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(54) Title: MODULAR ENDOSCOPE ASSEMBLY

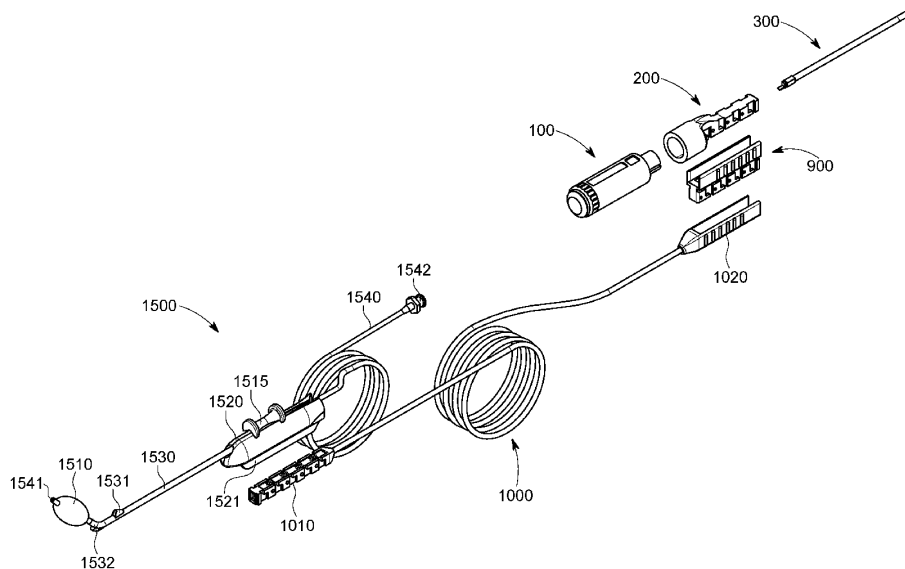


FIG. 15A

(57) Abstract: The technology described herein is directed toward a detachable, powered, modular endoscope system with interconnected components and coupling mechanisms that enable power or data signal connectivity between many different detachable instruments, devices, and endoscope shaft variations. In some implementations, an endoscope assembly includes: an endoscope housing comprising first circuitry configured to receive one or more data signals, and second circuitry configured to supply power; and a rigid attachment segment distally extending from the endoscope housing, the rigid attachment segment including: third circuitry configured to electrically couple the rigid attachment segment to the first and second circuitry of the endoscope housing, and one or more surfaces configured to be removably, mechanically, and electrically coupled to an instrument, adapter, or cable, the instrument, adapter, or cable configured to receive power from the endoscope housing or transmit data signals to the endoscope housing when electrically coupled

[Continued on next page]

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to the one or more surfaces.