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(71) Applicant: **Sopsa-Representações E Comércio, LDA**
4425-510 Maia (PT)

(72) Inventors:
• **Pereira Lopes, Manuel**
4425-510 Maia (PT)
• **Ferreira, Fernando José**
4470-397 Maia (PT)
• **Justo, Jorge Fonseca**
4435-20 Rio Tinto (PT)
• **Almeida, Gabriel**
4435-281 Rio Tinto (PT)

(74) Representative: **Pereira da Cruz, Joao**
J. Pereira da Cruz, S.A.
Rua Vitor Cordon, 14
1249-103 Lisboa (PT)

(54) **Device for levelling and adjusting the feed chute of a buried urban solid waste container**

(57) A device for levelling and adjusting the feed chute intended for use in a fully buried urban solid waste container, comprising an articulation assembly and an adjusting assembly and which is arranged in the lower end of the feed chute (2) and ground cover (1) set of the said urban solid waste container. The aforementioned

articulation assembly comprises an articulation upper section (2), having two angle brackets (4) in its lower end, and which is connected through the adjusting assembly to an articulation lower section (1). The said adjusting assembly includes four headless setscrews (3) and eight round nuts (5).

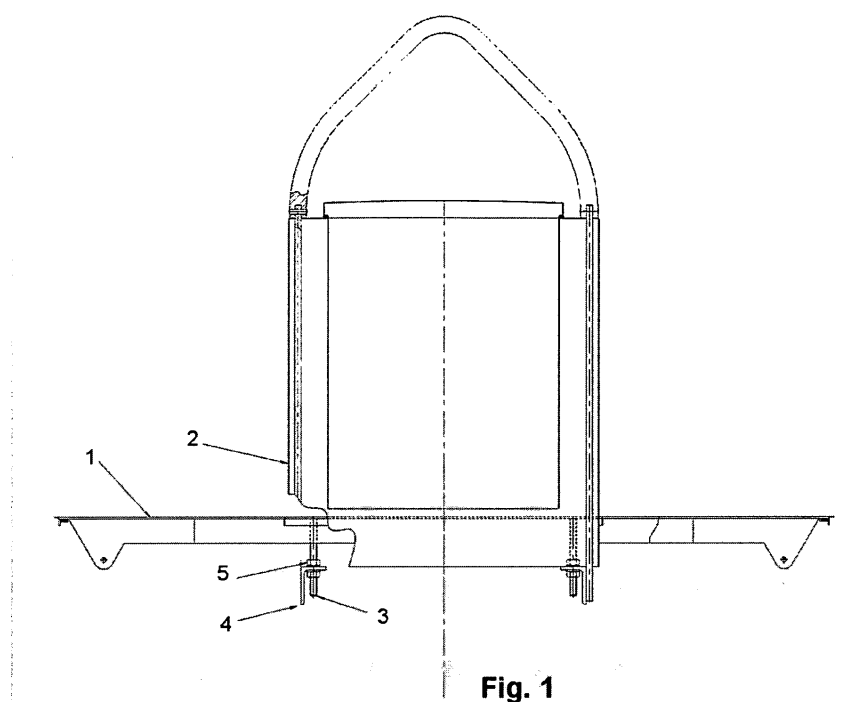


Fig. 1

Description

Scope of the invention

[0001] This invention relates to a combined device for levelling and adjusting the height of the headstock intended for use in a fully buried urban solid waste container, which is arranged in the lower end of the headstock (2) and ground cover (1) set of the said urban solid waste container, enabling the installation of the fully buried urban solid waste container to take place in a perfect alignment of its ground cover (1) with the slope of the surrounding area, also allowing the headstock (2) to maintain a vertical axis of waste disposal, irrespectively of the slope of the surrounding area, up to about 5° in relation to its intermediate position, and being adjustable in height up to about 100 mm in relation to the ground cover.

[0002] The technical issue as regards the headstock levelling in works has been solved, according to the prior art, by drilling and screwing the headstocks to the tilted ground covers.

[0003] With the device object of the present invention, there is no need of drilling but there is a possibility of regulation using nuts and setscrews, which enables to simply adjust the height and tilt of the headstock at any moment.

[0004] The main advantages arising from this new solution are the following:

1. The headstock and the cover can be assembled previously to their expedition to the works site - wherein after the installation the relevant tilt shall be checked along with the levelling of the headstock, by simply rotating a set of nuts.
2. If, for whatever reason, one must change the position (in a location) of some sets of headstock + ground cover, there is no need to replace or even to disassembly the headstocks, since a new levelling position can be achieved by rotating once again the set of adjusting nuts.
3. The system's design also allows the outer part of the headstock (the one which visible to the user) to constantly present a smooth and seamless surface in any position, irrespectively of its adjustment in terms of height and tilt.

[0005] The combined device for levelling and adjusting the headstock's (2) height consists of a headstock/ground cover articulation assembly. The latter includes the segment which connects the headstock (2) to the ground cover (1). The said articulation assembly comprises 4 threaded bars (3) positioned in the four apexes (one per each apex) of a rectangle on the ground cover (1), being also provided with two nuts (5) per bar (nut and lock nut), and two structural angle brackets (4) rigidly connected to the headstock (2). Each subset comprised of one bar (3) and two nuts (5) is autonomous and, col-

lectively, the 4 bars and 8 nuts form the adjusting assembly of the combined device for levelling and adjusting the headstock's (2) height.

[0006] The combined device for levelling and adjusting the headstock's height allows the headstock and the ground cover of the urban solid waste container to be two independent parts. The headstock and the ground cover of the urban solid waste container are fixed to each other by means of the aforementioned adjusting assembly. In its intermediate position, the headstock is perpendicular to the ground cover and there is a continuous and regular clearance of about 15 mm between the headstock and the ground cover. The operation over the said adjusting assembly enables to adjust the height of the headstock, in relation to the ground cover, up to about 100 mm, as well as the vertical axis of the headstock, in relation to its intermediate position, up to about 5°, so that a vertical axis of waste disposal is maintained, these two effects - adjustment of the headstock's height and adjustment of the headstock's vertical axis - being susceptible of being produced either in combination or independently.

Brief description of the drawings

[0007] This invention will be further explained in more detail with reference to the enclosed drawings, wherein:

- Figure 1 is a partial sectional view of the device which is the object of this utility model, with the headstock being mounted on the ground cover in its intermediate position;
- Figure 2 is a sectional view of the device which is the object of this utility model, with the headstock being mounted on the ground cover in its right-side maximum tilt position;

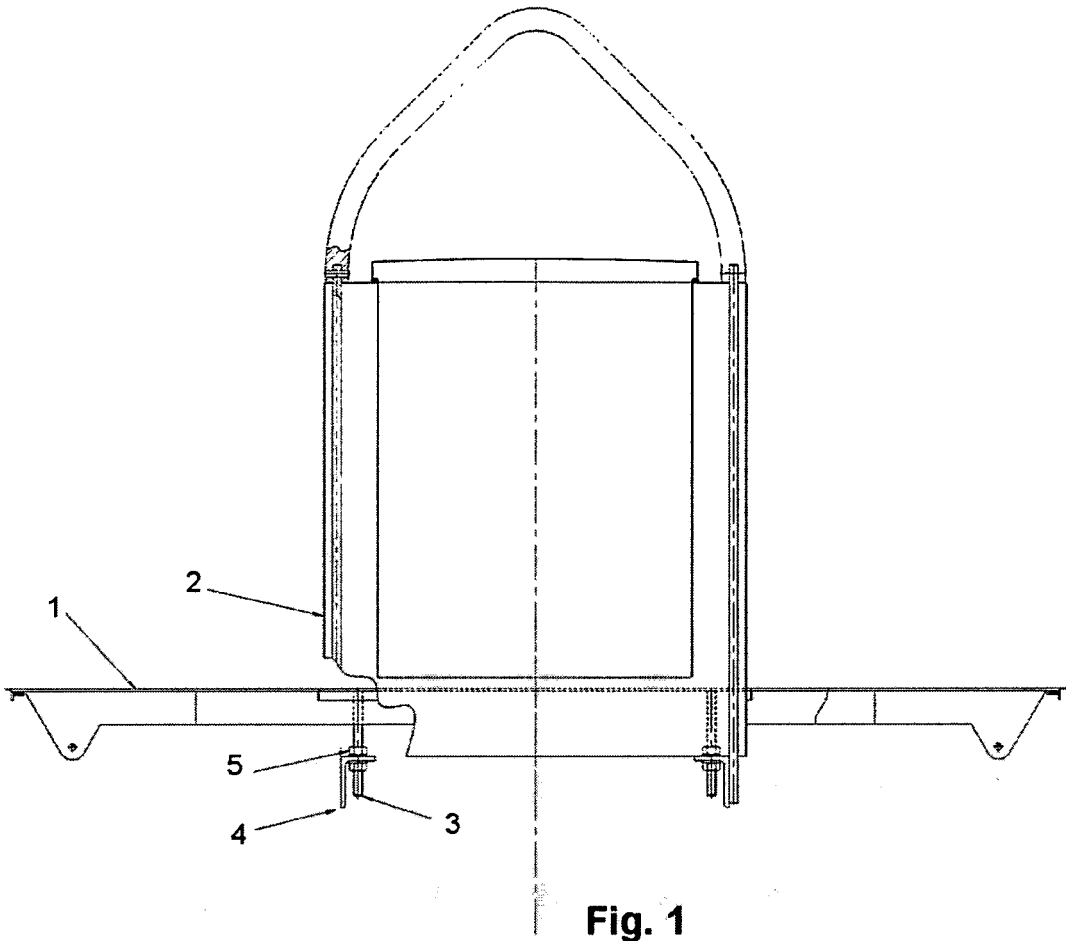
[0008] By making reference to the drawings, Figure 1 and 2 broadly depict the combined device for levelling and adjusting the height of the headstock (2) intended for use in a fully buried urban solid waste container, which is arranged in the lower end of the set comprised of the headstock (2) and the ground cover (1), which includes the articulation assembly and the adjusting assembly. As one can see in Figure 1, the said articulation assembly comprises one articulation upper section (2) (headstock), having two elements (4) (angle brackets) in its lower end. The said articulation upper section (2) is inserted, bottom-up, into the articulation lower section (1) (ground cover), with a continuous and regular clearance of about 15 mm between the outer surface of the headstock (2) and the ground cover (1), the connection of these two parts being made through the adjusting assembly which comprises the four parts (3) (setscrews) and the eight parts (5) (nuts). The operation, in equal measure, over the eight parts (5) of the said adjusting assembly allows the adjustment of the headstock's (2) height up to about 100 mm in relation to the ground cover (1). The operation in

different measures over the eight parts (5) of the said adjusting assembly will allow the adjustment of the vertical axis of the headstock (2) up to about 5°, in relation to its intermediate position.

[0009] Figure 2 shows an example of how the aforementioned adjusting assembly operates, wherein the latter is set to correct the tilt of 5° to the left side of the ground cover, and on the right side of which the maximum clearance between the outer surface of the headstock and the ground cover can be observed.

Claims

1. A device for levelling and adjusting the height of the headstock intended for use in a fully buried urban solid waste container, comprising an articulation assembly and an adjusting assembly, the said device being arranged in the lower end of the headstock (2) and ground cover (1) set of the said urban solid waste container, **characterized in that** the aforementioned articulation assembly comprises an articulation upper section (2), having two angle brackets (4) in its lower end, and which is connected through the adjusting assembly, of four setscrews (3) and eight round nuts (5), to an articulation lower section (1), the said section (2) being adjustable up to about 100 mm in relation to the ground cover, and its vertical axis being adjustable up to about 5° in relation to the intermediate position.



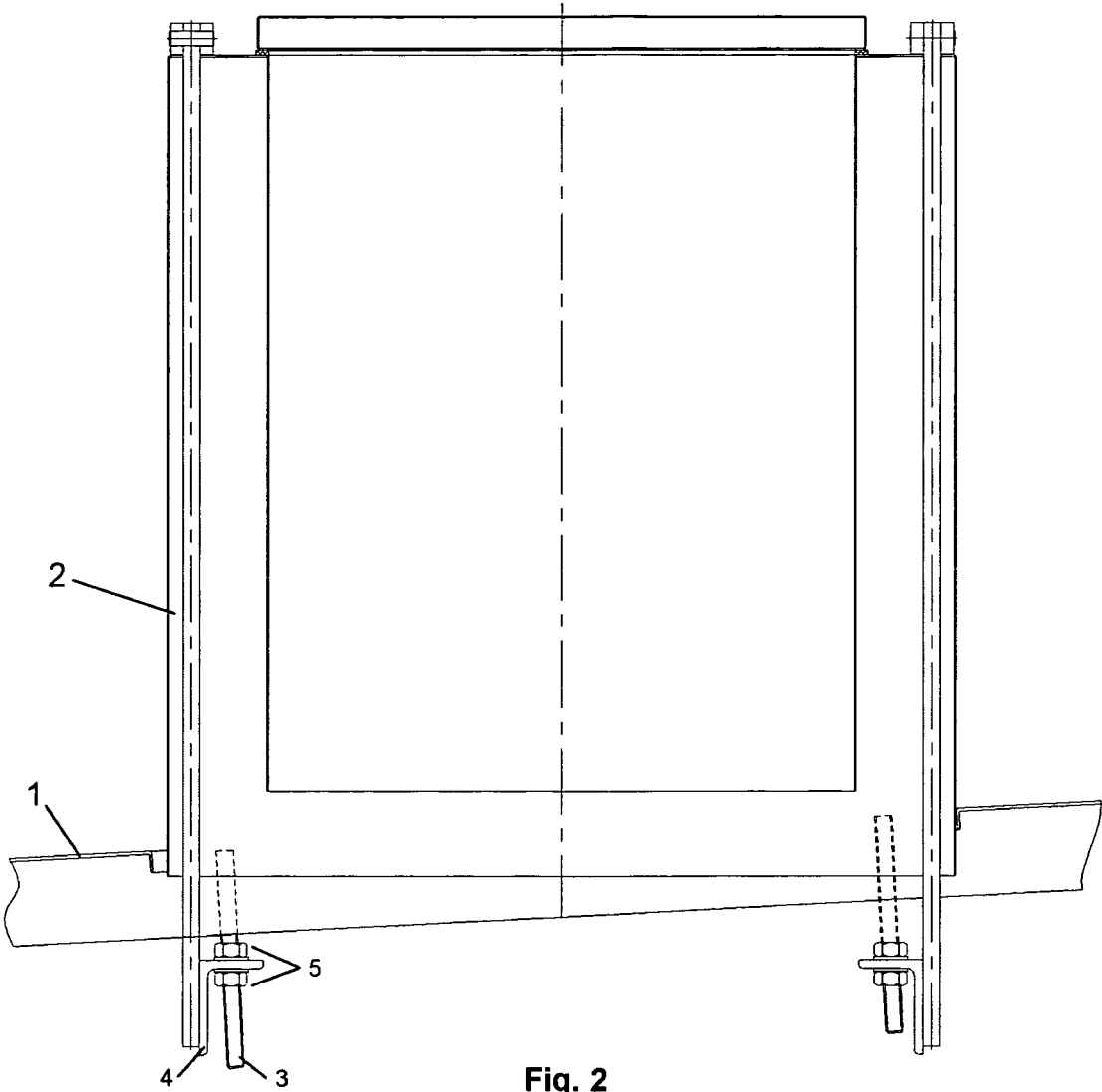


Fig. 2



EUROPEAN SEARCH REPORT

Application Number
EP 10 39 8006

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	EP 1 167 241 A1 (BAMMENS B.V.) 2 January 2002 (2002-01-02) * paragraph [0015] - paragraph [0023] * * figures 1-3 * -----	1	INV. B65F1/14
			TECHNICAL FIELDS SEARCHED (IPC)
			B65F
The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 24 February 2011	Examiner Smolders, Rob
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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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 10 39 8006

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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24-02-2011

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