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Datasheet for the decision of 27 October 2016

Case Number: T 1279/12 - 3.2.04

Application Number: 04076819.4

Publication Number: 1493335

IPC: A22C21/06

Language of the proceedings: EN

Title of invention:
Apparatus for breaking tissue connections in poultry suspended by the feet

Patent Proprietor:
Meyn Food Processing Technology B.V.

Opponent:
Marel Stork Poultry Processing B.V.

Headword:

Relevant legal provisions:
EPC Art. 56

Keyword:
Inventive step - main request (yes)
Binding effect of earlier appeal decision after remittal

Decisions cited:
T 0202/09

Catchword:

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Beschwerdekammern
Boards of Appeal
Chambres de recours

European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 1279/12 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 27 October 2016

Appellant: (Opponent)	Marel Stork Poultry Processing B.V. P.O. Box 118 5830 AC Boxmeer (NL)
Representative:	EP&C P.O. Box 3241 2280 GE Rijswijk (NL)
Respondent: (Patent Proprietor)	Meyn Food Processing Technology B.V. Noordeinde 68 1511 AE Oostzaan (NL)
Representative:	Van Breda, Jacobus Octrooibureau Los & Stigter, P.O. Box 20052 1000 HB Amsterdam (NL)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 2 April 2012 concerning maintenance of the European Patent No. 1493335 in amended form.**

Composition of the Board:

Chairman	A. de Vries
Members:	J. Wright
	T. Bokor

Summary of Facts and Submissions

I. The appellant-opponent lodged an appeal, received 30 May 2012, against the interlocutory decision of the opposition division dated 2 April 2012 on the amended form in which European patent no. 1493335 could be maintained and paid the appeal fee simultaneously. The statement setting out the grounds of appeal was filed on 30 July 2012.

II. The opposition was based, inter alia, on Article 100(a) EPC together with Article Articles 52(1) and 54(1) and 54(2) EPC, for lack of novelty and with 56 EPC for lack of inventive step.

The patent in suit was revoked by an earlier decision of the opposition division which was set aside by this Board in a different composition in decision T 0202/09 of 19 October 2010. The Board decided, amongst other things, that the subject matter of claim 1 of a fourth auxiliary request (the present main request) filed on 26 March 2009, was novel and to remit the case to the department of first instance for consideration of inventive step.

The opposition division subsequently held that the patent as amended according to the present main request met all the requirements of the EPC, in particular because the inventive step ground for opposition mentioned in Article 100(a) EPC did not prejudice maintenance of the patent as amended having regard to documents:

D1: WO-A-99/16321
D4: US-A-4 339 849
D9: US-A-5 816 904

D'142: English translation of NL-A-7100142.

III. In the appeal proceedings, the following documents, filed with notice of opposition on 12 February 2007, also played a role:

D6: "Lehrbuch der Anatomie der Haustiere", Verlag Paul Parey, 1992, pages 192, 196, 197.
D7: Photographs 1 to 7 of an entrails package, bird carcass and separating element.
D8: Brochure "VOC-TWIN vent cutting and opening machine", Stork PMT B.V, pages 1 to 4, Dated November 2002.

IV. Oral proceedings before the Board were duly held on 27 October 2016.

V. The appellant-opponent requests that the decision under appeal be set aside and that the patent be revoked.

The respondent-proprietor requests 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 a set of claims according to an auxiliary request filed as fifth auxiliary request on 31 December 2011.

VI. Claim 1 of the main request reads as follows:

"An apparatus (50) for breaking tissue connections in poultry (20) suspended by the feet, prior to the evisceration of this poultry, which viscera comprises the gullet, gizzard (23) and the glandular stomach and which tissue connections connect a portion of the viscera with belly fat located at the breast side of the inner cavity wall of the poultry, comprising an

instrument (30) to be inserted into the poultry via an incision provided at the vent side for performing a movement inside the poultry to break the tissue connections, characterised in that the instrument (30) breaks the tissue connections between the belly fat and the gizzard (23), wherein the instrument, after insertion into the poultry to a first predetermined position (2), is moved substantially sideways to a second position (4) near a side of the abdominal cavity of the poultry, from where the instrument is moved further into the poultry downward and forward to a third, deepest position (6) from where the instrument leaves the poultry in a substantially upward movement, scraping along the gizzard."

VII. The appellant-opponent argued as follows:

Starting from D1

D1 already discloses the advantage of leaving fat in the carcass after evisceration, and to cut the tissue connections that hold fat by scraping. The skilled person will start from embodiments of figures 3, 3a, 4, 4a, 5, 5a or 5c and d or 7a to c. They will also see that using these embodiments, additional fat remains on the removed viscera. They will therefore, as a matter of obviousness, make modifications to the apparatus of D1 to cut other tissue connections by scraping to ensure this additional fat stays on the carcass. To do this they will apply trial and error, which together with their knowledge of chicken anatomy, will lead them to modify the instrument 18, adapting it to operate by, inter alia, leaving the poultry in a substantially upward movement scraping along the gizzard. The instrument of D1 is rather sharp at the tip, so it is suitable for scraping when moved upwardly. Any small

modification necessary for upward scraping is not simply what the skilled person would do, it is something they have done, since D8 discloses the same kind of apparatus, where the scraping instrument is modified to scrape the stomach. In particular the L-shaped instrument is steeply angled to scrape the gizzard. Therefore the skilled person will, as a matter of obviousness, arrive at claim 1 from D1 with general knowledge or with D8.

Starting from D'142
An object can be scraped by a knife without damaging the object, just as a razor scrapes a chin. That the document teaches veering with the cutting organ along the stomach is a pointer for the skilled person to modify the cutting path to scrape the stomach. Therefore D'142 and general knowledge take away inventive step of claim 1. Alternatively taking D1 or D8 into account the skilled person knows they need to leave as much belly fat on the carcass as possible, and to achieve this with scraping, therefore they will modify the path of the cutting organ of D'142 to scrape the stomach.

Starting from D4

The skin cutting knife of D4 makes a similar cutting trajectory to the invention. The lower end of the knife is rounded so it cannot damage viscera. The knife can scrape the gizzard as a razor scrapes a chin, it would be easy to change the knife's path slightly to scrape the gizzard. This is something the skilled person would do in order to increase yield. Also from D1 or D8 the ideas of increasing yield by scraping are disclosed so the combination of D4 with either would lead to the invention as claimed in an obvious manner.

Starting from D9

Not the knife but the protective shoe of the knife is shown pressing the gizzard in figure 12 of D9. It will inevitably scrape the gizzard if moved upwardly. That it is the gizzard being pressed can be seen by comparison with the figure on page 192 of D6. Photograph 4 of D7 demonstrates to the skilled person that they must cut fat loose prior to evisceration. Maximising yield is also known from D1 or D8. Therefore the skilled person will make the protective shoe scrape the gizzard so that the fat pad left on the carcass after evisceration has more fat on it. Therefore D9 alone or a combination of D9 and D6 takes away inventive step of claim 1.

VIII. The respondent-proprietor argued as follows:

Arguments concerning D6, D7 and D8 should not be admitted into the proceedings. Additionally, D8 is not proven prior art.

Starting from D1

In D1, the L-shaped instrument remains close to the belly skin of the bird. It is not suitable for scraping along the gizzard, rather it cuts fat connections close to the skin. In the embodiment of figure 7, height adjustment is there to accommodate different sized birds, not to allow the instrument to scrape the gizzard. Suggesting that the skilled person would arrive at the invention by trial and error is merely hindsight. In D8 the instrument also operates close to the skin and above the intestines. Neither the

instrument of D1 nor that of D8 is suitable for scraping along the gizzard as claimed.

Starting from D'142

There is no pointer in D'142 to modify the trajectory of the cutting organ so that it scrapes along the gizzard. Nor is this disclosed in D1, so the combination of these teachings would not lead to the invention as claimed.

Starting from D4

It is not logical to combine D4 with D1 since they do not have a shared objective, D4 is not concerned with leaving as much belly fat as possible. Neither D1 nor D4 disclose the feature that the instrument is scraping along the gizzard, so their combination would not result in the invention as claimed.

Starting from D9

The idea that the protective shoe would be modified by the skilled person to scrape along the gizzard is hindsight. The protective shoe does not have this functionality, rather it is there to protect the internal organs from the cutting edge of the blade.

Remarks concerning D8

D8 does not disclose an instrument that scrapes the gizzard, rather it is designed to press the intestines downwards and scrape abdominal fat loose and separate it from the gizzard. The latter is not the same as scraping along the gizzard.

Reasons for the Decision

1. The appeal is admissible.

2. Background

2.1 The patent relates to a device for preparing poultry for removal of viscera (evisceration). The term "viscera" commonly refers to the soft internal organs of the body including the digestive organs, thus inter alia the intestines and, in the case of poultry, the glandular stomach and gizzard. According to the patent, a known apparatus can break tissue connections between belly fat and the glandular stomach, thereby leaving more fat on the carcass, so increasing its weight (see specification paragraphs [0001] and [0003]).

2.2 The apparatus of the invention is said to break tissue connections between belly fat and the gizzard (specification, paragraph [0004] and granted claim 1). By breaking these connections, the amount of belly fat left in the carcass (after evisceration) can be increased (specification, paragraph [0005]).

2.3 As stated above (see point II), the claim set of the present main request has already been the subject of appeal decision T 0202/09. In that case the Board found, inter alia, that claim 1 differed from D1 in that the instrument claimed leaves the poultry in a substantially upward movement, scraping along the gizzard. Furthermore, it held that none of documents D4, D'142 and D9 disclose the claim feature of breaking tissue connections between belly fat and the gizzard, nor the claim feature of an instrument scraping along the gizzard. It also held that D9, figure 12, does not

indicate the gizzard (see reasons sections 5.1.1 to 5.1.4 and 5.2.2). These issues are not open for discussion, because the earlier findings of T 0202/09 are binding on the present Board (CLBA Chapter IV.E. 7.7.4, 8th Edition 2016, page 1184 in the English version).

2.4 In the decision under appeal, the opposition division held, inter alia, that the subject matter of claim 1 of the present main request involved an inventive step (see sections 1.3 to 1.6 and 2.1). This is the sole contentious issue with which the present decision is concerned.

3. Inventive step of claim 1, main request

3.1 The appellant-opponent has challenged the opposition division's positive finding on inventive step starting from D1, either combined with general knowledge, or with D8, or starting from D'142, D4 or D9 combined with general knowledge or combined with D6.

3.2 The Board holds that the skilled person knows it is important not to damage the viscera, as digestive matter from damaged viscera may contaminate the meat (cf. D1, page 2, lines 6 to 9; D4, column 4, lines 21 to 27; D9, column 2, lines 30 to 33; D'142, page 1, lines 7 to 11).

3.3 Starting from D1

3.3.1 D1 discloses (page 7, line 22 to page 8, line 2) an apparatus with an instrument, also referred to as a supporting element, for inserting into a poultry carcass with low risk of damage to viscera, and to rotate the instrument about a substantially vertical

axis so that the supporting element breaks tissue connections, by scraping (page 9, lines 1 to 3), between belly fat on the inside of the belly skin and the viscera.

Breaking these tissue connections has the advantage that fat connected between belly skin and stomach remain attached to the belly skin, rather than the stomach, thus increasing yield (page 8, lines 18 to 30).

3.3.2 The Board considers it expedient to look in detail at how the apparatus of D1 breaks tissue connections. The instrument 18 plays a central role.

When the apparatus is in operation, the slaughtered bird is suspended by its legs (page 12, fig. 1). An opening is made around the cloaca 14 (page 12, lines 2 to 5). A foot 16 is inserted into this opening, so that it pushes away and shields the viscera (page 12, lines 12 to 16, figure 1a). The instrument 18, which is substantially L-shaped (page 12, lines 17 to 23, lines 34 to 36), is lowered into the carcass until its free end rests on the foot 16 (page 14, lines 3 to 8 and figures 2 and 2a). Then it is rotated through 180°, so that the base of the "L" rotates underneath the belly skin and over the viscera (page 14, lines 9 to 13). Figure 3a shows this in detail. Only the base of the L is in the carcass, it is kept between the belly fat 34 and the viscera.

3.3.3 Another embodiment (figures 5c to 5f, figure 6 and 6a to 6d, page 15, line 30 to page 18, line 33), has, inter alia, a differently (cone) shaped viscera protection element 16a and, as in the first embodiment, an L-shaped instrument 18a which rotates under the

skin, breaking tissue connections between abdominal fat and the viscera (page 16, line 34 to page 17, line 5).

3.3.4 In both these embodiments, the base of the L-shaped instrument 18, 18a is swept about its upstanding stem, which thus forms its rotational axis. As explained above, the base of the L rotates above the viscera of the suspended poultry. Indeed, even at its lowest point of operation, the base of the instrument 18, 18a is above the viscera protection element 16, 16a.

3.3.5 Applying the problem solution approach

Recalling again the differences between claim 1 and D1 (the instrument leaves the poultry in a substantially upward movement, scraping along the gizzard). The effect of these differences is stated in the patent to be, inter alia, to increase efficiency of the apparatus, in other words to increase yield in terms of the amount of belly fat remaining in the poultry after evisceration (see specification, paragraphs [0005] and [0008]).

3.3.6 As explained above, rotating the instrument 18, 18a breaks tissue connections by scraping, leaving fat on the eviscerated carcass rather than the stomach, so this likewise increases yield (D1, page 8, lines 22 to 28 and page 9, lines 1 to 3). The Board holds that the associated objective technical problem can therefore be expressed as how to modify the device of D1 to further increase yield.

3.3.7 The importance of protecting the viscera from damage by instruments working in the carcass is emphasised in numerous passages (page 2, lines 6 to 9, page 3, lines 15 to 18, lines 30 to 32, page 7, lines 23 to 30, page

9, lines 4 to 7, page 9, lines 15 to 21). Most notably (paragraph bridging pages 3 and 4, page 9, lines 4 to 7, page 9, lines 15 to 21), as also explained above, a protection element is placed in the carcass prior or during movement of the instrument 18 (also called separating means), to limit risk of damage to the viscera, pushing viscera away and shielding them (page 12, lines 15 to 16). The instrument 18, 18a always operates above both the viscera protecting element and the viscera (page 14, lines 3 to 13, page 16, lines 1 and 2, page 16 line 34 to page 17 line 1, figures 2a, 3a, 5d to f). The corollary of this is that the skilled person knows that the instrument 18, 18a can damage viscera if it comes into contact with them.

3.3.8 The Board is not convinced that the skilled person would, as a matter of obviousness, modify the apparatus so that the instrument 18 descended below the top of the gizzard, to a position from where it could leave the poultry in an upward movement scraping along the gizzard.

Even if the skilled person were to realise that additional grammes of fat attached to the gizzard would increase yield if they could be harvested, and furthermore knew to which parts of the carcass this additional fat was connected, first and foremost, they know that the instrument 18, 18a should be kept away from the viscera, including the intestines. These, anatomy dictates, are located in the cavity to the side and above the gizzard of the suspended bird. Therefore, whatever yield-increasing modification the skilled person might make, whether arrived at by trial and error or conjecture, having the instrument 18, 18a descend below the top of the gizzard and scrape along it would not be one of them. The modification, however

easy, would carry too high a risk of damaging the intestines. All the more so if the end of the instrument 18 is rather sharp at the tip as the appellant-opponent argues is the case. Thus, the skilled person would never adapt the apparatus of D1 so that the instrument 18, 18a left the poultry in a substantially upward movement, scraped along the gizzard.

3.3.9 A further embodiment is explained with reference to figures 7a to c (see page 18, line 33 to page 19, line 7). In this embodiment the instrument 18 is said to be mechanically independent of other parts and can move laterally and vertically, thus it has extra degrees of freedom of movement (arrows 52 and 53 in figure 7a).

3.3.10 How the instrument according to figures 7a to c might move relative to the viscera is not disclosed, the bird is neither shown nor described. In any case, as in the previous embodiments the instrument 18 is L-shaped, with an upstanding stem forming its rotational axis.

3.3.11 For the same reasons as apply for the embodiments discussed above, the skilled person would not allow the instrument 18 to risk damaging the viscera. Therefore, however mechanically adaptable the extra degrees of freedom of movement might make this apparatus, the skilled person would not be prompted to adapt it so that the instrument 18 scraped along the gizzard as claimed.

3.3.12 In the Board's view a combination of D1 and D8 would also not lead to the invention as claimed, regardless of whether or not D8 is proven to be publicly available before the priority date of the patent.

D8 is a catalogue showing part of a chicken processing plant. It appears to be similar to the system of D1. In particular, the two central figures of page 3 shows a chicken carcass suspended from its legs, in which an approximately L-shaped instrument or tongue is operating. Both these drawings show the instrument operating above the viscera, that is, not only above the folds of the intestines, but also well above the gizzard. It may be that the base of the L is more steeply angled downward from its upstanding stem than in D1, so that its tip might reach deeper into the carcass than that of D1's instrument 18, 18a (cf. D1 figure 3a for example). However, the text of D8 describes it, not only as being movable from side to side under the skin to break tissue connections, but also as pressing the intestines downwards (page 3, sub-section "Opening section"). To do so, it must be above the intestines. Thus, as in D1, D8 discloses that the instrument operates above the intestines. Since furthermore these are located above and to the sides of the gizzard (with the bird suspended from its feet), there is no suggestion here that the instrument should be at the level of the gizzard, let alone scrape along it.

3.3.13 Nor does the statement that the instrument, by moving from side to side, may scrape abdominal fat loose, thus separating it from the gizzard (D8, page 3, second paragraph), imply anything different. Anatomy prescribes that the fat in question is also connected to the skin. The instrument can therefore scrape anywhere between the skin and the gizzard. Whatever abdominal fat the instrument scrapes loose may mean more remains on the carcass, rather than being torn out during evisceration (cf. D8, page 3, second column "up to 10 grammes of extra weight"). However, this does not

imply, that is directly and unambiguously disclose, that the instrument scrapes along the gizzard. It could for example scrape very close to the skin and still leave precious grammes of fat attached thereto. Indeed the figure above this passage seems to depict just this, with the base of the instrument just under the skin, above what appears to be the intestines. The Board therefore does not share the appellant-opponent's view that the L-shaped instrument of D8 is arranged to scrape along the gizzard. Thus, also a combination of D1 and D8 would not, as a matter of obviousness, lead the skilled person to the invention as claimed.

3.4 The appellant has alternatively argued against inventive step starting from documents D'142, D4 and combined with the teaching of D1 or D8, or combined with the skilled person's general knowledge. Likewise starting from D9 combined with general knowledge, including D7 and/or D6.

3.5 Beginning from any of these proposed starting documents, none discloses the claim features of, inter alia, breaking of tissue connections between belly fat and gizzard, nor that an instrument scrapes along the gizzard. As already explained, an effect of these features is to increase yield (specification, paragraph [0005]). Thus the associated objective technical problem can be expressed as how to increase yield.

3.6 Starting from Document D'142

D'142 discloses (see page 1, lines 19 to page 2, line 23, page 4, lines 9 to 31, figures 1, 9 and 10) a poultry processing apparatus with a cutting organ (not shown), for making incisions.

3.7 The appellant-opponent has argued that, faced with the problem of increasing yield, it would be obvious for the skilled person to modify the apparatus of D'142 by adapting the cutting organ to scrape along the gizzard. The Board disagrees.

In the Board's view, scraping along the gizzard is not suggested to the skilled person by the statement that the cutting organ veers along the stomach (page 1, lines 24 to 28, page 4, lines lines 14 to 21 and figures 9 and 10). The cut is made within the fat mass and along the stomach (see T 0202/09 reasons 5.2.2, cf. D'142, page 4, lines 18 and 19). That the cutting organ "veers", might mean that it mirrors the stomach's contours, as the arrows 10 in figure 10 may show, but with what separation is not disclosed. The skilled person would not read this as a suggestion to have the cutting organ leave the fat mass and scrape the gizzard. This is because the cutting organ, which has to be sharp to slice through the birds skin (page 1, lines 19 to 28), would have to pass through the cavity containing the intestines, in order to be able to leave the poultry in a substantially upward movement scraping along the gizzard. However much the skilled person might wish to increase yield and whether or not such a sharp instrument might be able to scrape as a razor scrapes a chin, moving it anywhere near the gizzard would entail a high risk of damaging the viscera, in particular the intestines, so the skilled person simply would not do it.

3.8 Nor, as explained above, is the feature disclosed or rendered obvious by D1 or D8 (see above, points 3.3.8, 3.3.12, 3.3.13). Therefore, starting from D'142, the skilled person would not arrive at the subject matter of claim 1 in an obvious manner, either in the light of

the skilled person's general knowledge or the teachings of D1 or D8.

3.9 Starting from D4

D4 discloses a poultry processing apparatus with a knife that makes a cut starting from the vent cutting towards the breast, cutting into the skin from the outside. The knife then follows the same trajectory in reverse (D4, column 3, line 61 to column 4, line 18).

The same considerations apply to D4 as apply to D'142. Tasked with increasing yield, however familiar the skilled person is with poultry anatomy, and whether or not they might consider that a sharp knife might be able to scrape as a razor does, the skilled person will not change the path of the knife of D4 to move along the gizzard in a substantially upward movement, as this would risk damaging the viscera. Indeed, D4 itself teaches the knife's path should avoid the viscera (column 4, lines 19 to 27). Its rounded end may protect viscera when moving back along this path (column 3, lines 58 to 61), but would not protect viscera from damage were the knife to move substantially upwards scraping along the gizzard, which has intestines to its sides and above it. Therefore, also starting from D4 and in combination with general knowledge or with D1 or D8, neither of which show or suggest scraping along the gizzard, the skilled person would not, as a matter of obviousness, arrive at an instrument that scraped along the gizzard as claimed.

3.10 Starting from D9

D9 discloses a processing machine for carcasses (figures 10 to 15, column 6, line 53 to column 9, line

24). An opening cut in a carcass is made that produces a single flap of tissue (column 1, lines 55 to 63, figure 17). To make this cut, an upright knife is used. A protective shoe 118 is mounted just below the knife blade 106 to shield the entrails from puncture by the knife (column 2, lines 19 to 33, column 5, lines 41 to 56, column 7, lines 40 to 53, figures 3 and 6 to 8).

As explained above, D9 does not disclose that the tissue connections between the belly fat and the gizzard are broken prior to evisceration. Nor that the protective shoe 118 scrapes the gizzard, since this is neither identifiable from figure 12, nor described in the text as T 0202/09 has already decided, whether or not the position of a chicken's gizzard is shown in D6 (page 192, figure).

Nor, in the Board's opinion, would it be obvious for the skilled person to modify the arrangement of D9 so that the protective shoe 118 left the carcass in a substantially upward movement, scraping along the gizzard.

It may be that the skilled person is aware that fat is attached to the gizzard, which would risk being lost during evisceration as the appellant-opponent argues the photographs of D7 show. However, in the Board's opinion, tasked with increasing yield, the skilled person would never modify the apparatus of D9 so that the protective shoe descended below the top of the gizzard, as it would have to if it were to scrape the gizzard as claimed. This would entail the knife blade 106 going down and up through the cavity occupied by the intestines, thereby risking their damage. Nor would the skilled person reach a different conclusion taking into consideration their general knowledge, from which,

above all, they know the importance of not cutting the intestines.

4. In conclusion, the arguments presented by the appellant-opponent have failed to demonstrate a lack of inventive step of the subject matter of claim 1 of the main request. The Board agrees with the findings of the impugned decision in this respect (decision, points 1.3 to 1.6 and 2.1) and concludes that the appeal must be dismissed. This conclusion is arrived at without prejudice to the issue of proof of the public availability of D8, which therefore need not be decided. The questions of admission of arguments concerning documents D6, D7 and D8 are likewise moot. By the same token, the Board need not consider the proprietor-respondent's auxiliary request.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

G. Magouliotis A. de Vries

Decision electronically authenticated