

Europäisches
Patentamt

Beschwerdekammern

European Patent
Office

Boards of Appeal

Office européen
des brevets

Chambres de recours



1

Summary of Facts and Submissions

- I. European Patent Application No. 79 301 942.3 filed on 19 September 1979 and published on 2 April 1980 under No. 0 009 399 claiming priority of 21 September 1978 from a previous application filed in Great Britain, was refused by decision of the Examining Division 106 of the European Patent Office dated 9 December 1981. The decision was based on claims 1 to 9 received on 18 July 1981.
- II. The reason given for the refusal was that in view of the prior art disclosed by US-A-2 097 337, GB-A-855 797 and GB-A-920 718, the subject matter of claim 1 did not involve an inventive step within the meaning of Article 56 EPC and the claim was thus not allowable under Article 52(1) EPC.
- III. On 5 February 1982 the appellants lodged an appeal against the decision; the statement of grounds was received on 6 April 1982, and the appeal fee was duly paid. The appellants argued that a person skilled in the art could not deduce the subject matter of the invention from anything disclosed in the state of the art.
- IV. As a result of the objections raised by the Board of Appeal during the procedure before the Board, on 25 October 1982 the appellants submitted a single new claim, a description accordingly amended by insertion of a new paragraph as suggested on 13 June 1983, requesting that the impugned decision be set aside and the European patent be granted on the basis of the amended description and the new claim and on 13 June 1983 they proposed the insertion of a new paragraph in the description.

DECISION
of the Technical Board of Appeal 3 2 1
of 27 September 1983

Appellant: Albany Engineered System Europe Limited
2 Buckingham Avenue
Trading Estate
Slough, Berkshire
SL1 4HR (GB)

Representative: Pike, Harold John
Abel & Imray
Northumberland House
303-306 High Holborn
London WC1V 7LH
Great Britain

Decision under appeal: Decision of Examining Division 106 of the European Patent
Office dated 9 December 1981 refusing European patent
application No 79 301 942.3 pursuant to Article 97(1)
EPC

Composition of the Board:

Chairman: G. Andersson
Member: M. Huttner
Member: P. Ford

The claim now reads as follows:

A shower fitting comprising a first tubular member adapted to be connected to a source of fluid, the first member having a series of spray jets mounted in its wall, the jets being aligned and spaced along the length of the first member, a second tubular member within which the first member is located and mounted for reciprocatory movement relatively thereto, a support means at each end and at spaced intervals between the ends, and driving means for reciprocating the first member, the wall of the second member having a longitudinal slot aligned with the spray jets, characterised in that the spray jets are wholly contained within the second tube, fluid discharged from the jets emerging from the second member via the longitudinal slot therein.

- IV. For the original claims, description and drawings, reference should be made to publication No. 0 009 399.

Reasons for the decision

1. The appeal complies with Articles 106 to 108 EPC and Rule 64 EPC and is, therefore, admissible.
2. The features of the claim find their support in the original claims 1 and 10 and page 5, lines 27 to 30 of the description as filed. Thus the subject matter of the claim does not extend beyond the content of the application as originally filed nor does that of the description. The amendments are, therefore, allowable under the terms of Article 123(2) EPC.

3. The features of the first part of the claim are, in combination, part of the prior art as represented by US-A-2 097 337 (Rule 29(1)(a) EPC). In the Board's view no objection may be raised against the preamble of the claim acknowledging a shower fitting disclosed in the publication referred to as the most pertinent prior art, for such shower fitting is undoubtedly deemed to be closer to the subject matter of the application in respect of the salient features than those revealed in either GB-A-855 797, GB-A-920 718 or US-A-2 945 628.
4. As none of the citations mentioned in the search report reveals spray jets wholly contained within a second tubular member through which the fluid discharged from the jets emerge via a longitudinal slot therein, the subject matter of the claim proves to be novel (Article 54 EPC).
5. In the shower fitting known from US-A-2 097 337 for use in the paper-making industry, the spray nozzles are extended through a slot in an outer tubular member. Being exposed and reciprocating, they are very liable to damage in the environment of paper-making machines. The appellants consider this exposure to damage and the complicated construction as disadvantageous. Furthermore, other known shower fittings such as those disclosed in US-A-2 945 628, suffer from the disadvantage that, if they become detached, the nozzles can drop on to the conveying surface of the paper-making machine and thus cause damage.
6. Therefore, the problem to be resolved by the present application resides in the provision of a shower fitting in a simple and economic manner with fully protected spray jets which enables the problems associated with the

prior art constructions to be overcome. The Board has no objection to reformulation of the problem in this way in the introductory portion of the description.

7. The problem underlying the application is solved by the features of the claim and is based on the idea of increasing the efficiency of the shower fitting by eliminating the cause of damage to the reciprocating nozzles. As proposed in the application, this is done by containing the nozzles fully within an outer tubular member having a longitudinal slot through which the fluid from the nozzles can emerge.
8. It remains to be examined whether the subject matter of the claim involves an inventive step and the question now arises whether the publications cited would give the skilled person any indication how the nozzles in the known shower fitting according to US-A-2 097 337 could be fully protected in a simple and economic manner such that, if the slot is given the appropriate width, the nozzles cannot drop out.
- 8.1 Although the device according to US-A-2 097 337 provides a spray device having a series of reciprocating spray nozzles mounted on the inner fluid supply pipe located within an outer tubular member provided with a longitudinal slot through which the nozzles protrude, there is no hint or indication in this publication that would lead the skilled person either to the idea of full protection of the nozzles or to contain the nozzles wholly within the outer tubular member. In view of the particular construction of the nozzles, rather the contrary is the case. The streams produced by the nozzles are directed at 45° to the stem of the nozzles. If all the nozzles ac-

ording to Figure 3 were placed within the tubular guide member either by shortening them or by the unrealistic approach of enlarging the tubular member, there is no doubt that some streams would impinge on the discs. This conclusion may be confirmed by reference to Figure 5, for with such nozzles all the streams emerging from the nozzles would inevitably impinge on the inner wall of the tube in a plane perpendicular to the tube. Thus, the skilled person reading this publication would have no reason to be induced to mount the nozzles within the outer tubular member.

- 8.2 In the devices according to GB-A-855 797 or GB-A-920 718 it would be most unlikely that a skilled person would consider containment of the nozzles within the outer tube. The two alternatives for containment envisaged in the preceding paragraph are not feasible because the confinement of the nozzles within the outer tubular member by shortening them is physically impossible due to their extension from bearing blocks fully occupying the outer tube and, furthermore, the dimension of the spray nozzle according to Figure 4 of GB-A-920 718 is such that, even if the spray nozzle adapter were eliminated completely, a protruding nozzle would still remain. An enlargement of the outer tube in the latter citation would also not be a reasonable alternative in view of the enlargement of the reciprocating mechanisms imposed thereby. Consequently, neither arrangement for accommodating the nozzles within the outer tube would be feasible and thus neither citation could point to a solution leading to the invention.
- 8.3 The device disclosed in US-A-2 945 628 is concerned with preventing the sagging of a long shower tube under the weight of the water filled tube by providing an appropriate bearing for the reciprocating outer tube carrying

the nozzles. These reciprocating nozzles, although relatively short, still project radially beyond the confines of the tube and thus are exposed to damage. Consequently, no hint of a solution to the appellants' problem can be conceived from this citation either. For these reasons, in the opinion of the Board, it is most unlikely that a skilled person would even consider the combination of the outer tube provided with the short nozzles as depicted in Figure 1 of US-A-2 945 628 with the device of US-A-2 097 337 without having knowledge of the teachings of the present invention. Such a combination could only result from ex post facto analysis, a procedure which must be ruled out in the assessment of inventiveness.

- 8.4 An examination of how the technical development of the shower fitting art proceeded, clearly reveals that the double tube design dates back as far as 1937 (US-A-2 097 337), whereby the reciprocating fluid supply tube carrying the nozzles was already located within an outer tube and yet the nozzles mounted on the former protruded through the latter's slot. More than twenty years later the shower fittings remained basically of the same design, as illustrated by GB-A-855 797 and GB-A-920 718, the nozzles being mounted on the supporting elements of the inner reciprocating fluid supply tube, but still projecting out of slotted outer tube and thus subject to damage. This was so, even though an attempt had been made (US-A-2 945 628) to position the reciprocating tube concentrically around the stationary fluid supply tube defining an annular fluid supply chamber. From this it would seem that the art has consistently held fast to the conventional concept that the nozzles must project externally from or through the outer tube, irrespective of whether they are mounted on an inner or outer reciprocating

ing tube. Hence the appellants with their device, have, for the first time, broken away from established practice and overcome the drawbacks encountered in the prior art.

9. The Statement by one of the co-inventors, Mr M.J. Merley, need not be taken into account, since it merely deals with the drawbacks apparent in the single tube arrangement with nozzles therein and the apparent defect of these nozzles which has been cured by a double tube arrangement in which the size of the wholly contained nozzles would be larger than the slot. As this is not the subject matter of the claim, the statement merely refers to the commercial success of his company's shower assemblies made according to the invention. On that point, it must be said that it is impossible to determine from the representations of the appellants whether the success is due to the inventive features or to extraneous causes. Therefore, the matter cannot be regarded as in any sense conclusive and the Board has refrained from taking it into consideration in the assessment of the inventive step.
10. For all these reasons, the technical problem of the application as set forth in the introductory portion of the description is solved by the features of the claim in a non-obvious manner, thus involving an inventive step. The claim is therefore allowable (Article 52(1) and Article 56 EPC).

The proposed corrections of errors in the description and the drawings are equally allowable (Rule 88 EPC).

Order

It is decided that

1. The decision of Examining Division 106 is set aside.
2. The case is remitted to the first instance with the order to grant a European Patent on the basis of the following documents:
 - Description, page 1, received on 25 October 1982 with the insertion of a new paragraph after line 30 as proposed by the appellants' statement received on 13 June 1983, pages 2 and 6 received on 18 July 1981, and pages 3 and 4 as originally filed with the corrections set forth in appellants' statement received 25 October 1982;
 - one single claim received 25 October 1982;
 - Drawings, sheets 1/2 and 2/2 received on 18 July 1981.

Lab
PF
The Registrar

The Chairman
Signature

