Commissioner=s Decision # 1260 Décision du Commissaire # 1260

TOPIC: F01, J80, O SUJET: F01, J80, O

Application No: 2,203,302 (Class G08G-1/127) Demande No: 2,203,302 (Classe G08G-1/127)

# COMMISSIONER'S DECISION SUMMARY

C.D. 1260 App'n 2,203,302

Obviousness, anticipation, lack of subject matter

The examiner rejected this application on the basis that the invention claimed lacked novelty in view of another Canadian application, was obvious, at the claim date, over cited prior art consisting of the Canadian patent application and 2 United States patents and that the application did not claim an invention which falls under the definition of invention contained in Section 2 of the Patent Act. The Board found that the applicant was claiming an invention which was novel and unobvious. The claimed methods also fall within the definition of invention.

The application was returned to the examiner by the Commissioner of Patents

Subject: F01, J80, O

# IN THE CANADIAN PATENT OFFICE

# DECISION OF THE COMMISSIONER OF PATENTS

Patent application 2,203,302 having been rejected under Rule 30(4) of the Patent Rules, the Applicant asked that the Final Action of the Examiner be reviewed. The rejection has consequently been considered by the Patent Appeal Board and by the Commissioner of Patents. The findings of the Board and the ruling of the Commissioner are as follows:

Agent for Applicant

Swabey Ogilvy Renault 1600-1981 McGill College Avenue Montreal, Quebec H3A 2Y3 This decision deals with the Applicant's request for a review by the Commissioner of Patents of the Examiner's Final Action dated November 13, 2001, on application 2,203,302 (International Classification G08G-1/127), filed on April 22, 1997 and entitled "Vehicle Tracking System Using Cellular Network". The inventors are Paul-André Roland Savoie and André Eric Boulay, and the applicant is RANKIN RESEARCH CORP.

A hearing before the Patent Appeal Board was held on May 28, 2003. Appearing on behalf of the Applicant were Mr André Boulay one of the inventors, and George Locke, James Anglehart and Marc Benoit from the firm of Ogilvy Renault. Representing the Patent Office were Paul Sabharwal the examiner in charge of the application, and Peter Ebsen, Section Head.

The application relates to a method to track a stolen vehicle using an existing cellular telephone system.

Figure 3b of the application shows the complete vehicle tracking system and figure 3c shows how a stolen vehicle can be tracked using the system of figure 3b.



In figure 3b, transceiver 30 which has been hidden in a stolen vehicle 40 is paged by the security service provider 44 through the cellular network. The transceiver responds via cell site A which is the cell site closest to the vehicle and a voice channel is opened. The security service provider forwards the identity of the stolen vehicle to a security response team in a tracking vehicle 47. The team is also given the location of the stolen vehicle based on the location of cell site A. Once the tracking vehicle reaches the general vicinity of the stolen vehicle, the team uses a radio direction finder to locate the vehicle using the cellular voice channel.

## Claim 1 of the application reads as follows:

A method of obtaining locating information concerning a locating cellular transceiver using an existing cellular network infrastructure, comprising the steps of: receiving transmitted signals from said cellular transceiver at one or more cell sites within operational range of said cellular transceiver; establishing and maintaining an open voice channel with said locating cellular transceiver; determining a cell site sector within said network in which the cellular transceiver is located based on the location of said one or more cell sites communicating with said locating cellular transceiver; determining a general geographical location of a search vehicle with respect to said one or more cell sites; moving said search vehicle to said cell site sector of said cellular transceiver and monitoring said open voice channel from said search vehicle; and obtaining a direction in which said cellular transceiver is located with respect to said search vehicle based on the direction of arrival of RF signals emitted by said cellular transceiver and received at said search vehicle.

In the Final Action, the Examiner cited the following references to reject all of the claims, as well as the application itself:

Canadian patent application

2,137,002	filed May 24, 1993	Sheffer et al
United States patents		
4,891,650	January 2, 1990	Sheffer
4,908,629	March 13, 1990	Apsell et al

Claims 1-21 as well as the remainder of the application are rejected for being

In his Final Action, the Examiner stated, in part:

The whole application is rejected for failure to describe a patentable invention. Claim 1-21 are rejected for lacking novelty under Section 28.2(1)(b) of the Patent Act in view of SHEFFER *et al*. Claims 1-21 as well as the remainder of the application are rejected for being obvious under Section 28.3 in view of SHEFFER *et al* and either of SHEFFER or APSELL *et al*. non-patentable contravening Section 2 of the Patent Act. Claims 1-21 are rejected for lacking sufficient support in the description, under Subsection 84 of the Patent Rules.

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Lack of Novelty in View of Sheffer *et al.*: .... claim 1 is anticipated because all the elements recited in claim 1 have been taught by SHEFFER *et al.* 

Independent claim 12 is similarly lacking novelty in view of SHEFFER *et al.* Other features in the remaining claims 2-11 and 13-21 such as querying the cellular network, obtaining particulars of cellular transceivers, using an RF direction finder, using latitude and longitude coordinates, and concealing the transceiver within the vehicle have been disclosed by SHEFFER *et al.* 

**Obviousness Under Section 28.3:** 

Claims 1-21 are obvious in view of SHEFFER *et al.* Claims 1-21 are also obvious in view of SHEFFER *et al.* and either of SHEFFER or APSELL *et al.* 

Applicant claims to provide a patentable method for locating stolen vehicles which is more versatile, less costly and easier to implement by requiring fewer modifications to infrastructure. However, this versatility (lower cost and easier implementation) is accomplished through elimination of analogous systems (such as those described by SHEFFER *et al.*, SHEFFER and APSELL *et al.*) and replacing them with human interactions and intervention. For example,

programming a database to match the pre-established common NAM (page 15, lines 23-25);

making a preliminary query and dialling the pre-selected telephone number by the security service provider (page 16, lines 1-4); and

forwarding the identity of the stolen vehicle by the security service provider to a security response team in a tracking vehicle (page 16, lines 20-24), using GPS in the tracking vehicle(page 17, lines 2-4), monitoring an open voice channel and travelling in a general direction (page 17, lines 7-9), making use of radio direction finder to find the vehicle;

illustrate numerous instances of the use of human actions, skills, and interactions in lieu of functions that are automated in the prior art.

The present application replaces the system of the applied references with the appropriate actions of human beings, namely security personnel, cellular network operators and tracking vehicle operators. There is no invention in substituting the systems in the prior art with mental steps and human actions to perform the same functions as those taught in the prior art. This includes, for example, avoiding modifications to infrastructure or software by using human interference and professional skills.

Rejection Under Section 2 of the Patent Act:

Claims 1-21 do not comply with Section 2 of the Patent Act because the versatility and intuitiveness obtained by using a skilled team and their human/interpersonal interactions involving prior art devices cannot be said to be a patentable method for locating stolen vehicles or a moving cellular transceiver.

Professional services for locating objects are not patentable. The domain of the invention is the prerogative of cellular network operators, security response teams, security service providers/businesses, or and combination of these professional services. Therefore, this application is lacking patentable subject matter, objectionable under Section 2 of the Patent Act.

Applicant=s alleged invention is essentially an aggregation of actions undertaken by a security service provider, cellular network operator, security response team, and a tracking vehicle in pursuit of a stolen vehicle.

The alleged invention does not derive from an integrated system or method which can repetitively provide consistent results. The success, operability and results of the

alleged invention depend on deductive reasoning and interpretive abilities of human beings who are trained to operate known prior art devices for their intended purposes. This includes, for example:

querying of a database for an ESN number;

interpreting of GPS receiver data; and

use of a radio direction finder by a security response team to locate the stolen vehicle.

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Rejection of the Claims Under Section 84 of the Patent Rules:

The claimed method for locating a stolen vehicle or object or transceiver is lacking sufficient support, objectionable under Section 84 of the Patent Rules. There is no disclosure on how to operate or use the invention to achieve the following results in claim 1:

Adetermine a cell site sector within which the cellular transceiver is located based on the location of said one or more cell sites communicating with said locating cellular transceiver.@ (Lines 9-10)

Adetermining a general geographical location of a search vehicle with respect to said one or more cell sites;@ (lines 13-14)

In its May 13, 2002 reply to the Examiner=s Final Action, the Applicant submitted a new set of claims which proposed amending claims 1, 3, 9, 10, 12, 14, 16, 19 and 20. Proposed claim 1 reads as follows:

A method of obtaining locating information concerning a locating cellular transceiver using an existing cellular network infrastructure, comprising the steps of: receiving transmitted signals from said cellular transceiver at one or more cell sites within operational range of said cellular transceiver; establishing from said network infrastructure an open voice channel with said locating cellular transceiver;

determining a cell site sector within said network in which the cellular transceiver is located based on the location of said one or more cell sites communicating with said locating cellular transceiver;

determining a general geographical location of a search vehicle with respect to said one or more cell sites;

moving said search vehicle to said cell site sector of said cellular transceiver and monitoring said open voice channel from said search vehicle; and maintaining said monitored open voice channel while finding a direction in which said cellular transceiver is located with respect to said search vehicle

based on the direction of arrival of RF signals emitted by said cellular transceiver on said monitored open voice channel and received at said search vehicle.

Unfortunately, all of the Applicant=s comments with respect to the Examiner=s rejection were related to the proposed new set of claims, while all of the Examiner=s comments in his Final Action relate to the claims which are presently in the application. In that reply, the Applicant also stated, in part:

### Lack of novelty in view of Sheffer et al

According to the Examiner=s view, claims 1-21 define subject matter that is the same as what has been disclosed by Sheffer *et al.*, and were therefore rejected for lacking novelty, contravening Section 28.2(1)(b) of the Patent Act.

Claim 1 as amended now recites that the open voice channel is being established "<u>from</u> <u>said network infrastructure</u>". Furthermore, the direction obtaining step has been redrafted as "<u>maintaining said monitoring open voice channel while finding</u> a direction in which cellular transceiver is located with respect to said search vehicle based on the direction of arrival of RF signals emitted by said cellular transceiver <u>on said monitored</u> <u>open voice channel</u> and received at said search vehicle".

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As pointed out by the Examiner, Sheffer et al. teaches that the search (FRU) vehicle can be equipped with conventional direction finding equipment, for use when the search vehicle is dispatched to the approximate location (90) of the transceiver installed in the stolen vehicle, to more accurately locate the stolen vehicle (at actual location 92), the direction finder indicating relative strength and direction at a resolution of \_5\_ (see p. 16, l. 30-35, p.17, l.1). However, contrary to the Examiner=s finding, Sheffer et al. does not disclose the step of monitoring said open voice channel from said search vehicle as recited in claim 1, nor does it disclose the steps of maintaining said monitored open voice channel while finding a direction in which said cellular transceiver is located with respect to said search vehicle based on the direction of arrival of RF signals emitted by said search vehicle, as recited in amended claim 1. While either packet of alarm information or voice communication feature does not equate to the claimed \_monitoring\_ function, for the ultimate purpose of finding a direction in which said cellular transceiver is located with respect to the search vehicle based on the direction of arrival of RF signals emitted by the cellular transceiver on said monitored open voice channel and received at said search vehicle. Sheffer et al. does not disclose any means, such as a cellular tracking system, that may be used to perform a monitoring function. According to Sheffer et al., the updated packet of alarm information is being sent at periodic intervals. Although the voice channel is rendered available between packet update transmissions, for voice communications, such use is clearly optional since Sheffer et al. teaches that a cellular handset of a conventional type without listen-in option can be used (see p.8, l. 11-22). Therefore, Sheffer et al. clearly does not disclose maintaining said monitored open voice channel while finding a direction in which said cellular transceiver is located with respect to said search vehicle based on the direction of arrival of RF signals emitted by said cellular transceiver on said monitored open voice channel and received at said search vehicle, as recited in amended claim 1. Sheffer et al. does not disclose how the direction finding equipment is used to locate the actual location of the transceiver.

#### .....

#### **Obviousness under Section 28.3**

Contrary to the Examiner=s view, versatility, cost effectiveness and ease of implementation associated with the use of the method as defined in claim 1 are not accomplished through elimination of certain elements of analogous systems such as those described by the prior art references and replacing them with human interactions and interventions. None of the cited prior art references discloses or suggests establishing from the network infrastructure an open voice channel with the locating cellular transceiver, for the ultimate purpose of finding a direction in which the cellular transceiver is located with respect to the search vehicle as recited in amended claim 1. Furthermore, none of the cited prior art references discloses or suggests a step of monitoring the open voice channel from the search vehicle, nor any of these references discloses the steps of maintaining the monitored open voice channel while finding a direction in which the cellular transceiver is located with respect to the search vehicle based of the direction of arrival of RF signals emitted by the cellular transceiver on the monitored open voice channel and received at the search vehicle, as recited in amended claim 1. Therefore, far from being derived through elimination of certain elements of or functions performed by prior art systems, the method according to the invention involves the addition of distinctive features that have no equivalent counterpart in the methods disclosed in the cited prior art.

It will also be appreciated that in Applicant=s invention, control of the establishment of the open voice channel from the network side has the advantage that the transceiver does not broadcast a continuous signal until the search vehicle is relatively near the transceiver. The open voice channel can be detected by thieves having radio transmission detection equipment. Likewise, an open voice channel consumes battery power, particularly in areas that are remote from analogue cellular transmitter towers. Since the owner of a vehicle (or object) may not respond to the theft for some time, it is an advantage to minimize the transmit time of the open voice channel, as performed in Applicant=s invention by controlling the establishing of the open voice channel from the network side.

Contrary the Examiner=s view, the present application does not replace the system of the cited references with appropriate actions of human beings, in substituting elements performing automated functions with mental steps and human actions to the same functions. As for claim 1, none of the claimed functions of establishing from the network infrastructure an open voice channel with the locating cellular transceiver, monitoring the open voice channel from the search vehicle, and maintaining the monitored open voice channel with respect

to the search vehicle based on the direction of arrival of RF signals emitted by the cellular transceiver on the monitored open voice channel and received at the search vehicle, are performed by the system of the cited prior art. The advantages inherent to the claimed method over the cited prior art, such as versatility, cost effectiveness and ease of implementation, are actually accomplished through additional distinctive functions that are not performed by the systems of the cited prior art, neither as automated or mental steps.

#### Rejection under Section 2 of the Patent Act and Section 84 of the Patent Rules

In the Final Action, claims 1-21 stand rejected as not complying with Section 2 of the Patent Act because according to the Examiner=s opinion, the versatility and intuitiveness obtained by using a skilled team and their human/interpersonal interactions involving prior art devices cannot be said to be a patentable method for locating stolen vehicle or a moving cellular transceiver. Moreover, claims 1-21 stand rejected as not complying with Section 84 of the Patent Rules for lacking sufficient support in the description.

Contrary to the Examiner=s view, Applicant respectfully submits that the claims do not define a professional service for locating an object, nor a plan for managing or operating a security service business operation. The claims rather define a method of obtaining locating information concerning a locating cellular transceiver (object) using an existing cellular network infrastructure. Generally, patentable subject-matter is in the nature of a product, method or apparatus having a technical and commercial objective or application, as opposed to methods lying in the professional field such as surgery and medical treatment of the human body, (Tennessee Eastman CO. v. Commissioner of Patents (1970), 62 C.P.R. 117 at p. 154 ( Ex. Ct). Affd 8 C.P.R. (2d) 202, 33 D.L.R. (3d) 459 (S.C.C.@), scheme for subdividing land (Lawson v. Commissioner of Patents (1970) or scheme for doing business using a computer (Re Patent Application No. 564,175 (1999), 6 C.P.R. (4th)385 (Commissioner of Patents)), which were held unpatentable as providing a result which is purely dependent of professional skill, as merely an exercise of human brain power carried out by ordinary manual means. The method according to the present invention is industrially applicable in the field of professional security services. Like many industrial and commercial fields to which inventions are usefully applied, human intervention or mental steps are required for carrying out the method according to present invention, namely by personnel of cellular service providers, security response teams and security service providers, in functional cooperation with physical devices. Hence, it does not immediately follow that the nature of the invention falls within the definition of professional skills and methods that have been ruled to be unpatentable subject matter. Applicant fairly believes that the working of the claimed method, and the quality of the result obtained, i.e. location of the transceiver, does not depend on the versatility and intuitiveness of the skilled team and their human/ interpersonal interactions......

There are three questions before the Board: 1. Is the claimed method new?; 2. Is the claimed method obvious in view of the cited prior art? and 3. Does the claimed method comply with Section 2 of the Patent Act and Rule 84 of the Patent Rules.

First, to determine the question of novelty, it is necessary to establish what is disclosed by the Sheffer et al patent. In Sheffer et al, a cellular processing unit and a plurality of alarm sensors are installed in a car. The cellular processing unit includes a controller which monitors the output of the sensors and a cellular transceiver. The transceiver receives cell identifying information and signal strength information from all adjacent cellular phone cell sites in the vicinity when an alarm sensor detects an alarm situation. The controller then dials a predetermined telephone number and transmits a packet of information to a central office. The packet of information includes an alarm code, vehicle identifying information, adjacent cell identifying information and the relative signal strengths of signals received by the transceiver from adjacent cells. A computer at the alarm monitoring station determines the actual cell site locations and the approximate vehicle location from the cell relative signal strength information. A response vehicle is then sent to that location. On arrival, the response vehicle could be equipped with direction finding equipment to locate the

stolen vehicle.

From this description, it is quite clear that the process disclosed in Sheffer et al is substantially different from that which is disclosed in the instant application. However, the claims in the instant application must set out the method in sufficient detail so that those differences are apparent. In his Final Action, the examiner has listed each of the steps of the method set out in claim 1 of the instant application and has quoted from the Sheffer et al reference where each of these steps is disclosed. The Board concludes that the method set out in claim 1 is anticipated by the method disclosed in Sheffer et al because the steps of claim 1 are expressed in such general terms that they read on Sheffer et al.

In the set of claims submitted with the reply to the Final Action, the Applicant has submitted an amended claim 1 which specifies that 1. the open voice channel is established from said network infrastructure and 2. the open voice channel is maintained while finding the direction in which the cellular transceiver is located based on the arrival of RF signals emitted by the transceiver on the open voice channel. The Examiner has indicated to the Board that the addition of these two features overcomes the anticipation rejection.

Now, the Board turns its attention to the question of obviousness. The requirement that an invention not be obvious is set out in Subsection 28.3 of the *Patent Act* which reads 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.

A tests for obviousness was set out in *Beecham Canada Ltd v Proctor & Gamble* (1982), 61 CPR (2d), 1 at 27 by Urie JA, where he stated:

The question to be answered is whether at the date of invention (August-September 1964) an unimaginative skilled technician, in light of his general knowledge and the literature and information on the subject available to him on that date, would have been led directly and without difficulty to Gaiser=s invention.

The Examiner has rejected the claims as being obvious in view of Sheffer et al or in view of Sheffer et al and either Sheffer or Apsell et al.

As indicated above, the Board has determined that there are significant differences between the system disclosed in Sheffer et al and the process of the instant application. To determine the question of obviousness, it is necessary to look at the other references to see if they supply the missing material in such a manner as to render the applicant=s method obvious.

United States patent 4,908,629 to Apsell et al discloses a system to locate and track missing

vehicles. A transponder is placed in a vehicle and if that vehicle is reported stolen, a signal containing an activation code is broadcast over a network of radio broadcasting transmitting antennas. If the vehicle is within receiving range of the transmission, the activation code causes the vehicle transponder to begin sending a periodic reply signal. Police or other tracking vehicles are equipped with a direction finding antenna system and can then track and locate the stolen vehicle.

Apsell et al operates on a network of transmitters and receivers which is dedicated exclusively to the location and tracking of stolen vehicles. It does not incorporate any aspects of a cellular telephone system.

United States patent 4,891,650 to Sheffer also discloses a system to locate a missing vehicle. The vehicle generates an alarm signal which is detected by an array of cellular sites. Each site then transmits an output signal which is related to the strength of the alarm signal received at that site. A detecting apparatus receives the output signals from each site and calculates the approximate location of the missing vehicle based on the alarm signal strength received at each cellular site.

This patent is closely related to the Sheffer et al reference and does not provide any more information which would lead a worker skilled in this field of technology to the method disclosed in the instant application.

As a result, the Board concludes that the Applicant has disclosed a method for finding the location of a cellular transceiver which is not obvious in view of the cited references.

The Board now turns it attention to the third question, the rejection based on Section 2 of the Patent Act and Rule 84 of the Patent Rules.

Section 2 of the Patent Act gives the following definition of the word invention:

Ainvention@ 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.

### Rule 84 of the Patent Rules states the following:

The claims shall be clear and concise and shall be fully supported by the description independently of any document referred to in the description.

The Examiner contends that the subject matter disclosed and claimed in the instant application does not fall under the definition of invention contained in Section 2 of the Patent Act because the Applicant=s method requires human intervention in the carrying out of the various steps. This human intervention requires the professional skills of trained operators.

In Lawson v. Commissioner of Patents, 62 C.P.R., 101 at 111, Cattanach J. had the following to say about professional skills:

It is obvious from the concluding portion of the above quotation that professional skills are not the subject-matter of a patent. If a surgeon were to devise a method of performing a certain type of operation he cannot obtain an exclusive property or privilege therein. Neither can a barrister who had devised a particular method of cross-examination or advocacy obtain a monopoly thereof so as to require imitators or followers of his method to obtain a licence from him.

The Patent Appeal Board has also considered the question of what type of human participation in the steps of a method are permitted. In the Commissioner=s Decision in *Re Application for a Patent Containing Claims that Read on Mental Steps Performed by a Human Operator in Deciding to Transmit a Signal*, 23 C.P.R., 93 at 95, the Board said the following:

On consideration of the prosecution of this application, the Board finds that the basic question to be decided is whether the invention of the total process is practically useful in a useful art (manual or productive) as distinct from the fine art (practising professional skills having judgmental content, intellectual meaning and aesthetic appeal), and particularly whether it is operable (reproducible and controllable) so that the desired result inevitably follows whenever the process is worked manually by its users.

And further on page 96, the Board concluded:

Therefore a process which includes a mental step involving the ascertaining and sensing facilities is patentable (provided all other attributes of patentability are present), since the effect of the mental step is precise and predictable no matter how skilfully it is performed. On the other hand, a process which includes a mental step, the nature of which is dependent upon the intelligence and reasoning of the human mind cannot satisfy the requirements of operability since the effect of the human feedback or response is neither predictable nor precise whenever the process is worked by its users.

It follows that the specific questions to be satisfied in this case are (assuming novelty and unobviousness):

(1) Whether the steps involving human response are of the type that require subjective interpretative or judgmental considerations; or whether they are responses that are clearly defined and precise, and for example, can be performed otherwise by apparatus; and

(2) Whether there is sufficient teaching of the human intervention so that the inventive process is operative when performed by its users.

Many patentable methods include steps which can be carried out by humans but these steps are limited to those which are of a routine nature and do not require a high degree of training, judgement and decision making. As is indicated above in the cited Commissioner=s Decision, this type of step does not fall outside the definition of invention in the Patent Act.

In reviewing the claims of the instant application, the Board has considered the actions which might be carried out by a human operator. In the Board=s view, these actions appear to be routine. For example, the last step in claim 1 involves obtaining a direction from a radio direction finder. While this may be a complex piece of equipment, its operation does not require judgement or decision making. Once an operator has learned how it works, the result will always be the same, regardless of the skill and experience of the operator.

As a result, the Board concludes that the methods set out in this application do not fall outside the scope of definition of invention contained in Section 2 of the Patent Act..

With respect to the Examiner=s objection to the claims because they lack support in the disclosure, the Board is satisfied that the explanation given by the Applicant in its submission of May 13, 2002

and the presentation at the hearing of May, 2003 that the claims are fully supported and that a person skilled in this field of technology would be able to put the invention into operation using the information contained in the application.

In summary, the Board finds that present claim 1 is anticipated by Canadian patent application 2,137,002 to Sheffer et al but that claim 1 which was submitted with the reply to the Final Action on May 13, 2002 avoids that reference. The Board finds that the method disclosed in the instant application is not obvious in view of Sheffer et al in combination with either USP 4,908,629 or USP 4,891,650. The Board finds that the claimed method does not fall outside the definition of invention because it does not involve the exercise of professional skill. Finally, the Board finds that there is sufficient support in the disclosure of the application to support the claims.

The Board has also noted several small problems with the claims. For example, claim 17 depends on claim 18 and there are some missing antecedents.

The Board therefore recommends that the Examiner=s rejection of the application be reversed and that the application be returned to the Examiner for further prosecution consistent with these recommendations.

Michael Gillen	John Cavar	M. Wilson	
Chairman	Member	Member	

I concur with the recommendation of the Board that the Examiner=s rejection of the application be reversed and return the application to the Examiner for further prosecution consistent with the Board's recommendation.

David Tobin Commissioner of Patents

Dated at Gatineau, Quebec this 6th day of Decembre, 2004