 20 similar to the plate 18, the forward trunnion of the box being adapted to fit therein.

The box or load-conveying receptacle consists of two mating parts 21 and 22 open at the top and also hinged together at the top at their respective ends at 23, the upper edges of the sides of said receptacle and the hinges 23 having loops or rings 24 and 25, respectively, attached thereto and constituting means for securing to the box dumping and hoisting chains or cables 26 and 27, respectively.

At the forward part of the wagon is the usual seat 28 mounted on the support 29 and a foot-rest 30, as shown in Figs. 1 and 2. On each side of the wagon is a bell-crank lever 31 pivoted at its elbow at 32 to the built-up front support of the frame, each lever having a catch 33 adapted to engage the bottom of the load receptacle or box and having at its forward end a plate portion 34, which affords means of actuating the lever by the driver's foot. Secured to each side of the support 29 is a ratchet-bar 35 with which a projection 34' on each lever is adapted to cooperate to hold the catches in such position that they will prevent the box from turning on its trunnions. Each trunnion consists, as best shown in Fig. 5, of a stub-shaft 36 having spaced collars 37 and 38 adapted to be disposed on opposite sides of the notched bearing 18 or 20. The stub-shaft 36 of each trunnion has rigid there-with a plate or base portion 39 bolted to half of the split box, the shafts 36, when the

box is in closed condition, being opposite the joint or dividing line of the two parts. A hasp 40 is pivotally secured at one end to one portion of the box and is adapted to co-
 5 operate with a staple 41 on the other half of the box, a pin 42 being provided to lock the hasp to the staple. By this means the box is prevented from opening up except
 10 when it is desired to discharge the load centrally beneath the wagon-frame, or at a point remote from the latter by raising the box by means of suitable hoisting means.

Concentrically arranged with respect to the rear trunnion shaft 36 are two half gears
 15 43 attached to the two portions of the box. Bolted to the inner surface of the rear bolster is a bracket 44 (Fig. 5), in which is rotatably mounted a shaft 45, which extends rearwardly through an opening in the
 20 bolster. At the forward end of this shaft there is provided a pinion 46 meshing with the split gear 43, while on its rear end is secured a spur-gear 47 with which coöperates a pinion 48 rotatably mounted be-
 25 low the shaft 45. The shaft or axle of the pinion 48 is provided with a protruding squared portion 49 upon which a wrench is adapted to be placed to operate the gears and turn the box or load receptacle upon its
 30 trunnions.

The operation of the device is as follows: After the box has been loaded and lowered upon the wagon-frame so that its trunnions rest in the bearing plates 18 and 20 and the
 35 catches 33 have been actuated so as to engage the under surface of the box to prevent the same from turning over during transit, the wagon is driven to the place where it is desired that the load shall be discharged.
 40 The unloading may be accomplished in several ways. By applying a wrench or crank to the projection 49 the loaded box may be turned by the gearing sidewise in either direction so as to throw its contents out to
 45 either side of the wagon-frame, the catches 33 having been previously removed. Where the load is to be dumped either directly beneath the wagon-frame or at some distance therefrom, this is done by attaching the
 50 hoisting chains 27 to the fastenings 25 on the hinges of the box and also attaching the dumping chains 26 to the fastenings 24 on the sides of the box; then raising the box by the chains 27 releasing the hasps, and
 55 then transferring the weight to the dumping chains 26 which causes the box to automatically open and discharge the contents. Or, the chains 27 may be dispensed with and the chains 26 used as both hoisting and
 60 dumping chains. Where the load is to be discharged at a distance from the wagon, I prefer to employ both the chains 27 and 26, since there is less danger of accidental premature opening of the box before the place

of delivery is reached when the load is sustained in transit by the chains 27.

Obviously the minor details of the wagon may be varied without departing from the substance of the invention as defined in the following claims. For example, other fas-
 70 tening means than that shown may be employed for uniting the two sections of the box, and instead of a split gear I may use a whole gear bolted to only half of the box but overlapping the other half so as to be
 75 centrally disposed and concentrically arranged with respect to the rear trunnion.

I claim:

1. In a dumping wagon, the combination of a wagon frame having a pair of bearings,
 80 a load-conveying box comprising two parts hinged together at the top, means to tie said two parts together to prevent the box from opening and discharging its contents, trunnions secured to the opposite ends of said
 85 box and fitting in said bearings, and means to turn said box on its trunnions to discharge its contents, substantially as described.

2. In a dumping wagon, the combination
 90 of a wagon frame having a front and a rear bearing, a load-conveying box comprising two parts hinged together at the top, means to tie said two parts together to prevent the
 95 box from opening and discharging its contents, a trunnion secured to each end of said box and fitting in said bearings, the latter being open at the top so that said box and trunnions may be lifted bodily from said
 100 bearings, and means to turn said box on said bearings to discharge its load, substantially as described.

3. In a dumping wagon, the combination of a wagon frame having a front and a rear bearing, a load-conveying box comprising two
 105 parts hinged together at the top, means to fasten said two parts together to prevent the box from opening and discharging its load, means on the sides of said box for the attachment of dumping chains, trunnions se-
 110 cured to the ends of said box and fitting in said bearings, the latter being open at the top so that said box and trunnions may be lifted bodily from said bearings, a split gear secured to one end of said box, and a pinion
 115 rotatably mounted on said wagon frame meshing with said gear to afford means to turn said box on said bearings to discharge its contents, substantially as described.

4. In a dumping wagon, the combination
 120 of a wagon frame having a front and rear bearing, a load-conveying box comprising two parts hinged together at the top, means to fasten said two parts together to prevent the box from opening and discharging its
 125 load, means on the ends and sides of said box for the attachment of hoisting and dumping chains, respectively, trunnions se-

cured to the ends of said box and fitting in
said bearings, the latter being open at the
top so that said box and trunnions may be
lifted bodily from said bearings, and means
5 on one end of said box and the adjacent end
of the wagon frame for effecting the turn-
ing of said box on said bearings to dis-

charge its contents, substantially as de-
scribed.

CHARLES LYNCH.

Witnesses:

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