

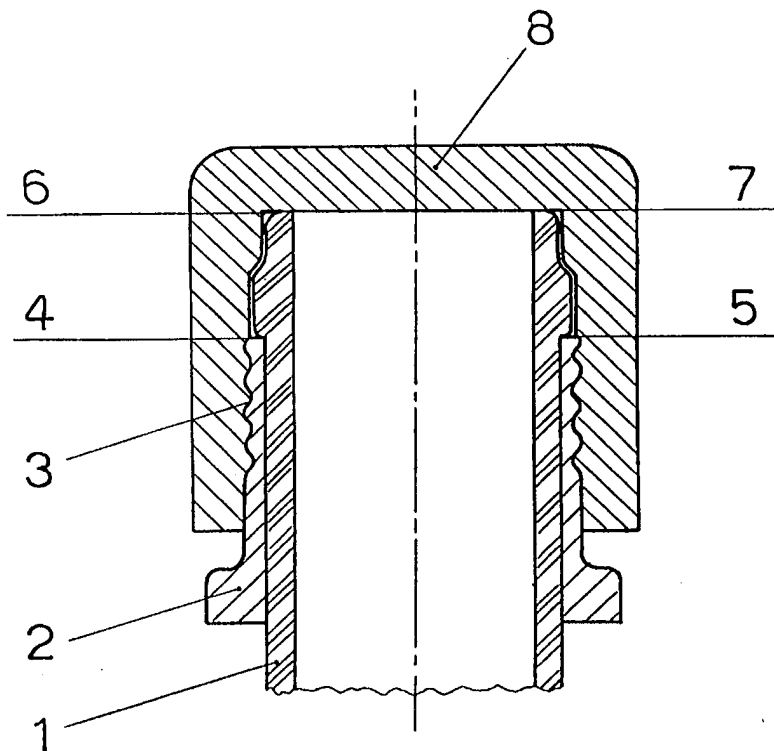
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : B65D 41/08		A1	(11) International Publication Number: WO 98/36984
			(43) International Publication Date: 27 August 1998 (27.08.98)
(21) International Application Number: PCT/IB98/00068		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 17 January 1998 (17.01.98)			
(30) Priority Data: BO97A000071 18 February 1997 (18.02.97) IT BO98A000009 15 January 1998 (15.01.98) IT			
(71)(72) Applicant and Inventor: RUBINI, Rino [IT/IT]; Via Meucci, 2, I-40138 Bologna (IT).			
(74) Agent: TROMBETTI, Gioia; Via Portazza, 8, I-40139 Bologna (IT).		Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

(54) Title: THREADED DEVICE TO BE APPLIED ON UNTHREADED BOTTLE'S NECK

(57) Abstract

Threaded device to be applied on unthreaded bottle's neck, consisting of externally threaded (3) lunette provided with a side opening (9) that allows an easy click inserting, by the reinforcing collar, on the necks (1) of the bottles non provided with a threading. Several capsules, appropriately threaded in order to ensure the hermetic closing of the bottles, can be screwed on the external threading (3) of the lunette (2).



FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
AM	Armenia	FI	Finland	LT	Lithuania	SK	Slovakia
AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
AU	Australia	GA	Gabon	LV	Latvia	SZ	Swaziland
AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
BA	Bosnia and Herzegovina	GE	Georgia	MD	Republic of Moldova	TG	Togo
BB	Barbados	GH	Ghana	MG	Madagascar	TJ	Tajikistan
BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
CF	Central African Republic	JP	Japan	NL	Netherlands	VN	Viet Nam
CG	Congo	KE	Kenya	NO	Norway	YU	Yugoslavia
CH	Switzerland	KG	Kyrgyzstan	NZ	New Zealand	ZW	Zimbabwe
CI	Côte d'Ivoire	KP	Democratic People's Republic of Korea	PL	Poland		
CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakhstan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
DE	Germany	LK	Sri Lanka	SE	Sweden		
DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

THREADED DEVICE TO BE APPLIED ON UNTHREADED BOTTLE'S NECKS

TECHNICAL FIELD

The present invention refers to a threaded device to be applied on bottle's necks that are unprovided of threading and is therefore included in the International Classification B 65 d.

STATE OF THE ART

Is it known that bottles with unthreaded neck deal with the problem of hermetic reclosing. The solution offered by the present invention allows in simple and inexpensive way to apply on bottles an externally threaded device that provides the upper edge of the neck with a threading that allows to screw appropriately threaded capsules in order to allow the hermetic closing of the bottles.

DESCRIPTION

The invention is disclosed in the following detailed description, with reference to the figures of the attached drawings, is not limiting examples.

Fig. 1 represent in section a bottle's neck upon which was applied a threaded device on which is screwed a appropriately threaded capsule, in order to ensure the hermetic closing of the bottle.

Fig. 2 is an external view of the threaded device.

Fig. 3 is a plan view of said device that highlights the option of inserting it on the side to the bottle's neck.

In the figures each detail is marked as follows :

1. is a bottle's neck ;
2. is a threaded device to be applied upon the bottle's neck ;
3. indicates the external threading of said device ;
4. indicates the upper counterboring surface of said device ;
5. indicates the lower edge of the neck's collar that match with the upper surface 4 ;
6. indicates the surface of the upper edge of the bottle's neck ;
7. indicates the lower sealing surface of the closing capsule that matches with the edge 6. in order to ensure the hermetic closing, obtained by applying the two congruent threading ;
8. indicates a closing capsule screwed on the threading 3, of the device applied on the bottle's neck.

The clearness of the figures highlights the simplicity of usage of the device presented by this invention.

Of course the practical realization of the invention allows several variations of embodiment, as for the structural proportioning and for the technological choice of construction material.

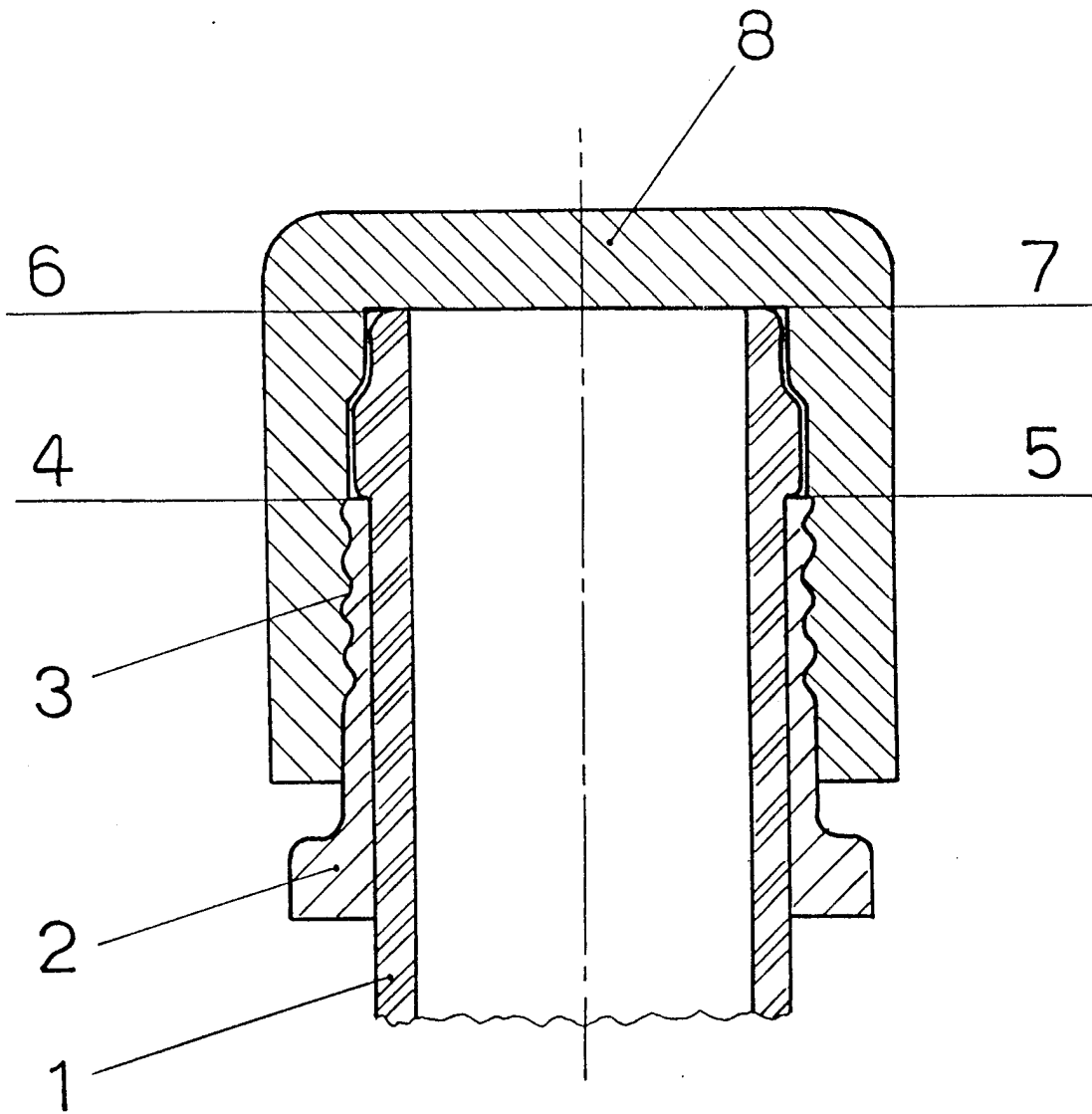
All the threaded devices that can be applied on bottle's neck unprovided of threading, that will present the characteristics substantially described, illustrated hereinafter claimed, will be included in the protection field of this invention.

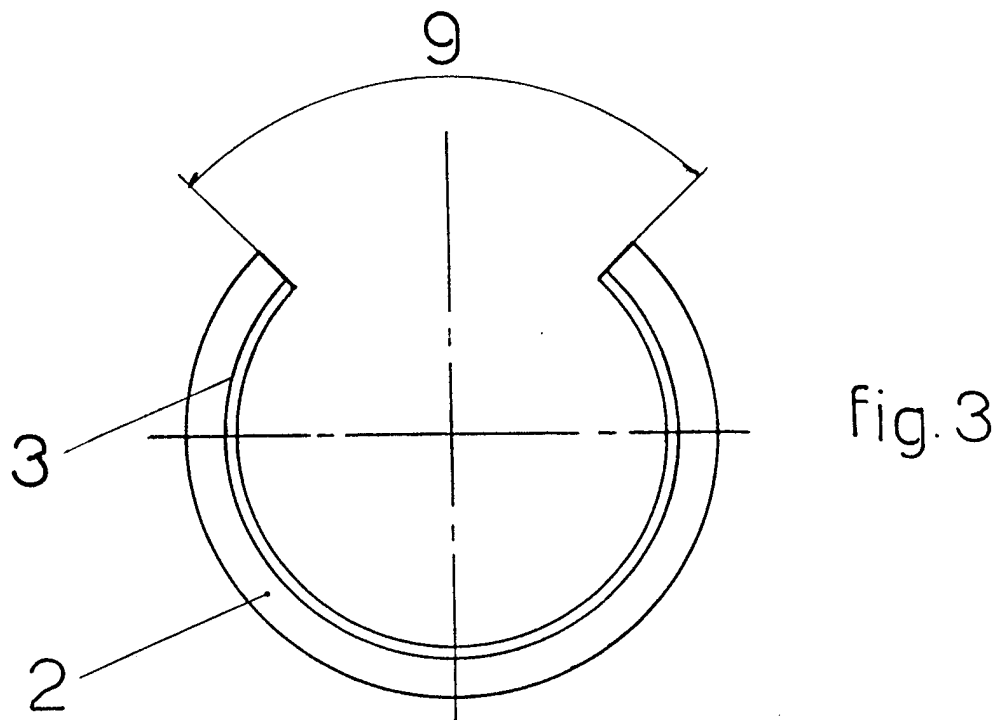
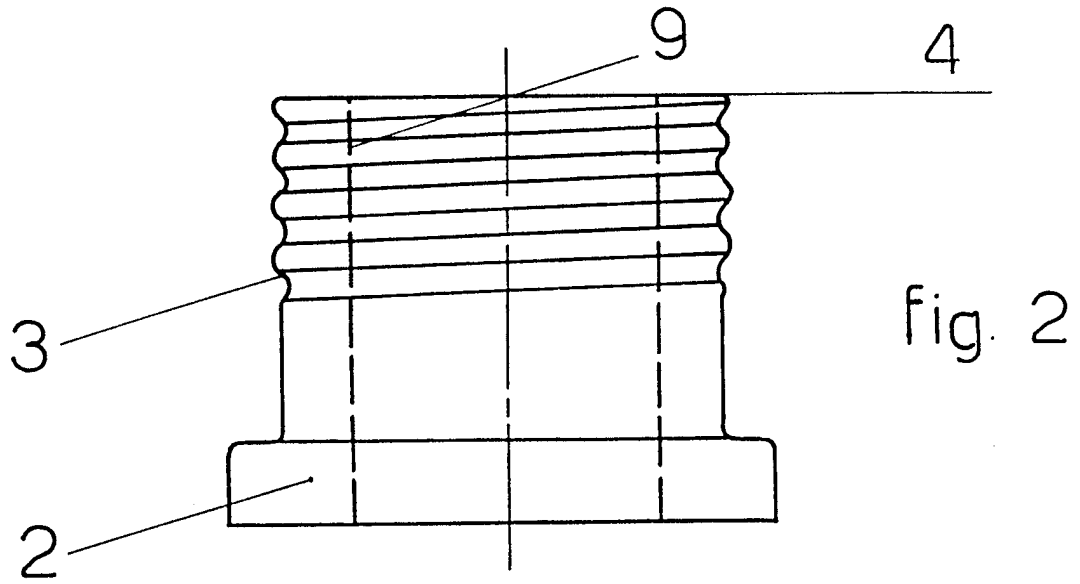
CLAIMS

1. Threaded device to be applied on unthreaded bottle's necks, CHARACTERIZED BY THE FACT THAT it consist on an externally threaded (3) lunette provided with a side opening (9) that allows an easy click inserting, by the reinforcing collar, on the necks (1) of the bottles unprovided of a threading.
2. Sealed device as claim 1, CHARACTERIZED BY THE FACT THAT several capsules appropriately threaded in order to ensure the hermetic closing of the bottles, can be screwed on the external threading (3) of the lunette (2).

1/2

fig. 1





INTERNATIONAL SEARCH REPORT

Inter. onal Application No

PCT/IB 98/00068

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 B65D41/08

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 B65D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 065 369 A (CORNING LTD) 24 November 1982 see page 7, line 35 - page 8, line 15; figures 1,2 ---	1,2
X	US 4 844 270 A (COFFMAN PAUL M) 4 July 1989 see column 3, line 6 - line 20; figures 5-8 ---	1,2
X	WO 84 01763 A (PEZZI SADI ANTONIO) 10 May 1984 see page 1, line 17 - page 2, line 45; figure 4 ---	1,2
X	DE 42 08 968 A (GAIER CLELIA) 29 July 1993 see column 3, line 15 - line 53; figures -----	1,2

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

21 July 1998

Date of mailing of the international search report

31/07/1998

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Olsson, B

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 98/00068

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0065369 A	24-11-1982	AU 546824 B	19-09-1985
		AU 8352482 A	18-11-1982
		GB 2098690 A,B	24-11-1982
		JP 58017286 A	01-02-1983
		US 4621841 A	11-11-1986
US 4844270 A	04-07-1989	US 4964205 A	23-10-1990
WO 8401763 A	10-05-1984	BR 8206584 A	19-06-1984
		AU 1948483 A	22-05-1984
		EP 0142496 A	29-05-1985
		PT 77543 B	27-02-1986
DE 4208968 A	29-07-1993	IT 1259742 B	26-03-1996