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(54) **A urban refuse collecting lorry**

(57) This lorry comprises a load receiving body (1) having a rear opening allowing to dump its contents, said body (1) being innerly provided with means for compacting the refuse received from a hopper (4) juxtaposed to the body (1). The lorry is characterised in that it is equipped with container lifting and dumping means, said means consisting in a crane (9) being provided for lifting those containers (C) being designed for having their con-

tents dumped through their bottom base, and in a lateral, upwardly shiftable support (7) being provided for lifting and tipping those containers (C) being designed for having their contents dumped through their open top. The lorry body (1) has an open top (1a) being fit to be closed with a removable lid (17), and the hopper (4) is laterally provided with a closable opening (13) for manually loading the refuse.

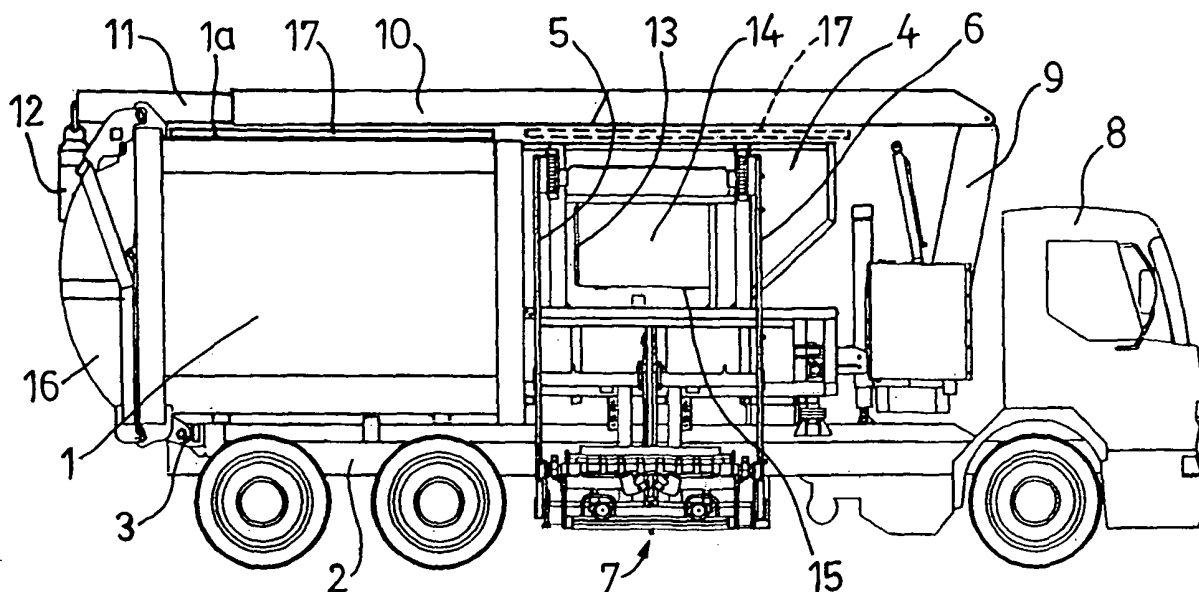


Fig. 1

EP 1 666 380 A1

Description

BACKGROUND OF THE INVENTION

[0001] Several types of refuse and garbage collecting lorries are already known which have a load receiving body having a rear opening for the dumping operation, said lorries having means for lifting and dumping the containers into said body, said containers being distributed along the streets in the cities and built-up areas.

[0002] These lorries have means for lifting and dumping a given type of containers, different lorry types being hence needed and including a lorry type having means being fit to lift and dump those containers being designed for having their contents dumped through their open top, and another lorry type having means being fit to lift those containers being designed for having their contents dumped through their bottom base.

[0003] The lorries being fit to dump the containers being designed for having their contents dumped through their open top have been recently prepared in such a way as to be in a position to laterally dump the containers instead of dumping them at the back as per the traditional practice, in order to thus facilitate the container picking up and loading operations, the containers hence having their contents dumped into the open top of a hopper being provided next to the lorry body.

SUMMARY OF THE INVENTION

[0004] This invention has as its object a lorry into which all types of containers can be dumped, said lorry being for such a purpose equipped with means allowing to lift and tip those containers being designed for having their contents dumped through their open top, and to lift those containers being designed for having their contents dumped through their bottom base.

[0005] This lorry is besides prepared to be manually loaded with refuse.

[0006] The lorry is for such a purpose laterally equipped with an upwardly shiftable support allowing to lift and tip those containers being designed for having their contents dumped through their open top, said dumping being carried out into the hopper being provided next to the front portion of the lorry body, and between the hopper and the lorry body a crane is installed and operable to grab and lift those containers being designed for having their contents dumped through their bottom base, said dumping being carried out into the aforementioned hopper.

[0007] In at least one of the hopper sides a closable opening has been provided through which the refuse and garbage will be manually loaded into the hopper by the labourers being charged with said task.

[0008] The body has been besides provided with an open top being fit to be closed with a removable lid, this latter being slidable and coming to span the open top of the hopper when being removed from the open top of the

body.

[0009] This particular feature mainly serves the purpose of dumping the glass receiving containers, and of thus preventing their contents from being dumped into the hopper and later on compacted.

[0010] The direct dumping into the lorry body prevents the crushing of the glass waste, provides for a quicker dumping since it is no longer necessary to wait for the passing of the compaction times, allows to use a 100 per cent of the body's capacity and does also obviate the abrasion problems that would be caused by the glass when being dragged through both the compaction chamber and the body.

[0011] The other refuse such as paper, plastic containers, urban refuse, etc. will be dumped into the hopper.

[0012] This lorry allows to selectively pick up and dump containers of all makeups, both of the stationary or movable, above ground type and of the underground type.

[0013] These and other features will be best made apparent by the following detailed description whose understanding will be made easier by the accompanying sheet of drawings showing a practical embodiment being cited only by way of example not limiting the scope of the present invention.

DESCRIPTION OF THE DRAWINGS

[0014] In the drawings:

Figs. 1 and 2 respectively represent in a side elevation and in a plan-view the lorry being the object of the invention; and

Figs. 3 and 4 illustrate this lorry as seen from the front while dumping a container being designed for having its contents dumped through its open top, and while lifting a container being designed for having its contents dumped through its bottom base, respectively.

DESCRIPTION OF A PREFERENTIAL EMBODIMENT

[0015] According to the drawings the lorry comprises a body (1) being fitted to a frame (2) and having its rear, lower portion (3) linked to this latter in a pin-jointed connection. Next to the front portion of the body a hopper (4) is installed which has two vertical guides (5) and (6) fixedly secured to one of its sides, the central body (7) being provided for lifting the containers (C) being designed for having their contents dumped through their open top being fit to be shifted in an upward direction.

[0016] Between the hopper (4) and the lorry cab (8) a crane (9) is installed which has an articulated and telescopic (11) jib (10) being provided at its end with the grabbing member (12) being provided for grabbing the containers (C') being designed for having their contents dumped through their bottom base.

[0017] In its passive arrangement said jib (10) is arranged in a longitudinally extending position on the body

(1) and the hopper (4), said jib in this arrangement being laterally shifted in order to thus be obliquely positioned with respect to the longitudinal axis of the lorry during the dumping of those containers which are lifted by the central body (7) and tipped in their lifted position.

[0018] In one of the sides of the hopper (4) an opening (13) has been provided which is fit to be closed by means of a door (14) being hinged at its lower edge (15), this opening allowing to manually introduce the refuse and garbage into the hopper.

[0019] Below the hopper (4) the compacting means are operable in order to transfer the refuse from the hopper (4) to the body (1) from where said refuse will be dumped at the required spot by opening the back door (16) of the body (1), said back door being fit to be swung as a by way of dumper at the pin-jointed connection (3).

[0020] The body (1) of the lorry has an open top (1a) being fit to be closed with a removable lid (17) being slidable.

[0021] When using the hopper (4) for dumping the containers the body (1) will be upperly closed.

[0022] When wishing to dump the containers directly into the body (1) the lid (17) will be slid to thereupon span the open top of the hopper (4) as shown by a dash line in Fig. 1, this direct dumping being mainly used for the case of glass objects, containers and the like, with the aforementioned advantages.

Claims

1. A urban refuse collecting lorry comprising a load receiving body having a rear opening allowing to dump its contents, said body being innerly provided with means being provided for compacting the refuse being received from a hopper being juxtaposed to the body; **characterised in that** it is equipped with container lifting and dumping means, said means consisting in a crane being provided for lifting those containers being designed for having their contents dumped through their bottom base, and in a lateral, upwardly shiftable support being provided for lifting and tipping those containers being designed for having their contents dumped through their open top.

2. A urban refuse collecting lorry as per claim 1, **characterised in that** the lorry body has an open top being fit to be closed with a removable lid.

3. A urban refuse collecting lorry as per claim 2, **characterised in that** in order to be removable the lid is a slidable lid that comes to span the hopper's open top when being removed from the open top of the body.

4. A urban refuse collecting lorry as per claim 1, **characterised in that** the hopper is laterally provided with a closable opening for manually loading the

refuse.

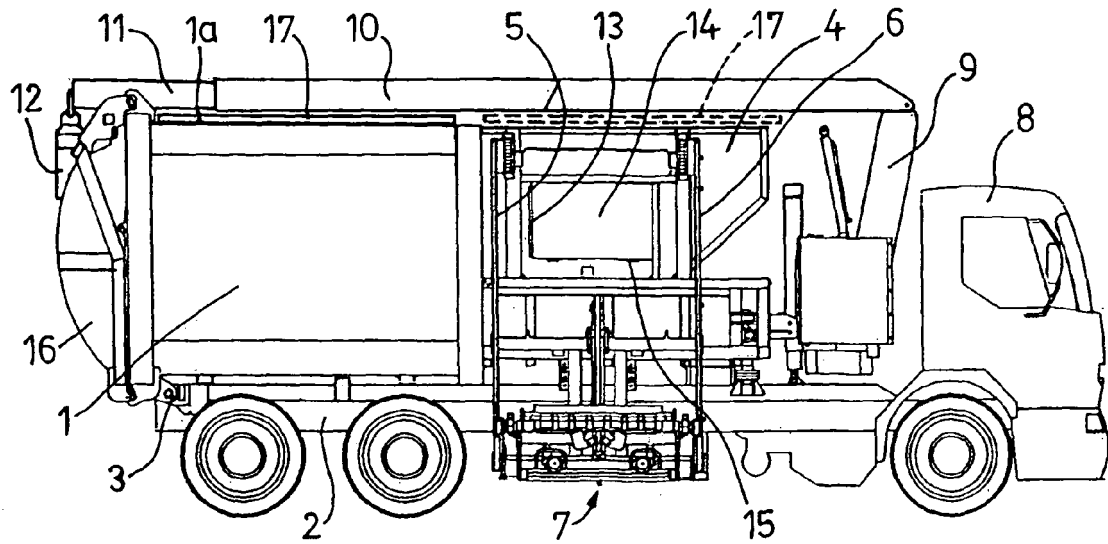


Fig. 1

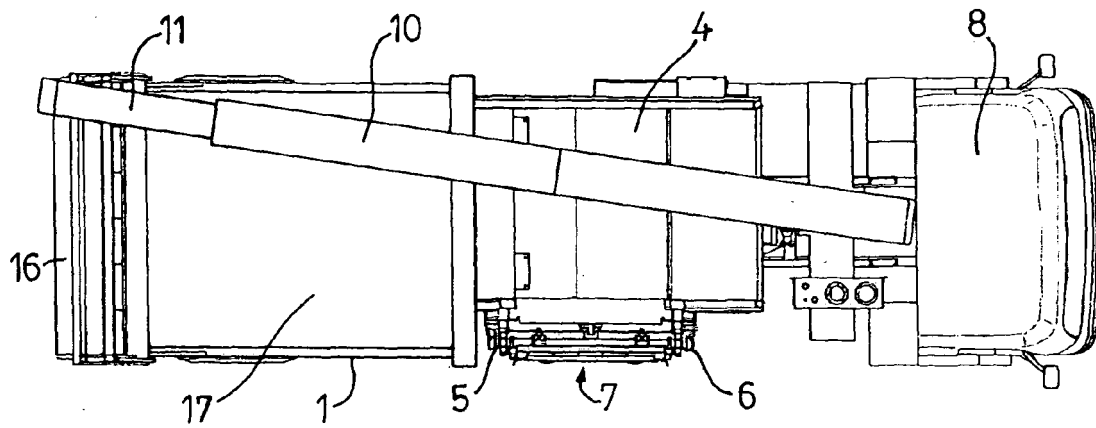


Fig. 2

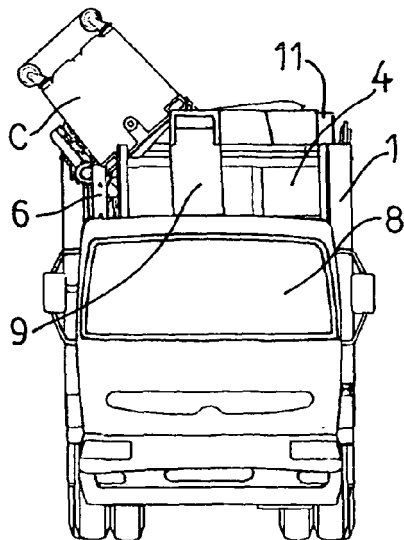


Fig. 3

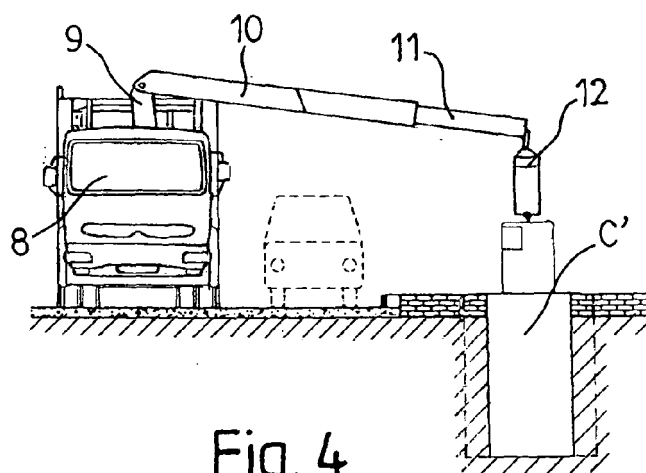


Fig. 4



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EUROPEAN SEARCH REPORT

Application Number
EP 05 38 0261

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Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	FR 2 727 658 A (J. DAUMER) 7 June 1996 (1996-06-07)	1	B65F3/02
Y	* page 6, line 13 - page 8, line 31 * * figures 1-3 *	2	
Y	----- WO 00/03938 A (J. DAUMER) 27 January 2000 (2000-01-27)	2	
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X	----- EP 0 763 487 A (GEESINK BV) 19 March 1997 (1997-03-19) * column 2, line 25 - column 3, line 56 * * figures 1-3 *	1,4	
			TECHNICAL FIELDS SEARCHED (IPC)
			B65F
The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
The Hague		18 January 2006	Smolders, R
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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EPO FORM 1503 03.82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
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EP 05 38 0261

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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18-01-2006

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