Case Number: T 0740/09 - 3.2.07
Application Number: 02780178.6
Publication Number: 1448464
IPC: B65G 47/38, B65G 17/14, B65G 17/32, B65G 47/94
Language of the proceedings: EN
Title of invention: Apparatus and transport container for transport and controller discharge of a load
Patentee: Eurosort B.V.
Opponent: Dürkopp Fördertechnik GmbH
Headword: 

Relevant legal provisions: EPC Art. 56

Keyword: "Different functionality of coupling as defined in claim 1 and known coupling (point 3.3.1); inventive step - yes (point 3.3.6)"

Decisions cited:

Catchword:
Case Number: T 0740/09 - 3.2.07

DECISION
of the Technical Board of Appeal 3.2.07
of 16 February 2012

Appellant: Dürkopp Fördertechnik GmbH
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Representative: Rau, Manfred
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Respondent: Eurosor B.V.
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Decision under appeal: Decision of the Opposition Division of the European Patent Office posted 26 January 2009 rejecting the opposition filed against European patent No. 1448464 pursuant to Article 101(2) EPC.

Composition of the Board:
Chairman: H. Meinders
Members: H.-P. Felgenhauer
E. Dufrasne
K. Poalas
I. Beckedorf

C7408.D
Summary of Facts and Submissions

I. The opponent (appellant) has filed an appeal against the decision of the opposition division rejecting the opposition against European patent No. 1 448 464. It requested that the decision under appeal be set aside and that the European patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed or, in the alternative, that the decision under appeal be set aside and that the patent be maintained on the basis of one of the first and second auxiliary requests filed with letter dated 16 January 2012.

II. Claim 1 of the patent as granted reads as follows:

"Apparatus for transport and controlled discharge of a load, comprising a frame with a guide (5, 6a) for at least one displaceable transport container (2), a drive means (1) for carrying the transport container (2) in an endless track, a resetting device (50) for placing a transport container (2) in a starting position and a discharge station for selectively receiving a load of a transport container (2), wherein the transport containers are provided with a movable carrying panel (21, 22) for receiving of the load thereon, comprising at least a first and a second tilt tray (21, 22) which extend between tilt axes (23) located on both sides and which can be selectively tilted between a transporting position and a downward hanging discharge position,

characterized in that
between the tilt trays (21, 22) a coupling (24) is arranged which is able and adapted to impose a tilting movement of the first tilt tray (21) on the second tilt tray (22).

III. The following prior art of the opposition proceedings is considered

a) documents

D1   NL-A-900 111 6, later supplemented with

D1a  Translation of D1 into German

b) Public prior use

as considered in the decision under appeal with reference to the testimony of Mr. Reinholz, heard as a witness and as referred to in the decision under appeal (reasons, no. 2.5) in combination with drawings 762A-205, - 233, and - 435.

IV. According to the impugned decision the alleged public prior use is proven. Its consideration in combination with the apparatus according to D1 considered as representing the closest prior art however does not render the apparatus according to claim 1 obvious.

V. The submissions of the appellant can be summarised as follows:

(a) The public prior use has correctly been considered as prior art in the decision under appeal.
(b) Starting from the apparatus of D1 as closest prior art it is obvious to consider the coupling as known from this public prior use in an attempt to solve the problem underlying the patent in suit, namely to modify the apparatus as known from D1 such that the time required for tilting of the first and second tilt tray is reduced. In this respect it needs to be taken into account that claim 1 does not define the structure of the coupling but only its functionality which, taking into account that the position of the tilt trays in the discharge position is not clearly defined either, is likewise provided by the functionality of the coupling known from the prior use. This applies even more in case obviously possible modifications of this coupling are taken into account.

VI. The submissions of the respondent can be summarised as follows:

(a) The public prior use has incorrectly been considered as prior art in the decision under appeal, since it is only based on one sale and delivery and the testimony of one witness in this respect. Under the circumstances given the opponent was obliged to provide further evidence concerning that alleged public prior use or other alleged public prior uses based on the same apparatus.

(b) Starting from the apparatus of D1 as closest prior art it is evident that a coupling of the tilt trays would require a greater functionality than
the one provided by the coupling according to the public prior use. The person skilled in the art thus would have had no reason to consider the coupling of the public prior use in connection with the apparatus of D1. But even if this coupling would have been considered in connection with the apparatus of D1 this would not have rendered the invention as defined by claim 1 obvious.

VII. In an annex to summons to oral proceedings dated 24 October 2011 (in the following: the annex) the Board i.a. referred to aspects to be considered in the examination of inventive step.

VIII. Oral proceedings before the Board were held on 16 February 2012.

Reasons for the Decision

1. Consideration of the alleged public prior use as prior art

1.1 According to the impugned decision the alleged public prior use has been sufficiently proven (reasons, no. 2).

The Board already indicated in the annex to the summons that the impugned decision is not at fault considering the alleged public prior use as proven (point 6.2.1).

1.2 The respondent did not object to any particular point concerning the taking of evidence by the opposition division or the result of its evaluation of the
evidence. Instead it objected in general terms to the fact that the finding of the impugned decision that the alleged public prior use has been sufficiently proven, is based on the testimony of only one witness. According to the respondent it is evident, considering the circumstances of the present alleged public prior use, and in particular that the apparatus concerned has obviously been sold and delivered to more customers than the one for which a witness has testified, that the appellant is obliged to provide further evidence concerning i.a. one or more of the other prior uses. In its view under the present circumstances evidence based on the testimony of only one witness and one set of drawings does not suffice since it makes it virtually impossible for the respondent to show gaps or inconsistencies with respect to the evidence provided.

1.3 The Board considers the objections of the respondent concerning the evaluation of the evidence provided with respect to a single alleged public prior use as unsubstantiated, since they neither relate to the taking of evidence by the opposition division nor to the decision under appeal, according to which the public prior use concerned has been proven.

1.4 In view of the result arrived at (the subject-matter of claim 1 involves an inventive step) even taking account of the alleged public prior use, no further attention needs to be spent on the question to which extent the objection of the respondent has to be considered, irrespective of its general nature as indicated above.
1.5 In the following the alleged public prior use as considered in the decision under appeal will likewise be taken into account as prior art.

2. Subject-matter of claim 1

2.1 Claim 1 of the patent as granted concerns, as defined by features of the preamble of this claim, an apparatus for transport and controlled discharge of a load with at least one displaceable transport container. Each transport container is provided with a movable carrying panel for receiving of a load thereon. It comprises a first and a second tilt tray, which extend between tilt axes located on both sides and which can be selectively tilted between a transporting position and a discharge position. Concerning the discharge position of the tilt trays it is further referred to a downward hanging (discharge) position.

2.2 According to the characterising features of claim 1 a coupling is arranged between the tilt trays which is able and adapted to impose a tilting movement of the first tilt tray on the second tilt tray.

The Board concurs with the view expressed by the appellant that the characterizing features relate to the structure of a transport container defining that between its tilt trays a coupling is arranged as well as to the function of the coupling defining that it is able and adapted to impose a tilting movement of the first tilt tray on the second tilt tray.

Concerning the function of the coupling the Board is not convinced by the argument of the appellant that
this function consists merely in a synchronization of the tilting movement of both trays since it is clear from the reference to the transporting position and the downward hanging discharge position in the preamble of claim 1, that the function of the coupling according to the last characterizing feature of claim 1 needs to be seen in context with these positions defined for the tilting trays. Thus the function of the coupling as defined by claim 1 needs to be seen as lying in a synchronization of the first and second tilting tray over the tilting range of these trays, which extends between the transporting position and the discharge position, which, as indicated above is defined as one in which the trays are hanging downward.

3. Inventive step

3.1 Closest prior art

3.1.1 The appellant limited its argumentation concerning inventive step to the approach according to which D1 is considered as the closest prior art and the public prior use is taken into account as further prior art.

The respondent did, besides its objection concerning the consideration of the alleged public prior use as being proven, not object to this approach.

3.1.2 It is common ground that D1 discloses, as can be concluded e.g. from figures 1 - 3, an apparatus as defined by the preamble of claim 1.

As shown in figure 1 the apparatus comprises a displaceable transport container comprising a first and
second tilt trays 5, 6 which can be selectively tilted between a transporting position (as shown in figure 1) and a downward hanging discharge position (as shown in figure 2). The tilting movement is imposed on each tilt tray via a protrusion 12, 13 provided on each tray (cf. D1a, page 3, lines 5 - 18). Each tilt tray is thus tilted separate from the other one.

3.2 **Distinguishing features, effects, problem**

It remained undisputed that the apparatus according to claim 1 differs from the apparatus of D1 by its characterizing features, according to which between the tilt trays a coupling is arranged which is able and adapted to impose a tilting movement of the first tilt tray on the second tilt tray.

It is common ground that these distinguishing features have the effect stated in the impugned decision (reasons, no. 3.2), namely to synchronise the first and second tilt trays and that this leads to less time being required for a tilting of the trays from the transporting position into the downward hanging discharge position and vice versa.

The objective technical problem can thus, undisputedly, be seen as providing, starting from the apparatus of D1, an apparatus with at least one displaceable transport container comprising at least a first and a second tilt trays, wherein the time required for tilting of the tilt trays in the transporting position or the discharge position is decreased.
This problem furthermore is in line with one of the aspects of the general problem referred to in the patent in suit (cf. paragraphs [0004] and [0005] of the patent specification).

3.3 Obviousness

According to the appellant the apparatus defined by claim 1 is obvious considering, in addition to the apparatus as disclosed by D1, the apparatus according to the public prior use.

3.3.1 Concerning this apparatus it is common ground that it is for the transport and controlled discharge of a particular load, namely clothes held on clothes-hangers. To serve this purpose, this known apparatus has a transport device comprising a first and a second tilt arm which together are able to hold clothes-hangers by their hook part, which is different from the transport container comprising first and second tilt trays as it is the case for the apparatus according to claim 1. The tilt arms are, according to the protocol concerning the hearing of the witness Reinholz by the opposition division and as shown in the drawing no. 762 A - 233 referred to by the witness, C-shaped and referred to by reference numeral 2, 2' in this drawing. Each tilt arm has a support portion and a mounting portion opposite to the support portion by which latter each tilt arm is fixed to its tilt axis.

The tilt arms can be selectively tilted around the tilt axes between a transporting position and a discharge position. In the transporting position the support portions are arranged such that essentially no gap is
provided between their opposite ends such that a continuous support for hooks of clothes-hangers is formed which extends over both cooperating tilt arms. In the discharge position through downward tilting of both tilt arms a gap between their adjacent ends is created, which allows the clothes-hangers to slide under the influence of their weight from the support portions 2 and/or 2' onto a rail 15 (cf. drawing no. 762 A - 435). As can be derived from the testimony of the witness the gap is of a width of approx. 2 cm. This has not been disputed by the appellant who, in this respect, asserted that drawing no. 762 A - 233 does not show the tilt arms in the discharge position, but that this would be in a further downward tilted position.

3.3.2 It is common ground that the two tilt arms are coupled via a coupling which, as can be derived from the testimony of the witness and from drawing no. 762 A - 233, is provided by overlapping mounting portions of the two tilt arms, one having a slot formed therein and the other one carrying a pin inserted into the slot.

It is further common ground that this coupling is, corresponding to the last feature of claim 1, able and adapted to impose a tilting movement of the first tilt arm on the second tilt arm.

3.3.3 Based on this understanding of the above known coupling the appellant is of the opinion that it has the same functionality as the one according to claim 1.

The validity of this opinion has been questioned by the Board at the oral proceedings, referring to differences concerning the position of the tilt trays of claim 1.
and in D1 on the one hand and the tilt arms of the public prior use on the other hand, all in their respective discharge positions. According to claim 1 and D1 the tilt arms are in a downward hanging discharge position, whereas for the tilt arms according to the public prior use the discharge position is one in which, as indicated above, only a gap of approx. 2 cm exists between the adjacent ends of the tilt arms.

Due to this difference it is immediately apparent that the functionality of the coupling device as defined by claim 1 and the one according to the public prior use are not the same in their final result.

3.3.4 This is exemplified considering the situation that, according to the public prior use as alleged by the appellant, its coupling device is transferred to the apparatus according to D1. Such a transfer would require that tilt arms are connected in parallel to the two trays (cf. figure 1 of D1) which should overlap to allow the provision of a slot and a pin in the overlapping portions of tilt arms. In such a case this would lead to tilt trays not opening in the discharge position to the extent required for the transport container of D1 (cf. figure 2). The reason is that, as indicated above, the known coupling would provide only for a gap of approx. 2 cm between the ends of the opposite tilt trays in the discharge position, which would be considerably less than the opening required between the ends of the first and second tilt tray for the discharge position as disclosed in D1 (cf. figure 2), and as defined by claim 1 as a downward hanging discharge position.
A discharge position in which only a gap is provided would not suffice for the transport containers according to D1 and correspondingly claim 1 carrying a not further defined load, since such a load could only be discharged slower or, in case it is larger than the gap provided in the discharge position, not be discharged at all.

3.3.5 As can be derived from the above it is evident that the coupling according to the public prior use has a limited functionality as compared to the one which would be required for a coupling to be used for the transport container of D1.

Realizing this limitation the person skilled in the art would, in an attempt to improve the apparatus of D1 to solve the problem underlying the patent in suit, not resort to the apparatus according to the public prior use.

3.3.6 For that reason the apparatus according to claim 1 involves an inventive step (Article 56 EPC) since D1 considered by itself evidently and undisputedly does not lead to it in an obvious manner and since no further prior art is available which, in combination with D1 as closest prior art, makes the apparatus according to claim 1 obvious.

3.3.7 Even if the coupling of the public prior use would have been taken into consideration for the reasons given above it would not have led to the apparatus according to claim 1 in an obvious manner.
According to a first line of argument of the appellant it needs to be taken into account that the definition of the coupling in claim 1 concerns only its functionality, since the structure of the coupling remains undefined. While it is true that the structure of the coupling is not further defined in the claim, its functionality is clearly derivable from the last feature of this claim in combination with the feature defining that tilting should be between a transporting position of the two tilt trays and a downward hanging discharge position. Although it is true that, as referred to by the appellant, claim 1 does not define that the tilt trays hang perpendicularly downward in the discharge position it is derivable from this claim 1 that, as indicated above, the opening between the adjacent ends of the two trays must at least be such that any load on both tilt trays can be discharged. Thus although not further defined, the downward hanging discharge position into which the trays can be tilted is clearly distinguished from the gap provided in the discharge position between the adjacent ends of the tilt arms of the apparatus of the public prior use.

According to a further line of arguments of the appellant the coupling of the public prior use can be such that it has the functionality of the coupling as required by claim 1 in order that, designed accordingly, this coupling could be used in the apparatus of D1 without any limitation on its functionality. While this allegation, for which no proof has been provided, might hold true it is clear that such an approach, leading to a redesign of the known coupling with the aim of avoiding the limitation of the tilting range, goes far beyond the disclosure derivable from the public prior
use. For that reason it also goes far beyond what might be considered as a modification of this coupling coming within regular design practice. One reason is that the tilting range provided by the known coupling is on purpose limited as indicated above and a further one resides in the fact that a redesign concerning the position, form and length of the slot would be required rendering this approach for the tilting range as required according to D1 at least very cumbersome.

Furthermore it needs to be taken into account that in connection with the coupling as known from the public prior use no indication is given with respect to a possible modification with the aim to extend the tilting range of the tilting arms to such an extent that not only the gap provided in the discharge position is enlarged but that the tilt arms are essentially completely tilted downwardly instead, such that they reach a downwardly hanging position.

Consequently, due to the lack of any indication in this respect in the evidence relating to the prior use, considerations leading to such an extension of the tilting range must, as stated by the respondent, be the result of an *ex post facto* analysis, in which the coupling of the public prior use is taken into account not only on the basis of its disclosure as such, but beyond that on the basis of a further, undisclosed, functionality which would be required for this known coupling to envisage its use in the apparatus of D1, without reducing or losing its functionality (e.g. due to a load covering a space of the carrying panel which is larger than the gap in the discharge position).
3.3.8 The Board thus considers the result, arrived at in the impugned decision, that the apparatus of claim 1 involves inventive step (Article 56 EPC), as being correct.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:  

The Chairman:

G. Nachtigall  

H. Meinders