

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) Publication number:

0 528 328 A3

(12)

EUROPEAN PATENT APPLICATION(21) Application number: **92113657.8**(51) Int. Cl.⁵: **E21B 33/127**(22) Date of filing: **11.08.92**(30) Priority: **16.08.91 GB 9117684**(43) Date of publication of application:
24.02.93 Bulletin 93/08(84) Designated Contracting States:
DE FR GB IT NL(88) Date of deferred publication of the search report:
26.05.93 Bulletin 93/21(71) Applicant: **Head, Philip Frederick**
6 Leith Mansions, Grantully Road
London W9 1LO(GB)(72) Inventor: **Head, Philip Frederick**
6 Leith Mansions, Grantully Road
London W9 1LO(GB)(74) Representative: **Stenger, Watzke & Ring**
Patentanwälte
Kaiser-Friedrich-Ring 70
W-4000 Düsseldorf 11 (DE)(54) **Well packer.**

(57) An inflatable well packer includes several annular layers 1,3,5,7 of material, consisting of a series of oriented fibres 31 encapsulated in a resin. The layers 1,3,5,7 are corrugated along the direction of their circumference such that pressure from the bore through the annular layers causes the corrugations to at least partially unravel, thus causing inflation of the well packer. The fibres 31 within each layer 1,3,5,7 are oriented along the length of the layer, such that their orientations vary along the length of the layers 1,3,5,7.

A method of manufacturing the well packer is also described.

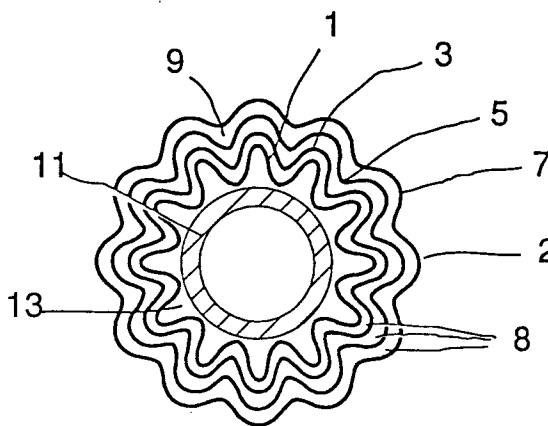


Fig 1

EP 0 528 328 A3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 11 3657

Page 1

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	US-A-4 768 590 (SANFORD ET AL.)	1,2,4,8, 10,11	E21B33/127
Y	* the whole document *	3,7,9	
Y	---		
Y	US-A-4 003 581 (HUTCHINSON)	3,7	
A	* abstract *	1,5	
	* column 4, line 9 - line 28; figures 1,4,5 *		

Y	US-A-2 872 230 (DESBRADES)	9	
A		1,2,7,8, 10,11	
	* column 2, line 19 - column 3, line 44; figures *		

X	EXTRAIT DE BREVET RUSSE Derwent Publications Ltd., London GB Bul. 12/9.6.66, Class 5a & SU-A-182635 (LESHCHEV, D.A.) 08.08.1966 * the whole document *	1,4,12	

A	US-A-2 778 432 (ALLEN) * column 5, line 25 - column 6, line 5; figures 3-5 *	1,2,4,5	E21B F16L

A	GB-A-2 122 238 (CAMCO INCORPORATED) * page 1, line 95 - line 129; figures *	1,6	

A	US-A-4 424 861 (CARTER, JR. ET AL.) * column 2, line 60 - column 3, line 38; figures *	1,4,5,8, 10,11,13	

A	FR-A-2 414 850 (PNEUMATIQUES, CAOUTCHOUC MANUFACTURE ET PLASTIQUES KLEBER-COLOMBES) * page 2, line 14 - line 34; figures *	1,9,11	

	-/--		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 02 APRIL 1993	Examiner LINGUA D.G.
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	



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 11 3657

Page 2

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
A	US-A-4 892 144 (COONE) * column 6, line 53 - column 7, line 6; figures 10-17 * -----	1,13,14	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 02 APRIL 1993	Examiner LINGUA D.G.
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			