Internal distribution code:

(A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

Datasheet for the decision of 6 November 2019

Case Number: T 1455/17 - 3.3.05

Application Number: 07865206.2

Publication Number: 2106282

IPC: B01D29/48

Language of the proceedings: EN

Title of invention:
A FILTER ELEMENT WITH A WINDING STRUCTURE

Patent Proprietor:
Baldwin Filters, Inc.

Opponent:
Donaldson Company, Inc.

Headword:
Winding structure/BALDWIN

Relevant legal provisions:
EPC Art. 54(1), 54(2), 56, 69(1), 83, 84, 123(2), 123(3)
EPC R. 139

Keyword:
Amendments - broadening of claim (no) - allowable (yes)
Claims - clarity (yes)
Sufficiency of disclosure - (yes)
Novelty - (yes)
Inventive step - (yes)

Decisions cited:
G 0003/14, T 0190/99

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 1455/17 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 6 November 2019

Appellant: (Opponent)	Donaldson Company, Inc. Postfach P.O. Box 1299 Minneapolis, MN 55440 (US)
Representative:	IPLodge bvba Technologielaan 9 BE-3001 Heverlee (BE)
Respondent: (Patent Proprietor)	Baldwin Filters, Inc. 4400 East Highway 30 Kearney, Nebraska 68848-6010 (US)
Representative:	Pronovem Pronovem Luxembourg 12, avenue du Rock n' Roll BP 327 4004 Esch sur Alzette (LU)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 28 April 2017 concerning maintenance of the European Patent No. 2106282 in amended form.**

Composition of the Board:

Chairman	E. Bendl
Members:	A. Haderlein
	P. Guntz

Summary of Facts and Submissions

I. The appeal was filed by the opponent (appellant) against the interlocutory decision of the opposition division finding that, on the basis of the then auxiliary request 2, the patent in suit met the requirements of the EPC.

II. Claim 1 of that request reads as follows:

"1. A filter element (100) defining a longitudinal axis (102) and first and second axial ends (104,106) of the filter element, the filter element comprising:
a winding structure (108), and a length of fluted filter media (110), having first and second axial ends, wound about the winding structure (108) with the flutes of the media (110) oriented substantially parallel to the longitudinal axis, to thereby provide for filtration of a flow of fluid passing substantially parallel to the longitudinal axis through the filter element (100);
the winding structure (108) defining a winding structure axis (128) extending substantially parallel to the longitudinal axis (102) of the filter element, and oppositely facing axial ends (130,132) of the winding structure disposed at opposite ends of the winding structure (108) along the winding structure axis (128) adjacent and axially inward from the corresponding first and second axial ends of the fluted filter media (110);
the winding structure (108) having a length, width and thickness thereof, with the length extending substantially along the winding structure axis (128) between the first and second axial ends (130,132) of the winding structure, the width extending substantially orthogonally to the winding structure

axis (128), and the thickness extending substantially orthogonally to both the winding structure axis (128) and the width of the winding structure (108);
characterized in that
the winding structure (108) also includes a winding feature (112) extending substantially axially outward from and beyond at least one of the axial ends of the winding structure (108);
the winding feature (112) is configured for receiving a winding torque, applied to the winding structure (108), for rotation of the winding structure (108) about a winding axis (128) extending substantially parallel to the longitudinal axis (102) of the filter element (100), as the media (110) is wound onto the winding structure (108); and
the axial end of the filter element (100), which is formed by one of the lateral edges of the fluted filter media wound about the winding structure (102), being disposed substantially flush with the distal end (176) of the winding feature (112)."

Claims 2 to 11 concern preferred embodiments of the filter element according to claim 1 and an apparatus comprising it.

III. The opposition division held in particular that this request met the requirements of Articles 123(2) and 84 EPC in that the change from "axial ends" to "axial end" amounted to the correction of an obvious clerical mistake and was thus not objectionable under Article 123(3) EPC. The requirement of sufficiency of disclosure was also found to be met for the patent in suit. The subject-matter of claim 1 of this request was held to be novel in view of

D3: US 2006 008 1528 A1

D4: US 6 348 084 B1 and
D5: WO 03/084 641 A2.

It also involved an inventive step when starting from D3, D4 or D5.

IV. With its reply to the grounds of appeal, the respondent filed auxiliary requests 01 to 03 and 04_00 to 04_03. With its submissions dated 5 September 2019, it filed auxiliary request 04_00b.

V. The appellant's arguments, as far as relevant to the present decision, may be summarised as follows:

Claim 1 of the main request complied with neither the requirement of Article 123(3) EPC nor that of Rule 139 EPC because the replacement of "axial ends" in the plural by "axial end" in the singular extended the scope of protection. Likewise, Article 123(2) EPC was not complied with because of the feature "axial end" in the singular; claim 1 also constituted an inadmissible intermediate generalisation and features were taken from parts of the description relating to a method and not to a filter element.

Claim 1 was objectionable for lack of clarity because of the definite article in "the distal end" and "the lateral edges". The invention was also not sufficiently disclosed because of the functional definition of the "winding feature" and because of the embodiment depicted in Figure 1 leading to undesirable stress in the filter media after winding.

The subject-matter of claim 1 lacked novelty in view of D3 and D5. In particular, the distal end of the winding structure could also be considered the axial end of the

winding structure whilst the axial end could be considered an indentation extending from the axial end into the winding structure. This feature was disclosed in D3 and D5. Furthermore, the subject-matter of claim 1 did not involve an inventive step when starting from D3, D4 or D5. In particular, when starting from D3 it was obvious to make the first and second openings 28 and 29 in D3 solid and to have the solid area around these openings removed.

VI. The respondent's arguments, as far as relevant to the present decision, may be summarised as follows:

The requirement of Article 123(3) EPC was met because moving from the plural in "axial ends" to the singular in "axial end" was the correction of an obvious error within the meaning of Rule 139 EPC. The requirements of Articles 123(2), 84 and 83 EPC were also met. The subject-matter of claim 1 of the main request was novel over D3 and D5 and also involved an inventive step. The closest prior art was represented by D3.

VII. Requests

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

The respondent requested that the appeal be dismissed. In the alternative, it requested the maintenance of the patent in amended form based on one of auxiliary requests 01 to 03 or 04_00, 04_00b, 04_01 to 04_03, all requests filed with the reply to the grounds of appeal except for auxiliary request 04_00b, which was filed with the respondent's submissions dated 5 September 2019.

Reasons for the Decision

Main request

1. Article 123(3) EPC

1.1 According to the appellant, replacing the plural "axial ends" in the last paragraph of granted claim 1 with the singular "axial end" led to an extension of the scope of protection. The parties were in agreement that the plural of "axial ends" in the last paragraph of granted claim 1 was in contradiction with the requirement in the same paragraph that the axial ends were substantially flush with "the" winding feature, i.e. were substantially flush with one single winding feature. This contradiction could not be resolved by construing the claim on the basis of the first paragraph of the characterising portion or dependent claim 2. Thus, while there was an obvious error, the proposed correction was not the only possible correction and thus was not obvious. Referring to the description, in particular paragraph [0014], was of no help here either, because at least the figures required both axial ends of the winding structure to include a winding feature.

1.2 The appellant's submissions are not persuasive. The parties agree that it is evident from claim 1 as granted that the above plural is an error. Nonetheless, this feature must be construed in the context of the claim itself and also in the context of the dependent claims, i.e. claim 2. Moreover, according to established case law, in order to establish the scope of protection the claims must be interpreted in the light of the description as required by Article

69(1) EPC (T 190/99, reasons 2.4).

1.2.1 Concerning claim 1 as granted, the first paragraph of the characterising portion explicitly envisages the presence of only a single winding feature extending substantially axially outward beyond "at least one of the axial ends of the winding structure". It is thus not reasonable to construe the last paragraph of claim 1 as granted to mean that the claim was limited to both axial ends of the winding feature each including a winding feature.

1.2.2 Additionally, claim 2, which refers back to claim 1 and describes a winding feature extending substantially axially outward from each of the first and second axial ends, supports the interpretation that claim 1 also encompasses embodiments where only one axial end of the winding structure is provided with a winding feature and, thus, only one of the two axial ends of the filter element is disposed substantially flush with the distal end of the winding feature. If claim 1 was construed to mean that two winding features (at both axial ends) were mandatory, claim 2 would be deprived of any meaning.

1.2.3 Finally, the description supports this interpretation, too. In particular, in paragraph [0014] which is the first paragraph of the "BRIEF SUMMARY OF THE INVENTION" section of the patent, reference is made to "the axial end" in the singular. It is irrelevant whether the figures appear to relate to embodiments where both axial ends of the filter element are substantially flush with the distal ends of the winding features of both axial ends of the winding structure. Naturally, the figures represent specific embodiments of the claimed invention, often protected by dependent claims.

This means that claim 1 does not need to be construed so as to comprise all features of the figures. Rather, by construing the "axial ends" in the last paragraph of claim 1 to read "axial end" in line with paragraph [0014], the embodiments represented in the figures as well the general teaching in the description such as the one in paragraph [0014] is covered by claim 1.

1.2.4 Thus, in construing the contentious feature in the context of claim 1 itself, dependent claim 2 and the description, the scope of the patent as granted covers filter elements where only one axial end of the filter element is disposed substantially flush with the distal end of the winding feature.

1.2.5 The contentious replacement of "axial ends" with "axial end" therefore does not lead to an extension of scope within the meaning of Article 123(3) EPC. Whether this replacement fulfills the requirements of Rule 139 EPC is immaterial for ruling on compliance with Article 123(3) EPC.

2. Article 123(2) EPC

2.1 According to the appellant, claim 1 was directed to an inadmissible intermediate generalisation because the phrase "to a distal end of the winding feature" was deleted from the passage "extending substantially axially outward from the axial end of the winding structure to a distal end of the winding feature" in claim 1 as filed, and the amendment in the last paragraph of claim 1 stemmed from passages of the application as filed that related to a method and not to those related to the filter element. Moreover, replacing "axial ends" with "axial end" went beyond the

content of the application as filed.

2.2 The omission of the phrase "to a distal end of the winding feature" in originally filed claim 1 does not extend beyond the application as originally filed because it is clear from claim 1 in the present version that the winding feature does not have an infinite length and, thus, has a distal end. Moreover, from the last paragraph of present claim 1 it is clear that the distal end is flush with the axial end of the filter element and that the winding feature extends from the winding structure to that distal end.

2.3 As for the objection that the alleged basis for the amendments was in passages of the description relating to a method rather than to the filter element, the appellant does not refer to any specific passage in the application documents as filed from which the contentious features are extracted. The passage in paragraph [0018] of the application documents as published referred to by the appellant relates to a method but does not relate to the contentious feature. Conversely, the respondent has convincingly argued that the feature "which is formed by one of the lateral edges of the fluted filter media wound about the winding structure" is directly and unambiguously derivable from the originally application documents as a whole.

2.4 Moreover, there is direct and unambiguous disclosure of the "axial end" in the singular in the application documents as originally filed (see the international publication, paragraph [0013] and claim 1).

2.5 The appellant's objection as to the lack of basis for the combination of features (ground of appeal,

item 6.2) was not further substantiated and consequently cannot be considered to be a convincing argument.

2.6 For the above reasons, the requirement of Article 123(2) EPC is met.

3. Clarity

3.1 The appellant is of the opinion that the reference to "the (sic) distal end" and to "one of the (sic) lateral edges" led to a lack of clarity within the meaning of Article 84 EPC. Moreover, Figure 1 cast doubt as to the meaning of the expression "substantially flush" in claim 1.

3.1.1 The feature "the distal end" is present in claim 1 as granted. The appellant has not shown that the amendments made to claim 1 of the main request are such that they introduce non-compliance with Article 84 EPC. Rather, its submission is directed to a feature already present in granted claim 1. Thus, this objection is rejected as inadmissible (G 3/14, Reasons 81).

3.1.2 The objection concerning the definite article in "one of the lateral edges" seems to be based on an overly formalistic concept of claim wording. While a feature referred to in a claim for the first time will normally be introduced using the indefinite article "a", this is not necessary if it is clear that the combination of the preceding features implicitly includes such a feature. This is exactly the case here since it is clear that the fluted filter media wound about the winding structure must have a lateral edge at the top and one at the bottom of the filter element. This objection is therefore unfounded. Furthermore,

appellant's interpretation that Figure 1 was in contrast to the "substantially flush" requirement of claim 1 is also unfounded, as the said figure merely represents a schematic drawing not permitting to draw conclusions as to the *exact* details of the filter element.

3.2 For the above reasons, the objections raised under Article 84 EPC are inadmissible or unfounded.

4. Sufficiency of disclosure

4.1 The appellant submitted that the "winding feature" was so broadly defined that the skilled person would not be able to carry out the invention over the whole scope claimed. The only limitation was "configured for receiving a winding torque", but this was not sufficient for implementation to be possible over the whole scope claimed.

4.2 This argument is, however, not supported by verifiable facts. Moreover, there is no reason to conclude that the skilled person could not devise a large number of different shapes for the winding feature based on the illustrations given in particular in Figures 6 to 8 of the patent, with all shapes being covered by present claim 1.

4.3 The board also does not share the appellant's view that the embodiment depicted in Figure 1 cannot be carried out such that a fixed-width band of fluted media could be wound about the winding structure in the manner shown in Figure 1. The appellant does not even contest that the embodiment depicted in that figure can be produced by the skilled person. Whether it leads to "undesirable stress", as argued by the appellant has no

bearing on the sufficiency of disclosure of the invention claimed in claim 1, because product claim 1 does not require that the fluted media is wound about the winding structure without such undesirable stress.

4.4 For these reasons, the requirement of sufficiency of disclosure set forth in Article 83 EPC is met.

5. Novelty

5.1 D3

5.1.1 According to the appellant, D3 was novelty-destroying for the subject-matter of claim 1. In particular, the theoretical plane going through the lower terminating edge of the openings 28 and 29 and forming an axial stop 44 represented one of the two oppositely facing axial ends of the winding structure (see Figure 4).

5.1.2 This argument is not persuasive. If the person skilled in the art were to consider the lower axial end of the winding structure in D3 to be one of two oppositely facing axial ends, they would not consider the aforementioned theoretical plane to be the other axial end. Rather, they would consider the top of the winding structure to be the other of the two oppositely facing axial ends.

As contended by the appellant with reference to the figures of the patent, it is true that claim 1 also covers embodiments where the distal end of the winding feature could be considered the axial end of the winding structure and the axial end thereof could in turn be considered the winding feature in the form of an indentation extending from the axial end into the winding structure. Nevertheless, on the basis of the

wording of claim 1 in general (cf. "adjacent") and the expression "axial end" in particular, the axial end has to be present in an area which is considered to constitute the end of the longest extension of the winding structure. Thus, claim 1 does not cover embodiments where the plane of "the axial end" is close to the middle of the winding structure and therefore far from the end of its largest extension, as is the case in D3.

Therefore, as correctly held by the opposition division (see impugned decision, page 16, penultimate paragraph), the plane going through the axial stop 44 in D3 cannot be considered "adjacent" to the axial end of the fluted filter media. Moreover, the lower axial end of the winding structure is not disclosed as being axially inward from the axial end of the fluted filter media.

Consequently, D3 does not disclose
- oppositely facing axial ends of the winding structure adjacent and axially inward from the corresponding first and second axial ends of the fluted filter media
- an axial end of the filter element being disposed substantially flush with the distal end of the winding feature.

5.2 D5

Similar considerations apply to this document. Neither the features bearing the reference numerals 150 and 152 nor the cross-member present in about the middle of the winding structure in Figure 7 of D5 can be considered an axial end within the meaning of claim 1. As also admitted by the appellant, there is no feature that could be considered a winding feature extending axially

outward from the features bearing the reference numerals 150 and 152. The aforementioned cross-member is located in about the middle of the winding element and thus cannot be considered an "axial end disposed adjacent to the axial end of the fluted filter media".

Thus, the subject-matter of claim 1 is novel over D5.

5.3 The requirement of Article 54(1),(2) EPC is thus met.

6. Inventive step

6.1 The invention concerns a filter element comprising a winding structure.

6.2 The appellant starts from D3, D4 or D5 as the closest prior art.

6.2.1 The patent concerns problems arising with structures used in order to wind fluted filter media (see for instance paragraphs [0006], [0010] and [0013]).

6.2.2 Likewise, D3 concerns the action of winding fluted filter media (see paragraphs [0015] and [0018]).

6.2.3 While D4 also concerns issues arising when winding the filter media (see column 12, from line 22 onwards), it is structurally more remote from the claimed subject-matter than D3. In particular, the skilled person would not construe the bottom of the notches 286 and 266 as the "axial end" within the meaning of claim 1, as contended by the appellant. While it is true that in the figures of the patent in suit (Figures 6 to 8) the axial end 132 could be considered a recess with respect to the distal end 176, the term "axial end" implies that this feature makes up a major portion of the end

region of the winding structure. This is clearly not the case for the notches 286 and 266 in D4.

As for D5, this document does not address issues arising when winding the filter media.

6.2.4 For the above reasons, the board starts from D3 as the closest prior art, as submitted by the respondent.

6.3 According to the respondent the problem to be solved was making the winding structure capable of receiving important winding torques without changing the overall height of the modified filter element.

6.4 According to claim 1, the proposed solution to this problem is a filter element characterised by oppositely facing axial ends of the winding structure adjacent and axially inward from the corresponding first and second axial ends of the fluted filter media, an axial end of the filter element being disposed substantially flush with the distal end of the winding feature.

6.5 The question of whether the proposed solution successfully solves the above problem can be left open since, as explained below, the subject-matter of claim 1 is not obvious even when considering the problem to be the mere provision of an alternative filter element.

6.6 According to the appellant, it was obvious to make the first and second openings 28 and 29 in D3 solid and to have the solid area around these openings removed. It was also obvious to provide the thus obtained solid protrusions with other openings in order to receive the snap-in hooks 36.

This line of reasoning is not persuasive. Nothing in the cited prior art would teach the skilled person to carry out the modifications suggested by the appellant. Moreover, these modifications would result in the two sides 42 and 43 having a substantially reduced area. This area, however, is necessary in order to hold the wound filter media 24. Therefore, the skilled person would not have adopted the modifications suggested by the appellant. It was thus not obvious to arrive at the subject-matter of claim 1 when starting from D3.

6.7 As D3 is considered the most promising starting point for assessing inventive step, i.e. the closest prior art, it was even less obvious to arrive at this subject-matter when starting from D4 or D5.

6.8 Thus, the requirement of inventive step set forth in Article 56 EPC is met.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

C. Vodz E. Bendl

Decision electronically authenticated