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(11) **EP 1 967 457 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
10.09.2008 Bulletin 2008/37

(51) Int Cl.:
B65D 23/00 *(2006.01)*

(21) Application number: **07004554.7**

(22) Date of filing: **06.03.2007**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK RS

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(54) **Adhesive label and hanging handle construction, in particular for medical vessels**

(57) An adhesive label (1) and hanging handle (4) construction, in particular for medical vessels, comprising a base body (2), defining a handle (4), which can be raised to hang a vessel said label (1) is applied to. The label (1) and handle (4) construction is characterized in that it comprises a layered adhesivized material, having a portion, at a raisable part of the handle (4) to which an anti-adhesive substance is applied. The handle portion to be raised from the bottom body, is de-adhesivized according to a particular criterion, to prevent water from penetrating the label through a cut performed by a cutting die.

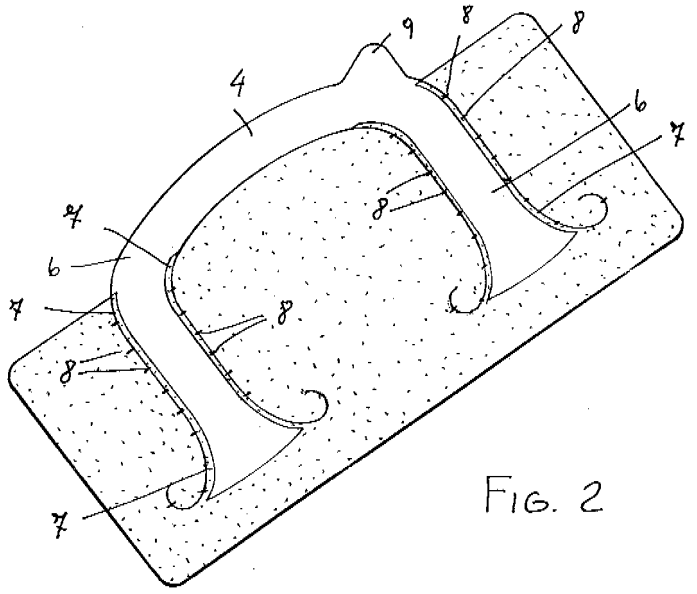

FIG. 2

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Description

BACKGROUND OF THE INVENTION

[0001] The present invention relates to an adhesive label and hanging handle construction, in particular for medical vessels.

[0002] As is known, in the medical field are conventionally used vessels, in general glass bottles or plastic bags, for holding therein pharmaceutical compositions to be administered to patients through tubes conveying the pharmaceutical composition to the patient by an intravenous path.

[0003] The medicinal composition vessel is usually hanged on a supporting hanging bracket or pole, arranged near the patient, to allow the pharmaceutical composition to flow to the patient by gravity.

[0004] Adhesive labels to be applied to a drug or medicinal composition bottle, and including a hanging handle built-in therein to suspend or hang-up the bottle to a bracket, are already known.

SUMMARY OF THE INVENTION

[0005] The aim of the present invention is to provide a label construction which is improved with respect to an analogous prior label construction.

[0006] Within the scope of the above mentioned aim, a main object of the invention is to provide such a label construction which has a very high mechanical strength, and in which the hanging handle is firmly and safely coupled in an integral manner to the label body and related bottle.

[0007] Another object of the invention is to provide such a label construction which is very resistant against aggressive liquids and which, consequently, does not accidentally detach from the bottle it is applied to.

[0008] Yet another object of the invention is to provide such a label construction which can be easily used by medical and paramedical personnel.

[0009] According to one aspect of the present invention, the above mentioned aim and objects, as well as yet other objects, which will become more apparent hereinafter, are achieved by an adhesive label and hanging handle construction, in particular for medical vessels, comprising a basic bottom, defining a handle which can be raised to hang-up a vessel to which said label is applied.

[0010] The subject label construction is characterized in that it consists of a layered material, provided with adhesive substances, to which an adhesive removal substance is applied at the handle raising portion.

[0011] More specifically, said adhesive removal substance on said raising portion is applied in a partial manner, to prevent water from entering the label construction through a cut performed in a label construction die-cutting operation.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] Further characteristics and advantages of the present invention will become more apparent hereinafter from the following detailed disclosure of a preferred, though not exclusive, embodiment of the invention, which is illustrated, by way of an indicative, but not limitative, example in the accompanying drawings, where:

Figure 1 is a top plan view of the adhesive label construction according to the invention;
Figure 2 is a further top plan view partially represented with a ghost pattern, of the label construction;
Figure 3 is yet another top plan view of the adhesive label construction according to the invention;
Figure 4 is yet another top plan view showing an adhesive portion of the label construction;
Figures 5-8 show several multi-directional constructions of the material forming the adhesive label according to the present invention;
Figure 9 is a perspective view of a bottle the adhesive label according to the invention has been applied to; and
Figure 10 is a further perspective view of the bottle shown in figure 8, illustrated in a reversed or up-down position, the label handle being raised to a use condition thereof.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0013] With reference to the number references of the above mentioned figures, the adhesive label construction according to the present invention, which has been generally indicated by the reference number 1, comprises a bottom or basic label body 2, to be coupled to a bottle 3 or the like.

[0014] More specifically, the bottom or basic body 2 defines a hanging handle 4, which can be raised to connect the bottle 3 thereto, to a reversed or up-down condition, for coupling to a supporting element, or pole, not shown in the figures, to deliver, in a per se known manner, the medicinal substance held in the bottle.

[0015] According to a first aspect of the present invention, the adhesive label forming material has a multidirectional fiber structure 5, forming said material.

[0016] Thus, since the material fibers are arranged in multiple direction, the bottom body 2 and handle 4 have very high mechanical strength characteristics, not to be easily broken.

[0017] Figures 5-8 show, by way of an example, some possible embodiments of the multidirectional fiber structure or construction.

[0018] Said material, in particular, comprises one or more fiber tiers, crossing one another according to different crossing angles, for example two 90°-tiers, as shown in figure 5, or several 90° and 45° crossing tiers, as is clearly shown in figure 6.

[0019] The material used for forming the label construction according to the present invention is preferably a film material, of a type known on the market with the name "Valeron", which is a HDPE based crossed laminate material.

[0020] The above mentioned laminate material comprises four extruded layers having differently oriented fibers.

[0021] According to the present invention, the handle portion 4, to be raised from the bottom body 2, is de-adhesivized according to a particular criterion, to prevent water from penetrating the label through a cut performed by a cutting die.

[0022] Thus, are herein met the regulation imposed by the ISO regulation, establishing adhesive strength test features, after having left the label construction in a water bath for a set time

[0023] Preferably, the part to be raised is provided with the mentioned anti-adhesive properties, by applying an anti-adhesive paint to said portion.

[0024] In the figures, said portion has been generally indicated by the reference number 6.

[0025] According to the invention, a comparatively small width strip portion, generally indicated by the reference number 7, delimiting the contours of the handle 4 adjoining the base bottom 2, is not processed in an anti-adhesive manner, thereby leaving an adhesive layer adapted to operate as a barrier for preventing water or moisture from entering the label material during the immersion tests according to the ISO standards.

[0026] It has been found that, owing to the above mentioned provisions, the adhesive label construction according to the invention, passed, in a very satisfactory manner, the preset strength test patterns.

[0027] Yet another feature of the adhesive label construction according to the invention is that the raisable portion 4, i.e. the label handle, is bound to the body 2 through a plurality of micropoints 8, to prevent the raisable portion 4 from being raised during the packaging of the label on a making line.

[0028] To allow the handle 4 to be very easily raised by a user, said handle comprises a tab 9, made as a single body with said handle, to project from the handle contour.

[0029] Said tab 9, moreover, is raised, with respect to the convex surface of the bottle 3, as the label 1 is applied onto said convex surface.

[0030] It will be pointed out that the subject adhesive label construction, including a hanging handle built therein, has the further feature that, as it must be used, it requires to break a plurality of micropoints 8, thereby signaling the start of using the bottle contents, the adhesive label is applied to.

[0031] It has been found that the present invention fully achieves the intended aim and objects.

[0032] In fact, the invention provides an adhesive label and hanging handle construction, which can be easily used by the user and, moreover, is very reliable from a strength and safety standpoint.

[0033] In practicing the invention, the used materials, as well as the contingent size and shapes, can be any, depending on requirements and the status of the art.

Claims

1. An adhesive label and hanging handle construction, in particular for medical vessels, comprising a base body, defining a handle, which can be raised to hang a vessel said label is applied to, said label and handle construction being **characterized in that** it comprises a layered adhesivized material, having a portion, at a raisable part of the handle, to which an anti-adhesive substance is applied, said anti-adhesive substance being partially applied to said raisable portion, thereby preventing water from penetrating the label construction as said label is die-cut.

2. An adhesive label and hanging handle construction, according to claim 1, **characterized in that** the material forming said adhesive label has a multidirectional fiber construction.

3. An adhesive label and hanging handle construction, according to claim 1 or 2, **characterized in that** said material comprises one or more fiber tiers, said fiber tiers crossing one another with different angles.

4. An adhesive label and hanging handle construction, according to one or more of the preceding claims, **characterized in that** said material of said label and hanging handle construction is a commercially available film material, such as a "Valeron" material, comprising a HDPE based crossed laminate material.

5. An adhesive label and hanging handle construction, according to one or more of the preceding claims, **characterized in that** said laminated film comprises four extruded laminated film layers having differently oriented fibers.

6. An adhesive label and hanging handle construction, according to one or more of the preceding claims, **characterized in that** the portion of said label to be raised is processed in an anti-adhesive manner, by applying an anti-adhesive paint thereto.

7. An adhesive label and hanging handle construction, according to one or more of the preceding claims, **characterized in that** said handle has a contour, adjoining said base or bottom body, defining a reduced width strip which is not anti-adhesively processed thereby leaving an adhesive layer operating as an adhesive layer barrier for preventing water or moisture from entering said label construction.

8. An adhesive label and hanging handle construction, according to one or more of the preceding claims, **characterized in that** said raisable portion, or said handle, is bound to said label bottom or base body by a plurality of binding micropoints, to prevent said raisable portion from being accidentally raised as said label is made on a label making line.

9. An adhesive label and hanging handle construction, according to one or more of the preceding claims, **characterized in that**, to facilitate a raising of said handle by a user, said label comprises a tongue, made as a single piece with said handle, and projecting from a contour of said handle.

10. An adhesive label and hanging handle construction, according to one or more of the preceding claims, **characterized in that** said tongue is raised with respect to a convex surface of the vessel with the adhesive label being applied thereto.

11. An adhesive label and hanging handle construction, according to one or more of the preceding claims, **characterized in that** said adhesive label, to be used, requires that said micropoints are broken, thereby said micropoints operate as a guarantee seal.

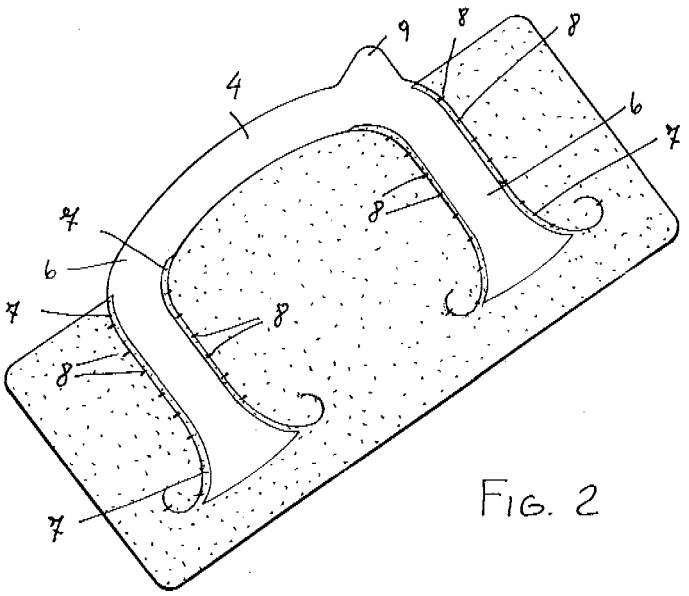

FIG. 2

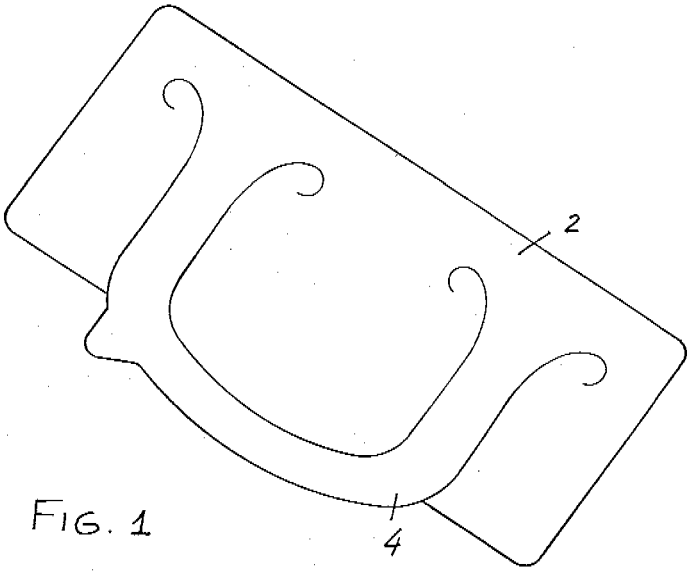

FIG. 1

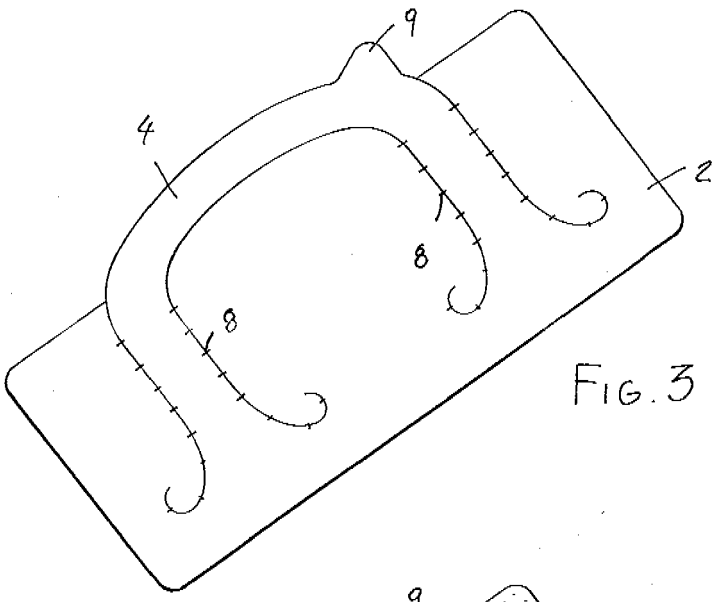

FIG. 3

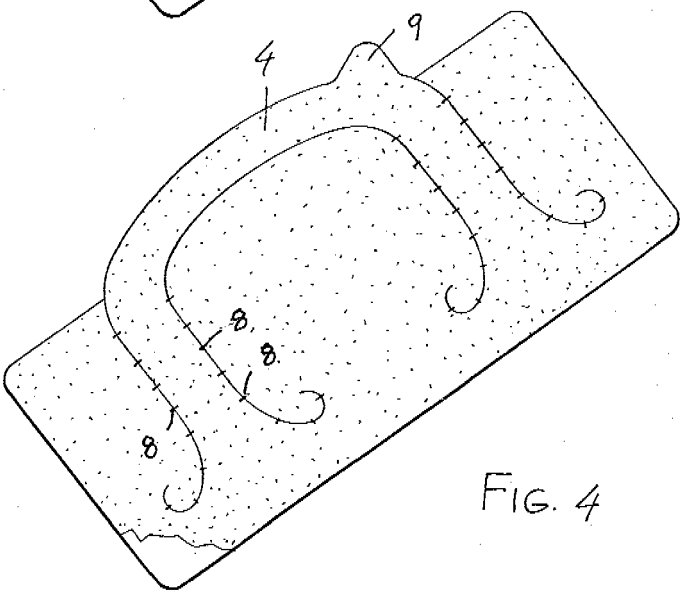

FIG. 4

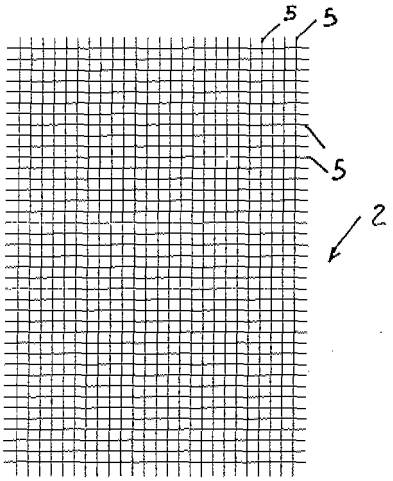

FIG. 6

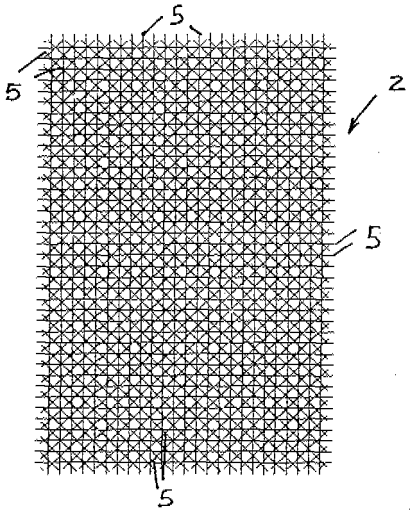

FIG. 8

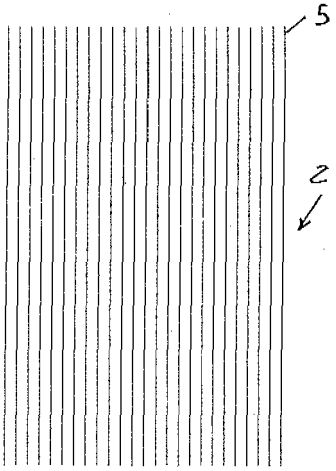

FIG. 5

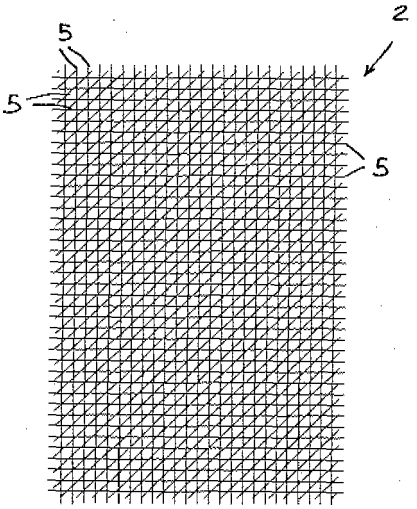

FIG. 7

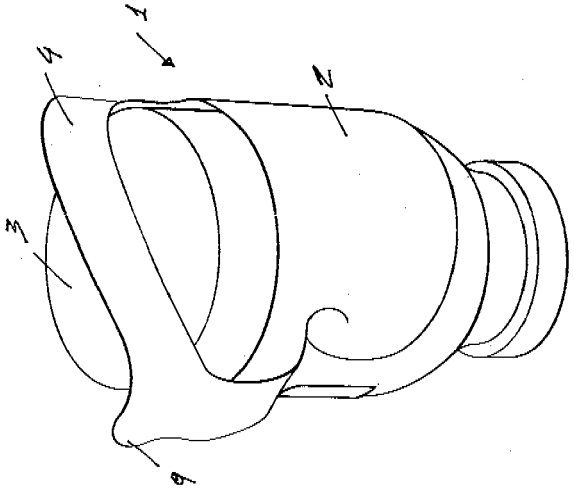

FIG. 10

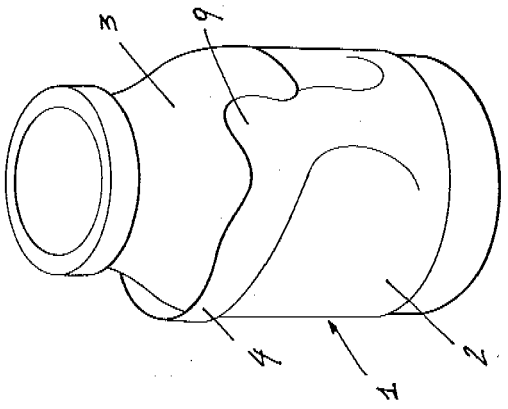

FIG. 9

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EUROPEAN SEARCH REPORT

Application Number
EP 07 00 4554

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	US 6 457 747 B1 (TRELEAVEN CARL W [US] ET AL) 1 October 2002 (2002-10-01) * column 11, line 13 - line 65 * * column 3, line 7 - column 6, line 14 * * column 7, line 26 - line 34 * * column 8, line 1 - column 9, line 23; figures 1-13 *	1-11	INV. B65D23/00
X	EP 1 449 782 A (SCHREINER GROUP GMBH & CO KG [DE]) 25 August 2004 (2004-08-25) * column 1, paragraph 1 - paragraph 2 * * column 2, paragraph 9 * * column 3, paragraph 13 - paragraph 14 * * column 3, paragraph 19 * * column 4, paragraph 22 * * column 5, paragraph 31 - paragraph 34; figures 1-5 *	1-6,8-11	
X	US 6 350 502 B1 (GROSSKOPF GLENN A [US] ET AL) 26 February 2002 (2002-02-26) * column 1, line 11 - line 25 * * column 2, line 19 - column 4, line 49 * * column 5, line 57 - column 8, line 8 * * column 11, line 1 - line 21; figures 1-3,6-9 *	1-6,9	TECHNICAL FIELDS SEARCHED (IPC) B65D
X	WO 2004/074125 A (SCHREINER GROUP GMBH & CO KG [DE]; MOOSHEIMER ULRICH [DE]; UNGLERT ROB) 2 September 2004 (2004-09-02) * page 5, line 26 - page 6, line 25 * * page 7, line 34 - page 8, line 5; figures 1-4 *	1-6	
X	US 6 296 223 B1 (GROSSKOPF GLENN A [US]) 2 October 2001 (2001-10-02) * column 5, line 11 - line 32 *	1	

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The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	17 August 2007	MANS-KAMERBEEK, M

CATEGORY OF CITED DOCUMENTS

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EUROPEAN SEARCH REPORT

Application Number
EP 07 00 4554

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	DE 91 01 464 U1 (SCHREINER ETIKETTEN UND SELBSTKLEBETECHNIK GMBH & CO, 8000 MUENCHEN, D) 2 May 1991 (1991-05-02) * page 1, paragraph 1 * * page 2, line 3 - page 3, line 10; figures 1-5 * -----	1,6,8,9, 11	
A	EP 1 686 555 A1 (SCHREINER GROUP GMBH & CO KG [DE]) 2 August 2006 (2006-08-02) * the whole document * -----	7	
			TECHNICAL FIELDS SEARCHED (IPC)

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17-08-2007

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6457747 B1	01-10-2002	NONE	
EP 1449782 A	25-08-2004	DE 10307252 A1	09-09-2004
		JP 2004252464 A	09-09-2004
		US 2004219331 A1	04-11-2004
US 6350502 B1	26-02-2002	US 6387202 B1	14-05-2002
WO 2004074125 A	02-09-2004	DE 10307251 A1	09-09-2004
US 6296223 B1	02-10-2001	US 2002056729 A1	16-05-2002
DE 9101464 U1	02-05-1991	NONE	
EP 1686555 A1	02-08-2006	WO 2006081904 A2	10-08-2006

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