# 

### (11) **EP 4 517 231 A3**

(12)

#### **EUROPEAN PATENT APPLICATION**

- (88) Date of publication A3: 30.04.2025 Bulletin 2025/18
- (43) Date of publication A2: **05.03.2025 Bulletin 2025/10**
- (21) Application number: 24218623.7
- (22) Date of filing: 19.07.2023

- (51) International Patent Classification (IPC): F25D 23/06 (2006.01) F25D 23/08 (2006.01)
- (52) Cooperative Patent Classification (CPC): F25D 23/065; F25D 23/085; F25D 2201/14

(84) Designated Contracting States:

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

- (30) Priority: 05.08.2022 US 202217881788
- (62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 23186488.5 / 4 316 768
- (71) Applicant: Whirlpool Corporation Benton Harbor, MI 49022 (US)
- (72) Inventor: RASKAR, Devidas
  BENTON HARBOR, 49022 (US)
- (74) Representative: PGA S.p.A., Milano, Succursale di Lugano
   Via Castagnola, 21c
   6900 Lugano (CH)

#### (54) VACUUM INSULATED STRUCTURE INCLUDING A TRIM BREAKER

(57) A vacuum insulated structure (10) for an appliance (14) includes a trim breaker (18) defining a first groove (22) and a second groove (26). A first panel (30) is disposed within the first groove (22) and coupled to the trim breaker (18). A second panel (34) is disposed within the second groove (26) and coupled to the trim breaker

(18). An adhesive (38) is disposed within the first and second grooves (22, 26) and coupled to the first and second panels (30, 34), respectively. According to the invention, the trim breaker (18) has a heat deflection temperature that exceeds 67°C.

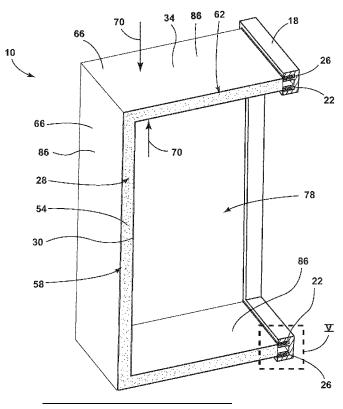


FIG. 4



#### **EUROPEAN SEARCH REPORT**

**Application Number** 

EP 24 21 8623

5	
_	

	DOCUMENTS CONSIDERED TO BE RELEVANT					
10	Category	Citation of document with i of relevant pass		appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
10	Y	US 2020/406527 A1 (AL) 31 December 202 * the whole document	20 (2020-12		1-15	INV. F25D23/06 F25D23/08
15	Y	US 2012/246873 A1 (AL) 4 October 2012 * the whole document	(2012-10-0		1-15	
20	A	EP 3 647 696 B1 (WE 16 June 2021 (2021- * the whole document	06-16)	[បន] )	1-15	
25						
30						TECHNICAL FIELDS SEARCHED (IPC)
35						F25D B29C B29K B29L
40						
45						
50		The present search report has	been drawn up fo	r all claims		
		Place of search	Date of	completion of the search		Examiner
04C01		The Hague	21	March 2025	Kol	ev, Ivelin
99 PO FORM 1503 03.82 (P04C01)	X : part Y : part doci A : tech O : non	CATEGORY OF CITED DOCUMENTS  X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure		& : member of the sa	shed on, or	
8	r . mte	rmediate document		document		

#### EP 4 517 231 A3

## ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

EP 24 21 8623

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

21-03-2025

10	Patent document cited in search report	Publication date	Patent family member(s)	Publication date
	US 2020406527 A1	31-12-2020	US 2018311884 US 2020406527	
15	770 0010046070 7.1	04 10 2012		
	US 2012246873 A1	04-10-2012	CN 103476866	
			EP 2694586	
			KR 20140024358	
			US 2012246873	
20			WO 2012135829	A1 04-10-2012
	EP 3647696 B1	16-06-2021	EP 3647696	
			US 2020132359	
			US 2021025646	
25			US 2022299255	A1 22-09-2022
30				
35				
40				
45				
50				
55	FORM P0459			

For more details about this annex : see Official Journal of the European Patent Office, No. 12/82