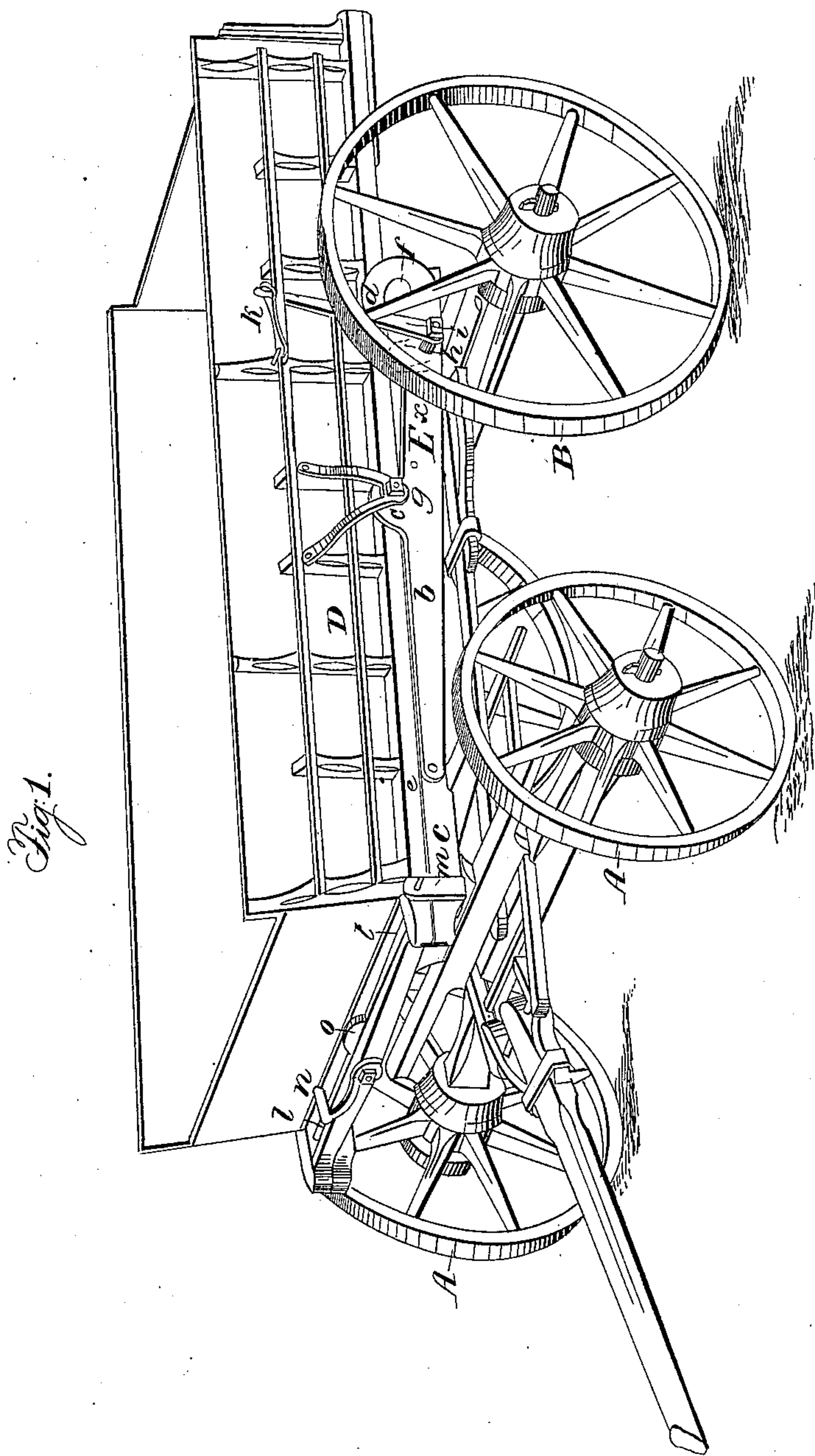


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Dumping-Wagon.

No. 9,164.

Patented Aug 3, 1852.

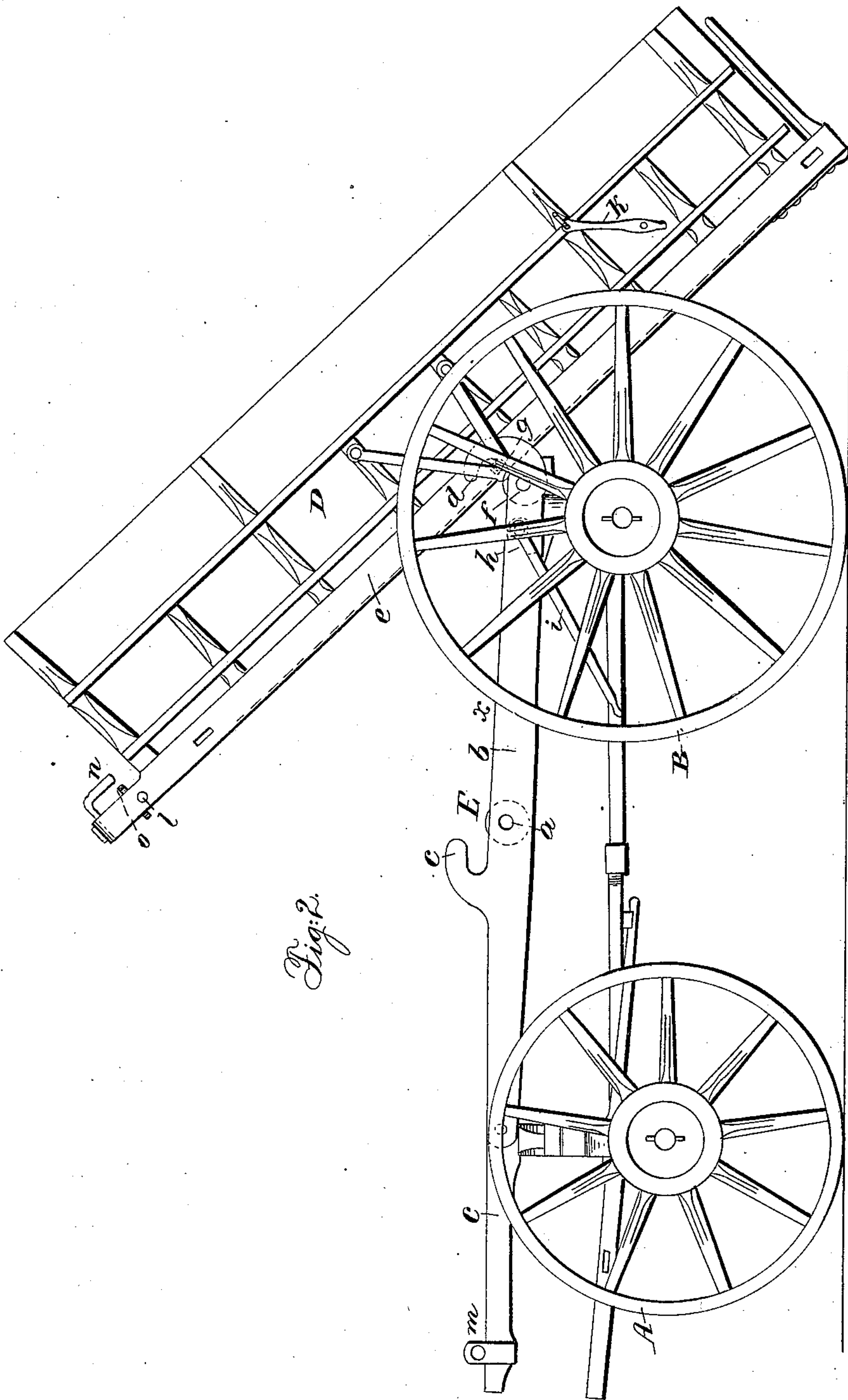


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Dumping-Wagon.

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UNITED STATES PATENT OFFICE.

THOMAS CASTOR, OF FRANKFORD, PENNSYLVANIA.

IMPROVEMENT IN DUMPING-WAGONS.

Specification forming part of Letters Patent No. 9,164, dated August 3, 1852.

To all whom it may concern:

Be it known that I, THOMAS CASTOR, of Frankford, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Dumping-Wagons, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form part of this specification, and in which—

Figure 1 is a view in perspective showing the wagon in its loading and traveling position; Fig. 2, a side elevation representing the wagon as run back and dumped.

My invention consists in balancing the body of a wagon, at or about its center, on a roller that projects upward from the frame of the running-gear and serves as a fulcrum and sliding point for the body to turn and run on to facilitate the dumping of its load and its replacement in the loading position.

In describing my improvements I shall only briefly and generally refer to such parts as are common or unimportant.

My invention, it will be seen from the following description, is applicable to burden cars or wagons generally, the drawings representing a wagon suitable for travel on common roads. The running-gear of this wagon consists of a frame supported on two front wheels A A and two hind wheels B B, C C being the side timbers of the frame.

D is the body, which is balanced on anti-friction rollers E, that turn on a rod which extends across the frame. The said rollers form a fulcrum and bearing-surface for the wagon-body to rest on and slide over, as will shortly be further described. The rollers E are so situated in relation to the length of the wagon that when the body D is in a horizontal position it is balanced in the manner of a scale-beam, at or about its center, on the said rollers, which project slightly above the frame, so that a small weight or light depressing force being applied to either end will slightly tip or tilt the other end of the body. An outside plate *b* is bolted to either side of the frame—that is, to either piece C—and is formed with hooks or stops *c d*.

e are the side and lower timbers of the body. These timbers are plated with metal and straight on their lower faces, constituting runners or rails for balancing the wagon-body

on and running it lengthwise over the rollers E. A back anti-friction roller *f* is pivoted in the hinder extremity of either side piece C, and projects slightly above the top surface thereof.

On either side of the wagon-body is a braced stop-pin *g*, which projects from the side timber *e*, and when the body D is brought home for loading, as in Fig. 1, serves to determine its proper position by striking and bearing against the hooks *c*. These pins also form trunnions for the body to turn on in dumping by catching within and against the lower hooks *d*, as seen in Fig. 2. A cam *h* is fitted to work through either side piece C. These cams are mounted on a shaft extending across the frame, which shaft is operated by a lever *i*, so that on turning the said lever upward, as in Fig. 1, and securing it by a strap or catch *k* the cams *h* slightly raise or lift the back end of the wagon-body, pressing the front end against or tight on the timbers C and supporting the back end of the body D, which they prevent from bearing unduly upon the rollers E; but when the lever *i* is turned down, as in Fig. 2, the cams permit the wagon-body to descend and run back.

l l are lock rods or pins for securing the wagon-body in its position represented in Fig. 1. They fit through a check or standard *m*, fast to either side of the frame C, and are drawn in or out of the standards, so as to leave the body D free for dumping or to lock it to the frame as required, by a handle *n* turning a disk or double crank *o*, to which the rods *l* are jointed at their inner ends.

On loading the wagon the body D, as before specified, is situated as represented in Fig. 1, the lock-rods *l* fitting through the standards *m* and the cams *h* being turned so as to slightly raise or lift and support the back end of the body. When the load is to be dumped, the lock-rods *l* are drawn out of the standards *m* by turning the handle *n*, and the lever *i* is turned down, as in Fig. 2, withdrawing the cams *h* from the support of the back of the wagon-body, which, if the load be evenly distributed, is balanced on the rollers E, that act as a prop or fulcrum. A slight force applied by hand to the front of the body D (thus poised) will cause the body to run back over the rollers E *f* till the stop-pins or

trunnions *g* strike the hooks *d*, when the slipping of the load and change of fulcrum or point of rest, giving a preponderance to the back end of the body, will upset or dump the body, as seen in Fig. 2. The load being discharged, the hand is applied to lift the back of the body *D*, which is then slid up from behind, along, or over the rollers *E f*, the former of which will again act as a fulcrum on slightly lifting the back of the body to facilitate its run forward over the rollers *E* to its original position, as in Fig. 1, when the cams *h* are turned to maintain the lift at the back till the lock-rods *l* are put into gear with the standards *m*, and the wagon thus made ready for reloading or travel.

The method of balancing the wagon-body at its center, as described, on the fulcrum *E* will admit of its being started and moved with but little power; also serve, by giving it dip forward or back, as required, to make the load tend to hold it forward or run it back, according as it is required to carry or dump

the load, is attendant with but little friction in the operation, presents a simple and durable arrangement, and admits of the body being kept low by its close proximity to the frame of the running-gear.

Having thus described my improved dumping-wagon, what I claim therein as new, and desire to secure by Letters Patent, is—

The arrangement of the body on a fixed roller-fulcrum on the frame of the running-gear in such manner that by a slight amount of force the body can be turned to give its under side, which rests on the roller, either a forward or backward inclination to cause the weight of its load to tend to hold it forward or back as it is required to carry or to dump the same, substantially as herein set forth.

In testimony whereof I have hereunto subscribed my name.

THOMAS CASTOR.

Witnesses:

ISAM SHALLCROSS,
WM. KINSEY.