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(54) Title: PRESSURE ENERGIZED SEAL WITH GROOVE PROFILE

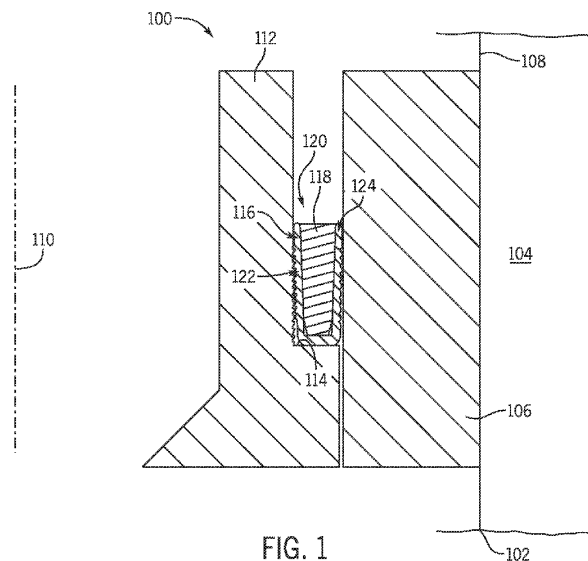


FIG. 1

(57) Abstract: A system for forming a seal between wellbore components includes an annular seal arranged between a first wellbore component and a second wellbore component, the seal comprising a first leg and a second leg, wherein upon activation of the seal, the first leg engages the first wellbore component and the second leg engages the second wellbore component. The system also includes an energizing ring adapted to activate the seal. The first wellbore component includes a groove profile, the groove profile having a plurality of grooves including respective first surfaces and second surfaces, the respective first surfaces arranged at respective first angles and the respective second surfaces arranged at respective second angles, the respective first and second angles being different to form respective asymmetrical grooves.

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WO 2021/150454 A1

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