

(11) **EP 3 964 621 A3**

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3: 20.04.2022 Bulletin 2022/16

(43) Date of publication A2: 09.03.2022 Bulletin 2022/10

(21) Application number: 21192982.3

(22) Date of filing: 01.06.2015

(51) International Patent Classification (IPC):

D06F 23/04 (2006.01)

D06F 39/12 (2006.01)

D06F 39/00 (2006.01)

D06F 29/00 (2006.01)

**D06F 20/00 (2006.01

(52) Cooperative Patent Classification (CPC): D06F 23/04; D06F 39/083; D06F 39/088; D06F 39/12; D06F 29/00

(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 MK MT NL NO PL PT RO RS SE SI SK SM TR

(30) Priority: **30.05.2014** KR 20140065891 19.05.2015 KR 20150069662

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:

16189597.4 / 3 141 654 15170117.4 / 2 949 808 (71) Applicant: LG Electronics Inc. Yeongdeungpo-gu Seoul 150-721 (KR)

(72) Inventors:

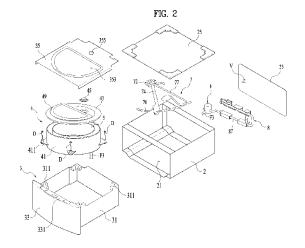
 LEE, Jihong Seoul (KR)

 KIM, Wooseong Seoul (KR)

(74) Representative: Vossius & Partner Patentanwälte Rechtsanwälte mbB Siebertstraße 3 81675 München (DE)

(54) LAUNDRY TREATMENT APPARATUS

The invention provides a laundry treatment apparatus comprising: a cabinet (2); a drawer (3) configured to be extracted from and retracted into the cabinet (2), and comprising a drawer body (31) having an open upper surface and drawer cover (35) provided on the open upper surface of the drawer body (31); a tub (4) provided in the drawer body (31) and configured to receive water; a water discharge pipe guider (8) provided between a rear panel (23) of the cabinet (2) and a rear surface (31) of the drawer (3), disposed at an upper portion of the rear panel (23) of the cabinet (2), and a cabinet side water supply guider (7) disposed on an upper portion of the rear panel (23) of the cabinet (2) so as to be adjacent to the water discharge pipe guider (8), and rotatably provided with respect to the rear panel (23) of the cabinet (2); and a water supply pipe (77) configured to connect a water supply source and a water supply opening (355) formed at the drawer cover (35) through the upper portion of the rear panel (23) of the cabinet (2), and to supply water from the water supply source to the tub (4), wherein the water discharge pipe guider (8) supports a portion of the water discharge pipe (87) and the cabinet side water supply guider (7) supports a portion of the water supply pipe (77).



EP 3 964 621 A3



EUROPEAN SEARCH REPORT

Application Number

EP 21 19 2982

10	
15	
20	
25	
30	
35	
40	
45	

2

EPO FORM 1503 03.82 (P04C01)

50

55

5

	DOCUMENTS CONSID	ERED TO BE RELEVANT				
Category	Citation of document with i of relevant pass	ndication, where appropriate, sages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)		
A,P	8 April 2015 (2015-	G ELECTRONICS INC [KR]) -04-08) - paragraph [0109];	1-30	INV. D06F23/04 D06F39/08 D06F39/12		
A	[KR]) 18 November 2	NG [KR]; KIM DONG WON	1-30	ADD. D06F29/00		
A	[KR]) 12 June 2008	HAE [KR]; JO SEONG JIN	1-30			
A	26 February 2014 (2	G ELECTRONICS INC [KR]) 2014-02-26) - paragraph [0151];	1-30			
x		 (KIM SUNGRYONG [KR] ET	1-22,24,			
A	AL) 3 November 2011 * paragraph [0052] figures 1-12 *	l (2011-11-03) - paragraph [0131];	26 23,25, 27–30	D06F		
A		(INDESIT CO SPA [IT]; [IT]; GASPARINI ALBERTO 2012 (2012-11-08)	1-30			
	The present search report has	been drawn up for all claims				
	Place of search	Date of completion of the search		Examiner		
	Munich	10 March 2022	Wei	nberg, Ekkehard		
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		E : earlier patent doc after the filing dat ther D : document cited in L : document cited fo	T: theory or principle underlying the invention E: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons			
O : non	l-written disclosure rmediate document		& : member of the same patent family, corresponding			

EP 3 964 621 A3

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

EP 21 19 2982

5

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.

10-03-2022

EP 2857569 A1 08-04-2015 CN 104420122 A 18-03-2015 EP 2857569 A1 08-04-2015 KR 20150025083 A 10-03-2015 US 2015059418 A1 05-03-2015 US 2015059418 A1 05-03-2015 US 2015059418 A1 05-03-2015 US 2010121859 A 19-11-2010 US 2011298338 A1 08-12-2011 US 2011298338 A1 08-12-2011 US 2011298338 A1 08-12-2011 US 2011298338 A1 12-06-2008 CA 2671219 A1 12-06-2008 EP 2118358 A2 18-11-2010 EP 3133500 A1 12-06-2008 EP 3133500 A1 01-03-2017 EP 3135800 A1 01-03-2017 US 2010307200 A1 09-12-2010 WO 2008069607 A2 12-06-2008 US 201030561 A1 27-02-2014 US 201030761 A1 27-02-2014 US 201030	10		Patent document cited in search report		Publication date		Patent family member(s)		Publication date	
The color of the			EP	2857569	A1	08-04-2015	CN	104420122	A	18-03-2015
No 2010131883 A2 18-11-2010 CN 102292494 A 21-12-2011 EP 2430227 A2 21-03-2012 RR 20100121859 A 19-11-2010 US 2011298338 A1 08-12-2011 US 2011298338 A1 08-12-2011 US 2011298338 A1 08-12-2011 A1 12-06-2008 A2 12-06-2008 A2 2007328625 A1 12-06-2008 EP 218358 A2 18-11-2010 EP 218358 A2 18-11-2010 EP 3133202 A1 22-02-2017 EP 3133202 A1 22-02-2017 EP 3135800 A1 01-03-2017 EP 3135801 A1 01-03-2017 EP 3135801 A1 01-03-2017 EP 3135801 A1 01-03-2017 ES 2603220 T3 24-02-2017 EP 2118358 T3 31-03-2017 ES 2603220 T3 24-02-2017 EP 2118358 T3 31-03-2017 ES 2010307200 A1 09-12-2010 WO 2008069607 A2 12-06-2008 EP 2700743 A2 26-02-2014 US 2010403061 A1 27-02-2014 US 2014053612 A1 27-02-2014 US 2014053612 A1 27-02-2014 US 2016369443 A1 22-12-2016 US 2019112743 A1 80-42-2019 WO 201136609 A2 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 80-42-2019 WO 2011136609 A2 03-11-2011 US 2016369443 A1 22-12-2016 WO 201136609 A2 03-11-2011 US 2015369443 A1 22-12-2016 WO 2011250539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012 EP 2049801 A1 02-12-2015 A1 02-12				200.005		00 01 2020				
15										
EP 2430227 A2 21-03-2012 KR 20100121859 A 19-11-2010 US 2011298338 A1 08-12-2011 WO 20100131883 A2 18-11-2010 WO 2010131883 A2 18-11-2010 WO 2010131883 A2 18-11-2010 ADD 2018338 A2 18-11-2011 ADD 2018338 A2 18-11-2012 ADD 2018338 A2 18-11-2010 ADD 2018338 A2 18-11-2011 ADD 2018338 A2 18-11-2010 ADD 2018338 A2 1	15									
EP 2430227 A2 21-03-2012 KR 20100121859 A 19-11-2010 US 2011298338 A1 08-12-2011 WO 20100131883 A2 18-11-2010 WO 2010131883 A2 18-11-2010 WO 2010131883 A2 18-11-2010 ADD 2018338 A2 18-11-2010 ADD 201838 A2 18-11-2010 ADD 201838 A2 18-11-2011 ADD 201838 A2 18-11-2011 ADD 201838 A2 18-11-2011 ADD 201838 A2 18-11-2011 ADD 201838 A2 18-11-2015 ADD 201838 A2 18-11-2015 ADD 201838 A2 18-11-2015 ADD 201838 A2 18-11-2011 ADD 201838 A2 ADD 201										
XR			WO	2010131883	A 2	18-11-2010				
20										
WO 2010131883 A2 18-11-2010										
WO 2008069607 A2 12-06-2008 AU 2007328625 A1 12-06-2008 CA 2671219 A1 12-06-2008 EP 2118358 A2 18-11-2009 EP 3133201 A1 22-02-2017 EP 3133202 A1 22-02-2017 EP 3135800 A1 01-03-2017 EP 3135801 A1 01-03-2017 EP 2118358 T3 31-03-2017 US 2010307200 A1 09-12-2010 WO 2008069607 A2 12-06-2008 EP 2700743 A2 26-02-2014 US 2014053612 A1 27-02-2014 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 20155524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 45 WO 2012150539 A2 08-11-2012 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012	20									
25								2010131883	A2 	18-11-2010
25			WO	2008069607	A 2	12-06-2008	AU	2007328625	A1	12-06-2008
25							CA	2671219	A1	12-06-2008
30 EP 3133202 A1 22-02-2017 EP 3133500 A1 01-03-2017 EP 3135800 A1 01-03-2017 EP 3135801 A1 01-03-2017 EP 2010307200 A1 09-12-2010 WO 2008069607 A2 12-06-2008 EP 2700743 A2 26-02-2014 CN 104321481 A 28-01-2015 EP 2700743 A2 26-02-2014 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2011136609 A2 03-11-2011 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012							EP	2118358	A2	18-11-2009
30 EP 3135800 A1 01-03-2017 EP 3135801 A1 01-03-2017 ES 2603220 T3 24-02-2017 PL 2118358 T3 31-03-2017 US 2010307200 A1 09-12-2010 WO 2008069607 A2 12-06-2008 EP 2700743 A2 26-02-2014 CN 104321481 A 28-01-2015 EP 2700743 A2 26-02-2014 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 201136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012	25						EP	3133201	A1	22-02-2017
30 EP 3135801 A1 01-03-2017 ES 2603220 T3 24-02-2017 PL 2118358 T3 31-03-2017 US 2010307200 A1 09-12-2010 WO 2008069607 A2 12-06-2008 EP 2700743 A2 26-02-2014 CN 104321481 A 28-01-2015 EP 2700743 A2 26-02-2014 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 45 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012							EP	3133202	A1	22-02-2017
30 ES 2603220 T3 24-02-2017 PL 2118358 T3 31-03-2017 US 2010307200 A1 09-12-2010 WO 2008069607 A2 12-06-2008 EP 2700743 A2 26-02-2014 CN 104321481 A 28-01-2015 EP 2700743 A2 26-02-2014 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012							EP	3135800	A1	01-03-2017
30							EP	3135801	A1	01-03-2017
US 2010307200 A1 09-12-2010 WO 2008069607 A2 12-06-2008 EP 2700743 A2 26-02-2014 CN 104321481 A 28-01-2015 EP 2700743 A2 26-02-2014 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012							ES	2603220	т3	24-02-2017
WO 2008069607 A2 12-06-2008 EP 2700743 A2 26-02-2014 CN 104321481 A 28-01-2015 EP 2700743 A2 26-02-2014 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012 WO 2012150539 A2 08-11-2012	30						${ t PL}$	2118358	т3	31-03-2017
EP 2700743 A2 26-02-2014 CN 104321481 A 28-01-2015 EP 2700743 A2 26-02-2014 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 WO 2014030961 A1 27-02-2014 EP 2702-2014 EP 2702-2014 EP 2702-2014 EP 2702-2014 EP 2702-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012							US	2010307200	A1	09-12-2010
BP 2700743 A2 26-02-2014 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012							WO	2008069607	A2	12-06-2008
35 US 2014053612 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012			EP	2700743	A2	26-02-2014	CN	104321481	A	28-01-2015
WO 2014033012 A1 27-02-2014 WO 2014030961 A1 27-02-2014 US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012							EP	2700743	A2	26-02-2014
US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012	35						US	2014053612	A1	27-02-2014
US 2011265524 A1 03-11-2011 CN 102844486 A 26-12-2012 DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012							WO	2014030961	A1	27-02-2014
DE 112011101522 T5 29-05-2013 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012				2011265524		02_11_2011				26_12_2012
40 US 2011265524 A1 03-11-2011 US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012			03	2011205524	A.	03-11-2011				
US 2016369443 A1 22-12-2016 US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012	40									
US 2019112743 A1 18-04-2019 WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012	40									
WO 2011136609 A2 03-11-2011 WO 2012150539 A2 08-11-2012 EP 2705187 A2 12-03-2014 EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012										
EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012										
EP 2949801 A1 02-12-2015 WO 2012150539 A2 08-11-2012										
WO 2012150539 A2 08-11-2012	45		WO	2012150539	A2	08-11-2012				
50										
								2012150539	A2 	08-11-2012
55 OOW MAD 55	50									
FORM P0459										
FORM P0459										
6 W 55 O		459								
55 $\left \stackrel{\leftarrow}{\mathbb{Q}}\right $		4 P.0.								
	55	O.B.								

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