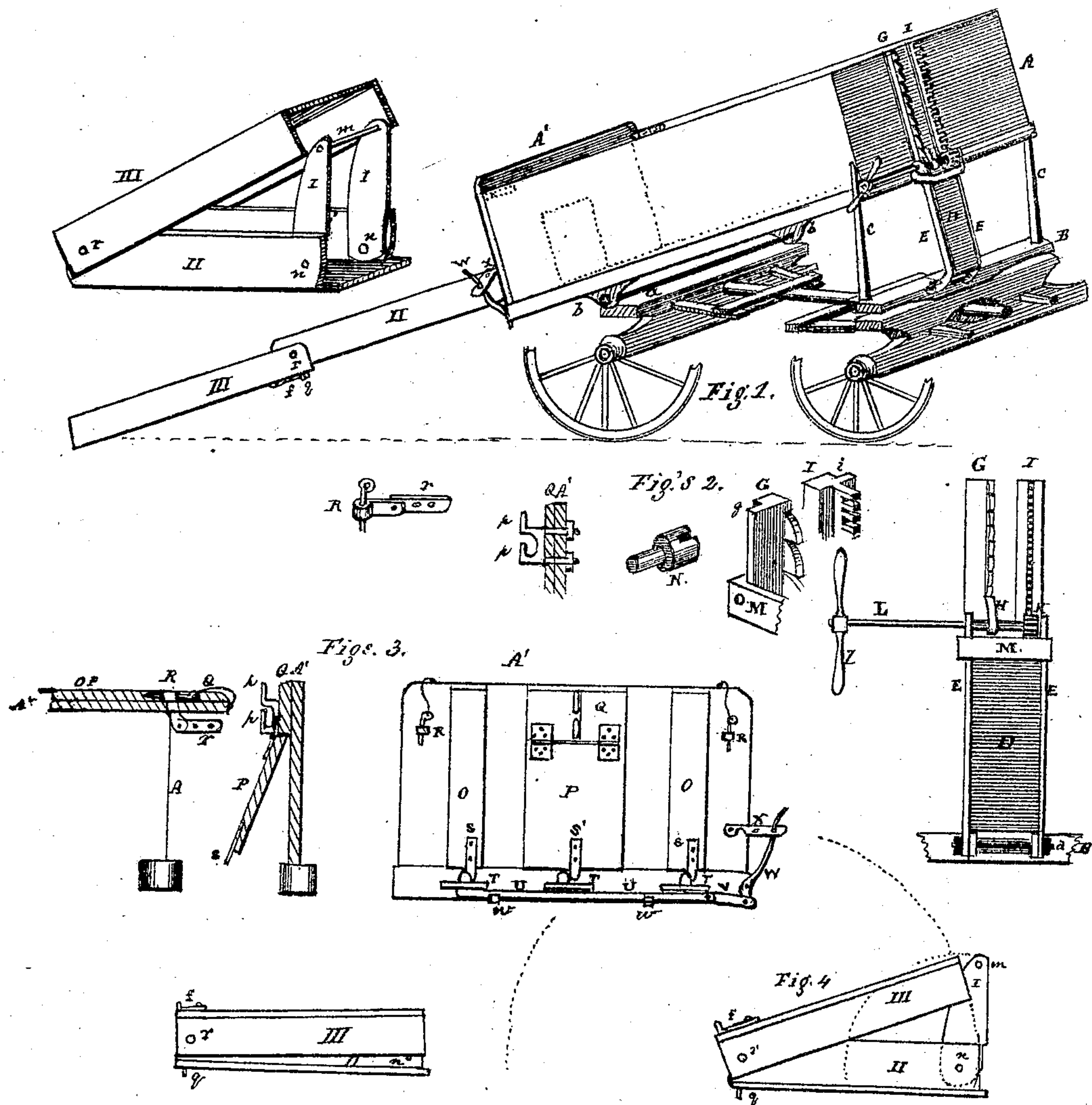


ANTHONY ISKE.

Improvement in Dumping Wagon.

No. 121,459.

Patented Dec. 5, 1871.



Witnesses.

W. B. Miles  
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Inventor.

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# UNITED STATES PATENT OFFICE.

ANTHONY ISKE, OF LANCASTER, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO HILAIRE ZAEPFEL, OF SAME PLACE.

## IMPROVEMENT IN DUMPING-WAGONS.

Specification forming part of Letters Patent No. 121,459, dated December 5, 1871.

*To all whom it may concern:*

Be it known that I, ANTHONY ISKE, of Lancaster, in the county of Lancaster and State of Pennsylvania, have invented new and useful Improvements in Wagons; and I do hereby declare that the following is a full and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 shows the running-gear of an ordinary wagon, with a square box elevated in front by means of rack and pinion held in bearings hinged to the bolster, while the box is hinged to the hind portion of the wagon, together with a folding spout or trough, partially folded, and also unfolded; Fig. 2, a front view of the hoisting appliances and detached portions in detail. Fig. 3 illustrates the arrangement of the end-gate and appliances. Fig. 4 illustrates the folding arrangement of the spout.

Similar letters of reference indicate corresponding parts.

My invention has for its object the adaptation of an ordinary wagon and box, mounted on four wheels, so that it can be dumped like a cart by means of a hoisting device, which is in connection both with the box and front part of the wagon, the box being hinged to the hind portion of the same. Said box is provided with a hinged end gate, which opens below, up, and outward, held by a sliding bolt operated by a lever. This end-gate has also a small central hinged gate opening in same manner, held by the same bolt, jointly locked with the end-gate, but in such a manner that the same bolt and lever-action adjusted will only unlock the small gate; and is admirably adapted, in combination with a folding-trough having a hinged supporting hanger, and so attached that the small gate aids in regulating the discharge for unloading coal through the folded or unfolded spout or trough into cellars or the like, constituting this arrangement on wagons to be of the greatest utility for various purposes. The hoisting device consists of the combined bearings E E, secured by a pivot-bolt, *d*, below to the bolster B of the wagon. These bearings E support the shaft L, which has a turning-wheel or cross-handles, *l*, by which it is turned and operates the cogged pinion K, which meshes into a rack, I, having a central series of cogs,

and thus raises the box A in front. There is also parallel to the rack I a ratchet-plate, G, toothed, as shown, for a pawl or click, H, on the shaft L, to hold the elevated box at any desired elevation. These bearings E, being combined by a central piece, D, and held by a band, M, which either hooks into a groove or raised flange, *g* and *i*, shown in the ratchet G and rack I, or a headed pin or bolt, N, may be used, having a slot in the head to cause the bearings E to follow or adapt themselves to the radius of the hinged box A in its motion on its fulcrum-rod *a* and bearings *b*, connected with the upper portion of the hind part of the running-gear, thus keeping the pinion and pawl in the same relative distance from the rack and ratchet, while the box moves in a curve; being also connected with and hinged to the bolster B, under which the front portion of the wagon has its free motion, the side stays or standards *c* being longer than ordinarily as guides. By this arrangement the box is easily elevated or lowered again to its horizontal position, however weighty. The end-gate A', Fig. 3, shows two vertical brace-pieces, O, each provided with a catch-plate, S, below; above, near each corner of the end-gate, projects from the inside upper corner of the box, a plate, R, with an eye outside for a pin to hold the end-gate in place above. This plate R is connected by a pivot to a fixed plate, *r*, fastened to the inside of the box, and together constitute the hinges on which the end-gate can fold up, together with a smaller gate, P, hinged to a portion, Q, centrally on the end-gate A'. This gate P has also a catch-plate, S', centrally affixed to the bottom. The cross-timber of the bottom of the box is boxed out for the catches S. There is a sliding bolt U, with projecting hold-points or vertical lock-plates, which have their sliding motion confined in staples T. The bolt U is supported on guides *w*, beneath, and has a hinged connecting-piece, V, which latter is connected to the end of the lever W on a fulcrum-pin, shown held in the outer hole of the retaining-plate X, in which position the lock catches hold the catch-plates S on the pieces O of the end-gate, but not the catch-plate S' on the small gate P, which is now unlocked. Above the gate P are hooks *p p*, one above the other, bolted through the end-gate A and piece Q. The folding trough is formed in three sections, marked I, II, III, Figs. 4 and 1. The side pieces or



hanger I are held by pivot-bolts *n* on the forward inside end of section II, and united above by a cross-rod or bolt, *m*, by which it is supported on the upper or lower hook *p*. Section III is sufficiently wide to receive section II, so as to fold down over it, and the united side pieces I fold into section II, as indicated by the dotted lines, bringing all three parts compactly together. Section II has a pin, *g*, that passes through a slot in section III when turned over to form a continuous open trough, and has a turning-hook, *f*, to engage the pin *g* and lock the sections when extended, and prevent swagging at the jointed pivot *r*. Thus when section III is turned fully over on section II it forms a closed tube, preventing the escape of fine dust. The small gate P, so soon as the bolt is withdrawn, opens into the mouth of the tube or trough and allows the coal to enter. This gate can be used to regulate the rush of coal by closing it down more or less.

While the box-wagon and end-gate are useful for all ordinary purposes, as a common wagon is, they are yet especially adapted for dumping off loads, and for unloading coal by discharging it through the hollow closed spout or open trough over the pavement into a cellar or bin with great ease and cleanliness.

I am aware that extension-tubes or jointed chutes attached to the rear part of a cart, through which coal may be delivered to the hole leading to the cellar, are not new. Patent No. 73,684, claims the attachment of a funnel-shaped or inclined mouth to the rear or side of a cart or wagon, as also a sliding valve or gate at the end of the mouth, or in the chute or tube; neither of which I claim nor use. Nor do I claim hinged or sliding chutes or tubes, as heretofore shown and described.

What I claim, and desire to secure by Letters Patent, is—

1. The arrangement of the bearings E E D, hinged to the bolster B of a wagon, in combination with the horizontal shaft L bearing a pawl, H, and pinion K, to operate the ratchet G and rack I, which latter have a raised edge or flange, *i g*, for a slotted head, N, or hook ends on the band M, which embraces the bearings and keeps them in position, all constructed and operating substantially in the manner specified.

2. In combination with said described hoisting device the fulcrum-bolt *a* and bearings *b*, by which the box is hinged to the hind portion of the running-gear of the wagon, in the manner and for the purpose set forth.

3. The arrangement of the end-gate A', hinged above by means of the plates *r R*, with its projecting eye for a pin or key, the catches S on the vertical rails O, the small central gate P hinged to Q, adjusting hooks *p p* for the hanger I on the folding trough, in combination with the catches S S' S, the sliding bolt U, staples T, jointed bar V, lever W, adjusted holder *x*, all in relation to each other, substantially in the manner and for the purpose mentioned.

4. In combination with the adjustable hooks *p p* on the central rail O of my hinged end-gate A, the hinged hanger I, connected to the folding trough with its bolt *q* and catch *p*, all arranged and operating in the manner and for the purpose specified.

ANTHONY ISKE.

Witnesses:

WM. B. WILEY,  
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