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DECISION of 27 March 2003

T 0264/01 - 3.2.7 Case Number:

Application Number: 92110150.7

Publication Number: 0519402

B65B 11/30 IPC:

Language of the proceedings: EN

Title of invention:

Product wrapping method and device for producing tubular wrappings

Patentee:

G.D. SOCIETA' PER AZIONI

Opponent:

Focke & Co. (GmbH & Co.)

Headword:

Relevant legal provisions:

EPC Art. 56, 123(2)

Keyword:

- "Added subject-matter (no)"
- "Inventive step main request (no)"
- "Inventive step auxiliary request (yes)"

Decisions cited:

Catchword:



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Boards of Appeal

Chambres de recours

Case Number: T 0264/01 - 3.2.7

DECISION
of the Technical Board of Appeal 3.2.7
of 27 March 2003

Appellant: Focke & Co. (GmbH & Co.)

(Opponent) Siemensstr. 10

D-27283 Verden (DE)

Representative: Bolte, Erich, Dipl.-Ing.

c/o Meissner & Bolte

Patentanwälte Hollerallee 73

D-28209 Bremen (DE)

Respondent: G.D. SOCIETA' PER AZIONI

(Proprietor of the patent) Via Pomponia 10

I-40133 Bologna (IT)

Representative: Jorio, Paolo

STUDIO TARTO S.r.l.

Via Viotti, 9

I-10121 Torino (IT)

Decision under appeal: Interlocutory decision of the Opposition Division

of the European Patent Office posted 22 December 2000 concerning maintenance of European patent

No. 0 519 402 in amended form.

Composition of the Board:

Chairman: A. Burkhart

Members: P. A. O'Reilly

J. H. P. Willems

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Summary of Facts and Submissions

I. The appellant (opponent) filed an appeal against the decision of the Opposition Division to maintain amended the European patent No. 0 519 402.

II. Opposition was filed against the patent as a whole and based on Article 100(a) EPC (lack of novelty and lack of inventive step).

The Opposition Division held that the subject-matter of the main request met the requirements of the EPC.

The most relevant prior art documents for the present decision are:

D3: US-A-1 875 979

D4: US-A-1 964 411

D9: EP-B-0 137 334

D12: DE-A-3 545 884

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

The respondent requested that the appeal be dismissed and the patent be maintained in accordance with the main request as maintained by the Opposition Division. Alternatively, the decision under appeal should be set aside and the patent be maintained in accordance with the auxiliary request filed during oral proceedings on 27 March 2003 before the Board. This auxiliary request corresponds essentially to the second auxiliary request

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filed with letter of 26 February 2003.

- IV. The independent claims 1 and 10 of the main request reads as follows:
 - A product wrapping method for producing tubular wrappings (2), said method comprising stages consisting in operating a wrapping conveyor (4) having at least one outwardly-open wrapping seat (10) for a respective said product (3) in such a manner as to feed said seat (10) in a given direction (9) and along a path extending through a loading station (11) wherein said product (3) is loaded inside said seat (10), and through an unloading station (12) wherein said product (3) is unloaded from said seat (10); feeding a product wrapping element (6) in front of the input opening of said seat (10) at said loading station (11); feeding said product (3) inside said seat (10), so as to fold said wrapping element (6) in a U about said product (3), and so that a first and second longitudinal portion (18, 19) of said wrapping element (6) project outwards of said seat (10) through said inlet opening, said second longitudinal portion (19) being located upstream in relation to said first longitudinal portion (18) in said traveling direction (9); folding said portions (18, 19) one on top of the other into an overlapping position, and maintaining said portions (18, 19) in said overlapping position for a given length of time; said two portions (18, 19) being folded into said overlapping position by first folding said first portion (18) on to said product (3), and then folding said second portion (19) into said overlapping position on top of said first portion (18) by means of a folding device (35) fitted to said wrapping conveyor (4) and moving in relation to the same to and from an

operating position wherein it contacts and exerts pressure on said second portion (19) in said overlapping position; characterised by the fact that said tubular wrapping (2) is formed at said loading station (11)."

"10. A product wrapping device (1) for producing tubular wrappings (2), said device (1) comprising a wrapping conveyor (4) intermittently driven having at least one outwardly-open wrapping seat (10) for a respective said product (3), and moving in a given direction (9) for feeding said seat (10) along a given path; a loading station (11) for loading said product (3) inside said seat (10), and an unloading station (12) for unloading said product (3) from said seat (10), both said stations (11, 12) being located along said path; means (5) for feeding a product wrapping element (6) in front of the input opening of said seat (10); first pushing means (15, 20) for inserting said wrapping element (6) and respective said product (3) inside said seat (10), so as to fold said wrapping element (6) in a U about said product (3), and so that a first and second longitudinal portion (18, 19) of said wrapping element (6) project outwards of said seat (10) through said input opening, said second longitudinal portion (19) being located upstream in relation to said first longitudinal portion (18) in said traveling direction (9); and folding means (33) for folding said portions (18, 19) one on top of the other into an overlapping position, and for maintaining said portions (18, 19) in said overlapping position for a given length of time; said folding mans (33) comprising a folding device (35) fitted to said wrapping conveyor (4) and moving in relation to the same to and from an operating position wherein it

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contacts and exerts pressure on said second portion (19) located outwards of said first portion (18) in said overlapping position; characterised by the fact that said folding means (33) comprises a further folding device (34) for folding said first portion (18) on to said product (3) inside said seat (10) at said loading station (11); said further folding device (34) being fitted to said loading station (11)."

Independent method claim 1 of the auxiliary request adds the following features to claim 1 of the main request:

"said folding device (35) being maintained in said operating position until said seat (10) reaches said unloading station (12); said folding device (35) being so formed as to leave the free longitudinal end portion (42) of said second portion (19) exposed in said operating position; said two overlapping portions (18, 19) being made integral with each other at said free longitudinal end portion (42) of said second portion (19) at said unloading (12)."

Independent apparatus claim 6 of the auxiliary request essentially adds the following features to claim 10 of the main request:

"said folding device (35) comprising plate means (38) designed to contact said second portion (19); said plate means (38) being so sized as to leave the free longitudinal end portion (42) of said second portion (19) exposed when said folding device (35) is in said operating position; the wrapping device comprising joining means (51) for rendering said two overlapping portions (18, 19) integral with each other at said free

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longitudinal end portion (42) of said second portion (19); said joining means (51) being located at said unloading station (12)."

- IV. The appellant argued in written and oral submissions essentially as follows:
 - (i) Claim 10 of the main request does not comply with Article 123(2) EPC because the expression "intermittently driven" was not disclosed in the application as filed. Even if the disclosed embodiment was driven intermittently it was not disclosed that this feature was important to the invention. Moreover, if the feature was disclosed in the description then it was only disclosed in combination with the other features of the embodiment, i.e. the rotary conveyor having two seats. These other features accordingly should also be included in the claim.
 - (ii) The subject-matter of the independent claims of the main request lacks an inventive step. The nearest prior art is document D3. The problem to be solved compared to the disclosure of document D3 is to make the apparatus less complicated. Considering document D3 there are only two possibilities where to provide the folding means: either at the loading station or not at the loading station. Document D9 discloses folding means provided at the loading station. The skilled person would arrange the folding means at the loading station as this is less complicated. The fact that this is slower would not prevent the skilled person from effecting

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the measure in order to reduce the complication of the machine. This feature is also disclosed in document D12. The subject-matter of each of the independent claims also does not involve an inventive step when considering a combination of documents D3 and D9 or a combination of documents D9 and D12.

- (iii) The subject-matter of the independent claims of the auxiliary request lacks an inventive step.

 Considering document D4, this document is similar to document D3 and discloses all the relevant features of document D3. In addition, the folding means is arranged to leave an end portion of the wrapping free. There are also joining means which join the wrapping at the end portion. Although the joining takes place at a separate station the skilled person from his general knowledge knows that the joining could also take place at the unloading station. The features of leaving the free end portion and the provision of the joining at the unloading station form a mere aggregation.
- V. The respondent argued in written and oral submissions essentially as follows:
 - (i) The feature of intermittent operation is clearly derivable from the indication in the application as filed that the seat is arrested at the loading and unloading stations. This feature is independent of the use of a rotary conveyor and the number of seats. It is not relevant that the feature was not disclosed as important to the invention.

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- (ii) Starting from document D3 the problem to be solved is to treat the wrapping with care. The device disclosed in document D9 which folds at the loading station involves first applying one folding member and then applying a second folding member whilst at the same time withdrawing the first folding member. The skilled person when considering document D9 would apply all the features disclosed therein to the apparatus disclosed in document D3 and would not pick out just one. Also, starting from document D9 the subject-matter of the independent claims is not obvious.
- (iii) From the disclosure of document D4 it is not possible to know how the joining takes place. It is not possible to see if there is a free end portion of the wrapping. The joining could take place by applying heat or pressure to the exterior of the folding plate. Alternatively, the plate could be claw-like and the heat or pressure could be applied between the claws as is done in the apparatus disclosed document D9. In both these cases there is no free end portion of the wrapping. By providing the joining at the unloading station it is possible to provide just two stations which increases the speed of the machine. There is no indication in the prior art to arrange that the joining takes place at the unloading station.

Reasons for the Decision

Main request

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1. Amendments

On page 13, lines 20 to 24 of the application as filed reference is made to the seat 10 being arrested at the loading station 11. On page 15, lines 1 to 4 reference is made to the wheel 4 being moved forward one step to arrest the seat 10 at unloading station 12. Thus, there is clearly an intermittent operation. A reason why the operation is intermittent is that there is a seat 10 into which the product 3 is pushed at the loading station. To allow this pushing action there is a temporary stop at the loading station. However, this pushing action has nothing to do with the seats being provided on a rotary unit 5, nor with the number of seats and their arrangement about the rotary unit. Thus, the skilled person understands that the loading operation requires the conveyor to be intermittently driven, but does not understand that this may only occur in connection with the other features of the embodiment.

The argument of the appellant that the feature was not disclosed as important to the invention cannot be followed. There is no requirement in the Convention that amendments may only be based on features that are disclosed as important to the invention. The only requirements in the Convention are those set out in Article 123. Moreover, the clear references in the description to the intermittent nature of the movement would leave the skilled person in no doubt that such a movement takes place in carrying out the invention.

Therefore, the amendment to claim 10 does not offend Article 123(2) EPC.

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2. Inventive step

2.1 Closest prior art

The closest prior art is represented by document D3 which discloses the features according to the preambles of claims 1 and 10. Furthermore, document D3 discloses the feature of claim 10 that the folding means comprise a further folding device for folding said first portion on to said product inside said seat.

2.2 Problem to be solved

The problem to be solved by the distinguishing features is to treat the wrapping carefully.

2.3 Solution to the problem

The solution to the problem is that in the method the tubular wrapping is formed at the loading station and in the apparatus the folding device is fitted to the loading station.

By folding the wrapping at the loading station there are no completely free ends of the wrapping which could flap during movement of the conveyor as in the apparatus known from document D3.

2.4 The solution to the problem is obvious for the following reasons:

In the apparatus disclosed in document D3 the flaps of the wrapping on the products are folded after leaving the loading station and while in transit to another station. The flaps are thus initially free and can flap

around which could lead to damage. A user of such an apparatus would recognise this problem when noticing the damaged flaps. The skilled person would wish to prevent this damage. Since the problem is caused by moving unfolded flaps it is evident to the skilled person to fold the flaps before any movement, i.e. at the loading station. In the apparatus of document D3 the two folding members 38 and 41 are carried by the conveyor. This is a necessary measure in that apparatus as the folding is carried out with the conveyor in motion. When arranging that the folding takes place at a fixed position it is not necessary for both folding members to be attached to the conveyor. The skilled person would therefore provide one folding member at the loading station. The other folding member would still be required to be attached to the conveyor so as to hold the folded flaps in place after loading during transit. There is no prejudice for the skilled person against such an arrangement as such an arrangement is already disclosed in document D12. Also, the possible slower operation would not deter the skilled person as this would be accepted to achieve less damage to the wrapping.

2.5 Therefore, the subject-matter of claims 1 and 10 does not involve an inventive step in the sense of Article 56 EPC.

Auxiliary request

3. Amendments

The extra features of claim 1 were contained in claims 2 to 5 as originally filed. The extra features of claim 6 (which is renumbered from previous claim 10

due to deletion of claims 2 to 5) were contained in claims 11 to 13 as originally filed. The Board is therefore satisfied that the amendments comply with Article 123(2) EPC. The appellant has not disputed this.

4. Inventive step

4.1 In accordance with both the independent method and apparatus claims the step of sealing the wrapping takes place at the unloading station. The problem solved by this feature is to speed up the wrapping operation and reduce the number of stations required. By providing the relatively slow sealing step at the unloading station it is possible to reduce to two the number of stations required to carry out the wrapping. This increases the operating speed to the machine.

In the opinion of the Board the provision of this feature is not obvious to the person skilled in the art. In the apparatus disclosed in document D3 there are separate sealing and unloading stations. In the apparatus disclosed in document D9 the sealing is performed at the loading station together with the folding step. Thus, there is nothing in the prior art to suggest that the unloading station should be chosen for the sealing step. This choice means that the slow sealing step can be carried out at the same time as the folding step is being carried out on the next product at the loading station. This is a clear increase in efficiency and allows a reduction in the required number of stations.

4.2 Therefore, the subject-matter of claims 1 and 6 involves an inventive step in the sense of Article 56

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EPC.

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 maintain the patent in amended form with the following documents: claims 1 to 9 and description pages 2 to 5 filed as auxiliary request during the oral proceedings on 27 March 2003, and figures 1 to 5 as granted.

The Registrar: The Chairman:

D. Spigarelli A. Burkhart