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DECISION of 10 January 1997

Case Number:

T 0626/96 - 3.2.1

Application Number:

90916513.6

Publication Number:

W0 91/07614

IPC:

F16K 11/20, E03C 1/02, E03B 7/07, CO2F 9/00

Language of the proceedings: EN

Title of invention:

Water tap

Applicant:

AVILION LIMITED

Opponent:

Headword:

Commercial success/water tap

Relevant legal provisions:

EPC Art. 56

Keyword:

"Inventive step (yes)"

"Commercial success as a secondary indicator of inventive step"

"Success achieved in a very short space of time after the

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appellant's invention"

"Success directly attributable to the structure of the product

claimed"

"Period of nearly 60 years between the publication date of the closest prior art document and the filing date of the patent application in suit regarded as a further secondary indicator of inventive step"

Decisions cited:

T 0273/92

Catchword:



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Boards of Appeal

Chambres de recours

Case Number: T 0626/86 - 3.2.1

DECISION of the Technical Board of Appeal 3.2.1 of 10 January 1997

Appellant:

AVILION LIMITED

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Manor Way

GB - Rainham, Essex RM13 8 UB (GB) *

Representative:

Luckhurst, Anthony Henry William

Marks & Clerk

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Decision under appeal:

Decision of the Examining Division of the European Patent Office posted 26 January 1996

refusing European patent application

No. 90 916 513.6 pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman:

F. Gumbel

Members:

M. Ceyte J. C. Saisset

Summary of Facts and Submissions

I. European patent application No. 90 916 513.6 (international publication number: W0 91/07614) was refused by a decision of the Examining Division posted 26 January 1996.

The reason for the refusal was that the subject-matter of claim 1 filed on 25 July 1994 did not involve an inventive step having regard to:

D1: US-A-1 825 826

D2: US-A-1 550 448

D3: GB-A-1 034 215

D4: GB-A-2 104 625

II. On 25 March 1996 the appellant (applicant) lodged an appeal against the decision. The appeal fee was paid on 26 March 1996.

In the statement of grounds of appeal filed on 3 June 1996, reference was made to evidence as to commercial success filed during the prosecution of the patent application and in particular to a declaration dated 22 June 1994 of Mr Patrick Sandor Racz.

III. The appellant requested that the decision under appeal be set aside and a patent be granted on the basis of claims 1 to 11 filed on 25 July 1994.

Claim 1 reads as follows:

1. A water tap comprising a tap body (9) coupled to a nozzle (10) having an outlet, connections (13, 14) for connecting hot and cold water supplies to the body and a connection (15) for connecting a filtered water supply to the body, and valves (16,

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17, 19) on the body controlling the supply of hot and cold water and filtered water to the nozzle (11, 12) via the body (9), characterised in that the nozzle (10) has at least two separate passages (11, 12) which extend from the body (9) to the nozzle outlet and the arrangement being such that the filtered water passes through one of the nozzle passages (12) and the hot and cold water pass through the other passage or passages (11).

Reasons for the Decision

- 1. The appeal is admissible.
- 2. If compared with the originally filed claim 1, the present claim 1 does not introduce any change as to substance.

The subject-matter of claim 1 therefore does not extend beyond the content of the application as filed (Article 123(2) EPC).

Olaim 1 is correctly based in its precharacterising portion on the disclosure of the prior art document D1. It is not disputed that this document represents the closest prior art. This claim thus likewise meets the formal requirements under Rule 29(1) EPC.

The tap body known from document D1 has three water inlet connections, one of which may be connected to a filtered or iced water supply, and respective valves on the tap body. A nozzle having a single outlet passage is mounted on the tap body. Thus the hot and cold water and filtered water pass through the same outlet passage.

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According to the appellant's submissions, a water tap of this kind suffers from the problem that there will be a cross-contamination of the filtered water path with hot/cold water path(s).

Therefore the technical problem to be solved by the present invention is to provide a combined tap of the type stated in the pre-characterising part of the claim, which overcomes this disadvantage, i.e. which avoids such cross-contamination.

This problem is in essence solved by the following features stated on the characterising part of claim 1:

- (i) the nozzle has at least two separate passages (11, 12) which extend from the body to the nozzle outlet,
- (ii) the arrangement being such that the filtered water passes through one (12) of the nozzle passages and the hot and cold water pass through the other passage or passages (11).
- 4. The examination as to whether the tap according to claim 1 is disclosed in any of the documents D1 to D4 leads to the conclusion that the subject-matter of claim 1 is novel having regard to this prior art, due to the fact that they all fail to disclose the claimed solution i.e. a nozzle with two separate passages which extend from the body to the nozzle outlet, one of these passages being provided for the filtered water flow.
- 5. It remains to be examined whether the subject-matter of claim 1 involves an inventive step. In this respect the question arises whether there is any suggestion in the cited prior art documents of a nozzle having two

separate passages which continuously extend from the tap body to the nozzle outlet, in order to avoid contamination of the filtered water which might be passed through one of this nozzle passages.

5.1 As stated hereinabove the closest prior art document D1 shows a system using a common outlet passage for the hot, cold and filtered water.

Document D2 shows a tap having a nozzle with two passages. However, the control valve (15) for one of the water supplies is mounted on the nozzle, not on the tap body. Additionally, the nozzle passages (7, 8) are not separated up to the end of the nozzle, thus not fully avoiding the problem of contamination of any filtered water in the common passage for the filtered water and the hot/cold water.

Documents D3 and D4 are concerned with hot and cold water supply. The mixer taps disclosed therein comprise a nozzle with a hot water passage and a cold water passage. The purpose of these two separate passages is obviously to prevent cross-contamination of the hot and cold water supply lines, e.g. by a build-up of pressure in the hot water supply line, which could namely cause hot water to be forced into the cold water supply line.

The purpose of the two separate passages in documents D3 and D4 thus is not to avoid contamination of the outgoing hot water by the cold water. On the contrary, documents D3 and D4 propose a discharge nozzle in which the outflowing streams of hot and cold water are mixed. In particular document D4 suggests that the hot water passage is an internal flexible tube which is at its outlet extremity joined to a jet divider insert screwed

in the outlet extremity of the cold water passage. The jet divider insert causes mixing of the two separately supplied water flows.

The documents D3 and D4 thus do not suggest using two separate passages extending along the full length of the nozzle for the purpose of excluding any possibility of cross-contamination of the outgoing filtered water with the hot/cold water path(s). On the contrary, to some extent they lead away from the claimed invention, since they suggest mixing the two separate flows of hot and cold water.

Accordingly, confronted with the problem underlying the patent application in suit, i.e. avoiding contamination of the outgoing filtered water, the skilled person would not have considered the teaching of the documents D3 and D4 and thus would not have provided the nozzle of the known water tap according to document D1 with two separate passages extending along the full length of the nozzle.

- In the Board's judgment, in view of the significant technical advantages achieved by the solution claimed in claim 1, that is the ability to deliver filtered, hot, and cold or mixed water from a single nozzle without any possibility of cross-contamination of the outgoing filtered water, this solution cannot be considered as self-evident or falling within the normal competence of the skilled person.
- 6. Commercial success is a secondary indicator of inventive step. In this respect evidence as to this success cannot be ignored. As appears from this evidence, the marketed Triflow tap falls within the definition of present claim 1, since its nozzle or spout is provided with two separate passages, one for the hot, cold (mixed) water and the other for the

filtered water; the nozzle or spout is formed with two outlets, i.e. a filtered water outlet and a hot or cold (mixed) water outlet, so as to exclude any possibility of cross-contamination of the filtered water with the hot/cold water path.

As follows from the evidence the "Triflow tap" had enjoyed considerable commercial success in several countries. This is apparent from the sales values given for the years 1990 to 1994. Mr Racz in his declaration gave a sale amount of £480,000 in 1990 and four years later the sale amount went up to more than twelve times as much (£6,000,000).

The appellant produced documents showing that the Triflow tap had achieved wide spread recognition and acclaim in numerous commercial publications.

It is significant that this commercial success was achieved in a very short space of time after the appellant's invention: the European patent application claims priority based on two earlier applications filed on November 1989 and July 1990. The sale of the Triflow tap using the fully separate passage for the filtered water according to the subject-matter claimed started in the same year and in view of the quite substantial sale amount achieved at the end of 1990, commercial success was immediate. It appears therefore that there was a pressing commercial need for such a simple solution.

As presented in the declaration of Mr Racz, filtered water has been commonly available in the United States for 20 years and has always been provided by use of a separate tap, i.e. separate to the hot/cold water tap. In the Triflow tap all the water types are delivered from a single nozzle, providing benefits in



manufacturing costs and simplicity for the user and in which cross-contamination of the filtered water path with hot/cold water path(s) is excluded. Thus the commercial success is to be attributed to these substantial advantages which obviously stem directly from the technical features set forth in claim 1.

It is true that in particular cases the success might be due to marketing techniques and advertising skills. However in the present case, the applicant's company was created in late 1990 for the purpose of trading the invented tap. It seems therefore clear that this quite new company was not in a position to finance a marketing campaign in Europe, the USA and elsewhere. As stated in the declaration of Mr Racz (paragraphs 15-20 and 22) industry itself has approached the appellant to take up the sales and promotion of the product.

In summary there is no doubt to the Board that the tap set forth in claim 1 has been a commercial success and that this success is directly attributable to the features set forth in claim 1.

- As substantiated hereinabove the problem of avoiding cross-contamination was first solved by the teaching of the patent application in suit (priority dates 1989 and 1990). Thus a significant time (nearly 60 years) had elapsed between the publication of the closest prior art document (1931) and the priority dates of the patent application in suit without giving rise to the idea according to the invention. Having regard to the aforementioned advantages obtained by the invention this may be regarded as an additional indication in support of inventive step (see for example T 0273/92).
- 8... Therefore, in the Board's judgment, the subject-matter of claim 1 also involves an inventive step (Article 56 EPC).

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Dependent claims 2 to 11 concern particular embodiments of the invention claimed in claim 1 and are likewise allowable.

The description and the drawings also meet the requirements of the Convention.

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 in the following version:

Claims: 1 to 11 filed on 25 July 1994;

Description: pages 1, 3 and 5 to 13 as originally filed

and pages 2 and 4 filed on 25 July 1994;

Drawings: sheets 1/4 to 4/4 as originally filed.

The Registrar:

S. Fabiani

Beglaubigt/Certified Registry/Greffe
Certifiée conforme:
Mûnchen/Munich
- 3, FEB, 1997

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The Chairman:

F. Gumbel



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