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(54) Title: HOLDING FRAME ASSEMBLY AND FLEXIBLE RETAINERS FOR SAME

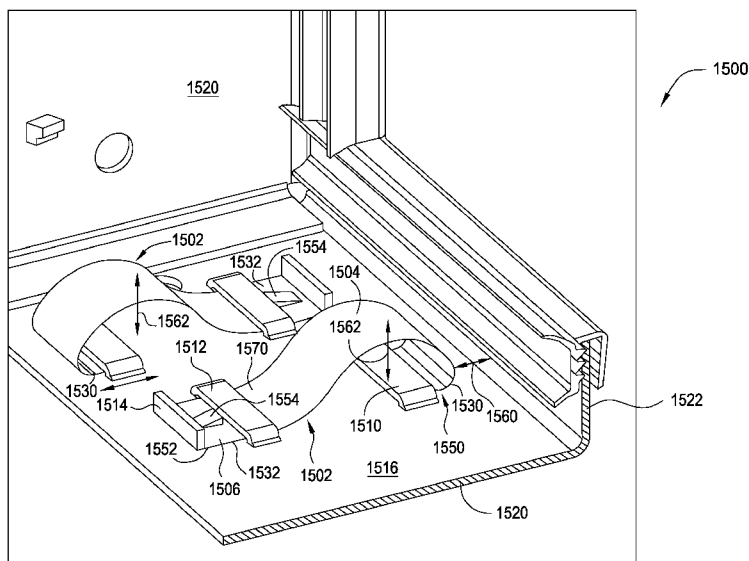


FIG. 15

(57) Abstract: A flexible filter retainer and a holding frame assembly having a flexible retainer are provided. In one embodiment, the flexible filter retainer for the holding frame comprises a flat body extending from a first end to a second end. The body comprises a bowed shaped retaining portion disposed at the first end and comprises a first strip and a top face. The body also comprises a fixed portion disposed at the second end and comprises a second strip. The first and second strips are linearly aligned and laterally offset from the top face. In another embodiment, a filter holding frame assembly comprises a holding frame and flexible filter retainers coupled to the holding frame. Each retainer comprises a flat body extending from a first end to a second end. The body comprises a retaining portion disposed at the first end and a fixed portion disposed at the second end.



INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 12/66245

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC(8) - B01D 39/00 (2012.01)  
 USPC - 55/492  
 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) - B01D 39/00 (2012.01)  
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
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 USPC - 55/483, 490, 492, DIG31

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 PubWEST (PGPB, USPT, EPAB, JPAB); PatBase; Google (Patents, Scholar, Web)  
 Search Terms: Filter, filtration, air, hepa, holder, frame, support, case, casing, mount, retainer, flange, bow, spring, curve, end, tip, back, inflect, under, fixed, set, affixed, coupled, secured, tab, protrusion, lock, slide, move, steel

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X =====	US 2005/0230068 A1 (GREEN et al.) 20 October 2005 (20.10.2005) Fig. 3-4; Para [0026]-[0027]	1-7, 11, 13 =====
Y		12
X =====	US 971,304 A (NEWPHER) 27 September 1910 (27.09.1910) Fig. 8-10; page 1, ln 95-107	1-3, 11, 13-14 =====
Y		16-20
X =====	US 2,880,797 A (ALVAREZ et al.) 07 April 1959 (07.04.1959) Fig. 3, 5-7, 9; col 2, ln 69 to col 3, ln 24	1, 4-10, 15 =====
Y		20
X =====	US 2,604,675 A (O'SEAMAN et al.) 29 July 1952 (29.07.1952) Fig. 1, 3; col 2, ln 12-29, col 2, ln 48 to col 3, ln 3	1 =====
Y		16-20
X	US 1,704,601 A (HALL et al.) 05 March 1929 (05.03.1929) Fig. 3; Page 1, ln 55-77	1
X	US 4,749,390 A (BURNETT et al.) 07 June 1988 (07.06.1988) Fig. 5; col 7, ln 25-47	1
Y	US 3,250,063 A (ANDREWS et al.) 10 May 1966 (10.05.1966) col 2, ln 11-31	12

Further documents are listed in the continuation of Box C.

* Special categories of cited documents:	
"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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"P" document published prior to the international filing date but later than the priority date claimed	

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