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**D E C I S I O N**  
of 13 September 2000

**Case Number:** T 0156/99 - 3.2.1

**Application Number:** 93911290.0

**Publication Number:** 0639143

**IPC:** B65D 41/18, 47/06, 17/34

**Language of the proceedings:** EN

**Title of invention:**  
LATCH FOR A CONTAINER

**Applicant:**  
EDWARDS, Richard, T., et al

**Opponent:**  
-

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 56

**Keyword:**  
"Inventive step (yes)"

**Decisions cited:**  
-

**Catchword:**  
-



**Case Number:** T 0156/99 - 3.2.1

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.1**  
**of 13 September 2000**

**Appellant:** EDWARDS, Richard, T., et al  
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**Representative:** Fusina, Gerolamo  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office posted 13 August 1998  
refusing European patent application  
No. 93 911 290.0 pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** F. Gumbel  
**Members:** S. Crane  
J. van Moer

## Summary of facts and submissions

- I. European patent application No. 93 911 290.0 was refused by the decision of the Examining Division posted on 13 August 1998.

The reason given for the decision was that the subject-matter of claim 1 then on file lacked inventive step with respect to DE-U-8 915 676.5 (D1) and US-A-4 976 370 (D2).

- II. An appeal against this decision was filed on 1 October 1998 and the fee for appeal paid at the same time. The statement of grounds of appeal was received on 10 December 1998.

- III. In response to a communication of the Board dated 3 April 2000 the appellants filed on 19 May 2000, with a letter dated 18 May 2000, an amended set of claims 1 to 3 and amended pages of the description 1, 2, 3, 5 and 6. They requested grant of a patent on the basis of these documents together with page 4 of the description and sheets 1/6 to 4/6 of the drawings as filed; Fig. 8 and 9 on sheets 5/6 and 6/6 were to be deleted.

New claim 1 reads as follows:

"1. A lockable container (10) comprising a tray (12), including a bottom (26) and side walls (18, 20, 22, 24) upwardly extending from said bottom (26), wherein said upwardly extending side walls (18, 20, 22, 24) include a first flange (38) extending outwardly from said upwardly extending side walls (18, 20, 22, 24) and wherein said first flange (38) is continuous around the

periphery of said tray (12) and a cover (14), connected to said tray (12) through an elongated hinge (16), wherein said tray (12), said cover (14) and said hinged connection are molded as a single unitary structure, wherein said cover (14) is adapted for moving from an open position to a closed position, said cover (14) including a top (36) and side walls (28, 30, 32, 34) downwardly extending from said top (36), wherein said downwardly extending side walls (28, 30, 32, 34) include a second flange (40) extending outwardly from said downwardly extending side walls (28, 30, 32, 34) and wherein said second flange (40) is continuous around the periphery of said cover (14), characterised in that said first flange (38) is engageable with said second flange (40) as said cover (14), pivoting on said hinge (16), is rotated towards said tray (12), causing both said first (38) and second flanges (40) to deform and bringing an outside surface of said first flange (38) close to an inside surface of said second flange (40), increasing the deformation of said flanges (38, 40), as further rotation of said cover (14) goes on, said first flange (38) being interlockable with said second flange (40) over a cross sectional contact area having a circular-shaped arc of more than 180 degrees in said closed position of the container (10), said elongated hinge (16) allowing contact between said tray (12) and said cover (14), said flanges (38, 40) having a circular shape and having resumed the shape assumed before the deformation caused by said contact, said outside surface of said first flange (38) forming a continuous contact with said inside surface of said second flange (40) and having a radius equal to or more than the radius of said inside surface of said second flange (40), thereby securing said tray (12) with said cover (14) around the entire periphery of the container

(10), in order to decrease the likelihood that said cover (14) inadvertently opens and resulting in a tight seal between said tray (12) and said cover (14), in order to prevent air from entering said container (10)."

Dependent claims 2 and 3 relate to preferred embodiments of the container according to claim 1.

- IV. In support of their request the appellants argued that the Examining Division had been wrong in its conclusion that document D2 disclosed all of the features of the characterising clause of claim 1. In fact the angle of contact between the flanges disclosed in document D2 was of the order of a mere 26° in contrast to the more than 180° required by the claim.

### **Reasons for the Decision**

1. The appeal complies with the formal requirement of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is therefore admissible.
  
2. The preamble of claim 1 is based on the state of the art according to document D1. This discloses a one-piece plastics container comprising a tray and a cover joined together along one edge by an elongated integral hinge. The peripheries of the side walls of the tray and the cover are provided with respective continuous flanges having respective formations of substantially rectangular cross-section, which interengage in a tongue-and-groove-like manner when the cover is folded onto the tray. In order to ensure a good connection the width of the tongue on one flange is slightly greater

than the width of the groove on the other.

The claimed invention is concerned with the problem of improving the effectiveness of the latch between the tray and the cover in order to prevent inadvertent opening and air from entering the interior of the container. This problem is solved by designing the flanges of the tray and the cover in the manner set out in the characterising clause of claim 1, the essence of this lying in that the flanges in the closed position engage each other over a circular-shaped arc of more than 180°.

Document D2 concerns a two-piece plastics container comprising a tray and a separate cover which may be sealingly attached to the upper rim of the side-walls of the tray. To this end a flange provided around the periphery of the cover is formed with a generally U-shaped channel which receives the side-walls of the tray, the latter being formed at their free end with a sealing bead. Both the channel and the bead are shaped in a specific way to ensure that sealing contact only occurs over a relatively short cross-sectional area at the distal end of the bead; inside and outside of the area of sealing contact the bead and the walls of the channel are spaced from one another, allowing easy attachment of the cover to the tray. With the help of an enlargement of Figure 4 of document D2 attached to their statement of grounds of appeal the appellants have estimated the length of the arc of contact between the sealing bead and the wall of the channel as being 26°.

Having regard to the above it is apparent that even if it were to be considered as an obvious measure to

incorporate the type of sealing arrangement known from the two-piece container of document D2 into a one-piece container of the type disclosed in document D1, then this would not lead to the subject-matter claimed wherein there is an arc of contact between the flanges of the tray and the cover of more than 180°. Furthermore there is nothing which could lead the person skilled in the art to modify further the notional combination of the teaching of the two documents in the direction of the claimed invention, since the limited arc of contact found in document D2 is clearly an essential element of what is being taught there.

The Board therefore comes to the conclusion that the subject-matter of present claim 1 cannot be derived in an obvious manner from the state of the art relied upon in the contested decision. The other state of the art documents cited in the search report do not appear to be of any greater relevance. Accordingly the subject-matter of claim 1 involves an inventive step (Article 56 EPC).

## **Order**

### **For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to grant a patent on the following documents:

Claims 1 to 3 filed on 19 May 2000 with letter of  
18 May 2000;

Description: Pages 1, 2, 3, 5 and 6 filed on  
19 May 2000 with letter of 18 May 2000,  
page 4 as originally filed;

Drawings: Sheets 1/6 to 4/6 as originally filed,  
sheet 5/6 filed on 19 May 2000.

The Registrar:

The Chairman:

S. Fabiani

F. Gumbel