

Commissioner's Decision #1434
Décision du commissaire n° 1434

TOPICS: J-00 Meaning of Art
J-50 Mere Plan
O-00 Obviousness

SUJETS: J-00 Signification de la technique
J-50 Simple plan
O-00 Évidence

Application No. 2,392,494
Demande n° 2 392 494

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2 392 494, 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 2 392 494, which is entitled “Systems and associated methods for notification of package delivery services”. The patent application is owned by United Parcel Service of America, Inc. The outstanding defects indicated by the Final Action (FA) are that the claims do not define statutory subject matter, contrary to section 2 of the *Patent Act*, and are obvious, contrary to section 28.3 of the *Patent Act*. The Patent Appeal Board (the Board) has reviewed the rejected application pursuant to paragraph 30(6)(c) of the *Patent Rules*. As explained below, our recommendation is to refuse the application.

BACKGROUND

The application

- [2] Canadian patent application 2 392 494, based on a previously filed Patent Cooperation Treaty application, is considered to have a filing date of September 24, 2001 and was published April 4, 2002.
- [3] The application relates to package delivery services, particularly the notification to a customer of available higher level services when the customer selects a service for the delivery of his or her packages.

Prosecution history

- [4] On December 2, 2014, an FA was written pursuant to subsection 30(4) of the *Patent Rules*. The FA stated that the application is defective on two grounds: the claims on file (i.e. claims 1 to 32) comply with neither section 2 nor section 28.3 of the *Patent Act*.
- [5] In a June 1, 2015 response to the FA (R-FA), the Applicant proposed an amended set of 28 claims (the first set of proposed claims) and submitted arguments for allowance. In particular, the Applicant contended that the first set of proposed claims (and the claims on file) include essential computer elements and are thus directed to statutory subject matter. The Applicant also contended that the same claims are not obvious in view of the prior art references cited in the FA.
- [6] As the Examiner considered the application not to comply with the *Patent Act*, the application was forwarded to the Board for review on November 4, 2015, pursuant

to subsection 30(6) of the *Patent Rules*, along with a Summary of Reasons (SOR) maintaining the rejection of the application (both the claims on file and the first set of proposed claims) based on the defects indicated by the FA.

- [7] With a letter dated November 9, 2015, the Board sent the Applicant a copy of the SOR and offered the Applicant the opportunity to make further written submissions and to attend an oral hearing. With its responses on February 3, 2016 and April 8, 2016, the Applicant made further submissions regarding statutory subject matter and obviousness, and requested that the review proceed based on the current written record.
- [8] 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. Following our preliminary review, we sent a letter on June 8, 2017 (the PR letter) presenting our analysis and rationale as to why, based on the record before us, the subject matter of the claims on file (as well as the first set of proposed claims) does not comply with section 2 but complies with section 28.3 of the *Patent Act*.
- [9] On July 10, 2017, the Applicant replied to the PR letter by proposing a new amended set of 30 claims (the second set of proposed claims) and providing further supporting arguments for its stance on the construction of the claims and the resulting statutory nature of their subject matter.

ISSUES

- [10] The two issues to be addressed by this review are:
- Whether the claims on file define subject matter falling within the definition of invention in section 2 of the *Patent Act*;
 - Whether the claims on file define subject matter that would not have been obvious, thus complying with paragraph 28.3(b) of the *Patent Act*.

LEGAL PRINCIPLES AND PATENT OFFICE PRACTICE

Purposive construction

- [11] In accordance with *Free World Trust v. Électro Santé*, 2000 SCC 66 [*Free World Trust*], 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 paragraphs 49(f) and (g) and 52 [*Whirlpool*]). In accordance with the *Manual of Patent Office Practice*, revised June 2015 (CIPO) at § 13.05 [*MOPOP*], the first step of purposive claim construction is to identify the skilled person and his or her relevant common general knowledge (CGK). The next step is to identify the problem addressed by the inventors and the solution put forth in the application. Essential elements can then be identified as those required to achieve the disclosed solution as claimed.

[12] In its reply to the PR letter (R-PR letter), the Applicant contended that purposive construction carried out in this way does not accord with Canadian law. In particular, the Applicant argued that this approach places too much emphasis on the analysis of the problem and solution as described, and that according to Canadian law, all features or elements in a claim are presumed to be essential. The Applicant also cited *Canada (A.G.) v. Amazon.com*, 2011 FCA 328 [*Amazon.com*] and other more recent jurisprudence for support.

[13] The jurisprudence cited by the Applicant does not signal any intent to modify the practice surrounding purposive construction, but to follow the principles expounded in previous jurisprudence such as *Free World Trust* and *Whirlpool*. For example, *Amazon.com* (at paragraphs 43, 44, 47, 61 to 63, 69, 71, 73 and 74) reminds us that, according to those principles, purposive construction “cannot be determined solely on the basis of a literal reading of the patent claims”, that claim language may be “deliberately or inadvertently deceptive”, that a claimed practical application or embodiment may nonetheless not be part of the essential elements of a claimed invention, that purposive construction must be based on “a foundation of knowledge about the relevant art” and that without such a foundation, a presumption of essentialness may not be well informed.

[14] The guidance of *MOPOP* at § 13.05.02b is based on the Patent Office’s interpretation of Canadian law and sets out to embody these principles: a properly informed purposive construction must consider the application as a whole—including the problem addressed by the application and its solution. The form of the claim language chosen by the inventor cannot override all other considerations during purposive construction of the claims.

Statutory subject matter

[15] The definition of invention is set out in section 2 of the *Patent Act*:

“Invention” means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter.

- [16] “Examination Practice Respecting Computer-Implemented Inventions”, PN2013-03 (CIPO, March 2013) [*PN2013-03*] clarifies the Patent Office’s approach to determining if a computer-related invention is statutory subject matter.
- [17] As stated in *PN2013-03*, where a computer is found to be an essential element of a construed claim, the claimed subject matter will generally be statutory. Where, on the other hand, it is determined that the essential elements of a construed claim are limited to matter excluded from the definition of invention (e.g. the fine arts, methods of medical treatment, mere ideas, schemes or rules, etc.), the claimed subject matter will not be compliant with section 2 of the *Patent Act*.

Obviousness

- [18] Section 28.3 of the *Patent Act* requires claimed subject matter to not be 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.

- [19] In *Apotex v. Sanofi-Synthelabo Canada*, 2008 SCC 61 at paragraph 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 CGK 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?

ANALYSIS

Purposive construction

The skilled person

[20] In the PR letter, we identified “the notional skilled person or team as one or more business professionals from fields related to parcel delivery services, and programmers and other technologists experienced with developing and maintaining the tools and infrastructure for such professionals.” The Applicant has not disputed this identification and we adopt it here.

The CGK

[21] The FA identified the following prior art references as relevant:

- D1: WO 00/46 728 August 10, 2000 Creasy et al.
- D2: “USPS.com” (USPS, July 2000), archived online:
 - Consumer Postal Rates and Fees
<<http://web.archive.org/web/19990427181518/http://www.usps.gov/consumer/domestic.htm>>;
 - Publication 51—International Postal Rates and Fees
<<http://web.archive.org/web/20000815074229/http://www.usps.gov/cpim/ftp/pubs/pub51.pdf>>.

[22] Based on these references, on the identification of the CGK in the FA and on the application’s description of the state of the art, we identified the following concepts as CGK in the PR letter and the Applicant has not disputed them:

- The procedures and tools typically involved in parcel delivery and tracking services;
- The offering of different levels of package delivery service;
- The charging of different prices according to the travel distances, delivery speeds and levels of service involved;
- The fact that some service levels have guaranteed delivery dates and some do not;

- General-purpose computing devices and appropriate programming techniques (inherent in definition of the skilled person);
- Various communications means and architectures for exchanging information between service providers and customers;
- Systems for providing websites; and
- Package delivery data query systems permitting, for example, customers to input their selection of a package's origin and destination, and a level of service, and to receive information about the delivery, including its speed and price.

The problem to be solved

- [23] Much of the skilled person's understanding of the problem is derived from the description. According to the description, the problem addressed by the invention is the difficulty for a customer to make an informed selection of a delivery service, given the vast array of available service levels and the variability in their price differences depending on the circumstances of the delivery.
- [24] We identified the problem as such in the PR letter and adopt that identification again here.
- [25] The R-PR letter did not specifically discuss the identification of the problem because the Applicant disagreed more fundamentally with the weight given to the problem and the solution in the purposive construction.

The proposed solution

- [26] As stated in the PR letter, the application proposes as a solution to provide better notification of the available delivery service options. When a customer asks for information about delivery of a package at a certain level of service, information about delivery at a higher level of service (when available) is provided in addition to the requested information.
- [27] As explained in the PR letter, the application predominantly defines "the higher level of delivery service" about which a customer is notified as one in which the time spent by the package in transit would be less than the time spent in transit at the level of service selected by the customer.
- [28] Given its more fundamental disagreement with the weight given to the problem and the solution in the purposive construction, the Applicant did not specifically discuss

the identification of the solution. Accordingly, we adopt that identification again here.

- [29] Based on the nature of the problem and the solution according to the description and on the level of detail used there, we do not see the problem and the solution as residing in any equipment or infrastructure used to fulfil the delivery service enquiries or to communicate information between the customers and the service provider. The application does not propose to solve a problem of automatically computing data or of communicating information from one device to another in real time.
- [30] The skilled person's understanding of the problem and solution portrayed in the application would also be informed by the fact that solutions for the problems of automatically computing data and communicating information between computers already existed in the CGK.

The essential elements

- [31] For convenience, claim 1 is provided below as a representative of the claims:

1. A system for providing notification of package delivery services available to a customer, comprising:

an apparatus comprising a processor and a memory comprising computer program code, the processor is configured to execute the computer program code to cause the apparatus to at least:

receive a request from the customer for a first level of service, wherein said first level of service does not guarantee a specific delivery date of at least one package; and

determine automatically, without receiving an additional request from the customer, whether a higher level of service is available to the customer, wherein said higher level of service does guarantee a specific delivery date of the package, and if so, notify the customer of the higher level of service and indicia in response to the request for the first level of service indicating a length of time for delivery of the package at the requested first level of service,

wherein determining automatically whether said higher level of service is available comprises comparing a determined time in transit for the package at the first level of service and a determined time in transit for the package at the higher level of service to

determine whether the higher level of service is available in an instance in which the customer has not requested a time in transit calculation for said first level of service or said higher level of service.

[32] Independent claims 23 to 26 are directed to similar embodiments, some as systems, some as software. Together, the independent and dependent claims cover embodiments of the same invention, some including more details regarding how times in transit are determined, different levels of service and the equipment that may be involved. They are nonetheless considered to share the same essential elements, the additional details not materially affecting the way the invention provides its solution.

[33] We consider that the skilled person, based on the CGK and on the problem and solution according to the application, would understand claims 1 to 32 to share the same set of essential elements for providing better notification of delivery service options. That set of essential elements is:

- Receiving a request from the customer for a first level of service;
- Determining, without receiving an additional request from the customer, whether a higher level of service is available to the customer by comparing an estimated time in transit for the package at the first level of service and an estimated time in transit for the package at a higher level of service; and, if so,
- Notifying the customer of the higher level of service in response to the request for the first level of service.

[34] The claims also refer to a step of automatic determination and to computerized apparatus or means. The Applicant, in its R-PR letter, contended that such elements should be among the essential elements. The Applicant argues that these elements are necessary to process data to automatically determine availability of a higher level of service and notify the customer of this availability and provide real-time operation:

There is no indication of how the invention could be carried out without the computer-related devices or what substitutes or variations would allow the claimed invention to be performed in real time without variation in the invention as claimed.

[35] As explained above, the use of these physical elements is outside the concern of the problem and solution. This is clear from the nature of the problem and the solution.

The application proposes to solve the problem of helping customers to make a more informed decision by notifying them of the availability of higher levels of delivery service. The application does not propose to solve a problem of automatically computing data or of communicating information from one device to another in real time. Therefore, such physical elements may be part of the context or working environment of the claimed invention but are not essential elements of the claimed invention itself.

- [36] As stated in *MOPOP* at § 13.05.02c, not every element that has a material effect on the operation of a given embodiment is necessarily essential to the solution. *Amazon.com* (see paragraphs 61 to 63) also explains, by way of example, that a (necessarily) physical application of an abstract business method, or the use of a programmed computer to implement an algorithm, could turn out not to be part of the essential elements.
- [37] In support of its contentions, the R-PR letter also referred to *Re Progressive Casualty Insurance Co.'s Patent Application 2 344 781* (2013), 113 C.P.R. (4th) 261, C.D. 1336 (Commissioner of Patents) [*Progressive Casualty*]; *Re RPX's Patent Application 2 222 229* (2013), C.D. 1341 (Commissioner of Patents) [*RPX*] and *Re eBay's Patent Application 2 263 903* (2014), 127 C.P.R. (4th) 215, C.D. 1369 (Commissioner of Patents) [*eBay*].
- [38] Unlike in the present application, the problems addressed by the inventions in the three referenced cases concern the operation of physical computerized systems and their inventions thus count physical—and statutory—computerized components among their essential elements (*Progressive Casualty* at paragraphs 29, 30, 32, 33, 77 and 80 to 82; *RPX* at paragraphs 77 to 78; *eBay* at paragraphs 33 to 34).
- [39] Therefore, our view is that the essential elements of claims 1 to 32, as purposively construed, are the steps and rules for deciding whether or not to inform a customer of certain information and doing so accordingly. The recited physical elements are considered to be non-essential elements.

Statutory subject matter

- [40] Contesting the position of the FA that the subject matter is unpatentable, the R-FA referred to the Federal Court Trial Division's suggested definition of invention in *Progressive Games v. Canada (Commissioner of Patents)* (1999), 3 C.P.R. (4th) 517 (F.C.T.D.), aff'd on other grounds (2000), 9 C.P.R. (4th) 479 (F.C.A.)

[*Progressive Games*], based on its interpretation of *Shell Oil v. Canada (Commissioner of Patents)* (1982), 67 C.P.R. (2d) 1, 2 S.C.R. 536.

[41] The PR letter noted that, as observed by the Federal Court of Appeal in *Amazon.com* (at paragraph 51), the requirements listed in *Progressive Games* could be taken as generally corresponding to statutory requirements (e.g. of subsections 27(8) and 28.2(1), section 28.3, etc. of the *Patent Act*). We consider that they cannot, however, be taken as a serial three-prong test for determining whether subject matter belongs to a category of invention in section 2 of the *Patent Act*. For example, a subject matter's novelty and inventiveness (or lack thereof) does not indicate whether it is statutory subject matter under section 2.

[42] The R-PR letter responded by submitting "that a 'purposive construction' of claims is the same" for the various statutory requirements. The PR letter should not be taken as suggesting otherwise. However, the determination of whether or not a purposively construed claimed invention fits within the categories of invention in section 2 cannot be settled by, for example, whether or not that same purposively construed claimed invention complies with sections 28.2 or 28.3.

[43] The R-PR letter also contended that business systems are not inherently contrary to section 2, arguing:

The conclusion that Canadian practice permits business systems cannot be limited to only those systems in which the computer per se is new and unobvious, or that other aspects of the infrastructure must be novel and unobvious. The concept in a patentable business system and method is predicated, in part, on the configuration of the use of the [infrastructure] and equipment in carrying out the novel and unobvious invention as defined in the claims, and undue reliance on a problem/solution analysis and mere dismissal of such use as part of the CGK based on mere assumption of a skilled person without further proof, is submitted to be in error.

[44] However, we must consider the reasoning of *Amazon.com*:

[61] However, it does not necessarily follow, as Justice Phelan seemed to suggest, that a business method that is not itself patentable subject matter because it is an abstract idea becomes patentable subject matter merely because it has a practical embodiment or a practical application. In my view, this cannot be a distinguishing test, because it is axiomatic that a business method always has or is intended to have a practical application. And in this case, the difficulty with a bare "practical application" test for distinguishing patentable from unpatentable business methods is highlighted because the particular business

method—itself an abstract idea—is realized by programming it into the computer by means of a formula or algorithm, which is also an abstract idea.

[62] *Schlumberger* exemplifies an unsuccessful attempt to patent a method of collecting, recording and analyzing seismic data using a computer programmed according to a mathematical formula. That use of the computer was a practical application, and the resulting information was useful. But the patent application failed for want of patentable subject matter because the Court concluded that the only novel aspect of the claimed invention was the mathematical formula which, as a “mere scientific principle or abstract theorem”, cannot be the subject of a patent because of the prohibition in subsection 27(8).

[63] It is arguable that the patent claims in issue in this case could fail on the same reasoning, depending upon whether a purposive construction of the claims in issue leads to the conclusion that *Schlumberger* cannot be distinguished because the only inventive aspect of the claimed invention is the algorithm—a mathematical formula—that is programmed into the computer to cause it to take the necessary steps to accomplish a one-click online purchase. On the other hand, it is also arguable that a purposive construction of the claims may lead to the conclusion that *Schlumberger* is distinguishable because a new one-click method of completing an online purchase is not the whole invention but only one of a number of essential elements in a novel combination. In my view, the task of purposive construction of the claims in this case should be undertaken anew by the Commissioner, with a mind open to the possibility that a novel business method may be an essential element of a valid patent claim.

[45] As explained in the PR letter, this review is not concerned with whether or not the invention is a business system. Like the above examples from *Amazon.com*, it is concerned with a conclusion led to by a purposive construction of the claims.

[46] As construed above, the essential elements of claims 1 to 32 are steps and rules defining a decision-making and customer notification scheme. As stated in the PR letter, we consider such matter as a mere scheme, plan or set of rules, and the subject matter of claims 1 to 32 to be outside the categories of invention in section 2 of the *Patent Act*.

Obviousness

Identify the notional person skilled in the art and the relevant CGK

[47] The above identifications of the notional skilled person and relevant CGK are considered to be applicable for the purpose of assessing obviousness.

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

[48] In the PR letter, we took the construction of the claims as also representing their inventive concept; we again adopt that approach here. Accordingly, the inventive concept is not considered to include any features or elements beyond those identified above as part of the purposively construed essential elements.

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

[49] As stated in the PR letter, we consider D1 to be the most relevant reference, given the inventive concept identified above. D1 (abstract; pages 45, 46 and 83; figures 26B to 27B) discloses a computerized system for receiving a request from a customer for a first level of delivery service, determining, without receiving an additional request from the customer, whether a higher level of service is available to the customer, and if so, notifying the customer of the higher level of service in response to the request. The determination is based on a comparison of the guaranteed delivery date and time associated with the different levels of service.

[50] The difference between D1 and the inventive concept is that although D1 (page 86; figures 23 and 26C to 27B) discloses the display and selection of different levels for delivery service as well as the determination of a shipment’s most probable route based on its origin and destination and the calculation of the corresponding shipping charge, it does not disclose a comparison of calculated in-transit times associated with different levels of delivery service.

[51] The R-PR letter did not dispute this characterization of the difference between D1 and the inventive concept.

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

[52] As explained in the PR letter, we do not see D1 suggesting the calculation of package in-transit times or the subsequent comparison of these times for different levels of service to determine an available higher level of service. The services offered in D1 as being a higher level seem to be determined as such based on parameters associated with each service, not on a calculation of in-transit times. D2 also discloses different levels of delivery service and implies that certain levels of service may not be available for certain destinations, but does not appear to suggest calculating in-transit times or subsequently comparing these times for different levels of service to determine an available higher level of service.

[53] Therefore, we do not see the inventive concept as being obvious to the skilled person.

Conclusion on obviousness

[54] The subject matter of claims 1 to 32 would not have been obvious to the skilled person in view of the cited prior art. Therefore, these claims comply with paragraph 28.3(b) of the *Patent Act*.

Proposed claims

[55] As the PR letter explained, the first set of proposed claims is similar to the set of claims on file but emphasizes that the initial request is from a customer's communication device, that the request is for a time in transit for shipping a package at the first level of service and that a higher level of service (i.e. one having a shorter time in transit) is offered to the customer.

[56] The second set of proposed claims is also similar to the set of claims on file but includes further detail as to how time in transit is determined and emphasizes that a notification includes visual information and permits the user to select a higher level of service.

[57] Given the above identifications of the person skilled in the art, of the CGK, and of the problem and solution, the essential elements of the first and second sets of proposed claims would also be construed as being steps and rules defining a decision-making and customer notification scheme, the remaining claimed elements not materially affecting the solution to the problem.

[58] The R-PR letter did not specifically discuss the second set of proposed claims. Accordingly, our views concerning the issues of the application would be the same even if either the first or second set of proposed claims were the set of claims on file. It follows that we do not consider either set of proposed claims to be a necessary specific amendment under subsection 30(6.3) of the *Patent Rules*.

RECOMMENDATION OF THE BOARD

[59] In view of the above, the Panel recommends that the application be refused on the basis that claims 1 to 32 define non-statutory subject matter and thus do not comply with section 2 of the *Patent Act*.

Leigh Matheson
Member

Paul Fitzner
Member

Lewis Robart
Member

DECISION OF THE COMMISSIONER

[60] I concur with the findings of the Board and its recommendation to refuse the application. The claims on file do not comply with section 2 of the *Patent Act*.

[61] Accordingly, I refuse to grant a patent for this application. Under section 41 of the *Patent Act*, the Applicant has six months to appeal my decision to the Federal Court of Canada.

Johanne Bélisle
Commissioner of Patents
Dated at Gatineau, Quebec,
this 29th day of November, 2017