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(54) **Title: DOWNHOLE SHUNT TUBE ISOLATION SYSTEM**

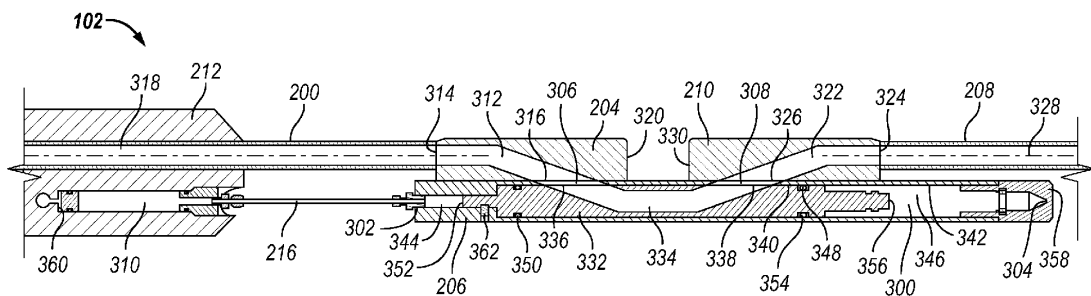


FIG. 3

(57) **Abstract:** A downhole shunt tube isolation system includes an isolation sleeve housing defining an isolation sleeve chamber and an isolation sleeve moveable within the isolation sleeve chamber between an open position and a closed position. The isolation sleeve has a slurry pathway that fluidically couples a first slurry tube segment to a second slurry tube segment with the isolation sleeve in the open position and fluidically decouples the first slurry tube segment from the second slurry tube segment in the closed position. The downhole shunt tube isolation system further includes a fluid channel in communication with the isolation sleeve chamber. The channel is initially closed to hydraulically lock the isolation sleeve in the open position. Additionally, the downhole shunt tube isolation system includes an actuation mechanism configured to open the fluid channel to hydraulically unlock the isolation sleeve and a biasing member to bias the isolation sleeve to the closed position.



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