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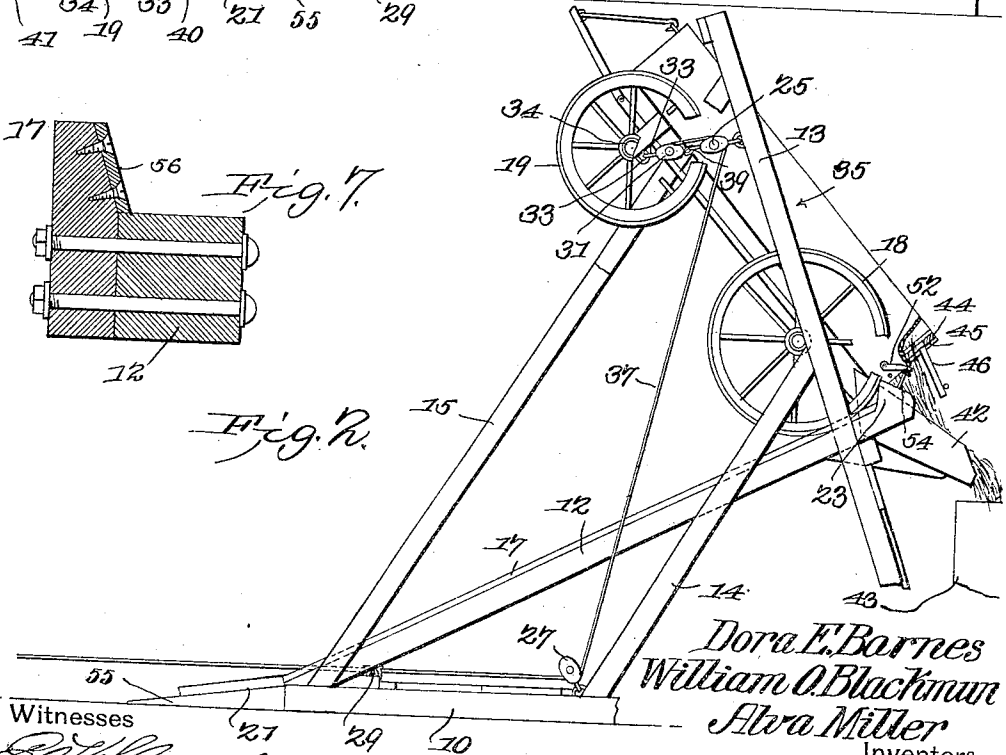
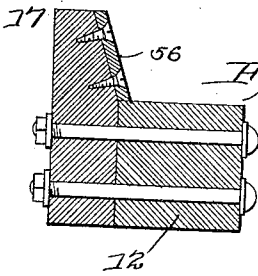
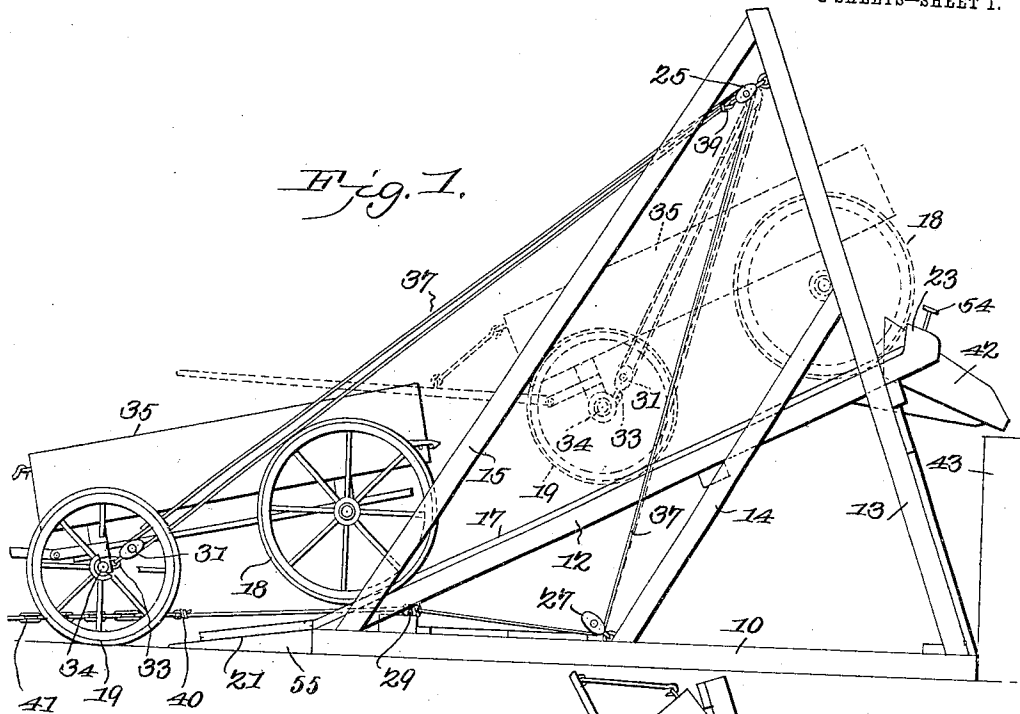
PATENTED FEB. 27, 1906.

D. E. BARNES, W. O. BLACKMUN & A. MILLER.

WAGON DUMPING APPARATUS.

APPLICATION FILED JULY 3, 1905.

2 SHEETS—SHEET 1.



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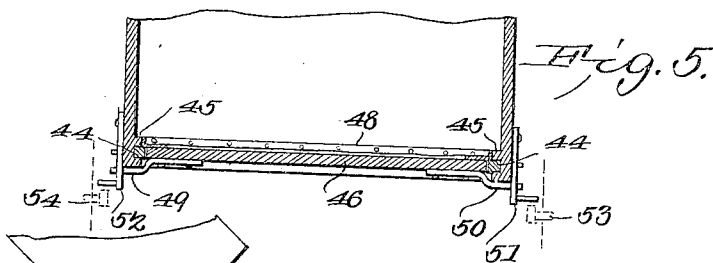
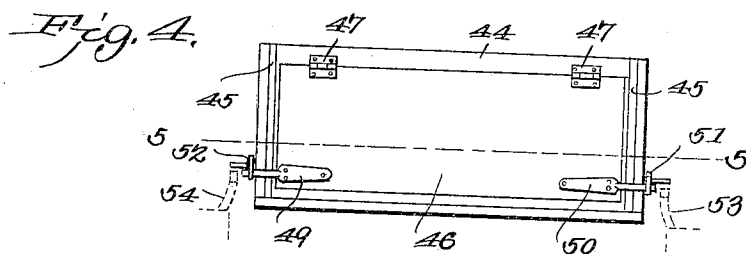
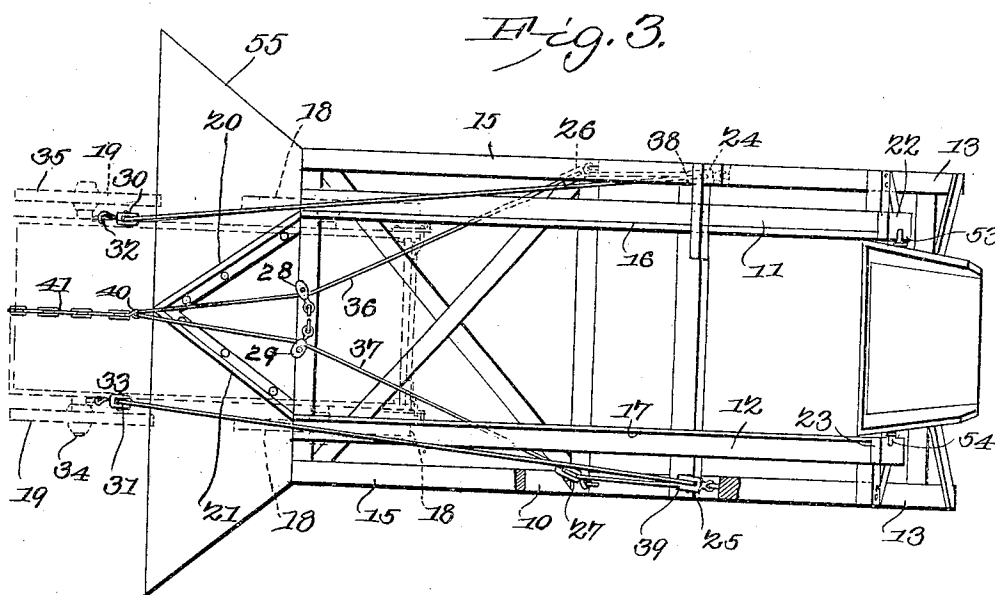
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2 SHEETS—SHEET 2.



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Fig. 6.

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UNITED STATES PATENT OFFICE.

DORA E. BARNES, WILLIAM O. BLACKMUN, AND ALVA MILLER, OF
HAYS, KANSAS.

WAGON-DUMPING APPARATUS.

No. 813,687.

Specification of Letters Patent.

Patented Feb. 27, 1906.

Application filed July 3, 1905. Serial No. 268,106.

To all whom it may concern:

Be it known that we, DORA E. BARNES, WILLIAM O. BLACKMUN, and ALVA MILLER, citizens of the United States, residing at Hays, in the county of Ellis and State of Kansas, have invented a new and useful Wagon-Dumping Apparatus, of which the following is a specification.

This invention relates to apparatus employed for unloading wagons, and has for its object to improve the construction and increase the efficiency and utility of devices of this character.

With these and other objects in view, which will appear as the nature of the invention is better understood, the same consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of embodiment of the invention capable of carrying the same into practical operation.

In the drawings thus employed, Figure 1 is a side elevation with the wagon in position ready to be elevated; and Fig. 2 is a similar view, partly in section, with the wagon in position being dumped. Fig. 3 is a plan view of the apparatus. Fig. 4 is a rear elevation of the wagon-body, representing the construction of the automatically-operating tail-board. Fig. 5 is a plan view in section on the line 5 5 of Fig. 1. Fig. 6 is a detail view of a portion of one side of the wagon-body, illustrating the construction of the tail-board, catch mechanism. Fig. 7 is an enlarged transverse section of one of the track-rails.

In the improved device is comprised a base-frame 10, having inclined spaced tracks 11 12 supported therefrom by timbers 13 14 15, the tracks having flanges 16 17 to keep the wheels 18 19 of the vehicle thereon and with angularly-disposed guide members 20 21 at the lower ends of the tracks and stops 22 23 for the wheels 18 at the upper ends, the guide members preferably mounted upon an inclined runway 55, leading to the tracks, as shown. Attached to the upper portion of the timbers 13 are tackle-blocks 24 25, and tackle-blocks 26, 27, 28, and 29 are connected to the base member 10, as shown. Tackle-blocks 30 31 are also provided with hooks 32 33 for detachably coupling to the forward axle 34 of the

wagon to be dumped, the latter represented as a whole at 35. The draft-cables 36 37 are connected, respectively, at one end, as at 38 39, to the straps of the tackle-blocks 24 25 and conducted thence through the tackle-blocks 30 31, attached to the forward axle of the wagon 35, and thence through the tackle-blocks 24 25 and thence through the tackle-blocks 26 28 and 27 29 and united at 40 to a section of chain 41, extending longitudinally of the base-frame and to which the draft-horses are to be attached.

When the wagon is to be unloaded, it is backed up to the lower end of the inclined rails and in longitudinal alinement with the same and the tackle-blocks 30 31 hooked to the forward axle. One or more teams of horses, generally the team which has hauled the wagon to the dumping apparatus, is then hitched to the chain-section 41, and as they move off the cables 36 37, operating through the various tackle-blocks, first draw the wagon up the inclined rails until its rear wheels 17 18 engage the stop-blocks 23 23, as shown by dotted lines in Fig. 1, and then as the motion of the horses continues the forward end of the wagon is elevated into the position shown in full lines in Fig. 2 and effect the discharge of the load through the tail end of the body portion upon a chute 42 and thence to a car or other receptacle, (indicated at 43.) When the load has been discharged, the team is slowly backed and the wagon lowered upon the rails and returned to its former position by gravity.

It will be noted that the outer brace members 15 of the supporting-framework also serve as side guides to prevent lateral displacement of the wagon while moving upon the tracks or while being elevated.

The tail-board portion of the device comprises a frame 44 for engaging the ordinary tail-board guides 45 of the wagon-body, as shown in Figs. 4 and 5, and with a door-like portion 46, hinged, as at 47, to the frame and swinging outwardly therefrom at the lower edge, the door arranged to close against rubber or canvas strips (indicated at 48 in Fig. 5) to provide a grain-tight joint. Attached to the swinging member 46 are arms 49 50, extended laterally for engagement by swinging latches 51 52 upon the sides of the body portion. Disposed upon the outer upper ends of the rails 11 12 are trip-bars 53 54, adapted

to engage the free ends of the latch members 51 52 as the wagon is tilted into discharging position, and thus automatically release the latches and the swinging door member and effect the discharge of the load of the wagon. As the wagon returns to its normal position the swinging member 46 will drop by gravity and cause the arms 49 50 to pass beneath the inclined ends of the latches and automatically lock the door member again.

The device is simple in construction, can be inexpensively manufactured and erected at any desired point, and readily moved from place to place, and operates effectually for the purposes required.

When the wagon is driven and backed into position relative to the rails 10 11 and platform 55, the wheels are liable to pass over some portion of the draft appliances, and by inserting a section of chain 41 where this contact occurs this friction will not injure the draft appliances.

The track-rails are preferably constructed, as shown in Fig. 7, with the flanges 16 17 bolted to the sides and with wear-plates, as at 56, attached to their inner inclined faces.

Having thus described the invention, what is claimed is—

1. In an apparatus of the class described, the combination of inclined track-rails having vertical stops at the higher ends, a framework extending above the higher ends of said track-rails, a wagon for movement over said track-rails, tackle-blocks having means for detachably coupling to the forward axle of said wagon, tackle-blocks connected to the upper part of said upwardly-extended framework, and draw-cables extending through said tackle-blocks, whereby when power is applied to said draw-cables, the wagon will first be drawn upward upon the track-rails until the rear wheels engage the stop-blocks upon the same and then the forward end of the wagon elevated to cause the discharge of contents.

2. In an apparatus of the class described, a base-frame for movement over the ground,

spaced riser members connected at one end to one end of said base-frame and inclined toward the opposite end of the same, spaced brace members connected between the said opposite end of said base-frame and the upper ends of said riser member, spaced track-rails having longitudinal flanges and connected to said base member at one end between said brace members and extending at an incline to the longitudinal plane of the base-frame and connected to said riser members intermediately thereof, stop-blocks at the higher ends of said track-rails, a wagon for movement over said track-rails, tackle-blocks having means for detachably connecting to the forward axle of said wagon, tackle-blocks connected to said riser members, and draw-cables extending through said tackle-blocks.

3. In an apparatus of the class described, the combination of spaced inclined track-rails having vertical stops at the higher ends and with trip members adjacent to said stops, riser members extending above the higher ends of said track-rails, a wagon for movement over said track-rails, tackle-blocks and draw-cables connected between the forward axle of said wagon and said riser members for moving said wagon upon said track-rails until its rear wheels engage said stop-blocks and its forward end is elevated, a tail-board swinging outwardly from the body portion of said wagon and provided with laterally-extending arms and latches swinging from said wagon-body portion and detachably engaging said arms and adapted to be released by said trip members when the forward end of the wagon is elevated for discharging the contents.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

DORA E. BARNES.
WM. O. BLACKMUN.
ALVA MILLER.

Witnesses:

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A. W. FRANK.