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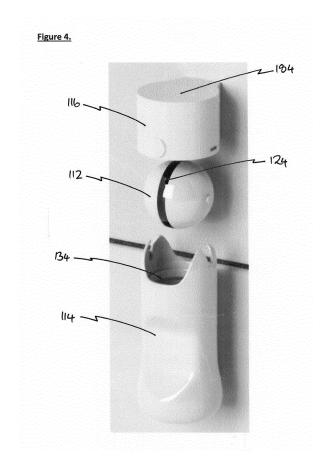
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(54) REFILLABLE ROLLERBALL

(57) A device for applying a liquid to a surface is disclosed. The roller ball device is primarily for applying liquid cleansing gel to toilet papers for use in personal cleaning. The device has a ball and a bottle which contains the liquid. A cage forms part of the bottle with a first opening to expose the ball to the liquid gel. There is also a second opening for exposing the ball to the surface onto which the liquid gel is to be applied. An edge of this second opening has a first pair of portions which are located on one side of a meridian of the ball and a second pair of portions of the edge are located on the other side of the meridian. The undulating edge makes it easy to remove the ball to replenish the bottle with cleansing liquid.



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Category	Citation of document with indication of relevant passages	n, where appropriate,	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y Y	US 2009/289055 A1 (BAAR) AL) 26 November 2009 (2004) - paragraph [0041] - paragraph [10041] - paragraph [1	009-11-26) ragraph [0047]; 13 * 		INV. A45D34/04 ADD. A47K10/32
	20 September 2012 (2012 * paragraph [0098] - parclaims 1-28; figures 1-	ragraph [0103]; 11 *		
				TECHNICAL FIELDS SEARCHED (IPC)
				A45D
				A45F A47K
	The present search report has been dr	awn up for all claims Date of completion of the search		Examiner
	The Hague	16 April 2024	Oli	veras, Mariana
X : part Y : part docu A : tech	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another ument of the same category inological background -written disclosure	T: theory or principle E: earlier patent doc after the filing date D: document cited in L: document cited fo	underlying the ument, but publi e the application r other reasons	invention shed on, or



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	CLAIMS INCURRING FEES							
	The present European patent application comprised at the time of filing claims for which payment was due.							
10	Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):							
15	No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.							
20	LACK OF UNITY OF INVENTION							
	The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:							
25								
	see sheet B							
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	All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.							
35	As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.							
40	Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:							
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	None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:							
50	1-5							
55	The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).							



LACK OF UNITY OF INVENTION SHEET B

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of de:

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely: 1. claims: 1-5 10 A roller device for applying a liquid to a surface characterised by a magnetic attachment between the cap and the ball 15 2. claims: 6-15 A roller device for applying a liquid to a surface characterised by the shape of the retainer cage of the ball allowing to refill the dispenser. 20 25 30 35 40 45 50 55

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

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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.

16-04-2024

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