

[54] **RETRIEVABLE WELL BORE TUBULAR MEMBER PACKER ARRANGEMENT AND METHOD**

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[22] **Filed:** Feb. 27, 1989

Related U.S. Application Data

[63] Continuation of Ser. No. 186,869, May 10, 1988, abandoned, which is a continuation-in-part of Ser. No. 7,786, Jan. 28, 1987, abandoned, which is a continuation-in-part of Ser. No. 912,320, Sep. 29, 1986, abandoned.

[51] **Int. Cl.⁴** E21B 23/08

[52] **U.S. Cl.** 166/387; 166/123; 166/134; 294/86.34

[58] **Field of Search** 166/98, 119, 123, 124, 166/125, 134, 138, 182, 387, 114, 116; 294/86.26, 86.27, 86.34

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Primary Examiner—William P. Neuder

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[57] **ABSTRACT**

A retrievable packer arrangement that can be used as a permanent production packer employs a simple compression set packer which can be either mechanically, hydraulically or wireline explosively set and retrieved by coupled or coiled pipe or wireline.

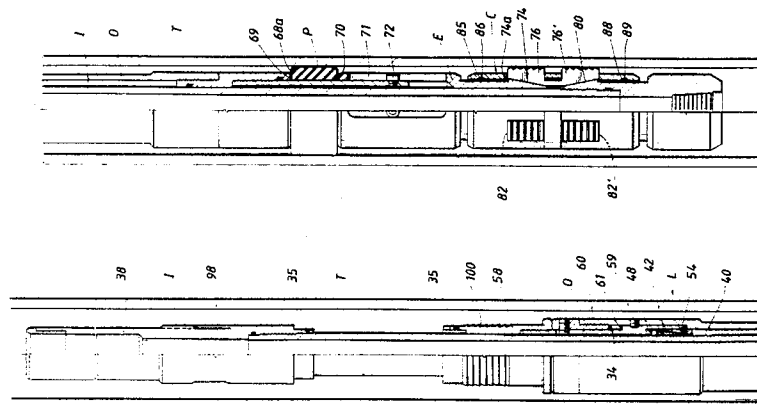
The arrangement includes an adapter supported by the setting tool which surrounds an external seal surface on the upper end of an inner tubular member which seal surface is exposed after the packer arrangement is set in a well bore tubular member by release of the setting tool from the inner member and removal of the adapter therewith, so that a production string may then sealingly telescope over the inner member upper end.

An outer member includes release means adjacent its upper external end including an external grapple engaging surface means so that the packer arrangement can be released without engaging the packer or slips which secure the packer arrangement in the tubular member and without inserting any mechanism in the set packer arrangement.

The packer arrangement provides an unrestricted bore for well tools and flow from the well.

The invention also contemplates lowering a landing nipple into a well bore tubular member to a desired location and sealably anchoring it at that location by a retrievable packer, for subsequent removal by a grapple tool supported on pipe or a wireline.

36 Claims, 9 Drawing Sheets



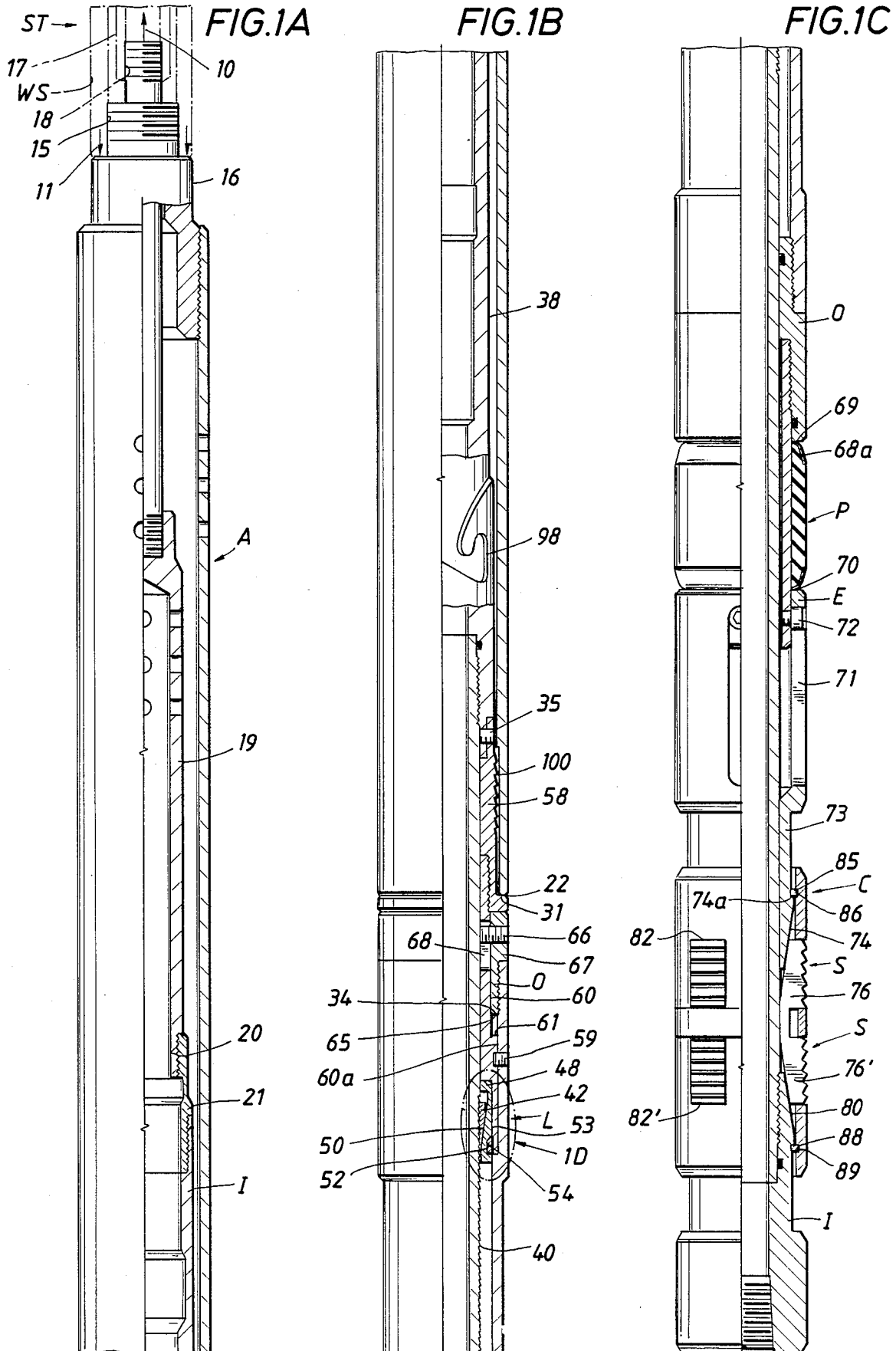


FIG. 2A

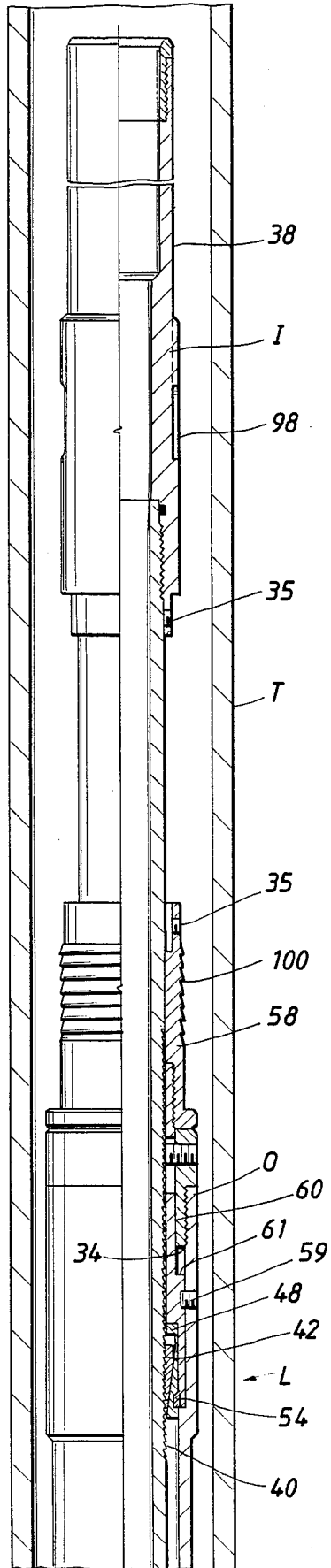


FIG. 2B

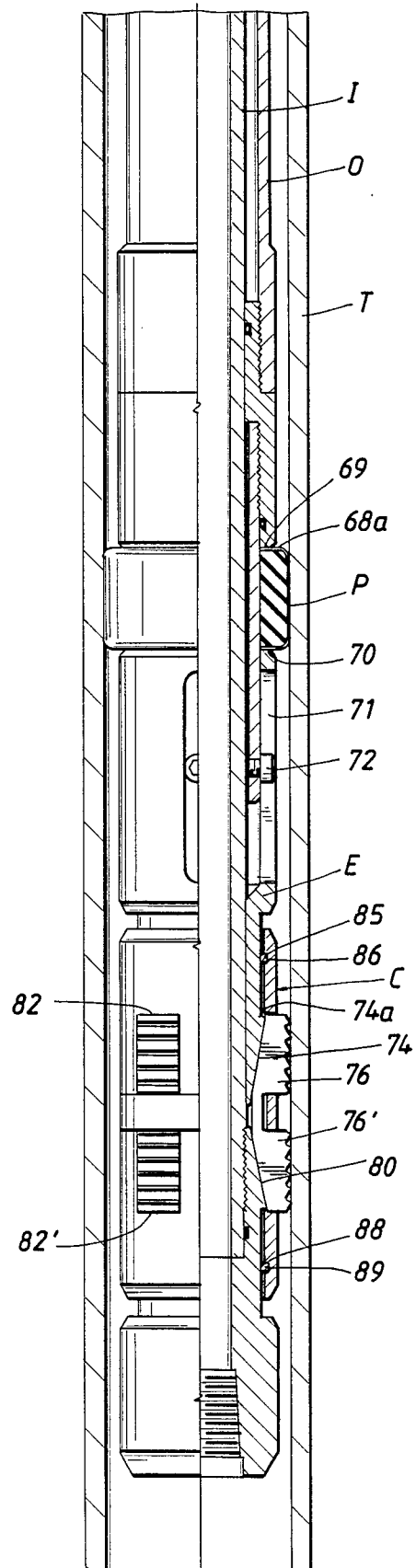


FIG.5A

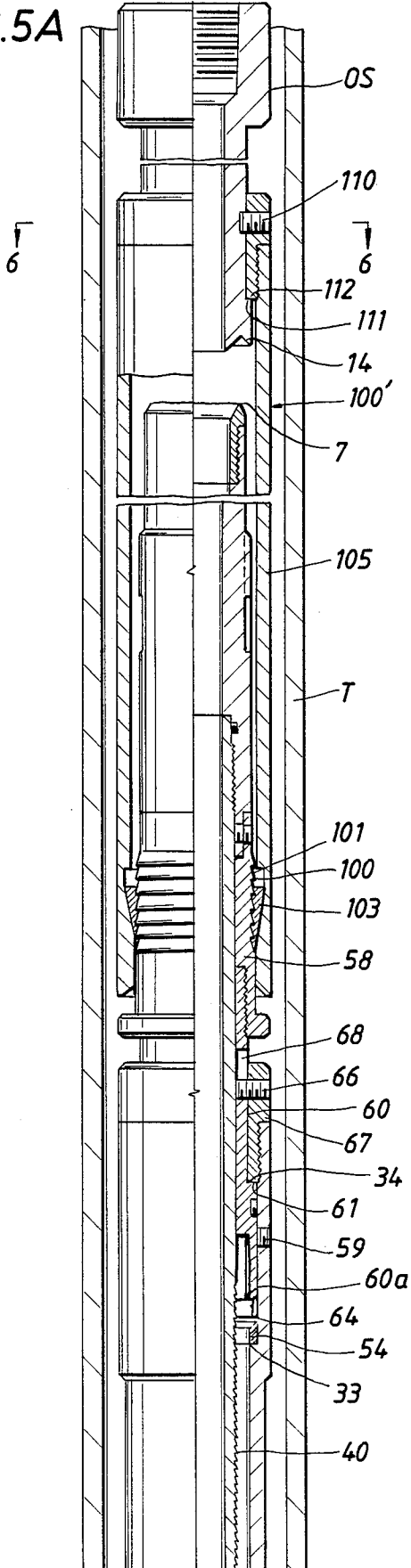
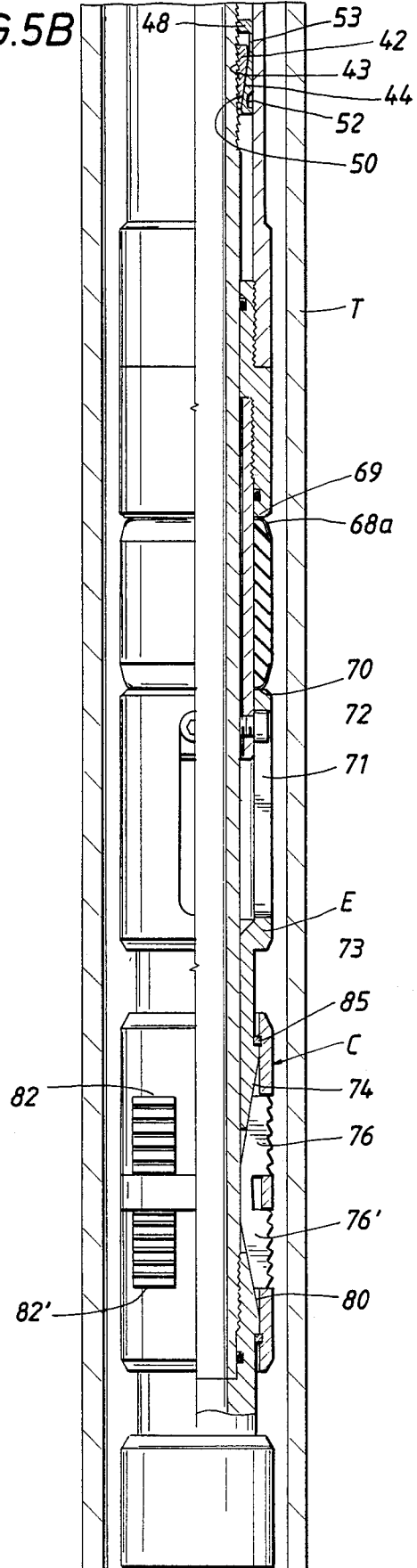


FIG.5B



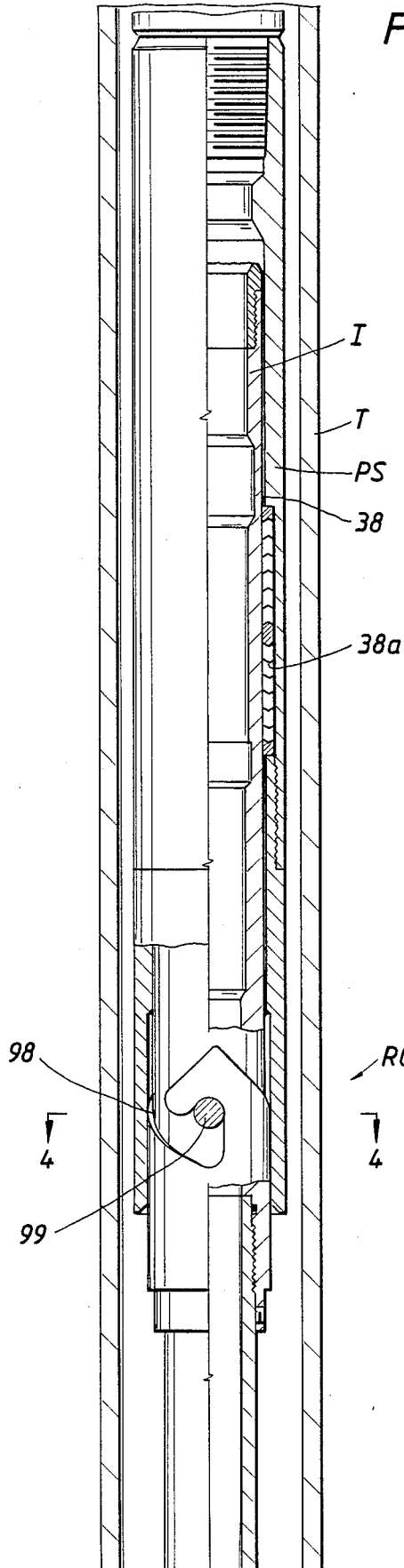


FIG. 3

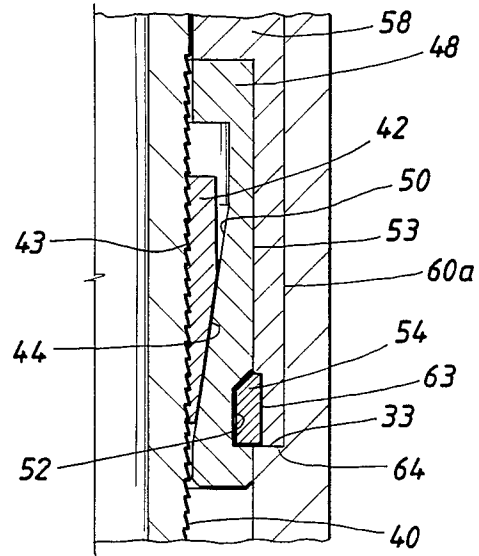


FIG. 1D

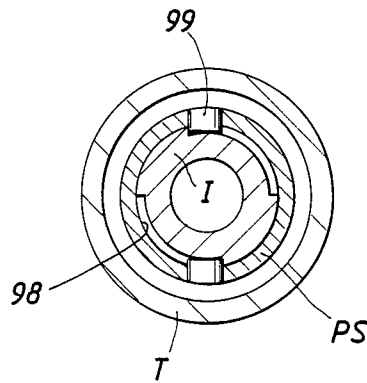
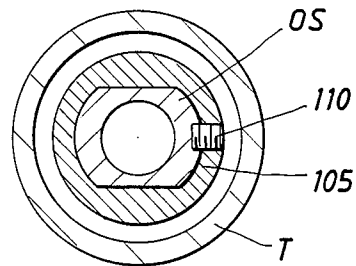


FIG. 4

FIG. 6



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