

Commissioner's Decision No. 1461

Décision du commissaire n° 1461

TOPICS: B-00 Ambiguity or Indefiniteness (incomplete)
O00 Obviousness

SUJETS: B-00 Caractère ambigu ou indéfini (incomplet)
O00 Évidence

Application No. 2 345 886

Demande n° 2 345 886

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2 345 886, having been rejected under subsection 30(3) of the *Patent Rules*, has subsequently been reviewed in accordance with paragraph 30(6)(c) of the *Patent Rules*. The recommendation of the Patent Appeal Board and the decision of the Commissioner are to refuse the application.

Agent for the Applicant:

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INTRODUCTION

- [1] This recommendation concerns the review of rejected patent application number 2 345 886, which is entitled “Method and System for Handling Disputes in an Electronic Invoice Management System” and is owned by Canadian National Railway Company. The issues to be addressed are whether the claimed subject matter would have been obvious and whether certain claims are indefinite.
- [2] A review of the rejected application has been conducted by the Patent Appeal Board (the Board) pursuant to paragraph 30(6)(c) of the *Patent Rules*. As explained in more detail below, our recommendation is that the application be refused.

BACKGROUND

The Application

- [3] Patent application 2 345 886 (the instant application) was filed in Canada on May 1, 2001 and laid open to the public on November 1, 2002.
- [4] The instant application relates to dispute-handling capabilities in an electronic invoice management system.

Prosecution History

- [5] On July 17, 2014, a Final Action (FA) was written pursuant to subsection 30(4) of the *Patent Rules*. The FA stated that the application was defective on the grounds that:
- claims 1-29 on file at the time of the FA (claims on file) would have been obvious to the person skilled in the art and do not comply with section 28.3 of the *Patent Act*; and
 - claims 8 and 15 on file are indefinite and do not comply with subsection 27(4) of the *Patent Act*.

- [6] In a January 18, 2016 Response to the FA (RFA), the Applicant proposed amended claims and submitted that the proposed claims were inventive with respect to the cited prior art and definite. The Applicant also proposed an amended description page to include language corresponding to the proposed amended claims.
- [7] As the Examiner considered the application not to comply with the *Patent Act* and *Patent Rules*, the application was forwarded to the Board for review on October 4, 2016, pursuant to subsection 30(6) of the *Patent Rules*, along with an explanation outlined in a Summary of Reasons (SOR) that maintained the defects as identified in the FA.
- [8] With a letter dated October 11, 2016, the Board sent the Applicant a copy of the SOR and offered the Applicant the opportunities to attend an oral hearing and to make further written submissions.
- [9] In a response dated December 22, 2016, the Applicant declined the offer of an oral hearing and directed the Board's attention to the written record, particularly the RFA, which sets forth the Applicant's position and reasons why the claimed invention would not have been obvious.
- [10] A Panel was formed to review the application under paragraph 30(6)(c) of the *Patent Rules* and to make a recommendation to the Commissioner as to its disposition.
- [11] In a Preliminary Review letter (PR letter) dated June 7, 2018, the Panel set out its preliminary analysis of the obviousness and indefiniteness issues with respect to both the claims on file and the proposed claims. The PR letter offered the Applicant the opportunity to make further submissions.
- [12] In a response dated July 4, 2018, the Applicant confirmed that no further amendment or comment would be submitted and that the review may proceed based on the written record to date.

ISSUES

[13] The issues to be addressed by this review are:

- whether the subject matter defined by claims 1-29 on file would have been obvious to a person skilled in the art and thus not compliant with section 28.3 of the *Patent Act*; and
- whether claims 8 and 15 on file are indefinite and thus not compliant with subsection 27(4) of the *Patent Act*.

LEGAL PRINCIPLES AND PATENT OFFICE PRACTICE

Purposive Construction

[14] In accordance with *Free World Trust v Électro Santé*, 2000 SCC 66, essential elements are identified through a purposive construction of the claims done by considering the whole of the disclosure, including the specification and drawings (see also *Whirlpool v Camco*, 2000 SCC 67 at paras 49(f) and (g) and 52). In accordance with the *Manual of Patent Office Practice*, revised June 2015 (CIPO) at §13.05, the first step of purposive claim construction is to identify the person skilled in the art and his or her relevant common general knowledge (CGK). The next step is to identify the problem addressed by the inventor and the solution put forth in the application. Essential elements can then be identified as those required to achieve the disclosed solution as claimed.

Obviousness

[15] The *Patent Act* requires that the subject matter of a claim not be obvious. Section 28.3 of the *Patent Act* provides as follows:

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.

[16] In *Apotex Inc v Sanofi-Synthelabo Canada Inc*, 2008 SCC 61 at para 67 [*Sanofi*], the Supreme Court of Canada stated that it is useful in an obviousness inquiry to follow the following four-step approach:

- (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?

Claim clarity / indefiniteness

[17] Subsection 27(4) of the *Patent Act* states:

The specification must end with a claim or claims defining distinctly and in explicit terms the subject-matter of the invention for which an exclusive privilege or property is claimed.

[18] In *Minerals Separation North American Corp v Noranda Mines Ltd*, [1947] Ex CR 306, 12 CPR 99 at 146 [*Minerals Separation*], the Court emphasized the obligation of an applicant to make clear in the claims the ambit of the monopoly sought and the requirement that the terms used in the claims be clear and precise:

By his claims the inventor puts fences around the fields of his monopoly and warns the public against trespassing on his property. His fences must be clearly placed in order to give the necessary warning and he must not fence in any property that is not his own. The terms of a claim must be free from avoidable ambiguity or obscurity and must not be flexible; they must be clear and precise so that the public will be able to know not only where it must not trespass but also where it may safely go.

ANALYSIS

Overview of the instant application

- [19] According to the instant application, online commerce allows customers to place an order for a merchant's products and services electronically and also enables merchants to allow payment of invoices by sending the invoice electronically to the customer. A deficiency of many electronic payment systems is that they are ill-suited in certain business-to-business environments where it is common to dispute an item or an amount on an invoice. In such cases, disputes must be handled outside the electronic environment in a time-consuming and costly manner to both the customer and biller (instant application, pages 1-2).
- [20] One prior art solution allows a customer to dispute an item by submitting the dispute electronically with payment remittance information, but such a system does not provide a view of the relationship between the biller and the customer, for example, information regarding previous disputes from the same customer (instant application, pages 2-3).
- [21] The instant application is directed to methods and systems providing an electronic invoice management system having dispute-handling capabilities.
- [22] There are 29 claims on file. Independent claim 1, directed to a method, is representative of both independent claims on file, as independent claim 15 is directed to a non-transient computer readable storage medium containing code corresponding to the steps of independent claim 1:

A method for processing an invoice generated for a service rendered to a customer, said method comprising:

- a) providing data associated with the invoice to a computing entity programmed for processing the data and for making available to the customer over a computer network an electronic document, the electronic document providing information about the invoice and including a user interface control operable by the customer, the user interface control when displayed on a computing device associated with the customer allowing the customer to enter information indicating that the invoice is disputed;

- b) using the computing entity, transmitting over the computer network the electronic document to the computing device associated with the customer;
- c) receiving at the computing entity the information entered by the customer indicating that the invoice is disputed;
- d) using the computing entity, making available to an operator associated with an entity that generated the invoice a dispute resolution interface, the dispute resolution interface causing an operator computing device to display information conveying:
 - i) the information entered by the customer indicating that the invoice is disputed; and
 - ii) information pertaining to at least one prior dispute involving the customer, the prior dispute being associated with another invoice so that the operator may view dispute information associated with the invoice being disputed concurrently with the information pertaining to the prior dispute involving the customer;
 the dispute resolution interface further including a communication tool, when the dispute resolution interface is displayed on the operator computing device, the communication tool allowing the operator to enter a reply to the information entered by the customer indicating that the invoice is disputed;
- e) using the computing entity, causing the dispute resolution interface to be provided to the operator computing device;
- f) receiving at the computing entity the reply entered on the dispute resolution interface at the operator computing device; and
- g) using the computing entity, making available to the customer, over the computer network, dispute status information associated with the invoice being disputed including the reply entered by the operator associated with the entity that generated the invoice.

[23] Dependent claims 2-14 and 16-29 define further limitations on the independent claims, refining the “electronic document”, the “user interface control,” the “dispute resolution interface,” and reciting additional steps to create and access an electronic record and a dispute history knowledge base.

Purposive Construction

[24] In the PR letter, we explained why in the present case we had not undertaken a construction of the claims:

In the present case, we have not undertaken a determination as to which claimed elements are essential, since by taking into account all the elements of the independent claims, as set out below, it is possible to reach a conclusion regarding obviousness of these claims that would not be affected by the omission of any non-essential elements.

[25] Accordingly, we will proceed below with the analysis of the claims on file under obviousness.

Obviousness

Sanofi step (1)(a) – Identify the notional person skilled in the art

[26] In the PR letter, with respect to the characterization of the person skilled in the art, we stated:

The FA at page 2 stated:

The notional skilled worker in this case would likely consist of more than one person – including computer scientists and telecommunication specialists – faced with the problem of tracking, servicing and addressing billing disputes. The skilled worker (or team) is largely interested in devising an integrated data processing system for vendors to communicate with customers for billing disputes.

The Applicant in the RFA on pages 4-6 generally agreed with the team members and the problem facing them, but disagreed with the further characterization of the skilled worker as alleged by the Examiner:

While the notional skilled worker may be interested in finding solutions to the problem of managing customer disputes having regard to invoices, it would be improper, and in fact would be misleading, to conclude that this would necessarily imply that such person would necessarily be interested in “*devising an integrated data processing system for vendors to communicate with customers for billing disputes*” as alleged by the Examiner. (emphasis in the original)

Thus, the Applicant argued that it was improper to impart elements of the solution, namely, *devising an integrated data processing system for vendors to communicate with customers for billing disputes*, in the definition of the person skilled in the art.

The Applicant submitted the following characterization of the person skilled in the art:

...a person knowledgeable in accounting software systems for managing billing activities, in electronic bill payment systems and account receivables, faced with the problem of managing customer disputes having regard to invoices.

Having reviewed the instant application, we agree with the Applicant’s characterization of both the person skilled in the art and the problem faced by that person.

Therefore, our preliminary view is that the person skilled in the art is a person knowledgeable in accounting software systems for managing billing activities in electronic bill payment systems and account receivables.

[27] There being no submission in the response to the PR letter, the characterization of the person skilled in the art is maintained: a person knowledgeable in accounting software systems for managing billing activities in electronic bill payment systems and account receivables. We apply it in our analysis below.

Sanofi step (1)(b) – Identify the relevant common general knowledge of that person

[28] In the PR letter, with respect to the characterization of the person skilled in the art, we stated:

The FA at page 2 identified the following CGK:

- electronic commerce and vendor websites for product ordering, invoicing, and bill payment;
- administrative procedures involved in disputing invoices;
- certain advantages can be seized by using computers, modern communications infrastructure, modern electronics, etc. to automate or otherwise facilitate many of the steps in administrative procedures; and
- computers are useful for performing various calculations.

The Applicant agreed with the first and last bulleted items.

However, with respect to the second bulleted item, the Applicant disagreed that the CGK included all administrative procedures in disputing invoices, as these procedures may vary by vendor and there are no unique administrative procedures for disputing invoices. The Applicant did not contest that some administrative procedures may be known.

Also with respect to the third bulleted item, the Applicant argued that while the prior art may provide evidence of automating some steps of administrative procedures, including procedures for disputing invoices, there is no evidence that this automation extends to other steps in such procedures.

In our preliminary view, the background section of the instant [application] makes clear that, at the time of the invention, there were known administrative procedures in disputing invoices and some of the steps of these known procedures were known to have been automated.

Therefore, in our preliminary view, the CGK included:

- electronic commerce and vendor websites for product ordering, invoicing, and bill payment;
- the use of conventional administrative procedures by vendors to manage invoices disputed by customers, which may vary between vendors;

- there are advantages in using computers modern communications infrastructure, etc. to automate or otherwise facilitate steps in administrative procedures; and
- automation of some of the steps in these administrative procedures, including notification of a disputed invoice by a customer to a vendor.

[29] Again, there being no submission in the response to the PR letter, this characterization of the CGK is maintained. We apply it in our analysis.

Sanofi step (2) – Identify the inventive concept of the claim in question or if that cannot readily be done, construe it

[30] The PR letter stated the following with respect to the inventive concept:

The Applicant in the RFA at pages 8-11 took issue with the characterization of the inventive concept identified in the FA, stating it was incomplete and failed to account for the features of the claimed invention.

For the purpose of this preliminary review, we have taken into account all the elements of the independent claims, for the same reason stated above with respect to claim construction.

[31] As this position was not disputed, we apply it below.

Sanofi 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

[32] The PR letter stated the following with respect to the *Sanofi* step (3) analysis:

Independent claims 1 and 15

The FA cited D1 and D2 as the “state of the art”:

D1: US 6,144,726	Cross	November 7, 2000
D2: WO 99/10823	Schutzer	March 4, 1999

In our preliminary view, the “state of the art” is best represented by D2, disclosing means for presentment of bills on a computer network wherein billing data from a biller is published and routed electronically to a consumer (D2, abstract).

Considering the steps of independent claims 1 and 15, we view that D2 discloses the following:

- step a): the biller prepares a bill file which is presented electronically to the consumer via the billing service provider and the consumer service provider (D2, page 19, line 29 to page 30, line 20). The consumer may decide to dispute the bill and sends electronically bill dispute information to the consumer service provider (D2, Figure 19, page 35, lines 9-18);
- step b): the steps for retrieving the bill from the biller by the consumer are disclosed in D2, Figure 14 and page 31, lines 18 to page 32, line 25;
- step c): the biller receives the bill dispute request from the consumer via the consumer service provider and bill service provider (D2, Figure 19 and page 35, line 19 to page 36, line 2);
- step d): the biller verifies the bill information and, if necessary, submits a bill correction to resolve the dispute. The biller may also notify the consumer of the action taken (D2, Figure 19 and page 36, lines 2-7);
- step e): the bill service provider receives the bill dispute request from the commerce document server and sends a notice of the bill dispute to the biller (D2, Figure 19, page 35, line 19 to page 36, line 2);
- step f): the steps for receiving the reply from the biller are detailed in D2, Figure 21 in which the biller sends a bill correction to the consumer (D2, Figure 21 and page 36, line 20 to page 37, line 12); and
- step g): the consumer may query the status of bills, including those partially paid (D2, page 17, lines 17-21).

The RFA at pages 13-14 asserted the following with respect to D2:

D2 does not provide information pertaining to any dispute user interface that would allow the vendor to either view or respond to a dispute initiated by a customer. In fact, the description of D2 is vague as to what is used by the vendor to consider and respond to a dispute initiated by the customer except to indicate that the vendor may notify the customer of the action taken to resolve the bill dispute by email or via the customer service provider. D2 gives no indication whatsoever of a dispute resolution interface wherein (1) information is presented on a dispute resolution interface; (2) the dispute resolution interface conveys information entered by the customer indicating that the invoice is disputed and information pertaining to at least one prior dispute involving the customer; and (3) the dispute resolution interface has a communication tool allowing an operator to enter a reply to a dispute entered by the customer.

In our preliminary view, and contrary to the Applicant's position (1), D2 discloses an electronic interface between the biller 106 and the bill service provider 104 and/or the commerce document server 108 on which information is presented to the biller (see D2, Figures 1 and 6).

In addition, partially addressing the Applicant's position (2), D2 discloses the bill dispute information as entered by the consumer is presented to the biller (D2, page 35, line 16 to page 36, line 7):

If the bill is disputed, the specification by the consumer 100 to the consumer service provider 102 must include pertinent information required for the bill dispute. Upon receipt of the specification from the consumer 100 for

payment or for full or for partial bill dispute, the consumer service provider 102 sends a request to its bill payment system for bills instructed to be paid and also sends a bill action request for partially disputed bills to the commerce document server 108 at step M4. Upon receipt of the bill action request, the commerce document server 108 updates bill status based on the action, logs in the bill history, packages the bill dispute information for the bill service provider 104, returns a bill action response to the consumer service provider 102, and sends a notice of bill dispute request to the bill service provider 104 at M6. In step M8, the consumer service provider 102 receives the bill action response from the commerce document server 108 and sends an acknowledgment of bill action taken to the consumer 100. At step M10, the bill service provider 104 receives the bill dispute request from the commerce document server 108, sends a bill dispute response to the commerce document server 108 and sends a notice of the bill dispute to the biller 106. Upon receiving the notice of bill dispute, the biller 106 verifies the bill information and, if necessary, submits a bill correction as shown in Fig. 21 to resolve the dispute. Optionally, the biller 106 may notify the consumer 100 of the action taken to resolve the dispute either direct by e-mail or via the consumer service provider 102.

Finally, with respect to the Applicant's position (3), the passage above also discloses that the interface to the biller includes a communication tool allowing the biller to reply to the consumer regarding the dispute information.

As noted above, the only aspect of the claims not explicitly disclosed by D2, as argued in Applicant's position (2), is that the dispute resolution interface presented to the biller does not explicitly convey information pertaining to at least one prior dispute involving the customer. It follows, in our preliminary view, with respect to independent claims 1 and 15, that D2 does not disclose this particular element.

[33] As the Applicant had not disputed the above identified difference, namely, the dispute resolution interface presented to the biller does not explicitly convey information pertaining to at least one prior dispute involving the customer, we apply it in our analysis.

Sanofi step (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?

[34] In the PR letter, with respect to the obviousness of the claims, we stated:

Independent claims 1 and 15

Our preliminary view is that the identified difference constitutes a step which would have been obvious to the person skilled in the art.

As noted above, D2 details the processes for both handling bill disputes (D2, Figure 19) and issuing bill corrections to the consumer (D2, Figure 21). As part of these processes, the commerce document server logs the bill history (see for example, within the bill dispute process, D2, page 32, lines 2-4). In general, D2 also recognizes a need for bill data to be retained for “historical inquiry” (D2, page 6, lines 13-15).

Given that D2 discloses that bill history information is updated for all bills and that bill information is useful for historical inquiry, it is reasonable that the person skilled in the art, having CGK of administrative procedures involved in disputing invoices, would look to all relevant information in dealing with a customer’s bill dispute, including information pertaining to prior disputes involving that customer.

In addition, given that it was known to the person skilled in the art that a dispute resolution interface provides information to a biller, the meaning of specific information provided by the interface has significance to the users but has no material effect on the computer system providing the interface. It follows that any specific information provided by the interface would not make the interface inventive over the dispute resolution interface of the prior art.

In light of the above, it is the Panel’s preliminary view that independent claims 1 and 15 on file would have been obvious to the person skilled in the art having regard to D2 in light of the CGK and therefore these claims do not comply with paragraph 28.3(b) of the *Patent Act*.

Dependent claims 2-14 and 16-29

As the Applicant has not highlighted any particular inventive features recited in the dependent claims, for the purposes of this preliminary review, independent claims 1 and 15 are considered representative of all the claims on file and thus the analysis above equally applies to the dependent claims as well.

It is the Panel’s preliminary view that all claims 1-29 on file would have been obvious to the person skilled in the art having regard to D2 in light of the CGK and therefore claims 1-29 do not comply with paragraph 28.3(b) of the *Patent Act*.

- [35] In the absence of further submissions from the Applicant and for the reasons given above, we conclude that claims 1-29 on file would have been obvious in view of prior art document D2 in light of the CGK and therefore non-compliant with section 28.3 of the *Patent Act*.

Claim clarity / indefiniteness

[36] In the PR letter, with respect to the issue of indefiniteness, we stated:

The FA at page 3 identified that claims 8 and 15 contain unclear language that should be clarified:

- “customer to providing” is unclear (claim 8, line 3); and
- “to be displayed an operator” is unclear (claim 15, page 36, line 3).

The Applicant responded in the RFA at page 2 with proposed amended claims 8 and 15 to clarify their subject-matter.

The Panel is of the preliminary view that the person skilled in the art would consider that these phrases are unclear and imprecise such that the person skilled in the art will be unable to readily determine the limits of the recited steps and therefore the claim, mindful of the guidance given in *Minerals Separation*.

Accordingly, the Panel’s preliminary view is that claims 8 and 15 are indefinite and do not comply with subsection 27(4) of the *Patent Act*.

[37] In the absence of submissions from the Applicant and for the reasons given above, we conclude that claims 8 and 15 on file are indefinite and therefore non-compliant with subsection 27(4) of the *Patent Act*.

Proposed Claims

[38] In the PR letter, we set out our preliminary opinion that proposed claims 1-29 would also have been obvious:

As stated above, the Applicant proposed in the RFA amended claims 8 and 15 to correct the indefiniteness defect. The SOR indicated that the proposed claims would overcome the indefiniteness defect. We agree.

Given that these proposed clarifications to specific phrases would not alter our obviousness analysis as described above, our preliminary view is that the proposed claims would have also been obvious to the person skilled in the art having regard to D2 in light of the CGK.

It follows that the proposed claims are not considered a necessary specific amendment under subsection 30(6.3) of the *Patent Rules*.

[39] There was no submission regarding our preliminary view as to the obviousness of the proposed claims.

[40] Therefore, for the reasons set out above, we conclude that proposed claims 1-29 would have been obvious and therefore non-compliant with section 28.3 of the *Patent Act*. As such, they do not overcome the defect under obviousness for the claims on file and are therefore not “necessary” for compliance with the *Patent Act* and *Patent Rules* as required by subsection 30(6.3) of the *Patent Rules*.

CONCLUSIONS

[41] This review has determined that: claims 1-29 on file would have been obvious and therefore non-compliant with section 28.3 of the *Patent Act*; and claims 8 and 15 are indefinite and therefore non-compliant with subsection 27(4) of the *Patent Act*. We have also determined that the proposed claims do not overcome the obviousness defect and therefore the proposed claims do not constitute a specific amendment that is “necessary” pursuant to subsection 30(6.3) of the *Patent Rules*.

RECOMMENDATION OF THE BOARD

[42] In view of the above, the Panel recommends that the application be refused on the basis that:

- claims 1-29 on file would have been obvious to the person skilled in the art and thus do not comply with section 28.3 of the *Patent Act*; and
- claims 8 and 15 on file are indefinite and thus do not comply with subsection 27(4) of the *Patent Act*.

[43] Further, the proposed claims do not overcome the obviousness defect and therefore the Panel declines to recommend the introduction of these claims since they do not constitute a specific amendment that is “necessary” pursuant to subsection 30(6.3) of the *Patent Rules*.

Lewis Robart
Member

Paul Fitzner
Member

Leigh Matheson
Member

DECISION OF THE COMMISSIONER

[44] I concur with the findings and recommendation of the Board that the application should be refused because:

- claims 1-29 on file would have been obvious to the person skilled in the art and thus do not comply with section 28.3 of the *Patent Act*; and
- claims 8 and 15 on file are indefinite and thus do not comply with subsection 27(4) of the *Patent Act*.

[45] Therefore, in accordance with section 40 of the *Patent Act*, I refuse to grant a patent on this application. Under section 41 of the *Patent Act*, the Applicant has six months within which to appeal my decision to the Federal Court of Canada.

Johanne Bélisle

Commissioner of Patents

Dated at Gatineau, Quebec,

this 19th day of September, 2018