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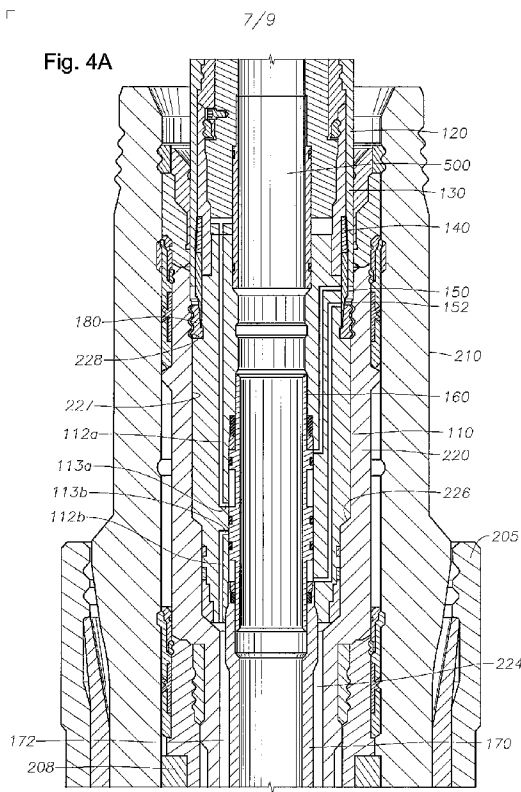
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(54) Title: TUBING HANGER WITH INTEGRAL ANNULUS SHUTOFF VALVE

Fig. 4A



(57) Abstract: Apparatus and method for isolating an annular bore below a tubing hanger body disposed in a well-head assembly. The hanger body is characterized by at least two annulus flowby passages that are capable of fluid communication with areas outside the hanger body through the central bore of the hanger body. An integral valve piston is disposed within the central bore of the hanger body, and is operable to axially displace within the central bore between a closed and opened position. The displacement of the piston is caused by the alternating introduction of pressurizing fluid into separate actuation chambers. In the closed position, the piston is positioned so that at least one of the flowby passages is sealingly engaged in a manner that prevents fluid flow through the hanger body from outside sources such as an annulus bore located below the hanger body.



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