

Citation : Teletracking Technologies, INC. (Re), 2021 CACP 45
Commissioner's Decision #1598
Décision du Commissaire n° 1598
Date: 2021-10-28

TOPIC: O00 Obviousness

SUJET: O00 Évidence

Application No. : 2,307,998

Demande n° 2 307 998

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,307,998, having been rejected under subsection 30(3) of the *Patent Rules* (SOR/96-423) as they read immediately before October 30, 2019, has consequently been reviewed in accordance with paragraph 199(3)(c) of the *Patent Rules* (SOR/2019-251). The recommendation of the Board and the decision of the Commissioner are to refuse the application.

Agent for the Applicant:

DEETH WILLIAMS WALL LLP
150 York Street, Suite 400
Toronto, Ontario
M5H 3S5

INTRODUCTION

- [1] This recommendation concerns the review of rejected Canadian patent application number 2,307,998, which is entitled “VISUAL DISPLAY OF ROOM INFORMATION” and is owned by TELETRACKING TECHNOLOGIES, INC. (“the Applicant”).
- [2] A review of the rejected application has been conducted by the Patent Appeal Board (“the Board”) pursuant to paragraph 199(3)(c) of the *Patent Rules* (SOR/2019-251) (“the *Patent Rules*”). As explained in more detail below, our recommendation to the Commissioner of Patents is to refuse the application.

BACKGROUND

The application

- [3] The application has a filing date of May 10, 2000, and was laid open to public inspection on November 10, 2000.
- [4] The application relates to hospital room management. More specifically, it relates to a method and system for presenting patient room information, such as occupancy and bed availability, to hospital personnel.
- [5] The claims under review are claims 1 to 21 on file, dated April 12, 2018 (“claims on file”).

Prosecution history

- [6] On August 10, 2018, a Final Action (“FA”) rejecting the claims on file, was issued pursuant to subsection 30(4) of the *Patent Rules* (SOR/96-423) as they read immediately before October 30, 2019. The FA stated that the claims on file were obvious and did not comply with section 28.3 of the *Patent Act*, and that the description did not correctly and fully describe the invention and did not comply with subsection 27(3) of the *Patent Act*, although no reasoning or justification was provided for the latter issue.
- [7] On February 11, 2019, a response to the FA (“R-FA”) was filed by the Applicant. In the R-FA, the Applicant submitted a proposed set of claims 1 to 21 (“proposed

claims”) and argued that the claimed subject-matter would not have been obvious and complied with section 28.3 of the *Patent Act*. The R-FA made no mention of the statement relating to subsection 27(3) of the *Patent Act* from the FA.

- [8] Since the Examiner maintained the position that the application did not comply with section 28.3 of the *Patent Act* after considering the R-FA, the application was forwarded to the Board, along with a Summary of Reasons (SOR). The SOR did not identify any defect under subsection 27(3) of the *Patent Act*.
- [9] The SOR was forwarded to the Applicant on April 17, 2019. In a letter dated April 30, 2019, the Applicant expressed continued interest in having the application reviewed by the Board.
- [10] The present panel (“the Panel”) was formed to review the application under paragraph 199(3)(c) of the *Patent Rules*.
- [11] With respect to the issue regarding subsection 27(3) of the *Patent Act*, since the FA did not provide any reason to justify the identification of the defect, and since this issue was not addressed in the R-FA or the SOR, it has not been considered in this review.
- [12] In a preliminary review letter dated August 5, 2021 (“PR letter”), the Panel presented its preliminary analysis and rationale, and was of the preliminary view that claims 1 to 21 on file would have been obvious and did not comply with paragraph 28.3(b) of the *Patent Act*, and that the proposed claims would have been obvious to the skilled person and thus could not be considered a “necessary” amendment under subsection 86(11) of the *Patent Rules*.
- [13] The PR letter also offered the Applicant the opportunities to make written submissions and to attend an oral hearing.
- [14] On September 15, 2021, the Applicant indicated that they did not plan to attend the oral hearing.
- [15] No further written submission has been received.

ISSUE

[16] This review will address the following issue:

- Whether the claims on file define subject-matter that would have been unobvious, as required by section 28.3 of the *Patent Act*.

[17] In this review, we will first consider the obviousness issue that pertains to the claims on file. We will then consider whether the proposed claims constitute amendments necessary for compliance with the *Patent Act* and *Patent Rules*.

LEGAL PRINCIPLES AND OFFICE PRACTICE

Purposive construction

[18] In accordance with *Free World Trust v Électro Santé Inc*, 2000 SCC 66, and *Whirlpool Corp v Camco Inc*, 2000 SCC 67, purposive construction is performed from the point of view of the person skilled in the art in light of the relevant common general knowledge (CGK), considering the whole of the disclosure including the specification and drawings. In addition to interpreting the meaning of the terms of a claim, purposive construction distinguishes the essential elements of the claim from the non-essential elements. Whether or not an element is essential depends on the intent expressed in or inferred from the claim, and on whether it would have been obvious to the skilled person that a variant has a material effect upon the way the invention works.

[19] “Patentable Subject-Matter under the *Patent Act*” (CIPO, November 2020) [PN2020–04] also discusses the application of these principles, pointing out that all elements set out in a claim are presumed essential unless it is established otherwise or such presumption is contrary to the claim language.

Obviousness

[20] The *Patent Act* requires that the subject-matter of a claim not be obvious. Section 28.3 of the *Patent Act* states:

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.

[21] In *Apotex Inc v Sanofi-Synthelabo Canada Inc*, 2008 SCC 61, at paragraph 67, 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”;
- (1)(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?

ANALYSIS

Purposive construction

The person skilled in the art and their common general knowledge

[22] The FA (page 2) identified the skilled person and their CGK as:

The skilled person is skilled in the fields of computer/software engineering and medical monitoring equipment and information systems.

...

The skilled person is aware of patient remote monitoring systems utilized in hospitals, such as computerized systems which convey relevant status information from a patient’s room to nursing station/computer within a hospital as noted in the background of the originally filed description. The skilled person in the art would also know how to create icons and generate pop-up windows and would thus be able to generate icons and pop-up windows in a graphical display if they were instructed

on where to create them (applicant's response page 3 on April 12, 2018).

[23] With regard to the skilled person, the Applicant has not disputed the identification above. However, since the present application is directed to hospital facility management and presentation of patient room information to hospital personnel, the Panel further identified the skilled person in the PR letter as:

- A team of persons skilled in the field of hospital facility management systems, including
 - hospital personnel, such as a nurse, who are experienced with the operation and maintenance of hospital facility management systems, and
 - technologists experienced with developing, and providing the software, tools and infrastructure conventionally used to support the activities and designs of such systems.

[24] The Applicant did not dispute, contest, or comment on this characterization and we adopt it in this review.

[25] During the preliminary review, the Panel also identified the following documents as being relevant for establishing the CGK:

- Health Insurance Portability and Accountability Act of 1996, PUBLIC LAW 104–191, August 21, 1996 [*HIPAA96*]
- Federal Register, Vol. 63, No. 155, Department of Health and Human, 45 CFR Part 142, Security and Electronic Signature Standards, Proposed Rule, August 12, 1998 [*FederalRegister98*].

[26] The U.S. government passed *HIPAA96* including requirements on proper authentication to safeguard health information data (see section 1173). *FederalRegister98* was distributed to provide guiding rules in response to the requirements of *HIPAA96* regarding “the security of individual health information and electronic signature use by health plans, health care clearinghouses, and health care providers” (“SUMMARY”). It requires that proper access control measures be implemented to guard personal health information data by all related facilities. For example, in page 43254, the document discloses various means to guard health data integrity, such as role-based access, user-based access, automatic logoff, biometric, and password.

[27] In the PR letter, based on the “Background of the Invention” section of the present application and the two documents mentioned above, the Panel considered the following knowledge as CGK:

- Knowledge regarding duties and responsibilities of hospital personnel who provide medical care to patients, including managing and tracking patient information and bed occupancy/bed availability (consistent with pages 1 to 3 of the description);
- Knowledge of computerized hospital facility management systems (consistent with pages 1 to 3 of the description); and
- Knowledge of well-known guidelines and techniques regarding proper authentication means for accessing patient health data (*HIPAA96*: section 1173; *FederalRegister98*: “Technical Security Services to Guard Data Integrity, Confidentiality, and Availability”).

[28] The Applicant did not dispute, contest, or comment on this identification and we adopt it in this review.

The essential elements

[29] There are 21 claims in the claims on file, including independent claim 1 and dependent claims 2 to 21.

[30] Independent claim 1 reads:

1. An apparatus for the graphical display of a facility’s bed management and room occupant status information, said apparatus comprising:

a computer display having a graphical display of a plurality of icons, each of the plurality of icons simultaneously conveying a first level of hospital room information regarding (i) bed management information, including at least one of patient bed occupancy and (ii) bed availability,

said plurality of icons being arranged on said graphical display in the pattern of a floor plan of the facility;

each icon in said floor plan corresponding to a different room of said facility for which information is conveyed;

said graphical display providing a pop-up window having secondary patient information corresponding to the hospital room represented by the icon and the secondary patient information being different from the first level of hospital room information, the secondary patient information being displayed in response to user selection of one of the plurality of

icons, after authentication of security identification provided by a user, wherein the selected one of the plurality of icons corresponds to a patient occupied room and wherein the secondary patient information comprises sensitive data of a patient occupying the patient occupied room.

[31] Dependent claims 2 to 21 define further limitations relating to the personnel the secondary information is displayed to (claims 2, 10, and 15), the ability to modify an attribute upon a user prompt (claims 3 and 16), the information conveyed by the icon (claims 4 to 9, 12, and 17 to 21), and the nature of the secondary information (claims 11, 13, and 14).

[32] In relation to the essential elements, the PR letter stated:

According to *PN2020-04*, purposive construction is conducted by considering where the skilled person would have understood the Applicant to have intended to place the fences around the monopoly being claimed.

Considering the whole of the specification, the skilled person would understand that there is no use of language in the claims indicating that any of the elements are a preferred embodiment, one of a list of alternatives, or non-essential. Therefore, all elements recited in each of the claims are presumed to be essential.

[33] The Applicant did not dispute, contest or comment on this identification of the essential elements and we adopt it in this review.

Obviousness

(1) Identify the notional "person skilled in the art" and their relevant CGK

[34] The person skilled in the art and their relevant CGK have been identified above under purposive construction.

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

[35] In the PR letter, the inventive concepts of the claims were identified as the construed claims, and all of the claimed elements were considered in the analysis. The Applicant did not dispute, contest, or comment on this identification and we adopt it in this review.

(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

[36] In the FA, D1 was cited for the obviousness objection:

- D1: US 5,331,549 July 19, 1994 Crawford Jr.

[37] As stated in the PR letter, we also considered the following document, which was cited during the prosecution of the present application in the Office Action dated June 20, 2006, as relevant:

- D2: US 4,994,908 February 19, 1991 Kuban et al.

[38] D1 discloses a medical monitoring system in which a plurality of vital signs monitors for a plurality of patients provide data on a continuing basis to a central server, which in turn provides supervisory screen display that indicates the normal status or varying levels of alarm status of individual patients. D2 discloses an interactive room status/time information system used in hospitals or hotels that displays room status and cleaning staff activities.

[39] The PR letter explained that D1 disclosed the following elements of independent claim 1:

- a computer display having a graphical display of a plurality of icons, each of the plurality of icons simultaneously conveying a first level of hospital room information (Fig. 2, Fig. 3, column 5, lines 19 to 22);
- said plurality of icons being arranged on said graphical display in the pattern of a floor plan of the facility (column 5, lines 19 to 22, “FIG. 2 shows a typical overview screen display in which a floor arrangement is shown with each room or site indicated by icons which are mapped to simulate the geometry of the floor”);
- each icon in said floor plan corresponding to a different room of said facility for which information is conveyed (column 10, lines 1 to 12);
- said graphical display providing a pop-up window having secondary patient information corresponding to the hospital room represented by the icon and the secondary patient information being different from the first level of hospital room information (Fig. 3 to Fig. 5; column 5, lines 52 to 57; column 6, lines 33 to 46);
- the secondary patient information being displayed in response to user selection of one of the plurality of icons (Fig. 4; Fig. 5; column 6, lines 33 to 46);

- instruction to programmers to include security logic for different levels of security clearance (column 9, lines 59 to 65); and
- the selected one of the plurality of icons corresponds to a patient occupied room and the secondary patient information comprises sensitive data of a patient occupying the patient occupied room (Fig. 3 to Fig. 5; column 6, lines 33 to 46).

[40] The PR letter set out the differences between D1 and the inventive concept of claim 1 as follows:

- (1) each room icon simultaneously conveys hospital information regarding (i) bed management information, including at least one of patient bed occupancy and (ii) bed availability; and
- (2) the secondary patient information is displayed after authentication of security identification provided by a user.

[41] The Applicant did not dispute, contest, or comment on this identification and we adopt it in this review.

[42] The dependent claims will be addressed in step (4).

(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?

[43] For claim 1, the Panel explained in the PR letter why claim 1 would have been obvious to the skilled person in view of the cited prior art and the CGK:

The FA stated that the above-mentioned authentication feature is “part of the common knowledge in the art to safeguard sensitive data by requiring the user to enter a ‘security identification.’” Therefore, the FA concluded that claim 1 on file would have been obvious to the skilled person.

In the R-FA, the Applicant disagreed with the FA and argued:

[T]he examiner asserts that displaying secondary information only after authentication of the user is obvious based on common general knowledge, without citing any references to support this contention. The applicant disagrees that it would be obvious to modify the approach of D1 to require user authentication before displaying secondary information. The secondary information in D1, for example item 56 in Figure 3 indicating a critical emergency or item 50 indicating “critical BP”, discloses time-critical information. It

would not make sense to require a user to authenticate and so delay the display of such time-critical information.

With respect to difference (1), although D1 does not explicitly disclose simultaneously display bed occupancy information and bed availability information, D1 discloses displaying rooms with monitored patient information (Fig. 3), which implicitly suggests that the bed is occupied and unavailable. D1 also discloses displaying one icon for each bed within a single-bed room or multiple-bed room and creating a facility map on the screen (column 10, lines 1 to 12). For the skilled person who understands that managing and tracking bed occupancy and availability management are part of hospital facility management, adding bed availability information to the facility map of D1 would have been self-evident. Moreover, in the same field of hospital room management (D2: column 1, lines 22 to 26), D2 clearly discloses this feature. For example, Fig. 4 displays room status including “occupied/clean”, “out of service” (not available), “vacant/clean” (available), etc.

With respect to difference (2), as mentioned above, requiring proper authentication to view patient information was CGK. It would have been a known and common practice to authenticate a user before granting access to the monitored patient information on screen as taught by D1, which is also consistent with the “instruction to programmers” in D1 (column 9, lines 59 to 65) that specifies security logic for various levels of security clearance. Since it is CGK that only qualified health personnel, after authentication, could view protected patient information, in our preliminary view, difference (2) would have been obvious to the skilled person and does not require an inventive step.

Accordingly, in our preliminary view, it would have been self-evident to the skilled person to adapt the system of D1 to add the room condition information taught in D2. Our preliminary view is therefore that claim 1 would have been obvious to the skilled person and does not comply with paragraph 28.3(b) of the *Patent Act*.

[44] The PR letter further explained that dependent claims 2 to 21 would have been obvious to the skilled person:

The additional features of dependent claims 3, 4, 7, 9, 11 to 13, 16, 17, and 20 are all disclosed in D1:

Claims 3 and 16 recite that a controller which is adapted to modify an attribute upon a prompt from an authorized user of the apparatus. D1 discloses this feature in Fig. 4, Fig. 5, and column 8, lines 21 to 43.

Claims 4 and 17 recite that the icon depicts a bed. D1 discloses this feature in column 10, lines 1 to 12.

Claims 7 and 20 recite that icon indicates an emergency condition exists within the room. D1 discloses this feature in Fig. 3 and Fig. 5.

Claim 9 recites that at least one differing level of information is displayed for the icon, and wherein, by the user interacting with said at least one icon, at least one level of information associated with at least one modifiable attribute of the icon is displayed, and wherein more than one modifiable attribute of the icon can be displayed at a time, and wherein said at least one level of information may relate to patient medical information. D1 discloses this feature in Fig. 3 to Fig. 5.

Claim 11 recites that the secondary patient information is medical information of the patient occupying the room. D1 discloses this feature in Fig. 4 and Fig. 5.

Claim 12 recites that the icon comprises a colour indicating one or more of isolation, observation, telemetry and age bracket for the patient. D1 discloses that the icon comprises colours indicating telemetry information and observation status of patients (column 6, lines 3 to 26). Therefore, D1 discloses at least one of these features. Further, although D1 does not disclose using icon colours to show isolation and age brackets, these features would not have required any degree of invention for the skilled person reading D1.

Claim 13 recites that the secondary information is dependent upon the icon. D1 discloses this feature in Fig. 4 and Fig. 5. The information displayed in Fig. 4 and Fig. 5 is “called up” when a user uses a keyboard or touch button on the icon of a particular room (column 6, lines 33 to 37).

The additional features of dependent claims 5, 6, 8, 18, 19, and 21 are all disclosed in D2:

Claims 5, 6, 18, and 19 recite that the icon indicates that the room is unoccupied or occupied. D2 discloses this feature in Fig. 4.

Claims 8 and 21 recite that the icon indicates a bed within the room is being made. D2 discloses this feature at column 15, lines 59 to 63, “the maid then enters his or her housekeeper ID and begins cleaning the room. At this point the room status is automatically changed to ‘Occupied’ or ‘Vacant’ and being made up by a particular maid number.”

All of claims 3 to 9, 11 to 13, 16 to 21 are dependent on claim 1, directly or indirectly, and thus the features of these claims are considered in combination with the features of claim 1. Since all of the additional features of these claims were disclosed in either D1 or D2, as outlined above, our preliminary view is that the subject-matter of these claims would have been obvious in view of D1 and D2 for the same reasons provided above.

The additional features of dependent claims 2, 10, 14, and 15 are considered to be CGK.

Claims 2, 10, and 15 recite that the secondary information is displayed solely to authorized users of the apparatus. As discussed above, it is our preliminary view that this is part of CGK and would have been obvious to the skilled person.

Claim 14 recites that the secondary patient information is medical information of the patient occupying the room, and wherein the medical information of the patient comprises pre-admission data of the patient. While the inclusion of pre-admission data is not explicitly disclosed, our preliminary view is that the skilled person reading D1 would know that this is standard information in a patient's medical record. It is our preliminary view that there would be no degree of ingenuity associated with this feature.

Therefore, the skilled person would consider that there is no inventive step involved in any of the additional features recited in claims 2 to 21, considered individually or in combination. Consequently, in our preliminary view, these claims would have been obvious to the skilled person and do not comply with paragraph 28.3(b) of the *Patent Act*.

[45] Given the opportunity, the Applicant did not dispute, contest or comment on this analysis in response to the PR letter. Accordingly, the Panel considers that the subject-matter of claims 1 to 21 on file would have been obvious to the skilled person in view of D1, D2 and the CGK. Therefore, all claims on file do not comply with paragraph 28.3(b) of the *Patent Act*.

Proposed claims

[46] In the proposed claims, claim 1 on file was amended with the following additional features (underlined):

- each of the plurality of icons simultaneously conveying a first level of hospital room information regarding (i) bed management information, including at least patient bed occupancy and a condition of a room represented by the icon, and (ii) bed availability;
- the secondary information depending on the first level of hospital room information conveyed by the corresponding icon;
- the secondary information comprising secondary patient information when the selected one of the plurality of icons corresponds to a patient occupied room and wherein the secondary patient information comprises sensitive data of a

- patient occupying the patient occupied room;
- the secondary information comprising room condition information when the selected one of the plurality of icons corresponds to a room having an emergency condition; and
- the secondary information comprising cleaning information when the selected one of the plurality of icons corresponds to a room having a cleaned condition.

[47] The PR letter explained why we considered that the proposed claims would have been obvious to the skilled person and did not constitute a “necessary” amendment under subsection 86(11) of the *Patent Rules*:

Regarding these additional features, in our preliminary view, D1 discloses all of them, as explained in our analysis of dependent claims above, with one exception: the condition of the room in regard to room cleaning. However, our preliminary view is that it would have been obvious to the skilled person to adapt the system of D1 in order to add the room information taught in D2 (Fig. 4, the room conditions include “occupied/clean,” “vacant/clean,” “vacant/dirty,” etc.)

Therefore, in our preliminary view, the skilled person would consider that there is no inventive step involved in the additional features introduced in the proposed claims in view of D1, D2, and the CGK, when considered individually or in combination of other claimed features. Consequently, these claims would have been obvious to the skilled person. It is our preliminary view that the proposed claims cannot be considered to be a “necessary” amendment under subsection 86(11) of the *Patent Rules* because they do not comply with paragraph 28.3(b) of the *Patent Act*.

[48] The Applicant did not dispute, contest, or comment on our preliminary view regarding the proposed claims. Accordingly, the Panel considers that the subject-matter of the proposed claims would have been obvious to the skilled person in view of D1, D2, and the CGK. Therefore, the proposed claims do not constitute a “necessary” amendment under subsection 86(11) of the *Patent Rules*.

CONCLUSIONS

[49] We are of the view that:

- claims 1 to 21 on file would have been obvious to the skilled person and thus do not comply with paragraph 28.3(b) of the *Patent Act*;

- the proposed claims 1 to 21 would have been obvious to the skilled person and thus cannot be considered a “necessary” amendment under subsection 86(11) of the *Patent Rules*.

RECOMMENDATION OF THE BOARD

[50] In view of the above, we recommend that the application be refused on the ground that all claims on file would have been obvious and thus do not comply with paragraph 28.3(b) of the *Patent Act*.

[51] Further, the proposed claims 1 to 21 do not overcome the obviousness defect and therefore the introduction of these claims does not constitute a “necessary” amendment pursuant to subsection 86(11) of the *Patent Rules*.

Liang Ji

Blair Kendall

Cara Weir

Member

Member

Member

DECISION OF THE COMMISSIONER

[52] I concur with the findings of the Board and its recommendation that the application should be refused because claims 1 to 21 on file would have been obvious and do not comply with paragraph 28.3(b) of the *Patent Act*.

[53] Therefore, in accordance with section 40 of the *Patent Act*, 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.

Virginie Ethier

Assistant Commissioner of Patents

Dated at Gatineau, Quebec,

This 28th day of October, 2021.