May 9, 1933. J. A. MORRIS 1,908,167

ASH COLLECTING WAGON BODY

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Fig. 1.

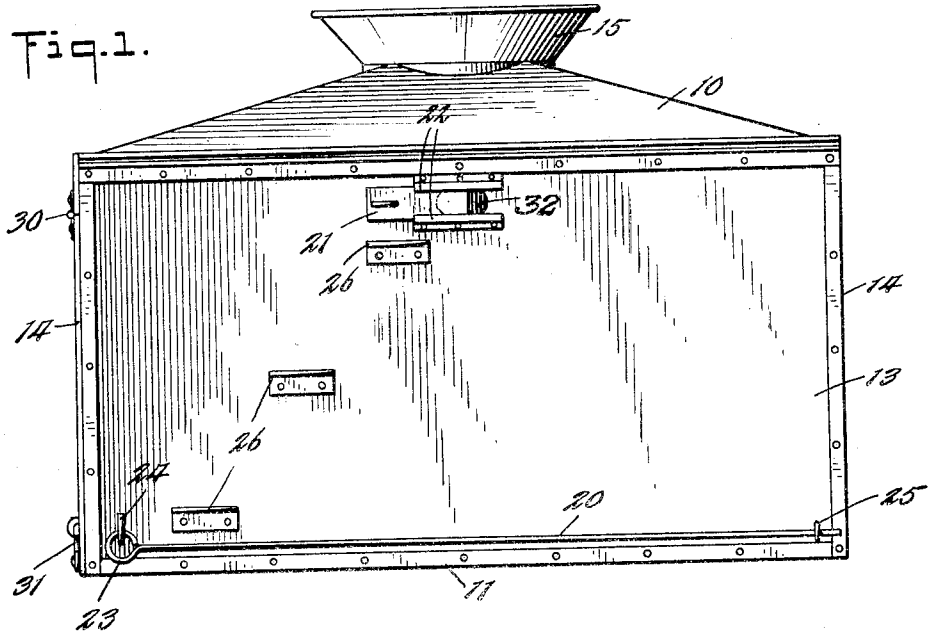

Fig. 2.

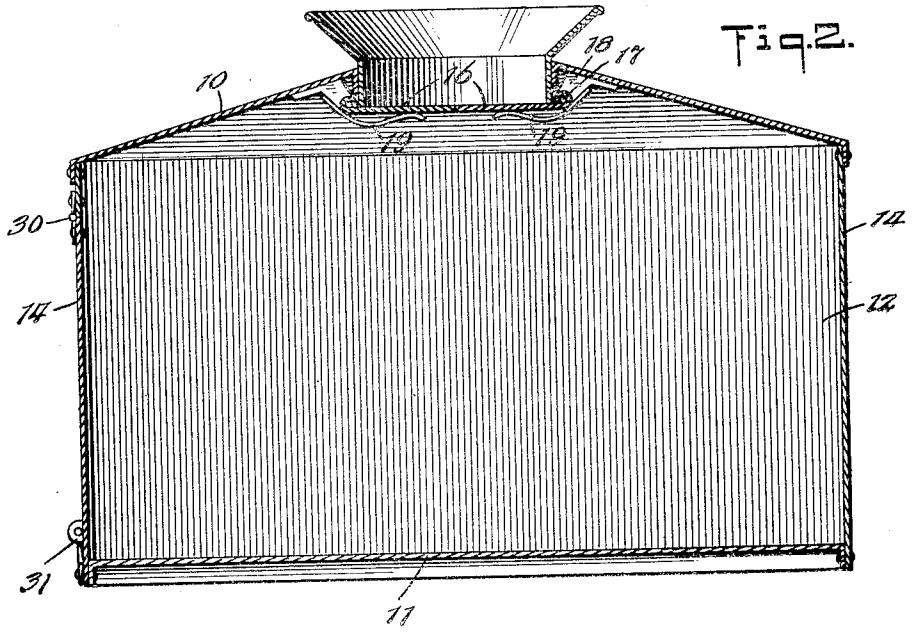

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Fig. 3.

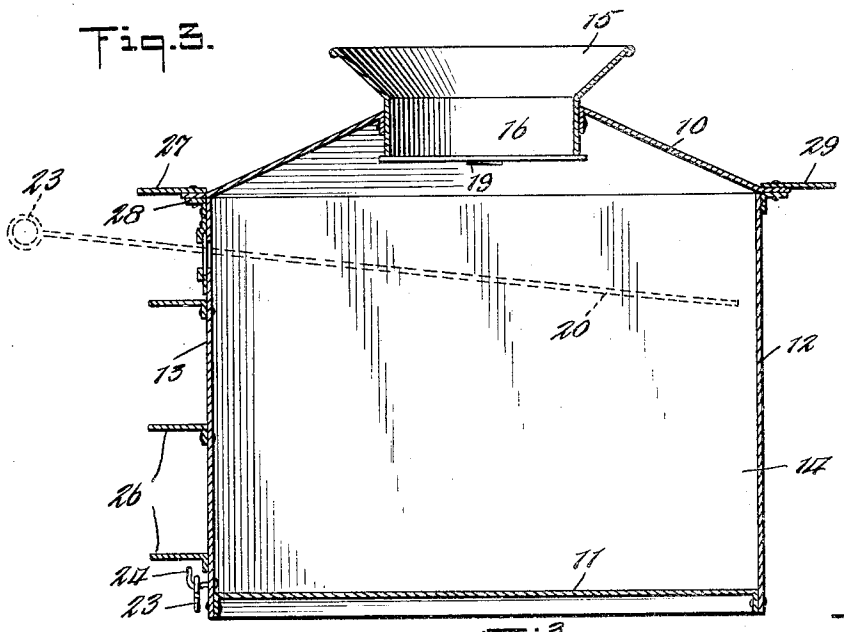
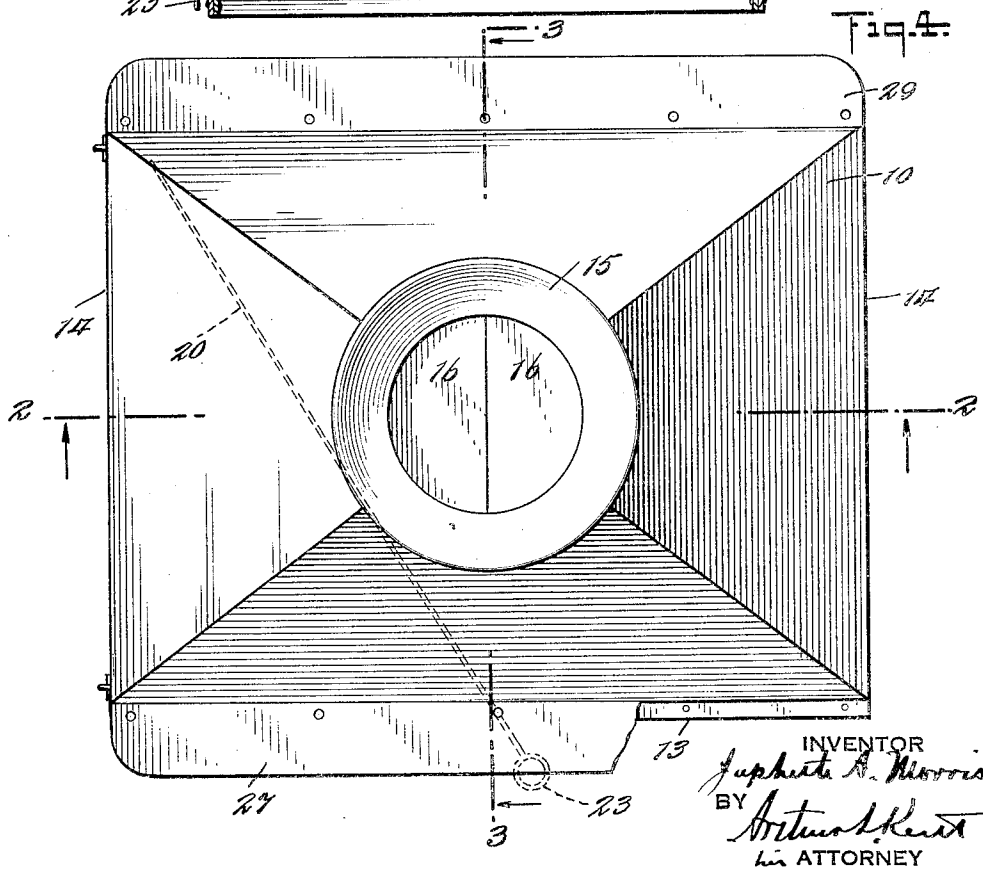


Fig. 4.



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Patented May 9, 1933

1,908,167

UNITED STATES PATENT OFFICE

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ASH COLLECTING WAGON BODY

Application filed August 23, 1930. Serial No. 477,207.

This invention relates to dustless ash cart bodies, more particularly those of the type in which the refuse is introduced through an opening provided with a self-closing door or doors.

One difficulty with bodies of the above type has been that the refuse tends to form a conical heap in the body immediately below such opening, leaving empty spaces at one or the other end, along the sides and in the corners. Long before such empty spaces can be filled, the top of such conical heap reaches the self-closing door and prevents the latter opening to allow the entry of further quantities of refuse.

One of the principal objects of this invention is to provide a dustless ash cart body which may be readily filled substantially to maximum capacity.

In attaining this object, the ash cart body is constructed with a top which slopes upwardly from the front, rear and side walls and has a central aperture for the reception of a hopper unit which is fitted within the aperture and secured in position to cooperate with doors supported on the top at the inner side thereof. Preferably the doors are hinged to the top at opposite sides of the aperture in such manner as to be closed by spring means to bring their free ends into relative juxtaposition along the median of the opening. Thus the free ends of the doors when opened downwardly, and all the operating parts for closing the door, occupy positions high up in the body, and do not seriously interfere with the filling of the body to substantially the level of the tops of the front, rear and side walls. Means are provided for leveling the entered material from time to time, thereby spreading it into the spaces at the sides and ends of the body where it would not ordinarily flow by the mere action of dumping it through a central aperture.

Carts used for the collection of ashes or garbage are subjected to extremely severe treatment. Heavy portable containers of iron filled with weighty materials are thrown carelessly against the cart and frequently pounded thereon to facilitate discharge of the material. Sometimes the containers or barrels containing the material to be discharged are swung to a position of rest on the top of the cart, where they are inverted and thrown downwardly into the hopper mouth.

It is, therefore, a further object of the present invention to provide an extremely sturdy top construction for the cart and a unit hopper fitting into said top and so associated with the doors and operating agencies for the doors that upon destruction of the practical value or appearance of the hopper it may be replaced by another one without having to disorganize any of the door supporting or operating mechanism.

The location of the refuse receiving opening centrally in the body instead of at the end thereof prevents the dumping of garbage or cans by persons standing on the ground. It is necessary to lift the garbage or ash cans above the body and then move them horizontally over the latter to bring them into dumping position. To facilitate this operation, steps are provided, preferably on one side of the body, up which the garbage or ash man may climb for the purpose of dumping the contents of garbage or ash cans through such receiving opening.

The leveling of the refuse within the body casing may be accomplished in various ways. One simple and highly satisfactory method is to provide an opening in one side wall adjacent the upper margin thereof through which a rod or the like may be inserted and then swung from side to side to level the material within the casing.

The body may be constructed in a number of different forms, and the form illustrated in the accompanying drawings is shown merely by way of example.

In the drawings:—

Fig. 1 is a side elevation of a body constructed in accordance with the present invention;

Fig. 2 is a vertical section on the line 2—2 of Fig. 4;

Fig. 3 is a vertical section on the line 3—3 of Fig. 4; and

Fig. 4 is a plan view of the body.

The body is shown apart from the vehicle frame, wheels and so forth, as the invention resides in the construction of the body and not in the other parts of the garbage wagon or ash cart.

The body comprises a casing formed with a top 10, bottom 11, front and rear walls 14 and sides 12 and 13. The top 10 is made pyramidical in form with the apex of the pyramid cut away for the reception of the cylindrical body of a conically mounted hopper 15. A downwardly extending flange around the margin of the central opening in the body top provides a convenient method of securing the hopper to the top of the body casing.

The bottom of the hopper is normally closed by a pair of spring-held doors 16, pivotally mounted at 17 on brackets 18, attached to the underside of the body top 10. To the brackets 18 are attached leaf springs 19 which yieldingly press against the underside of the doors 16 and hold them closed against the lower edge of the downwardly projecting body of the hopper so long as the hopper is empty, as clearly shown in Figs. 2 and 3 of the drawings. The pressure exerted by these springs is, however, insufficient to hold the doors closed against the weight of a charge of refuse dumped into the hopper from a garbage or ash can.

The central location of the hopper with respect to the body casing makes it necessary, as already pointed out, to lift the garbage or ash cans above the body and then move them horizontally over the latter to bring them into dumping position. For this purpose, it is necessary for the operator to climb up onto the body, and, accordingly, steps 26 are provided, attached to one side of the body. A plate 27, attached to the side margin of the top 10 and also by a flange 28, to the upper edge of the side wall 13 of the body, serves as a narrow platform on which the operator may stand while dumping the contents of a garbage or ash can into the hopper 15. A similar narrow platform 29 may be provided, as shown, along the upper margin of the other side wall 12.

The pyramidical form of the casing top raises the bottom of the hopper and the doors therefor above the top of the side walls of the body, and thereby increases the amount of refuse which may be introduced through the hopper before the pile of such material in the body prevents the doors 16 opening to allow more refuse to enter. When this point is reached, or sometime prior thereto, the material within the casing is leveled off. For this purpose, an aperture 32 is formed, conveniently in the side wall 13 of the casing near its upper margin, through which a rod 20 or the like may be inserted and then swung from side to side to level off the refuse in the casing and fill the spaces along the sides and in the corners. This operation may be repeated after a further quantity of refuse has been introduced into the body.

To prevent as far as possible the escape of dust and/or odors when the leveling rod 20 is not being used, this aperture is provided with suitable closure means, such as a door 21, slidably mounted between guiding members 22. The leveling rod 20 is advantageously formed with a ring 23 at one end, which serves as a handle when the rod is in use, and as a securing means to engage a hook 24 on the casing when the rod is not in use. An eye 25 on the casing serves to hold the other end of rod 20 in place.

The contents of the body are conveniently discharged through a door in, and forming a part of, one of its vertical walls. As shown, this door is formed in the rear wall 14 and is arranged to swing outwardly and upwardly about hinges 30. This door is normally held closed by any suitable fastening device 31.

An obvious advantage of the invention is that the conical mouth of hopper 15 offers a receiving face for an open-end edge of an inverted ash can of cylindrical form, which receiving face is adapted by reason of its form to the reception of cans of substantially varying diameters. If the hopper mouth breaks down under continued use or abuse, it may be removed and a new one introduced and secured in a position where its lower edge will limit the movement of the doors as they are spring pressed to closure position.

What I claim is:

1. A dustless ash cart body, comprising a casing having top, bottom, front, back and side walls, the top wall sloping upwardly from the front, back and side walls and having a substantially centrally located opening therein for the introduction of material, a conically mouthed hopper having a cylindrical body which is fitted in said opening to extend below the upper level of the top wall, and self-closing means normally closing said opening by abutting the lower edge of said hopper body, said means being yieldable under weight of material introduced to said hopper, the conical mouth of said hopper overlying the top wall at the region around said opening, said hopper carrying none of the self-closing means or the mountings therefor, and being disassociable as a unit from the body.

2. A dustless ash cart body, comprising a casing having connected top, bottom, front, back and side walls, the top wall rising upwardly from the front, back and side walls to a uniform extent where it defines a substantially centrally located circular opening, door supporting means secured to the under side of said top wall adjacent said opening, a pair of doors mounted for movement on said supporting means, a conically mouthed hopper having a cylindrical body, the body being

fixed in the said opening to project therebelow in position for the doors to abut the lower circular edge thereof when the doors are in closure position, and means adapted to close said doors and being yieldable under weight of material introduced through said hopper, the conical mouth of said hopper overlying said top wall at the region around said opening, said hopper being a unit separable from the top wall and the door and door supporting means and being therefore removable as a unit for replacement purposes.

In testimony whereof, I have hereunto set my hand.

JAPHETH A. MORRIS.