

Commissioner=s Decision # 1285  
D cision de la Commissaire # 1285

TOPIC: O00  
SUJET: O00

Application No.: 2,292,282  
Demande no.: 2,292,282

## COMMISSIONER=S DECISION SUMMARY

C.D. 1285

App=n 2,292,282

The application relates to a closed system postage meter which is given the capabilities of open system meters by virtue of its connection to a scanning device. The scanning device is used to collect information from a mailpiece regarding the recipient, as well as information regarding requests for value-added services, such as ad slogan brokering, certified mail, or registered mail. With the information regarding the recipient, the system can create an encrypted indicium as proof of payment, which, by virtue of the inclusion of recipient information, links the mailpiece with the indicium, as was previously possible in open systems. Also, information concerning value-added services are accounted for within the meter and the details can be printed on the mailpiece. All of the claims were rejected as being obvious. The Board found that claims 1-5 and 7-12 were obvious, but not claim 6. The Board accordingly recommended that the Applicant be invited to delete claims 1-5 and 7-12 in accordance with ss. 31 (c) of the *Patent Rules*.

The Commissioner agreed with the Board=s recommendations and the Applicant was invited to delete claims 1-5 and 7-12, failing which the application would be refused.

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application number 2,292,282 having been rejected under Subsection 30(4) of the Patent Rules, the Applicant asked that the Final Action of the Examiner be reviewed. The rejection has been considered by the Patent Appeal Board and by the Commissioner of Patents. The findings of the Board and the decision of the Commissioner are as follows:

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## INTRODUCTION

- [1] This decision deals with a request that the Commissioner of Patents review the Examiner=s Final Action on patent application no. 2,292,282 entitled ASYSTEM AND METHOD FOR SELECTING AND ACCOUNTING FOR VALUE-ADDED SERVICES WITH A CLOSED SYSTEM METER@. The Applicant is PITNEY BOWES INC. The inventors are Robert W. Allport, Stephen Kelly, Timothy J. Nicholls, and Fredrick W. Ryan, Jr..
- [2] The invention relates to an improved closed system postage meter. As disclosed by the Applicant at page 1, line 14 to page 2, line 15, traditional closed system postage meters, which are used for printing postage indicia on mailpieces, were secure systems where activity was solely directed towards postage metering, with a dedicated printer linked to a metering or accounting function. In typical closed system meters, printing cannot take place without accounting for the printed evidence of postage (i.e. the balance remaining in the meter is always decreased when printing takes place). This is in contrast to open system postage meters where the printer used for printing postage indicia is not dedicated to metering functions, and may be a regular printer as part of a computer system. Because of the lack of an exclusive link between the metering component and the printer, further security measures are necessary and this is accomplished by including addressee information in encrypted evidence of postage printed on the mailpiece for subsequent verification.
- [3] This encrypted imprinted indicium is linked with the particular mailpiece, which means that virtually every mailpiece would get a unique indicium. Open systems, such as PC based systems, have access to information such as sender and recipient addresses, this information being previously entered into the PC, which makes the above encryption possible.
- [4] Given this context, Applicant proposes a closed system meter which is given the functionality of an open system. This is accomplished by coupling a scanning device to a closed system meter, which scanner is capable of reading information

concerning the recipient, and other indications, such as requests for value-added services (e.g. ad slogan brokering, certified mail, or registered mail). The aforementioned information and requests for services can then be accounted for within the meter, and the encrypted indicia and value-added services details can then be printed on the mailpiece. As Applicant discloses, if this is the case, only one postage verification system is needed for both open and closed systems, and closed system meters are given increased utility and value. It is worth noting that with these new capabilities the printer associated with such a closed system is no longer dedicated solely to printing postage indicia, as was previously the case.

## **BACKGROUND**

[5] This application was filed on December 10, 1999, and was rejected by the Examiner on November 22, 2004 in a Final Action. In the Final Action, the Examiner rejected all 12 pending claims in view of European Patent Application No. 0878778 to Sansone and a publication entitled ACryptography: It=s Not Just For Electronic Mail Anymore@, by J.D. Tygar and Bennet Yee, published March 1, 1993. Although the Examiner lists the European document as a patent, it is in fact a patent application, published on November 18, 1998. The Applicant, in response to the Final Action, did not make any amendments to the application, but instead chose to present further arguments based on the pending claims.

[6] On August 3, 2006, the application was forwarded to the Patent Appeal Board for review. Although an oral hearing was originally scheduled to take place, the Applicant=s agent, Mr. Matthew Powell, on August 9, 2007, advised the Board that the Applicant wished to proceed without an oral hearing. Consequently, the Board has conducted a review of the case based on the written record.

## **THE ISSUE**

[7] There is only one issue to be addressed by the Board and it is

as follows:

Would claims 1-12 have been obvious in view of the European Patent Application to Sansone taken with the publication by Tygar et al.?

## THE CLAIMS

[8] The language of the claims in this case is fairly straight forward, however certain phrases and terms require clarification before they may be compared to the prior art. There are two independent claims, 1 and 8. Claim 1 is reproduced below:

1. A method for selecting and accounting for value-added services with a closed system metering device, the method comprising:  
coupling a scanning device to a closed system postage meter;  
scanning information, including recipient address, printed on a mailpiece;  
determining if value-added services are desired;  
performing accounting related to the desired value-added services;  
combining the recipient address with other information relating to the postage payment for the mailpiece to obtain postal data relating to the mailpiece;  
using the postal data to generate an indicium for the mailpiece, the indicium including cryptographic evidencing of postage payment;  
adding graphical representation of the desired value-added services to the generated indicium to generate a value-added indicium; and  
printing the value-added indicium on the mailpiece.

[9] One of the first terms which require clarification is Aclosed system meter@. In accordance with the discussion on pages 1 and 2 of the application, we take this to be a system wherein there is a secure link, be it cryptographic or otherwise, between the accounting and printing systems of the postage meter, and wherein the printing system is dedicated to metering activity (i.e. printing cannot take place without a corresponding debit in the accounting system). As disclosed (our emphasis added):

In a closed system, the system functionality is solely dedicated to metering activity. Examples of closed system metering devices include conventional digital and analog (mechanical and electronic) postage meters wherein a dedicated printer is securely coupled and dedicated to the meter, printing evidence of postage cannot take place without accounting for the evidence of postage.

[10] The step of determining if value-added services are desired also requires attention. It is evident that the determining part of this step is done by a postage device. The indication as to desired services, in accordance with the specification, in particular, at page 8, lines 1-5, may be taken from information obtained by scanning the mailpiece, or may be input manually by the user, presumably by way of some type of interface. The idea that the value-added services desired in the determining step of claim 1 may be indicated by information taken from the scanned envelope or by some manual user input is made even more clear by the presence of dependent claims 5 and 6, which specify alternative embodiments where the desired value-added services are selected by the user from a displayed menu or are automatically selected based on the information scanned from the envelope. Independent claim 1 cannot be given a construction inconsistent with the depending claims which refer to it. This principle, which is sometimes referred to as claim differentiation, is one established in Canadian law. In *Halford v. Seed Hawk Inc.* (2004), 31 C.P.R. (4th) 434 at 467 (F.C.); *rev'd on other grounds* (2006), 54 C.P.R. (4th) 130 (F.C.A.), Pelletier J. stated:

It is clear from section 87 of the Patent Rules that a dependent claim includes all the features and limitations of the claim which it incorporates by reference. As a result, the independent claim cannot be given a construction which is inconsistent with the claims which are dependent upon it. My colleague Campbell J. adopted this reasoning in *Heffco Inc. v. Dreco Energy Services Ltd.* (1997), 73 C.P.R. (3d) 284 (Fed. T.D.), at page 298.

This principle is well known in the American jurisprudence dealing with the construction of patents where it is known as the principle of claim differentiation. Article 112 of the U.S. Patent Act, 35 U.S.C., is the equivalent of section 87 of our Patent Rules. It provides as follows at paragraph 4:

Subject to the following paragraph, a claim in dependent form shall contain a reference to a claim previously set forth and then specify a further limitation of the subject matter claimed. A claim in dependent form shall be so construed to incorporate by reference all the limitations of the claim to which it refers.

In its simplest form, claim differentiation simply requires that "limitations of one claim not be 'read into' a general claim". *Wolens v. Woolworth*, 703 F.2d 983 (U.S. 7th Cir. Ill. 1983) at p. 988.

[11] In the present circumstances, the limitations of claims 5 and 6 (i.e. that the selection of value-added services is specifically manual or automatic) cannot be read into independent claim 1 to limit its scope. In other words, claim 1, when fairly interpreted, is broad enough to encompass either manual or automatic selection.

[12] As given at page 8, lines 13-14, some examples of value-added services are Certified Mail, Address Correction Requested, Insured, etc.

[13] Once the determinations as to desired value-added services are made, the device accounts for the desired services, and then goes on to create the postal indicia. The Recipient address, having been scanned, is then combined with other information relating to the postage payment for the mailpiece to obtain postal data relating to the mailpiece. At page 10, lines 7-22, what this other information may include is discussed. Some examples are meter serial number and the date the postage was dispersed. It is also disclosed that:

those skilled in the art will recognize that the exact content of both the fixed data and variable data is subject to regulation by the postal authority and a matter of design choice.

[14] Given this data and the recipient address, an indicium is then created which includes cryptographic evidencing of postage payment, which is then printed on the mailpiece.

[15] Claim 8, which is directed to a postage metering system, is similar in scope to claim 1, with the exceptions that there is not necessarily any encryption of the information in the indicium, and the presence of the means operatively coupled to the closed system meter for selecting value-added services corresponding to the envelope. In the specification, particularly at page 8, lines 1-5, there is indicated the presence of some interface, by which the particular value-added service may be chosen by an individual (i.e. manual selection). Alternatively, the selection of value-added services can be made automatically by the system based on the information scanned from the envelope. It seems clear that the means in



this case could relate to a manual selection or an automatic selection, be it by some separate interface for manual selection, or a component of the system which makes an automatic selection. The scope of claim 8, therefore, aside from the fact that it is directed to an apparatus, appears to be broader than claim 1. The meaning of the dependent claims seems clear enough. With this interpretation of the claims in mind the Board must now determine whether or not such claims would have been obvious.

## OBVIOUSNESS

### Examiner=s Position

[16] In the Final Action of November 22, 2004, the Examiner outlined his arguments in part as (our emphasis added):

Claims 1 and [8] describe a method and system for metering postage that are obvious in view of the postage metering and post services recording system taught by Sansone (abstract; figure 3). The metering and recording system determines if value-added services are desired by the sender, performs the accounting related to these services, combines recipient address information with payment information to generate an indicium with cryptographic evidencing, and prints that indicium on the envelope along with graphical representation of the value-added services (figure 4; column 1, lines 39 to 58; column 3, line 46 to column 4, line 22; column 5, line 15 to column 6, line 7). This is primarily for use with an open system meter, but Sansone does teach an embodiment with a closed system meter (figure 5; column 3, lines 16 to 37; column 4, line 23 to column 5, line 14). The present claims also specify that a scanning device be coupled to the system in order to read information from the mailpiece for subsequent use in the generation of the indicium. This is held to be an obvious addition in view of the discussion given by Tygar et al. on using cryptographic techniques to protect postage indicia (abstract). Tygar et al. describe a scenario involving a personal computer based postage meter in which address information is read directly from the envelope using a scanner, and a cryptographic indicium based partly on that information is printed on the envelope (section 5).

.....

In Sansone=s (column 6, lines 40 to 50) system, information indicating selection of desired services is input via a keyboard. However, as demonstrated by Tygar et al. (section 5), it is known that much information (including recipient address) can be read via a scanner and provided to a postage meter system just as easily as it can be input to such a system via a keyboard. There is no inventive ingenuity in merely adopting a known system and replacing one of its elements with another element known to be used for such a purpose.<sup>1</sup>

.....

The correspondence (pages 2 to 3) suggests and the present application (page 3, lines 1 to 7) states that the presently claimed subject matter solves the problem of providing a closed system meter with access to sender and recipient information. It is held that it would be obvious to a skilled workman that a coupled scanner would provide this information to a closed system meter just as well as it would to an open system meter. The correspondence (pages 3 to 4) contends that this reasoning is impermissible, that the present application has identified the problem (i.e. how does one provide sender and recipient information to a closed system meter), and that this problem was previously unknown. In effect, the correspondence is contending the presently claimed subject matter should be patentable because it discloses an inventive problem. However, to teach an invention an application cannot merely name some previously undefined problem and present a solution - the application must teach an inventive solution to a problem, whether that problem has been previously defined or not. [emphasis added]

[17] The Examiner later stated:

The issue, as it is usually worded, is not whether or not a skilled but unimaginative workman would, in light of the state of the art and common general knowledge, come directly to the problem, but whether or not they would come to the solution. [emphasis added]

[18] At this point, the Board would add a few comments with a view to providing some context to the terms used by the Examiner. With respect to the emphasized passages, concerning the Examiner=s position that in order for a claimed invention to be considered unobvious it must relate to a solution to a problem, which solution must be inventive, we would agree with this sentiment, providing it is understood that Asolution@ can encompass not only the implementation of an idea in terms of a practical embodiment, but also the underlying idea itself.

[19] In *Diversified Products Corp. v. Tye-Sil Corp.* (1991), 35 C.P.R. (3d) 350 (F.C.A.), Décary J.A. clarified, at para. 41, what was meant by the expression Asolution taught@ as it appeared in the test for obviousness set out in *Beloit Canada Ltd. v. Valmet Oy* (1986), 8 C.P.R. (3d) 289 (F.C.A.), which case would appear to be the basis of the Examiner=s statement noted at para. 17, above. Décary J.A. stated:

[t]he words "solution taught" refer not only to the suggestion of the way of carrying out the objective, but also to the conception of the objective. From the moment it is established that a technician skilled in the art but having no scintilla of imagination would not by himself have been able to conceive what was conceived by the inventors, it matters not whether it was easy or not, afterwards, to suggest the way to carry it into effect.

[20] This is consistent with the following statement made by Maclean J. in the earlier case of *Canadian Gypsum Co. v. Gypsum, Lime & Alabastine, Canada, Ltd.*, [1931] Ex. C.R. 180 at para. 20:

As stated in the cases, the inventive ingenuity necessary to support a valid patent may be found in the underlying idea, or in the practical application of that idea, or in both. It may happen that the idea or conception is a meritorious one, but that once suggested, its application is very simple. Again, it may be that the idea is an obvious one, but that ingenuity is required to put it into practice. Or, again, the idea itself may have merit and the method of carrying it into practice also require inventive ingenuity.

[21] Returning to a summary of the Examiner=s position, he goes on to state:

In any case, Sansone (figure 5; column 6) already teaches the problem (i.e. how to provide information to a closed system meter) and a solution (i.e. have a user input the information via a keyboard; Tygar et al. (section 5) teaches alternative solutions (i.e. the sender and recipient information can be read from computer memory, it can be read from the envelope by a scanner, or it can be input via a keyboard).

### **Applicant=s Position**

[22] In response to the Final Action, the Applicant argued in part that:

As argued in Applicant=s Response dated July 14, 2004, the present invention is directed towards a closed system metering device that is capable of selecting and accounting for value-added services. Before an indicium is printed on a mailpiece, a scanner is used to scan information, including recipient address information, printed on a mailpiece. The metering device can then generate an indicium that includes at least some part of the recipient address information. The inclusion of the recipient address information in the closed system indicium makes the detection of duplicate indicia much easier. Additionally, requests for value-added services are automatically detected and accounted for based upon the information scanned from the mailpiece. Such functionality of a closed system metering device has not been possible prior to the present invention.

.....

... in Sansone, a personal computer 50 is necessary to receive user inputs, determine if value-added service[s] are desired, and generate graphics therefore, which are then transferred to the meter 52 using a plug-in memory card 58. There is no disclosure, teaching or suggestion in Sansone of coupling a scanning device to a closed system meter, or scanning information, including recipient address, printed on a mailpiece as in the present invention.

The Tygar et al. reference fails to advance the Examiner=s rejection of the claims as Tygar et al. is clearly directed to an open system meter that generates a cryptographic stamp. Since open system postage meters, such as PC meters, have access to sender and recipient address information for each mailpiece, they have the capability of performing additional functions that are not available for closed system postage meters. For example, open system meters can perform address cleansing and other value-added services. Conventional closed system meters do not have such capability (see the specification, page 2).

[23] After quoting from the Final Action, the Applicant goes on to say (our emphasis added) :

The Examiner is suggesting that, when presented with the problem, one of ordinary skill in the art would arrive at the present invention given the prior art cited. However, prior to the teachings of the present application, there was no suggestion of a problem - those who wanted physical security used a closed system meter and those who wanted security by encryption and access to additional features used an open system meter. It had been the observation of the Applicant that improvements can be made in the art. The impetus has been provided by the Applicant, and one improvement posed in this application on the basis of the same is the elimination of having closed system indicia printed by closed systems. This, in no way, is provided by any combination of the cited prior art. Furthermore, the step of Acoupling a scanning device to a closed system postage meter@, as claimed, still does not result in an open system postage meter. It is still a closed system meter, and generally unable to act as an open system meter, because accounting and printing are still securely linked.

[24] The Board would question the passage highlighted above, since Applicant=s own description sets forth a discussion of what it calls Adigital printing postage meters@. At page 2, lines 19-24, it is stated:

Digital printing postage meters, which are closed system postage meters, typically include a digital printer coupled to a metering (accounting) device, which is referred to herein as a postal security device (PSD). Digital printing postage meters have removed the need for physical inspection by cryptographically securing the link between the accounting and printing mechanisms.

[25] Based on this disclosure we are not certain that it follows that Aphysical security@ is necessarily a reason one would choose a Aclosed system@, since as stated above, physical inspection is no longer necessary when the link between the accounting and printing mechanisms has been cryptographically secured.

[26] The Applicant further states:

The Examiner is utilizing the present application to identify the problem and conclude that the present invention would have been obvious. There is no disclosure, teaching or suggestion in any of the references cited by the Examiner of either the problem addressed or the solution as presented in the present application. ....

Without using the present claims as a road map, it would not have been obvious to make the multiple, selective modifications needed to arrive at the claimed invention from these references. The rejection uses impermissible hindsight to reconstruct the present invention from these references.

.....

It has already been argued that one cannot pick and choose portions of references in order to piece together each of the elements of the claimed invention in asserting that a claim would have been obvious to one skilled in the art at the time of the invention. Rather, the Examiner must look at the teachings of each of the pieces of prior art as a whole. It is not enough to assemble prior art and point to individual features here and there in the assembled prior art and assert that each of these individual features could be assembled into the claims of the application (*Mahurkar v. Vas-Cath of Canada Ltd.* (1988) 18 CPR (3d) 417 at 432-436 (FCTD), *affd* (1990), 32 CPR (3d) 409 (FCA)).

It is therefore believed that not only is the problem previously undefined, the present solution to the previously undefined problem is itself inventive. This is in stark contrast to the Examiner=s assertions.

[27] The Board must also be careful not to form an indiscriminate mosaic of features from the prior art when assessing the obviousness of Applicant=s claims. However, it is also to be noted that when considering the obviousness of an invention, it is permissible to look at the cumulative effect of the prior art (see *DeFrees and Betts Machine Co. v. Dominion Auto Accessories Ltd.*, [1964] Ex. C.R. 331; *Windsurfing International Inc. v. Trilantic Corp.* (1985), 8 C.P.R. (3d) 241 (F.C.A.)).

### **Obviousness: Legal Principles**

[28] Section 28.3 of the *Patent Act* sets out the conditions under which a claim may be found to be obvious:

28.3 The subject-matter defined by a claim in an application for a patent in Canada must be subject-matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard

to

(a) information disclosed more than one year before the filing date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant in such a manner that the information became available to the public in Canada or elsewhere; and

(b) information disclosed before the claim date by a person not mentioned in paragraph (a) in such a manner that the information became available to the public in Canada or elsewhere.

- [29] An oft cited guide for assessing obviousness in Canada is the one recited by Hugessen J. in *Beloit Canada Ltd. v. Valmet Oy* (1986), 8 C.P.R. (3d) 289 at 294 (F.C.A.); rev=g (1984),  
78 C.P.R. (2d) 1 (F.C.T.D.):

The test for obviousness is not to ask what competent inventors did or would have done to solve the problem. Inventors are by definition inventive. The classical touchstone for obviousness is the technician skilled in the art but having no scintilla of inventiveness or imagination; a paragon of deduction and dexterity, wholly devoid of intuition; a triumph of the left hemisphere over the right. The question to be asked is whether this mythical creature (the man in the Clapham omnibus of patent law) would, in light of the state of the art and of common general knowledge as at the claimed date of the invention, have come directly and without difficulty to the solution taught by the patent. It is a very difficult test to satisfy.

- [30] More recently, in *Novopharm Limited v. Janssen-Ortho Inc.*, 2007 FCA 217, the Federal Court of Appeal endorsed an edited list of factors enunciated by Justice Hughes to be considered when assessing obviousness. They were stated as follows:

**Principal Factors**

1. The invention

What is in issue is the patent claim as construed by the Court.

2. The hypothetical skilled person referred to in the Beloit quotation

It is necessary to identify the skills possessed by the hypothetical person of ordinary skill in the art.

3. The body of knowledge of the person of ordinary skill in the art

The common knowledge of the hypothetical person of ordinary skill in the art includes what the person may reasonably be expected to know and to be able to find out. The hypothetical skilled person is assumed to be reasonably diligent in keeping up with advances in the field to which the patent relates (Whirlpool at paragraph 74). The presumed knowledge of the hypothetical skilled person undergoes continuous evolution and growth. Not all knowledge is found in print form. On the other hand, not all knowledge that has been written down becomes part of the knowledge that a person of ordinary skill in the art is expected to know or find.

4. The climate in the relevant field at the time the alleged invention was made

The general state of the art includes not only knowledge and information but also attitudes, trends, prejudices and expectations.

5. The motivation in existence at the time [of] the alleged invention to solve a recognized problem

"Motivation" in this context may mean the reason why the claimed inventor made the claimed invention, or it may mean the reason why one might reasonably expect the hypothetical person of ordinary skill in the art to combine elements of the prior art to come up with the claimed invention. If within the relevant field there is a specific problem that everyone in the field is trying to solve (a general motivation), it may be more likely that the solution, once found, required inventive ingenuity. On the other hand, if there is a problem that only the claimed inventor is trying to solve (a unique or personal motivation), and no one else has a reason to address that problem, it may be more likely that the solution required inventive ingenuity. However, if commonplace thought and techniques can come up with a solution, there may be a reduced possibility that the solution required inventive ingenuity.

6. The time and effort involved in the invention

The length of time and expense involved in the invention may be indicators of inventive

ingenuity, but they are not determinative because an invention may be the result of a lucky hit, or the uninventive application of routine techniques, however time consuming and expensive they may be. If the decisions made in arriving at the solution are few and commonplace, that may indicate that no inventive ingenuity was required to arrive at the solution. If the points for decision were many and choices abundant, there may be inventiveness in making the proper decisions and choices.

#### **Secondary factors**

These factors may be relevant but generally bear less weight because they relate to facts arising after the date of the alleged invention.

#### 7. Commercial success

Was the subject of the invention quickly and anxiously received by relevant consumers? This may reflect a fact that many persons were motivated to fill the commercial market, which may suggest inventive ingenuity. However, it may also reflect things other than inventive ingenuity such as marketing skills, market power and features other than the invention.

#### 8. Meritorious awards

Awards directed to the alleged invention may be recognition that the appropriate community of persons skilled in the art believed that activity to be something of merit. That may or may not say anything about inventive ingenuity.

[31] The Board notes that in the Final Action, the Examiner referred to the decision of *Langlois v. Roy* (1941), 1 C.P.R. 63 (Ex. Ct.) and the Examiner then stated:

There is no inventive ingenuity in merely adopting a known system and replacing one of its elements with another element known to be used for such a purpose.

[32] The Board has read this case and would comment that the Examiner=s statement is not a quotation from the decision in that case, but rather would appear to be an interpretation of the Court=s words. Therefore, it cannot be considered as expressing any general statement of law.



[33] We would add that even if this statement had been made by the Court in that case, an application of a test expressed in this particular form would not be determinative of the issue of obviousness in the present case. As obviousness is a question of fact (i.e. the determination of which rests on the evidence adduced), such statements expressed by the courts in cases involving assessments of obviousness must be considered in the context of the facts of the particular case, and should not be applied rigidly in other cases involving obviousness that are based on completely different sets of facts.

[34] In *Baldry v. McBain*, [1935] 4 D.L.R. 160 (Man. C.A.), Trueman J.A made the following comments at para. 19, which, although they were part of the dissenting opinion in the case, appear to the Board as sound advice in considering such matters:

What constitutes invention has often been defined and in many forms, some of which appear to have been framed to suit the exigencies of the inquiry in which they were applied. In so far as they lay down a test and rest on principle they are authoritative. The question, however, is always one of fact in which every element has its place, making it necessary, if at all possible, to keep one=s self detached from an arbitrary opinion through the application of a definition related to different circumstances.

[35] More recently in *Novopharm, supra*, Sharlow J. reiterated the caution of Justice Hughes that coined phrases or expressions from particular cases are not to be taken as though they are rules of law:

In this regard phrases such as Aworth a try@ and Adirectly and without difficulty@ and Aroutine testing@ have been used by the courts. It is not useful to use such phrases as they tend to work their way into expressions of law or statements of expert witnesses. Sachs L.J. deprecated the coining of such phrases in *General Tire & Rubber Company v. Firestone Tyre & Rubber Company Limited*, [1972]

[36] While statements made by the courts in cases involving the question of obviousness may be helpful in providing some general guidance, caution must be exercised in utilizing a statement from a decision based on obviousness beyond the circumstances of the case to which the statement relates. The use of such a statement must take into account the context in which it is made.

[37] Further, the Board would highlight the Examiner's inclusion of the term *Amerely* in the aforementioned statement. We conclude from this that the Examiner is not generalizing that there can never be invention in adopting a known system and replacing one of its elements with another element known to be used for such a purpose, only that there is no inventive ingenuity in *merely* doing so. This distinction being made, we see nothing wrong with the statement. One can easily envision situations in which such a modification could involve inventive ingenuity, such as a case where the new element not only performs the function of the element for which it was substituted, but also performs another function, by another mode of operation, or develops new uses and properties of the article formed. Another example would be a situation where the application of an idea, in order to put it into practice, involved practical difficulties that required inventive ingenuity to overcome. In both of these examples, the modification would be considered as more than *Amerely* replacing an element in a system with another known element. Of course, in such situations, an assessment as to whether or not an invention was obvious would depend on the particular facts of a given case.

## **Analysis**

[38] The Sansone reference is directed towards a postage metering system whose objective is to eliminate the use of gummed series of stickers and completion of forms by hand. In achieving this objective the fixed graphic cartridge of a standardized digital postage meter is replaced with an addressable *Aram* image card which allows for the printing of special graphics images in accordance with any selected value-added services, such as

priority mail, certified mail, and registered mail (see col. 1, lines 36-42). This embodiment describes the uses of the invention in accordance with a Aclosed system@ postage meter. Alternatively, such a system may be used with a personal computer coupled to a postal security device (i.e. Aopen system@) (see col. 1, lines 42-45).

- [39] As indicated by the Examiner, Sansone at col. 4, line 23 to col. 5, line 14, and in association with Figure 5, describes the embodiment which uses a closed system postage meter which makes provision for the use of requested value-added services. The system comprises a postage meter 52 which includes a user input/output device 53, a funds vault 54, an accounting and graphics module 55, which is used to print evidence of postage payment and graphics representing selected value-added services, and a printer 56 that is coupled to the user input/output device 53. As seen in Figure 5, this printer 56 is dedicated to the digital postage meter. It is stated at col. 4, lines 47-48 that printer 56:

prints indicia 14, certified mail graphic 33 and  
advertising slogan 20 on mail piece 11.

- [40] Two other printers are present in the overall system, one for printing postal forms associated with the value-added services (60), and the other for printing mail piece contents, recipient address and sender address (51).

- [41] The indicium that is to be created by such a system which uses a postal meter is described at col. 3, lines 21-27. The indicia contains:

a dollar amount 15, the date 16, that postal indicia [14]  
was affixed to mail piece 11, the place 17 that mailpiece  
was mailed, the postal meter serial number 18, an eagle  
3, and a security code 19. Security code 19 is a unique  
number that is derived from address field 12 and  
information contained in the postage meter that affixed  
indicia 14.

- [42] Sansone refers the reader to United States Patent No. 4,831,555 to learn how such a security code is to be derived. A look at

the >555 Patent reveals that the security code is an encrypted code which links the mailpiece to the recipient, along with containing other information.

[43] How such a closed system would function is discussed beginning at col. 6, line 8 and ends at col. 13, line 4. The gist of this discussion for our purposes is that in this system information concerning sender and recipient addresses and selection of value-added services is input to the system via the user's computer 50, which then uses the information to create the encrypted security code 19, which is then incorporated into the indicium, along with any graphics related to value-added services, which then is to be printed on the mailpiece. Both postage and requests for value-added services are accounted for in the accounting module of the postal meter.

[44] In comparison with claim 1, Sansone already disclosed the input of information concerning recipient address and selection of value-added services, and given that value-added services are accounted for, a determination is made as to their selection. As discussed earlier in relation to the scope of claim 1, the desire as to value-added services in the Adetermining@ step may be manually indicated or indicated automatically based on the information scanned from the envelope. Since Sansone discloses manual selection, this would fall within the language of this step. It is worthwhile pointing out that, in general, if a claim is so broad as to encompass non-obvious embodiments as well as obvious embodiments, it is unpatentable in view of s. 28.3 of the *Patent Act*. Sansone also, as is evident from the indicium created, combines the recipient address with other information to form an encrypted indicium which is printed on the mailpiece along with any graphical representation of the value-added services.

[45] At this point in the analysis, it is important to note that comparing the subject matter of claim 1 to the disclosure by Sansone, the only difference that appears to be present is the manner in which information is input to the closed system meter. In claim 1 the information is acquired via a scanning device. In Sansone it is taken from information input via a keyboard

of a computer which is then stored in the computer memory. In regard to the patentability of claim 1, this begs the question of whether obtaining the information through scanning the mailpiece instead of using information input via a computer would have been obvious. The Examiner has applied the further reference to Tygar et al. with the contention that it would have been.

[46] Looking to Tygar et al., this reference proposes a system whereby electronic stamps, or cryptographic stamps, are created in order to avoid the deficiencies in traditional postage meters. At page 1 these deficiencies are highlighted as:

1. The postage meter recorded credit may be tampered with, giving the user postage not paid for
2. The postage meter stamp may be forged or copied
3. A valid postage meter may be used by an unauthorized person; and
4. A postage meter may be stolen.

[47] A typical meter is described on page 1:

Each postage meter is sealed with a postage credit by a post office; as each letter is stamped, the amount is deducted from the machine=s credit.

[48] A typical stamp is illustrated at Figure 1 of this reference. It is clear that this illustrates a stamp printed by a traditional closed system meter with a secure link between printing and accounting, given that the stamp does not use any encryption, or create any link between the mailpiece and the stamp. Tygar et al. also speaks of sealed meters in the above quoted passage, which would refer to closed system meters, consistent with Applicant=s own terminology. Tygar et al. propose moving away from the traditional systems that use a non-secure stamp, towards a system that uses a cryptographically formed stamp, which change, as disclosed at page 3, provides a crucial property:

a malicious user may copy a stamp, but any attempts to *modify* it will be detected.

[49] To produce such a stamp, Tygar et al. state at page 3 that:

we encode as part of the stamp all the information relevant to the delivery of the particular piece of mail—e.g. the return as well as the destination address, the amount of postage, and class of mail, etc. — as well as other identifying information, such as the serial number of the postage meter, a serial number for the stamp, and the date/time (a *timestamp*). All of the information is digitally encoded and then signed cryptographically, preventing forgeries. This information along with the cryptographic signature is put into a barcode format printed via a laser printer.

[50] Tygar et al. seem to focus on an open type system in view of the use of Accommodity® or After-market® laser printers (see page 3), where it is not necessary to have a dedicated printer associated with the metering component. This would seem to have been a natural result of using a cryptographic stamp which links the stamp with the particular mailpiece, since the special security of a closed system is no longer necessary if the stamp itself is secure. Applicant's own description at page 2 highlights the known advantages of additional system functionality in an open system in comparison to a closed system.

[51] At page 11 of this reference, Personal Computer Based Postage Meters are discussed and the components necessary are outlined:

The equipment required for our electronic postage meter is a secure coprocessor, a PC (which serves as the host for the coprocessor), a laser printer, a modem, and optionally an optical character recognition (OCR) scanner and/or a network interface.

.....

The basic idea is simple: we obtain the destination and return addresses and weight/delivery class from the user—directly from the word processor running on the user's own PC via the local network, by using OCR software and reading directly from the envelope, or by direct user input at the keyboard — and request a cryptographic stamp from the secure coprocessor. The secure coprocessor

lowers the credit value inside it, and generates a cryptographically signed message containing the value of the stamp, all of the addressing information, the date, the ID of the secure coprocessor, and other serial numbers. This message (a bit vector) is sent to the PC, which encodes it in a machine readable manner and prints it on the laser printer to be affixed to an envelope or package. Advanced bar coding technology such as PDF417 mentioned in Section 2 may be employed.

- [52] In the Tygar et al. system a secure coprocessor is used to store the cryptographic keys and perform the operations necessary to create a cryptographic stamp. On page 13, Tygar et al. further discuss how the stamp is to be protected:

Stamps, as mentioned in Section 2, must be cryptographically signed to prevent any alteration. This may be achieved using a public key system such as RSA[25], the Rabin function [23], or the recently proposed Digital Signature Standard [16], either alone or in conjunction with a cryptographic hash function [13, 24, 15].

Cryptographic stamps consist of the cryptographic signature of the source and destination addresses (full addresses, not just ZIP+4), hierarchal authorization number (ID of authorizing post office computer), postage meter serial number, stamp sequence number, amount of postage and postage class, and the time and date.

- [53] The Tygar et al. reference, being dated in 1993, represents an early proposal to secure postage indicia by including in such indicia, information regarding the sender or recipient address, as well as other information, which thereby links the indicia or Astamp@ with the particular mailpiece. Although Tygar et al. contemplates the use of an open system meter, it also discloses generally how to create a cryptographic stamp, which seems to be the main focus of this document. Tygar et al. is concerned with stamp security in general and proposes a means to achieve enhanced security, namely a cryptographic stamp. In doing so, this reference also discusses various ways of obtaining the information necessary to create a secure stamp, namely from a wordprocessor, by using OCR software with a scanner, or by input at a keyboard.

[54] When the Board looks at Sansone and Tygar et al. in combination, the issue becomes whether it would have been obvious to modify a closed system meter such as that described by Sansone, by changing the method of inputting information to the meter in accordance with the teachings of Tygar et al. Although the Sansone reference proposes a closed system meter with a PC based interface, the basics of creating a cryptographic stamp were already disclosed some years earlier by Tygar et al., particularly, how the information necessary to create such a stamp might be collected, one of them being by using OCR software with a scanner, as is the case in Applicant=s claim 1. Given that the person skilled in the art was already informed by Tygar et al. of the various means of collecting the information necessary to form a cryptographic stamp, the modification of a closed system meter, such as that of Sansone, to use one of the other known alternatives, with the expected results, cannot be considered an inventive step. The disclosure by Tygar et al. of the use of a keyboard, OCR software, or a local network for obtaining information regarding the addressee points to the interchangeability of these sources for obtaining input data.

[55] The modification of using an OCR/scanning system would have been merely a choice of one of a finite number of options which were already available to the public. Further, there is no evidence presented which illustrates that anything unexpected would result from such a choice, or that there would be any difficulties in implementing such a choice. Applicant=s own description gives little, if any, direction to the skilled person in modifying the closed system meter to include a scanning device. Presumably, if there had been any practical difficulties to be overcome in modifying the meter, the Applicant=s specification would have included a full description of how such difficulties were overcome.

[56] It is stated at page 3 of the present application that:

It has been found that closed system meters can print an open system indicium by scanning addressee information printed on a mailpiece before generating the indicium.

[57] However, it was already disclosed by Tygar et al. that in general



cryptographic or Aopen system indicia<sup>6</sup> could be created by scanning address information from a mailpiece. Whether this is done as part of a closed or open system would not seem to be a distinguishing feature. In fact, Sansone had already disclosed a closed system, which, being provided with the necessary information, printed open system indicia.

[58] One might attempt to argue that if a scanning device was used to collect the information necessary to create a cryptographic stamp, that the device of Sansone would not continue to function as intended, for example, enabling selective accounting of value-added services, since there would be no provision for selecting such features. However, using a scanning device to collect the information necessary to create the cryptographic stamp in Sansone would not mean that there would be no other means of inputting information to the mailing system. This merely changes how address information would be collected, and does not preclude inclusion of other input interfaces, such as the one which Sansone already possesses.

[59] Applicant's invention itself, as disclosed (see for example page 8, lines 1-5), contemplates a separate manual selection of the value-added services required, which would require a separate input device. This is within the scope of claim 1 where the step of Adetermining if value-added services are desired<sup>6</sup> is recited. This reference to Applicant's system is not for the purpose of using information from Applicant's own disclosure to show obviousness, but merely to illustrate that the modification of Sansone would not result in a device which would fail to function as intended. As disclosed by the Applicant, the determination may be made automatically based on information taken from the mailpiece during scanning, or it may be determined based on a manual selection made by the user. Using the known option from Tygar et al. of collecting information necessary to create a cryptographic stamp by using a scanning device would still leave the Sansone system with the interface necessary to select the desired value-added services, as is the case in Applicant's system. Whether or not to exercise the option of using a scanning device to collect the necessary information was a choice which was given to the public

by Tygar et al., and it should be beyond the reach of anyone to rely on this choice as a feature of patentable distinction.

[60] Applicant has argued in the response to the Final Action that:

It had been the observation of the Applicant, that improvements can be made in the art. The impetus has been provided by the Applicant, and one improvement posed in this application on the basis of the same is the elimination of having closed system indicia printed by closed systems.

[61] With respect, it is clear to the Board that the reference to Sansone already disclosed the printing of open system indicia(i.e. cryptographic) by closed systems. Further, it is clear to the Board that the earlier disclosure of Tygar et al. provided plenty of impetus, or Amotivation@ as it was termed in *Novopharm Limited v. Janssen-Ortho Inc.*, *supra*, to move away from closed system indicia. Applicant has merely substituted one known method of collecting the information necessary to create a cryptographic stamp for another, with the expected results. Consequently, the Board believes that the person skilled in the art would have come directly and without difficulty to the invention defined by claim 1, in accordance with the guidance set out in *Beloit v. Valmet Oy*, *supra*.

[62] Looking to claim 2, this claim specifies that the addressing information which is read by a bar code reader as the scanning device, is printed in bar code format. Although the prior art applied by the Examiner does not disclose the printing of the address information in bar code format, it is noted by the Board that printing the address information in bar code format is only one alternative that Applicant has disclosed, it however being the preferred one. At page 6 it is stated:

Scanner 120 preferably is a barcode scanner for scanning addressee information printed on envelope 20 in barcode format. Alternatively, scanner 120 may be an OCR reader for reading the alphanumeric addressee information printed on envelope 20.

[63] It is clear from the description that Applicant makes no claims

that any special type of barcode scanner or barcode encoding system has been created. Given that this appears to be a known alternative or equivalent means of collecting the information to the known method of scanning and OCR recognition disclosed by Tygar et al., the Board does not consider its particular use as being inventive. The Board believes that such a choice would have been within the purview of the skilled person.

[64] Claim 3 specifies that the cryptographic evidencing of postage payment is in the form of a digital signature. As previously noted, the Tygar et al. reference clearly proposes at page 13 the use of a digitally signed electronic stamp.

[65] Claim 4 specifies examples of information that may be included in the indicium. Such information is disclosed as being useful for a cryptographic stamp by Sansone at col. 3, lines 20-24, and by Tygar et al. at page 13.

[66] Claim 5 specifies that the determining step of claim 1 includes manual selection of desired value-added services from a displayed menu. As previously discussed, such an interface was disclosed by Sansone (see e.g. col. 6, line 40 - col. 7, line 23).

[67] Claim 6, as opposed to claim 5, specifies that value-added services are *automatically* selected based on information scanned from the envelope. Although several methods of obtaining the information necessary to create a cryptographic stamp have been shown by the prior art, namely by PC based input, scanning, or via a separate keyboard, there is no suggestion in any of the references, nor can the Board say that it would have been common general knowledge, to select value-added services automatically based on information scanned from a mailpiece. Applicant has described how this step would be implemented, for example as specified beginning at page 11, line 14. While Sansone discloses manual selection of value-added services, which falls within the language of claims 1 and 5, there is no suggestion of automatic selection. Therefore, the Board concludes that claim 6 complies with section 28.3 of the *Patent Act*.

[68] Looking to claim 7, this specifies particular value-added services, namely ad slogan/coupon brokering. However, as specified at col. 5, lines 1-6, Sansone previously disclosed the inclusion of ad slogans on a mailpiece as a possible value-added service request, along with others such as expedited delivery, trace and track, etc. at col. 7, lines 20-24. The Board does not consider claim 7 to introduce a distinguishing feature.

[69] Regarding claim 8, as previously noted, this claim differs from claim 1 in that it includes a Ameans ... for selecting value-added services corresponding to the envelope@, which, as noted earlier, encompasses a manual selection interface, and claim 8 omits the cryptographic treatment of the information in the indicium. Sansone also discloses a Ameans@ for selecting value-added services corresponding to the envelope in the form of the PC based interface, where the user may select value-added services for the particular mailpiece. Therefore the Board believes that claim 8 would have been obvious as well.

[70] Claim 9 specifies that the information in the indicium is cryptographically treated, which has been disclosed by both Sansone and Tygar et al.. This therefore cannot be considered a distinguishing feature.

[71] Regarding claim 10, for the reasons given in relation to claim 2, this claim is considered to have been obvious as well.

[72] Regarding claim 11, such features have been disclosed by Tygar et al., as noted earlier, and therefore due not represent inventive aspects.

[73] Regarding claim 12, this specifies that the closed system meter is operatively coupled to a mailing machine. In Applicant=s description this incorporation of the closed system meter into a mailing machine is specified as a preferred embodiment. No specific details of such a mailing machine are given other than that it seems to comprise the elements necessary for Applicant=s closed meter system to function as desired and previously

claimed (e.g. scanner, digital printer, etc.), in some type of bulk processing manner. Since bulk processing of mail has been widely known, such a system would not seem to have been inventive. It is also noted that in the Sansone reference at col. 4, lines 31 to 32, a user input/output device 53 is specified which receives the mailpiece for imprinting with the necessary indicia. Further, claim 12 merely claims the closed system meter with a mailing machine, with no features characterizing the mailing machine. The mere claiming of the meter with some undefined Amailing machine@ cannot patentably distinguish over the prior art. The Board therefore believes that the incorporation of a postage meter in a mailing machine would have been obvious to the skilled person.

[74] Consequently, the Board believes that claims 1-5 and 7-12 would have been obvious in view of the disclosures of Sansone and Tygar et al. taken together.

**RECOMMENDATIONS**

[75] The Board recommends that:

- (1) the Examiner=s rejection of claims 1-5 and 7-12 as being obvious in view of Sansone and Tygar et al. be upheld, and
- (2) the Examiner=s rejection of claim 6 as being obvious in view of Sansone and Tygar et al. be reversed.

[76] Accordingly, the Board also recommends that the Commissioner:

- (1) inform the Applicant, in accordance with paragraph 31(c) of the *Patent Rules*, that the following amendments of the application are necessary for compliance with the *Patent Act*:
  - \$ deletion of claims 1-5 and 7-12;
- (2) invite the applicant to make the above amendments within three months from the date of the Commissioner=s decision; and
- (3) advise the Applicant that if the above amendments, and only the above amendments, are not made within the specified time, the Commissioner intends to refuse the application.

Stephen MacNeil  
Member

Paul Sabharwal  
Member

Paul Fitzner  
Member

[77] I concur with the findings and recommendations of the Patent Appeal Board. Accordingly, I invite the applicant to make the above amendments, and only the above amendments, within three months from the date of this decision, failing which I intend to refuse the application.

Mary Carman  
Commissioner of Patents

Dated at Gatineau, Quebec,  
this 21st day of May, 2008