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(71) Applicant: **Webbit S.r.l.**

20090 Trezzano sul Naviglio (MI) (IT)

(72) Inventor: **Cais, Fulvio**

20088, Gudo Visconti (MI) (IT)

(74) Representative: **Paglia, Pietro**

Botti & Ferrari S.r.l.

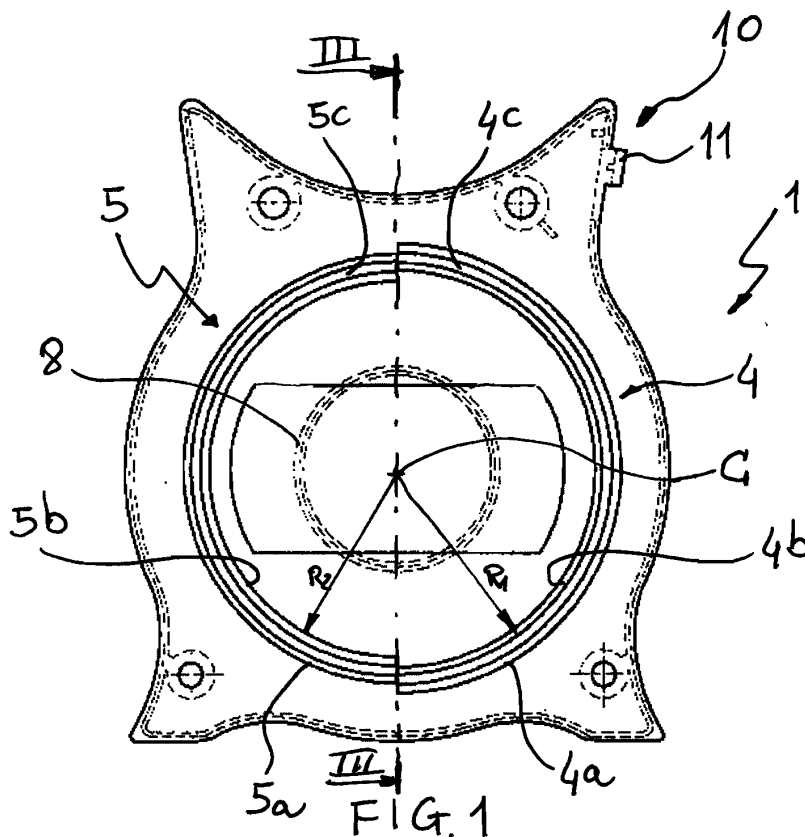
Piazza dei Martiri 5

40121 Bologna (BO) (IT)

(54) **Dispenser for labels**

(57) The invention concerns a dispenser for adhesive labels on a roll of stock comprising a first and a second shell half (2,3) coupled together in such a way as to form a container that is hollow on the inside and that contains said roll of stock, an opening (10) being provided for the exit of the free end of the roll from the container,

and in which at least one of said shell halves presents on the lateral surface that will be on the outside of the container fastening means (4,5) shaped to cooperate with corresponding and identical fastening means located on another shell half of a different dispenser, in order to create a modular structure.



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Description

Background of the invention

[0001] The present invention refers to a dispenser for labels.

[0002] More particularly, the present invention refers to a dispenser for adhesive labels on a roll of stock of coated backing paper.

Prior art

[0003] Often it is necessary to identify the contents of containers with writing that is clearly and easily visible from the outside. A typical example where such a need makes itself felt with a certain regularity is in the medical field. In fact in hospitals it is necessary to identify in a simple and unequivocal way syringes, infusion pumps, infusion tubes, IVs or medication packaging.

[0004] To simplify the process of labeling, the use of adhesive labels is well known, either personalized to suit a particular need, for instance by writing on them, or already having proper distinctive elements, such as for example a particular colouring and/or a particular symbolic element.

[0005] In the field of adhesive labels a known aspect is to provide a plurality of adhesive labels that are removably applied onto a tape of backing paper support, of the coated paper type. The tape of backing paper is supplied in the form of a roll.

[0006] Also well known is the fact of housing the roll formed by the tape of backing paper carrying the adhesive labels inside appropriate dispensers whose shape facilitates peeling the labels off the tape of backing paper as it is unrolled.

[0007] In some situations, such as for example the medical world, there is a need to have a multiplicity of preprinted adhesive labels available that carry various indications. To that end appropriate multiple dispensers are available that consist of a plurality of different label rolls placed in a row. In this manner the user has access to a single multiple dispenser to take the adhesive label from the relevant roll.

[0008] Usually such a multiple dispenser known from the prior art is formed by a single container in which the rolls of tape carrying the various labels are housed in alignment.

[0009] Peeling off the desired label from one of the rolls is done through a single dispensing slot extended along the length of the multiple dispenser from which the free ends of each tape exit, making the labels available to the user.

[0010] These multiple dispensers of adhesive labels of the prior art do however present certain drawbacks.

[0011] One of the drawbacks is easily encountered at the moment one of the rolls of labels is finished and has to be substituted.

[0012] In effect, the operation of inserting a new roll of

labels into the multiple container requires a certain investment of time as well as a basic level of ability in order to carry out the operation, while in the meantime the possibility of continuing to use the remaining rolls in the course of the substitution is lost.

[0013] The reason for this is that the operation of inserting the new roll of tape into the single dispenser of the prior art requires one to open the single dispenser, so that as a result the free ends of the remaining rolls that exit from the single dispensing slot are no longer correctly placed. These rolls, at the end of the substitution of the finished tape, have to be properly repositioned with the free ends exiting from the dispensing slot.

[0014] Basically, the multiple dispensers of adhesive labels known from the prior art, even though they make a plurality of different adhesive labels readily available with minimal overall dimensions, are nevertheless not convenient in handling and are impractical when one of the rolls of tape needs to be replaced.

[0015] As a result there is a great need for a label dispenser that can be produced in a simple manner and at relatively low costs, that presents modular characteristics so that it can create a single block consisting of any multiple number of dispensers that are easily and rapidly exchanged according to one's needs, while maintaining very small overall dimensions, in a constructive solution that is simple and rational.

[0016] The goal of the present invention is that of meeting the above needs and at the same time overcoming the inconveniences described earlier in relation to the prior art.

Summary of the invention

[0017] This objective is obtained by means of a label dispenser in accordance with claim 1.

[0018] The dependent claims outline preferred and particularly advantageous embodiments of the label dispenser according to the invention.

[0019] Further characteristics and advantages of the invention will become clear from the following description, which is given by way of non-limiting example, and from the figures in the enclosed illustrations, wherein:

Brief description of the drawings

[0020]

- figure 1 shows a plan view of the label dispenser in accordance with the present invention;
- figure 2 shows a side view of the dispenser of figure 1;
- figure 3 shows a cross section view along the line III-III of figure 1;
- figure 4 shows a plan view of the interior of the dispenser of figure 1;
- figure 5 shows the dispenser of figure 1 coupled with two further identical dispensers to create a modular structure.

Detailed description

[0021] With reference to the figures above, the number 1 generally indicates a dispenser for adhesive labels in accordance with the present invention.

[0022] The dispenser 1 comprises in its most general embodiment a first shell half 2 and a second shell half 3 (Fig. 5) coupled together in such a way as to form a container that is hollow on the inside and that houses a roll of tape 100 (Fig. 4) on which the adhesive labels are removably applied and from which they can be removed through an appropriate dispensing slot 10 in the container.

[0023] The stock tape is made of coated backing paper common in the field.

[0024] In the illustrated example the coupling of the two halves 2, 3 is obtained by the insertion by pressure of four pins 6 into respective sleeves 7, arranged in the proximity of the external perimeter, in such a way that they do not interfere with the roll of labels.

[0025] In particular each shell half has on its internal side, i.e. inside the cavity that contains the roll, two pins and two sleeves as well as a centrally located crown 8, around which the roll of labels will be placed (Fig. 4).

[0026] In accordance with the present invention, at least one of the two shell halves 2, 3 presents on the flat surface that comes to be located on the exterior of the container, convenient fastening means that are formed in such a way that they cooperate with correspondent and identical fastening means present on another shell half belonging to a different dispenser, in order to create a modular structure.

[0027] In the illustrated example the fastening means comprise a pair of semi-circumferential fastening guides 4, 5 with a common centre, indicated by C, and with different radiuses of curvature R1, R2. In figure 1 the fastening guide identified by 4 presents the smaller radius of curvature R1.

[0028] Moreover the free extremities of these guides 4, 5 present an abutting portion.

[0029] In the illustrated embodiment each semi-circumferential fastening guide 4, 5 is formed by a pair of ribs 4a, 4b and 5a, 5b that project from the shell half and that extend onto the plane itself along two circumference arcs of 180°, located parallel and defining a track 4c, 5c between them.

[0030] In the following part of the description, even when in figure 1 the radiuses of curvature indicated by R1 and R2 refer respectively to the specific ribs 4b, 5b with the shorter radius of each of the fastening guides 4, 5, they will also be used to refer to the applicable fastening guide as a whole.

[0031] In particular, the more external rib 4a of the fastening guide 4 with the shorter radius of curvature R1 has its free extremities located in correspondence with the track 5c of the fastening guide 5 with the larger radius of curvature R2; whereas the more internal rib 5b of the fastening guide 5 with the larger radius of curvature R2

has its free extremities located in correspondence with the track 4c of the fastening guide 4 with the shorter radius of curvature R1 (Fig. 1).

[0032] In practice the more external rib 4a of the fastening guide 4 with the shorter radius of curvature R1 and the track 5c of the fastening guide 5 with larger radius of curvature R2 geometrically define a single first circumference; in the same manner the more internal rib 5b of the fastening guide 5 with the larger radius of curvature R2 and the track 4c of the fastening guide 4 with the shorter radius of curvature R1 geometrically define a single second circumference, which is internally adjacent to the first single circumference.

[0033] From this it follows that the thicknesses of the ribs 4a, 4b, 5a, 5c are identical and moreover identical to that of the tracks 4c, 5c in-between. In the example this thickness is never greater than 3 mm.

[0034] According to the preferred embodiment of the present invention the fastening means as described above are present on both shell halves 2, 3 that form the container of the dispenser.

[0035] In this manner, and as a result of the particular form of the fastening means, it is possible to create a simple coupling that is fast and efficacious, of two or more dispensers made according to the present invention, to form a dispenser with a modular structure in accordance with one's particular needs (Fig. 5).

[0036] The fastening between several dispensers is done by on the one hand placing the more external rib 4a of the fastening guide 4 with the shorter radius of curvature R1 between the two ribs 5a, 5b of the fastening guide 5 with the larger radius of curvature R2, thus being placed inside the corresponding track 5c; and on the other hand placing the more internal rib 5b of the fastening guide 5 with the larger radius of curvature R2 between the two ribs 4a, 4b of the fastening guide 4 with the shorter radius of curvature R1, thus being placed inside the corresponding track 4c.

[0037] Once the dispensers have been coupled together, the distance between them will be substantially equal to the height of a single rib.

[0038] Therefore the compactness of the modular dispenser consisting of a multiplicity of dispensers according to the present invention is simply obtained by creating ribs of reduced height, for instance not higher than 3 mm.

[0039] Basically each dispenser in accordance with the present invention in effect constitutes a modular dispensing cartridge for labels that when coupled with other identical cartridges form a single multiple dispenser.

[0040] To reduce production costs the first and the second shell halves have identical forms. Therefore with a single mould, and consequently a single production cycle, one may manufacture both half shells.

[0041] In the illustrated example the two halves 2, 3 are made of a transparent plastic material, which allows for quick checking of the quantity of labels remaining in the dispenser.

[0042] In order to make peeling the adhesive labels off

the coated backing paper easier while the paper is being pulled from the dispenser, a deviating element 11 is present in the downstream direction and in proximity to the opening (10), which is in the form of a slot.

[0043] This deviating element 11 takes the form of a projection around which the tape passes in an S-shaped path (from a cross-sectional point of view), immediately after which the tape exits from the opening slot. This path is clearly visible in Fig. 4.

[0044] In the illustrated example the deviating element 11 is directly obtained on the perimetrical edge of one of the two shell halves and is preferably made as single piece with it.

[0045] One will appreciate from the above description that the dispenser of labels on a roll of stock in accordance with the present invention will meet with the demands and overcome the drawbacks described in the introductory part of the present description with reference to the prior art.

[0046] In fact the adhesive label dispenser according to the present invention is easy to produce and the fact that it is formed by two identical shell halves greatly reduces production costs.

[0047] Furthermore, the specific form of the fastening elements allows it to create a modular structure with great possibilities for personalization that as a whole takes up little room, because the dispensers are placed close to one another when they are coupled together.

[0048] Last, but not least the dispenser according to the present invention can easily be substituted inside the modular structure consisting of identical dispensers, in that it behaves as a modular cartridge.

[0049] Obviously there are many possible modifications and variations to the dispenser of adhesive labels on a tape as described above that a person skilled in the art could apply with contingent and specific needs in mind, which would however all fall within the scope of protection of the invention, as defined in the following claims.

Claims

1. Dispenser for adhesive labels on a roll of stock comprising a first and a second shell half (2,3) coupled together in such a way as to form a container that is hollow on the inside and that contains said roll of stock, an opening (10) being provided for the exit of the free end of the roll from the container, **characterised by** the fact that at least one of said shell halves presents on the lateral surface that will be on the outside of the container fastening means (4,5) shaped to cooperate with corresponding and identical fastening means located on another shell half of a different dispenser, in order to create a modular structure.

2. Dispenser according to claim 1, in which said fas-

tening means comprise a couple of semi-circumferential fastening guides (4,5) with a common centre (C) and different radius of curvature (R1,R2), where the free ends of said guides present an abutting portion.

3. Dispenser according to claim 2, in which each semi-circumferential fastening guide (4,5) comprises a pair of parallel semi-circumferential ribs (4a,4b;5a,5b) that depart projecting from the plane of the shell half, in order to form a semi-circumferential track (4c,5c) between them.

4. Dispenser according to claim 3, in which the ribs (4a) that are furthest from the fastening guide (4) with the smaller radius of curvature (R1), presents their free ends in correspondence with the track (5c) of the fastening guide (5) with the larger radius of curvature (R2); the ribs (5b) nearer the fastening guide (5) with the larger radius of curvature (R2) present their free ends in correspondence with the track (4c) of the fastening guide (4) with the smaller radius of curvature (R1).

5. Dispenser according to any of the previous claims, in which said fastening means are present on both shell halves (2,3) that form the dispenser's container.

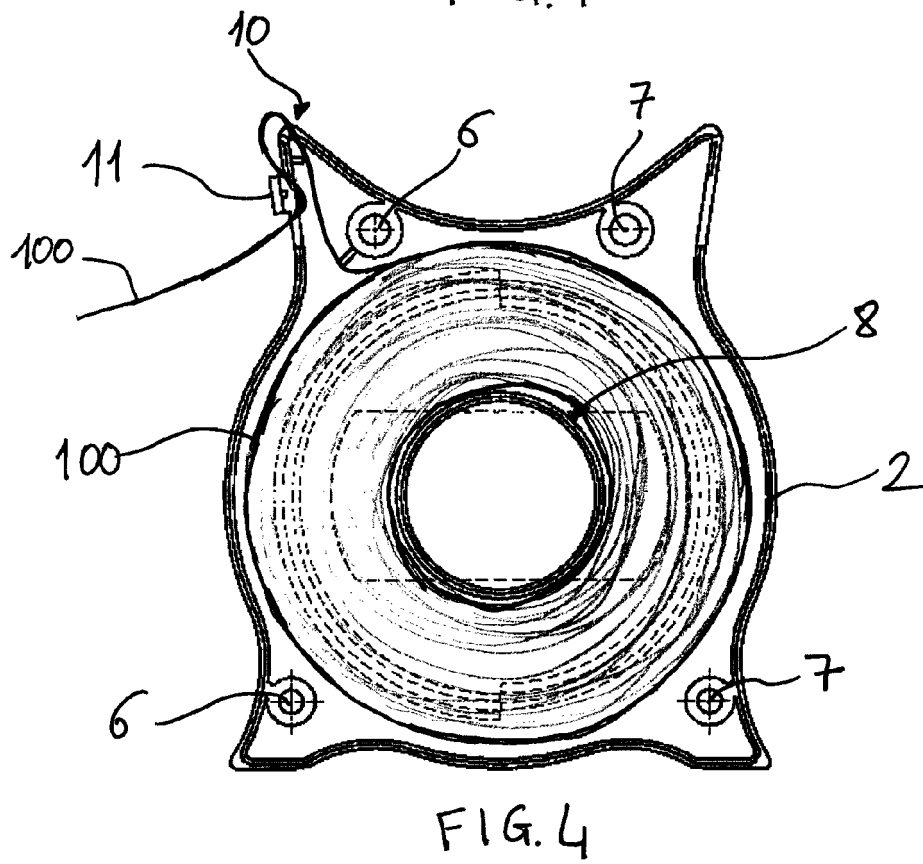
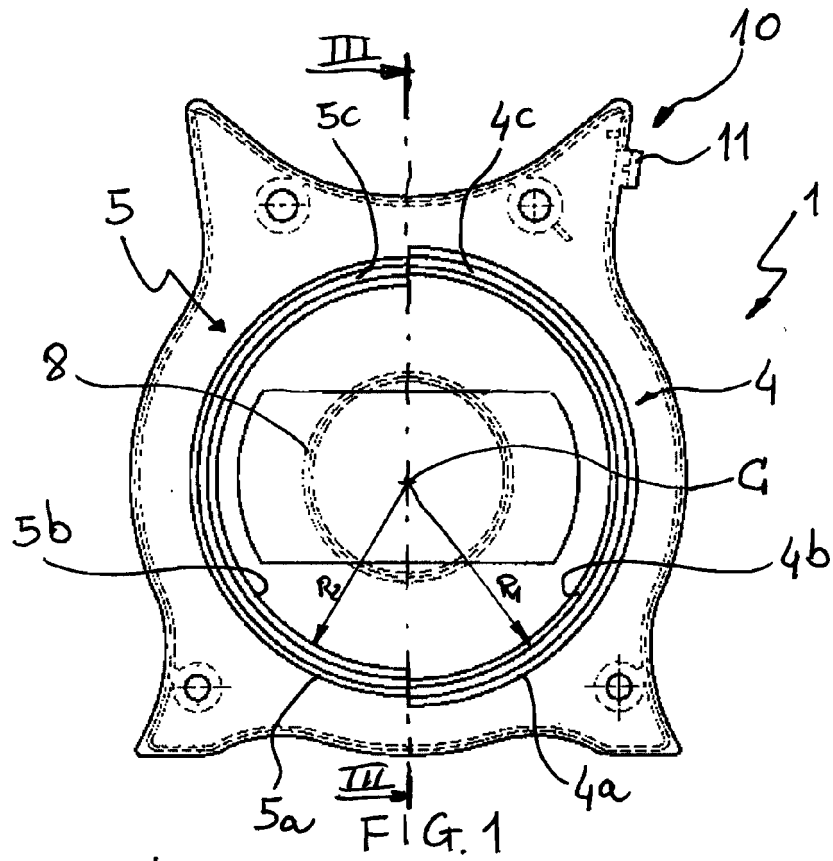
6. Dispenser according to any of the previous claims, in which said first and second shell halves have identical forms.

7. Dispenser according to any of the previous claims, in which said shell halves are made of transparent plastic material.

8. Dispenser according to any of the previous claims, in which in correspondence with said opening (10) there is a deviating element (11) around which the roll of label stock is made to run along an S-shaped path.

9. Dispenser according to claim 8, in which said deviating element is extended from one of the two shell halves (2,3) and is created as a single piece with it.

10. Multiple dispenser of adhesive labels consisting of at least one pair of label dispensers according to any of the previous claims coupled alongside each other.



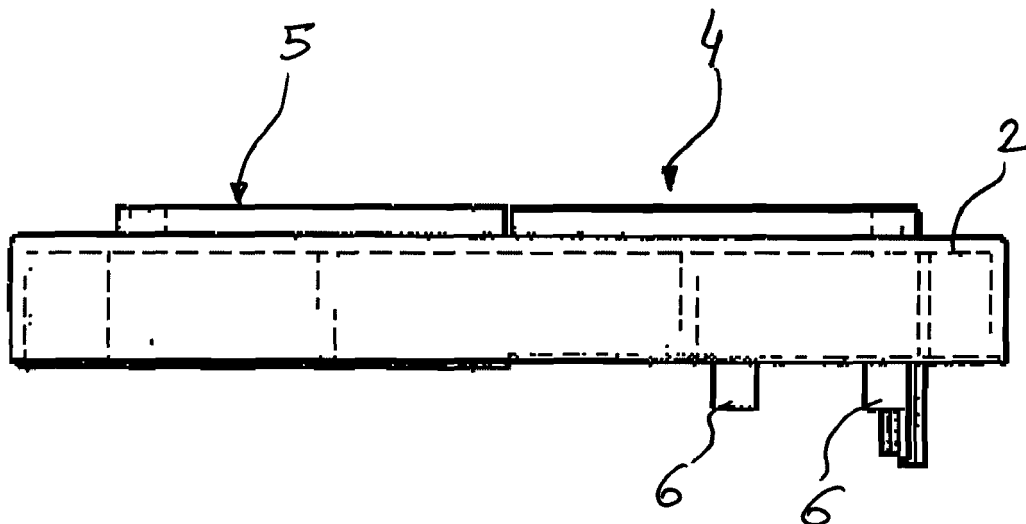


FIG. 2

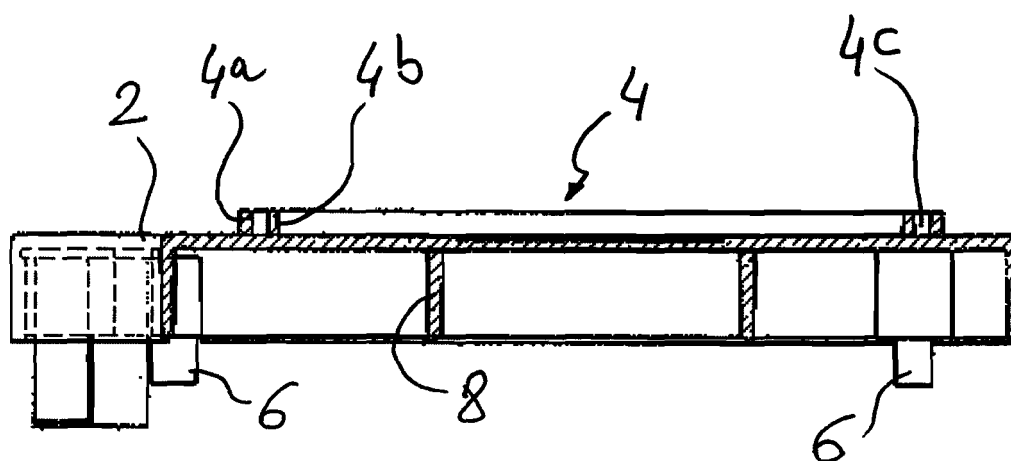


FIG. 3

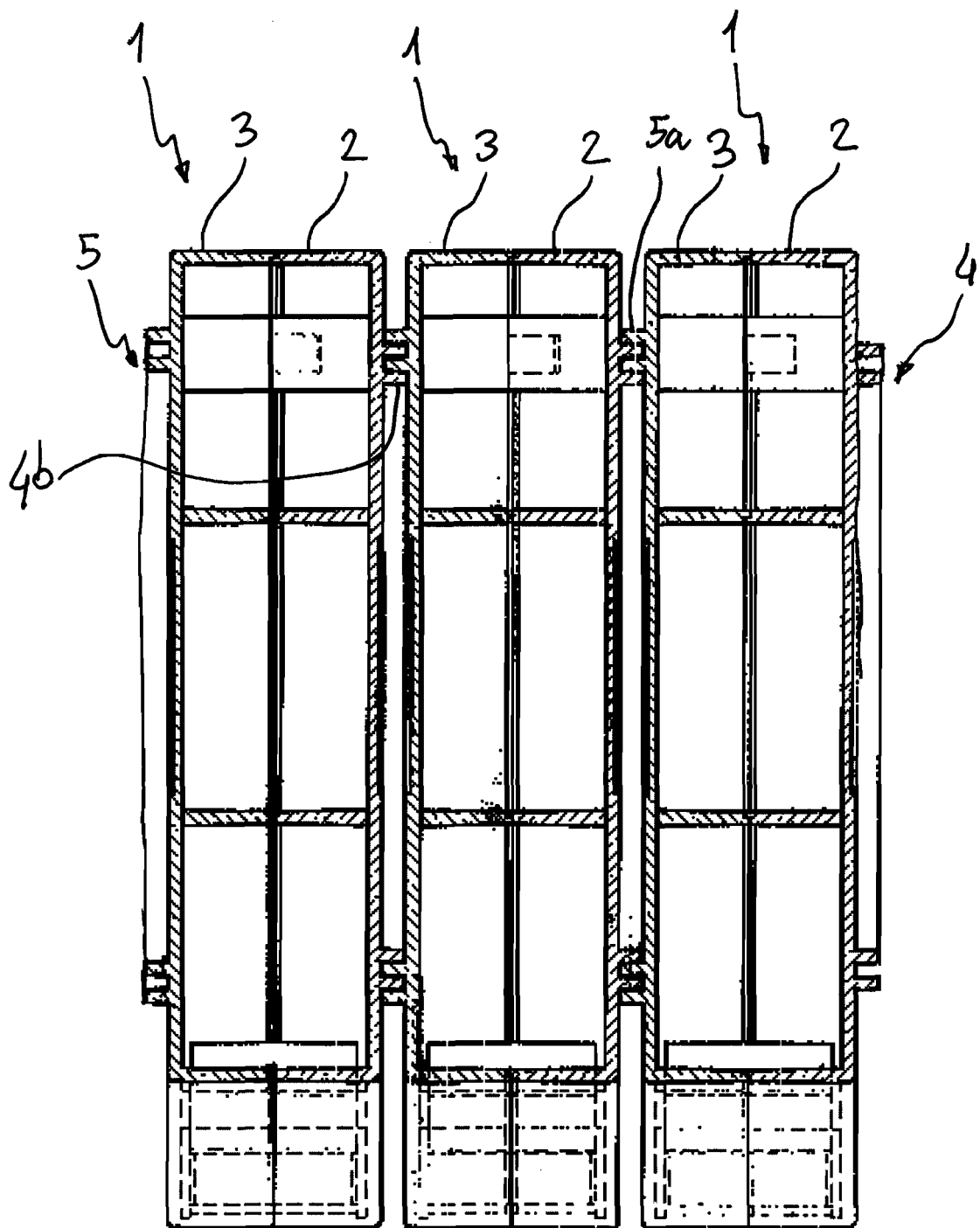


FIG. 5



EUROPEAN SEARCH REPORT

Application Number
EP 10 16 3700

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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The present search report has been drawn up for all claims			
Place of search The Hague		Date of completion of the search 13 September 2010	Examiner Wartenhorst, Frank
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
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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82