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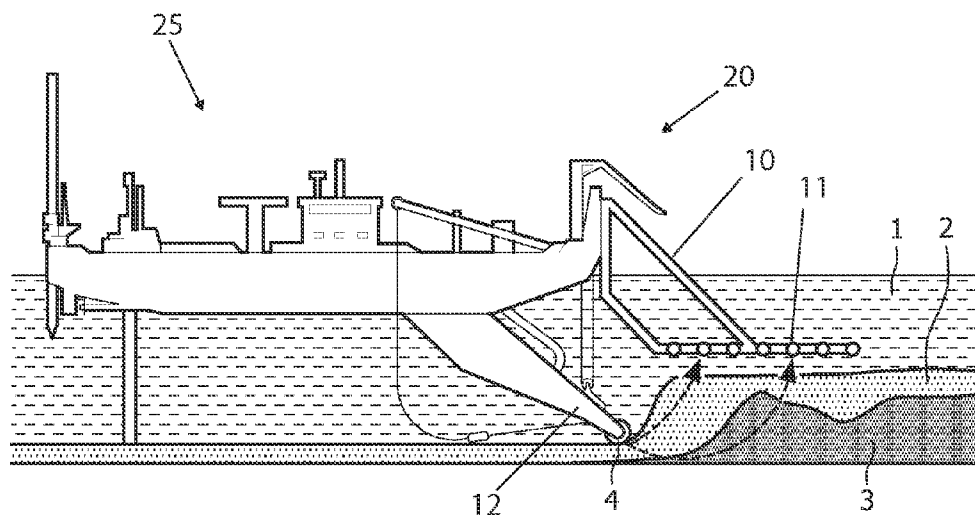


FIG. 2

(57) Abstract: The present invention relates to a system for optimizing the dredging of an area by a vessel (25) equipped with a cutter head (4), comprising a means to measure local seismic velocity in front of the vessel (25), said means comprising a set of seismic receivers (11, 11', 11'', 11''') supported by a frame (10) configured for attachment to and projection from the bow end of the vessel, which frame aligns the seismic receivers (11, 11', 11'', 11''') above and in front of the cutter head (4). It also relates to a method for optimizing dredging.

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