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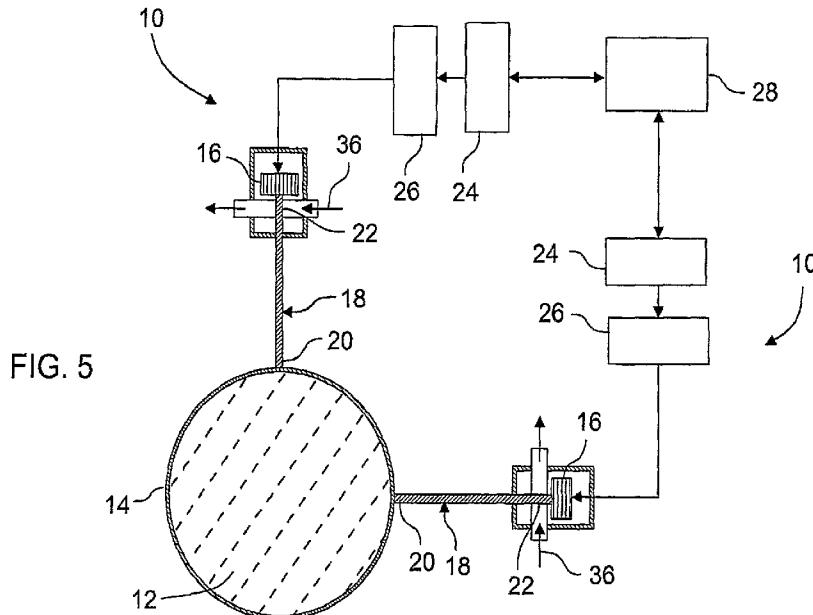
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(54) Title: WAVEGUIDE ASSEMBLY IMPARTING ACOUSTIC ENERGY TO A GLASS MELT



(57) Abstract: A waveguide assembly (10) is provided for imparting ultrasonic energy to a glass melt (12) at an amplitude sufficient to produce acoustic streaming in the melt, thereby mixing the molten glass. The glass melt (12) may, for example, be flowing through a refractory metal vessel (14). In one configuration the waveguide assembly (10) includes a waveguide (18) acoustically coupled to a transducer (16) at one end (22) and the glass melt (12) at the other end (20). The waveguide (18) may be physically coupled to the vessel (14) via a threaded fitting (32, 34) attached to an outside surface of the vessel (14).

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A. CLASSIFICATION OF SUBJECT MATTER

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USPC: 65/1 35.2
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. : 65/135.2

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	U S 6,795,484 A (HUBER et al) 21 September 2004 (21.09.2004), column 3-5, lines 1-67.	1-17
Y	U S 4,3 16,734 A (SPINOSA et al) 23 February 1982 (23.02. 1982), column 4, lines 15-65.	1-17
A	U S 4,398,925 A (TRINH et al) 16 August 1983 (16.08. 1983), entire document.	1-17
A	U S 4,549,896 A (STREICHER et al) 29 October 1985 (29. 10.1985), entire document.	1-17

Further documents are listed in the continuation of Box C. See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
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