

12

EUROPEAN PATENT APPLICATION

21 Application number: 84402125.3

51 Int. Cl.³: E 21 B 33/134

22 Date of filing: 23.10.84

E 21 B 33/129, E 21 B 33/128
 E 21 B 23/00

30 Priority: 24.10.83 US 544659
 24.10.83 US 544660
 24.10.83 US 544658
 24.10.83 US 544657

43 Date of publication of application:
 15.05.85 Bulletin 85/20

88 Date of deferred publication of search report: 22.06.88

84 Designated Contracting States:
 DE FR GB IT NL

71 Applicant: Schlumberger Limited
 277 Park Avenue
 New York, N.Y. 10172(US)

84 Designated Contracting States:
 DE GB NL

71 Applicant: SOCIETE DE PROSPECTION ELECTRIQUE
 SCHLUMBERGER
 42, rue Saint-Dominique
 F-75340 Paris Cedex 07(FR)

84 Designated Contracting States:
 FR IT

72 Inventor: Hoppe, Joachim Albert
 2006 Sea Cove
 Houston Texas 77058(US)

72 Inventor: Wambaugh, John Olson
 2513 Hopkins
 Houston Texas 77006(US)

72 Inventor: Shonrock, Clinton
 1719 38th Street
 Los Alamos New Mexico 87544(US)

74 Representative: Hagel, Francis
 Service Brevets ETUDES ET PRODUCTIONS
 SCHLUMBERGER B.P. 202
 F-92142 Clamart Cédex(FR)

54 Method and apparatus for sealing a well casing.

57 A wireline method and apparatus for sealing a well casing (172), when a length of production tubing (175) is disposed within the well casing, utilizes a sealing means having a first diameter less than the diameter of the production tubing, and the sealing means is compressible to a second diameter which sealingly conforms to the diameter of the well casing, to prevent fluids disposed in the well casing from flowing through the well casing to above, or below, the sealing means.

FIG. 1

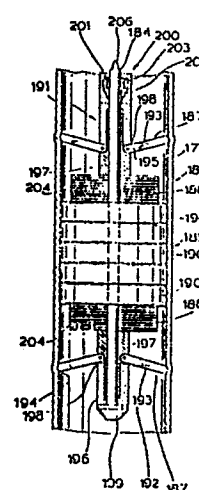
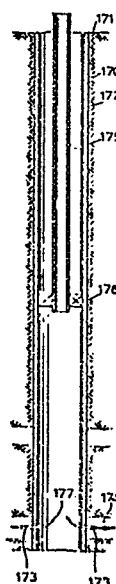


FIG. 4



European Patent
Office

EUROPEAN SEARCH REPORT

0141726

Application number
EP 84 40 2125

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.4)
X	US - A - 3 706 342 (WOOLLEY) * Column 4, line 7 - column 5, line 33; column 6, lines 35-53; claims *	1-7	E 21 B 33/134 E 21 B 33/129 E 21 B 33/128 E 21 B 23/00
A	--	8-12, 15,16	
X	US - A - 3 891 034 (OWEN et al.) * Column 5, lines 6-17 *	15	
A	--	16	
A	US - A - 3 460 624 (AITKEN et al.) * Claims 1,5 *	8-12, 15,16	
A	US - A - 4 050 517 (MATTHEWS) * Abstract; column 6, lines 42-54 *	8,9	
A	US - A - 3 784 214 (TAMPLEN) * Abstract; column 2, line 56 - column 3, line 27 *	8-10	TECHNICAL FIELDS SEARCHED (Int. Cl.4)
A	US - A - 3 083 775 (NIELSON et al.) * Column 3, lines 45-68 *	11,12	E 21 B
A	US - A - 2 836 252 (LANE) * Column 7, line 35 - column 9, line 44 *	11,12	
A	US - A - 2 885 009 (BAKER) * Whole document *	11,12	
A	US - A - 4 258 926 (UPTON) * Abstract; column 3, lines 29-49 *	11,12	
A	US - A - 3 832 851 (KIERNAN) * Whole document *	13,14	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 21-03-1988	Examiner HEDEMANN
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			



CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

X

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims 1-12,15,16: Through tubing bridge plug
2. Claims 13,14: Pressure intensifier for use with a hydraulic fluid pump

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims: