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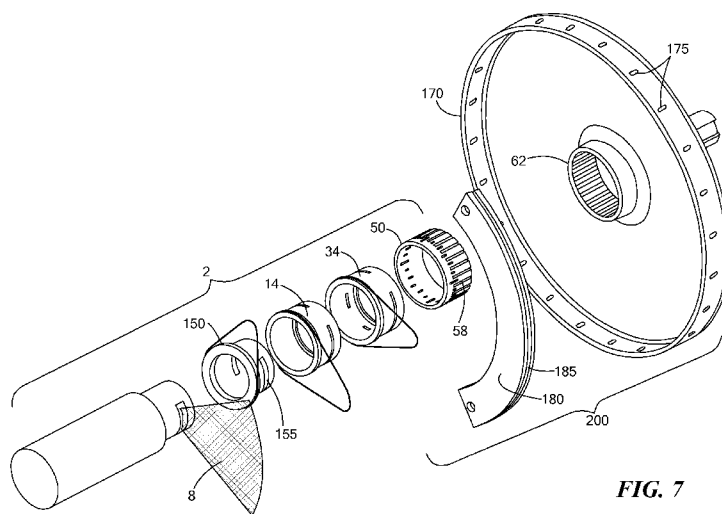




FIG. 7

(57) Abstract: Apparatus for interrupting and/or scanning a beam of penetrating radiation, such as for purposes of inspecting contents of a container. A source, such as an x-ray tube, generates a fan beam of radiation effectively emanating from a source axis, with the width of the fan beam collimated by a width collimator, such as a clamshell collimator. An angular collimator, stationary during the course of scanning, limits the extent of the scan, and a multi-aperture unit, such as a hoop, or a nested pair of hoops, is rotated about a central axis, and structured in such a manner that beam flux incident on a target is conserved for different fields of view of the beam on the target. The central axis of hoop rotation need not coincide with the source axis.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER		
<i>G01N 23/04(2006.01)i, G01V 5/00(2006.01)i</i>		
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) G01N 23/04; A61B 6/14; G01N 23/201; G01N 23/06; H05G 1/60; G01N 23/083; G21K 1/04; G21K 1/02; G01B 15/02		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean utility models and applications for utility models Japanese utility models and applications for utility models		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) eKOMPASS(KIPO internal) & Keywords: scanner, x-ray, beam, aperture		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X A	US 2006-0245547 A1 (JOSEPH CALLERAME et al.) 02 November 2006 See abstract; paragraphs [0010]-[0017]; figures 1-2.	1,3-9,16-18,20-24 2,10-15,19
A	US 2006-0233298 A1 (KENJI IGARASHI et al.) 19 October 2006 See abstract; paragraphs [0013]-[0192]; figures 1-34.	1-24
A	US 2003-0142783 A1 (ALF DAALAND et al.) 31 July 2003 See abstract; paragraphs [0004]-[0042]; figures 1-9.	1-24
A	US 2009-0213984 A1 (WARNER RODNEY H. et al.) 27 August 2009 See abstract; paragraphs [0012]-[0034]; figures 1-3.	1-24
A	US 2004-0120457 A1 (ANDREW KARELLAS et al.) 24 June 2004 See abstract; paragraphs [0005]-[0027]; figures 1-4.	1-24
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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 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 09 MAY 2012 (09.05.2012)		Date of mailing of the international search report 10 MAY 2012 (10.05.2012)
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