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D E C I S I O N
of 15 March 2005

Case Number: T 0340/02 - 3.2.7

Application Number: 95250055.1

Publication Number: 0700844

IPC: B65G 17/34

Language of the proceedings: EN

Title of invention:
Crossbelt sortation system

Patentee:
Siemens AG

Opponents:
Beumer Maschinenfabrik GmbH & Co. KG
Crisplant a/s

Headword:
-

Relevant legal provisions:
EPC Art. 56, 114(2)

Keyword:
"Inventive step (yes)"
"Late filed document (not admitted)"

Decisions cited:
-

Catchword:
-



Case Number: T 0340/02 - 3.2.7

D E C I S I O N
of the Technical Board of Appeal 3.2.7
of 15 March 2005

Appellants: Beumer Maschinenfabrik GmbH & Co. KG
(Opponents) Oelder Str. 40
D-59269 Beckum (DE)

Crisplant a/s
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Representative: Hoormann, Walter, Dr.-Ing.
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Respondent: Siemens AG
(Proprietor of the patent) Wittelsbacher Platz 2
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Representative: -

Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
29 January 2002 concerning maintenance of
European patent No. 0700844 in amended form.

Composition of the Board:

Chairman: K. Poalas
Members: P. A. O'Reilly
E. Lachacinski

Summary of Facts and Submissions

- I. Opposition was filed against the European Patent No. 0 700 844 as a whole and based on Article 100(a) EPC (lack of novelty and lack of inventive step) and Article 100(b) (insufficiency).

The Opposition Division held that the subject-matter of claim 1 of the main request (maintenance of the patent in amended form) contravened Article 123(2) EPC and that the subject-matter of the auxiliary request involved an inventive step.

- II. The appellant (opponent) filed an appeal against the decision of the Opposition Division to maintain the patent amended. Two appeal fees were paid.
- III. The prior art documents to which reference is made in the present decision are:

D2: EP-A-0 305 755

D11: US-A-4 096 936

D19: US-A-3 147 845

- IV. The appellant requested that the decision under appeal be set aside and the patent be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed and the patent be maintained in the form maintained by the Opposition Division.

V. The independent claims of the patent as maintained by the Opposition Division read as follows:

"1. A method of conveying parcels (P) on a plurality of transport units (32) moving in a conveying path (30) between an induction station (26) and a discharge station (28), each transport unit (32) having a driven carrier belt (36) thereon which is moveable orthogonally to the conveying path (30), said induction station (26) having at least one induction belt (62) extending at an angle to the conveying path (30), said discharge station (28) having a plurality of receiving ports (46) positioned along said conveying path (30), said method characterized by:

operating said at least one induction belt (62) and said carrier belts (36) of at least two contiguous transport units (32) in a manner that rotates parcels (P) having a length greater than a given length to position the parcel (P) on said at least two transport units (32),

and further determining the length of parcels (P) at said induction station (26);

for parcels (P) having a length less than a given length operating said at least one induction belt (62) and said carrier belt (36) of one of said transport units (32) to position a parcel (P) on said one of said transport units (32); and

for parcels (P) having a length greater than said given length operating said at least one induction belt (62) and said carrier belts (36) of at least two contiguous transport units (32) in order to position a parcel (P) on said at least two transport units (32) and operating said carrier belts (36) of said at least two transport units (32) in a manner that rotates parcels (P) having

a length greater than said given length to position the parcel (P) on said at least two transport units (32)."

"18. A crossbelt sortation system (25) comprising:

a plurality of transport units (32) moving in a conveying path (30) between an induction station (26) and a discharge station (28), each transport unit (32) having a driven carrier belt (36) thereon which is moveable orthogonally to the conveying path (30); said discharge station (28) having a plurality of receiving ports (46) positioned along said conveying path (30); and said induction station (26) having at least one induction belt (62) extending at an angle to the conveying path (30), characterized by a parcel length input device (68) for inputting data indicative of the length of parcels (P) and an induction control (64) that is responsive to said length input device (68) for operating said at least one induction belt (62) and said carrier belts (36) of particular ones of said transport units (32) in a manner that positions a parcel (P) having a length less than a given length on one of said transport units (32) and a parcel having a length greater than said given length on at least two contiguous transport units (32) and wherein said induction control (64) operates said carrier belts (36) of said at least two transport units (32) in a manner that rotates parcels (P) having a length greater than said given length to position the parcel (P) on said at least two transport units (32)."

VI. Oral proceedings took place on 15 March 2005.

VII. The appellant argued essentially as follows:

(i) Although it is late filed D19 should be admitted into the proceedings. The representative took the file over from a colleague. It was believed that D19 was one of the documents referred to in the opposition grounds. It was only realised late that the document had not already been mentioned in the proceedings. Since the document was one of the documents cited on the front page of D11 it is already known to the respondent. The document is relevant as a supplementary reference because it shows that it was known that with tiltable trays a rotational movement of a parcel occurs on discharge of the parcel.

(ii) The nearest prior art document is D11, in particular the embodiment of figures 3 to 5. The document shows a parcel conveyor of the same type as used in the method of claim 1. As the parcel arrives at the discharge station there is a length measurement. The crossbelts of the conveyor elements are set into sideways motion successively as the front end of the parcel passes a detector and the parcel continues to activate the detector. Because of this successive activation of the crossbelts the parcel finds a sideways force acting on its front end at the same time as there is no sideways force acting on its rear end. This produces a rotation as specified in claim 1. According to the description of D11 the sideways motion of the crossbelts may also be used at an induction station. The skilled person would therefore attempt to apply the teaching of D11 to

an induction station. D2 concerns an induction station for a transfer conveyor of the type using tiltable trays. In D2 there is a length measurement performed at the induction station. Also in the use of the apparatus of D2 long parcels would necessarily experience a rotation as they were loaded onto two successive trays since the front end of the parcel would be moving in the direction of the transport conveyor at the same time as the rear end would be still experiencing a sideways force from the induction conveyor. There would thus be a similar rotation in the case of the conveyor of D11 when the teaching of D11 is applied to an induction station so that the skilled person would arrive at the subject-matter of claim 1.

(iii) The subject-matter of claim 18 lacks an inventive step for the same reasons as claim 1.

VIII. The respondent argued essentially as follows:

(i) D19 was faxed to the office of the respondent the day before the oral proceedings and then had to be faxed a second time to the representative who was already en route to the oral proceedings. The copy received by the representative was not legible though the representative managed to procure a legible copy. The document is not relevant since it concerns tiltable conveyor elements at a discharge station whereas the patent is concerned with conveyor elements each having a crossbelt at an induction station.

(ii) D11 is the nearest prior art document. However, in the functioning of D11 there is no rotation of the parcel. The action of the sideways movements of the crossbelts of the conveyor elements is to move the parcel sideways at the discharge station without rotation. Although D11 indicates that the apparatus may also be used at an induction station it is not indicated how this should be done. There is no indication that the length of the parcel should be measured and that this measurement should be used to operate the crossbelts on the conveyor elements. D2 is a different type of conveyor which the skilled person would not consider. There is no rotation of the parcels disclosed in D2 which is concerned with the positioning of parcels on a single tray.

(iii) The subject-matter of claim 18 involves an inventive step for the same reasons as claim 1.

Reasons for the Decision

1. *Late filed document*

D19 was filed by the appellant by fax on the day before the oral proceedings. The reason given by the appellant for the late filing is not acceptable. D11 lists D19 as one of the citations found by the US examiner during US grant proceedings for D11. The respondent has no reason whatsoever to look at such a document so that the argument that the document is known to the respondent is far fetched. Although the file indicates that the present attorney took over the file from a colleague

this took place already in the opposition proceedings as evidenced by the fact that the present representative appeared before the Opposition Division in the oral proceedings. This argument is therefore also without weight. The argument that the representative had not noticed that the document was not in the proceedings is not acceptable since it belongs to the basic task of the representative to ensure that the documents which he intends to use are actually in the proceedings. There is thus no excuse for the late filing.

The document is also not *prima facie* relevant. The document does not concern the same type of the conveyor as the conveyor of the patent in suit. The document also only concerns a discharge station. The representative has admitted that the document is merely a supplementary reference.

The Board therefore sees no reason to admit the document on the basis of its alleged relevance, and exercises its discretion according to Article 114(2) EPC to disregard D19.

2. *Inventive step*

2.1 The closest prior art is represented by D11 which discloses a method of conveying parcels comprising the features of the preamble of claim 1 with the exception that it is not disclosed that the induction station is at an angle to the conveying path.

D11 is mainly concerned with how parcels are to be discharged from a conveyor. The apparatus has a

detector at the entrance to the discharge station. As the front of a parcel passes the detector the crossbelts 12 of the conveyor elements 4 which carry the parcel are successively set in sideways motion. When the rear of the parcel passes the detector no further crossbelts are activated and the crossbelts are successively returned to their starting positions (cf. col. 5, line 53 to col. 6, line 17). The sideways motion of the crossbelts causes the parcel to be discharged sideways. The appellant has argued that because the conveyor crossbelts are set in sideways motion successively this causes a long parcel which is supported by two or more conveyor elements will experience a rotational force. The rotational force arises because the front end of the parcel is subject to a sideways force at a point in time when the rear end of the parcel is not subject to such a force. The Board agrees with this analysis of the parcel movement by the appellant though would note that this rotational movement is not explicitly mentioned in D11 and hence it has to be assumed to have no importance in the functioning of D11. D11 contains a paragraph at the end of the description in which it is indicated that the transverse movement of the crossbelts may be used for bringing parcels onto the conveyor when the parcels are fed to the conveyor from the side (cf. col. 7, lines 26 to 30).

The Board therefore considers that the problem for the skilled person to solve starting from D11 is provide a crossbelt sortation system which allows long parcels to be suitably positioned on the transport conveyor (cf. page 2, line 27).

2.2 The appellant has referred to D2. D2 concerns a conveyor comprising tiltable trays for transporting the parcels. The main problem addressed by the document is the identification of the position of the parcel on the induction conveyor, i.e. on which side of the induction conveyor the parcel is situated. This information is used in the apparatus to ensure that the parcel arrives at a suitable position on the conveyor tray. The document also mentions the problems of the length of the parcels, which are identified as either short which fit on one tray, long which fit on two trays, or overlong which fit on more than two trays (cf. page 2, lines 29 to 37). The document includes length measuring detectors so that a long parcel is only moved onto the transport conveyor when two successive trays are free (cf. page 4, lines 51 to 55).

With regards to D2 the appellant has further argued that when a long parcel is loaded onto the transport conveyor the front end reaches a tray where it is braked and that the rear end is then still being pushed at an angle to the transport conveyor by the induction conveyor. The appellant argues that this leads to a rotation of the parcel on the conveyor trays. The Board can agree with this analysis though the Board would again note that this rotational movement is not explicitly mentioned in D2 and hence it has been assumed that it has no importance in the functioning of D2.

2.3 Starting from D11 and considering how to apply the teaching of D11 that the crossbelts 12 may also be used at the induction station the skilled person would have to consider how this rather vague statement is to be interpreted. If the skilled person were to consult D2

then he would receive the information that a length measurement is to be made in order to decide on which trays the parcel is to be placed. He would consider using this information to decide on which conveyor elements of D11 the parcel is to be placed, i.e. on elements not already occupied by parcels that have already arrived on the transport conveyor upstream. The skilled person would not find a teaching in D2 as to how crossbelts of the conveyor elements are to be controlled since D2 has no such crossbelts. The skilled person would thus receive no information to control the movement of the crossbelts as a function of the length of the parcel. The argument of the appellant that a rotation of the parcel automatically occurs in D2 in the case of trays seems to suggest that the crossbelts should not be moved since such an automatic rotation would also occur in the case of conveyor elements with stationary crossbelts. Also the argument of the appellant that the length of the parcel is used in D11 at the discharge station to control the sideways movement of the crossbelts cannot be followed. At the discharge station in D11 the passage of the front and rear ends of the parcel through a detector is used to control the sideways movement of the crossbelts. The measurement of the length of the parcel requires the measurement of the time interval between the passages of the front and rear ends as well as knowledge of the velocity. The length however is not determined and does not need to be determined.

- 2.4 The Board concludes therefore that the skilled person wishing to apply the teaching in D11 regarding the induction station would receive no indication, neither from D2 nor from D11, to use a length measurement of

the parcels on the induction conveyor to control the sideways movements of the crossbelts and in particular to control these movement to produce a rotation.

2.5 The same reasoning as above also applies to claim 18.

2.6 Therefore, the subject-matter of claims 1 and 18 involves an inventive step in the sense of Article 56 EPC.

3. *Reimbursement of an appeal fee*

3.1 The appellant paid two appeal fees. Since there is no legal basis for retaining the extra appeal fee it has to be reimbursed.

Order

For these reasons it is decided that:

1. The appeal is dismissed.
2. The extra appeal fee paid by the appellant is to be reimbursed to the appellant.

The Registrar:

The Chairman:

G. Nachtigall

K. Poalas