2 Sheets—Sheet 1.

Z. BUTT.

Dumping-Cart.

No. 226,649. **Patented April 20, 1880.**

Fig 1.

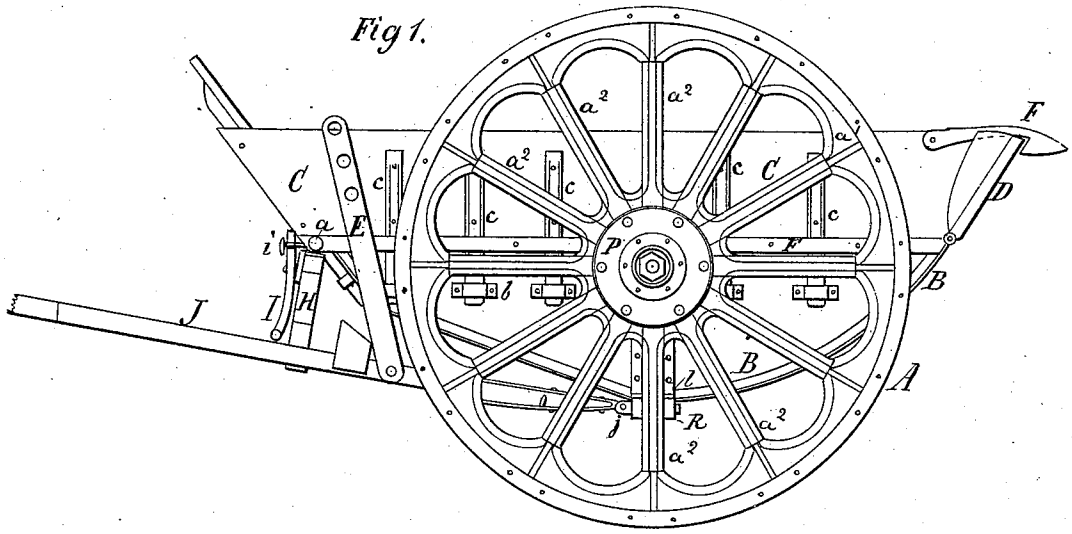


Fig 2.

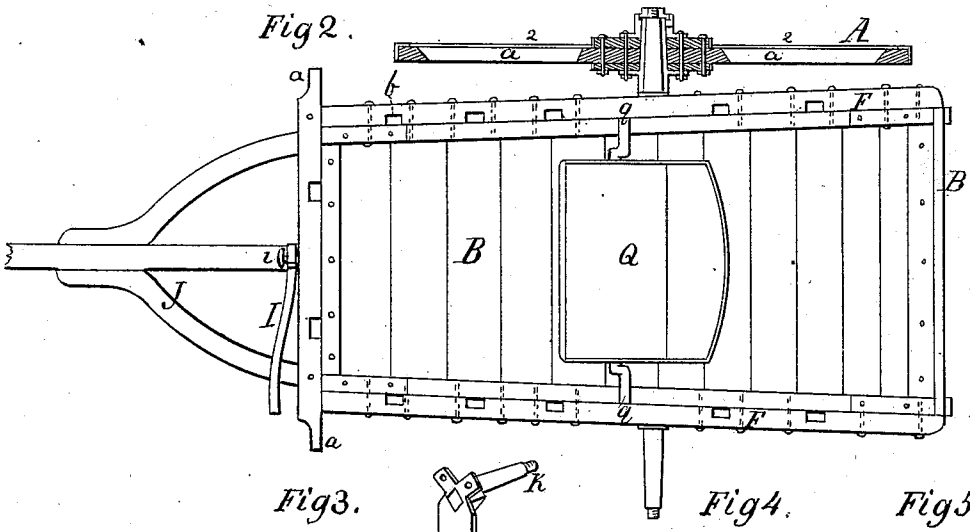


Fig 3.

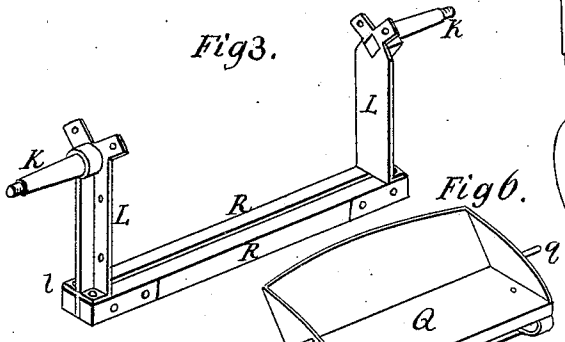


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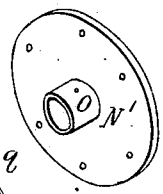


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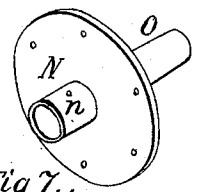


Fig 6.

Fig 7.

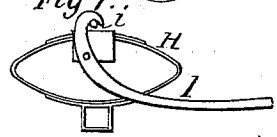
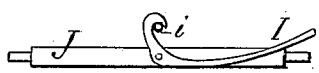


Fig 8.



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Z. BUTT.

Dumping-Cart.

No. 226,649. Patented April 20, 1880.

Fig 9.

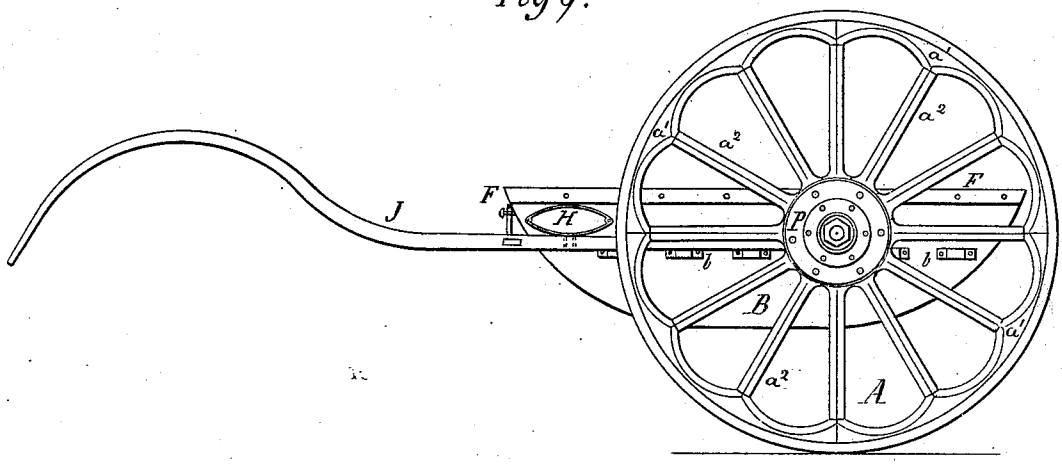


Fig 10.

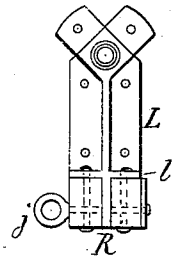


Fig 11.

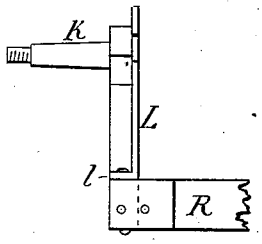


Fig 12.

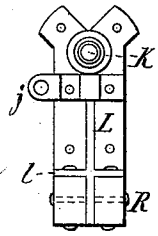


Fig 13.

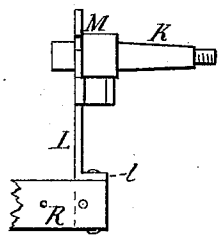


Fig 14.

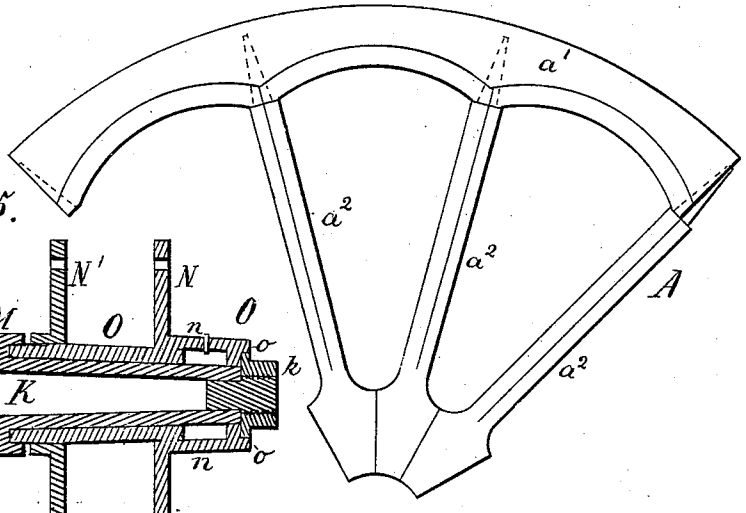


Fig 15.

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UNITED STATES PATENT OFFICE.

ZE BUTT, OF OCALA, FLORIDA.

DUMPING-CART.

SPECIFICATION forming part of Letters Patent No. 226,649, dated April 20, 1880.

Application filed October 7, 1879.

To all whom it may concern:

Be it known that I, ZE BUTT, of the town of Ocala, in the county of Marion and State of Florida, have invented new and useful Improvements in Dumping-Carts, of which the following is a specification.

The object of my invention is to construct a low-bodied or easily-loaded dumping-cart adapted to and for all purposes required by the farmer or planter.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a side view of the cart.

A is the wheel, which will be described hereinafter. B is the body of the cart, which, from or near the bottom of the cranked axle-tree, slopes upward and forward, so that when the tongue or shafts are elevated or the horses hitched to the cart the top of the body may be level or parallel with the ground, and also that the load may have a tendency to the center of the body and over the axle-tree, and that the load will begin to slip or slide backward as soon as the body begins to tilt, and to make room for the spring H when one is used, and to do away with the bent or curved shafts or tongue, which would be required if it were not for this slope.

The back part of the body, from or near the axle-tree, slopes upward and backward, so that the cart can be backed and tilted on loose or soft ground, and also to prevent the load from sliding or slipping out behind when the body is partly tilted, either in loading or unloading, which is one of the peculiar advantages of this cart. Both sides and front of this body are supplied with holes, loops, or places for standards, (see *b*, Figs. 1 and 2,) so that the body can be enlarged at will or changed to suit the kind of work required.

C are adjustable sides, and *c* standards. D is the tail-board or back of the cart. It is hinged to the cart-body, and can be carried at any required angle.

To sides C are hinged self-acting catches F, the back parts of which extend beyond the cart, and when the body is tilted sufficiently for the catches to touch the ground they move upward and release the tail-board D, which then falls by its own gravity.

E is a holder pivoted upon the shaft, tongue, or cross-bar, and when not in use lies horizontal along the shaft or tongue. Through it are one or more holes, and by passing the end or handle of the front railing, *a*, through one of these the body can be tilted and held at any desired angle; and as this cart is generally loaded as well as unloaded from behind, this arrangement is very important, and especially in loading, hauling, and spreading dirt, manures, &c., as it lessens both the labor of loading and spreading.

H is a light spring placed at or near the front of the body and firmly fixed upon the tongue or shafts. (See Figs. 1 and 7.) The object of this spring is to break the concussion conveyed to the horse when the cart falls after unloading; also, to do away with the disagreeable motion or bobbing up and down of the rider in two-wheeled vehicles. To the upper part of this spring is pivoted the automatic catch I. (See Figs. 1 and 7.) The object of this catch is to hold the body of the cart and tongue or shafts securely together when required, and to be easily and readily released when the cart is to be tipped. This catch is self-acting—that is, when the cart-body falls a projection, pin, or bolt, *i*, strikes the hook part of the catch, knocking it downward, and as the hook recovers itself it passes over the pin or bolt *i* and holds the cart and tongue or shafts together. This catch is released by elevating the handle.

Fig. 7 shows the catch pivoted upon the spring. Fig. 8 shows the catch pivoted upon the cross-bar between the shafts when no spring is used.

J is a shaft or tongue hinged or pivoted to or upon the axle-tree.

Fig. 3 shows the cranked axle-tree, made of wood and iron combined.

K is the spindle on which the wheel turns. L is the perpendicular portion or strap, ribbed and flanged, so as to combine lightness with strength. In the flanges are holes by which they are bolted firmly to the sides of the body.

At the lower end of strap L is a foot-piece, *l*, which is bolted to the horizontal piece of wood. Some of the bolts which fasten the foot-piece to the wood have holes or rings at one end, through which passes the rod which holds and pivots the tongue or shafts to the axle. (See Figs. 3 and 10.)

The spindle K, perpendicular part L, and foot-piece *l* are all made of iron, wrought or cast. If of cast-iron the spindle is made hollow. The horizontal part R is a piece or pieces of wood. (See Figs. 3, 10, 11.)

Fig. 10 is an end view of the cranked axle, made of wood and wrought-iron; Fig. 11, a side view of the same. Fig. 12 is an end view of the cranked axle, made of cast-iron and wood; and Fig. 13, a side view of the same, showing the inside sand-band, O, or oil-cup, cast upon or with the axle, for the purpose of preventing dirt from getting to the axle, or for the purpose of lubricating it.

Figs. 1 and 9 show my improved wheel. Fig. 14 is a section of the same, showing how the wheel is made or put together.

Now, as the adjustable sides C of this cart-body flare outward, so as to nearly fill the space between the wheels in muddy or sandy roads, the common wheel throws a great deal of dirt into the cart; again, in the common wheel the spokes frequently break off just where the tenons enter the hubs or fellies, and it is not pleasant to take off the wheels every time the axle wants oiling; and to obviate these difficulties and disadvantages I use the following-described wheel:

O, Fig. 5, is a cast-iron box, which passes over and around the spindle. N is a circular flange with holes through it to receive bolts, and is cast upon and with the box O. *n* is a circular oil-cup, of less diameter than the flange, but cast with it, and also passing round the box O, the whole forming one piece.

N′, Fig. 4, is a movable circular flange or disk of the same form and size as N, and passes over and slides upon the box O. It also can have a collar or oil-cup.

P in Figs. 1 and 9 are two or more circular disks of wood bound round with iron, and with holes in their center large enough to pass over the box O. Holes are also made to receive bolts, and between these two wooden disks are placed the spokes. (See Figs. 1 and 9.) The disks can be made of plank or boards. The object of these wooden disks is to make a large, strong, and light hub, and also to prevent the iron from coming in contact with the spokes a^2, which would have a tendency to cut or chafe, and thus loosen or weaken the spokes.

Fig. 14 is a section of the wheel, showing the shape of the spokes, which are flat on the inner side, but beveled both ways on the outer side, and the tenons where they enter the fellies are cone-shaped, so as to be larger and less liable to break at the shoulder. The fellies are also flat on the inner side, but beveled on the outer side, *a′*. This arrangement of the spoke and fellies is to throw the dirt, sand, and mud from the vehicle instead of into it.

Fig. 6 shows the adjustable spring-seat Q, which is hung upon cranked shaft *q* and interposed springs. By rounding the points, pivots, or bearings of the shaft on or by which the seat hangs or is supported, so it can vibrate or rock back and forth like a rocking-chair, frequently adds much to the ease and comfort of the rider, as he can easily place himself in a more pleasant or comfortable position, and in two-wheeled vehicles adds to the relief and comfort of the horse, for by simply leaning backward or forward in this seat the rider can throw more or less weight upon the horse's back, and thus relieve or rest the team without incommoding himself.

Fig. 15 is a vertical section of the cast-iron axle, spindle, and hub. K is the hollow spindle; O, the cast-iron box which covers the spindle; N, circular flange which surrounds the box; *n*, oil-cup communicating with the spindle; M, an inside sand-box cast with the axle, and which covers part of the box O, so as to prevent dirt from getting into the spindle from behind; L, a portion of the perpendicular part or strap of the axle-tree.

The inside flange, N′, slides upon the box, so it can move backward or forward. The inside flange is fixed or cast with the box. *k* is the nut which retains the wheel upon the axle.

Fig. 9 is a side view of the cart when the shafts are placed outside of the body, the shafts being made crooked, so that the top of the cart may be carried parallel with the ground. The shafts are pivoted to the axle, and the springs fastened upon the shafts and below the railing which rests upon the springs. These springs may be of rubber or metal, and of any proper size or convenient form.

I claim—

1. A cranked axle composed of the straps L, spindle K, and wooden bar or bars R, the straps L being provided with feet *l* and bolted to the wooden part, substantially as described.

2. The cart-body having the body or bottom curved or sloped from or near its middle portion backward and upward, and its front portion similarly curved or sloped upward and forward, in combination with the cranked axle, substantially as described.

3. The combination of the cart-body, curved or sloped, as described, the cranked axle, and pole or shafts, connected to the central members of the axle by hooks and eyes or hinge-joint, substantially as described.

4. The combination of the cart-body, curved or sloped, as described, the cranked axle, hinged pole or shafts, and the spring H, substantially as described.

5. The combination of the cart-body and

hinged tail-board D with the self-acting latch F, having the projecting end which is adapted to strike upon the ground and release the catch when the cart is dumped.

6. The combination, with the cart-body, of a rocking seat, Q, hung upon the cranked shaft *q* and interposed springs, substantially as described.

7. The combination of the flaring cart-body and wheel A, having its spokes and fellies beveled outwardly, whereby dirt, &c., carried up by the wheels will be thrown away from the cart-body, substantially as described.

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Witnesses:
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J. RUSSELL BARR.