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permitting observation through 360°, an electric lamp to illuminate the field of observation disposed in said casing, a sleeve rotatably mounted in said head within said casing, an objective lens mounted in said sleeve, a prism mounted in said sleeve for reflecting light rays entering through said casing at right angles to the axis of said sleeve through said objective lens, a gear on said sleeve and a pinion rotatably mounted in said head and meshing with said gear, a flexible shaft fixed at the outer end to said pinion and extending through said tube to a point adjacent said eyepiece, a second pinion fixed to said shaft, a ring rotatably mounted on said tube adjacent said eyepiece and a gear on said ring meshing with said second pinion, whereby upon rotation of said ring said sleeve and prism carried thereby will rotate to permit observation through 360°, means for flexing said tube in either direction in a single plane to dispose said observation head in different locations, means to prevent flexing of said tube in planes other than the plane of flexure and a flexible optical system disposed in said tube to transmit an image from said head to said eyepiece with said head disposed in a desired position for observation.

2. A flexible gastroscope comprising an elongated flexible tube, an eyepiece attached to the inner end of said tube and an observation head attached to the outer end of said tube, said observation head including a cylindrical transparent tubular casing providing a viewing window permitting observation through 360°, an electric lamp to illuminate the field of observation disposed in said casing, a sleeve rotatably mounted in said head within said casing, an objective lens mounted in said sleeve, a prism mounted in said sleeve for reflecting light rays entering through said casing at right angles to the axis of said sleeve through said objective lens, a gear on said sleeve and a pinion rotatably mounted in said head and meshing with said gear, a

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flexible shaft fixed at the outer end to said pinion and extending through said tube to a point adjacent said eyepiece, a second pinion fixed to said shaft, a ring rotatably mounted on said tube adjacent said eyepiece and a gear on said ring meshing with said second pinion, whereby upon rotation of said ring said sleeve and prism carried thereby will rotate to permit observation through 360°, means for flexing said tube in either direction in a single plane to dispose said observation head in different locations and a flexible optical system disposed in said tube to transmit an image from said head to said eyepiece with said head disposed in a desired position for observation.

3. A flexible gastroscope as defined in claim 1, in which the means to prevent flexing of said tube in planes other than the plane of flexure comprises a pair of rods extending through said tube at diametrically opposite sides and angularly spaced 90° from said tension members, said rods being fixed along the length thereof to said tube.

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