United States Patent [19]

Garner et al.

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[54]	WELLHEAD ISOLATION TOOL AND SETTING AND METHOD OF USING SAME							
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[51]	Int. Cl.4	E21B 19/00; E21B 33/03; E21B 43/25						
[52] [58]	2] U.S. Cl							
[56] References Cited								
U.S. PATENT DOCUMENTS								
	2,927,643 3/1 3,830,304 8/1 4,241,786 12/1	1974 Cummins 166/305.1						

	4,632,183	12/1986	McLeod		166/77			
EODEIGN DATENT DOCUMENTS								

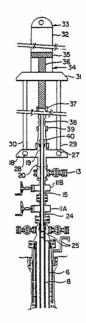
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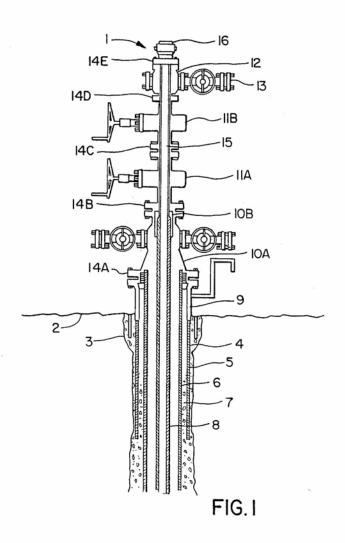
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DeWitt & Litton

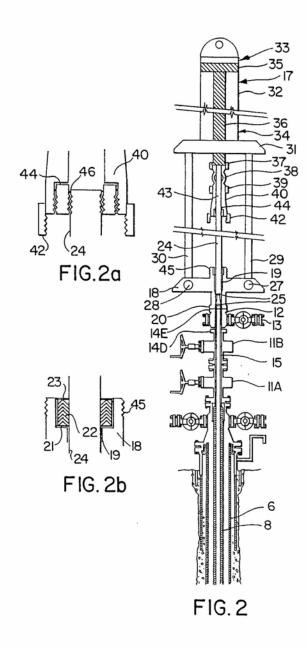
[57] ABSTRACT

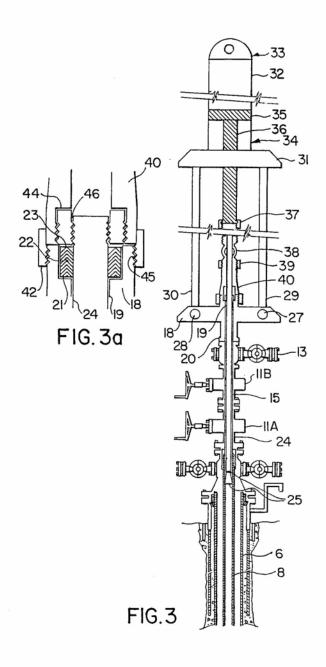
A well tree isolation apparatus comprising a single hydraulic cylinder supported in axial alignment over a well tree by at least two elongated support rods. The hydraulic cylinder support rods are connected between a base plate and a hydraulic cylinder mounting plate to support the hydraulic cylinder above the well tree a distance approximately equal to the height of the production tree. The apparatus permits the insertion of a single length of high pressure tubing through any well tree, regardless of its height. Once the high pressure tubing is seated in a well tubing or casing, the hydraulic cylinder, hydraulic cylinder plate and support rods are removed to provide 360° access to a high pressure valve attached to the top of the high pressure tubing.

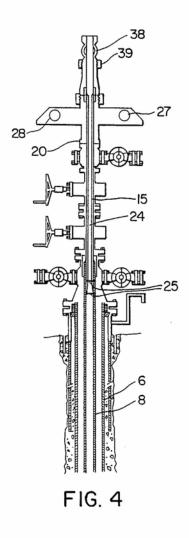
9 Claims, 4 Drawing Sheets











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