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(54) Subterranean well bore casing milling apparatus

(57) Subterranean well bore casing milling apparatus comprising: a tubular anchor assembly (22) having a top end portion and being coaxially and releasably securable in the casing, said tubular anchor assembly including a tubular inner mandrel having an outer side surface, a tubular slip carrier coaxially circumscribing the inner mandrel in a radially outwardly spaced relationship therewith, the slip carrier having a circumferentially spaced series of side wall slip windows therein and outwardly bounding an annular space between the inner mandrel and the slip carrier, a circumferentially spaced series of slips (40, 42) disposed in the annular space, with radially outer portions of the slips being received in the slip windows for movement therethrough between radially retracted and radially extended positions, a biasing structure operative to resiliently bias the slips to their radially retracted positions, and a setting structure operative to force the slips from their radially retracted positions to their radially extended positions; a mill guide member (24) having a lower end portion connected to the top end portion of the tubular anchor assembly, and a tubular upper end portion (24a); and a tubular retrieval member coaxially securable to a milling pipe (30) and being coaxially latchable in the tubular member coaxially secured to the upper mill guide member end portion.

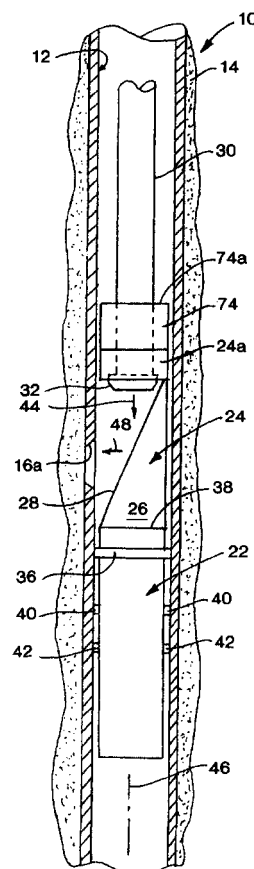


FIG. 1A

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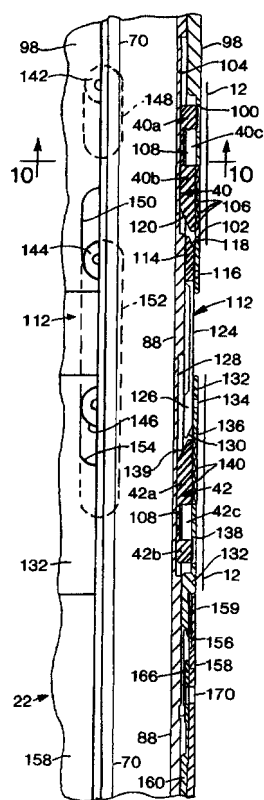


FIG. 3D

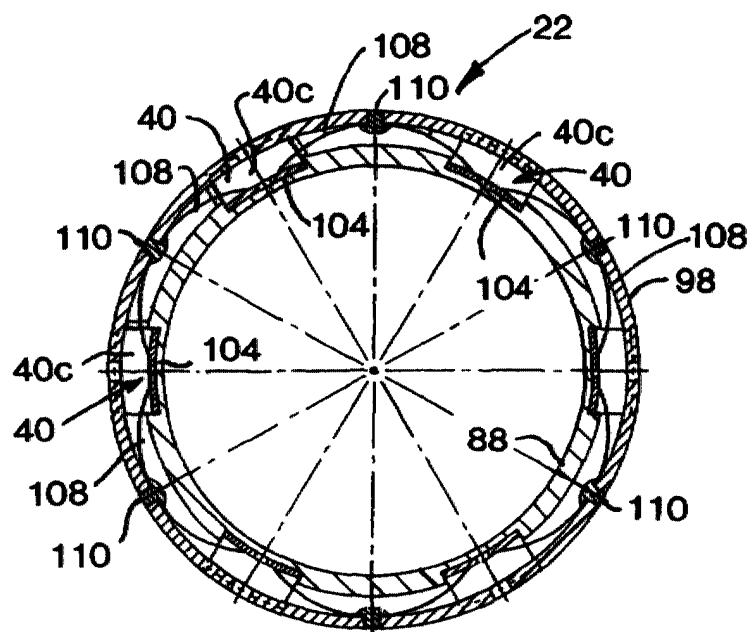


FIG. 10



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EUROPEAN SEARCH REPORT

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Place of search THE HAGUE		Date of completion of the search 28 August 2001	Examiner Sogno, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>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</p> <p>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</p>			

EPO FORM 1503 03 B2 (P04C01)

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