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(54) Title: WELLHEAD HANGER SHOULDER

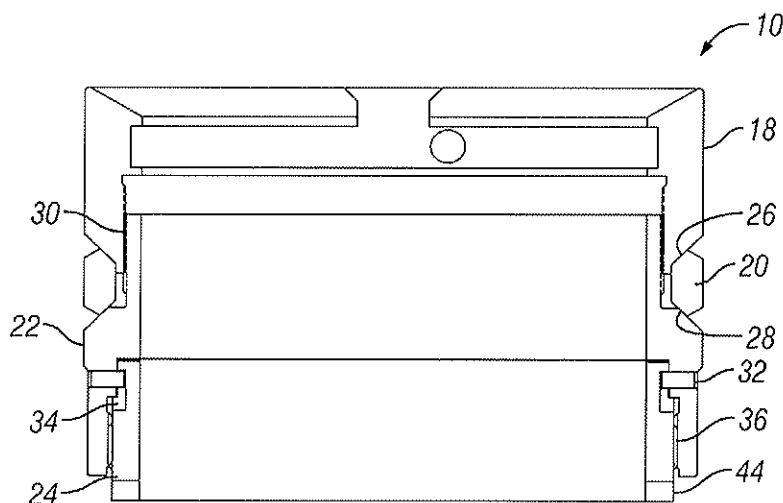


FIG. 2

(57) Abstract: A well production system including a wellhead and a first casing string supported from a first casing hanger landed on a shoulder in the wellhead bore. A loading shoulder assembly is installable in the wellhead and includes an energizing ring, a loading ring threaded into the interior of the energizing ring, a lock ring, and a hold-down ring threaded into the interior of the loading ring. The hold-down ring engages the first casing hanger to prevent rotation of the hold-down ring and restrain rotation of the loading ring. The lock ring is expandable from an unset position into supporting engagement with the wellhead in a set position upon rotation of the energizing ring. The hold-down ring is also moveable axially out of the loading ring to restrain the first casing hanger.