

(No Model.)

2 Sheets—Sheet 1.

# S. L. KINSBRUNER. GARBAGE WAGON.

No. 549,968.

Patented Nov. 19, 1895.

Fig. 1.

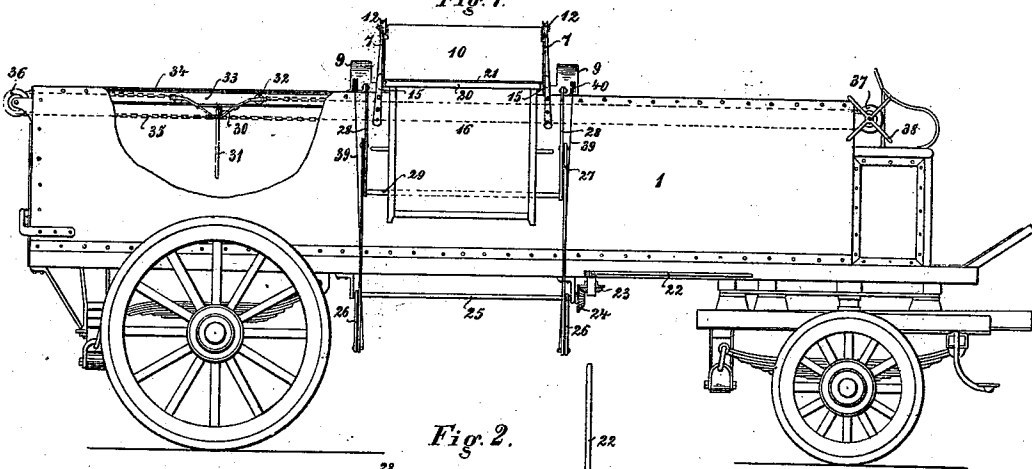


Fig. 2.

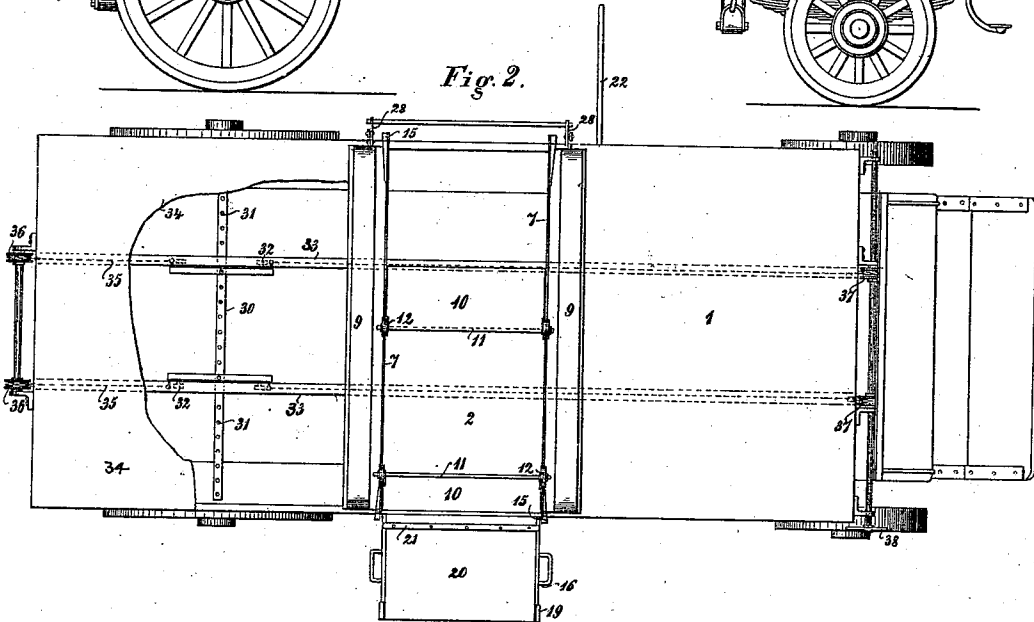
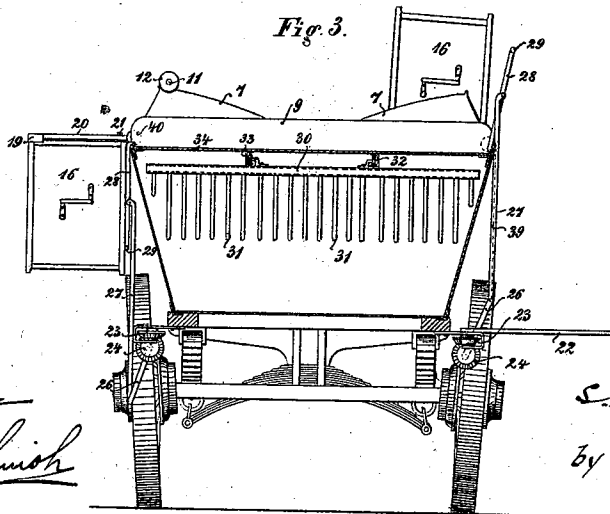


Fig. 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

SAMUEL LEOPOLD KINSBRUNER, OF BERLIN, GERMANY.

## GARBAGE-WAGON.

SPECIFICATION forming part of Letters Patent No. 549,968, dated November 19, 1895.

Application filed June 10, 1895. Serial No. 552,357. (No model.) Patented in Germany October 3, 1893, No. 79,862; in France July 24, 1894, No. 240,285; in England July 27, 1894, No. 14,437; in Belgium July 30, 1894, No. 111,182, and in Italy February 19, 1895, No. 38,211.

*To all whom it may concern:*

Be it known that I, SAMUEL LEOPOLD KINSBRUNER, a citizen of the German Empire, residing at Berlin, in the Kingdom of Prussia, Germany, have invented certain new and useful Improvements in Dust-Carts and the Like, (for which I have obtained Letters Patent in Germany, No. 79,862, dated October 3, 1893; in France, No. 240,285, dated July 24, 1894; in Belgium, No. 111,182, dated July 30, 1894; in England, No. 14,437, dated July 27, 1894, and in Italy, No. 38,211, dated February 19, 1895,) of which the following is a specification.

This invention relates to the carts and apparatus for collecting and carrying off dust, rubbish, house refuse, coal, or other dusty matter and the improvements consist in an arrangement for putting the stuff to be collected in the receiver without inconvenience from the spreading of the dust; further, in an arrangement for facilitating the raising and tipping over of the box attached to the receiver, and, finally, in the arrangement of a distributing-rake within the receiver to prevent excessive accumulation of the contents at the place where the stuff enters the receiver.

This invention is represented as applied to a dust-cart in the annexed drawings, in which—  
Figure 1 shows a longitudinal side view of the cart; Fig. 2, a plan view, and Fig. 3 a rear view in partial section thereof. Fig. 4 represents a cross-section on line 4 4, Fig. 5; Fig. 5, a plan view; Fig. 6, a front view, partially in section, of the top of the cart on an enlarged scale. Fig. 7 shows a perspective view of the dust-box.

1 is the body of the cart, which forms the receiver for the stuff to be collected, and is in the ordinary way supported on wheels. The top of said receiver is closed, while its middle portion is provided with an attachment consisting of the two side walls 7 and a bottom formed of two displaceable slides 2 2, one above the other. These slides 2 2 are fitted with axle-bars 5 and 6, respectively, which carry at their extremities rollers 3 and 4, respectively, running on the lateral rails 8. Rollers 3 and 4, as well as the rails 8, are covered in by boxes 9 9. To the front edge of each of the slides 2

a valve-board 10 is hinged, the upper edge of which carries an axle 11, with rollers 12 on its ends, these rollers running on the upper curved edges of the side walls 7. The front surface of each of the valve-boards is provided with two projections or hooks 14.

Hooks 15 are fixed on the side of the cart attachment for suspending the box 16, which latter is for that end fitted with a bar 17 of round iron to engage with its extremities in said hooks 15. To this bar 17 are secured two bars 18 of angle iron running along the side edges of the box 16, over which bars 18 are slid the angular projections 19 of the cover 20 when the latter is in position. The cover can therefore easily be displaced in a horizontal direction on box 16, or, if desired, entirely removed. There is in addition a flat iron bar 21 attached to the top of the cover 20, the object of which will be hereinafter explained.

In order to raise and tip over the box 16 suspended on the side of the receiver 1, the following construction has been made: 22 is a hand-lever keyed onto the axle of a beveled cog-wheel 23, carried in a bearing attached to the lower part of the body of the cart. Said cog-wheel engages with another cog-wheel keyed to the axle 25. The extremities of the latter carry two arms 26, which are respectively united by means of bars 27 to two arms 28, movably attached to the upper portion of the body of the cart. The free ends of said arms 28 are connected by a bar 29. To the lower ends of arms 26 are attached cords or chains 39, Fig. 1, which, passing upwardly over the rollers 40, Fig. 5, that are carried in bearings secured to the top of the body of the cart, run to the extremities of axle-bar 5 of the slide 2, where they are connected.

The distributing-rake 30 within the receiver is or may be fitted with a number of prongs 31 of any shape, and as to its required movement is guided on rollers 32 that run in corresponding grooves 33 of U-iron, the latter being arranged along the under side of the cover 34 of the cart. The manipulation of said rake 30 is effected by means of an endless chain 35 passing over rollers 36 and 37, respectively, the axle of the latter being pro-

vided with a manipulating crank or wheel 38 to be operated from the seat of the driver.

The mode of operation and effect of the arrangement described are as follows: In order to empty the box 16, it is suspended by the round iron bar 17 from the hooks 15 of the body of the cart, in which position its rear wall lies against the bar 29, so that on turning forward the hand-lever 22 the arms 28 will, by means of said connecting-bar 29, raise the box 16, thereby tipping it over, as illustrated on the right of Fig. 3. As soon as the cover 20 of said box 16 enters into co-operation with the valve-board 10 of the slide 2 by catching with the projecting ends of the flat-iron bar 21 the hooks 14 of the board 10 the slide 2 that closes the receiver is slid back out of its place and the cover 20 of the box 16 removed at the same time, so that the contents of the latter are free to drop into the receiver thus opened. On turning backward the hand-lever 22 the arms 26 will resume their initial downward direction, thereby pulling the cords or chains 39, which connect the ends of said arms to the axle 5 of the slide 2, with the result that on the one hand the slide 2 is brought back to its original closing position, as illustrated in Figs. 3 to 5, and on the other the box 16 is turned backward and its cover 20 replaced. The box thus emptied may then be taken off and the same operation repeated. Inasmuch as on tipping over the box 16 its cover 20 and the slide 2 that closes the receiver are opened simultaneously and automatically and, as on the other hand, on returning the box 16 said cover and slide, respectively, resume their initial respective positions in the same manner, the said box may be emptied into the receiver without the possibility of dust spreading about.

To prevent an excessive accumulation of the dust or rubbish in the middle portion of the receiver, it is necessary to move the distributing-rake 30 from time to time backward and forward within said receiver by simply turning the hand-crank 38.

These improvements, as described, may equally well be applied to stationary receivers—

as, for instance, for the purpose of loading coal on ships.

I claim as my invention—

1. The combination of a receiver a slide adapted to close the upper part thereof, a box, a sliding cover to said box, adapted to engage with said slide, means for rotarily suspending said box on the edge of said receiver, and means for lifting and tipping the same over said receiver.

2. The combination of a receiver, a slide adapted to close the upper part thereof, a valve board connected to said slide, rollers on said valve board, guide rails for said rollers, a box, means for rotarily suspending said box on the edge of said receiver, a sliding cover to said box, hooks and lugs adapted to connect said valve board and sliding cover, and means for lifting and tipping said box over said receiver.

3. The combination of a receiver, a box adapted to be rotarily suspended therefrom, covers to said receiver and box adapted to engage each other, a lever gear for lifting and tipping said box, and cord or equivalent gear connecting said lever gear and receiver cover for replacement of the covers and return of the box.

4. The combination of a receiver, a box rotarily suspended therefrom, lever gear 26, 27, 28, beveled gear 23, 24, and hand lever 22 for raising and tipping said box.

5. The combination with a receiving chamber, of rails placed longitudinally therein beneath the roof of said chamber, a cross bar having a number of depending prongs constituting a rake supported by said rails, said rake extending transversely across said chamber and means for moving said rake back and forth longitudinally in the chamber for the purpose set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

SAMUEL LEOPOLD KINSBRUNER:

Witnesses:

CHAS. H. DAY,  
WM. HAUPT.