United States Patent [19]

[11]

4,452,236

Utsugi

[45]

Jun. 5, 1984

[54]	ENDOSCOPE WITH A RESILIENT RAISING MEMBER					
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[73]	Assignee:	Olympus Optical Co., Ltd., Tokyo, Japan				
[21]	Appl. No.:	375,990				
[22]	Filed:	May 7, 1982				
[30] Foreign Application Priority Data						
May 14, 1981 [JP] Japan 56-72739						
	[51] Int. Cl.³ A61B 1 [52] U.S. Cl. 12 [58] Field of Search 128/					
[56]	References Cited					
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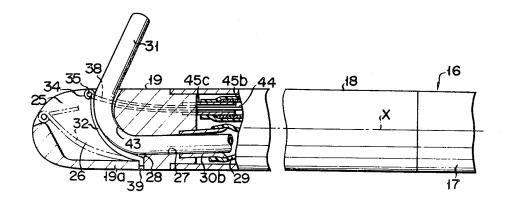
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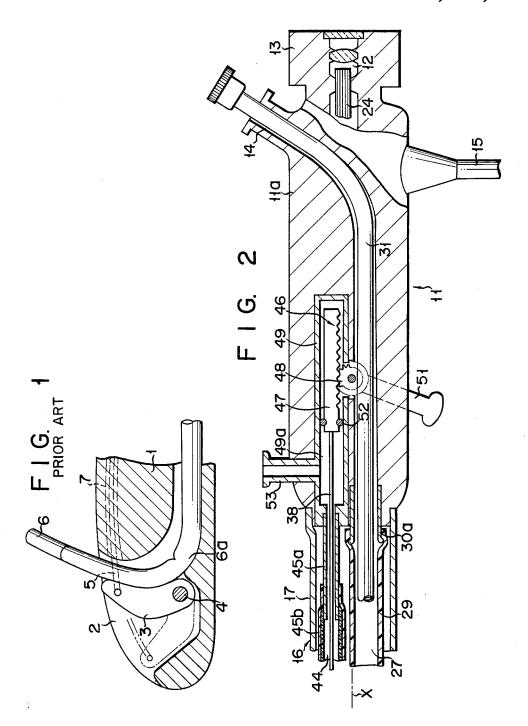
Primary Examiner—Edward M. Coven Assistant Examiner—Max F. Hindenburg

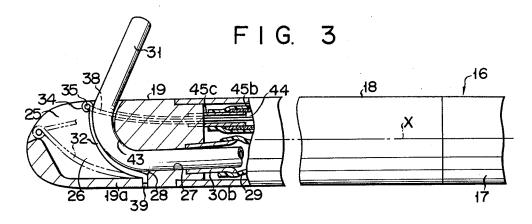
[57] ABSTRACT

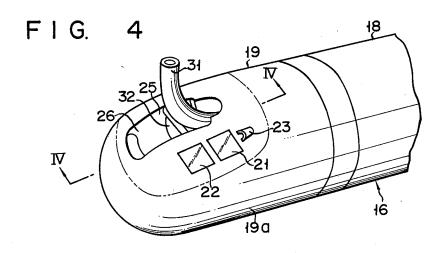
An elastic raising member is disposed in a raising member housing provided at the distal end of an insertion section of an endoscope and has one end of which is supported by the housing and the other end of which is a free end. When the free end is pulled by a control wire extending along the insertion section by operating a control unit, the raising member changes the guiding direction of a treatment tool. When the free end is released, the raising member is restored to a lying position by its elasticity.

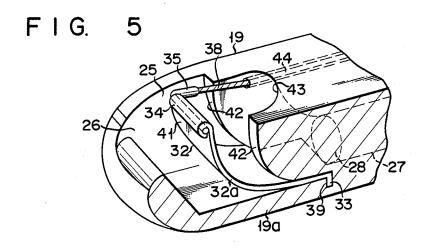
8 Claims, 10 Drawing Figures



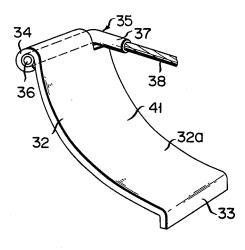








F I G. 6



F I G. 7

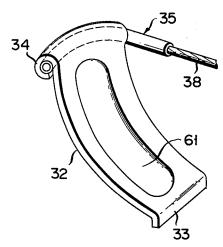


FIG.

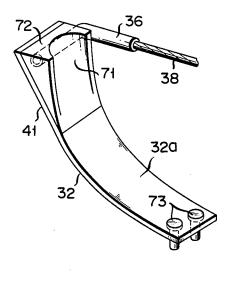


FIG.

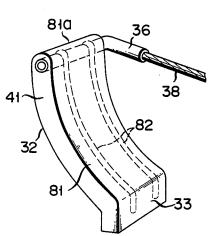
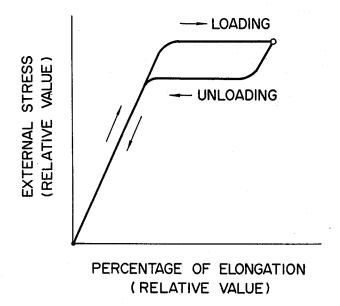


FIG. 10



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