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(54) **A washing and/or drying device**

(57) A washing and/or drying device of the invention comprises at least one tub (K); at least one sealing element (2) which is positioned on at least one wall (K1) of the tub (K), between the inner portion (K2) of the tub (K) and the clamping elements; at least one housing (6) which is provided on the wall (K1); at least one apparatus

(1), which is placed in the housing (6) by sliding towards (-Y) the sealing element (2), at least one portion (1a) of which contacts with the sealing element (2) when it is placed in the housing (6), which has in its at least one other portion at least one extension (1 d), which contacts with at least one outer surface (6a) of the housing (6).

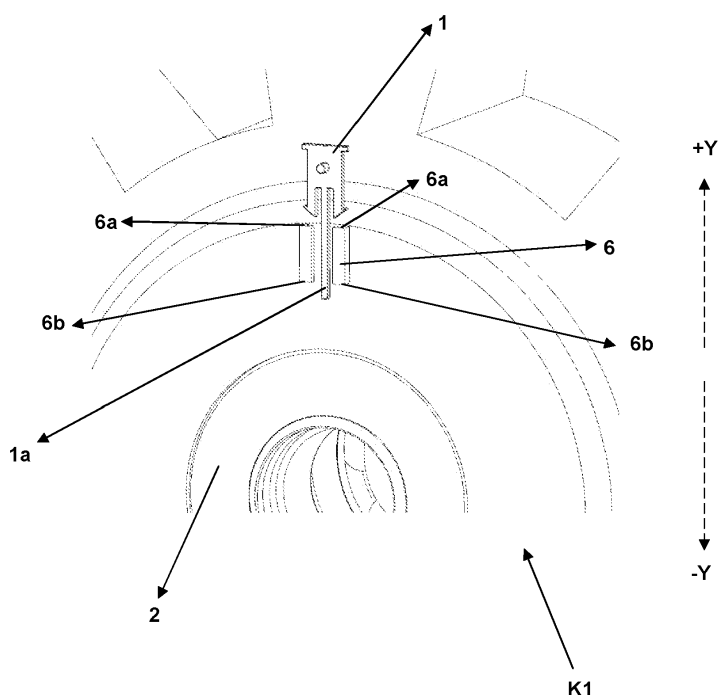


Figure 4

Description

Technical Field

[0001] Present invention relates to fixation of sealing element placed in the tub, which is provided in washing and/or drying devices.

Prior Art

[0002] A tub provided in washing and/or drying devices is mounted to the device by various clamping elements (for example, bearing housing, bearing etc.). A sealing element is used in order to prevent said clamping elements from contacting with water and/or air in the tub during the operation of the device. Thus, water and/or air are prevented from harming said elements provided in the tub. However, when said sealing element is not fixed on the tub, it may be displaced due to the movement of the tub and the clamping elements may contact with water and/or air during operation of device. In that case, these elements may get harmed (for example, they get corroded) and lifetime of the device is decreased. In addition, it will be costly for the user to get these elements repair.

[0003] For the solution of said problem, in the patent document No.EP2088232A1 in state of art, there are provided clips positioned in portion on the tub in which the clamping elements communicate with inside of the tub. The sealing element is positioned between the clamping elements and the clips, and then the clips exert pressure on the sealing element. Thus, fixation of the sealing element is ensured.

[0004] In other patent document No.DE4422853A1 in state of art, a two-part fixation embodiment is disclosed. A circular ring-shaped protective element is mounted on the drum axle. The other protective element is mounted on bearing housing. These two parts fix radial shaft sealing ring serving as sealing element.

Brief Disclosure of the Invention

[0005] The washing and/or drying device developed by present invention comprises at least one tub; at least one sealing element positioned on at least one wall of the tub and between the clamping elements and inner portion of tub; at least one housing provided on the wall; at least one apparatus, which is placed in the housing by sliding towards the sealing element, at least one portion of which contacts with the sealing element when it is placed in the housing, which has in its at least one other portion at least one extension, which contacts with at least one outer surface of the housing.

[0006] After the clamping elements and the sealing element are placed on the wall, the apparatus is placed in the housing and one portion of the apparatus contacts with the sealing element. Therefore, during operation of the device, the apparatus fixes the sealing element on

the wall it is present and prevents it from being displaced.

Objective of the Invention

[0007] An aim of the invention is to develop a washing and/or drying device comprising an apparatus which fixes sealing element provided on the montage wall of the tub.

[0008] Another aim of the invention is to develop a washing and/or drying device, in which the sealing element is prevented from being displaced due to the movement of tub while it is operating.

[0009] A further aim of the invention is to create an easy to produce, mount and use, also cheap and safety apparatus.

Description of Figures

[0010] An exemplary tub provided in the washing and/or drying device of the invention and an exemplary apparatus used herein are illustrated in the annexed figures, wherein;

Figure 1 is perspective view of the tub.

Figure 2 is side sectional view of wall of the tub, which is fixed to the device.

Figure 3 is perspective view of the apparatus.

Figure 4 is perspective view of the apparatus before it is placed on the tub.

Figure 5 is perspective view of the apparatus after it is placed on the tub.

[0011] All the parts illustrated in figures are individually assigned a reference numeral and the corresponding terms of these numbers are listed below.

Tub	(K)
Wall	(K1)
Inner portion	(K2)
Apparatus	(1)
Portion	(1a)
Extension	(1b, 1d)
Grip	(1c)
Sealing element	(2)
Bearing housing	(3)
Bearing	(4, 5)
Housing	(6)
Outer surface	(6a, 6b)

Disclosure of the Invention

[0012] In Figure 1, perspective view of at least one tub (K) provided in washing and/or drying device of the invention (not shown in figures) is illustrated. There are provided at least one sealing element (2) on the wall (K1), which is mounted said device, of the tub (K) and at least one apparatus (1) fixing said element (2) on spot, where

it is provided on the wall.

[0013] The tub (K), whose side sectional view of the wall is illustrated in the Figure 2, is mounted to the device by means of clamping elements (for example, bearing housing (3), bearing (4, 5)) provided on said wall (K1). The sealing element (2) provided on said wall (K1) of the tub (K) is positioned between the clamping elements (3, 4, 5) and the inner portion (K2) of the tub (K) and ensures that these clamping elements (3, 4, 5) are fluid-tight. Thus, said sealing element (2) prevents water and/or air within the tub (K) from contacting with the clamping elements (3, 4, 5).

[0014] The apparatus (1), whose perspective view is illustrated in Figure 3, is placed in at least one housing (6) (shown in figures 4 and 5) provided on the wall (K1) of the tub (K) by sliding towards (-Y) the sealing element (2). When the apparatus (1) is placed in the housing (6), at least one portion (1a) of the apparatus (1) contacts with the sealing element (2) positioned on the wall (K1) and said element (2) is fixed on spot, where it is provided on the wall (K1). There is provided at least one extension (1d) on the side, which does not contact with the sealing element (2), of the apparatus (1), whose view is illustrated in Figure 4 before it is placed on the tub (K). Said housing (6) is preferably in channel form and also, when the apparatus (1) is placed in said housing (6) by sliding, at least one surface of the extension (1d) contacts with at least one outer surface (6a) of the housing (6). Therefore, the apparatus (1) can move in the housing (6) to some extent.

[0015] In an exemplary embodiment of the apparatus (1) provided in the device of the invention, there is provided at least one other extension (1b) in the apparatus (1). When the apparatus (1) is placed in the housing (6) by sliding movement, at least one surface of said extension (1b) contacts with outer surface (6b) facing the sealing element (2). When the extensions (1b, 1d) on the apparatus (1), whose view is illustrated in Figure 5 after it is placed on the tub (K), contact with outer surfaces (6a, 6b) of the housing (6), the apparatus (1) is fixed on the tub (K) in a certain position and thus, the apparatus (1) is prevented from being displaced from the housing (6) due to the movement of the tub (K) while the device is operating. Therefore, the sealing element (2) is fixed on the spot it is provided and prevented from being displaced from that spot it is provided on the wall (K1) due to the movement of the tub (K).

[0016] In another embodiment of the invention, there is at least one grip (1c) positioned on the apparatus (1). Thus, the apparatus (1) is placed into this housing (6) or displaced from this housing (6) by means of this grip (1c).

Claims

1. A washing and/or drying device comprising at least one tub (K) and at least one sealing element (2), which is positioned on at least one wall (K1) of the

tub (K), between the inner portion (K2) of the tub (K) and the clamping elements **characterized in that** it comprises;

- at least one housing (6) provided on the wall (K1);
- at least one apparatus (1), which is placed in the housing (6) by sliding towards (-Y) the sealing element (2), at least one portion (1a) of which contacts with the sealing element (2) when it is placed in the housing (6), which has in its at least one other portion at least one extension (1d), which contacts with at least one outer surface (6a) of the housing (6).

2. A washing and/or drying device according to Claim 1 **characterized in that** said housing (6) is in channel form.
3. A washing and/or drying device according to Claim 1 **characterized in that** it comprises at least one other extension (1b), whose at least one surface contacts with outer surface (6b) of the housing (6) facing the sealing element (2) when the apparatus (1) is placed in the housing (6).
4. A washing and/or drying device according to Claim 1 **characterized in that** it comprises at least one grip (1c), which is positioned on the apparatus (1).

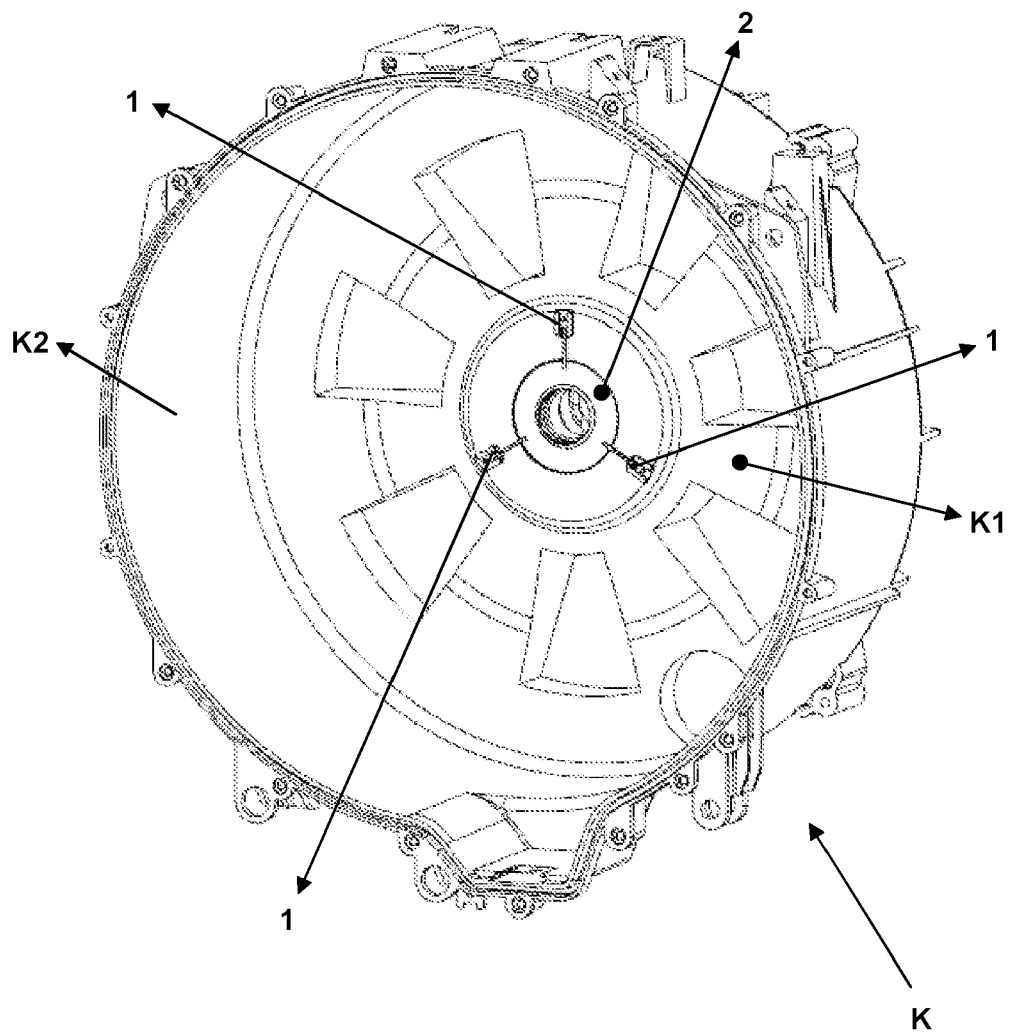


Figure 1

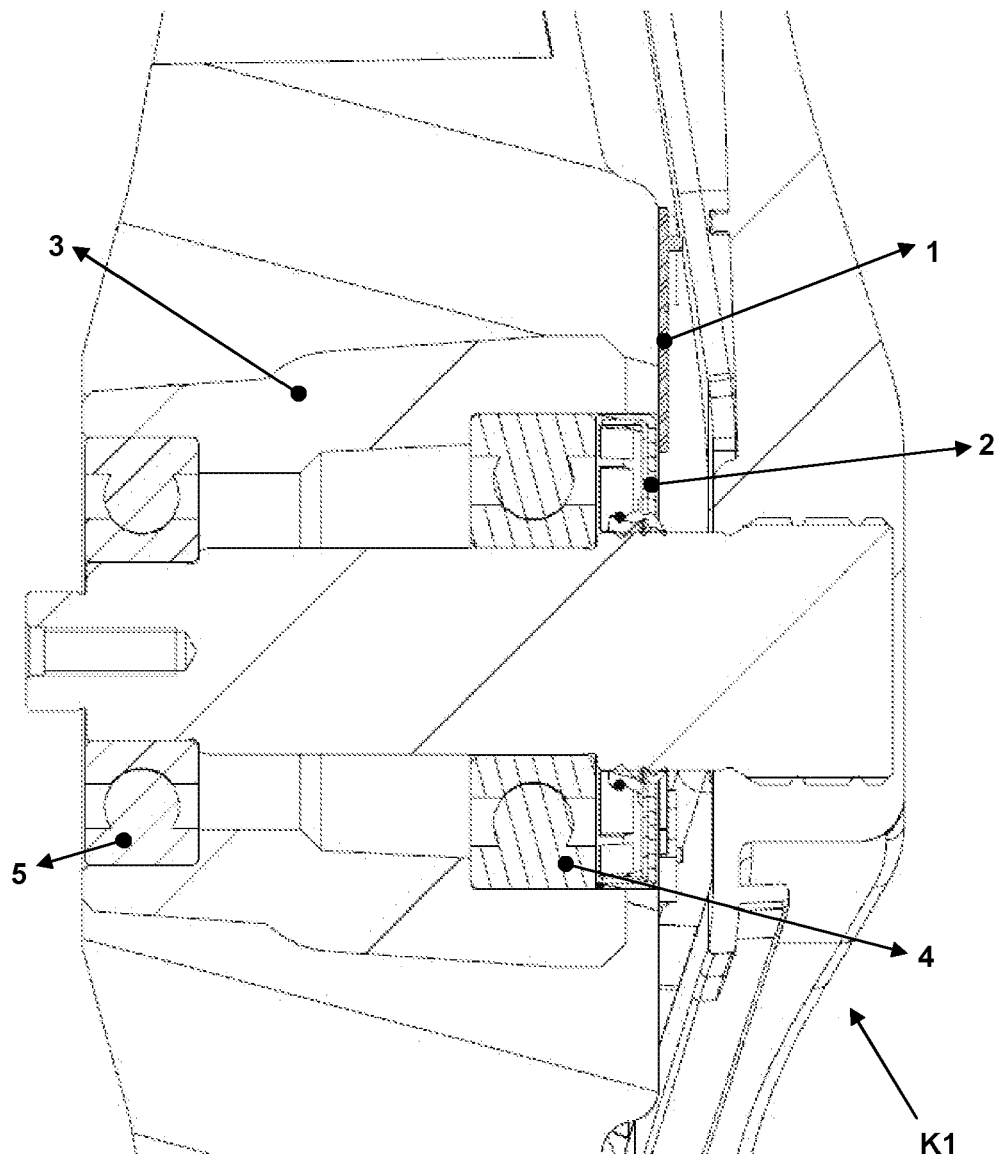


Figure 2

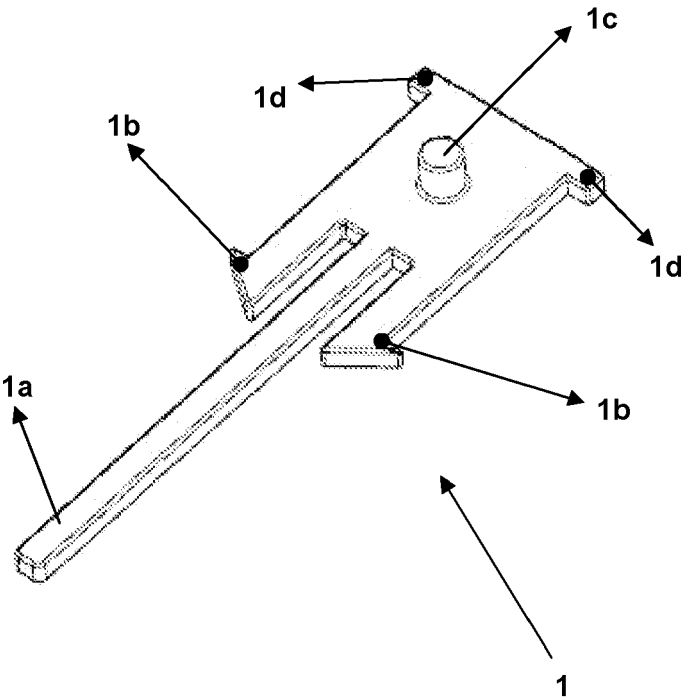


Figure 3

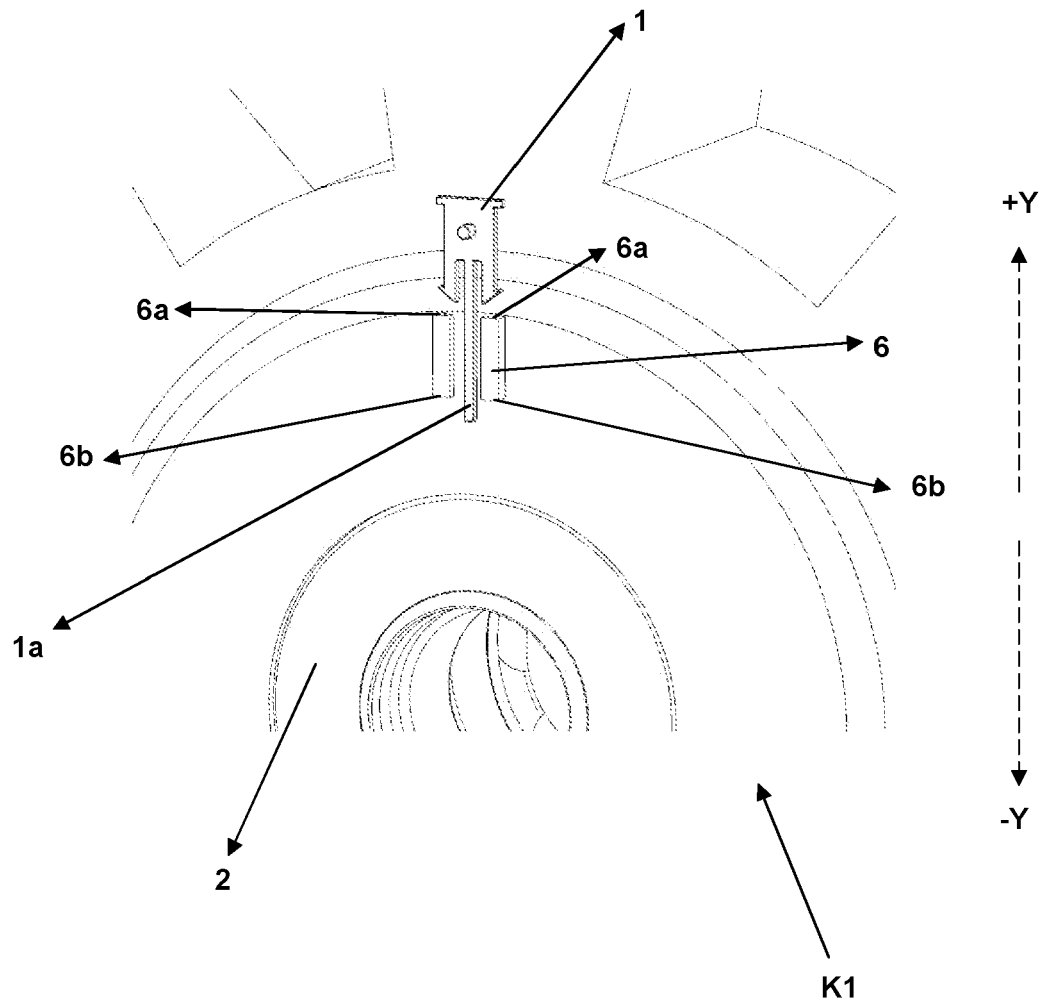


Figure 4

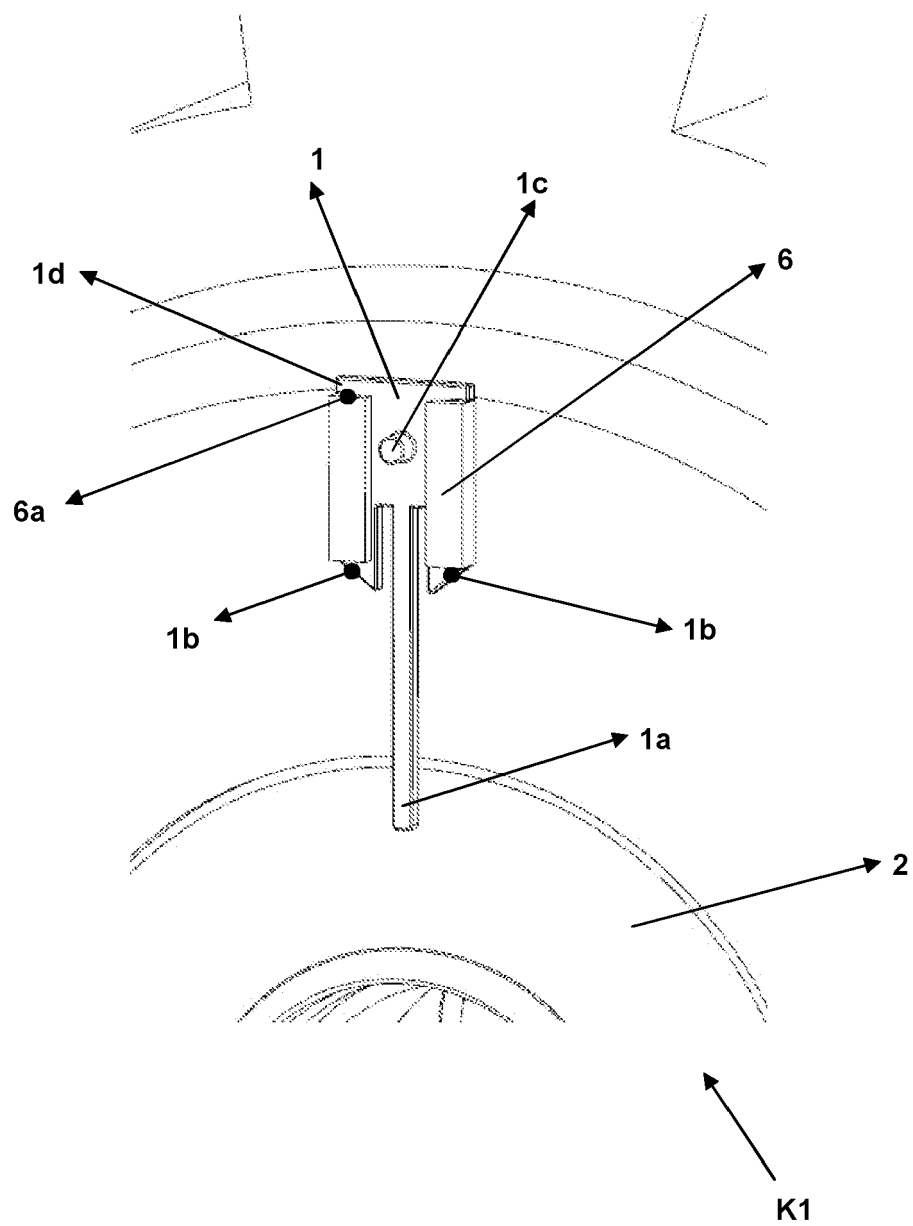


Figure 5



EUROPEAN SEARCH REPORT

Application Number
EP 11 17 7014

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
A	EP 2 088 232 A1 (MIELE & CIE [DE]) 12 August 2009 (2009-08-12) * paragraphs [0014] - [0017]; figure 3 *	1-4	INV. D06F37/00 D06F37/26
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			TECHNICAL FIELDS SEARCHED (IPC)
			D06F
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 17 February 2012	Examiner Stroppa, Giovanni
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
ON EUROPEAN PATENT APPLICATION NO.**

EP 11 17 7014

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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17-02-2012

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

REFERENCES CITED IN THE DESCRIPTION

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