



US007571765B2

(12) **United States Patent**
Themig

(10) **Patent No.:** **US 7,571,765 B2**
(45) **Date of Patent:** **Aug. 11, 2009**

(54) **HYDRAULIC OPEN HOLE PACKER**

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(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **12/058,337**

(22) Filed: **Mar. 28, 2008**
(Under 37 CFR 1.47)

(65) **Prior Publication Data**
US 2008/0277110 A1 Nov. 13, 2008

Related U.S. Application Data

(60) Continuation of application No. 11/550,863, filed on
Oct. 19, 2006, which is a continuation of application
No. 11/104,467, filed on Apr. 13, 2005, now Pat. No.
7,134,505, which is a division of application No.
10/299,004, filed on Nov. 19, 2002, now Pat. No.
6,907,936.

(60) Provisional application No. 60/331,491, filed on Nov.
19, 2001, provisional application No. 60/404,783,
filed on Aug. 21, 2002.

(51) **Int. Cl.**
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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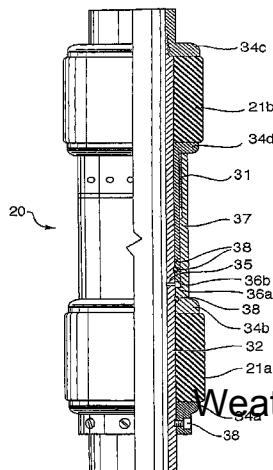
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Primary Examiner—Kenneth Thompson
(74) *Attorney, Agent, or Firm*—Smith IP Services, P.C.

(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



Weatherford International LLC et al.
Exhibit 1046

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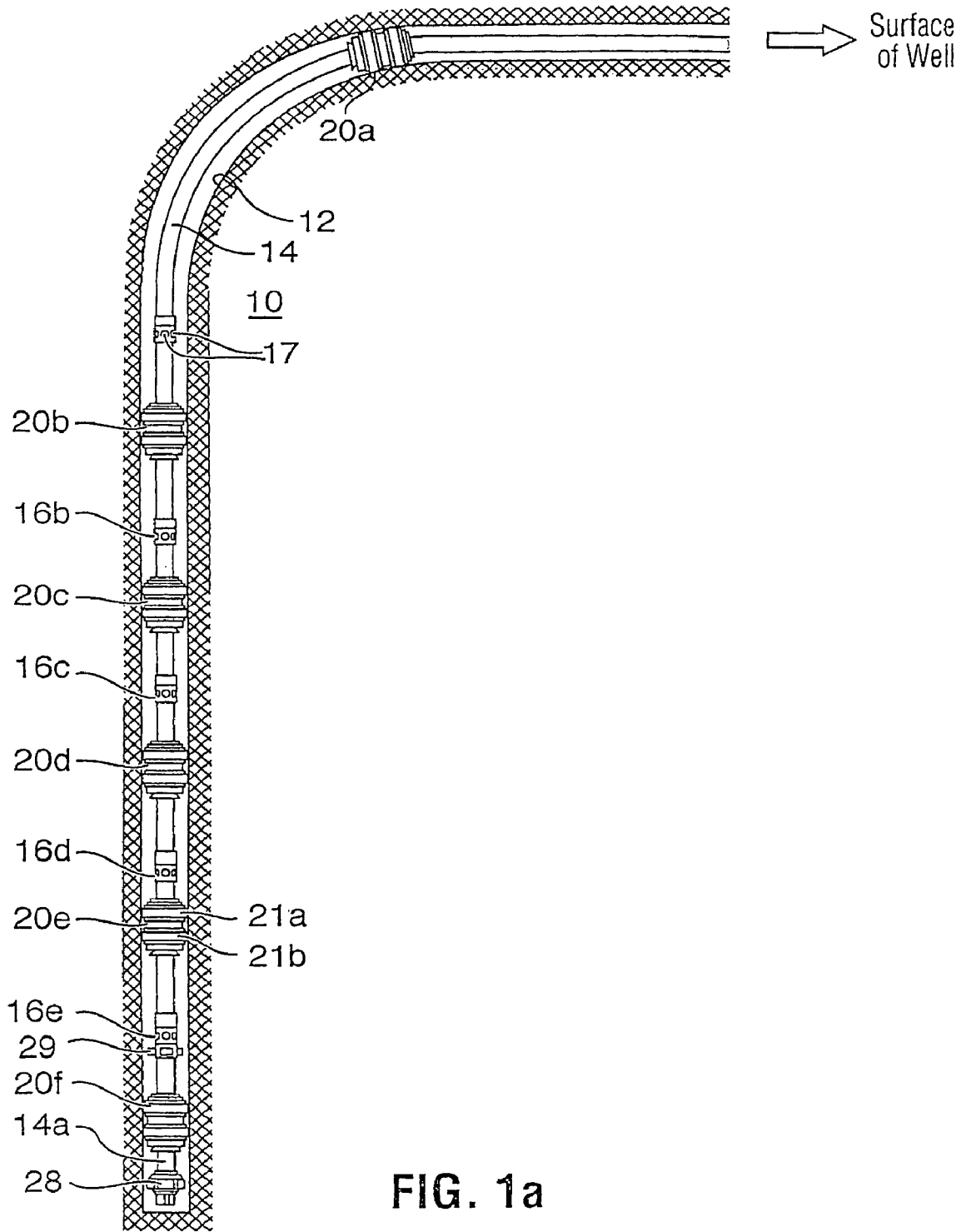
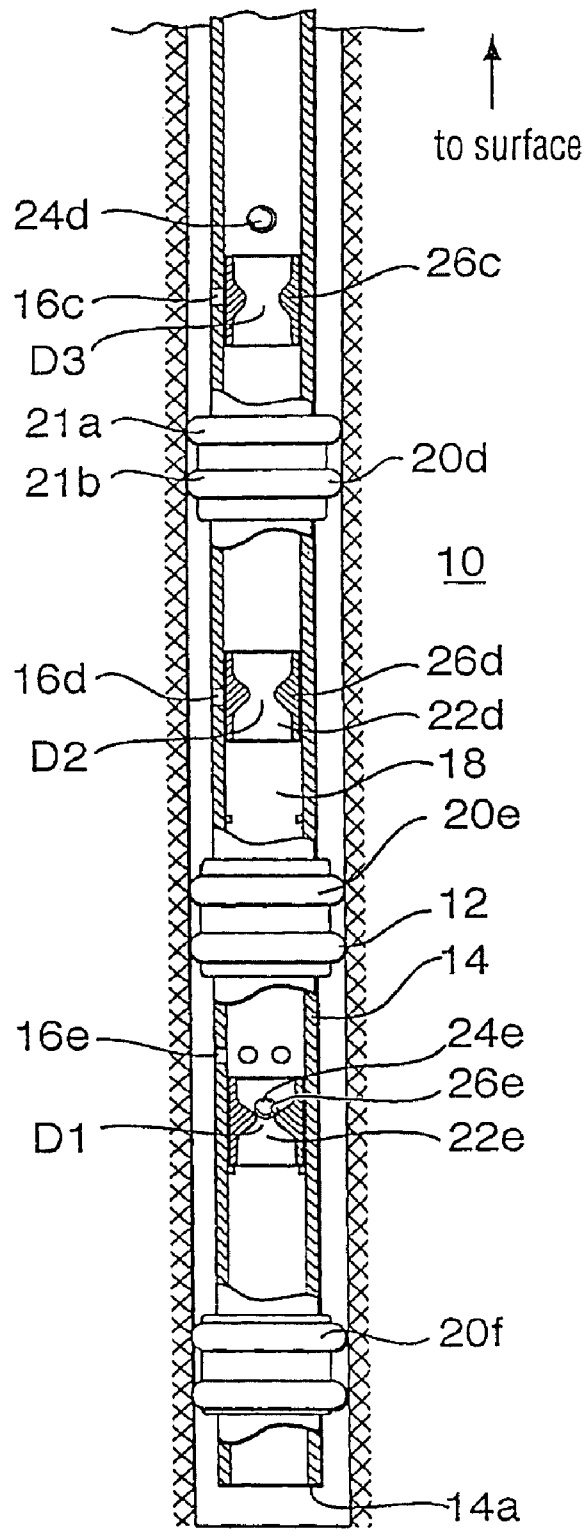


FIG. 1a

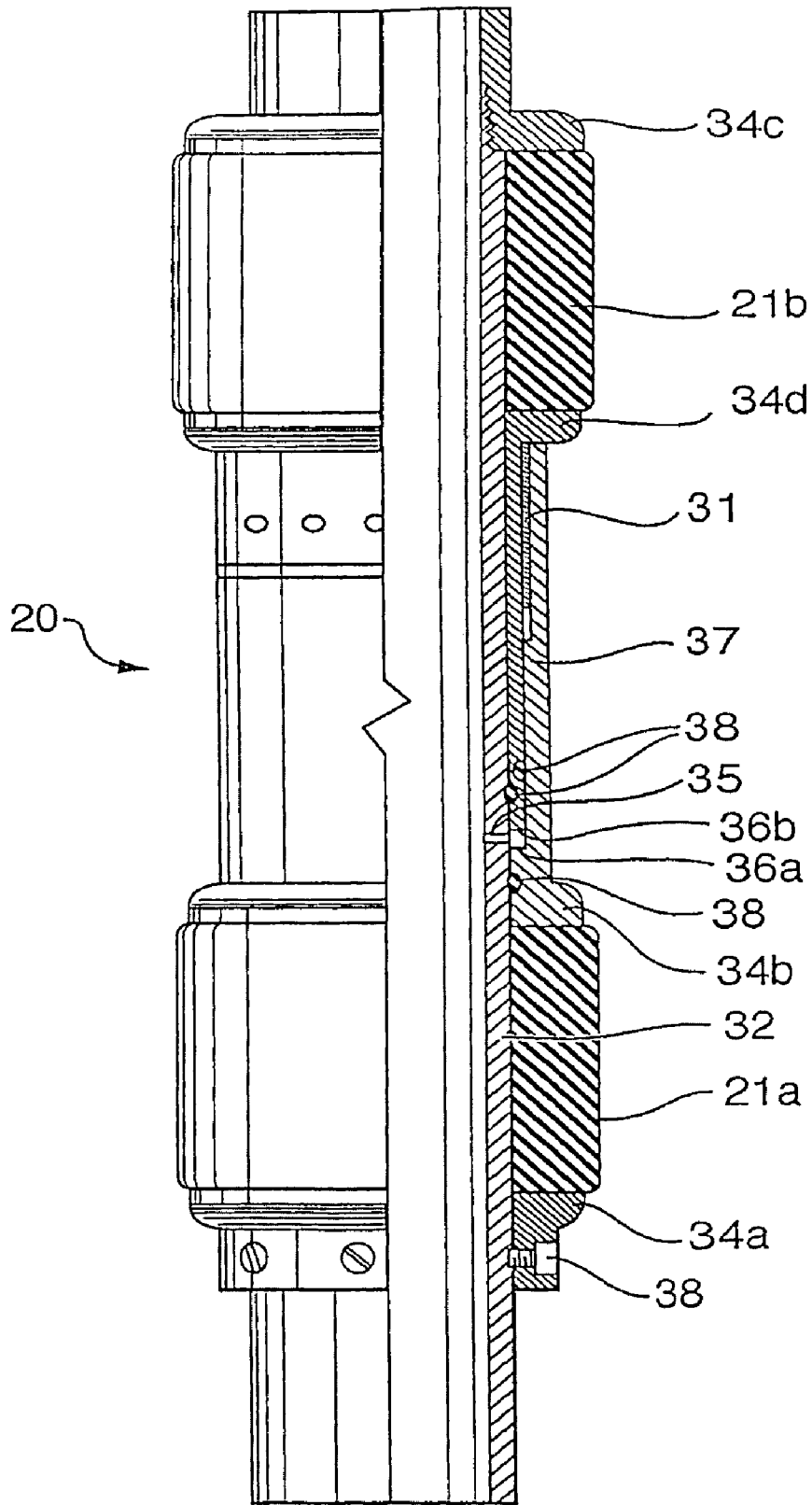
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FIG. 1b

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FIG. 2

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