



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**26.05.2004 Bulletin 2004/22**

(51) Int Cl.7: **B65D 33/25, B29D 5/10**

(43) Date of publication A2:  
**27.08.2003 Bulletin 2003/35**

(21) Application number: **03250629.7**

(22) Date of filing: **27.01.2003**

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

(72) Inventors:  
 • **Fenzl, Eric J.**  
**Loganville, Georgia 30052 (US)**  
 • **Linton, Basil C.**  
**Loganville, Georgia 30052 (US)**

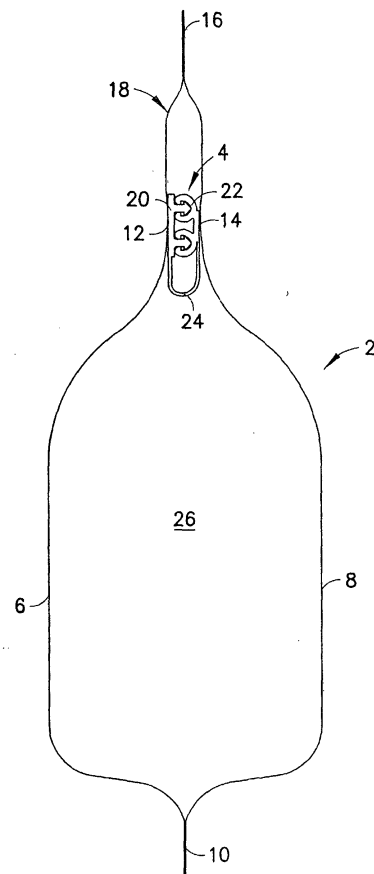
(30) Priority: **04.02.2002 US 66974**  
**05.03.2002 US 90972**

(74) Representative: **Rackham, Stephen Neil**  
**GILL JENNINGS & EVERY,**  
**Broadgate House,**  
**7 Eldon Street**  
**London EC2M 7LH (GB)**

(71) Applicant: **ILLINOIS TOOL WORKS INC.**  
**Glenview, Illinois 60025 (US)**

(54) **Reclosable packaging**

(57) A reclosable package or bag (2) having a mouth with a hermetic plastic zipper (4) installed therein. The hermetic zipper (4) has first (12) and second (14) interlockable profiled structures connected by a frangible connection (24) and having no flanges. The package or bag (2) is constructed such that the frangible connection (24) resides on the product side of the zipper (4), i.e., the frangible connection (24) extends inside the receptacle of the package or bag (2), when the package is in an unopened state, i.e., when the zipper (4) is closed. Preferably, the first interlockable profiled structure (12) has at least one male member (20) with an expanded head and the second interlockable profiled structure has at least one female member (22) with a groove for receiving the expanded head of a male member (20).



**FIG.1**



European Patent  
Office

# EUROPEAN SEARCH REPORT

Application Number  
EP 03 25 0629

| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EP 0 443 867 A (MAYER OSKAR FOODS)<br>28 August 1991 (1991-08-28)                     | 1-4,<br>15-20                                            | B65D33/25<br>B29D5/10                        |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | * column 1, line 3 - column 2, line 43 *                                              | 21                                                       |                                              |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | * column 4, line 22 - column 6, line 45;<br>figures 2-6 *                             | 6-14                                                     |                                              |
| ---                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |                                                          |                                              |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | EP 0 302 144 A (MINIGRIP EUROPE GMBH)<br>8 February 1989 (1989-02-08)                 | 1-4,<br>15-20                                            |                                              |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | * column 2, line 4 - column 3, line 40 *<br>* column 5, line 16 - line 33; figure 6 * | 8,13                                                     |                                              |
| ---                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |                                                          |                                              |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | US 5 725 312 A (MAY TIMOTHY J)<br>10 March 1998 (1998-03-10)                          | 1-3,5,<br>15-17                                          |                                              |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | * column 17, line 25 - line 35 *                                                      | 21                                                       |                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | * column 22, line 15 - line 67; figures<br>19-21 *                                    |                                                          |                                              |
| ---                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |                                                          |                                              |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | US 5 092 684 A (WEEKS RONALD J)<br>3 March 1992 (1992-03-03)                          | 6-14                                                     |                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | * column 2, line 35 - line 67 *<br>* column 5, line 50 - line 66; figures<br>1,3-7 *  |                                                          |                                              |
| ---                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |                                                          |                                              |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | US 3 462 332 A (GOTO KANEHIKO)<br>19 August 1969 (1969-08-19)                         | 6,7,<br>9-12,14                                          | B65D<br>B29D<br>A44B                         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | * column 1, line 15 - column 2, line 12;<br>claims 1-4; figure 2 *                    |                                                          |                                              |
| ---                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |                                                          |                                              |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | US 4 540 537 A (KAMP EWALD A)<br>10 September 1985 (1985-09-10)                       |                                                          |                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | * column 5, line 5 - line 8; figure 10A *                                             |                                                          |                                              |
| -----                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |                                                          |                                              |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                       |                                                          |                                              |
| Place of search<br><b>THE HAGUE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       | Date of completion of the search<br><b>23 March 2004</b> | Examiner<br><b>Mans-Kamerbeek, M</b>         |
| <p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone<br/>Y : particularly relevant if combined with another document of the same category<br/>A : technological background<br/>O : non-written disclosure<br/>P : intermediate document</p> <p>T : theory or principle underlying the invention<br/>E : earlier patent document, but published on, or after the filing date<br/>D : document cited in the application<br/>L : document cited for other reasons<br/>&amp; : member of the same patent family, corresponding document</p> |                                                                                       |                                                          |                                              |

EPO FORM 1503 03.82 (P04C01)



European Patent  
Office

Application Number

EP 03 25 0629

### CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

### 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:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ 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:
- ☐ 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:



European Patent  
Office

**LACK OF UNITY OF INVENTION**  
**SHEET B**

Application Number  
EP 03 25 0629

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, 15-21

A package, comprising a receptacle and a plastic zipper with a frangible connection and a zipper for such package

2. Claims: 6-14

Method of manufacturing a plastic zipper, comprising the steps of extruding and joining of profiles and a layer of material

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

EP 03 25 0629

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.

23-03-2004

| Patent document<br>cited in search report |   | Publication<br>date |    | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---|---------------------|----|----------------------------|---------------------|
| EP 0443867                                | A | 28-08-1991          | CA | 2035195 A1                 | 23-08-1991          |
|                                           |   |                     | EP | 0443867 A1                 | 28-08-1991          |
|                                           |   |                     | JP | 4215954 A                  | 06-08-1992          |
| -----                                     |   |                     |    |                            |                     |
| EP 0302144                                | A | 08-02-1989          | US | 4925316 A                  | 15-05-1990          |
|                                           |   |                     | AT | 73085 T                    | 15-03-1992          |
|                                           |   |                     | DE | 3777176 D1                 | 09-04-1992          |
|                                           |   |                     | DE | 3789974 D1                 | 07-07-1994          |
|                                           |   |                     | DE | 3789974 T2                 | 03-11-1994          |
|                                           |   |                     | DK | 71193 A                    | 15-06-1993          |
|                                           |   |                     | DK | 688687 A                   | 07-02-1989          |
|                                           |   |                     | EP | 0302144 A2                 | 08-02-1989          |
|                                           |   |                     | EP | 0456277 A2                 | 13-11-1991          |
|                                           |   |                     | ES | 2029824 T3                 | 01-10-1992          |
|                                           |   |                     | ES | 2056527 T3                 | 01-10-1994          |
|                                           |   |                     | FI | 875682 A ,B,               | 07-02-1989          |
|                                           |   |                     | NO | 875398 A ,B,               | 07-02-1989          |
| -----                                     |   |                     |    |                            |                     |
| US 5725312                                | A | 10-03-1998          | US | 5470156 A                  | 28-11-1995          |
|                                           |   |                     | US | 5509735 A                  | 23-04-1996          |
|                                           |   |                     | US | 5489252 A                  | 06-02-1996          |
|                                           |   |                     | US | 5551127 A                  | 03-09-1996          |
|                                           |   |                     | US | 5647671 A                  | 15-07-1997          |
|                                           |   |                     | US | 5486051 A                  | 23-01-1996          |
|                                           |   |                     | US | 5513915 A                  | 07-05-1996          |
|                                           |   |                     | US | 5887980 A                  | 30-03-1999          |
|                                           |   |                     | US | 5893645 A                  | 13-04-1999          |
|                                           |   |                     | US | 5904425 A                  | 18-05-1999          |
| -----                                     |   |                     |    |                            |                     |
| US 5092684                                | A | 03-03-1992          | CA | 2061481 A1                 | 05-09-1992          |
| -----                                     |   |                     |    |                            |                     |
| US 3462332                                | A | 19-08-1969          | FR | 1470740 A                  | 24-02-1967          |
|                                           |   |                     | DE | 1629447 A1                 | 04-02-1971          |
|                                           |   |                     | GB | 1102970 A                  | 14-02-1968          |
| -----                                     |   |                     |    |                            |                     |
| US 4540537                                | A | 10-09-1985          | AU | 540476 B2                  | 22-11-1984          |
|                                           |   |                     | AU | 5693980 A                  | 02-10-1980          |
|                                           |   |                     | BE | 882517 A1                  | 29-09-1980          |
|                                           |   |                     | CA | 1140716 A1                 | 08-02-1983          |
|                                           |   |                     | CH | 636047 A5                  | 13-05-1983          |
|                                           |   |                     | DE | 3011371 A1                 | 02-10-1980          |
|                                           |   |                     | DK | 136280 A ,B,               | 01-10-1980          |
|                                           |   |                     | FI | 800957 A ,B,               | 01-10-1980          |
|                                           |   |                     | FR | 2452371 A1                 | 24-10-1980          |
|                                           |   |                     | GB | 2046660 A ,B               | 19-11-1980          |
|                                           |   |                     | IE | 49435 B1                   | 02-10-1985          |

EPO FORM P0459

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

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

EP 03 25 0629

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.

23-03-2004

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---------------------|----------------------------|---------------------|
| US 4540537      A                         | IT                  | 1127017 B                  | 21-05-1986          |
|                                           | NL                  | 8001859 A ,B,              | 02-10-1980          |
|                                           | NO                  | 800864 A ,B,               | 01-10-1980          |
|                                           | NZ                  | 193297 A                   | 16-03-1984          |
|                                           | SE                  | 435153 B                   | 10-09-1984          |
|                                           | SE                  | 8002384 A                  | 01-10-1980          |
| -----                                     |                     |                            |                     |