

# United States Pat

Bonnet

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- [54] ENDOSCOPES
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- [58] Field of Search..... 128/4, 5, 6, 7, 8, 9, 10, 128/11

- [56] **References Cited**
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## [57] ABSTRACT

This invention relates to endoscopes of the kind having a stem that provides a free view of and allows illumination for an area of examination of a body cavity. The object of the invention is to provide an endoscope that is of particular use for examining narrow body cavities so that a direct view can be obtained without the necessity of using an optical system extending through the endoscope stem. In the invention, this stem is of oval cross-section and is provided with a viewing tube eccentrically positioned therein and a sickle-shaped area is defined between the stem and viewing tube. The stem encloses a fibre light conductor comprising a bundle of light-transmitting fibres and a semi-cylindrical light radiator of optical glass is mounted on the distal end of the viewing tube. This member has a semi-cylindrical surface in a thickened head portion of the stem and is located in front of the distal end of the stem and viewing tube; moreover, it has a flat surface which is directed towards the longitudinal axis of the viewing tube.

1 Claim, 3 Drawing Figures

