Commissioner’s Decision #1374

Décision du Commissaire #1374

TOPIC: C00, O00

SUJET: C00, O00

Application No.: 2,582,572

Demande n°.: 2,582,572

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,582,572 having been rejected under subsection 30(3) of the *Patent Rules*, has been reviewed in accordance with paragraph 30(6)(*c*) of the *Patent Rules* by the Patent Appeal Board and the Commissioner of Patents. The recommendation of the Board and the decision of the Commissioner are as follows:

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INTRODUCTION

[1] This decision deals with the review of the rejection of patent application number 2,582,572 entitled “Encapsulated Compositions and Methods of Preparation” filed on 30 September 2005 by the Applicant Cadbury Adams USA LLC.

[2] A Summary of Reasons [SOR] was sent to the Patent Appeal Board [the Board] on 29 July 2014, which identified the following grounds for rejecting this application:

- claims 1-26 are obvious; and
- claims 11 and 21 are indefinite.

[3] Notably, the Examiner acknowledged that claims 27-35 were allowable.

[4] Pursuant to subsection 30(6.1) of the *Patent Rules*, the Board also identified the following defects during our initial review of the application:

- claim 16 refers to itself; and
- the description does not correctly and fully describe the invention.

[5] For the reasons that follow, we recommend that the application be amended and thereafter allowed.

BACKGROUND

[6] This application relates to the production of encapsulated sweetener compositions comprising heat stabilized complexes of sucralose. Encapsulation of a sweetener provides the particular advantage of extending its release over a longer period of time when included in food products, such as chewing gum. Generally, intense sweeteners such as aspartame and acesulfame potassium have been used in encapsulated compositions. Since the encapsulation process involves extrusion techniques which are carried out at a high temperature, it is commercially impractical to encapsulate sweeteners that are not thermally stable, such as sucralose.

[7] The present description teaches a method of preparing a heat stabilized complex of sucralose. The complex is a co-crystal of cyclodextrin and sucralose which is formed in a process using water as the solvent. This represents an improvement over previously described methods which require the use of an organic solvent such as methanol, a highly toxic material which must be removed, in the co-crystallization of cyclodextrin and sucralose.

[8] Unlike pure sucralose, which tends to decompose and discolor in response to elevated temperatures, this heat stabilized, co-crystallized complex of cyclodextrin and sucralose can be combined with an encapsulating polymer by melt extrusion and used to prepare commercially acceptable encapsulated sweetener compositions.

PROSECUTION HISTORY

[9] After four Office Actions this application was rejected in a Final Action on 27 August 2012. The application was considered defective because all the product claims, defining the encapsulated sweetener compositions, were considered obvious. The Final Action also indicated that all the process claims for producing the sweetener compositions were considered allowable.

[10] In response to the Final Action, the Applicant chose to amend the product claims to recite process steps. Specifically, the encapsulated sweetener composition claims were amended to include the process by which the complex is made. By incorporating the process steps, which were previously acknowledged by the Examiner as allowable, the Applicant submitted that the subject matter of the amended claims was both novel and non-obvious.

[11] The Examiner disagreed, maintaining the obviousness defect and indicating in the SOR submitted to the Board that "the method of manufacture does not differentiate the final product (i.e. a co-crystallized/precipitated complex of cyclodextrin and sucralose) from the prior art." The Examiner also noted that the amendments to independent product claims 11 and 21 had introduced claim ambiguities.

[12] A panel of three members of the Board was established. During the course of our review certain issues were identified that required clarification. The Applicant was notified of

these defects in a letter dated 21 August 2014. In particular, the panel noted that the description contained language suggesting that the claims be viewed as broader than the teachings of the description and that one of the claims had been made to refer to itself. The Applicant was also notified that the panel intended to purposively construe the claims in accordance with the latest practice guidelines.

[13] In response to the SOR and the panel's letter the Applicant submitted proposed amendments to the description and a proposed set of claims on 12 September 2014 to address all outstanding defects.

THE ISSUES

[14] Four issues arise as a result of the grounds for rejection cited by the Examiner and the panel's observations during our initial review. However, it is not necessary for us to address the issues raised in respect of subsection 27(4) of the *Patent Act* and subsection 87(2) of the *Patent Rules* in view of the Applicant's proposed amendments to delete claims 1-26, since we find these proposed amendments are required for compliance with subsection 28.3 of the *Patent Act*, as shown below. Therefore, we need only address the following two issues:

(1) Are claims 1-26 obvious?

(2) Does the description correctly and fully describe the invention?

THE CLAIMS

[15] Claims 1-26 under review contain four independent claims defining sweetener compositions and encapsulated sweetener compositions. Claim 1 is representative of the product claims considered defective:

1. A sweetener composition comprising:
   (a) a co-crystallized/precipitated complex of cyclodextrin and sucralose; wherein the co-crystallized/precipitated complex of cyclodextrin and sucralose is prepared by:
      (i) preparing a solution of the sucralose and the cyclodextrin in water;
      (ii) maintaining said solution under heat for a period of time sufficient to allow formation of the sucralose/cyclodextrin complex;

(iii) drying said solution to permit harvesting of said co-crystallized/precipitated sucralose/cyclodextrin complex; and

(iv) forming said co-crystallized/precipitated sucralose/cyclodextrin complex to a suitable particle size; and

(b) an encapsulant comprising a polymer.

PURPOSIVE CONSTRUCTION

[16] As taught by the case law, claims are to be interpreted in a purposive way. Purposive construction is done to objectively determine what the person skilled in the art, in light of their common general knowledge, would have understood the scope of the claims to be, based on the particular terms used in the claims: *Free World Trust v Electro Santé Inc*, 2000 SCC 66 [*Free World Trust*].

[17] Construction is based on the patent specification itself without resort to extrinsic evidence (*Free World Trust*, para. 66). Further, "recourse should be had to the disclosure to gain insight into what was meant by a particular word or phrase. Otherwise the scope of the claim or claims as written can be neither restricted nor enlarged" (*Purdue Pharma v Pharmascience Inc*, 2009 FC 726, para.13). Therefore, where necessary, the claims should be construed in light of the description. The key to a purposive construction of the claims is the identification of what the inventor considered to be the "essential" elements of the claimed invention, while distinguishing what is non-essential (*Free World Trust*, para. 31; *Alcon Canada v Cobalt Pharmaceuticals*, 2014 FC 462, para. 47). An element is considered non-essential if, based on a purposive construction, the skilled addressee would appreciate an element of the claim could be omitted or substituted without having a material effect on the working of the invention (*Free World Trust*, para. 55).

[18] It is also expected that one should recognize "that a patentable invention is an inventive solution to a practical problem" and "that an invention must be disclosed (and ultimately claimed) so as to provide the person skilled in the art with an operable solution": Office Patent Notice published 08 March 2013 entitled "*Practice Guidance Following the Amazon FCA Decision*" and its accompanying memo, PN 2013-02.

The person skilled in the art and their relevant common general knowledge

[19] The Final Action states:

> [t]he Examiner considers the skilled person to be a food chemist with knowledge of carbohydrates. The Examiner determines the level of common general knowledge to be based, in part, on the background information in the patent [application] and, in part, knowledge of food chemistry and, specifically, the production of sweeteners. As such, it would have been common general knowledge to the "person skilled in the art" that sucralose products exhibit commercially undesirable thermal instability.

[20] The Applicant did not dispute the Examiner's characterization of the POSITA and the CGK. Further, we consider these definitions to be consistent with the background of the description which provides reasonable guidance as to the person to whom the patent application is directed. As indicated above (para. [5]), the present application relates to the production of encapsulated sweetener compositions comprising heat stabilized complexes of sucralose. On this basis, the Examiner's characterization of the skilled person as a food chemist with knowledge of carbohydrates is reasonable. As explained in *Whirlpool Corp v Camco Inc*, 2000 SCC 67, at para. 74, the Court considered that the person skilled in the art is to be reasonably diligent in keeping up with advances in the field or fields of relevance to the invention. Therefore, the person skilled in the art to which the application is directed is to be reasonably well read as to the production and use of commercially acceptable sweetener compositions and would therefore possess the common general knowledge identified by the Examiner.

The problem and solution that the invention addresses

[21] Based on the description (page 2, lines 17-18), the problem addressed by the claimed invention relates to "a need for an encapsulated sucralose composition which may be used in a variety of compositions including gum compositions." As indicated above (para. [6]), known encapsulated sweetener compositions contain intense sweeteners such as aspartame and acesulfame potassium. However, the extrusion techniques used to prepare these encapsulated sweetener compositions are not commercially practical for use with pure sucralose which degrades when exposed to heat. Therefore, "[t]he encapsulated sweetener

composition should be prepared by a process which avoids heat degradation of the sucralose" (page 2, lines 18-20). The solution taught by the claimed invention involves encapsulated sweetener compositions containing a heat stabilized sucralose/cyclodextrin complex and an encapsulant comprising a polymer.

Claim 1, purposively construed

[22] Claim 1 is directed to a sweetener composition comprising a co-crystallized/precipitated complex of cyclodextrin and sucralose and an encapsulant comprising a polymer. In this case, the co-crystallized/precipitated complex of cyclodextrin and sucralose is further defined as being prepared by a specific four-step process. Notably, the first step in the process involves preparing a solution of the sucralose and the cyclodextrin in water. The remaining three steps are: heating to form the complex, drying, and forming the complex into a suitable particle size.

[23] With respect to claim 1, what must be considered is whether the particular process for preparing the complex specified in the claim has any material effect on the relevant properties of the encapsulated sweetener composition containing a heat stabilized sucralose/cyclodextrin complex and an encapsulant comprising a polymer.

[24] The description broadly states that "[t]he encapsulated sweetener composition should be prepared by a process which avoids heat degradation of the sucralose." As noted above (para. [7]), the background of the description clearly states that the heat stability of sucralose has already been achieved by co-crystallization with cyclodextrin. The prior art process referred to in the description requires the use of an organic solvent such as methanol, a highly toxic material which must be removed, to prepare a complex of cyclodextrin and sucralose. Although the present description provides a water-based method of preparing the complex, the description does not teach or suggest that the specific process steps recited in the claim can be used to distinguish the resultant complex from the prior art complex. Indeed, page 2, lines 25-26 of the description states that "[t]he co-crystallized/precipitated complex <u>may</u> be prepared with water which avoids the step of removing undesirable organic solvents" (our emphasis added). In the absence of any teaching to the contrary, the skilled person would consider that the two processes produce

equivalent end products. Whether the complex is produced using the water-based process or the methanol-based process has no bearing—the products are the same.

[25] Therefore, a purposive reading of claim 1 and the specification as a whole suggests the limitations related to the process for preparing the complex do not impart any relevant properties to the product beyond heat stability. The same product is produced regardless of which solvent is used in the first step. It follows that in the composition of claim 1, the following elements are essential to achieving the solution of producing an encapsulated sucralose composition:

(i) a co-crystallized/precipitated complex of cyclodextrin and sucralose

(ii) an encapsulant comprising a polymer.

Other independent claims

[26] The remaining independent claims in dispute define alternative embodiments of the invention. Independent claims 11, 21 and 24 are also composition claims but with the following added features:

- claim 11: the sweetener composition of claim 1 is contained in a gum composition further comprising a gum base;
- claim 21: the sweetener composition of claim 1 with the added process limitation that the complex is formed into a suitable particle size; and
- claim 24: the sweetener composition of claim 1 further comprising an extrudate.

The additional features in these independent claims will be addressed in our obviousness analysis.

Dependent claims

[27] The dependent claims add features such as characteristics of the polymer, the percentage of cyclodextrin contained in the complex, the presence of an additional intense sweetener, and the particle size of the complex. The prosecution history reveals no disagreement between

the Applicant and Examiner as to the meaning or understanding of these claims. The additional features of the dependent claims will be addressed in our obviousness analysis.

ISSUE 1: ARE CLAIMS 1-26 OBVIOUS?

Legal Framework

[28] Section 28.3 of the *Patent Act* sets out the information that may be considered in assessing whether a claim is obvious:

> The subject-matter defined by a claim in an application for a patent in Canada must be subject-matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard to
> (a) information disclosed more than one year before the filing date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant in such a manner that the information became available to the public in Canada or elsewhere; and
> (b) information disclosed before the claim date by a person not mentioned in paragraph (a) in such a manner that the information became available to the public in Canada or elsewhere.

[29] A four-step approach for assessing obviousness was set out by the Supreme Court in *Apotex Inc v Sanofi-Synthelabo Inc*, 2008 SCC 61 [*Sanofi*], as follows:

> (1) (a) Identify the notional "person skilled in the art";
> (b) Identify the relevant common general knowledge of that person;
> (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
> (3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;
> (4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

References cited

[30] In the Final Action, the Examiner relied on the following references:

Canadian Patent Application:

D1: 2,006,304	22 June 1990	Cherukuri et al.

United States Patent:

D2: 5,154,939	13 October 1992	Broderick et al.

Analysis under the *Sanofi* Four-Step Approach

Step 1: Identify the notional "person skilled in the art" and the common general knowledge of that person

[31] The skilled person and the common general knowledge have already been identified at paras. [19-20].

Step 2: Identify the inventive concept of the claim in question or if that cannot readily be done, construe it

[32] The Final Action states that "[t]he inventive concept of the instant application is the use of a co-crystallized/precipitated sucralose/cyclodextrin complex in an encapsulated sweetening composition which has improved thermal stability and derives from an aqueous solution."

[33] The Applicant did not dispute this characterization of the inventive concept. However, in our initial review letter we indicated that, consistent with *Sanofi*, the inventive concept would be identified in respect of the claims in question. As reasoned below, the skilled person, considering the specification as a whole, would recognize that co-crystallization of sucralose with cyclodextrin provides the necessary thermal stability required for encapsulation by melt extrusion; however, they would not consider the process by which the complex is made to form part of the inventive concept of the product itself.

[34] As indicated above (para. [21]), the present description states that there is "a need for an encapsulated sucralose composition which may be used in a variety of compositions including gum compositions." Although encapsulated sweetener compositions containing intense sweeteners such as aspartame and acesulfame potassium are known, the extrusion techniques used to prepare these encapsulated sweetener compositions are not commercially practical for use with pure sucralose, which degrades when exposed to heat. Therefore, "[t]he encapsulated sweetener composition should be prepared by a process which avoids heat degradation of the sucralose" (page 2, lines 18-20).

[35] With respect to the heat stability issues of sucralose, it is clear from the background of the invention that this issue has already been addressed in the prior art. Specifically, the description states (page 2, lines 7-9), "Cherukuri provides a method of preparing a co-crystallized/precipitated complex of cyclodextrin and sucralose which reduces the degradation of sucralose when the complex is exposed to heat." Although the prior art method teaches the use of the organic solvent methanol, as compared to the presently claimed water based process, the current description is silent on whether the process limitations provide any distinguishing features in respect of the structure or composition of the complex. In the absence of any teaching to the contrary, the person skilled in the art would consider these end products equivalent for the purposes of producing an encapsulated sucralose composition. This reasoning is consistent with the Applicant's own description (page 2, lines 23-26) which states: "[i]n some embodiments there is a sweetener composition which includes (a) a co-crystallized/precipitated complex of cyclodextrin and sucralose and (b) an encapsulant including a polymer. The co-crystallized/precipitated complex may be prepared with water which avoids the step of removing undesirable organic solvents" (our emphasis added).

[36] Therefore, it is apparent from a reading of the specification as a whole that the inventive concept of the product claims is an encapsulated sweetener composition comprising a co-crystallized/precipitated complex of cyclodextrin and sucralose and an encapsulant comprising a polymer. The co-crystallization of cyclodextrin with sucralose is carried out to prevent the thermal degradation i.e. discoloration of sucralose during encapsulation, and the encapsulant is used to provide controlled release of the sweetener. This inventive concept applies to all of the product claims, 1-26.

[37] With respect to the additional features of the claims listed at paras. [26]-[27], we note that there is no indication on the record of any additional inventive distinguishing features in the claims. Although no further inventive concept(s) for the claims in question were identified by either the Examiner or the Applicant, for the sake of completeness, we will consider these additional features as differences under step 4.

Step 3: Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed

[38] The Examiner considered that the subject matter of claims 1-26 would have been obvious on the claim date to a person skilled in the art or science to which it pertains having regard to *Broderick et al.* in view of *Cherukuri et al.* and the common general knowledge.

[39] In response to the Final Action, the Applicant amended product claims 1-26 to recite process limitations in respect of the complex. However, the Examiner maintained the obviousness defect stating in the SOR that "the method of manufacture does not differentiate the final product (i.e. a co-crystallized/precipitated complex of cyclodextrin and sucralose) from the prior art."

Broderick et al. and the differences therefrom

[40] *Broderick et al.* teach an improved method of encapsulating an active ingredient for use in chewing gum. The improved method involves extruding a blend of an active ingredient, an encapsulant, and salt. The encapsulant used was polyvinyl acetate.

[41] As explained in column 4, lines 23-32, the active ingredient can be an intense sweetener such as sucralose. It is further disclosed in column 5, lines 4-21, that the polyvinyl acetate, salt and active ingredient, for example sucralose, are dry blended and fed to an extruder in which extrusion encapsulation occurs. Preferably, the maximum temperature achieved by the mixture in the extruder is about 100°C. The mixing of the salt, active ingredient and molten polyvinyl acetate in the extruder, followed by subsequent cooling, resulting in the encapsulation of the active ingredient in the matrix of polyvinyl acetate and salt.

[42] As taught in column 5, lines 24-37, the encapsulation mixture is pelletized and/or ground into powder using standard pelletizing and grinding equipment. The encapsulation product may then be added to a chewing gum formula to give high intensity, high quality, and long lasting flavour. Encapsulation product compositions comprising the intense sweeteners aspartame and acesulfame K are exemplified in Examples 3 and 4, respectively.

[43] Considering the inventive concept, the feature that the sweetener composition comprises an encapsulant comprising a polymer which provides for the controlled release of sweetener is taught by *Broderick et al*. Indeed, the present description discloses encapsulated sweetener

compositions which are prepared using the same encapsulant i.e. polyvinyl acetate and the same high temperature melt extrusion method taught by *Broderick et al*.

[44] The inventive concept also includes the feature that the sweetener is sucralose which has been heat stabilized by co-crystallization with cyclodextrin. This feature is not specifically disclosed by *Broderick et al*. and is the only difference of the inventive concept over the teachings of *Broderick et al*.

Cherukuri et al. and the differences therefrom

[45] *Cherukuri et al.* teach the preparation of thermally stable sucralose compositions by co-crystallization with cyclodextrin. As explained on page 2, lines 24-32, under completely dry conditions, sucralose which is present in a crystalline form tends to discolor in response to elevated temperatures. For example, such discoloration can be exhibited after twenty minutes of exposure of pure dry sucralose to a temperature of 100°C, wherein the color changes to a pale brown. The discoloration results in a commercially unacceptable product.

[46] It is further disclosed on page 3, lines 31-38, that the complex of sucralose and cyclodextrin may be prepared by dissolving a mixture of cyclodextrin and sucralose in a non-aqueous solvent, such as methanol, followed by the removal of the methanol prior to precipitation of the complex. The resulting complex exhibits extended thermal stability and can be incorporated into a variety of foods and related comestible products, including chewing gum. As exemplified in Example IV, the sweetness intensity of the complex of sucralose and cyclodextrin, as compared to free sucralose, was evaluated in a gum formulation.

[47] Considering the inventive concept, the feature of a thermally stable co-crystallized complex of sucralose and cyclodextrin is taught by *Cherukuri et al*. Although the method of *Cherukuri et al*. uses a different solvent, the products are identical. Moreover, as indicated above (para. [36]), the process limitations do not form part of the inventive concept of the product claims. Indeed, this reasoning is consistent with guidance from the Supreme Court which tells us that associating a known product with its production by a

new process is an artificial attribution that cannot render the product itself either new or useful: *Hoffman-LaRoche & Co v Commissioner of Patents*, [1955] SCR 414. As noted by the Examiner in the Final Action, "Applicant provides no evidence as to the differences between a sucralose/cyclodextrin complex provided via "an aqueous solution" versus a sucralose/cyclodextrin complex provided via "a non-aqueous solution"."

[48] The inventive concept also includes the feature that the sweetener is encapsulated in an encapsulant comprising a polymer. This feature is not disclosed by *Cherukuri et al*. and is the only difference of the inventive concept over the teachings of *Cherukuri et al*.

Summary of differences

[49] Although the combined teachings of *Broderick et al*. and *Cherukuri et al*. disclose all of the features of the inventive concept of the claims in question, the need to combine these two references is the difference over the prior art.

Step 4: Do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

[50] As indicated above, there are no differences between the combined state of the art and the inventive concept of the claims. However, we must also consider whether the skilled person, when faced with the need to provide an encapsulated sucralose composition, would have combined the two references to arrive at the inventive concept of the claims in question. Indeed, in its response dated 08 November 2011, the Applicant raised the argument that "the Examiner must use impermissible hindsight to come up with Applicants' recited invention because *Broderick et al*. do not teach heat stabilizing the active or that the active can be heat instable, likewise *Cherukuri et al*. do not teach controlling the release of the sucralose/cyclodextrin complex by further encapsulating it in a polymer. Thus, a person of skill in the art would not be induced to combine the disclosures of *Broderick et al*. and *Cherukuri et al*." For the reasons that follow, we disagree with the Applicant.

[51] As noted above (para. [6]), the present application relates to the production of encapsulated sweetener compositions comprising heat stabilized complexes of sucralose. According to

page 5, lines 30-31 and page 8, lines 25-28 of the description, the purpose of encapsulation is that it allows for the controlled release of the sweetener—and therefore, the sweeteness profile—of products such as chewing gums. The encapsulation of intense sweeteners is suggested for the same purpose by *Broderick et al*. In fact, as noted earlier, the same method of encapsulation by melt extrusion using polyvinyl acetate is also taught by *Broderick et al*., specifically for use in chewing gums. Further, *Broderick et al*. "primarily focuses on improved encapsulation of sweetener, flavor and flavor enhancing ingredients with polyvinyl acetate" (col. 3, lines 62-64). There are no limitations on the active sweetener to be encapsulated. Indeed, *Broderick* et al. discloses the encapsulation of sucralose as an active sweetener.

[52] With respect to the use of sucralose in the production of commercially acceptable sweetener compositions, as noted above (para. [20]), the CGK of the skilled person includes the knowledge that pure sucralose exhibits commercially undesirable thermal instability. On this basis, the skilled person would recognize that pure sucralose would not be a suitable active for encapsulation using the high temperature melt extrusion method taught by *Broderick et al*.—the thermal discoloration of sucralose would lead to a commercially unacceptable product. However, the skilled person would consider sucralose products such as the heat stabilized, co-crystallized complex of sucralose and cyclodextrin of *Cherukuri et al.* to be an obvious choice as an active sweetener to be encapsulated using the high temperature melt extrusion method taught by *Broderick et al*. There is no degree of invention in substituting the sweetener of *Broderick et al.* for the sweetener of *Cherukuri et al.* for the same intended purpose.

[53] The skilled person, desirous of producing an encapsulated heat stabilized sucralose composition that allows for the controlled release of the sucralose, based on *Broderick et al*. in view of *Cherukuri et al.,* would require no inventive ingenuity to prepare an encapsulated sucralose composition comprising a heat stabilized, co-crystallized complex of sucralose and cyclodextrin and an encapsulant comprising a polymer.

[54] As indicated above (para. [37]), no further inventive concept(s) were identified by the Examiner or the Applicant. However, for the sake of completeness, we will address whether any additional features in the claims are inventive.

Additional features in the claims

[55] Notably, even though they were not considered as part of the inventive concept, all of the additional features of the claims (listed at paras. [26]-[27]), were taught in either *Cherukuri et al*. or *Broderick et al*. Namely, the specified amounts and types of cyclodextrin are taught by *Cherukuri et al*. Likewise, the presence of a gum base or extrudate, the type and molecular weight of polymer specified for the encapsulant, as well as the recited particle size of the composition are consistent with those taught by *Broderick et al*. In our view, the skilled person would require no ingenuity to incorporate any of these additional features. Moreover, as we observed earlier, there is no indication on the record that any additional features, over those identified in the inventive concept, were considered to further distinguish the claims over the prior art.

Conclusions

[56] Claims 1-26 are obvious having regard to *Broderick et al*. in view of *Cherukuri et al*. Therefore, the specific amendment deleting claims 1-26, as proposed by the Applicant in its submissions to the panel, is necessary in order for compliance with subsection 28.3 of the *Patent Act*.

ISSUE 2: DOES THE DESCRIPTION CORRECTLY AND FULLY DESCRIBE THE INVENTION?

Legal Framework

[57] In accordance with subsection 27(3) of the *Patent Act*, the relevant paragraph of which states:

> The specification of an invention must:
>
> (*a*) correctly and fully describe the invention and its operation or use as contemplated by the inventor.

[58] As noted by the Supreme Court in *Free World Trust*, it is the language of the claims, purposively construed, that defines the monopoly, and there is no recourse to such vague notions as the "spirit of the invention" to expand it further. This guidance is reflected in

section 9.05.06 of the *Manual of Patent Office Practice* which further distinguishes between impermissible statements which expand the scope of the claims in a vague and undefined way and permissible statements regarding claim scope:

> Since the claims of a patent must be supported by the description, any statement that the claims are to be viewed as broader than the teachings of the description is incorrect and must be removed. Such statements suggest that the description does not "correctly and fully" disclose the invention and does not comply with subsection 27(3) of the *Patent Act*.
>
> In contrast, a statement such as "the scope of the claims should not be limited by the preferred embodiments set forth in the examples, but should be given the broadest interpretation consistent with the description as a whole", which simply notes that the claims are not to be limited to the preferred or exemplified embodiments of the invention, is permissible.

Analysis

[59] In a letter dated 21 August 2014, the panel noted that the description does not correctly and fully describe the invention and does not comply with subsection 27(3) of the *Patent Act*. Specifically, the statement found at para. [0070] implies that the invention is somehow different from what has actually been described and should be removed.

[60] Para. [0070] states:

> While there have been described what are presently believed to be the preferred embodiments of the invention, those skilled in the art will realize that changes and modifications may be made thereto without departing from the spirit of the invention, and it is intended to include all such modifications as fall within the true scope of the invention.

[61] In our view, the suggestion in para. [0070] that the invention may include changes and modifications to what has been described without departing from "the spirit of the invention" and fitting within "the true scope of the invention" implies that the scope of the claims may go beyond what has been described and implies that the description does not fully describe what the Applicant intends its claims to cover.

[62] In its submissions to the panel, the Applicant proposed amending previous paragraph [0070] as follows:

> [0070] The scope of the claims should not be limited by the preferred embodiments set forth in the examples, but should be construed consistently with the description as a whole.

[63] Therefore, the specific amendment to para. [0070] of the description, as proposed by the Applicant in its submissions to the panel, is necessary for compliance with subsection 27(3) of the *Patent Act*.

RECOMMENDATION OF THE BOARD

[64] The panel agrees that the amendments proposed by the Applicant are necessary for compliance with the *Patent Act* and *Patent Rules*. Therefore, we recommend that the Applicant be informed, in accordance with paragraph 31(*b*) of the *Patent Rules*, that the amendments outlined in the correspondence of 12 September 2014, and only those amendments of the application, are necessary for compliance with the *Patent Act* and *Patent Rules*.

Christine Teixeira	Owen Terreau	Cara Weir
Member	Member	Member

DECISION OF THE COMMISSIONER

[65] I concur with the findings and recommendation of the Patent Appeal Board. In accordance with subsection 30(6.3) of the *Patent Rules*, I hereby notify the Applicant that the above amendments must be made within three (**3**) months of the date of this decision, failing which I intend to refuse the application. In accordance with paragraph 31(*b*) of the *Patent Rules*, these amendments, and only these amendments, may be made to the application.

Sylvain Laporte

Commissioner of Patents

Dated at Gatineau, Quebec,

this 29th day of October, 2014