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(54) Title: SEALANT-FILLED ENCLOSURES AND METHODS FOR ENVIRONMENTALLY PROTECTING A CONNECTION

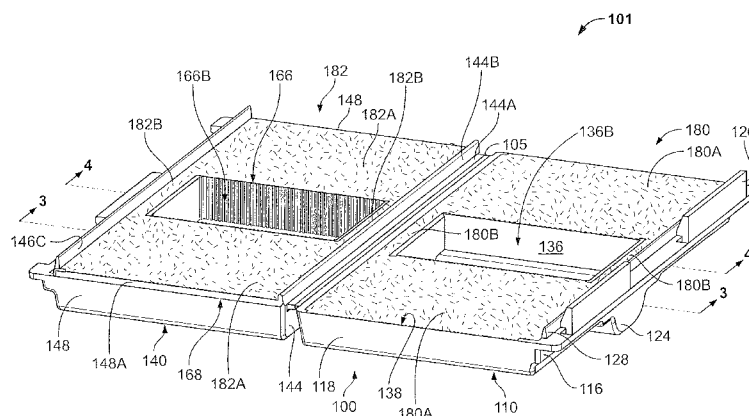


FIG. 1

(57) Abstract: A sealant-filled enclosure for environmentally sealing a connection includes a first cover member and a second cover member. The first cover member defines a first cavity having a first bottom. The second cover member is pivotally connected to the first cover member for movement between an open position and a closed position. The second cover member defines a second cavity having a second bottom. A first sealant is positioned in the first cavity and extends up to a first level relative to the first bottom without a connection disposed in the first cavity. A second sealant is positioned in the second cavity and extends up to a second level relative to the second bottom without a connection disposed in the second cavity. The first and second sealants together exceed a height from the first bottom to the second bottom in the closed position. The first and second sealants may be gels.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

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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)

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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)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3 879 575 A (DOBBIN DONALD PATRICK ET AL) 22 April 1975 (1975-04-22) column 6, line 41 - column 8, line 27; figures 1-3 -----	1-6,8, 17-29
X	US 4 909 756 A (JERVIS JAMES E [US]) 20 March 1990 (1990-03-20)	1-9, 15-29
Y	column 1, line 51 - column 2, line 19 column 2, line 44 - column 4, line 4; figures 1-2 -----	14
X	US 2005/167147 A1 (MARSAC YVONNICK [FR] ET AL) 4 August 2005 (2005-08-04)	1-4, 6-11,14, 17-20, 26-35
Y	paragraphs [0022] - [0038], [0 41] - [0047]; figures 1,2,4,5,7, 10 ----- -/--	12,13



Further documents are listed in the continuation of Box C.



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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	JP 2009 148010 A (EXSYM CORP; TYCO ELECTRONICS RAYCHEM KK) 2 July 2009 (2009-07-02) the whole document -----	30-33
Y	WO 00/67354 A1 (3M INNOVATIVE PROPERTIES CO [US]) 9 November 2000 (2000-11-09) the whole document -----	12-14
A	US 4 451 696 A (BEINHAUR ERNEST L [US]) 29 May 1984 (1984-05-29) the whole document -----	1-35

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 3879575	A	22-04-1975	NONE
US 4909756	A	20-03-1990	NONE
US 2005167147	A1	04-08-2005	AT 395739 T 15-05-2008 AU 2005211099 A1 18-08-2005 BR PI0507368 A 10-07-2007 CA 2554960 A1 18-08-2005 CN 1926738 A 07-03-2007 DK 1711989 T3 01-09-2008 EG 24471 A 03-08-2009 EP 1711989 A1 18-10-2006 JP 2007520990 T 26-07-2007 RU 2361347 C2 10-07-2009 WO 2005076427 A1 18-08-2005
JP 2009148010	A	02-07-2009	NONE
WO 0067354	A1	09-11-2000	AU 5552199 A 17-11-2000 BR 9917274 A 23-04-2002 CA 2371741 A1 09-11-2000 DE 69912481 D1 04-12-2003 DE 69912481 T2 12-08-2004 EP 1173913 A1 23-01-2002 JP 4175777 B2 05-11-2008 JP 2002543753 T 17-12-2002 US 6169250 B1 02-01-2001
US 4451696	A	29-05-1984	NONE