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D E C I S I O N
of 9 March 2004

Case Number: T 0965/01 - 3.3.1

Application Number: 94910070.5

Publication Number: 0689570

IPC: C09H 3/00

Language of the proceedings: EN

Title of invention:
Method for producing gelatin

Patentee:
ELLCO FOOD AB

Opponent:
SKW Biosystems
Deutsche Gelatine-Fabriken Stoess AG

Headword:
Gelatin/ELLCO FOOD

Relevant legal provisions:
EPC Art. 83

Keyword:
"Sufficiency of disclosure (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 0965/01 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 9 March 2004

Appellant: ELLCO FOOD AB
(Proprietor of the patent) Box 100
S-244 00 Kävlinge (SE)

Representative: Wallin, Bo-Göran
AWAPATENT AB
Berga Allé 1
S-254 52 Helsingborg (SE)

Respondent: SKW Biosystems
(Opponent 01) 4 Place des Ailes
F-92641 Boulogne Billancourt Cédex (FR)

Representative: Gillard, Marie-Louise
Cabinet Beau de Loménie
158, rue de l'Université
F-75340 Paris Cédex 07 (FR)

Respondent: Deutsche Gelatine-Fabriken Stoess AG
(Opponent 02) Gammelsbacher Strasse 2
D-69412 Eberbach (DE)

Representative: Hoeger, Stellrecht & Partner
Patentanwälte
Uhlandstrasse 14c
D-70182 Stuttgart (DE)

Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 21 June 2001
revoking European patent No. 0689570 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: A. J. Nuss
Members: P. Bracke
R. T. Menapace

Summary of Facts and Submissions

I. The appeal lies from the Opposition Division's decision to revoke European patent No. 0 689 570 since the patent in suit did not meet the requirement of Article 83 EPC.

II. With letter received on 24 October 2001, the Appellant (Proprietor of the patent) filed a test report entitled "continuous production" and a set of seven claims together with an amended description. The only independent claim read:

"1. A method for producing gelatin from a collagen-containing raw material, characterised by implemented in a continuous fashion the steps of

a) grinding the raw material, if necessary after defatting, to a particle size not exceeding 1 mm,

b) mixing the ground raw material with water to form a slurry,

c) subjecting the slurry from step b), in optional order, to an adjustment of the pH to 2-5 and to an adjustment of the temperature to 80-110°C for a time of from 5-40 min,

d) lowering the temperature of the slurry to complete the reaction,

e) separating the slurry into a gelatin-containing liquid portion and a solid residue,

f) increasing the pH of the slurry or the liquid portion before or after, respectively, the separation, and

g) recovering the gelatin from the liquid portion in filtering steps and/or other cleaning steps, with essentially no removal of process water in steps a) - f)."

III. With telefax dated 29 April 2002, the Respondent (Opponent 02 Deutsche Gelatine-Fabriken) withdrew its opposition.

IV. During the oral proceedings, which took place on 9 March 2004, the Appellant filed, as an auxiliary request, a set of seven claims and an amended description.

The only independent Claim 1 was identical with Claim 1 filed with letter received 24 October 2001, with the exception that step (a) read

"grinding the raw material, if necessary after defattening, to a particle size not exceeding 1 mm, **thereafter**" (emphasis added).

V. The Appellant argued in essence that the invention met the requirement of Article 83 EPC, since a skilled person was taught by the description that the pH, the temperature and the time have to be determined according to the degree of grinding and the quality requirements placed on the gelatin to be produced.

VI. The sole remaining Respondent - SKW Biosystems - (Opponent 01) contested that the invention was disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, since the vague definitions of pH, duration and temperature in the description did not allow to obtain gelatin of high quality.

VII. The Appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of the set of claims and an amended description received on 24 October 2001 (main request) or the set of claims and the amended description submitted at the oral proceedings (auxiliary request).

The Respondent (Opponent 01) requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.

2. *Main request*

2.1 Article 123(2) EPC and Article 84 EPC

Since the Board came to the conclusion that Claim 1 of the main request does not meet the requirement of Article 83 EPC as set out below, it is not necessary to give any reasoning as to whether the requirements of Article 123(2) EPC and clarity under Article 84 EPC in respect of the amendments introduced into Claim 1 are met, which was not contested by the Respondent.

2.2 Sufficiency of disclosure

2.2.1 According to the established jurisprudence of the Boards of Appeal, the requirement of sufficient disclosure means that the whole subject-matter that is defined in the claims, and not only part of it, must be capable of being carried out by a skilled person without the burden of an undue amount of experimentation. This assessment is not to be limited to the claim(s) alone but must include the information contained in the description including any drawings.

2.2.2 Although it is stated in column 3, lines 43 to 50, of the patent in suit that it is one object of the invention to provide high-quality gelatin, the invention as set out in the patent in suit is described as a flexible method for producing gelatin of any desired quality grade between high-quality and low-quality gelatin. Indeed, in column 5, lines 17 to 29, it is stated that the pH, the temperature and the time are determined according to the degree of grinding and the quality requirements placed on the gelatin to be obtained and that these parameters have to be so combined that the aimed-at gelatin quality is obtained. Moreover, it is stated there that "In some applications, lower-quality gelatin may, of course, do".

Since, thus, in the light of the description the claimed method is not to be construed as restricted to producing high-quality gelatin but encompassing also producing other quality grades down to low-quality gelatin, it is essential to establish in particular whether the patent in suit as a whole provides

sufficient information in order to enable a person skilled in the art to determine the reaction conditions for producing in a continuous fashion gelatin of high quality, i.e. gelatin having a Bloom number higher than 240. The Board observes that conventionally a Bloom number of about 120 - 240 indicates average quality gelatin, and a Bloom number of less than about 120 indicates low-quality gelatin (see column 3, lines 38 to 42, of the patent in suit).

2.2.3 In the absence of any concrete example concerning realisation of the now claimed invention, the question of sufficiency of disclosure is concentrated on whether the general description provides sufficient information to enable a skilled person to find out at which pH, time and temperature in step (c) of Claim 1 a gelatin having a Bloom number higher than 240 could be produced in view of the fact that the processing conditions defined in Claim 1 are of a general character in the sense that they are not specified for a particular quality grade of gelatin. The statement in the patent in suit that "these parameters have to be so combined that the aimed-at gelatin quality is obtained" (column 5, lines 27 to 29) is clearly of no help in that respect.

2.2.4 The part of the description related to Figure 1 (schematic representation of the gelatin preparation) only states that "the resulting slurry is acidified by the addition of an acid and is heated, the elevated temperature being maintained for a certain period of time", without giving any further details (see column 4, lines 29 to 43). However, such generally defined operating conditions do not inform a skilled person on

the particular conditions necessary for obtaining from some collagen-containing raw material gelatin of a particular quality grade such as one having a Bloom number > 240. The lack of technical details is all the more a serious deficiency since it is expressly stated in the patent in suit that the pH, the temperature and the time are determined according to the degree of grinding of the collagen-containing raw material and the quality requirements placed on the gelatin to be produced (see column 5, lines 17 to 20). On top of this, the starting raw material is virtually not limited and may in particular consist of hides, split, rind, gristle, sinews, intestines, stomachs, connective tissue material and different types of bone material from animals (see column 4, lines 19 to 23). Thus, although the three parameters pH, temperature and time are indicated as essential and their determination mentioned to depend, on the one hand, on the degree of grinding of the starting material and, on the other hand, on the gelatin quality to be produced, the crucial fact is that the skilled person remains uninformed as to what is necessary for having each of these parameters so adjusted that the desired gelatin grade is thereby produced.

Moreover, the relevant part in the patent in suit related to step (c), namely column 5, lines 10 to 54, only repeats the pH, temperature and time ranges cited in Claim 1 without however revealing to the skilled person which values of these parameters have to be chosen for obtaining a particular gelatin such as high-quality gelatin. It only states that the amount of collagen converted to gelatin increases proportionately to the decrease in pH, the increase in temperature and

the prolongation of the residence time and that the more extensive the treatment to which the material is subjected, the lower the quality of the resulting gelatin. The only information which can be found there is that the reaction rate increases with the temperature and that, due to the fact that the organic material is rapidly decomposed at very high temperatures, the residence time will then be extremely short. Such high temperatures are thus only acceptable if low-quality gelatin, such as bone glue, is an acceptable or aimed-at product.

- 2.2.5 In the absence of sufficiently detailed information, the patent in suit leaves thus the burden of finding out how high-quality gelatin having a Bloom number higher than 240 may be produced entirely upon the skilled reader.

In view of this and in the absence of any evidence that a skilled person could find out the reaction conditions required for that particular gelatin grade on the basis of common general knowledge, the Board considers that the person skilled in the art would be reduced to find out by trial and error at which pH, temperature and time in step (c) the production of high-quality gelatin may be obtained. Already for this reason, the patent in suit does not meet the requirement of Article 83 EPC.

- 2.2.6 Also the test report filed by the Appellant entitled "continuous production" with letter received 24 October 2001 does not serve to remedy the insufficiency of disclosure requirement, since Article 83 EPC requires that the European patent application must disclose the invention in a manner sufficiently clear and complete

for it to be carried out by a person skilled in the art and Article 100(b) EPC requires the same for the European patent. Additional information filed after the filing date is thus not permissible to remedy the deficiency of insufficiency of disclosure.

Moreover, since this test report describes a method of preparing gelatin under specific circumstances, namely by keeping the slurry in step (c) under **a pressure of about 5 bar until separation starts**, and since the patent in suit is silent about the requirement to work under increased pressure, this test report rather confirms the finding of the Board that the patent in suit does not provide sufficient information to enable a skilled person to produce high quality gelatin without the burden of an undue amount of experimentation.

2.2.7 It follows from the above that the patent in suit does not disclose the claimed invention sufficiently clear and complete to be carried out by a person skilled in the art.

3. *Auxiliary request*

Claim 1 of the auxiliary request differs from Claim 1 of the main request solely by the addition of the word "thereafter" in the wording of step (a) (see the emphasises part under point III).

However, this additional information has no impact on the fact, that a skilled person would still have to find out merely by trial and error as to which

combination of pH, temperature and time in step (c) enables the production of high-quality gelatin.

Hence, irrespective of this modification the requirement of sufficiency of disclosure is not fulfilled for the reasons set out in point 2.2 above, with the consequence that the auxiliary request is also not suitable for overcoming the objection of insufficiency of disclosure and was thus not admitted into the proceedings.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:

N. Maslin

A. Nuss