

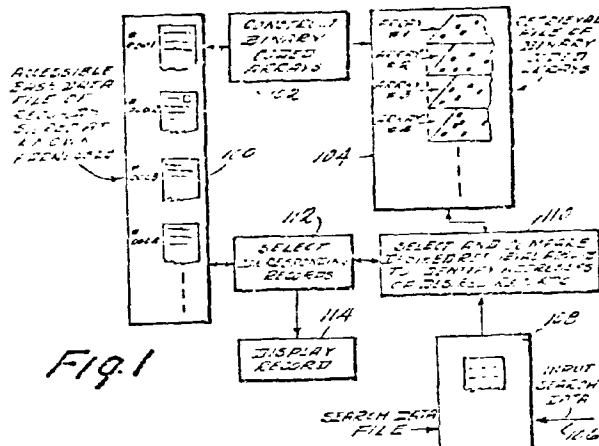
COMMISSIONER'S DECISION

Sec. 2 Patentable Subject Matter: The method and apparatus were found to describe a system of elements to store and retrieve particular information and of means to extract certain arrays. The claims were sufficiently directed to the subject matter disclosed.

Rejection withdrawn.

This decision deals with Applicant's request for review by the Commissioner of the Final Action on application 217,334 (Class 354-121) entitled METHOD AND APPARATUS FOR INFORMATION STORAGE AND RETRIEVAL and assigned to Dissly Research Corporation. The inventors are Donald D. Dissly and Ronald J. Blanchard. The Examiner in charge issued a Final Action refusing to allow the application. A Hearing was held at which applicant was represented by his Patent Agent, Mr. H. C. Baker.

The application relates to an information storage and retrieval system for identifying desired information bearing records from a set of records located in a base data file, as illustrated in figure 1 reproduced below. Each record contains certain predetermined identifiable characteristics, herein-after PIC. A retrieval file (104) includes and maintains arrays of information in the form of binary coded elements which are produced (102) from the information content of the base data file (100). Each array corresponds to a particular PIC which may be present in the set of stored records, and each element in the array is representative of the location of a particular item in the base data file. To locate a record, the retrieval file is searched by selecting those arrays (112) representing desired PIC and comparing the binary values of the elements in the selected arrays (110). The identified record is then extracted (110) and made available e.g. in display form (114).



In the Final Action the Examiner rejected the application as being directed to non-statutory subject matter in view of Section 2 of the Patent Act, because the novelty of "...all three embodiments...lies in an algorithm or program...". The Examiner referred to the embodiments (in part) as follows:

...

...Figure 5 comprises a programmed computer with associated peripheral equipment... This equipment is not novel per se and the structure and functioning is apparent to those in the art... The programmed computer is enabled to cooperate with the associated peripheral equipment by programming the computer... The peripheral equipment is not industrial equipment controlled by the computer but rather is data processing apparatus normally associated with computers i.e. magnetic disc drives and storage units, a display and keyboard input/output unit, etc...

...

...input data is converted under program control into a retrievable data base file and a retrieval file... Once these two files...are constructed the system searches and retrieves information from the data base under program control...

Thus the embodiment disclosed with respect to figure 5 is directed to a data processor programmed in a novel manner where the novelty lies solely in the program. The alternative embodiment shown in figure 6 only differs from Figure 5 in that the computer interfaces with a film image storage device holding the data base file of records rather than interfacing with a magnetic disc for access to this file. Figure 6 therefore also depends for its novelty on the programs referred to above with respect to Figure 5.

The embodiment disclosed with reference to figure 85 performs the same function as the apparatus of Figure 5 using apparatus which may be controlled manually or by a computer using the programs referenced...

...

In that Action the Examiner also commented on the Commissioner's Decision reported in the C.P.O.R. August 1, 1978, (in part) as follows:

...

...Applicant is advised that the criteria recommended on page XXXVI of the C.P.O.R. of August 1, 1978 were in fact adopted by the Commissioner.

...Reference to page 43 lines 14 to 29 shows that the computer apparatus corresponding to the best mode is not novel. The apparatus claims therefore come under guideline 3 on page XXVI of the C.P.O.R. of August 1, 1978. The process claims carried out by the referred to computer programs come under guideline 2. The alternative embodiment of Figures 85 to 91 is also not novel apparatus but rather is known data processing apparatus controllable by a computer using the programs referenced on pages 207 and 208...

...

In presenting his reasons to justify the patentability of the application, the Applicant argued (in part):

...

Provided that the invention defined by the applicant's claims fall within one of the categories of invention as defined in Section 2, and provided further that the applicant's invention does not fall within the prohibitions of Section 28(3), or within any of the judicially defined prohibitions, such as surgical procedures (Tennessee Eastman vs. the Commissioner of Patents 8 C.P.R. (2nd), or land subdivision techniques (Lawson vs. the Commissioner of Patents 62 C.P.R. 101), it must be concluded that the applicant's invention is patentable.

Two issues remain thus to be decided, firstly are the new criteria recommended on page XXVI of the C.P.O.R. of August 1st, 1978, in accordance with Canadian Law, and assuming that the guidelines do accord with Canadian law, do the claims of the present application violate these criteria?

...

We submit to you that the claims of the present application are not directed to a computer programed in a novel manner expressed in any and all modes. Moreover we also submit that the novelty of the present invention must be assumed in the absence of the citation of any prior art during the rather abbreviated prosecution of the present application.

The issues before the Board are whether or not the application and the claimed embodiments are directed to patentable subject matter. Claim 1 reads:

An information storage and retrieval system comprising:

- a set of stored information bearing records having information stored in a language format which, at least in part, has intelligent meaning because of particular groupings of characters or symbols therein,

- each of said records being disposed at a predetermined address or location,

- a stored retrieval file for facilitating the retrieval of particular desired records from said set of information bearing records, said retrieval file comprising a plurality of arrays of binary coded elements,

- each of said arrays including predetermined elements individually and respectively corresponding to the addresses of each of said information bearing records,

- each of said arrays being formed to indicate the presence or absence of a predetermined identifiable characteristic of the language structure associated with the information content of each of said information bearing records, wherein said plurality of arrays constituting a comprehensive set of arrays correspond to a comprehensive set of said predetermined identifiable characteristic of language structure comprising substantially all such predetermined identifiable characteristics which are to be later utilized in searching for desired information bearing records, and each element in a given array being binary coded in a first manner to represent the presence in the respectively corresponding record of the predetermined identifiable characteristic of language structure corresponding to the given array and being binary coded in a second distinguishable manner to represent the absence in the respectively corresponding record of the predetermined identifiable characteristic of language structure corresponding to the given array

whereby particular desired records bearing certain desired information may be located and thus retrieved by first determining the subset of said predetermined identifiable characteristics present in said desired information and then examining the respectively corresponding subset of said arrays to determine the storage address or location of each stored record containing all of said subset of predetermined identifiable characteristics.

In applicant's response of July 27, 1979 to the Final Action he respectfully submitted, inter alia, that the Examiner had not unequivocally stated whether or not the guidelines published in the Patent Office record of August 1, 1978 were from a Commissioner's Decision. In Applicant's response of August 12, 1981, he

indicates that he has reviewed the decision of the Federal Court of Appeal in Schlumberger v. Commissioner of Patents 56 C.P.R. (2d) 206 (1981). We note that guidelines are referred to in the prosecution leading to that court case which are the same as those published in August 1978. We add also that subsequent to Applicant's response of August 12, 1981, the Supreme Court of Canada dismissed Schlumberger's leave of Appeal. We note further the guidelines were not commented on by the courts.

In the Schlumberger decision, Pratte J. advised that it is necessary to determine what has been discovered according to the application, and thereafter to determine the nature of the discovery, and stated as follows:

I am of opinion that the fact that a computer is or should be used to implement discovery does not change the nature of that discovery. What the applicant claims as an invention here is merely the discovery that by making certain calculations according to certain formulae, useful information could be extracted from certain measurements. This is not, in my view, an invention within the meaning of Section 2.

and, I am of opinion that the fact that a computer is or should be used to implement discovery does not change the nature of that discovery.

We are guided by Schlumberger therefore to the view that subject matter which is merely directed to useful information, e.g. calculations, is not an invention within the meaning of Section 2 of the Act.

Applicant asserts that he has discovered and claimed a novel method of information storage and retrieval and has disclosed a suitable apparatus which includes various comparing and selecting components and a properly programmed computer which interact in an automated manner. He also contends the application and claims fall within the guidelines.

At the Hearing Mr. Baker discussed a concern raised in his response to the Final Action namely that the Examiner had rejected the application as a whole but had not specifically rejected any of the claims. He said the proper form for a rejection should be a rejection of claims rather than a rejection of the application totally, and in this regard Mr. Baker referred to the following court decisions, Tennessee Eastman v. The Commissioner of Patents 8 CPR (2nd), Shell Oil Co. v. The Commissioner of Patents 67 CPR (2nd) 1, and Monsanto Chemical Co. v. The Commissioner of Patents 42 C.P.R. 161. He also discussed the requirements set out in Section 36 (2) of the Act.

We will look at these three cases briefly in dealing with Mr. Baker's position on rejection of claims rather than the application. In the prosecution of the Tennessee Eastman case, the Examiner looked to all parts of the application, and in the Final Action was of the opinion that "...there remains no subject matter in the present application upon which the applicant can depend for patentability". The rejection was affirmed by Commissioner's Decision with the comment that the method did not constitute patentable subject matter under Section 2(d).

During the appeal through the courts, the parties agreed to a six-part statement of facts and issues. Briefly stated, part 4 isolated the issue before the Court, namely, the method, and part 6 confirmed that this was the only issue and the appeal would prevail or fall on that basis. The Supreme Court determined that a new surgical use of a known substance cannot be claimed as an invention under Section 2(d). The appeal was lost and by agreement the application then contained no other matter. It is noteworthy that the Court's finding hinged on an interpretation of "invention" as found in Section 2(d), and that no recourse was made to the wording of Section 36(2).

In the Shell Oil case, not all of the 12 claims of record were rejected and the Supreme Court reversed the Final Action. The patentability of the subject matter was not an issue in that case.

Turning next to the Monsanto Chemical case, only two of the claims were in issue. The Supreme Court reversed the rejection by the Examiner. Again, the application had not been rejected for lacking patentable matter but for support of claims.

Here, the Examiner rejects the application in the Final Action for being directed to non-statutory subject matter. He reasons the embodiments were directed to an algorithm or program, and the effect of allowing the application would be "to preempt an algorithm". He considers the embodiment shown in figures 85 to 91 to be known data processing apparatus controllable by a computer using programs described in the disclosure. He refers to five guidelines from a Commissioner's Decision published in the Patent Office record on August 1, 1978. These guidelines all deal with claims. Guidelines 1, 2, and 3 indicate what is not allowable, and 4 and 5 what is allowable. On page 4 of the Final Action the Examiner says the apparatus claims come under guidelines 3 and the process claims under guideline 2. After examining the embodiments and relating the claims to the matter disclosed, and also to the guidelines, the Examiner concludes by rejecting the application for being directed to non-statutory subject matter in view of Section 2 of the Act.

We see, therefore, the Examiner has considered all the embodiments in the disclosure and has found the apparatus and method claims wanting with respect to certain of the guidelines. From the three court cases advanced by Applicant we learn that rejections of an application and claims, or of claims only, have been made in the past, and we do not find direction in any of the three cases saying it is improper to reject an application outright. At the Hearing the Examiner explained that if he felt the subject matter of an application did not comply with the statutory requirements of Section 2 of the Act and could not be claimed then, in his view, a rejection of claims only would offer false hope that the application contained something patentable. During the discussion, it was also suggested that in the case of perpetual motion devices, it would appear to be proper to object to an application for not disclosing any patentable subject matter, and an objection to the claims would serve no purpose.

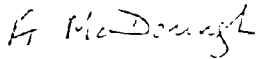
We view Sections 2 and 36 to be separate parts of the act, each having unique conditions which must be satisfied. Fulfilling the requirements of Section 36 does not automatically ensure the subject matter defined in the claims will fall within the category of patentable matter under Section 2. We are of the opinion after reviewing the Agent's arguments and the Examiner's Final Action that the rejection of the application by the Examiner may be considered as a proper action that includes a rejection of all the claims of the application. Its aptness in this particular case is another matter to which we will now address our remarks.

At the Hearing, Mr. Baker argued that Applicant has discovered and claimed a novel method of information storage and retrieval and has disclosed a suitable apparatus which includes various comparing and selecting components to align the desired PIC with those on file, in combination with a properly programmed computer to obtain interaction in an automated manner. From our reading of the application, we are in agreement with the Agent that it contains a sufficient description of the interworking of the elements to store and retrieve particular defined PIC, and of the means to extract certain arrays of information to achieve a useful storage and retrieval system. We find the system is more than mere calculations or a computer program, and therefore, we think it should be acceptable subject matter under Section 2 of the Patent Act.


We now deal with the claims, noting the only objection made to them was in view of guidelines 2 and 3 published in the Patent Office Record. Claims 1 and 20 were said to be representative of subject matter falling within guidelines 2 and 3. Claim 1 opens with a preamble calling for a storage and retrieval system and then recites a set of stored information bearing records disposed at a predetermined location, a stored retrieval file comprising a plurality of arrays of binary coded elements, each array corresponding to each of the predetermined locations of the information records, each element in an array being binary coded to indicate the presence as well as the absence of a desired PIC. The claim includes a whereby clause indicating a function of locating and retrieving by examining the arrays to determine the location of the desired stored record.

Method claim 20 includes steps outlining the system identified by claim 1. In our view, claims 1 and 20, and indeed all the claims are properly directed to the subject matter disclosed which, as we have said, we believe to be patentable. Accordingly, having found the subject matter acceptable under Section 2 of the Act, we find the claims are not open to objection thereunder.

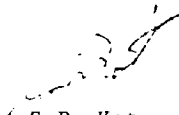
We recommend that the rejection of the application and the claims for being directed to non-patentable subject matter be withdrawn and the application be returned to the Examiner for continued prosecution.



A. McDonough
Chairman
Patent Appeal Board

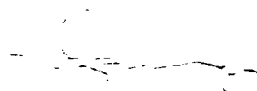


M.G. Brown
Assistant Chairman



S.D. Kot
Member

I concur with the findings and the recommendation of the Patent Appeal Board. Accordingly, I withdraw the Final Action and remand the application to the Examiner.



J.H.A. Gariépy
Commissioner of Patents

Dated at Hull, Quebec

this 2nd. day of October, 1984