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## DECISION of 26 May 1998

Case Number:

T 0346/97 - 3.2.4

Application Number:

90902235.2

Publication Number:

0480928

IPC:

A47J 31/40

Language of the proceedings: EN

Title of invention:

An automatic machine for dispensing black coffee, white coffee, and the like

Patentee:

Nuova Faema S.p.A.

Opponents:

WMF Württembergische Metallwarenfabrik AG Thermoplan AG M. Schaerer AG Quick Italia S.r.l. HGZ Maschinenbau AG Koninklijke Douwe Egbert B.V.

#### Headword:

Relevant legal provisions:

EPC Art. 56 EPC R. 71(2)

Keyword:

"Inventive step (no)"

Decisions cited:

T 0013/84

Catchword:



Europäisches **Patentamt** 

European **Patent Office**  Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Case Number: T 0346/97 - 3.2.4

DECISION of the Technical Board of Appeal 3.2.4 of 26 May 1998

Appellant:

(Proprietor of the patent)

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Decision under appeal:

Decision of the Opposition Division of the

European Patent Office posted 31 January 1997

revoking European patent No. 0 480 928 pursuant

to Article 102(1) EPC.

Composition of the Board:

Chairman: C. A. J. Andries Members: R. E. Gryc

Members:

Ess.

M. Lewenton

## Summary of Facts and Submissions

I. The appellant (patent proprietor) lodged an appeal, received at the EPO on 25 March 1997, against the opposition division's decision revoking European patent No. 0 480 928 notified by post on 31 January 1997.

The appeal fee was paid on 25 March 1997 and the statement of grounds of appeal was filed on 27 May 1997.

II. Seven oppositions were filed requesting revocation of the patent as a whole on the basis of Article 100(a), 54 and 56 EPC.

Opponent 03 withdrew his opposition during the opposition proceedings.

The opposition division held that lack of inventive step (Articles 100(a) and 56 EPC) prejudiced the maintenance of the patent having regard to documents:

D1: EP-A-0 195 750,

D5: EP-A-0 243 326 and

D6: GB-A-828 529.

During the opposition proceedings the following documents were also cited:

D3: DE-A-3 409 665,

D4: DE-C-3 133 778 and

D7: US-A-1 800 368.

III. In the statement of the grounds of appeal, the appellant pointed out that the sequence of pouring the ingredients in the preparation of the cappuccino beverage was an important aspect of the technical

problem and he stated that the possibility of using the machine for delivering black coffee and/or a "coffee and milk" beverage was only an optional feature irrelevant to the invention.

He contended also that, in the machine according to the invention, the emulsifier device in the milk delivery line and the time required by the milk to pass therethrough work together for having the creamy milk arriving automatically into the cup in the correct sequence. The appellant alleged that D5 discloses nothing else than an emulsifier device for preparing worked-up hot milk in a coffee making machine of the bar type where the delivery spout of the worked-up milk is separate from the coffee delivery spout and operates as an independent device. According to the appellant, D5 does not contain any hint about having the milk and coffee delivery spouts close together in order to deliver both the ingredients in a suitable time sequence for making a "cappuccino" in a short preparation time and he argued that, the skilled person would not learn from D6 to use the apparatus for obtaining the delivery of the beverages other than "simultaneously".

The appellant considered that, with regard to the available disclosures, the skilled person could envisage to insert the emulsifier device of D5 into the machine of D6 only upon an "ex post" reasoning.

According to the respondents, the invention was obvious in view of the combination of the teachings of D1 or D5 and D6.

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In particular, they took the view that the combination of the features of the preamble of Claim 1, which are known from D6, and the features of the characterising part, which are known globally in D5, does not involve an inventive step since it does not create a combined effect in the sense of a functional interaction between the two groups of features.

They also argued that it would be obvious to use the emulsifier unit described in D5 as one of the two systems described in D6 for dispensing beverages through two spouts placed close to each other over a cup. They alleged that D5 clearly states that the emulsifier is combined with a bar-size espresso coffee maker (i.e. D5 discloses a coffee maker machine delivering coffee through a spout and combined with an emulsifier receiving steam from the coffee maker and delivering emulsified milk through a second spout) and that the person skilled in the art who follows the teaching of D6 would have no difficulties in placing the spouts of D5 close to each other to deliver both the coffee and the emulsified milk into one stationary cup.

According to them the order wherein the coffee and the emulsified milk are delivered into the cup is irrelevant and the skilled person would have a priori no reason not to combine D5 and D6 and they came to the conclusion that claim 1 of the main request was not patentable in view of D5 and D6 or D6 and D1.

They were also of the opinion that, since it is generally known to first deliver espresso coffee into the cup and subsequently deliver the emulsified milk into the cup, this extra feature added to the auxiliary claim 1 does not provide an inventive step to its subject-matter.

With his letter dated 9 February 1998, the party of right (opponent 04) withdrew his opposition and informed the Board that he would not attend the planned oral proceedings.

IV. Oral proceedings took place on 26 May 1998.

Although duly summoned the party of right (opponent 04) as well as respondent 05 did not appear and the proceedings were continued without them (Rule 71(2) EPC).

The appellant filed a new independent apparatus claim to be taken into consideration as a basis for a new auxiliary request. He considered D5 as the closest prior art document and explained that, before the invention has been made, the preparations of cappuccino beverages were dependent on the skill of the operator so that same organoleptic properties were not to be obtained throughout the different preparations.

According to the appellant, the aim of the invention was thus to get rid of any human intervention in order to allow cappuccino beverages to be prepared uniformly, by anybody, in a completely automatic way and he emphasized that the main idea at the basis of the invention was indeed to automate the preparation of such a beverage.

He contended further that D6 just discloses a usual constructive measure and that the machine of D5 still needs manual interventions. In his opinion, neither D5, nor D6 even suggests the inventive basic idea of the invention.

Moreover, he contended that a surprising effect can be seen in that, just by using a simple constructive measure according to the invention, a complete automation of the machines for preparing cappuccino beverages can be reached.

The appellant also pointed out that, after D5 had been published and during more than 6 years, although the market survey mentioned by respondent 1 has detected an increasing demand for cappuccino beverages and although all the information and components needed to arrive at the invention were available, no competitors got the idea of automatising the expresso machine of D5.

The respondents disagreed with the contentions of the appellant and argued that such an automation has to be considered as the normal development of the technique in that particular field due to the increasing demand of cappuccino beverages and the simultaneous invention of new emulsifier units as disclosed in D1 or D5 which permitted the automation of machines dispensing this type of beverage.

They also contended that all the automatic machines dispensing a composite beverage which were known before the priority date, such as for example those described in D3, D4 and D7, show delivery spouts disposed close together in order to be able to deliver the different products in the same cup.

At the end of the oral proceedings, the appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of Claim 1 filed with letter dated 27 May 1997 (main request) and already discussed during the opposition proceedings or on the basis of the modified claim submitted during the oral proceedings (auxiliary request).

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The respondents requested that the appeal be dismissed.

## V. Claim 1 of the main request reads as follows:

"An automatic machine (1) for dispensing black coffee, white coffee and the like, comprising, within a frame structure (2), a coffee dispensing device (3) having a delivery spout (4), a milk dispensing device having a respective delivery spout (10), said spouts (4,10) being located close to each other for direct delivery into one cup, characterized by the fact that said milk dispensing device (6) includes an emulsifier device (8) provided with an intake chamber connected by respective conduits (13,14,16) to a steam generator (7), an air intake (15) and a milk container (17)."

Claim 1 of the auxiliary request reads as follows:

"An automatic machine (1) for dispensing "cappuccino" white coffee comprising, within a frame structure (2), a coffee dispensing device (3) having a delivery spout (4), a milk dispensing device (6) having a respective delivery spout (10), said spouts (4,10) being located close to each other for direct delivery into one cup, characterized by the fact that said milk dispensing device (6) includes an emulsifier device (8) provided with an intake chamber (12) connected by respective conduits (13,14,16) to a steam generator (7), an air intake (15) and a milk container (17), said emulsifier device (8) delivering the emulsified milk into the cup after the delivery of the espresso coffee."

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# Reasons for the Decision

1. Admissibility of the appeal

After examination the appeal has been found to be admissible.

- Appellant's main request
- 2.1 Modifications to Claim 1 (Article 123 EPC)

Claim 1 as granted has been modified in order to incorporate features of dependent Claim 2 as granted which can be derived from the description and the figures of the patent application as originally filed (see WO-A-91/00041: page 2, line 25 to page 3, line 4 and figures 2 to 4). Since moreover these added features restrict the scope of protection of Claim 1 as granted, no objection can be made under Article 123 EPC.

2.2 Novelty (Article 54 EPC)

The board is satisfied that none of the cited documents discloses an automatic machine for dispensing black or white coffee or the like comprising in combination all the features described in Claim 1.

Since, at the oral proceedings, novelty has not been disputed anymore by the respondents, there is no need for further detailed substantiation and the subjectmatter as set forth in Claim 1 is to be considered as novel within the meaning of Article 54 EPC.

#### 2.3 The closest state of the art

The Board considers that the state of the art closest to the invention is described in D5 (as well as in D1) disclosing a machine for preparing cappuccino beverages comprising an emulsifier device of the type described in Claim 1.

The machine according to Claim 1 differs from this closest prior art essentially in that the liquid delivery spouts are arranged so close to each other that they can deliver expresso coffee and emulsified milk in one cup without the necessity of displacing the cup.

#### 2.4 Problem and solution

Starting from the aforementioned closest state of the art and taking into account the above mentioned difference, the Board sees the problem as objectively determined (see in particular decision T 13/84, OJ EPO 1986, 253) as being to automate completely the machine of D5 (or D1) in particular to avoid any intervention of an operator for saving time (see the specification: column 1, lines 10 to 24).

The Board is satisfied that the solution proposed in Claim 1, i.e. to bring the coffee and worked up milk delivery spouts close together, allows the solution of said problem.

#### 2.5 Inventive step (Article 56 EPC)

D5 (or D1) concerns a bar-size espresso coffee maker equipped with an emulsifier assembly for emulsifying air, steam and milk in preparing cappuccino.

Moreover it has already been noticed and acknowledged in the field of preparing cappuccino that preparation of cappuccino beverages required some skill from the operator (see D1: column 1, lines 8 to 12) and D1 as well as D5 have already solved this problem by providing an emulsifier unit the use of which "requires no special skill of the operator" so that the preparation of cappuccino would be made "in a near automatic fashion" (see D1: column 1, line 18 to 23 and column 4, lines 27, 28).

Therefore, the idea to automate the preparation of cappuccino beverage, which is said by the appellant himself to be at the basis of the invention, was already known from D1 (and D5) at the priority date, at least as far as the essential operations of the preparation process are concerned. Furthermore automation as such, of course is a general trend and an obvious concern, particularly in the technical field of dispensing beverages (see D3, D4, D6 and D7).

Automation according to the claimed invention appears in the present case to be limited only to the final step of the preparation process, i.e. the pouring of the two liquids (expresso coffee and emulsified milk) into the cup.

As admitted by all the parties, at the priority date, the demand for cappuccino beverages was increasing and, for the person skilled in the art, such a need would necessarily be an incitement to complete the automatisation of the machine according to D1 or D5.

Since, on the machine according to D5 (or D1), the only step of the preparation process of cappuccino beverage which still need a manual intervention is to collect the different liquids into one cup, the skilled person had no difficulty to discover the step of the process which is to be automated.

Since, moreover, D5 (or D1) does not advise to position the emulsified milk delivery spout in a particular place relative to the coffee delivery spout and since, on complete automated machines for dispensing beverages, it is usual and logical to gather together the delivery spouts so that the different products to be mixed are directly delivered into one cup (see for example D3, D4, D6 and D7), the Board considers that to dispose the coffee and milk delivery spouts of the machine according to D5 (or D1) sufficiently close together for delivering the two beverages at substantially the same place belongs to the very few solutions which can come immediately and logically to the mind of the skilled person confronted with the problem of automatising completely these known beverage dispensing machines.

The adaptation of such a disposition of the spouts on the apparatus of D5 being no more than a constructive measure which does not involve the exercise of any skill or ability beyond that to be expected of the person skilled in the art, the Board considers that the solution claimed in Claim 1 of the appellant's main request does not involve an inventive step in the meaning of Article 56 EPC.

2.6 Conclusion: For the aforementioned reasons, the ground for opposition concerning lack of inventive step (Article 100(a) EPC) prejudices the maintenance of the European patent on the basis of the main request in application of Article 102(1) EPC.

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- 3. Appellant's auxiliary request
- 3.1 Modifications to Claim 1 (Article 123 EPC)

The scope of the auxiliary Claim 1 has been restricted to the machines suitable for dispensing "cappuccino" white coffee. Since the whole description of the patent application as originally filed is concerned with a machine of this type, no objection can be made under Article 123 EPC.

Additionally to the features of granted claims 1 and 2, the auxiliary Claim 1 also incorporates the following sentence:

"said emulsifier device (8) delivering the emulsified milk into the cup after the delivery of the espresso coffee."

In the description of the patent application as originally filed (see WO-A-91/00041: page 8, line 19), it is stated that the machine according to the invention can dispense the emulsified milk after the delivery of expresso coffee.

Therefore, this amendment complies also with the requirements of Article 123 EPC and is allowable.

#### 3.2 Novelty:

The same conclusions as for the subject-matter of Claim 1 of the main request also apply for the more limited subject-matter of the auxiliary Claim 1.

#### 3.3 Closest state of the art

Since Claim 1 of the auxiliary request differs from Claim 1 of the main request only by the fact that it specifies for the preparation of a cappuccino the sequence of pouring the beverages into the cup, the Board still considers that D5 (or D1) discloses the closest state of the art for the same reasons as given above in section 2.3.

The subject-matter of Claim 1 differs therefore from this prior art in that the two delivery spouts are located close to each other for direct delivery into one cup and in that the apparatus is set up in order to deliver the emulsified milk into the cup after the expresso coffee has been delivered.

#### 3.4 Problem to be solved

Since the added feature concerns only the setting up of the apparatus and does not change its structure, the problem and also its solution appear to be the same as already mentioned above in section 2.4.

#### 3.5 Inventive step

Since, in the preparation of cappuccinos, the usual sequence is to pour first the expresso coffee and then the emulsified milk, the Board considers that to incorporate into Claim 1 of the main request such an already known sequence of delivery of the beverages as a new additional feature does not add an inventive step to the subject-matter of said claim so that the subject-matter of Claim 1 of the auxiliary request still remains obvious in view of D5 (or D1) and D6, particularly since sequential dispensing is common knowledge in dispensing beverages (see D3, Claim 1, line 14: "zeitlich gestaffelter Abfolge").

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3.6 Conclusion: Therefore, the ground for opposition concerning lack of inventive step (Article 100(a) EPC) prejudices also the maintenance of the European patent on the basis of the auxiliary request in application of Article 102(1) EPC.

# Order

# For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

N. Maslin

The Chairman:

C. Andries