(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 407 974 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
14.04.2004 Bulletin 2004/16

(51) Int Cl.[7]: **B65D 33/14**, B65F 1/00, B65D 30/20

(21) Application number: **02256924.8**

(22) Date of filing: **07.10.2002**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GR IE IT LI LU MC NL PT SE SK TR
Designated Extension States:
AL LT LV MK RO SI

(71) Applicants:
- **Mercury Packaging Limited**
  Kirkby in Ashfield,
  Nottinghamshire NG17 7DG (GB)
- **Gilbert, Paul Richard**
  Knowle, Solihull B93 9PS (GB)

(72) Inventor: **Gilbert, Paul Richard**
Knowle, Solihull B93 9PS (GB)

(74) Representative: **Dealtry, Brian**
Eric Potter Clarkson,
Park View House,
58 The Ropewalk
Nottingham NG1 5DD (GB)

(54) Garbage bag

(57) A bag for use in the disposal of waste, the bag having a front wall (Fw) and a rear wall (Rw) joined together to define a first closed side (12), a second opposed closed side (14) and a closed bottom side (16), the bag having an open top (18) side opposed to said bottom side, and suspension means (30) located on the bag adjacent to said first closed side and said open top side such that the bag when suspended from said suspension means assumes an inclined attitude wherein said second closed side forms, in part, the bottom of the suspended bag.

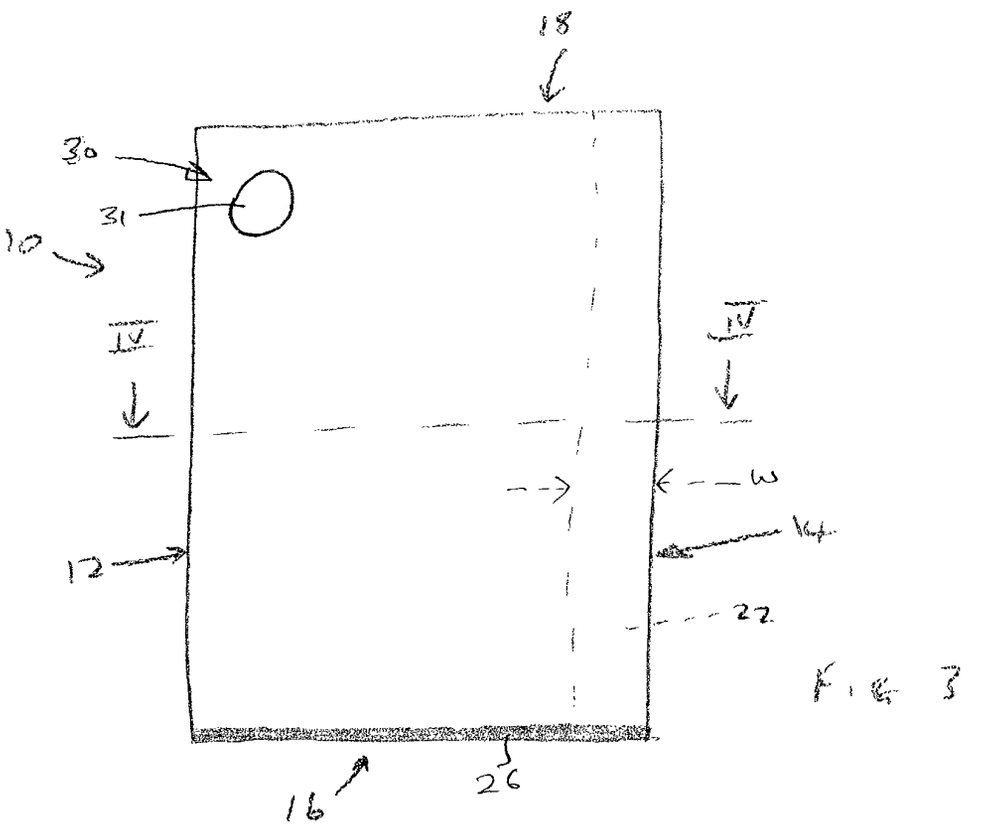

Fig. 3

EP 1 407 974 A1

Description

[0001] The present invention relates to a bag, in particular but not exclusively, a bag adapted to be suspended from a seat back.

[0002] Rows of seats are commonly provided in a wide variety of environments for seating personnel. For example, rows of seats are provided in vehicles such as aircraft and buses; rows of seats are provided at sports stadium, theatres etc.

[0003] In such environments, a person may be seated for long periods of time and during that time may consume food and drinks. The packaging in which the food and drink is supplied will normally be discarded and thrown upon the floor on which the seats are mounted.

[0004] A general aim of the present invention is to provide a bag which may be suspended from a seat back and which can be used as a disposal container into which unwanted packaging or other forms of litter may be stored for subsequent disposal.

[0005] Such a bag is highly advantageous, particularly for use in aircraft, as it enables unwanted waste to be conveniently stored out of the way by a person seated in a seat and also enables the waste to be conveniently collected from all the seats for disposal.

[0006] Use of such bags also reduces the amount of waste deposited on the floor and so reduces the amount of cleaning required.

[0007] According to one aspect of the present invention there is provided a bag for use in the disposal of waste, the bag having a front wall and a rear wall joined together to define a first closed side, a second opposed closed side and a closed bottom side, the bag having an open top side opposed to said bottom side, and suspension means located on the bag adjacent to said first closed side and said open top side such that the bag when suspended from said suspension means assumes an inclined attitude wherein said second closed side forms, in part, the bottom of the suspended bag.

[0008] Preferably the second closed side in formed by a series of pleats. Preferably the first closed side is formed by a single fold.

[0009] Preferably the suspension means comprise an aperture passing through both the front and rear walls.

[0010] According to another aspect of the invention there is provided, in combination a seat having a seat back and a bag as defined above suspended from said seat back.

[0011] Various aspects of the present invention also hereinafter described with reference to the accompanying drawings, in which:-

Figure 1 is a schematic side view of a seat from which a bag, according to an embodiment of the invention, is suspended.

Figure 2 is a front view of the bag and seat shown in Figure 1.

Figure 3 is an enlarged front view of the bag shown in Figure 1.

Figure 4 is a section along line IV - IV in Figure 3.

[0012] Referring initially to Figures 3 and 4 there is shown a bag (10) having a front wall Fw and a rear wall Rw defined by closed sides (12, 14), a closed bottom side, (16) and an open top (18).

[0013] Preferably as shown in Figure 4, side (12) is defined by a single fold (20) whereas side (14) is defined by a series of pleats (22).

[0014] Preferably the single fold (20) and pleats (22) are formed by suitable folding of a web of material. Preferably the material used for forming the bag (10) is a plastics film; the plastics material preferably being polyethylene or polypropylene.

[0015] Using a plastics material to form bag (10) enables the closed bottom (16) to be conveniently formed by a welded seam (26). The welded seam (26) is conveniently formed by a conventional cut and seal process when severing individual bags (10) from a folded web of material.

[0016] Preferably the thickness of film chosen and/or the number or pleats chosen such to enable welding of all the plies of material to be made whilst forming the welded seam (26).

[0017] The bag (10) is provided with suspension means (30), preferably in the form of an aperture (31) which passes through both the front wall and rear wall (Rw).

[0018] The suspension means (30) is positioned on the bag (10) adjacent to side (12) and open top (18).

[0019] This enables the bag (10) to assume an inclined attitude when suspended by the suspension means (30) as indicated in Figure 2.

[0020] In its inclined attitude, the "bottom" of the bag (10) is, in effect defined by the bottom (16) and side (14).

[0021] Unimpeded access into the bag (10) is provided due to the suspension means (30) being located adjacent to side (12).

[0022] In addition, due to the presence of pleats (22), the bag (10) in the region of side (14) may be expanded to conveniently accommodate the deposit of waste into the bag (10).

[0023] Preferably the number of pleats (22) and/or the width (W) of the pleats (22) is chosen to provide the desired amount of expansion of the bag (10). Preferably the number of layers of film defined by the pleats is four.

[0024] As indicated in Figures 1 and 2, seat (50) has a seat back (51) having a rearwardly projecting catch (52). Typically in aircraft, seat (50) would be provided with tables (not shown) and catch (52) may be defined by the conventional catch use for retaining the tray in its stowed position.

[0025] It is envisaged that side (12) may also be defined by a series of pleats (22) in a similar manner to side (14).

[0026] It is envisaged that forms of suspension means (30) other than aperture (31) may be provided. For example a hook member may be attached to the bag to enable the bag to be suspended in an inclined attitude.

Claims

1. A bag for use in the disposal of waste, the bag having a front wall and a rear wall joined together to define a first closed side, a second opposed closed side and a closed bottom side, the bag having an open top side opposed to said bottom side, and suspension means located on the bag adjacent to said first closed side and said open top side such that the bag when suspended from said suspension means assumes an inclined attitude wherein said second closed side forms, in part, the bottom of the suspended bag.

2. A bag according to Claim 1 wherein said second closed side is formed by a series of pleats.

3. A bag according to Claim 1 or 2 wherein said first closed side is formed by a single fold.

4. A bag according to Claim 1, 2 or 3 wherein said bag is formed from a plastics film and said bottom side is formed by a welded seam.

5. A bag according to any preceding claim wherein said suspension means comprise an aperture passing through both the front and rear walls.

6. A bag substantially as herein described with reference to and as illustrated in the accompanying drawings.

7. In combination, a seat having a seat back and a bag, as defined in any one of the preceding claims, suspended from said seat back.

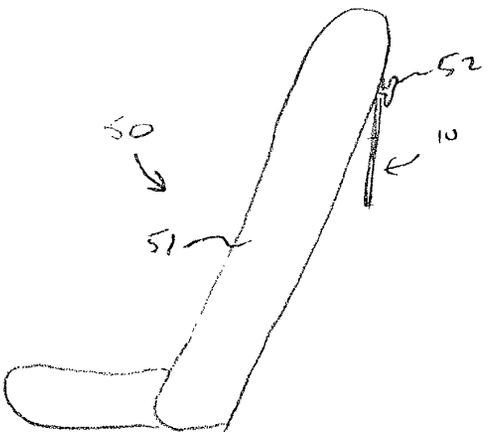

Fig 1

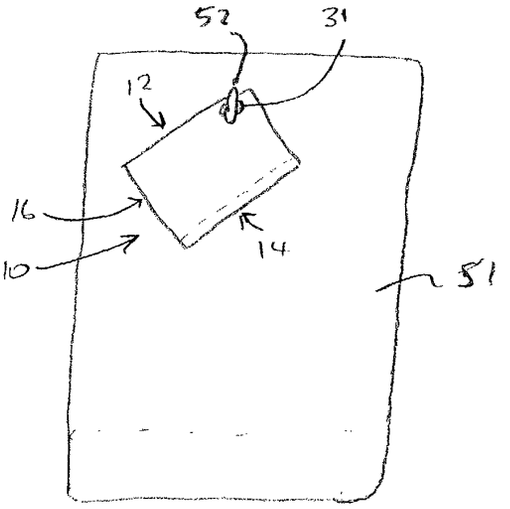

Fig 2

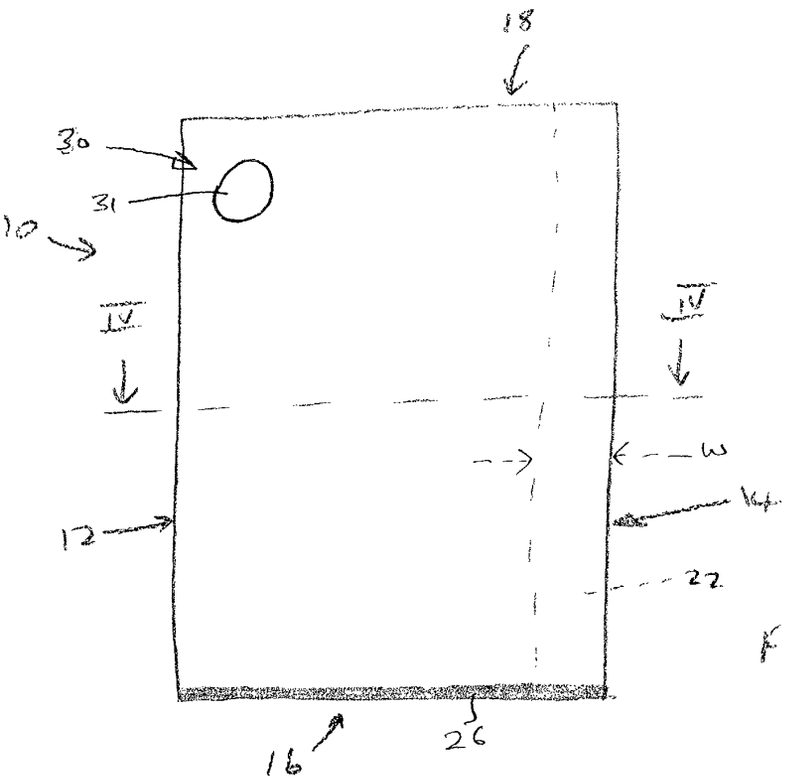

Fig 3

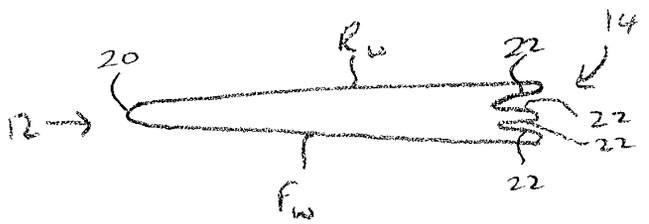

Fig 4

European Patent Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 25 6924

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
X	GB 2 171 077 A (ORIGINAL FUEL CO LTD) 20 August 1986 (1986-08-20) * page 1, line 52-57 *	1-6	B65D33/14 B65F1/00 B65D30/20
X	GB 797 745 A (GLOEYER WOLFGANG) 9 July 1958 (1958-07-09) * page 1, line 75-90; figures *	1,3-6	
A	US 5 503 477 A (SCHLOUGH DEBRA) 2 April 1996 (1996-04-02) * column 4, line 26-33; figures 1,6 *	1-4	
X Y	DE 17 56 692 A (HAASE ARNOLD) 30 April 1970 (1970-04-30) * the whole document *	1,2 7	
Y	US 4 335 769 A (MCMANUS GERALD P M) 22 June 1982 (1982-06-22) * abstract; figures *	7	
E	GB 2 377 423 A (MERCURY PACKAGING LTD ;GILBERT PAUL RICHARD (GB)) 15 January 2003 (2003-01-15) * the whole document *	1-7	TECHNICAL FIELDS SEARCHED (Int.Cl.7) B65D B65F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
MUNICH	22 September 2003	Balz, O

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
P : intermediate document

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

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 02 25 6924

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.

22-09-2003

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 2171077 A	20-08-1986	NONE	
GB 797745 A	09-07-1958	NONE	
US 5503477 A	02-04-1996	NONE	
DE 1756692 A	30-04-1970	DE 1756692 A1	30-04-1970
US 4335769 A	22-06-1982	GB 2074984 A	11-11-1981
		EP 0039581 A1	11-11-1981
		JP 57008660 A	16-01-1982
		NO 811508 A	09-11-1981
GB 2377423 A	15-01-2003	NONE	

EPO FORM P0459

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