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(12) **United States Design Patent**  
**de Cavalcanti et al.**

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(54) **REFRIGERATOR AIR FILTER ASSEMBLY**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **WHIRLPOOL CORPORATION**,  
Benton Harbor, MI (US)

CN 2162612 Y 4/1994  
CN 2401534 Y 10/2000

(Continued)

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(57) **CLAIM**

The ornamental design for a refrigerator air filter assembly, as shown and described.

(73) Assignee: **Whirlpool Corporation**, Benton Harbor, MI (US)

**DESCRIPTION**

(\* ) Notice: This patent is subject to a terminal disclaimer.

(\*\*) Term: **15 Years**

(21) Appl. No.: **29/565,439**

(22) Filed: **May 20, 2016**

(51) **LOC (11) Cl.** ..... **15-07**

(52) **U.S. Cl.**  
USPC ..... **D15/89**

(58) **Field of Classification Search**  
USPC ..... D15/79-91  
CPC .. F25D 11/00; F25D 17/065; F25D 2325/022;  
F25D 23/069; F25D 25/025; F25D 11/02;  
F25D 17/062; F25D 21/12; F25D 21/125;  
F25D 21/14; F25D 2317/061; F25D  
2317/067; F25D 2323/021; F25D  
(Continued)

FIG. 1 is a front perspective view of a refrigerator air filter assembly according to our design shown in an unclaimed refrigerator, back, right side, left side, top and bottom views of the design showing no claimed portion of the design when in place within the unclaimed refrigerator;  
FIG. 2 is a top-front perspective view of the refrigerator air filter assembly of FIG. 1 with portions of the unclaimed refrigerator removed;  
FIG. 3 is a front-right perspective view thereof;  
FIG. 4 is a front view thereof;  
FIG. 5 is a right cross-sectional reference view thereof taken along the line 5-5 in FIG. 4; and,  
FIG. 6 is a bottom cross-sectional reference view thereof taken along the line 6-6 in FIG. 4.

The broken line showing of various features of the air filter assembly and the unclaimed refrigerator is for the purpose of illustrating unclaimed portions of the refrigerator air filter assembly and forms no part of the claimed design. Dash-dot lines adjacent un-shaded areas represent bounds of the claimed design and form no part of the claimed design themselves.

Stipple-filled portions of the article indicate a contrasting appearance due to such portions being illuminated by incident light and does not indicate a stipple pattern in the lighting itself.

FIGS. 5 and 6 are sectional views for purposes of illustrating relationships between certain structures relative the front vertical plane of the assembly.

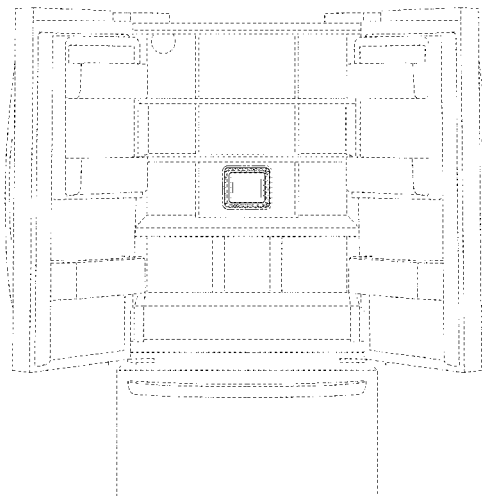
(56) **References Cited**

U.S. PATENT DOCUMENTS

D511,178 S \* 11/2005 Tunzi ..... D15/89  
D514,138 S \* 1/2006 Jackovin ..... D15/89

(Continued)

**1 Claim, 5 Drawing Sheets**



(58) **Field of Classification Search**

CPC .. 2323/024; F25D 23/028; F25D 23/04; F25D  
 23/066; F25D 23/085; F25D 23/087;  
 F25D 23/126; F25D 2400/02; F25D  
 2400/06; F25D 2400/361; F25D 2400/40;  
 F25D 25/005; F25D 25/02; F25D  
 2600/02; F25D 2700/02; F25D 2700/12;  
 F25D 2700/121; F25D 2700/14; F25D  
 29/00

See application file for complete search history.

D668,276 S \* 10/2012 Jungwirth ..... D15/89  
 D673,588 S \* 1/2013 Choi ..... D15/89  
 D710,402 S 8/2014 Jeon et al.  
 D737,344 S \* 8/2015 Lee ..... D15/89  
 D744,013 S \* 11/2015 Pfaff ..... D15/89  
 D751,126 S \* 3/2016 Pfaff ..... D15/89  
 D766,997 S \* 9/2016 Lee ..... D15/89  
 D767,651 S \* 9/2016 Heinzle ..... D15/89  
 D770,542 S \* 11/2016 Floeter Junior ..... D15/89  
 D784,429 S \* 4/2017 Kim ..... D15/89  
 D807,412 S \* 1/2018 Lee ..... D15/89

(56)

**References Cited**

U.S. PATENT DOCUMENTS

D616,001 S 5/2010 Yang et al.  
 8,002,367 B2 8/2011 Kim et al.  
 D654,515 S 2/2012 Hwang et al.  
 D657,402 S 4/2012 Hwang et al.

FOREIGN PATENT DOCUMENTS

CN 201754008 U 3/2011  
 CN 202470609 U 10/2012  
 JP 9079729 A 3/1997  
 KR 100821748 B1 4/2008  
 KR 1020090075054 A 7/2009

\* cited by examiner

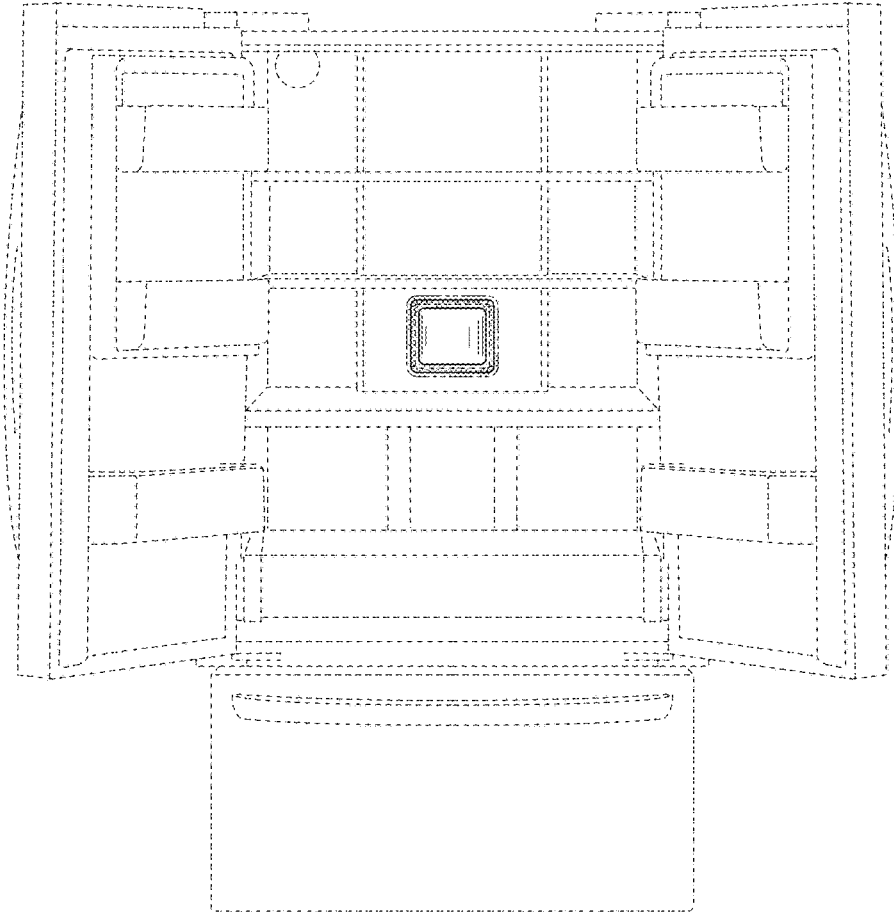


FIG. 1

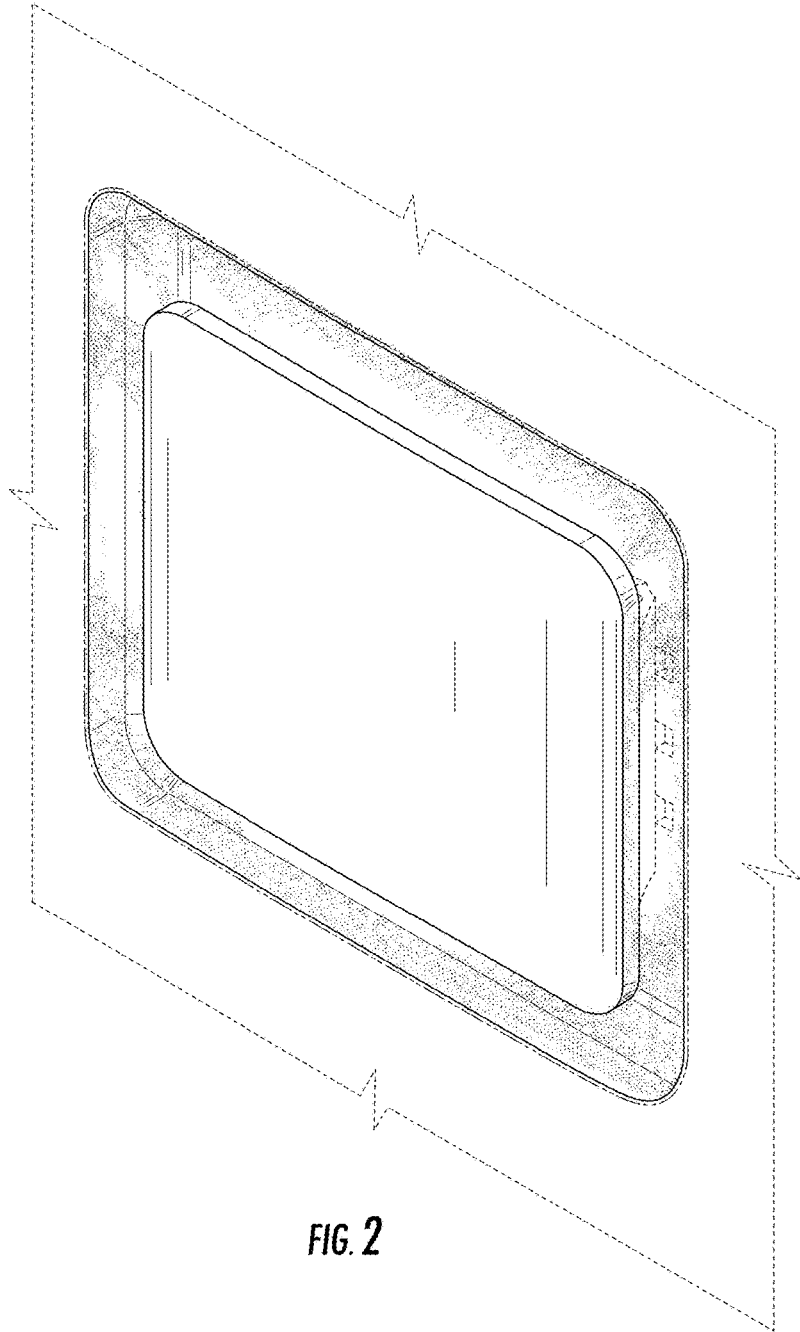


FIG. 2

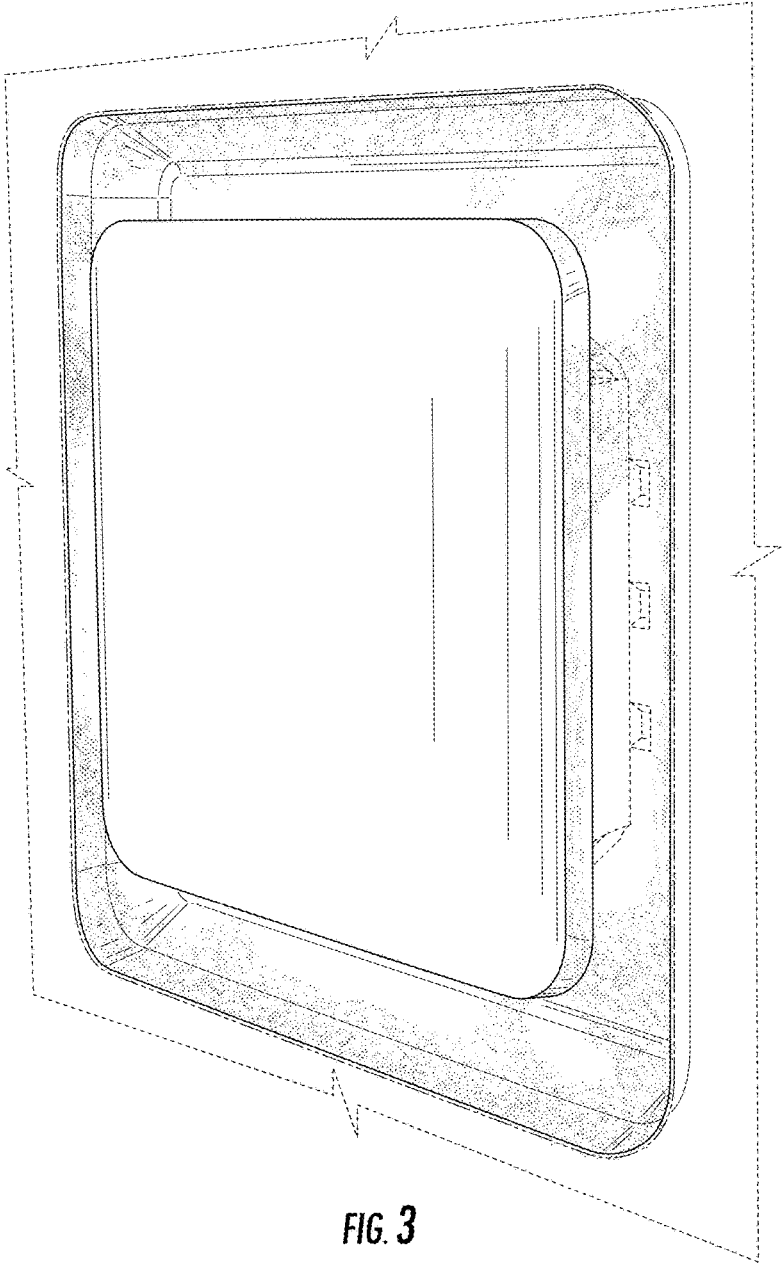


FIG. 3

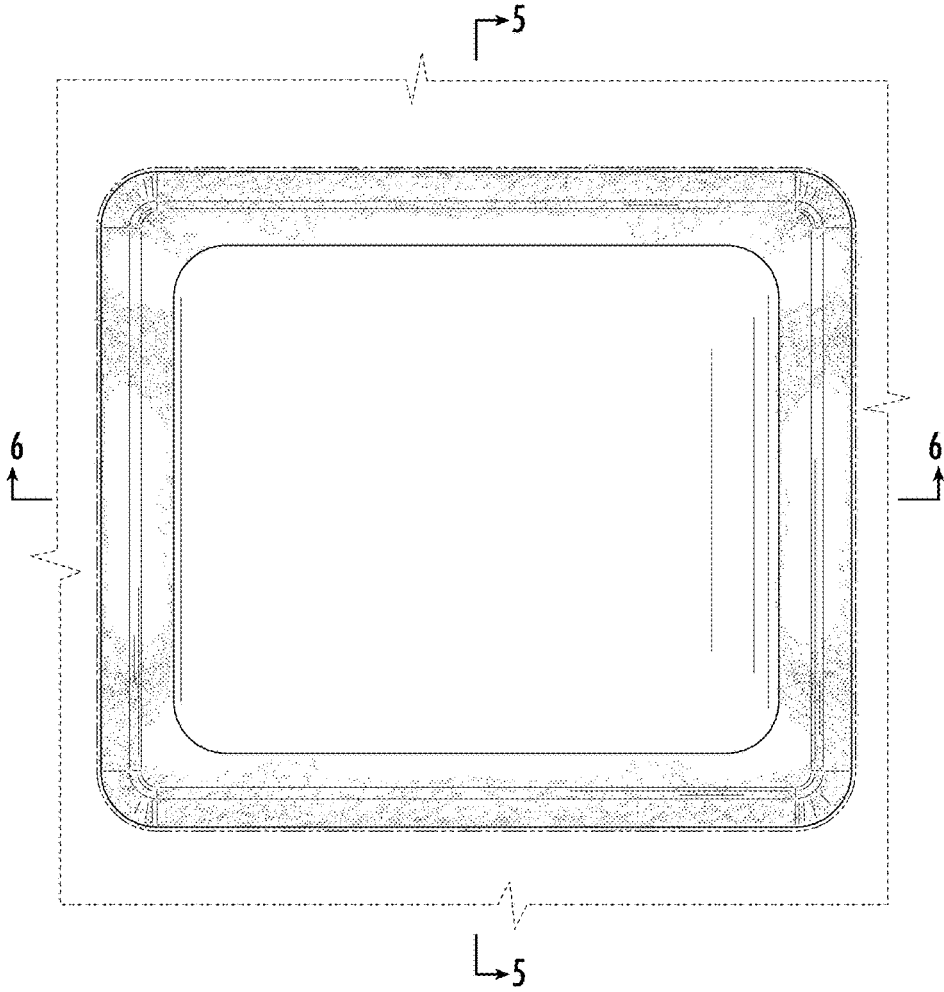


FIG. 4

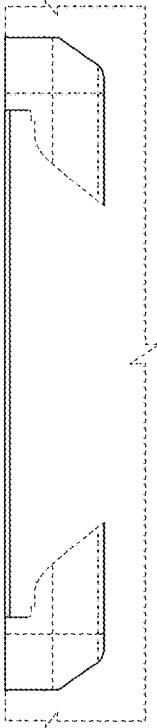


FIG. 5

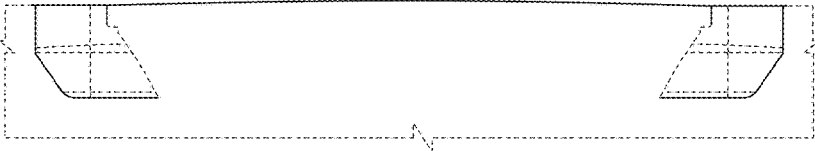


FIG. 6