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D E C I S I O N
of 26 November 2002

Case Number: T 0072/01 - 3.2.7

Application Number: 93918056.8

Publication Number: 0655048

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Language of the proceedings: EN

Title of invention:
Double reach platten assembly

Patentee:
CLECO LIMITED

Opponent:
AFB Anlagen- und Filterbau GmbH & Co. KG

Headword:
-

Relevant legal provisions:
EPC Art. 84, 56

Keyword:
"Interpretation of claim; Inventive step (yes)"

Decisions cited:
-

Catchword:
-



Case Number: T 0072/01 - 3.2.7

D E C I S I O N
of the Technical Board of Appeal 3.2.7
of 26 November 2002

Appellant: AFB Anlagen- und Filterbau GmbH & Co. KG
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 24 October 2000
rejecting the opposition filed against European
patent No.0 655 048 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: A. Burkhart
Members: H. E. Felgenhauer
J. H. P. Willems

Summary of Facts and Submissions

- I. The appellant (opponent) filed an appeal against the decision of the Opposition Division rejecting the opposition against European patent No. 0 655 048.

Opposition had been filed against the patent as a whole based on the grounds of opposition according to Article 100(a) EPC (lack of novelty and inventive step).

The opposition division held that the grounds for opposition according to Article 100(a) EPC did not prejudice the maintenance of the patent, considering in particular the following prior art documents:

D1: US-A-4 988 262

D3: Drawing No. 57-001.0013 of the company Krusche-Lagertechnik

- II. Oral proceedings before the Board of Appeal were held on 26 November 2002.

(i) The appellant requested that the decision under appeal be set aside and that the patent be revoked.

(ii) The respondent (patentee) requested that the appeal be dismissed and that the patent be maintained as granted (main request) or alternatively in amended form with sets of claims filed as auxiliary requests 1 to 3, filed on 15 June 2001.

(iii) Claim 1 according to the main request, which in the following is exclusively referred to, reads as follows:

"A platten assembly (10) for a side reach truck (12) of a warehouse racking system, comprising:

a base mounting (26) mountable on the load platform of a truck;

a pair of double reach platten arms extensible in synchronism to one side of a base mounting (26) to front and back pallet positions respectively on one side of the load platform of the truck and to the other side of the base mounting (26) to front and back pallet positions respectively on the other side of the load platform of the truck;

wherein each platten arm comprises:

a carriage section (24) mounted on the base mounting (26) and movable across the base mounting (26) from one side to the other side thereof;

one or more intermediate sections (30) extensible telescopically in cantilever from either side of the carriage section (24); and

a distal section (34) extensible telescopically in cantilever from the intermediate section (30) or from one of the intermediate sections (30) for penetrating the fork cavity of a pallet

positioned at a front or a back pallet position at either side of the load platform of the truck:

characterised in that a platten arm control mechanism is provided for moving the intermediate sections (30) up to the front or back pallet positions on either side of the load platform of the truck without substantial penetration of the fork cavity of a pallet positioned at that pallet position while causing the distal sections (34) to penetrate the fork cavity."

III. The appellant argued essentially as follows:

- (i) Claim 1 is unclear since it lacks an essential feature clearly defining that, as indicated in the description of the patent in suit, the intermediate section is thicker as the distal section. Lack of clarity further arises from the feature defining that the "platten control mechanism is provided for moving the intermediate sections (30) up to the front or back pallet positions on either side of the load platform of the truck without substantial penetration of the fork cavity of a pallet positioned at that pallet position", since the expression "without substantial penetration" of this feature is vague and ambiguous.

The appellant withdrew its request to consider the last mentioned objection with respect to clarity of claim 1 also under the ground of opposition according to Article 100 (b) EPC which has been raised within the appeal

proceedings for the first time.

- (ii) Document D1, disclosing a platten assembly according to the first part of claim 1, constitutes the closest prior art. Moreover the problem underlying the patent in suit corresponds to the one to be solved according to document D1. The solution according to this document consists in limiting the number of intermediate sections penetrating the fork cavity of a pallet positioned in a front or a back pallet position to one. For the skilled person it is obvious that the extent of this penetration of the outermost intermediate section can be limited to the amount necessary for overlap between this intermediate section and the distal section to take place. The platten arm control mechanism according to document D1 can thus, corresponding to the first characterising feature of claim 1, control the outermost intermediate section to move up to the front or back pallet positions without substantial penetration of the fork cavity. Since corresponding to the remaining characterising feature of claim 1 the control mechanism also causes the distal section to penetrate the fork cavity, the subject-matter of claim 1 does not involve an inventive step compared with document D1.

These considerations apply in case the distal section cooperates with a pallet of corresponding length and even more in case the distal section cooperates with a pallet of smaller length, e.g. one corresponding to only

half the length of the distal section.

- (iii) Additionally the subject-matter of claim 1 does not involve an inventive step with respect to document D3, disclosing a platten arm assembly with a pair of platten arms. Although this platten arm assembly is not designed for a warehouse racking system requiring vertical movement of the platten arm assembly, it is obvious for the skilled person that the known assembly can also be used within a side reach truck of a platten warehouse racking system. Furthermore the positions into which the distal sections can be moved indicate that, for pallets of appropriate length, the platten arms can function as ones of a double reach platten assembly. Since the intermediate section overlaps the distal section by an amount of less than 50% of its length in case the distal section penetrates the fork cavity of a pallet, a platten control mechanism is provided which, corresponding to the platten assembly according to claim 1, moves the intermediate sections up to the front or back pallet positions without substantial penetration of the fork cavity of a pallet positioned at that pallet position.

IV. The respondent argued essentially as follows:

- (i) Claim 1 of the patent in suit is clear. This claim is directed to a platten assembly comprising a pair of double reach platten arms. For such double reach platten arms it is inevitable that, as indicated in the description, the intermediate sections are

thicker than the distal sections so that the load of a pallet in a back pallet position can be properly supported. This increased thickness of the intermediate sections, which furthermore gives rise to the problem to be solved by the subject-matter of claim 1, thus needs to be considered as being implicitly comprised within claim 1.

The feature according to which a platten control mechanism is provided for moving the intermediate sections up to the front or back pallet positions on either side of the load platform of the truck without substantial penetration of the fork cavity of a pallet is clear, since within the description the meaning of the expression "without substantial penetration" is clearly explained, in that various alternatives are disclosed within which movement of the intermediate section is controlled satisfying this condition. Besides it is clear for the skilled person that, as long as the problem underlying the patent in suit is solved, a possible penetration of the intermediate section in the fork cavity is not a substantial one.

Finally claim 1 clearly defines a platten assembly for a side reach truck of a warehouse racking system, which implies that the pair of double reach platten arms is dimensioned and the racks of the racking system are spaced according to the pallet size to be handled within the particular warehouse racking system, for which the platten assembly is designed. Consequently

considerations, based on the use of a particular platten arm assembly with pallets of smaller length as compared with the pallets this platten assembly and the warehouse racking system are designed for, bear no relevance to the subject-matter of claim 1.

- (ii) Document D1 discloses a platten assembly according to the first part of claim 1, with the exception of the feature according to which a pair of double reach platten arms extensible in synchronism is provided, since according to document D1 the platten assembly comprises instead of a pair of double reach platten arms a single double reach platten arm of appropriate width. The problem to be solved according to document D1 corresponds to the one underlying the patent in suit. According to document D1 this problem is solved in that, regardless of whether a pallet is positioned in the front or back position, the number of intermediate sections penetrating the fork cavity of such a pallet together with the distal section is limited to one. Consequently the platten assembly according to document D1 does not solve the problem to the extent it is solved according to the assembly defined by claim 1 of the patent in suit. Furthermore since according to document D1 a substantial portion of the intermediate section adjacent the distal section penetrates the fork cavity together with the distal section, this document could not have led to the provision of a platten arm control mechanism according to claim 1, which controls movement of the distal section up to the front or back

pallet position without substantial penetration of the fork cavity.

- (iii) Document D3 concerns a platten assembly designed for accessing pallets positioned in one level. Contrary to the subject-matter of claim 1 this platten assembly is thus not designed for a side reach truck of a warehouse racking system. Furthermore, for pallets having the length the assembly is designed for, this platten assembly does not comprise a pair of double reach platten arms. Consequently the problem to be solved according to the patent in suit does not occur in connection with the assembly disclosed in document D3. Besides since according to this assembly a substantial portion of the intermediate section penetrates the fork cavity with the distal section, no indication leading to the assembly according to claim 1 is given.

Reasons for the decision

1. *Interpretation of claim 1*

- 1.1 Claim 1 is directed to a platten assembly for a side reach truck of a warehouse racking system comprising a pair of double reach platten arms extensible in synchronism to one side of a base mounting to front and back pallet positions. In such a double reach platten assembly the distal sections can be slender whereas the intermediate sections have to be thicker (cf. column 1, lines 35 to 54; column 10, lines 51 to 58 of the patent in suit). The disadvantages of prior art platten assemblies referred to in the patent in suit result from the intermediate sections being thicker (column 1,

line 35 to column 2, line 5), the problem to be solved according to the patent in suit (column 2, lines 9 to 11) aims at avoiding the disadvantages caused by this thickness of the intermediate sections and the solution to this problem according to claim 1 leaves the thickness of the intermediate sections unaffected (column 3, lines 6 to 31; column 6, lines 36 to 40). Consequently the Board accepts the interpretation of the respondent, that, due to it defining a platten assembly with a pair of double reach platten arms, it is for the skilled person inherent to the platten assembly defined by claim 1 that the intermediate sections are thicker than the distal sections.

- 1.2 The feature according to which a platten arm control mechanism is provided for moving the intermediate sections up to the front or back pallet positions on either side of the load platform of the truck without substantial penetration of the fork cavity of a pallet positioned at that pallet position, needs to be seen in context with the disadvantages to be avoided and the problem to be solved by the platten assembly according to claim 1. These disadvantages arise from the fact that known platten assemblies require that the intermediate sections, being thicker than the distal sections, penetrate the fork cavity of a pallet due to simultaneous proportional movement of all sections of a pair of double reach platten arms. This leads to a space having a large height which is necessary for penetration of the platten arms under a pallet positioned in a front pallet position (cf. column 1, lines 42 to 54 of the patent in suit and D1, Figure 1a). According to the patent in suit this is "conventionally accommodated by providing front to back spacer bars on top of the warehouse racking beams of

the front pallet positions, so that each pallet placed at those front positions is supported above the racking beams by a discrete distance sufficient to accommodate the intermediate platten sections between the underside of the pallet board and the racking beams "(patent in suit, column 1, lines 46 to 54). According to the problem underlying the patent in suit a double reach platten assembly is to be provided "which avoids the requirement for the above spacer bars" (column 2, lines 9 to 11). Consequently the expression "without substantial penetration" within the feature concerned needs to be understood as limiting penetration of the intermediate sections in the fork cavity to one, for which sufficient space is given without spacer bars being required.

Within the patent in suit for a movement of the intermediate sections, qualified as being without substantial penetration, the following possibilities are given. Racking beams supporting the pallets without overhang do not allow substantial penetration of the intermediate section, since this would cause fouling on the racking beam. If pallets are supported on racking beams such that the pallets overhang 100 mm front and back, then the intermediate section may penetrate up to 100 mm before the outermost intermediate sections reach the racking beam. Furthermore penetration not being substantial can take place in case the outer ends of the outermost intermediate sections are shaped partially to overlie the racking beam without fouling it (column 2, line 55 - column 3, line 31). All these possibilities have in common that the thickness of the intermediate sections adjacent the distal sections, with the possible exception of its end portions, is such that, in case no spacer bars are provided,

substantial penetration of the intermediate sections would cause fouling of the racking beam concerned.

- 1.3 Claim 1 is directed to a platten assembly for a side reach truck of a warehouse racking system within which front and back pallet positions are provided. The first characterising feature concerns a platten arm control mechanism provided for moving the intermediate sections up to the front or back pallet positions without substantial penetration of the fork cavity of a pallet positioned at that pallet position. This feature thus also concerns the relationship of the intermediate sections with the fork cavity of a pallet positioned in a particular pallet position. This implies, as referred to in the description (column 2, line 55 to column 3, line 9 of the patent in suit), that the length of a pallet used in a particular warehouse racking system and the spacing of the racks of this warehouse racking system correlate. The Board thus accepts the interpretation of the respondent, that claim 1 is directed to a platten assembly for a side reach truck of a warehouse racking system, wherein the platten assembly is designed for cooperation with a particular warehouse racking system, the racks of which are spaced dependent on the length of the pallets to be used.

2. *Novelty*

Novelty of claim 1 remains undisputed. Claim 1 is novel since none of the available prior art documents discloses a platten arm assembly as defined in claim 1.

3. *Inventive step*

- 3.1 Document D1 constituting the closest prior art

discloses a platten assembly which uncontestedly comprises the features of the first part of claim 1, with the exception of the feature according to which a pair of double reach platten arms is provided.

Further according to document D1 a similar problem to the one underlying the patent in suit is to be solved. According to document D1 a platten assembly with double reach platten arms is to be provided, wherein "the access space required for the insertion of a double reach shuttle beneath a single load is essentially the same as that required for a single reach shuttle, and substantially less than that required to access the same load with a double deep shuttle" (column 1, lines 52 to 61). Consequently document D1 aims at having double reach platten arms such that the space required underneath a pallet is the same, regardless of whether the pallet is positioned at the front or the back pallet position.

According to document D1 this problem is solved in that the movement of the double reach platten arm is controlled such that, besides the distal section, only a portion of the adjacent intermediate section needs to penetrate into the fork cavity of a pallet positioned in the front pallet position (column 1, lines 62 to 68), such that only the added depth of this portion needs to be accommodated (column 2, lines 51 to 61).

Thus while the solution according to document D1 reduces the height of the space required underneath a pallet positioned in a front pallet position, as can be derived from a comparison of Figures 1a and 2a, according to this solution it is not envisaged to reduce this height to one sufficient for penetration of

only the distal section (cf. Figures 2a, 2b).

The platten assembly according to claim 1 goes beyond the solution according to document D1 in that for a platten assembly according to the first part of claim 1 a platten arm control mechanism is provided

- (a) for moving the intermediate sections up to the front or back pallet positions on either side of the load platform of the truck without substantial penetration of the fork cavity of a pallet positioned at that pallet position while
- (b) causing the distal sections to penetrate the fork cavity.

With respect to feature (a) distinguishing the subject-matter of claim 1 from the platten assembly according to document D1, the appellant has argued that due to this feature limiting penetration of the intermediate section to be non-substantial, this feature can be derived from the solution according to document D1 in an obvious manner. This argument cannot be followed however. Although document D1 does not exclude penetration of the outermost distal section into a fork cavity by a distance of less than 50% (cf. column 2, lines 1 to 6), according to document D1 the depth of this intermediate section needs to be provided for in the space accommodating the double reach platten arm (column 2, lines 51 to 61). Consequently such a movement of the intermediate section cannot be considered as being one without substantial penetration within the meaning of feature (a) as indicated in section 1.2 above.

With respect to document D1 the problem to be solved by the patent in suit can be seen in further limiting the space which has to be provided underneath a pallet positioned at a front pallet position, such that the requirement for spacer bars is avoided (column 2, lines 9 to 11).

The solution to this problem, according to which within a platten assembly as defined by the first part of claim 1 a control mechanism is provided, controlling movement of the intermediate sections and the distal sections as defined by features (a) and (b) is not suggested by the platten arm assembly according to document D1. As indicated above according to document D1 movement of the double reach platten arms is controlled such that, irrespective of the extent the outermost intermediate section penetrates the fork cavity, this section penetrates the fork cavity in a manner leading to the thickness of this intermediate section having to be accommodated. Consequently document D1 does not give an indication leading to a control of the movement of the outermost intermediate section according to feature (a), having the effect that, despite the intermediate sections being thicker than the distal sections, spacer bars are not required.

- 3.2 Uncontestedly document D3 discloses a platten assembly which is not intended for a side reach truck of a warehouse system but could be modified to assume this function without inventive step being required.

According to the appellant the length for the extension of the distal sections shown in document D3 as 1400 mm, together with a possible additional extension of 420 mm, leads to this platten assembly being able to

function as one having double reach platten arms if pallets having a length smaller than the distal section, having a length of 1200 mm, are considered.

According to the respondent, as is the case with respect to the subject-matter of claim 1 (cf. section 1.3 above), the platten assembly according to document D3 is one which - e.g. with respect to the length of the distal section and the extent of its movement - is conceived for cooperation with pallets of a particular length.

Following this argument the Board is of the opinion that, based on the length's given in document D3 for the distal sections and their extensions (regular and additional), the platten assembly according to document D3 is one conceived for pallets having a length of 1200 mm, namely so-called Europallets having such a length (cf. patent in suit, column 2, line 55 to column 3, line 6). Consequently the extension for the distal sections provided according to document D3 is not sufficient to qualify the platten assembly according to this document as one having a pair of double reach platten arms.

Thus the disadvantages to be avoided according to the patent in suit, which only occur in case double reach platten arms of a platten assembly access pallets positioned in front pallet positions, do not occur in connection with a platten assembly which, like the one disclosed in document D3, has single reach platten arms.

Since the platten assembly according to document D3 is thus of a different type compared to the one defined by

claim 1 and since furthermore the disadvantages to be avoided according to the subject-matter of claim 1 do not occur with the type of platten assembly according to document D3, it is doubtful whether the skilled person in an attempt to solve the problem underlying the patent in suit, would consider document D3.

Even if, despite the situation outlined above, the skilled person would consider document D3, this document could not lead to the platten assembly according to claim 1. The reason being that the platten assembly according to document D3 comprises a pair of platten arms, each one having an intermediate section and a distal section, the two sections being so nested into each other that the total thickness of the two sections in an overlapping zone hardly exceeds the thickness of only the distal section. Consequently due to this nesting, irrespective of the intended penetration of a substantial portion of the intermediate section into the fork cavity of a pallet, according to document D3 it is not required to place spacer bars underneath the pallets. Due to this different approach this document fails to give an indication leading to a platten arm control mechanism being provided, which controls movement of the intermediate sections as defined by feature (a) in the case that, corresponding to the platten arm assembly according to claim 1, the intermediate sections are thicker as the distal sections, to avoid provision of spacer bars being required.

3.3 Consequently the subject-matter of claim 1 involves an inventive step in the sense of Article 56 EPC.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

D. Spigarelli

A. Burkhart