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(54) Title: MOTORIZED INJECTION SYSTEM AND METHODS OF USE

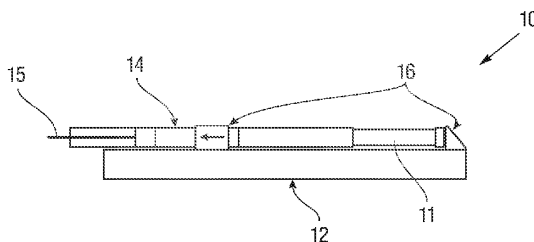


FIG. 2

(57) Abstract: System and methods for injection into a cavity are provided. In some embodiments, an injection system includes an injection assembly comprising a syringe barrel defining a lumen between proximal and distal ends and a second sealing element moveably disposed within the lumen to dispense an injection agent from an injection chamber defined in the syringe barrel. A puncture element delivers the injection agent into a space in a tissue. The tissue is less permeable to the injection agent than the space. The injection system also includes a support platform to support the injection assembly and anchor it relative to a site of injection, a drive assembly to operate the injection assembly, one or more sensors to monitor one or more forces on the injection assembly, and a controller in communication with the one or more sensors to receive information about the one or more forces on the injection system.

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