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Fehr et al.

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(54) METHOD AND APPARATUS FOR WELLBORE FLUID TREATMENT

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- (62) Division of application No. 10/299,004, filed on Nov. 19, 2002, now Pat. No. 6,907,936.
- (60) Provisional application No. 60/404,783, filed on Aug. 21, 2002, provisional application No. 60/331,491, filed on Nov. 19, 2001.
- (51) **Int. Cl.** *E21B 43/14*

(2006.01) (2006.01)

E21B 33/124 (2006.01) **E21B 34/14** (2006.01)

(2006.01) (52) **U.S. Cl.** **166/387**; 166/191; 166/194;

166/306; 166/318

166/306, 313; 175/237, 317

See application file for complete search history.

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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.

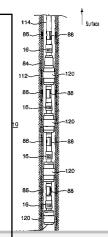
44 Claims, 9 Drawing Sheets

WEATHERFORD INTERNATIONAL, LLC, et al.

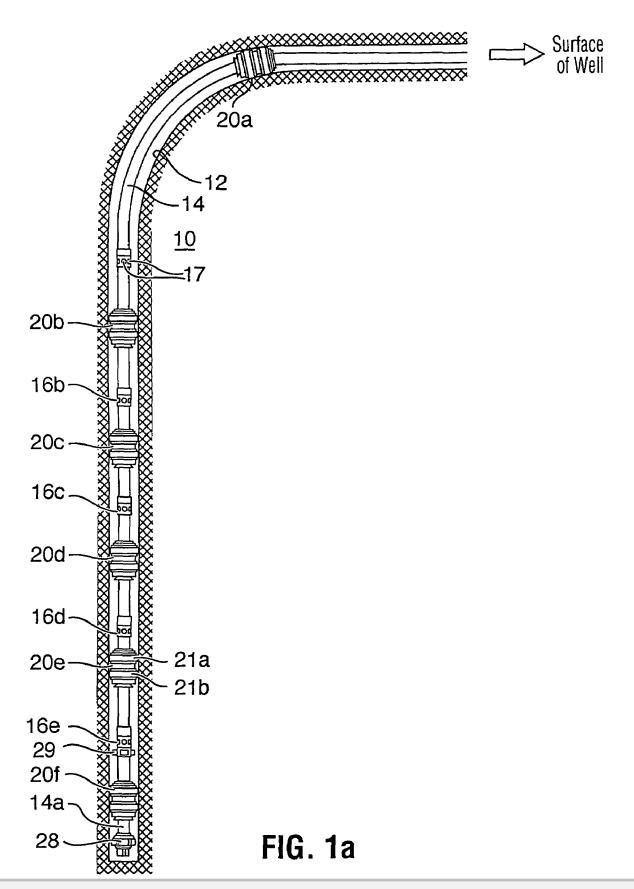
EXHIBIT 1001

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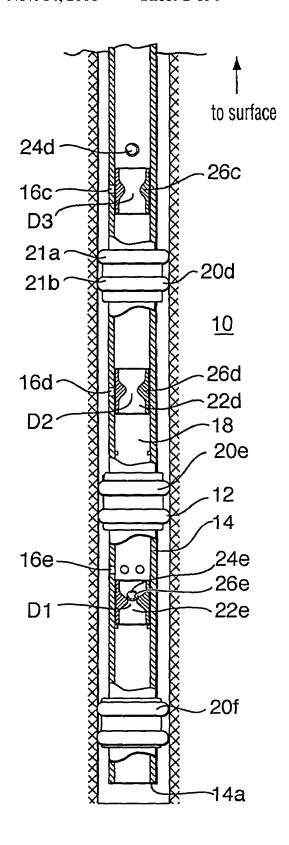
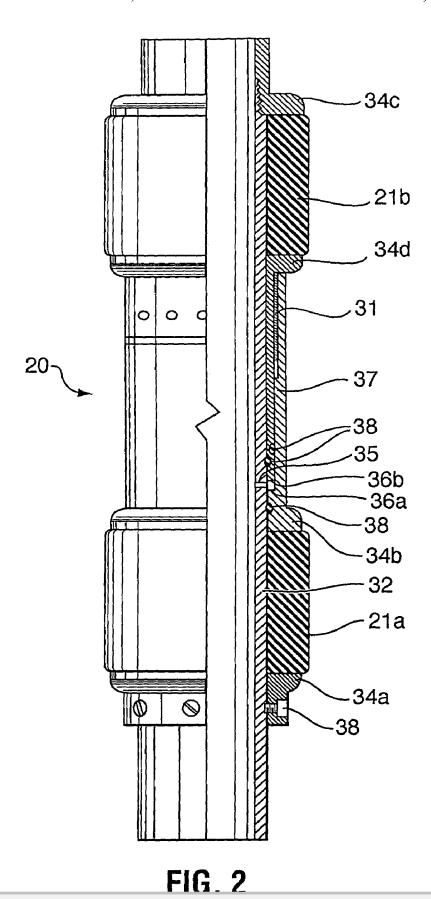


FIG. 1b

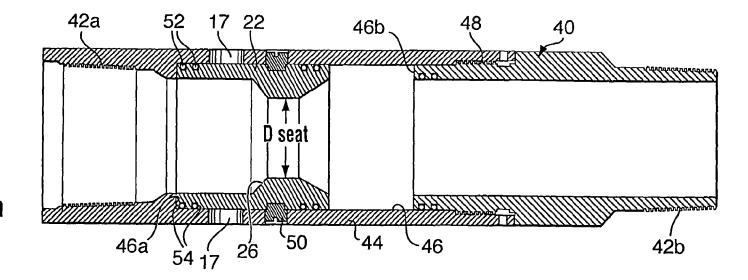






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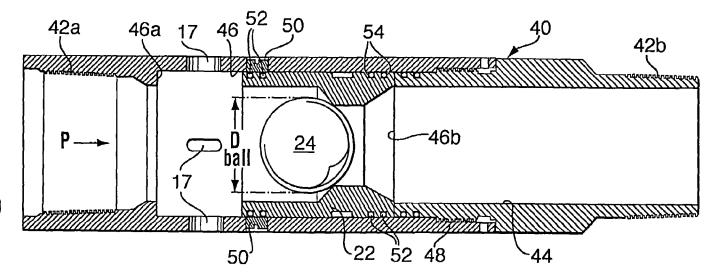


FIG. 3a

FIG. 3b

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