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(12) **United States Patent**
Frazier

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(54) **BOTTOM SET DOWNHOLE PLUG**

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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.

This patent is subject to a terminal disclaimer.

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Related U.S. Application Data

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(51) **Int. Cl.**
E21B 33/129 (2006.01)

(52) **U.S. Cl.** **166/124**; 165/133; 165/135

(58) **Field of Classification Search** 166/123, 166/124, 135, 138, 193

See application file for complete search history.

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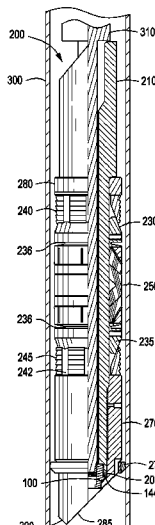
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(57) **ABSTRACT**

A plug for isolating a wellbore. The plug can include a body having a first end and a second end, wherein the body is formed from one or more composite materials and adapted to receive a setting tool through the first end thereof, at least one malleable element disposed about the body, at least one slip disposed about the body, at least one conical member disposed about the body, and one or more shearable threads disposed on an inner surface of the body, adjacent the second end thereof, wherein the one or more shearable threads are adapted to receive at least a portion of a setting tool that enters the body through the first end thereof, and wherein the one or more shearable threads are adapted to engage the setting tool when disposed through the body and adapted to release the setting tool when exposed to a predetermined axial force.

20 Claims, 7 Drawing Sheets



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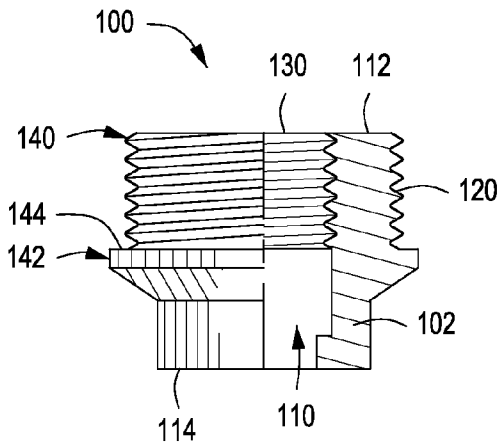


FIG. 1A

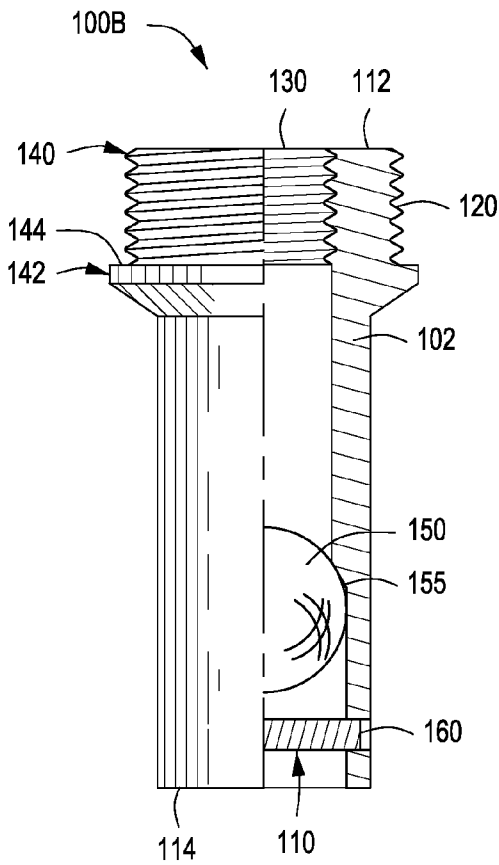


FIG. 1B

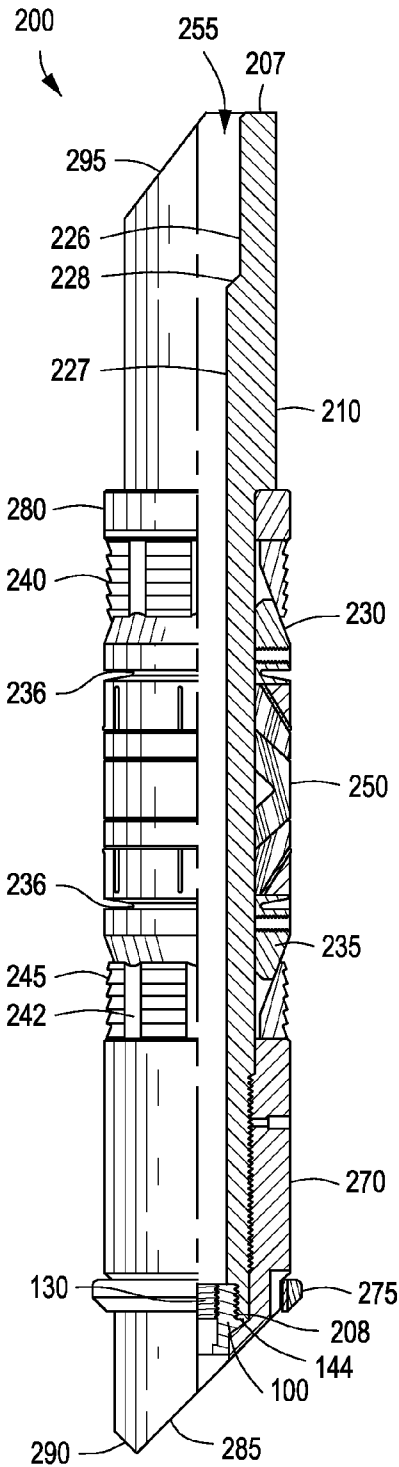


FIG. 2A

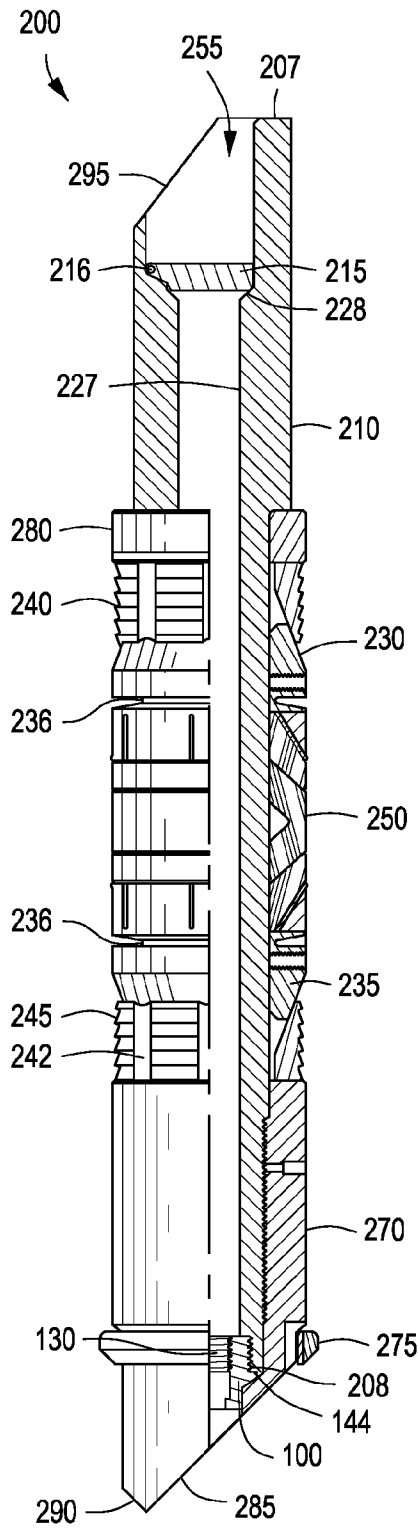


FIG. 2B

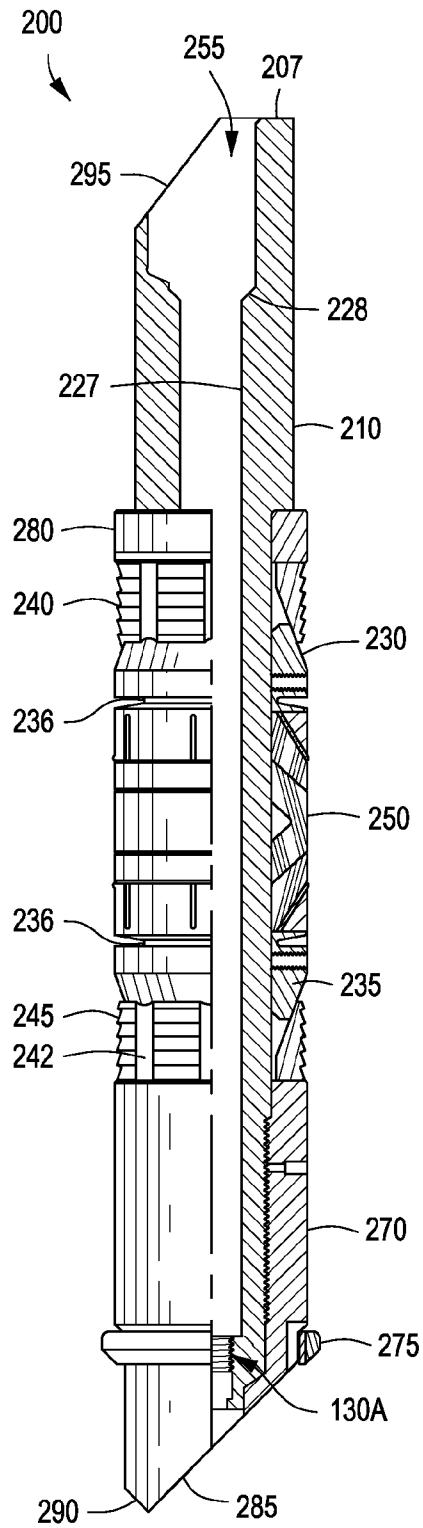


FIG. 2C

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