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Themig

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(54) **HYDRAULIC OPEN HOLE PACKER**

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7,134,505, which is a division of application No.
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E21B 23/06 (2006.01)
E21B 33/124 (2006.01)

(52) **U.S. Cl.** **166/191**; 166/50; 166/313;
277/337

(58) **Field of Classification Search** 166/191,
166/50, 245, 313, 387, 185, 186; 277/322,
277/337, 342, 338

See application file for complete search history.

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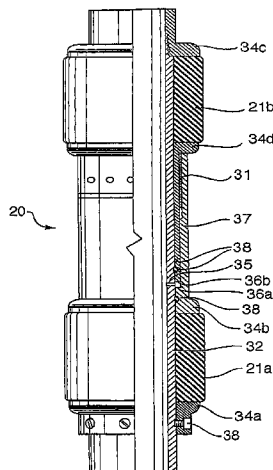
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Primary Examiner—Kenneth Thompson
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(57) **ABSTRACT**

A tubing string assembly is disclosed for fluid treatment of a wellbore. The tubing string can be used for staged wellbore fluid treatment where a selected segment of the wellbore is treated, while other segments are sealed off. The tubing string can also be used where a ported tubing string is required to be run in in a pressure tight condition and later is needed to be in an open-port condition.

49 Claims, 9 Drawing Sheets



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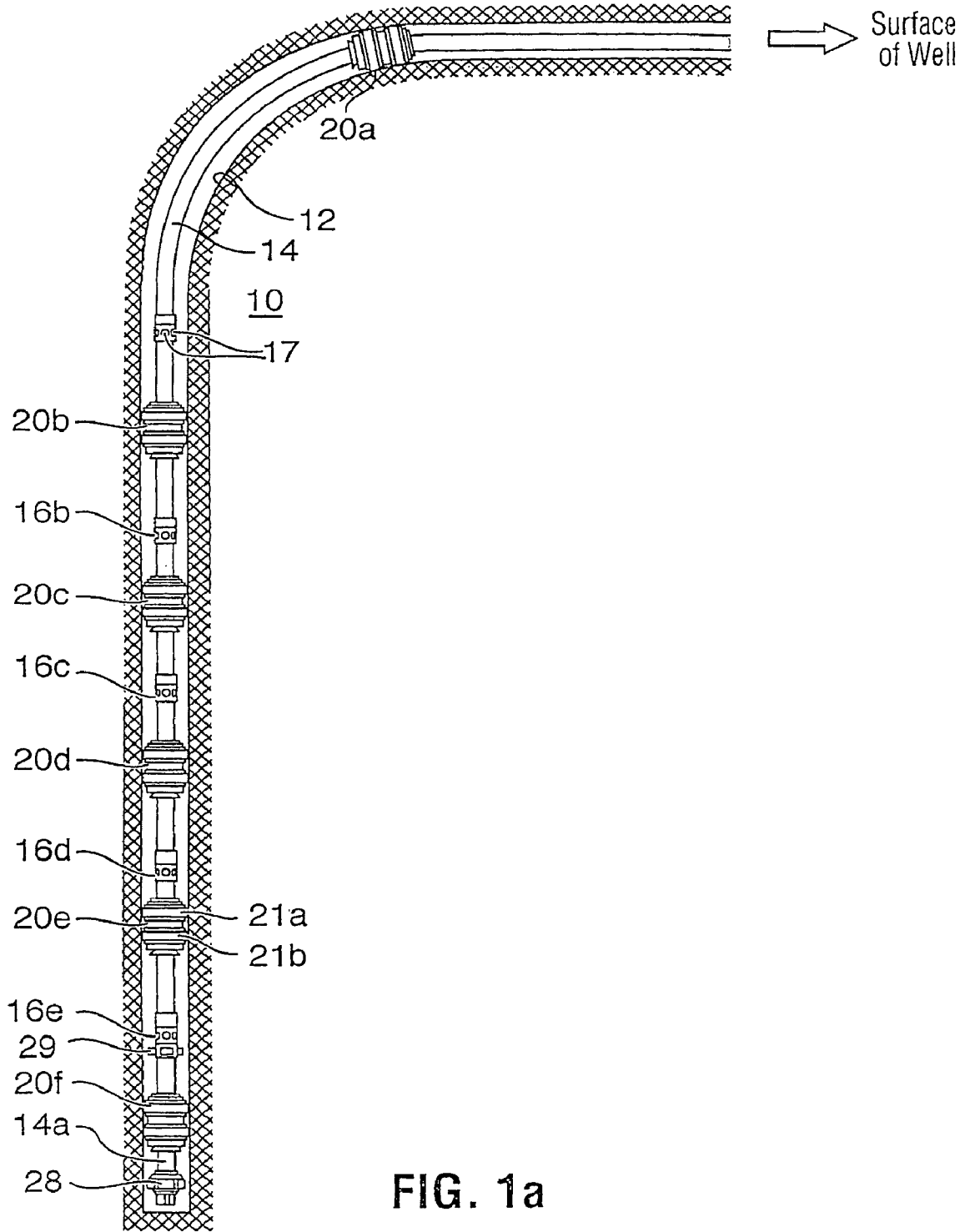


FIG. 1a

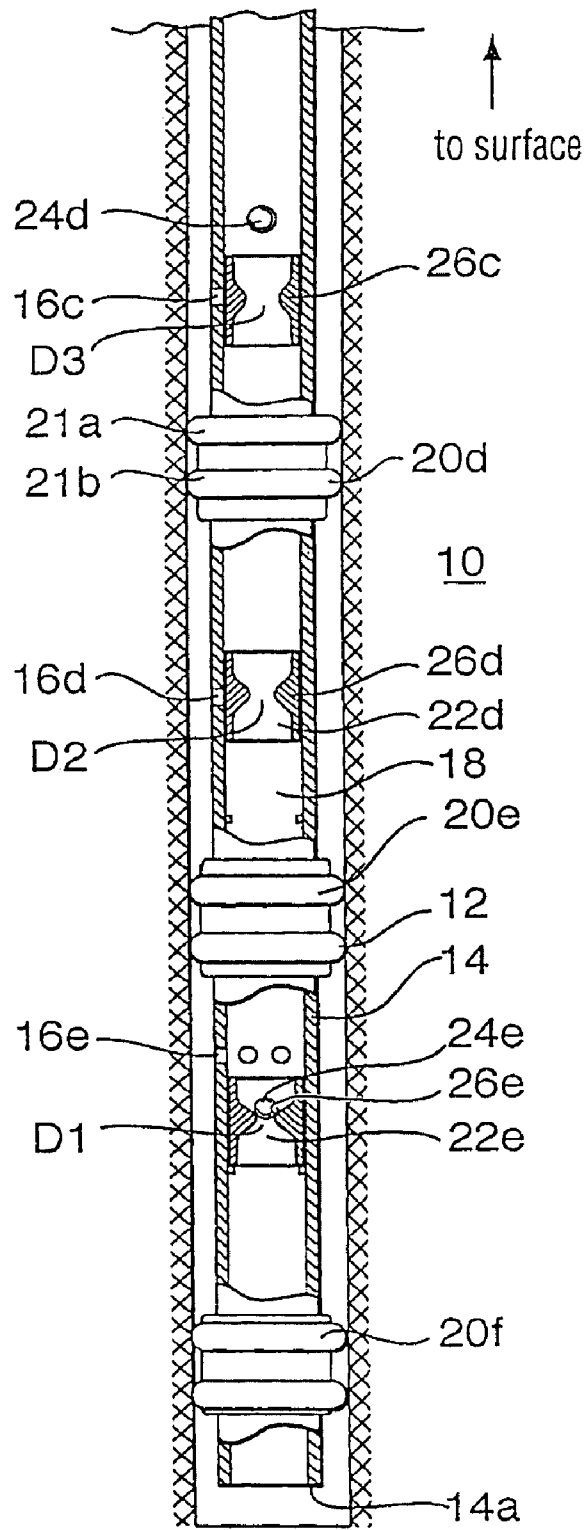


FIG. 1b

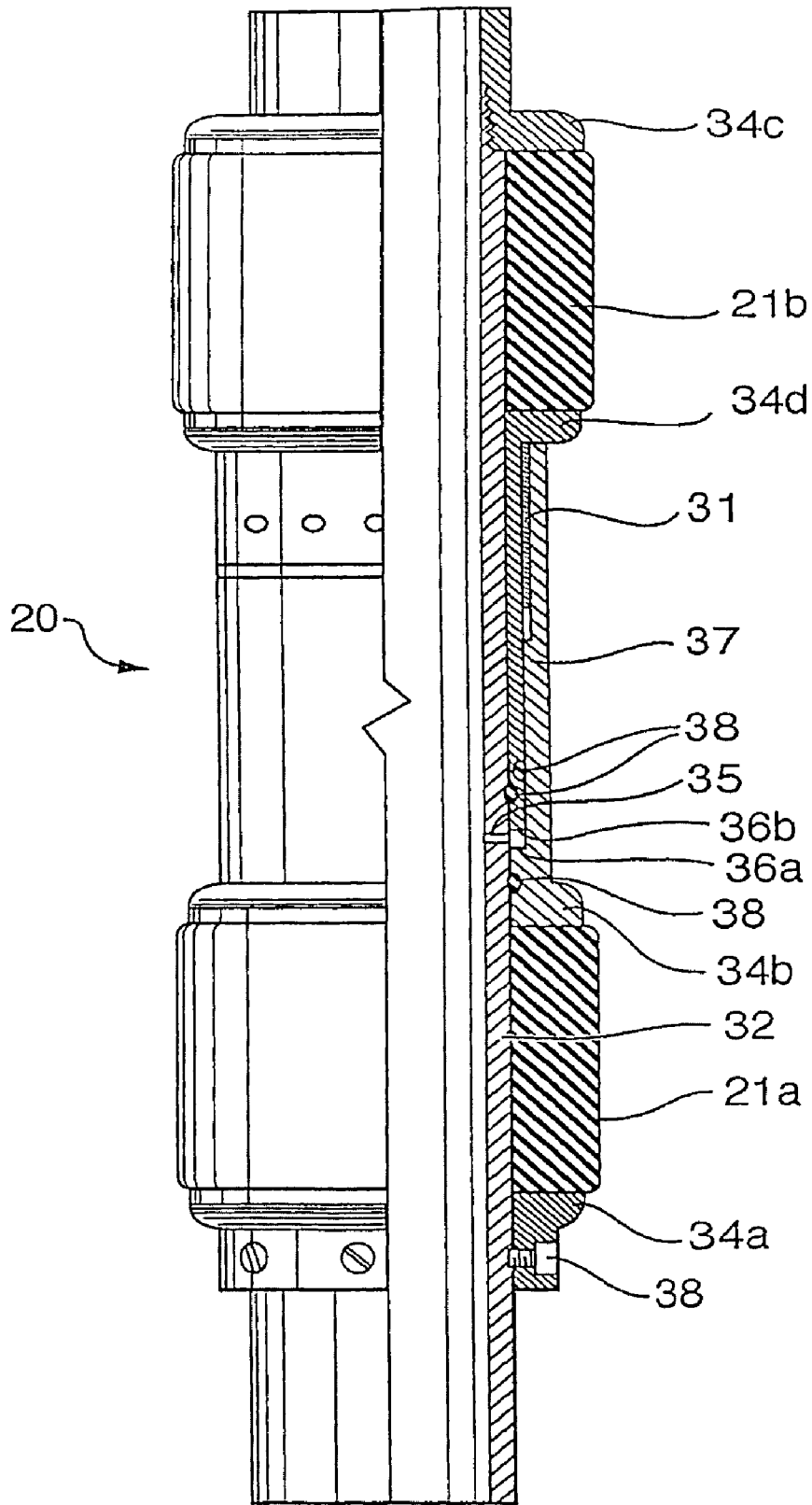


FIG. 2

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