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(54) Title: LOCK MECHANISM FOR BIT RUN TOOL AND REPLACEABLE BLADES

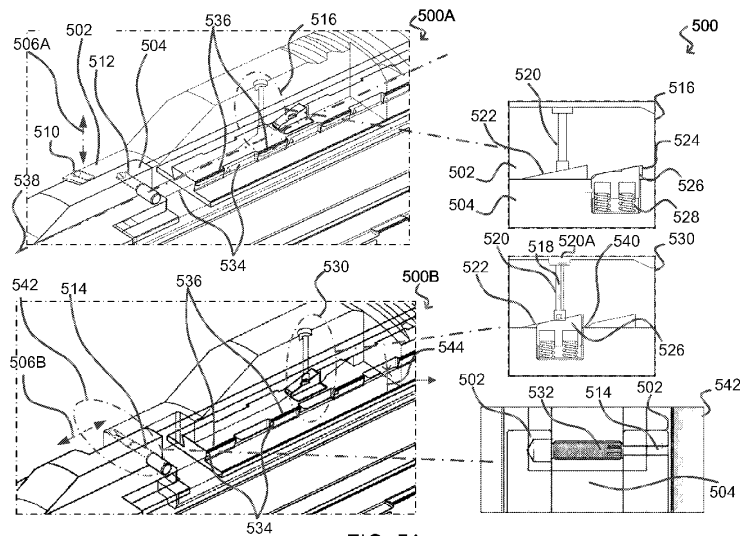


FIG. 5A

(57) Abstract: A tool assembly, a method and a system to be used in a downhole environment for downhole operations such as runs and retrieval of features are disclosed. A tool assembly (502; 522; 854) includes an outer tool profile (610; 710; 858), an inner matching profile (682; 758; 906), and a first interfacing surface (606A; 674; 862D). The inner matching profile is to be associated with an interfacing profile (202; 232; 812) of a tool body (200; 230; 802) and is to allow axial sliding (506B) for a first lock of the tool assembly to the tool body. A second lock (532; 556; 862A, 862B, 862C) is provided at a first shoulder- surface interface (542; 674, 776; 862) between the first interfacing surface and the tool body. The tool assembly is to be changeably associated with the tool body for use in the downhole operations.

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