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Improvements in drilling apparatus.

Drilling apparatus is coated on selected surfaces with PTFE.

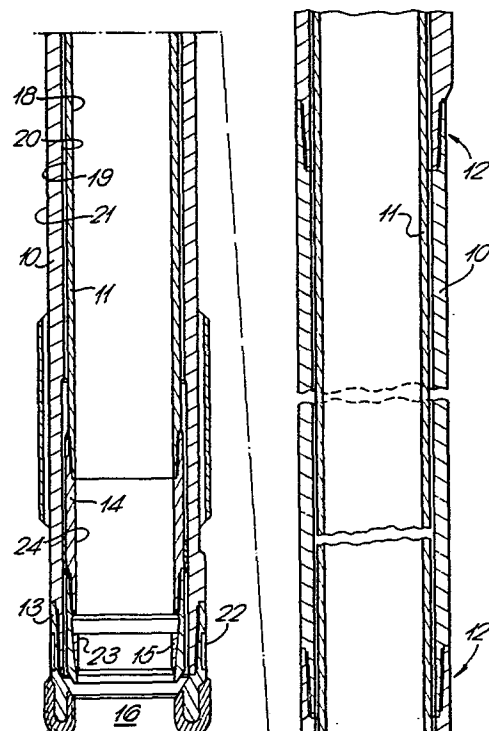
In the drawing is shown an example of the application of the invention to a core barrel assembly.

An outer core barrel 10 and an inner core barrel 11 are shown which are normally in sections.

At the lower end of the outer core barrel there is attached a core catcher sub 13. At the lower end of the inner barrel 11 is attached an inner barrel breaker sub 14 and below that a core catcher 15. A core bit 16 is attached to the lower end of the outer barrel.

Parts are shown coated with PTFE by thick lines, e.g. the inner surface 18 of the inner barrel 11, the outer surface 19 of the inner barrel and the inner surface 20 of the outer barrel 10.

The outer surface 21 of outer barrel 10 may also be coated for example, and the surface 22 of the drill bit, the inner surface 23 of the core catcher and the inner surface 24 of the inner barrel breaker sub.



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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	DD-B- 123 550 (NOACK) * Page 5, paragraph 3 - page 6, paragraph 1; examples 1,2 *	1-3	E 21 B 25/00 E 21 B 25/12
Y	---	4	E 21 B 10/00
A	---	5-7	E 21 B 10/02 E 21 B 17/00
Y	WORLD OIL, vol. 200, no. 5, April 1985, pages 83-86,88,90, Houston, Texas, US; A. PARK: "Coring; part 2 - core barrel types and uses" * Page 85, column 1, paragraph: "Core barrel with PVC liner" *	4	E 21 B 21/00
X	EP-A-0 190 092 (MANNESMANN) * Page 1, lines 5-7; claim *	1-3,8	
X	US-A-4 365 678 (FITCH) * Column 2, lines 36-65 *	1-3	
X	FR-A-2 514 097 (GOODRICH) * Page 10, lines 21-25,31-36 *	1-3	
X	SOVIET INVENTIONS ILLUSTRATED, week 21, 6th July 1983, section H01 A97 Q49, no. 51139 K/21, Derwent Publications Ltd, London, GB; & SU-A-941 542 (VNIPINEFTEPROMKHIM) 17-07-1982	1-3	
A	US-A-3 990 751 (MURDOCH) * Claim 3 *	1-3	
A	BE-A- 886 911 (DIAMANT BOART) * Claim 9 *	1-3	
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 19-09-1988	Examiner RAMPELMANN J.
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	