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Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

(54) Title: IMPROVEMENTS IN METHODS OF DISTILLATION

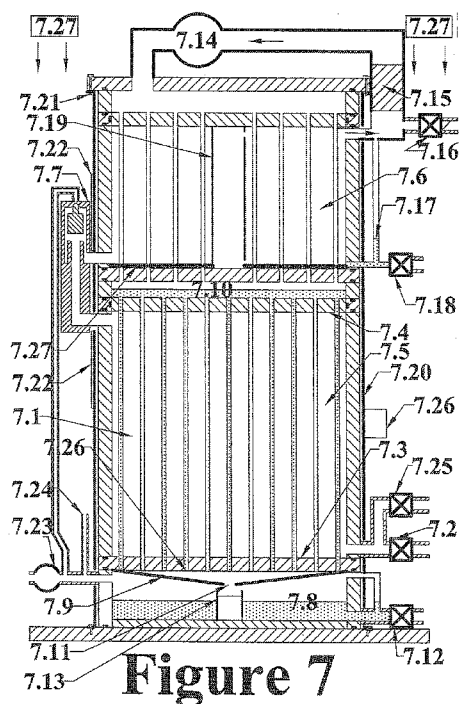


Figure 7

(57) Abstract: An improved method of distilling fluids wherein a fluid, optionally being water, where some or all of the fluid is recovered as distillate and where said fluid is situated in the shell side of a first shell and tube heat exchanger wherein the fluid in the shell of the heat exchanger to be recovered as distillate is successively boiled, demisted, compressed and then introduced into upper ends of said tubes and wherein a second shell and tube heat exchanger is located below the first heat exchanger and wherein distillate from upper ends of the tubes in the second heat exchanger are arranged to receive distillate liquid and/or vapor from the lower ends of tubes of the first heat exchanger and wherein said fluid is located in the shell of the second heat exchanger and wherein that fluid is heated but is not boiled and wherein means are provided to supply at least some of said heated fluid to the shell of the first heat exchanger.

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A. CLASSIFICATION OF SUBJECT MATTER

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According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHEDMinimum documentation searched (classification system followed by classification symbols)
C02F 1/04; B01D 1/00; B01D 3/00; B01D 3/10; C02F 1/08; F28D 7/00; F28D 7/10; F28F 9/013Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility modelsElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: fluid distillation, shell, tube, first heat exchanger, second heat exchanger, demister**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2015-002451 A1 (LG ELECTRONICS INC.) 08 January 2015 See paragraphs [0030]-[0034] and figure 1.	1-4
Y	US 2013-0220792 A1 (BJOERN UNGERER et al.) 29 August 2013 See paragraphs [0019]-[0020] and figure 1.	1-4
Y	KR 10-2005-0082500 A (SAMHWA MIXING TECH. CO., LTD.) 24 August 2005 See paragraphs [0040]-[0060] and figure 5.	2-4
A	US 2016-0220921 A1 (DEKA PRODUCTS LIMITED PARTNERSHIP) 04 August 2016 See paragraphs [0428]-[0431], claim 1 and figures 22-22E.	1-4
A	US 2010-0200388 A1 (DUDLEY EDGAR JAMES WARD) 12 August 2010 See claim 1 and figure 1.	1-4

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

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"&" document member of the same patent family

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