

(No Model.)

J. A. HEAD.
DUMPING WAGON.

No. 455,399.

Patented July 7, 1891.

Fig. 1.

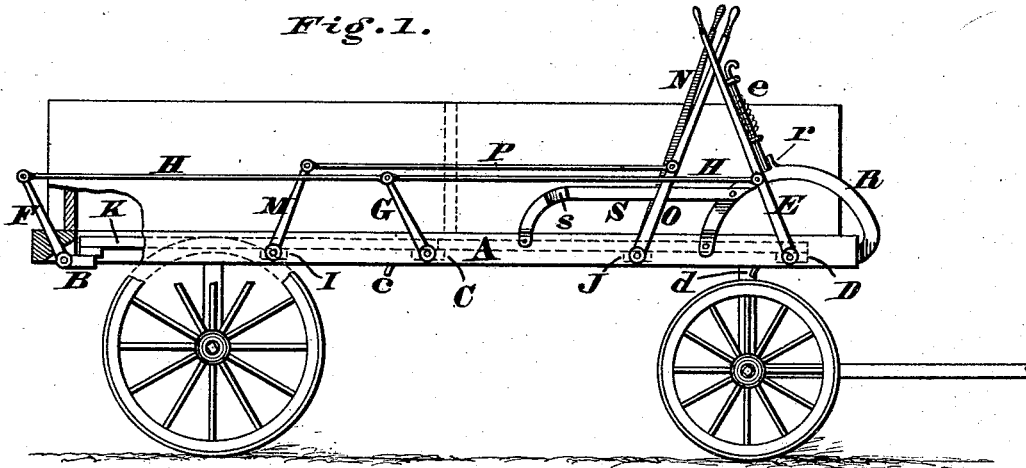


Fig. 2.

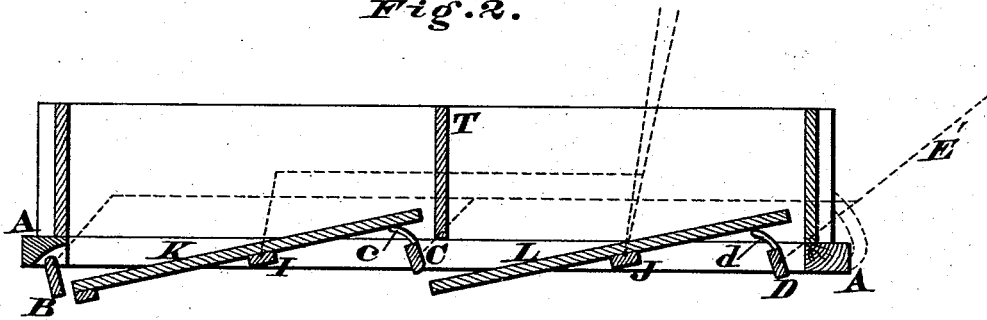


Fig. 3.

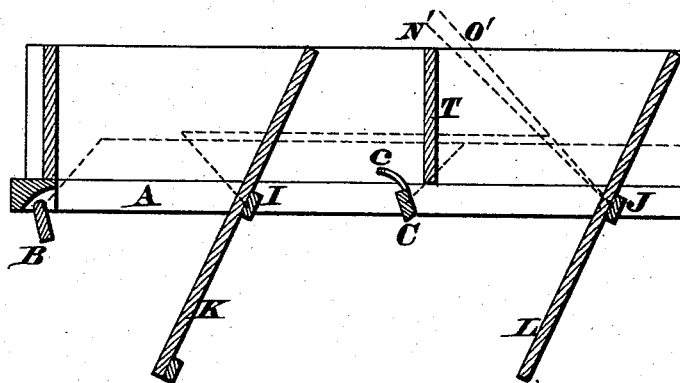
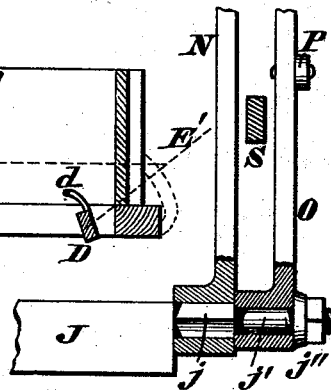


Fig. 4.



Attest,
Attorney at Law,
Samuel M. Quinn.

Inventor,
Joseph A. Head
by James H. Bayman,
Attorney.

UNITED STATES PATENT OFFICE.

JOSEPH A. HEAD, OF GREENFIELD, OHIO, ASSIGNOR OF THREE-FOURTHS TO JOSEPH IRONS, JAMES L. SMITH, AND EDWARD L. McCLAIN, ALL OF SAME PLACE.

DUMPING-WAGON.

SPECIFICATION forming part of Letters Patent No. 455,399, dated July 7, 1891.

Application filed February 16, 1891. Serial No. 381,687. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH A. HEAD, a citizen of the United States, residing at Greenfield, in the county of Highland and State of Ohio, have invented certain new and useful Improvements in Dumping-Wagons; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form a part of this specification.

My invention comprises a novel combination of devices for operating a pair of tilting boards or sections of a dumping-wagon, the details of the same being hereinafter more fully described, and pointed out in the claims.

In the annexed drawings, Figure 1 is a side elevation of my improved dumping-wagon, one of the rear wheels and a portion of the main frame being broken away to expose some of the operative parts. Fig. 2 is a vertical section of the wagon-bed, the tilting boards of the same being slightly inclined. Fig. 3 is a similar section, but showing said board tilted to dump the load. Fig. 4 is a detail view.

A represents the main frame of the wagon, which is mounted upon any suitable running-gear, and has journaled in it three transverse stop-beams B C D, of which beams the front one D has a lever E secured thereto, while the rear beam B and central beam C have, respectively, levers F G. These levers F G are relatively shorter than the lever E, and are coupled to the latter by a connecting-rod H. Furthermore, the beams C D are provided with curved bearings or cam-lifters *c d*, for a purpose that will presently appear.

I and J are pivot-beams, also journaled transversely of the frame, and serve to support the tilting boards or bottom sections K L, said beams being furnished with levers M N, the lever M of rear section I being coupled to another lever O by a rod P. These levers N O are arranged as seen in Fig. 4, the lever N being mounted upon a square or non-circular portion *j* of the pivot-beam journal, while the other lever O turns freely on a spindle *j'* of said journal, and is secured in place by a washer and nut *j''*.

R is a rack attached to frame A, and having a notch *r* for a spring-catch *e* of lever E

to engage there, and thereby hold this lever in its normal or retracted position. (Seen in Fig. 1.)

S is a bar carried rearwardly from this rack and having one or more stops *s* to arrest the rearward throw of levers N O, between which levers said bar is located, as seen in Fig. 4.

When my wagon is ready for loading, the levers N O are thrown forward until the front ends of the tilting sections K L come in contact with the cam-lifters *c d* and rest firmly thereupon. Then lever E is thrown back to the position seen in Fig. 1, thereby simultaneously bringing the beams B, C, and D up snugly against the under side of said sections, at which instant the catch *e* engages with the notch *r* and thus locks said lever. It is evident the tilting sections are now horizontal, as indicated by dotted lines in Fig. 1, in which position said sections are supported upon the beams B, C, D, I, and J, all of which bear their proper proportion of the load. The wagon-bed is then filled in the usual manner, accidental dumping of its contents being prevented by the engagement of catch *e* with rack-notch *r*; but when the load is to be emptied this catch is disengaged and lever E is thrown forward until it reaches the position indicated by the dotted line E' in Fig. 2. This act so rocks the beams B C D on their bearings as to cause the rear beam B to swing down to an almost vertical position, as represented in Figs. 2 and 3, thus letting the rear or heavier end of section K drop a slight distance, while at the same time the heavier end of section L falls past the beam C, which preliminary tilting of said sections is rendered more positive by the upward action of cam-lifters *c d* against the front ends of these bottoms K and L. The contents of either part of the wagon or of the entire load can then be discharged by swinging the levers N O back to the position indicated by dotted lines N' O' in Fig. 3, thus inclining the sections K L very steeply; but in some cases this action will be automatic the instant the first lever E is thrown forward. It will thus be seen that the dumping is effected entirely with the levers, the power imparted to beam B by the load resting thereon

being transferred to the cam-lifter *d* by rod H, and the falling power of the front of beam C to the rear cam-lifter *c* thereby causing every part of the bottom K L to work on a balance and these front and rear sections to move simultaneously. By providing a central gate or division T the load can be divided in two parts and accumulation of trash against the beam C be effectually guarded against. To bring all the parts back to their normal positions, grasp-levers N O throw them forward until the sections K L strike the now upturned cam-lifters *c d*, and then hold said levers very firmly. Now throw lever E back, so as to rock the beams B C D, and let said sections become horizontal and be locked in place by re-engaging the catch *e* with notch *r*.

I claim as my invention—

1. A dumping-wagon provided with a pair

of tilting boards K L, and a pair of transverse stop-beams C D, operated simultaneously by a single lever, said beams being provided, respectively, with rearwardly-curved bearers or cam-lifters *c d*, that initiate the elevation of the front ends of said boards, all as herein described.

2. The combination, in a dumping-wagon, of stop-beams B C D, levers E F G M N O, connecting-rods H P, pivot-beams I J, and tilting boards K L, which boards are mounted upon said pivot-beams, for the purpose described.

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

JOSEPH A. HEAD.

Witnesses:

A. M. MACKERLEYS,
FRANK FREE.