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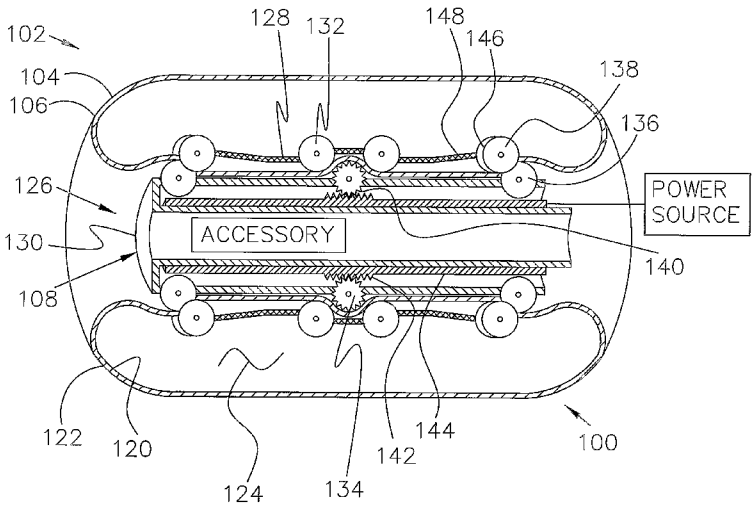
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(54) Title: PROPULSION MECHANISM FOR ENDOSCOPIC SYSTEMS



(57) Abstract: A self propelled, endoscopic apparatus formed of a flexible, fluid-filled toroid and U motorized or powerable frame The apparatus may be used to advance a variety of accessory devices into generally tubular spaces and environments for medical and non-medical applications. The apparatus when inserted into a tubular space or environment, such as the colon of a patient undergoing a colonoscopy, is advanced by the motion of the toroid.The toroid's surface circulates around itself in a continuous motion from inside its central cavity along its central axis to the outside where its surface travels in the opposite direction until it again rotates into its central cavity. As the device advances within the varying sizes, shapes and contours of body lumens, the toroid compresses and expands to accommodate and navigate the environment. The motion of the toroid can be powered or unpowered and the direction and speed may be controlled. The apparatus may be used to transport a variety of accessory devices to desired locations within tubular spaces and environments where medical and non-medical procedures may be performed.

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