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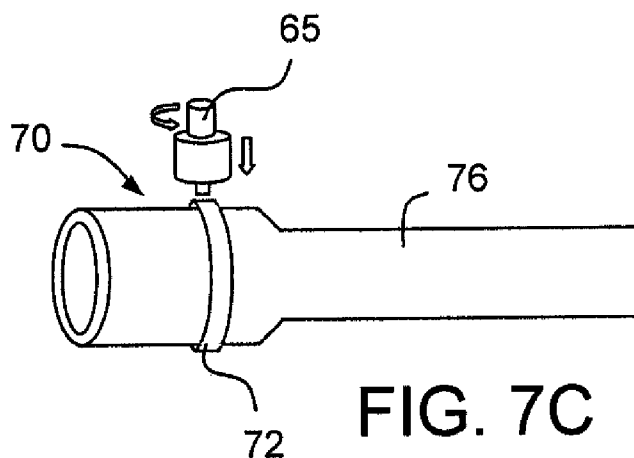


FIG. 7C

(57) Abstract: A method for applying a wear reducing material to a tool used in a wellbore operation that includes welding a hardfacing alloy to a surface of the tool, wherein the welding comprises friction stirring the alloy into the tool's surface is disclosed. Methods of welding a preformed sleeve or width of wear reducing material using friction stirring are also disclosed.

