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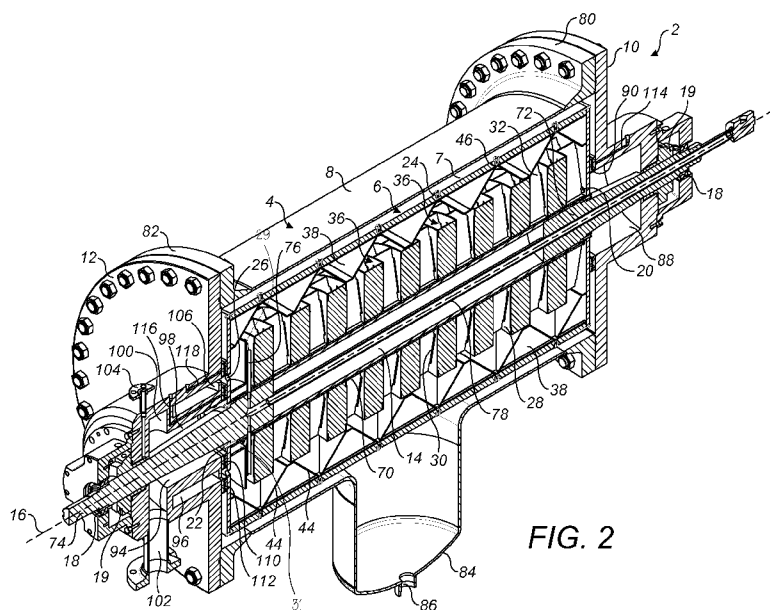


FIG. 2

(57) Abstract: A separator (2) for separating a multiphase mixture comprising a pressure vessel (7) supported for rotation within a casing (4) containing a gas which may be held at an elevated temperature or pressure. A plurality of vanes (28) is disposed within the pressure vessel (7). The pressure vessel (7) has an inlet (20), a first phase outlet (22) and a plurality of second phase outlets (24) disposed radially outwardly of the first phase outlet (22) with respect to a separator axis. A regulator is provided in the form of pressure-activated nozzles (48) to regulate flow through the second phase outlets (24). In use, a mixture of solids and liquid is fed into the pressure vessel (7) and the pressure vessel (7) is spun within the gas causing solids to accumulate in the vicinity of the second phase outlets (24). The pressure-activated nozzles (48) are repeatedly opened and closed to expel the accumulated solids.