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D E C I S I O N
of 8 October 1998

Case Number: T 0846/96 - 3.2.1

Application Number: 93117651.5

Publication Number: 0596433

IPC: B65D 83/04

Language of the proceedings: EN

Title of invention:
Separation-science membrane dispenser

Applicant:
Minnesota Mining and Manufacturing Company

Opponent:

-

Headword:

-

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step (no)"

Decisions cited:

-

Catchword:

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Boards of Appeal

Chambres de recours

Case Number: T 0846/96 - 3.2.1

D E C I S I O N
of the Technical Board of Appeal 3.2.1
of 8 October 1998

Appellant: Minnesota Mining and Manufacturing Company
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 12 April 1996
refusing European patent application
No. 93 117 651.5 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: F. Gumbel
Members: S. Crane
J.-C. Saisset

Summary of Facts and Submissions

- I. European patent application No. 93 117 651.5 was refused by a decision of the Examining Division posted on 12 April 1995.
- II. The reason given for the decision was that the subject-matter of independent claims 1 and 7 lacked inventive step with respect to the state of the art. The claims under consideration read as follows:

"1. In combination, a separation-science disc unit and a dispenser therefor, the combination comprising:
- storage chamber (12) that contains disc units (14) wherein each disc unit (14) includes a separation-science membrane (16) and a protective liner (18), there being located at a base (20) of the storage chamber (12) an opening (30) sized to permit the disc units (14) to exit the storage chamber (12), and
- a slidable member (26) containing a cavity (28) sized to receive a single disc unit (14) when the cavity (28) is positioned in register with the opening (30) at the base (20) of the storage chamber (12), the slidable member (26) having the capacity to be slid from the register position to a dispensing position to dispense a single disc unit (14) upon each movement from the register position to the dispensing position."

"7. A method of dispensing separation-science disc units, comprising the steps of:
- storing a plurality of disc units (14) that each include a separation-science membrane (16) and a protective liner (18) in an apparatus that comprises a storage chamber (12) and a slidable member (26) that has a cavity (28) located

therein, wherein the disc units (14) are stored in the storage chamber (12) and there is an opening (30) at the base (20) of the storage chamber (12) which communicates with the cavity (28) of the slidable member (26) when the slidable member (26) is in register with the opening (30), and
- dispensing the disc units (14) from the storage chamber (12) at single disc unit (14) increments by moving the slidable member (26) from the register position to the dispensing position."

Dependent claims 2 to 6 relate to preferred embodiments of the combination according to claim 1 and dependent claims 8 to 10 relate to preferred embodiments of the method according to claim 7.

The state of the art relied upon was represented by the following pre-published documents:

(D1) DE-A-3 143 953,

(D2) US-A-4 810 381.

III. An appeal against this decision was filed on 15 May 1996 and the fee for appeal paid at the same time.

The statement of grounds of appeal was filed on 7 August 1996.

IV. In a communication pursuant to Article 11(2) RPBA dated 30 January 1998 the Board inquired whether "separation-science disc units" comprising a "separation-science membrane" and a "protective liner" could be assumed to belong to the state of the art.

The Board also pointed to the potential relevance of documents US-A-2 493 616 (D3) and US-A-3 115 992 (D4), both of which were mentioned in the introductory description of the application.

V. Oral proceedings before the Board were held on 8 October 1998.

At the oral proceedings the appellants (applicants) submitted a new set of claims 1 to 9 according to an auxiliary request. Independent claims 1 and 7 according to this request read as follows:

"1. In combination, a separation-science disc unit and a dispenser therefor, the combination comprising:

- storage chamber (12) that contains disc units (14) wherein each disc unit (14) includes a separation-science membrane (16) and a protective liner (18), there being located at a base (20) of the storage chamber (12) an opening (30) sized to permit the disc units (14) to exit the storage chamber (12), wherein the disc units (14) are stored in the storage chamber (12) so that each protective liner (18) resides above the associated separation-science membrane (16), and
- a slidable member (26) containing a cavity (28) sized to receive a single disc unit (14) when the cavity (28) is positioned in register with the opening (30) at the base (20) of the storage chamber (12), the slidable member (26) having the capacity to be slid from the register position to a dispensing position to dispense a single disc unit (14) upon each movement from the register position to the dispensing position."

"7. A method of dispensing separation-science disc units, comprising the steps of:

- storing a plurality of disc units (14) that each include a separation-science membrane (16) and a protective liner (18) in an apparatus that comprises a storage chamber (12) and a slidable member (26) that has a cavity (28) located therein, wherein the disc units (14) are stored in the storage chamber (12) so that each protective liner (18) resides above the associated separation-science membrane (16) and there is an opening (30) at a base (20) of the storage chamber (12) which communicates with the cavity (28) of the slidable member (26) when the slidable member (26) is in register with the opening (30),
- placing the storage chamber (12) immediately over a filter holder (34) for receiving a disc unit (14) discharged from the storage chamber (12), and
- dispensing the disc units (14) from the storage chamber (12) at single disc unit (14) increments by moving the slidable member (26) from the register position to a dispensing position, so that the disc unit (14) can be discharged directly in or on the filter holder (34)."

The appellants requested that the decision under appeal be set aside and a patent granted on the basis of the documents considered by the Examining Division (main request) or in the alternative on the basis of the claims according to the auxiliary request.

VI. The arguments put forward by the appellants in support of their requests can be summarised as follows:

In spite of the fact that devices for storing and dispensing articles of the basic type set out in claim 1 had been known for many years outside the field of separation-science membranes nobody had recognised the advantages of using such a device to dispense these membranes, which were traditionally supplied in blister packages from which they had to be removed by hand with the associated risk of contamination. The reason for this might lie in the nature of the membranes, which were thin and had a rough surface which would make them unsuitable for being pushed from the bottom of a stack. However, it has been found that the protective liners provided on the membranes avoided any problems in this respect so that disc units each comprising a membrane and a protective liner could be readily dispensed to their end point of use without the need for direct manual manipulation. It was generally accepted that the advantageous solution of an existing problem by the use of simple technical means which had long been known **per se** spoke for rather than against the presence of an inventive step.

In the claims according to the auxiliary request it had been specified how the disc units were arranged in the dispenser and (in the method claim 7) that the disc units were discharged directly at the point where they were needed. These features provided further distinctions over the prior art.

Reasons for the Decision

1. The appeal complies with the formal requirements of Articles 106 to 108 and Rules 1(1) and 64 EPC. It is therefore admissible.

2. *Main request*

In general terms the claimed invention is concerned with the storage and supply of "separation-science membranes". Such a membrane is defined in the application at page 4, lines 22 to 26 as being "any item, such as a filter, membrane, or other medium or combination of media, which is used in the scientific, and especially the chemical and biological fields, in the art of separation, isolation, purification, identification, and the like or combinations thereof." The membrane is provided with a protective liner to protect it from contamination. Examples of protective liners that may be suitable include PTFE paper, white bond paper, parchment, and a variety of plastic coated papers. The membrane and the protective liner together form a "separation-science disc unit", the protective liner only being removed at the point in time when the membrane is to be used in a separation technique. The appellants explicitly confirmed at the oral proceedings before the Board that these separation-science disc units were known *per se* in the art.

The technical problem with which the claimed invention is concerned is the delivery of separation-science membranes to the apparatus in which they are to be used, e.g. a filter, in a simple and effective manner which avoids the risk of contamination by contact with

the user's fingers. With respect to the solution of this problem the notional skilled person, whose knowledge provides the framework for the evaluation of inventive step, is not an expert in the field of separation-science but someone whose technical expertise lies in the area of the handling, in particular storage and dispensing, of discrete articles.

This skilled person is well aware of the type of storage and dispensing device specified in independent claims 1 and 7, examples of which are disclosed in documents D1, D3 and D4. The device comprises a chamber in which a stack of articles is stored. At an end of the chamber, which is open, there is arranged a slidable member having a cavity which can be registered with the opening in the chamber to receive the end article in the stack and which can be slid from the register position to a dispensing position to dispense the article. In document D1 the slidable member has two such cavities arranged so that one picks up the next article as the first is dispensed. The cavities are through-going holes which allow the dispensed article to fall to where it is needed. This has the advantage of avoiding skin contact between the user and the article, see page 4, lines 9 to 21. The same advantage is mentioned in document D3. Here the stack is spring-loaded with the slidable member arranged at the upper end of the chamber. The cavity is formed by a recess in the slidable member from which the article falls when the slidable member is in its dispensing position. The device according to document D4 is similar in construction and function to that of document D1, there

being however only one through-going cavity in the slidable member. Document D4 specifically relates to the dispensing of thin discs of absorbent material treated with an antibiotic or the like which are to be placed on a suitable culture to determine the effectiveness of the antibiotic.

From the above it is abundantly clear that not only were storage and dispensing devices of the type set out in present claims 1 and 7 well known but also that the advantage of the dispensed article not coming into contact with the hand of the user had been recognised. Furthermore, as evidenced by document D4, the potential field of use of such a device extended to thin discs of absorbent material akin to the separation-science membranes of the present application. (Indeed, given the breadth of the definition of this term, see above, there is a good argument that the discs of document D4 actually constitute such membranes. A definitive finding on this question is not however crucial to the decision at hand.) As a consequence the eminent suitability of using one of these known storage and dispensing devices for solving the technical problem identified above is obvious for the person skilled in the art. Any reservations that person may have had about the rough surface of the membranes offering too much frictional resistance to allow them to be pushed from the end of a stack (this did not appear to be a problem in document D4) would in any case be allayed by the presence of the protective liner in the separation-science disc unit. Since the "combination" of claim 1 merely comprises a stack of these known disc units inserted appropriately into the known storage and dispensing device and the method of claim 7 comprises no more than the conventional way of using the combination of claim 1, the subject-matter of these claims can for the above reasons not be seen as involving an inventive step (Article 56 EPC).

The Board can see nothing in the "time factor" adduced by the appellants in support of their case which could support a different conclusion. In particular, there is no evidence available to the Board that there was a long-felt need for means for storing and dispensing separation-science disc units in a way which reduced the risk of contamination and that there had been other less successful attempts at solving this problem.

3. *Auxiliary request*

In claim 1 of the auxiliary request it has been specified that the protective liner of each disc unit in the storage chamber is located above the associated membrane. As a consequence the protective liner of the disc unit is more readily accessible for removal from the membrane once the disc unit is dispensed than if it were located below the membrane. That is however an obvious consideration for the person skilled in the art and adds nothing of inventive significance to the claim.

In addition to the limitation mentioned above as to the position of the protective liner, claim 7 of the auxiliary requests also states that the storage chamber is placed over a filter holder into which the disc unit is discharged. Again, nothing of inventive significance can be seen in this since, having regard to the fact that the purpose of the claimed invention is to avoid manual manipulation of the membrane, it is obvious to discharge the disc unit directly to the site where it is required.

Thus claims 1 and 7 of the auxiliary request are also unallowable for lack of inventive step.

Order

For these reasons it is decided that:

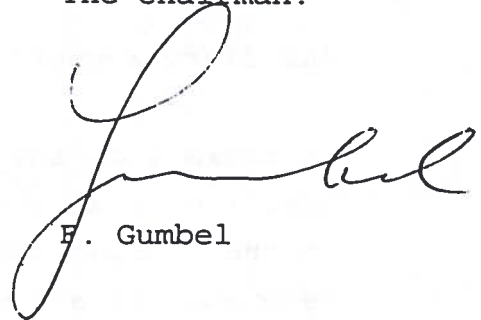
The appeal is dismissed.

The Registrar:



N. Maslin

The Chairman:



F. Gumbel