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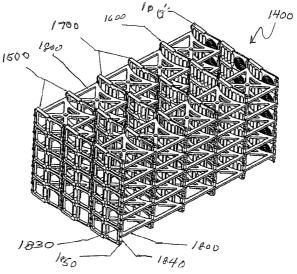
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(54) Title: WAVE ATTENUATOR AND SECURITY BARRIER SYSTEM-ADJUSTING



(57) Abstract: An externally-adjustable module for a wave attenuation System formed by connecting a plurality of panels in a structure positioned in a body of water, causes the dissipation of wave energy. Different configurations of panel, having different flow characteristics, used in the structure, and different types of connector used to connect panels, create different patterns of water flow within the structure, and contribute to wave energy dissipation. Units deployed in harbors, rivers, marinas and the like, help to prevent beach erosion and can facilitate beach nourishment. Embodiments can be utilized as a security barrier, preventing intrusion by trespassers, divers or various sized boats. A variety of sensors can be mounted to the structures, enabling detection of movement, chemical and biological agents, explosives or radiation. A submersible gate, comprising panels and a buoyancy control mechanism, allows for passage of boats and can be controlled remotely.



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A. CLASSIFICATION OF SUBJECT MATTER IPC: E02B 3/04(2006.01)			
USPC: 405/27,30,21 According to International Patent Classification (IPC) or to both national classification and IPC			
B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) U.S.: 405/27, 30, 21, 22, 23, 25, 26, 31, 34, 35			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched			
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)			
	CUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where ap		Relevant to claim No.
Α	US 6,896,445 B1 (ENGLER) 24 MAY 2005 (24/5/2	2005), SEE ENTIRE DOCUMENT	1-3
Α	US 4,498,805 A (WEIR) 12 FEBRUARY 1985 (12/2/1985), SEE ENTIRE DOCUMENT.		1-3
Α	US 3,878,684 A (LAMY) 22 APRIL 1975 (22/4/1975), SEE ENTIRE DOCUMENT.		1-3
Furthe	er documents are listed in the continuation of Box C.	See patent family annex.	
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