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Datasheet for the decision of 14 February 2020

Case Number: T 1908/16 - 3.2.04

Application Number: 09012518.8

Publication Number: 2305043

IPC: A22C15/00

Language of the proceedings: EN

Title of invention:
Method and system for weighing products

Patent Proprietor:
Poly-clip System GmbH & Co. KG

Opponent:
Tipper Tie technopack GmbH

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - (yes)

Decisions cited:

Catchword:

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Boards of Appeal

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Case Number: T 1908/16 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 14 February 2020

Appellant: (Opponent)	Tipper Tie technopack GmbH Wilhelm-Bergner-Straße 9a 21509 Glinde (DE)
Representative:	Glawe, Delfs, Moll Partnerschaft mbB von Patent- und Rechtsanwälten Postfach 13 03 91 20103 Hamburg (DE)
Respondent: (Patent Proprietor)	Poly-clip System GmbH & Co. KG Niedeckerstraße 1 65795 Hattersheim (DE)
Representative:	Eisenführ Speiser Patentanwälte Rechtsanwälte PartGmbB Postfach 31 02 60 80102 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 20 June 2016 concerning maintenance of the European Patent No. 2305043 in amended form.**

Composition of the Board:

Chairman	A. de Vries
Members:	J. Wright
	W. Van der Eijk

Summary of Facts and Submissions

I. The appeal was filed by the appellant (opponent) against the interlocutory decision of the opposition division finding that, on the basis of the auxiliary request 1, the patent in suit (in the following "the patent") met the requirements of the EPC.

In particular, the opposition division decided that the subject-matter of this request involved an inventive step.

II. Oral proceedings before the Board were held on 14 February 2020.

III. The appellant (opponent) requested that the decision under appeal be set aside and that the European patent No. 2305043 be revoked.

The respondent (patent proprietor) requested that the appeal be dismissed and the patent thus be maintained as upheld by the opposition division (main request), or auxiliarily, that the decision under appeal be set aside and the patent be maintained on the basis of their auxiliary request, filed with the reply to the statement of grounds of appeal of the appellant-opponent dated 27 February 2017.

IV. The independent claims of the main request (as upheld by the opposition division) read as follows:

"1. A method for controlling a system for producing sausage-like product (S) with the steps of:
- providing a tubular casing;

- filling said tubular casing with viscous or granular stuff;
- dividing the filled tubular casing into sausage-like products (S) and closing the sausage-like products (S) by closure clips in a clipping machine;
- feeding at least one sausage-like product (S) out of the clipping machine and storing the sausage-like product (S) on a rod-like element (R) in a hanging line (16); and
- gripping the rod-like element (R) by a robotic device and storing the rod-like element (R) in a storage frame (30),
characterized by the steps of sensing the weight of the sausage-like product (S) after the sausage-like product (S) is stored on a rod-like element (R), deriving a control signal for at least the clipping machine on the basis of the weight and controlling at least the clipping machine on the basis of the control signal".

"10. A system for producing sausage-like products (S) comprising:
- a filling machine for filling a tubular casing with viscous or granular stuff;
- a clipping machine for dividing the filled tubular casing into sausage-like products (S) and closing the sausage-like products (S);
- a transportation device (110) for feeding at least one sausage-like product (S) out of the clipping machine and for storing the sausage-like product (S) on a rod-like elements (R);
- a hanging line (16) for accommodating the rod-like elements (R);
- a robotic device (20) for gripping the rod-like elements (R); and
- a control unit (12; 22) for controlling the system,

characterized by a sensing device (128, 134) for sensing the weight of at least one of the sausage-like products (S) after the sausage-like product is stored on the rod-like element (R), the sensing device (128, 134) is coupled to the control unit (12) and wherein the control unit (12) comprises a computing element for computing and outputting a control signal for at least the clipping machine on the basis of the weight of the at least one sausage-like product (S)".

V. In the present decision, reference is made to the following documents:

D1 : EP1994829A
D2 : EP0424675A
D3 : EP2008522A
D4 : EP0962143B
D6 : US6997668B2
D7 : US2006/0196707A

VI. The appellant-opponent's arguments can be summarised as follows: The subject matter of claim 10 of the main request lacks inventive step starting from D2 in combination with D4 and the general knowledge of the skilled person, with or without the teachings of D6 or D7. In particular, the combination of D2 and D4 teaches the skilled person to weigh sausages somewhere in the system of D2 and an obvious place to do so would be once they were stored on the smoke-stick (rod) as claimed. The same arguments apply to claim 1. The subject matter of claims 10 and 1 also lacks inventive step when starting from D1 or D3 instead of D2, the arguments being the same.

VII. The respondent-proprietor's arguments can be summarised as follows:

The subject matter of claims 10 and 1 of the main request involves an inventive step starting from D1, D2 or D3. The skilled person would not modify the system of D2 to weigh sausages once they were stored on the smoke stick.

Reasons for the Decision

1. The appeal is admissible.

2. Background

The patent relates to a method and system for producing sausage-like products (see published patent specification, paragraph [0001]). The method (see published patent specification, paragraph [0009] and claim 1 as granted and as maintained) includes the steps of sensing the weight of these products after they are stored on a rod-like element [such as a smoke stick] and using this to derive a control signal to control a clipping machine. Claim 10 as maintained has a corresponding system feature.

3. Main request, claim 10, inventive step starting from D2 in combination with D4 and the skilled person's general knowledge

The appellant-opponent has argued that the subject matter of claim 10 lacks inventive step. The Board disagrees.

3.1 D2 relates to an arrangement for filling sausages (see abstract), having a clipping machine (see for example column 8, lines 9 to 15)n and a hanging line for accommodating rod-like elements. The arrangement

further has a transport device for feeding sausages out of the clipping machine and onto the rod (see for example column 7, lines 32 to 56 with figures 1 and 6, whereby the "smoking rod 38" is the rod-like element).

D2 furthermore discloses (see column 7, lines 17 to 28) a control unit for controlling the system and (see column 9, last two lines to column 10, first three lines) a robotic device for gripping the rod-like elements.

3.2 It is not in dispute that the subject matter of claim 10 differs from D2 by the characterising feature. This feature, as summarised by the Board, defines a sensing device for sensing the weight of at least one of the sausage-like products after it is stored on a rod-like element, whereby the sensed weight is used by the control unit to control the clipping machine.

According to the patent, see paragraph [0009], the effect of this feature is that the weight of sausages can be reliably detected and the weight of the sausages produced rapidly adapted to the required value (by controlling the clipping machine). The underlying effect compared to a system in which weight is not detected (such as that of D2), is that the sausages made are of a more consistent weight. In the Board's view, without including pointers to the solution, the objective technical problem can be formulated as: how to modify the system of D2 to make sausages more consistently.

Faced with this objective technical problem, the skilled person would look to D4. D4 (see paragraph [0001]) discloses a machine for manufacturing sausages with a closing machine that closes filled sausage

casings. D4 aims to optimise sausage product production (see paragraphs [0013] and [0014]). To achieve this, D4 (see paragraphs [0015], [0018] and claim 1) discloses the general idea of sensing, amongst other parameters, the weight of a produced [sausage] packaging and controlling (using a control means) a sausage closing machine (which includes a clip machine) based on the deviation of the detected weight from the target weight.

The Board agrees with the appellant-opponent, and indeed the finding of the opposition division (cf. impugned decision, regarding granted claim 10, points 19 to 26) that it would be obvious to modify the system of D2 by sensing the weight of a sausage product and using this sensed weight to control the clipping machine. This combination of D2 and the general teaching of D4 would however not tell the skilled person where in the system to measure the weight of the sausage.

Therefore, inventive step of claim 10 of the main request (as held allowable by the opposition division), hinges on whether it would be obvious, when applying the teaching of D4 to D2's system, for the skilled person to sense the weight of a sausage-like product after it had been stored on the rod (D2's smoke stick 38).

3.3 In this respect, the appellant-opponent has argued that, amongst other possible processing stages in D2's system (on exiting the clipping machine, on the following conveyor) at which the weight of a sausage could be sensed, it would be obvious to do so when it was stored on the rod (smoke stick) as claimed.

For the reasons that follow, the Board takes a different view.

3.3.1 Firstly, it is common ground that the skilled person would try to weigh sausages as soon as possible after their production, so that the clipping machine could quickly respond to product weight deviations. Indeed D4's embodiment confirms this. There (see paragraphs [0032] to [0035] with figure 1), immediately after the final production step of closing the casing with the clipping machine 52, the sausage is weighed on an adjacent conveyor belt 64. Turning back to D2, figure 1, the smoke stick 38 is the most remote processing point from the clipping machine the sausages reach. Therefore, in terms of timing, it is not an obvious processing stage to weigh them.

3.3.2 Secondly, D4 (see column 4, lines 39 to 41) teaches to monitor weight (Gewicht) of an *individual* [sausage] package 34. D4's claim 1 likewise defines this underlying idea, where a monitoring device 62 monitors, for example weight, of *a package* that has been produced and this is used to control the clipping machine. Therefore, when the skilled person modifies D2's system, they will be focused on deriving the weight of an individual sausage product.

In the Board's view, because D2's smoke stick 38 is arranged to receive more than one sausage at a time (see column 5, lines 6 to 10 and figure 1), the skilled person would not consider the smoke stick as an obvious candidate location for measuring the weight of an individual sausage after they are stored on the smoke stick 38.

3.3.3 Thirdly, if the skilled person were to consider weighing sausages once stored on D2's smoke-stick 38 (the Board considers they would not) the Board does not agree with the appellant-opponent's assertion that it would be a matter of routine for the skilled person to modify D2's system (see figure 1 again) so that the weight of a sausage could be measured on the smoke stick 38.

D2's smoke-stick 38 can only be supported at one end, therefore this is the only place where weight could be sensed. The appellant-opponent has provided no evidence to show that it is known, let alone general knowledge, to weigh sausages when they are on a rod, such as a smoke-stick, supported only at one end.

Moreover, D2's system (see column 2, lines 40 to 46 and column 5, lines 56 and 57 with figure 1) is for producing extremely long sausages, thus correspondingly heavy sausages. It therefore makes sense that the supported end of the smoke-stick 38 is clamped (*eingespannt)* as D2 discloses. In the Board's view, the assertion that such a heavy-load bearing clamped connection could, as a matter of routine, be modified to displace so that a force on it could be measured when loaded with sausages, is mere speculation.

Nor would sausage weight be directly derivable from sensing such a force. This would require further calculation steps taking leverage into account (cf. published patent specification, paragraph [0041]), so also the position of respective sausages on the rod (relative to its support) would need to be precisely known. Whilst it is true (column 9, lines 4 to 20), that the mechanical process of depositing a sausage on the smoke-stick begins when the moving sausage reaches

its intended hanging position (*vorgesehene Aufhängestelle*), the process entails pushing down the hooks 96 (on which the sausage is hung by a loop) until they are below the smoke-stick, whereupon the heavy sausage is deposited and rapidly slows to a stop. In the Board's view, how accurately the sausage's final position on the smoke-stick might correspond to its intended position is unclear. Determining its actual position on the rod would therefore involve yet further steps, so that, all things considered, weighing a sausage on the smoke-stick is far from straightforward, as opposed to, for example, a straightforward measurement of an individual sausage near the clipping machine outlet.

For these reasons, modifying the arrangement of D2's clamped rod to accurately derive the weight of a sausage stored on it appears to involve additional steps requiring more than the mere application of the skilled person's routine skills.

3.4 In the light of the above, the Board considers that, irrespective of problems the skilled person might encounter weighing sausages elsewhere in D2's system, it would not be obvious for them to weigh sausages after they had been stored on D2's rod (smoke stick 38). Therefore, the Board concludes that the combined teachings of D2 and D4 with the skilled person's general knowledge do not take away inventive step of claim 10 of the main request.

3.5 The appellant-opponent has also argued that the subject matter of claim 10 lacks inventive step when starting from D1 or D3, the arguments being the same as when starting from D2. Since the Board has concluded the appellant-opponent's arguments starting from D2 are not

convincing, the same conclusion must apply to the same arguments when starting from D1 or D3

The Board comes to the same conclusion when considering combining D2 with D4 and D6 or D7 and the skilled person's general knowledge. D6 and D7 (see their abstracts) relate to measuring forces on robot arms. However, they do not suggest applying this idea to measuring the weight of sausages on a rod.

4. The subject matter of claim 1 has all the features of claim 10, albeit in terms of method steps. In particular, it requires the step of sensing the weight of a sausage-like product after it has been stored on a rod-like element. Therefore, the Board holds that the combination of D2 or D1 or D3 with D4 with the skilled person's general knowledge (with or without the teaching of D6 or D7) do not take away inventive step of claim 1, for the same reasons as apply to claim 10.

5. For all these reasons, the appeal of the opponent must fail. The respondent-proprietor's auxiliary request need therefore not be considered.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Magouliotis A. de Vries

Decision electronically authenticated