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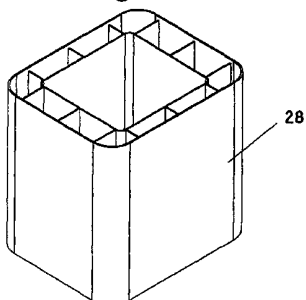
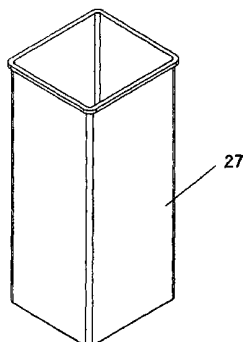
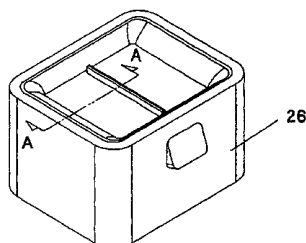
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(54) Title: PERIMETRIC DETECTION SYSTEM AND AUTOMATED CONTAINER



(57) Abstract: Systems and elements are disclosed for creating a continuous, collimated detection zone for an automatically-actuated device or container, such as an automatic waste container, wherein the detection zone can be made to match the opening periphery of the container, is height adjustable, immune from ambient light fluctuations and relatively simple and inexpensive to produce.

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/17124

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G01V8/12 G01V8/20

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)

IPC 7 G01V

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 414 256 A (GURNER ASAF ET AL) 9 May 1995 (1995-05-09) column 3, line 56 - line 61 column 5, line 60 - column 6, line 48 column 8, line 3 - column 10, line 3 column 22, line 31 - line 50 figures 2A,14	1
Y		13,17
A		3,4,6
X	DE 298 23 796 U (RAID M HAND) 24 February 2000 (2000-02-24) page 2, line 21 - line 31 page 3, line 12 - line 14 page 4, line 5 - line 10 page 5, line 10 - line 18 figure 1	12,16,19
Y		13,17
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☒ Further documents are listed in the continuation of box C.

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Date of the actual completion of the international search

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 932 982 A (PEZZELLI JR EDWARD) 3 August 1999 (1999-08-03) column 2, line 11 - line 15 column 2, line 40 - line 48 column 3, line 31 -column 4, line 24 claims 1,11; figures 1,2 ---	12,16
A	US 5 424 533 A (SCHMUTZ LAWRENCE E) 13 June 1995 (1995-06-13) column 5, line 5 - line 19 ---	2,6,7
A	US 4 996 467 A (DAY JONG-YIH) 26 February 1991 (1991-02-26) column 2, line 9 - line 49 -----	12,15,16

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/17124

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5414256	A	09-05-1995	IL 101016 A	14-05-1996
			US 5442168 A	15-08-1995
			US 5459312 A	17-10-1995
			US 5475214 A	12-12-1995
			BR 9300618 A	24-08-1993
			CA 2089932 A1	20-08-1993
			EP 0557111 A1	25-08-1993
			JP 2796028 B2	10-09-1998
			JP 6054935 A	01-03-1994
			US 5369270 A	29-11-1994
DE 29823796	U	24-02-2000	DE 29823796 U1	24-02-2000
US 5932982	A	03-08-1999	NONE	
US 5424533	A	13-06-1995	CA 2192927 A1	28-12-1995
			DE 69508758 D1	06-05-1999
			DE 69508758 T2	29-07-1999
			EP 0766887 A1	09-04-1997
			JP 10504688 T	06-05-1998
			WO 9535598 A1	28-12-1995
US 4996467	A	26-02-1991	NONE	