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[Continued on next page]

(54) Title: A DEVICE AND METHOD FOR THE PURIFICATION OF BIOLOGICALLY CONTAMINATED WATER

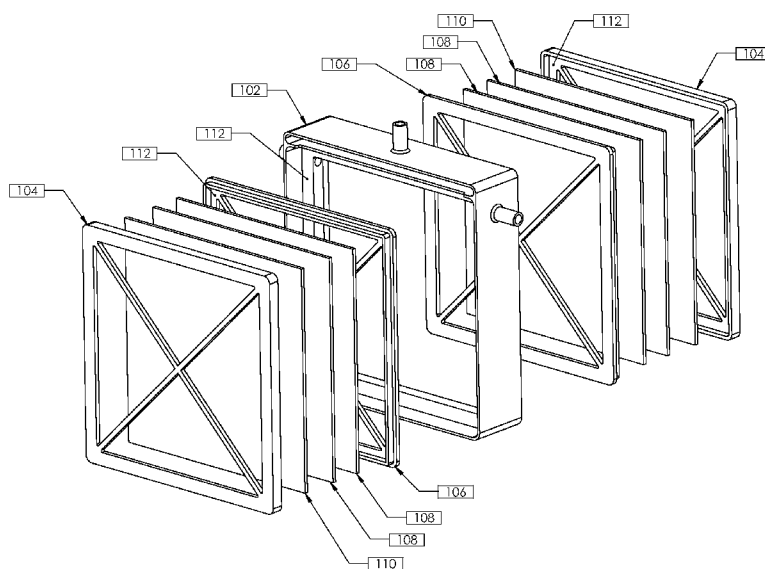


Figure 1

(57) Abstract: Disclosed herein are devices and methods for the purification of biologically contaminated water to make potable. In one embodiment, there is disclosed a low-pressure device comprising a housing having at least one inlet for receiving biologically contaminated water, and at least one outlet for removing purified water, wherein the housing contains a filter held in place by a seal sufficient to keep the biologically contaminated water separate from the purified water. Because of the novel permeability and purification properties of the disclosed carbon containing filter, the disclosed filter can remove virus, bacteria, cyst or any combination thereof, at water approaching velocity up to 5 cm/min. In various embodiments, the filter can have a flat planar design to be used in a flat pack application, or a more traditional tubular shape.



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A. CLASSIFICATION OF SUBJECT MATTER

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USPC - 210/266

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)

IPC(8) - B01L 3/02; B05B 1/30; C02F 1/00, 9/00; F03B 15/00; H01J 49/04; H01M 8/04 (2014.01)

USPC - 137/561A; 210/193, 266, 282, 665; 502/402

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
CPC - B01L 3/0268, 2400/027, 2400/086; B05B 5/0255; H01M 8/04201; Y02E 60/50 (2014.02)

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

PatBase, Google Patents, PubMed

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2006/115486 A1 (COOPER et al) 02 November 2006 (02.11.2006) entire document	1-26
Y	US 4,235,290 A (KALFOGLOU) 25 November 1980 (25.11.1980) entire document	1-26
A	YAKUB, ISMAIEL. "Micro- and Nano- Porous Adsorptive Materials for Removal of Contaminants from Water at Point-of-Use," Dissertation, Princeton University. June 2012. Retrieved from the Internet: <http://arks.princeton.edu/ark:/88435/dsp01vq27zn451> on 23 June 2014 (23.06.2014). entire document	1-26
A	WO 2012/031853 A1 (MAHAPATRA et al) 15 March 2012 (15.03.2012) entire document	1-26
A	US 2004/0177957 A1 (KALFAYAN et al) 16 September 2004 (16.09.2004) entire document	1-26



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* Special categories of cited documents:

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