



(51) International Patent Classification:
F24C 15/20 (2006.01)

(21) International Application Number:
PCT/US2014/042381

(22) International Filing Date:
13 June 2014 (13.06.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/835,383 14 June 2013 (14.06.2013) US

(72) Inventor; and

(71) Applicant : SALPIETRA, Jordan [US/US]; 670 Southern Trace Parkway, Shreveport, LA 71106 (US).

(74) Agent: GOLDBERG, Brian, J. Esq.; Baker Botts, LLP, 2001 Ross Avenue, Suite 600, Dallas, TX 75201 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,

HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

— before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))

[Continued on next page]

(54) Title: FILTERS, MOUNTS AND METHODS OF MOUNTING FILTERS

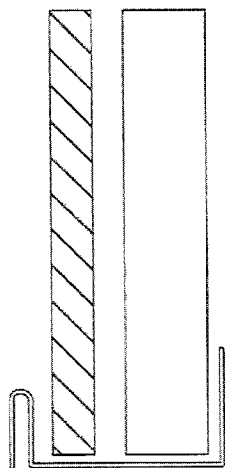


FIG. 9

(57) Abstract: A bracket to mount a filter in an exhaust hood includes clip portion, a restraint portion, and a support portion. The clip portion includes a first wall and a second wall that are substantially parallel to each other with a space formed therebetween. The support portion is disposed between the clip portion and the restraint portion, and the support portion includes a hole formed therein. The filter includes an external support frame embedded with a filter pad, the external support frame being configured to provide support to the filter pad to maintain the filter pad in a generally flat configuration. The filter pad includes fibers selected from the group consisting of: wool fibers, wood-based viscose fibers, and cellulose-based synthetic fibers, the fibers configured to absorb grease particulates.





(88) Date of publication of the international search report:

13 August 2015

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2014/042381

A. CLASSIFICATION OF SUBJECT MATTER
INV. F24C15/20
ADD.

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)
F24C

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)

EP0-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2001 234902 A (KOGANEI LTD) 31 August 2001 (2001-08-31) abstract; figures 1-9 -----	1
X	US 5 470 365 A (JANG SUN-SING [TW]) 28 November 1995 (1995-11-28)	1,2,4-6
Y	column 1, line 55 - column 3, line 11; figures 1-7 -----	3
X	EP 1 826 493 A2 (ILLINOIS TOOL WORKS [US]) 29 August 2007 (2007-08-29)	7-9
Y	paragraphs [0012] - [0026]; figures 1-6 -----	3
A	US 3 660 969 A (FOX NORMAN P) 9 May 1972 (1972-05-09) the whole document -----	1-9
	-/--	



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"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

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

18 September 2014

Date of mailing of the international search report

30/06/2015

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Makúch, Milan

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2014/042381

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3 865 193 A (HALL TRENTON O) 11 February 1975 (1975-02-11) the whole document -----	1-9
A	US 6 468 323 B1 (CHWALA KEVIN [US]) 22 October 2002 (2002-10-22) the whole document -----	1-9
A	US 5 512 073 A (MIRZA DARYL [US] ET AL) 30 April 1996 (1996-04-30) the whole document -----	1-9
A	US 2007/023349 A1 (KYLLOENEN PEKKA [FI] ET AL KYLLOENEN PEKKA [FI] ET AL) 1 February 2007 (2007-02-01) the whole document -----	1-9

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2014/042381

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-6(completely); 7-9(partially)

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-6(completely); 7-9(partially)

Bracket

2. claims: 10-12(completely); 7-9(partially)

Filter assembly

3. claims: 13-20(completely); 7-9(partially)

Filter support frame

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2014/042381

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 2001234902	A	31-08-2001	JP 3982971 B2	26-09-2007
			JP 2001234902 A	31-08-2001
US 5470365	A	28-11-1995	GB 2296669 A	10-07-1996
			US 5470365 A	28-11-1995
EP 1826493	A2	29-08-2007	EP 1826493 A2	29-08-2007
			US 2007204854 A1	06-09-2007
			US 2010319676 A1	23-12-2010
US 3660969	A	09-05-1972	NONE	
US 3865193	A	11-02-1975	AU 4828872 A	02-05-1974
			DE 2253934 A1	10-05-1973
			FR 2158493 A1	15-06-1973
			NL 7214844 A	07-05-1973
			US 3770061 A	06-11-1973
			US 3865193 A	11-02-1975
US 6468323	B1	22-10-2002	US 6468323 B1	22-10-2002
			US 2003005670 A1	09-01-2003
			WO 2004012844 A2	12-02-2004
US 5512073	A	30-04-1996	CA 2140459 A1	20-02-1996
			US 5512073 A	30-04-1996
			US 5567216 A	22-10-1996
US 2007023349	A1	01-02-2007	CA 2554731 A1	01-02-2007
			US 2007023349 A1	01-02-2007
			US 2010005765 A1	14-01-2010