March 1, 1927. 1,619,628

A. W. OSBORN

DUMPING VEHICLE

Filed Aug. 20, 1921 2 Sheets-Sheet 1

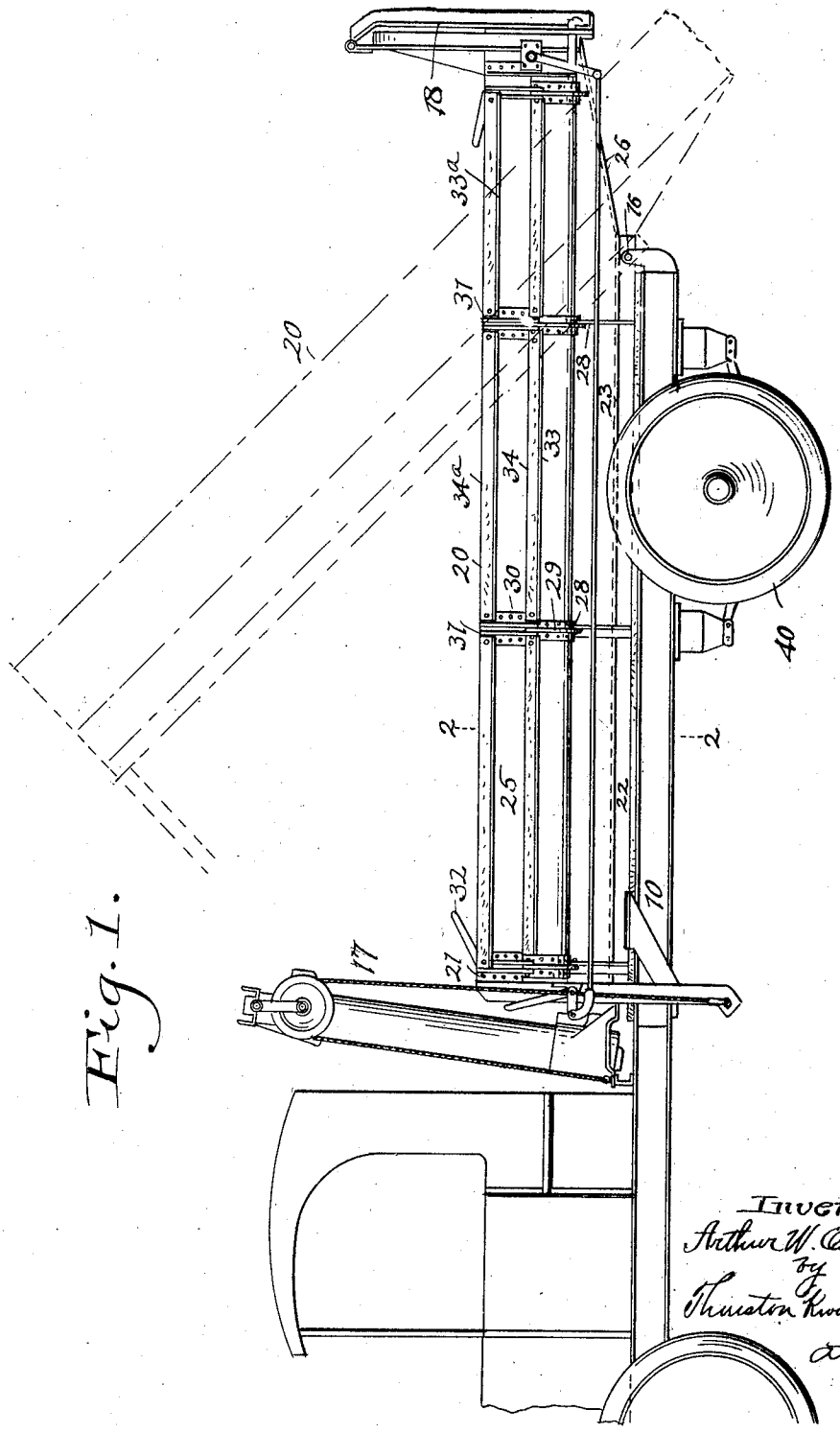


Fig. 1.

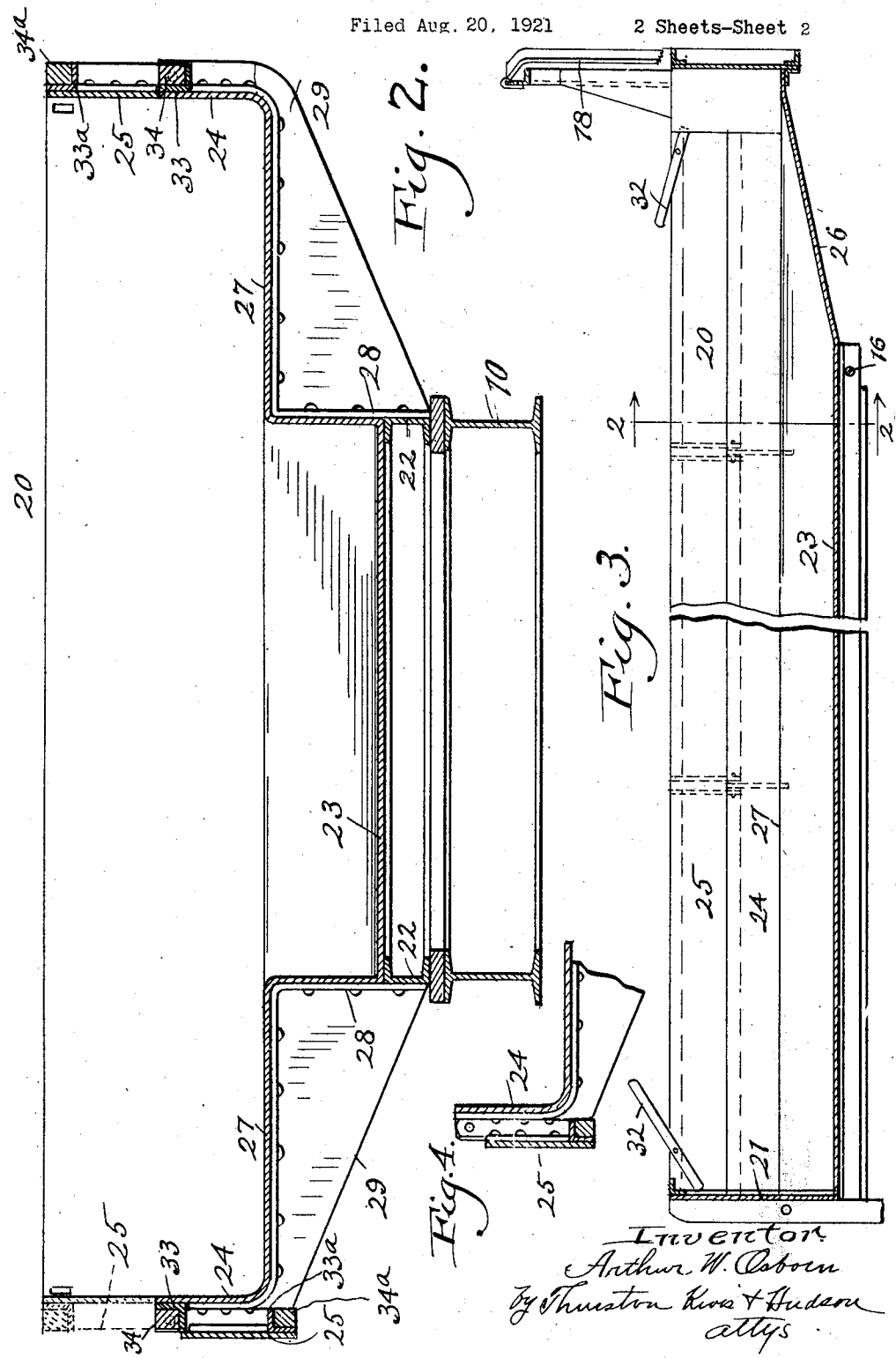
Inventor
Arthur W. Osborn
by
Thurston, Rivet & Hudson
attys.

March 1, 1927. 1,619,628

A. W. OSBORN

DUMPING VEHICLE

Filed Aug. 20, 1921 2 Sheets-Sheet 2



Inventor
Arthur W. Osborn
by Thurston Kiess & Hudson
attys

Patented Mar. 1, 1927. 1,619,628

UNITED STATES PATENT OFFICE.

ARTHUR W. OSBORN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE WHITE COMPANY, OF CLEVELAND, OHIO, A CORPORATION OF OHIO.

DUMPING VEHICLE.

Application filed August 20, 1921. Serial No. 493,810.

This invention relates to dumping wagons, preferably motor driven, which are especially contrived for use in collecting, transporting and disposing of garbage, and the like.

In order to appreciate the problems involved in the production of a satisfactory garbage wagon, it should be remembered that the garbage to be collected therein is found in a large number of garbage cans into which the individual householder puts his garbage. The garbage in these cans is frequently composed largely of fluids. These cans are carried by the collectors from the places where they are found, usually near the kitchen doors, out to the wagon and are lifted by the collectors and dumped over the sides thereof. To completely empty these garbage cans it is generally necessary to jounce the upturned cans on the upper edges of the sides of the body.

It is obviously desirable to reduce to a minimum the necessary effort involved in emptying the garbage cans into the wagon body; to prevent as completely as possible the spilling of fluid contents of the truck along the streets; to minimize the noise incident to the progress of the wagon over the pavement, and incident to emptying the cans into the wagon body; and also to prevent the injury of the garbage cans or the wagon body, as the former is bumped against the sides of the latter to cause them to discharge their contents into the truck. The present invention aims to secure the above mentioned objects in a high degree.

The invention consists in the construction and combination of parts shown in the drawings and hereinafter described and pointed out definitely in the appended claims.

In the drawing, Fig. 1 is a sectional side elevation of a garbage truck which involves this invention; Fig. 2 is a transverse sectional view in the plane indicated by line 2—2 on Fig. 1; Fig. 3 is a longitudinal sectional view of the body, and Fig. 4 is a transverse sectional view through one side of the body when the upper part of said side is folded down as shown.

The truck shown is motor driven and includes a chassis of suitable construction, of which 10 represents the side frame members. The body, indicated generally by 20 is pivoted near its rear end on the horizontal transverse axis 16 to the side frame members of the chassis. Any suitable mechanism 17 is provided for tilting the body to such an angle that its contents will run out of its then depressed rear end under a rear end gate 18 which is normally closed but may be opened or allowed to open to permit the contents of the body to be dumped out. In respect to the features referred to the truck shown is conventional and may be varied as desired. The body is made in box form of properly bent and suitably braced sheet metal. The front end 21 of the body is permanently secured in place as shown. The body is stiffened and strengthened by two longitudinally extended channel bars 22, 22, secured to the bottom of the sump 23 which will be hereinafter referred to. When the wagon body is in operative position as shown these angle bars rest upon wood bars which are secured to the top side of the side beams 10 of the chassis frame. Wood is used for this purpose in order to minimize the noise caused by running the trucks over rough pavement.

The sides of the body are composed of two sections, to wit, a lower section 24 which is a bent up integral part of the bottom, and a top section 25 which is hinged to the body section and may occupy the upright position shown at the right side of Fig. 2, or the pendant position shown at the left side of said figure. The bottom of the body has a depressed sump 23 which extends from the front to the rear end said sump lying about midway between the side; the bottom having two wide platforms 27 between the sump and the two sides, respectively, which platforms are very slightly inclined downward toward the sump. The rear end 26 of the sump bottom is inclined upward so that the rear end thereof is in substantially the same plane as the rear ends of the platform.

The hinges through which the upper and lower side sections are connected together are parts of brackets which are utilized as braces and strengthening members. There are several cast metal brackets 28 on each side of the body which fit beneath the platform 27 against the side of the sump 23 and are riveted to these parts,—said brackets being also extended upward against the outer face of the lower side section 24 and riveted to it. The bracket has an outwardly extended rib 29, the upper part of which

is utilized as part of the hinge for connecting the two side sections. The upper side section 25 has a bracket plate 30 fixed to it and it is formed with two parallel outwardly extended ribs 31 which extend below the lower edge of the top section and overlap the upper end of the rib which passes between them, the overlapping ends of said ribs being pivoted together. When the upper side section is swung to its upstanding position it will be held in that position by means of levers 32 pivoted to the inner face thereof, and near the ends, which levers may be swung to engage behind fixed parts of the permanent frame work of the body.

Fixed to the outer face of each lower side section near its upper edge is an angle bar 33 which forms a seat for the longitudinally extended bar 34 of wood which extends practically from one end of the side to the other, being interrupted of course by the brackets. The purpose of this wood bar is to furnish a surface against which, when the top side section is hanging down, the upturned edges of the garbage cans may be bumped in order to jar their contents out into the body. This wood bar is advantageous because the garbage cans are not bent or dented as they are bumped against it, and because also relatively little noise is produced by this bumping.

Corresponding angle iron brackets 33^a are fixed to the outer faces of the top side section 25, and these brackets support similar wood bars 34^a which are provided for the purposes above described.

When the filling of the body with garbage is begun, of course the top sections will hang down, as shown at the left side in Fig. 2. Obviously, this enables the collectors to dump the garbage cans without lifting them as high as they would have to be lifted if it were not for the fact that the upper side sections can be permitted to hang down as stated. The garbage dumped from the cans falls upon the flat platforms, 27. The fluid contents of the garbage drains therefrom onto these platforms and then runs down into the sump. This is an advantageous construction because it is obviously impossible to make a fluid-tight joint between the top and bottom sections of the sides, when the top section is secured in its upstanding position; and it is equally undesirable that these fluid contents of the garbage should be allowed to leak out on the streets along which the truck travels. With the construction shown there is very little danger of leakage of fluid contents through the joints between the two side sections because of the fact that said fluid contents will drain into the sump. The construction is also advantageous because it is no infrequently desirable that the fluid and solid contents of the garbage be segregated to as great an extent as possible at the delivery station. This can be effected with the described construction by first tilting the wagon body a little,—enough to let the fluid contents run out of the sump, but not enough to cause the solid contents to slide down onto the rear end of the body. When the fluid contents have been so discharged into the sump the body may be still further tilted and the solid contents will run out.

Attention is also called to the fact that the body is so wide that it overhangs the wheels 40. When therefore the wheels are close to the curb, the garbage collectors are able to stand on the sidewalk as they dump the cans into the wagon body,—and they can dump into the body at any point from end to end without being impeded by the wheels.

Having described my invention, I claim:—

1. A dumping vehicle body having sides each of which is composed of a fixed lower section and an upper section having a hinged connection to the lower section to swing downwardly, means to hold the upper sections in their upstanding positions, the lower side sections having along their upper edges on the outer sides thereof wood bumper bars, and the upper sections having along their upper edges wood bumper bars, said hinged connections permitting the upper sections to swing clear of the first mentioned bumper bars.

2. A sheet metal dumping vehicle body whose bottom is made of a single piece of sheet metal having its middle portion bent down to form a depressed longitudinal sump and having its sides bent up to form lower sections of the body sides, brackets secured to the depressed sides of the sump and to the bottom between the sump and sides of the body and against the outer faces of the sides of the body, each of said brackets having an outstanding rib, combined with upper side sections each having secured to it a plurality of bracket plates each formed with an outstanding rib which extends below the lower edge of the top side section and is pivoted to a rib on one of the first named brackets.

In testimony whereof, I hereunto affix my signature.

ARTHUR W. OSBORN.