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(71) Applicant: **SHARPER IMAGE CORPORATION**  
[US/US]; 650 Davis Street, San Francisco, CA 94111 (US).

(72) Inventor: **BOTVINNIK, Igor, Y.**; 21 Salvatore Drive, Novato, CA 94949 (US).

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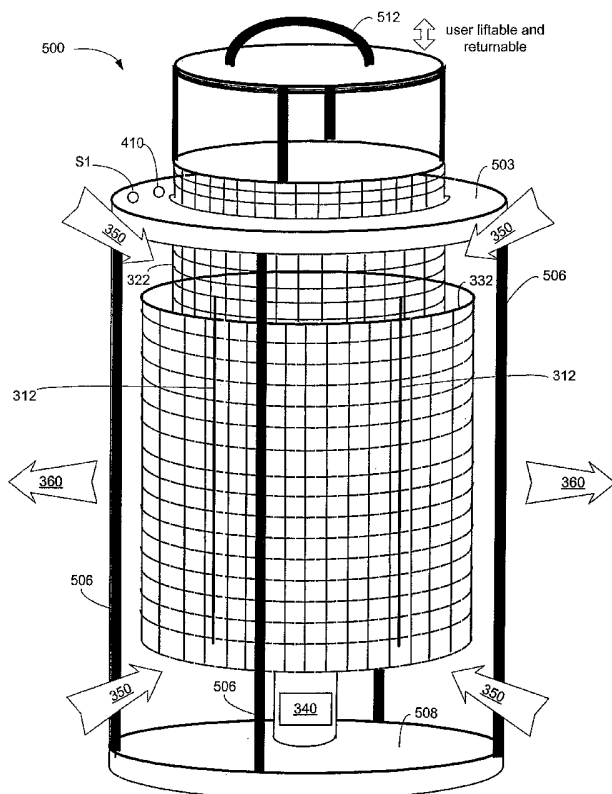
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(54) Title: ELECTRO-KINETIC AIR TRANSPORTER AND CONDITIONER DEVICES WITH A MESH COLLECTOR ELECTRODE



(57) Abstract: Embodiments of the present invention are related to electro-kinetic air transporter-conditioner systems and methods. An electro-kinetic air conditioner device includes an inner hollow cylindrical mesh electrode having a first radius and an outer hollow cylindrical mesh electrode having a second radius that is larger than the first radius. The second hollow cylindrical mesh electrode surrounds the first hollow cylindrical mesh electrode. At least one emitter electrode is located within and generally parallel to the first hollow cylindrical electrode. A voltage source provides a high voltage potential difference between each emitter electrode and the inner hollow cylindrical mesh electrode. The outer hollow mesh electrode is preferably grounded, as well as insulated.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/33885

<b>A. CLASSIFICATION OF SUBJECT MATTER</b> IPC(7) : B01J 19/08 US CL : 422/186.04, 121, 186.07 According to International Patent Classification (IPC) or to both national classification and IPC		
<b>B. FIELDS SEARCHED</b> Minimum documentation searched (classification system followed by classification symbols) U.S. : 422/186.04, 121, 186.07  Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) WEST		
<b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,024,685 A (TOROK et al.), 18 June 1991, see abstract; Figs. 1-3 and 9; col. 2 line 59 through col. 3, line 22; col. 5, lines 51-58; and paragraph crossing cols. 8 and 9.	1-4, 8-14, 18-28, 32 and 33
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Y	col. 4, lines 20-56; col. 7, line 42 through col. 8, line 27; col. 9, lines 50-65; and col. 8, lines 19-27.	5-7 and 15-17
Y	US 6,176,977 B1 (TAYLOR et al.) 23 January 2001, see Fig. 2B.	29-31
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
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