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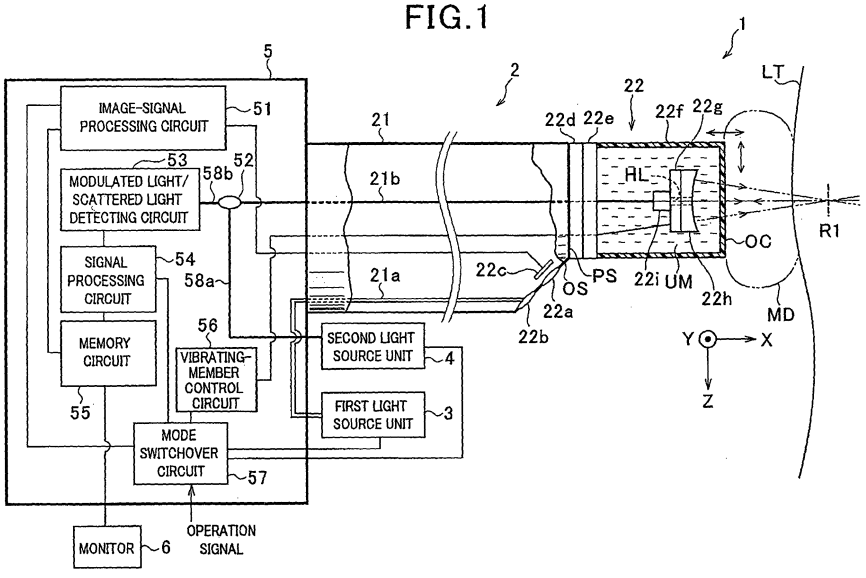
(54) Medical apparatus obtaining information indicative of internal state of an object based on interaction between ultrasound waves and light

(57) A biological observation system (1) is provided, which is mounted in an endoscope (2) so as to acquire information indicating the internal state of a body tissue of an object using the interaction between ultrasound waves and light. The endoscope is equipped with an ultrasound generating member (22g,22P), a light transmitting/receiving member (22i,21b,22j,22P,22l,22m), and a moving member (22e,22e1,59a,22e2,8). The ultrasound generating member generates ultrasound waves toward a region to be examined of an object. The light transmitting/receiving member radiates light from a light source toward the region to be examined and receives light reflected by a region of the ultrasound waves within the region to be examined. The moving member spatially moves both the ultrasound generating member and the light transmitting/receiving member together as a unitary member.

FIG.1



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EUROPEAN SEARCH REPORT

Application Number
EP 08 00 5517

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X	US 2006/184049 A1 (TSUJITA KAZUHIRO [JP]) 17 August 2006 (2006-08-17) * paragraphs [0011] - [0019] * * paragraphs [0031] - [0048] * * figures 1-3 *	1-34	
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TECHNICAL FIELDS SEARCHED (IPC)

A61B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
Berlin	23 April 2009	Abraham, Volkhard

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 08 00 5517

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82

专利名称(译)	医疗设备基于超声波和光之间的相互作用获得指示对象的内部状态的信息		
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申请号	EP2008005517	申请日	2008-03-25
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优先权	2007077653 2007-03-23 JP		
其他公开文献	EP1972263A2		
外部链接	Espacenet		

摘要(译)

提供了一种生物观察系统（1），其安装在内窥镜（2）中，以便利用超声波和光之间的相互作用获取指示物体的身体组织的内部状态的信息。内窥镜配备有超声波发生构件（22g，22P），光发射/接收构件（22i，21b，22j，22P，22l，22m）和移动构件（22e，22e1,59a，22e2,8）。。超声波产生构件产生朝向物体的待检查区域的超声波。光发射/接收构件将来自光源的光辐射到待检查区域，并接收由待检查区域内的超声波区域反射的光。移动构件在空间上将超声波发生构件和光发射/接收构件两者一起作为整体构件移动。

FIG.1