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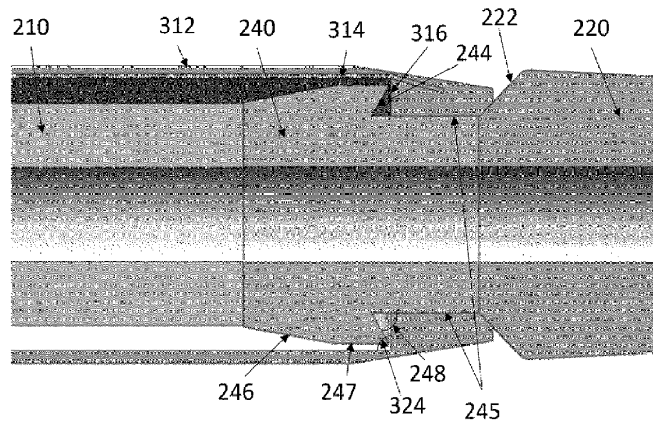


FIG. 10B

(57) Abstract: An expandable introducer sheath with an interlock dilator. The present technology provides an expandable sheath with a step feature inside its distal opening, and a dilator with an interlock that includes a catch surface that is configured to engage with the step feature of the expandable sheath. When the step feature engages the catch surface, it resists further relative movement so that the body of the dilator is prevented from exiting the distal end of the expandable sheath. The nature of the interlocking engagement between the step feature and the catch surface allows the dilator to be used to extend and maintain tension on the expandable sheath during insertion into a patient, and then to be retracted from the expandable sheath by simply pulling the dilator in the opposite direction. The present technology also provides a dilator hub with a spring mechanism configured to achieve and maintain a desired tension on the expandable sheath and to prevent overextension of the expandable sheath when the dilator is being inserted into the expandable sheath.

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