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**(54) Title (EN):** METHOD FOR THE CONTINUOUS DESALINIZATION AND DEVICE FOR THE IMPLEMENTATION OF SAID METHOD

**(54) Title (FR):** PROCÉDÉ POUR LA DÉSALINISATION CONTINUE ET DISPOSITIF POUR LA MISE EN ŒUVRE DUDIT PROCÉDÉ

**(57) Abstract:**

**(EN):** This invention refers to a method and a device for desalinating sea water, brackish water or from industrial processes. The device is suitable to use renewable energy sources such as solar or geothermal energy. The device is of the type that includes a tank (1) for the containment of the water to desalinate, in which there are heating means fitted to cause the evaporation of said water to desalinate, cooling means fitted to favour the subsequent condensation of the steam and means fitted to the collection of the condensed water and it is characterized in that: said tank (1), fitted to contain said water to desalinate, is filled up to a certain level (2); said heating means, for evaporating said water include a first heat exchanger (3), immersed in the water to desalinate and positioned nearby said level (2); said cooling means (5a), fitted to cause the condensation of the steam, are in heat exchange connection with the heating means (5b), immersed in said water to desalinate, said heat exchange simultaneously causing: a) the reduction of the temperature of said means (5a), therefore the suitable conditions for the condensation of the steam; b) the increase in temperature, into the depths, of said water to desalinate.

**(FR):** La présente invention concerne un procédé et un dispositif de désalinisation d'eau de mer, d'eau saumâtre ou provenant de processus industriels. Le dispositif est approprié pour l'utilisation de sources d'énergie renouvelable, telles que l'énergie solaire ou géothermique. Le dispositif est du type comprenant un réservoir (1) pour le confinement de l'eau à dessaler, dans lequel se trouvent un moyen de chauffage conçu pour provoquer l'évaporation de ladite eau à dessaler, un moyen de refroidissement conçu pour favoriser la condensation ultérieure de la vapeur et un moyen conçu pour collecter l'eau condensée, et est caractérisé en ce que : ledit réservoir (1), conçu pour contenir ladite eau à dessaler, est rempli jusqu'à un certain niveau (2); ledit moyen de chauffage, conçu pour provoquer l'évaporation de ladite eau à dessaler, comprend un premier échangeur de chaleur (3) immergé dans l'eau à dessaler et positionné à proximité dudit niveau (2); ledit moyen de refroidissement (5a), conçu pour provoquer la condensation de la vapeur, est en liaison d'échange thermique avec le moyen de chauffage (5b) immergé dans ladite eau à dessaler, ledit échangeur de chaleur provoquant simultanément : a) la baisse de la température dudit moyen (5a), et par conséquent les conditions appropriées pour la condensation de la vapeur; b) l'augmentation de la température, dans les profondeurs, de ladite eau à dessaler.

**International search report:**

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### **Declarations:**

Declaration made as applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate

Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America