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File Number: W 3/90 - 3.3.2
Application No.: PCT/US 89/02288
Publication No.:
Title of invention: Inorganic fiber composition

Classification: C03C 13/00

D E C I S I O N
of 14 December 1990

Applicant: Manville Sales Corporation
Proprietor of the patent:
Opponent:

Headword: Inorganic fibres/MANVILLE

EPC PCT Article 17(3)(a), Rule 13.1, Rule 13.2(i),
Rule 40.1, 40.2(c)

Keyword: "Lack of unity (yes) - no adequate reasoning in the
invitation as regards the groups for which the
additional fees were paid under protest."

Headnote



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Boards of Appeal

Chambres de recours

Case Number : W 3/90 - 3.3.2

International Application No. PCT/US 89/02288

D E C I S I O N
of the Technical Board of Appeal 3.3.2
of 14 December 1990

Applicant : Manville Sales Corporation
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Subject of the decision : Protest according to Rule 40.2(c) of the Patent
Cooperation Treaty made by the applicants against
the invitation (payment of additional fee) of the
European Patent Office (branch at The Hague) dated
29 September 1989

Composition of the Board :

Chairman : P. Lançon

Members : M. Eberhard

C. Holtz

Summary of Facts and Submissions

- I. The Applicant filed International patent application PCT/US 89/02288 with 57 claims.
- II. The EPO acting as International Search Authority (ISA) sent to the Applicant an invitation to pay nine additional search fees in accordance with Article 17(3)(a) and Rule 40.1 PCT.

The ISA indicated that the claimed subject-matter related to ten separate inventions set out as follows:

- (1) Claims 1-19, 54, 55: process for decomposing an inorganic fiber.
 - (2) Claims 20-28 : process for protecting a structural wall from fire.
 - (3) Claims 29, 50-53
 - (4) Claims 30-32
 - (5) Claims 33-35
 - (6) Claims 36-38
 - (7) Claims 39, 40
 - (8) Claims 41-49
 - (9) Claim 56
 - (10) Claim 57
- } various inorganic fibers characterized by different compositions and/or different properties.

III. The Applicant paid three additional search fees for the groups of claims (2), (3) and (8), two of them under protest. In a letter received on 14 November 1989, the Applicant submitted that only one additional fee should have been required for the additional claims listed in these three groups.

He made a reasoned statement as to why the groups (1) and (3) on the one hand and the groups (2) and (8) on the other hand were considered as forming only two general inventive concepts. Accordingly, the Applicant requested that the two additional search fees paid under protest be refunded.

Reasons for the Decision

1. The protest is admissible.

The examination of the present case is limited to groups (1), (2), (3) and (8) for which two fees have been paid under protest.

2. Rule 40.1 PCT stipulates that the invitation provided for in Article 17(3)(a) PCT must specify the reasons why the International application is not deemed to comply with the requirements of unity of invention. The purpose of setting out reasons is to enable the Applicant and, in the case of a protest, also the Board of Appeal, to examine whether the request to pay additional fees owing to lack of unity of the invention is justified. At the least, the considerations that motivated the decision must be readily comprehensible from the reasons indicated in the invitation of the ISA.

2.1 In the present case, the invitation of the ISA contains a list of the ten groups of claims with the indication of the

corresponding subject-matter as reported above (see point II). In a concluding statement following this list it is further indicated that "the ten subjects are so different from each other that no technical relationship or interaction can be appreciated to be present so as to form a single general inventive concept."

In the Board's opinion, this does not represent an adequate reasoning as to why the inventions of groups (1), (2), (3) and (8) are based on four separate inventive concepts. As regards groups (1) and (3) the Board observes that the process of Claim 1 involves the use of inorganic fibres which are claimed in Claim 54 ^{group (1)} and the inorganic fibres of Claim 29 (group (3)) constitute a sub-group of the broader composition claimed in Claim 54. Under these circumstances, it is not clear from the mere indication of the different groups of subject-matter and the concluding statement in the invitation what considerations led the ISA to the conclusion that the process of group (1) and the inorganic fibres of group (3) do not meet the requirement of unity of invention. Likewise, it is not derivable from the invitation why the inorganic fibres of group (8) and the process (or use) according to group (2) were also considered as relating to separate inventive concepts despite the similarity of the fibre compositions and of the fibre properties.

- 2.2 As the invitation of the ISA cannot be regarded as containing an adequate reasoning as required by Rule 40.1 PCT with regard to the groups for which the Applicant paid additional fees under protest, the invitation to pay these fees is deprived of its legal effect (see W 4/85, OJ EPO 1987, 63 and W 7/86, OJ EPO 1987, 67). It follows that the two fees paid under protest are to be reimbursed.

3. Although the outcome of this case is indeed already given in 2.2, the Board would further like to point out that an adequate examination (i.e. taking into account also the technical problem(s) underlying the application) would have led to the conclusion that the inventions of groups (1), (2), (3) and (8) are "a priori" based on only two separate inventive concepts.

3.1 The present application refers to the drawbacks associated with conventional mineral wool fibres, in particular to their coarseness which, among others, make them unfriendly to the touch and to the necessity of having mineral wool blankets of high bulk density (4-8 pcf or higher) in order to pass the ASTM E-119 two hour fire test. According to page 4 of the description, the first technical problem underlying the application is, therefore, to provide low cost, friendly feeling, low bulk density inorganic fibres which have good fire resistance (as measured by their ability to pass the ASTM E-119 two hour fire test). The inorganic fibres according to the independent Claim 41 (group (8)) have a diameter of less than 3.5 μm and pass the fire resistance test indicated above when processed into a fibre blanket having a bulk density in the range of 1.5-3 pcf. Therefore, they seem to be suitable for solving the said problem.

According to Rule 13.2(i) PCT, in addition to an independent claim for a given product, the same application may also include an independent claim for a use of said product. The independent Claim 20 (group (2)) is directed to a process of protecting a structural wall from fire which involves the use of fibres having the same diameter and the same properties as the fibres of Claim 41 (cf. bulk density of the fibre blanket and fire resistance). Their composition is indeed broader than that

indicated in Claim 41. However, as the fibre composition of Claim 41 constitutes a sub-group of the more general composition defined in Claim 20, leads to fibres having the same properties and solves the same technical problem, the Board considers that the fibres according to Claims 41-49 (group (8)) on the one hand and the use of the fibres as defined in the process Claims 20-28 (group (2)) on the other hand form a single general inventive concept in the sense of Rule 13.1 and 13.2(i) PCT.

3.2 According to the present application, the refractory ceramic fibres, which exhibit a better fire resistance than the mineral wool fibres, have the drawback that their chemical durability in physiological saline solutions is relatively high. Consequently, the potential health risk associated with the inhalation of these fibres is increased. Accordingly, the second problem underlying the application is to provide inorganic fibres having especially low chemical durabilities in physiological saline solutions (as measured by the rate of extraction of silicon from the fibre in such solutions). The inorganic fibres according to the independent Claims 29, 50, 52, 54 and 55 all exhibit low chemical durabilities in physiological saline solutions and, therefore, all solve the problem stated above. Furthermore, all these fibres have compositions falling within the broader compositional ranges claimed in Claims 54 or 55. Thus, they constitute solutions to the problem of chemical durability which are linked so as to form a single common inventive concept.

In the process according to the independent Claim 1, inorganic fibres having the composition claimed in Claim 54 are subjected to a physiological saline fluid and the silica is extracted from these fibres at a rate of at least 5 ppm of silicon in 5 hours in order to decompose them. This process can, therefore, be construed as a use of the

claimed fibres which directly results from their low chemical durability. As an independent claim for a product and an independent claim for a use of this product are permitted in the same application (Rule 13.2(i)), the requirement of unity of invention appears to be satisfied as far as Claims 1-19, 29 and 50-55 (groups (1) and (3)) are concerned.

3.3 It results from points 3.1 and 3.2 that the groups (1) and (3) on the one hand and the groups (2) and (8) on the other hand relate to two different categories of inorganic fibres and their respective use, which are intended to solve two completely different problems (see also the description page 1, lines 7-10 and page 7, first paragraph). Therefore, groups (1) and (3) form a first single inventive concept, whereas groups (2) and (8) are based upon a second separate inventive concept. Thus, only two search fees were due for these four groups.

Order

For these reasons, it is decided that:

Reimbursement of two additional search fees is ordered.

The Registrar:

The Chairman:

M. Beer

P. Lançon