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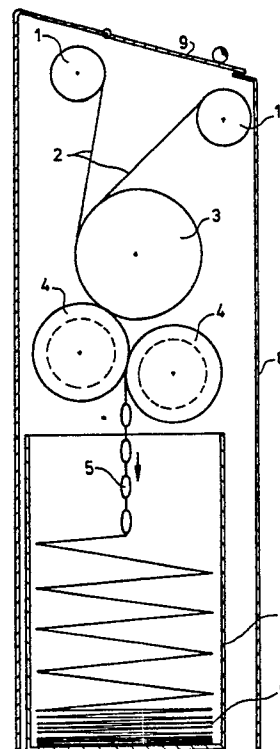
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54 **Device for the collection of waste items, in particular sanitary towels.**

57 Device for the hygienic and odour-free collection of waste items (5), in particular sanitary towels, comprising a container (8) with an inlet (9) before which an operable device is provided for receiving a waste item, totally enclosing said item with an airtight material, and placing the thus enclosed waste item in the container. Said device comprises two rolls (1) of said material which are mounted for a free rotational movement, and operable means formed by two roll-type elements (4), of which peripheral parts are in contact with each other for the formation of a pinch between which material parts unrolled from said two rolls are passed for pressing said material parts against each other and bending them around a waste item disposed between said parts and conveying into the container said waste item thus completely enclosed by said material parts.

fig-1



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Device for the collection of waste items, in particular sanitary towels.

The invention relates to a device for the hygienic and odour-free collection of waste items, in particular sanitary towels, comprising a container with an inlet in which the waste items can be placed. Such a device is generally known.

The known device comprises only a container with a lid which covers the inlet thereof, but which can be opened, said container being filled with a disinfecting fluid into which the sanitary towels are thrown. After some time the container containing the sanitary towels immersed in the fluid is removed from the room in which the device is placed, for example a toilet, following which the entire contents of the container are dumped or destroyed in one way or another.

The disadvantage of the known device is that its removal from the above-mentioned room is a time-consuming affair, since it has to take place with care and in such a way that the fluid remains inside the container. Moreover, the disinfecting fluid is environmentally unfriendly and thus gives rise to problems during dumping or destroying.

The object of the invention is to produce a device of the known type which does not have these disadvantages.

This object is achieved through the fact that in the device according to the invention provision is made before the inlet of the container for an operable device for taking a waste item, totally enclosing said item with an airtight material, and placing the thus enclosed waste item in the container.

Advantageously, the device for enclosing a waste item comprises means for forming a stock of airtight enclosing material in sheet form, with means for the formation of two opposite parts of this material with a gap between them, so that a waste item can be placed between said two parts, means for pressing the enclosing material parts against each other and bonding them to each other, and conveyance means for conveying into the container the waste item thus completely enclosed by the material.

With a device designed in this way according to the invention, the sanitary towels are thus packed, as it were, airtight before they go into the container, so that they are fully insulated from the environment when they are collected in the container. Due to the fact that no fluid is present, the container can be removed very quickly from the room, and the contents can then be emptied into a sort of refuse bin. Dumping or destroying the contents of the container does not give rise to any problems either, due to the absence of substances which are environmentally unfriendly.

The means for forming a stock of enclosing material in sheet form are preferably formed by two rolls of this material which extend parallel to each other in spaced apart relation, and which are mounted for a free rotation, and operable means for unrolling from each of these rolls the above-mentioned two opposite parts of enclosing material with a gap between them.

The operable means can here be advantageously formed by the conveyance means, it being preferable for the conveyance means to be formed by at least two roll-type elements, at least one of which can be set in rotation by operating means, and of which at least peripheral parts essentially touch each other for the formation of a pinch between which the above-mentioned enclosing material parts can be directed.

In a most simple embodiment of the device according to the invention the enclosing material in sheet form is formed by a self-adhesive material, for example plastic films which can be bonded to each other through the exertion of pressure, so that, for example, heated welding dies are not necessary for the formation of heat seals around the waste items.

The conveyance means formed by roll-type elements can also advantageously be used for pressing the film parts against each other and bonding them together around the inserted waste item.

It is, however, also possible for at least one pressure roller to be fitted upstream of the conveyance means formed by two roll-type elements, viewed in the direction of conveyance, at least the periphery of said pressure roller being made of elastic material.

Since in the device according to the invention no fluid is present in the container, this container can be made of very cheap material and thus be in the form of a disposable article, so that the container together with its contents can be, for example, incinerated.

The invention is explained in greater detail with reference to the examples of embodiments of a device according to the invention shown in the drawing.

Fig. 1 shows schematically a first embodiment of a device according to the invention, and

Fig. 2 shows schematically the main parts of a second embodiment of a device according to the invention.

As shown in Fig. 1, the device comprises two stock rolls 1 of an enclosing material in sheet form, in particular a plastic film. Enclosing material parts 2 are unrolled from these rolls 1 and are directed

to a pressure roller 3, at least the periphery of said roller 3 being made of an elastic material. Two conveyance rollers 4, which are each provided with annular peripheral parts of an elastic material, and which touch each other for the formation of a pinch, are also present.

Reference number 6 indicates a collection container.

All of the device described above sits inside a casing 8 which is provided with an operable flap lid 9.

When the device is being used, a foot pedal (not shown), for example, is depressed, thus causing the lid 9 to open. A sanitary towel can then be placed between the enclosing material parts 2, following which the foot pedal is released again. As a result of this, the flap lid 9 closes again, and one of the conveyance rollers 4 is set in rotation in such a way that the material parts 2 are conveyed a certain distance in the direction of the container 6, while these parts 2 are pressed against each other around the inserted sanitary towel and thereby bonded to each other, so that said towel is also totally enclosed by the material parts 2, and is carried along by these parts in the direction of the container 6. After some time, a zigzag piece of enclosing material, made up of two parts bonded together, has formed inside the container 6, with sanitary towels between said parts, as indicated at 5, said towels being entirely enclosed by the material parts 2. When the container 6 is filled, it can be removed from the casing 8, and the contents of the container 6 are then destroyed in one way or another, possibly together with the container 6.

The embodiment shown in Fig. 2 differs from the embodiment shown in Fig. 1 only in that the pressure roller 3 is omitted. The parts of this second embodiment which correspond to those of the first embodiment are provided with the same reference number, but with the addition of an apostrophe.

The container 6 and the casing 8 are omitted in Fig. 2, for the sake of simplicity.

Claims

1. Device for the hygienic and odour-free collection of waste items, in particular sanitary towels, comprising a container with an inlet in which the waste items can be placed, characterized in that provision is made before the inlet of the container for an operable device for receiving a waste item, totally enclosing said item with an airtight material, and placing the thus enclosed waste item in the container.

2. Device according to Claim 1, characterized in that the device for enclosing a waste item com-

prises means for forming a stock of airtight enclosing material in sheet form, with means for the formation of two opposite parts of this material with a gap between them, so that a waste item can be placed between said two parts, means for pressing the enclosing material parts against each other and bonding them to each other, around the introduced waste item and conveyance means for conveying into the container the waste item thus completely enclosed by the material.

3. Device according to Claim 2, characterized in that the means for forming a stock of enclosing material in sheet form are formed by two rolls of this material which extend parallel to each other in spaced apart relation, and which are mounted for a free rotation, and operable means for unrolling from each of these rolls the above-mentioned two opposite parts of enclosing material with a gap between them.

4. Device according to Claim 3, characterized in that said operable means are formed by the conveyance means.

5. Device according to Claims 2 - 4, characterized in that the conveyance means are formed by at least two roll-type elements, at least one of which can be set in rotation by operating means, and of which at least peripheral parts essentially touch each other for the formation of a pinch between which the above-mentioned enclosing material parts can be directed.

6. Device according to Claims 2 - 5, characterized in that the enclosing material in sheet form is formed by a self-adhesive material, for example plastic films which can be bonded to each other through the exertion of pressure.

7. Device according to Claims 5 and 6, characterized in that the conveyance means formed by roll-type elements are also used for pressing the film parts against each other and bonding them around the inserted waste item.

8. Device according to Claims 5 and 6, characterized in that at least one pressure roller is fitted upstream of the conveyance means formed by two roll-type elements, viewed in the direction of conveyance, of which at least the periphery is made of elastic material.

9. Device according to Claims 1 - 8, characterized in that the container is designed as a disposable article.

fig -1

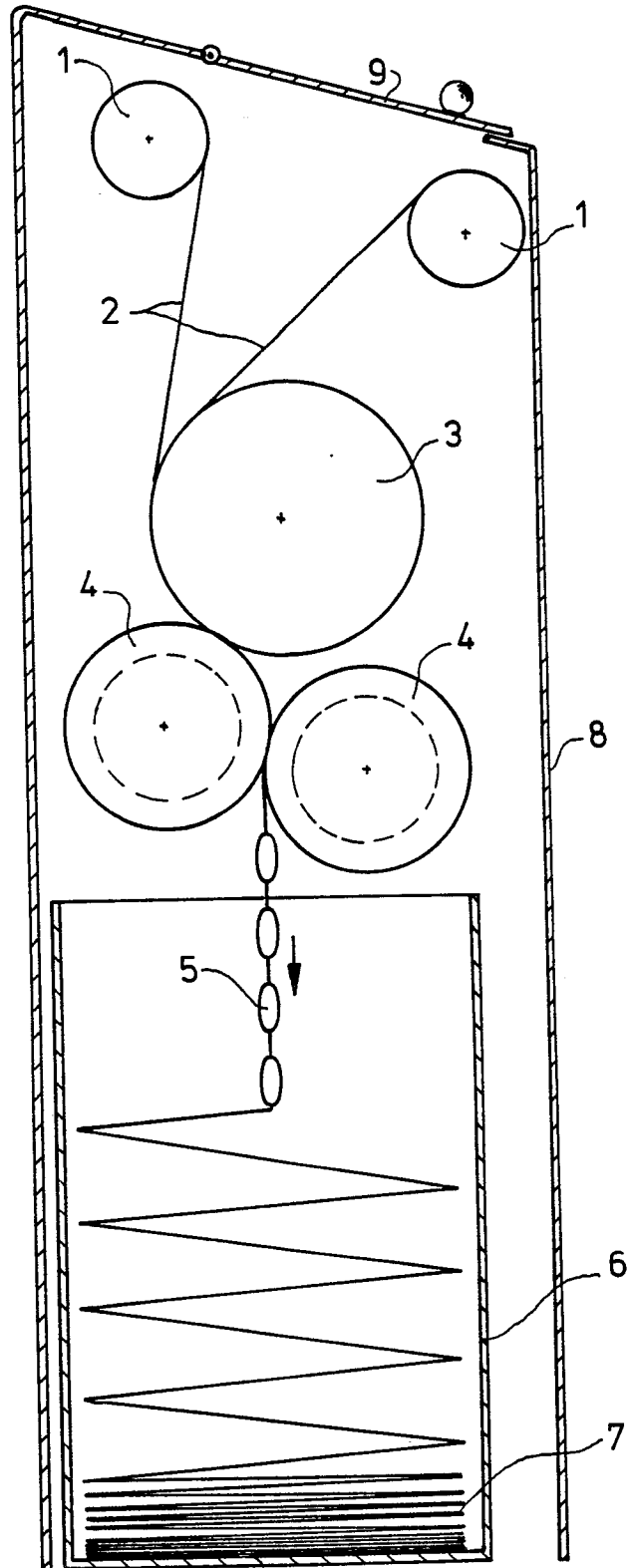
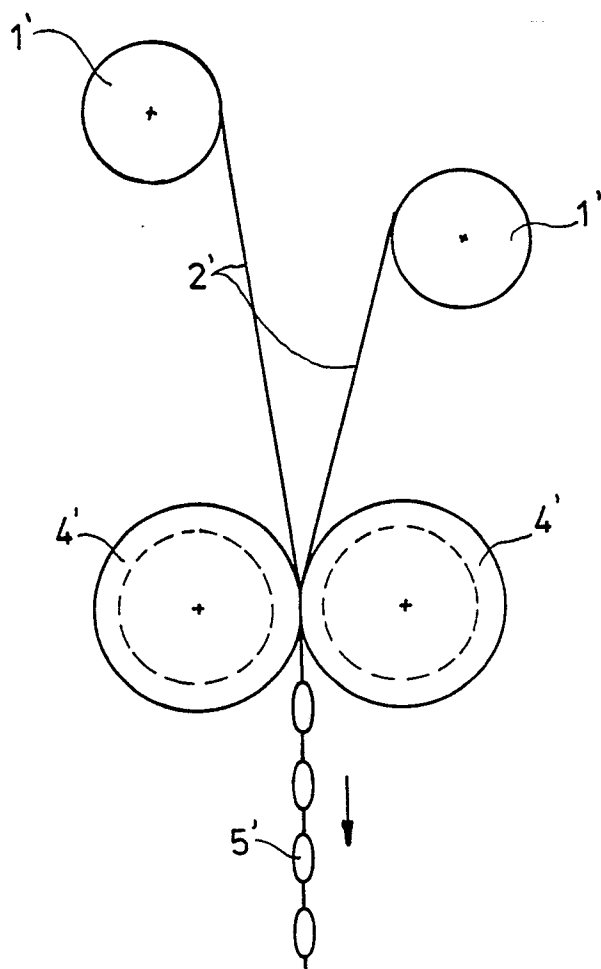


fig - 2





DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	US-A-2 281 630 (SOUTHARD) * Page 1, column 1, line 45 - column 2, line 50 * ---	1	B 65 F 1/14
A	EP-A-0 106 648 (MALONEY) * Figures 1,3,4,6; claim 1 * ---	1	
A	US-A-4 349 104 (HAYES) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B 65 F B 65 B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 15-03-1990	Examiner DEUTSCH J.P.M.
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			