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THE PATENTS ACT 1977

IN THE MATTER of Patent Application
No 8728023 in the name of
Sharp Kabushiki Kaisha

DECISION

Application No 8728023, entitled "Translation Machine System", was filed on 30 November 1987 and claimed priority from Japanese Patent Application No 61/284493 dated 28 November 1986. At substantive examination objection was raised that the claimed invention was excluded from patentability by Section 1(2)(c) of the Patents Act 1977 and, at the request of the applicant, a Hearing was appointed. Before the Hearing, on 14 August 1991, Mr Brown, an agent with R G C Jenkins & Co, the firm representing the applicants informed the office that they would not be attending the Hearing. I have therefore decided the matter on the basis of the correspondence.

The application is concerned with translation between two languages, the system operating in 3 modes - sentence translation, word translation and dictionary mode, the unifying inventive concept being that, when a mode is selected by the user, the system is automatically set to the correct input language.

There are three independent claims for consideration :-

> 1. A translation machine for translating from a first, input language into a second, target language and further adapted for performing a user dictionary routine which permits a user to store into said machine words of said first language in conjunction with the equivalent words of said second language, said machine comprising means for automatically setting the input language to a predetermined one of said first and second languages in response to the selection of said routine by said user.

2. A translation machine for translating a sentence from a first, input language into a second, target language and further adapted for performing a word translation routine for providing a plurality of possible words in said second language corresponding to a single word in said first language, said machine comprising means for automatically setting the input language to a predetermined one of said first and second languages in response to the selection of said word translation routine by said user.

3. A translation machine for translating a sentence from a first, input language into a second, target language, said machine comprising first and second screen areas respectively for displaying text input in said first language and the corresponding translated text in the second language, said machine further comprising means for permitting a user to select between said first and second screen areas and means for automatically setting the input language for subsequent input in accordance with which of said screen areas has been selected by said user.

Objection under Section 1(2)(c) was first raised in the second examination report under Section 18(3) dated 14 January 1991. The examiner argued:-

"In the Gale decision (unreported - dated 22 January 1990) Aldous J indicated how the two Court of Appeal decisions on Section 1(2) should be applied. He stated that:-

> "... the first task of the court is to construe the claim as that is where the invention is defined. If the claim properly construed is drafted so as to relate to any of the matters disqualified by Section 1(2) then the invention is not patentable. If however the claim is drafted to a process or technique or product and the basis of such process or technique or product is a disqualified matter, the court should go on to consider whether the claimed invention is in fact no more than a claim to an invention for a disqualified matter, but if the claimed invention is more than a claim to an invention for a disqualified matter then it qualifies as a patentable invention.

In deciding that question of fact it is always important to consider whether the claimed invention is part of a process which is to be used in providing a technical result. If it is, then the claim cannot be said to be an invention relating to no more than one of the disqualified matters."

The translation machine claimed herein appears to be a conventional computer programmed to set automatically the input language to one or other of two languages according to selection of a routine by a user. The object appears to be that of making the machine easier to use for the process of language translation. Such a process is not barred from patentability by reason of use of a conventional computer as the medium by which it is carried out, provided that a translation process is a technical process.

However, language translation, which is the particular type of translation involved here, appears to be in the field of linguistics, which has been held not to involve a technical process in the following cases decided by the Technical Board of Appeal of the European Patent Office: IBM/Detecting contextual homophone errors T65/86; IBM/Spelling Checker T121/85; and IBM/Semantic listing T52/85 - (1989) 8 EPOR.

In his reply, in a letter dated 14 May 1991 requesting this Hearing, Mr Brown argued:-

"In the quoted passage from the decision of the Patents Court in the case of Gale's application, Aldous J attempted to give guidance for assessing inventions in which "the basis" is a disqualified matter, having previously indicated that a claim drafted so as to relate to a disqualified matter is not patentable. In Gale's application this "basis" could be said to be mathematical method or a method of performing a mental act or even a program for a computer; each of these items is excluded under Section 1(2).

In the present application, however, it is difficult to see why one should conclude that the basis of the claimed invention is something which is disqualified, and why one should therefore go on to consider whether the claimed invention is in fact no more

than a claim to an invention for a disqualified matter. In .... the official letter, the Examiner has summarised the basis of the claimed translation system. On this analysis, we cannot see how the basis of the invention can be said to be something which is excluded under Section 1(2). The fact that the invention of this application is most conveniently implemented on conventional hardware cannot be taken to mean that the invention finds its "basis" in a computer program, any more than, for example, a central heating control system which performs a new method of heating control and which, for convenience, is embodied using a microprocessor incorporating a new program can be said to find its "basis" in the program.

We would strongly dispute the Examiner's conclusion expressed in .... the official letter, and in particular the condition that only if a translation process can be regarded as a technical process can a translation system using conventional hardware be patented. Similarly, we dispute the interpretation placed by the Examiner in the official letter upon the specified decisions of the Technical Board of Appeal of the European Patent Office. It is quite clear, for example, from the Spelling Checker case T121/85 (see Section 5 of the Reasons for the Decision) that although spell checking is basically a linguistic and non-technical procedure an automatic spell checking system is not necessarily excluded from patentability. According to this decision, the question of patentability will depend on whether the manner in which spell checking is automated involves features which make a contribution in a field outside the range of matters excluded from patentability under Article 52(2) in connection with Article 52(3) EPC.

It is therefore clearly wrong to say that the Technical Board of Appeal has held that linguistics does not involve a technical process. On the contrary, it has been held that one must look at each case individually and establish whether there is a non-excluded contribution. This has been interpreted elsewhere as meaning that there should be a technical or practical contribution or effect, and in particular the solving of a technical or practical problem. The question of whether or not this technical problem or effect arises in a field which may be regarded generally as non-technical appears to be irrelevant.

In the present case, even if the Examiner is correct in his assertion that a translation process is not technical (this is not admitted) we submit that the solving of a technical problem specifically arising in a language translating machine can and should be regarded as providing a technical contribution. In particular, the features of the claimed invention are not defined solely in terms of the linguistic properties of the data which is handled by the system. On the contrary, the inventive features are defined in structural terms. The solution to the practical problem addressed by the present invention (ie that of making a translation machine easier to operate) is very clearly a technical one, and resides in the provision of the means which automatically sets the input language mode of the machine in accordance with the kind of routine selected by the user.

This, we submit, is exactly the kind of thing which the Technical Board of Appeal were envisaging in the third paragraph of Section 5 in the Reasons for the Decision in case T121/85. Even though the invention in the present application lies in a linguistic field (ie that of language translation) it nevertheless involves features which make a technical contribution, and for this reason we submit that the claimed invention is not excluded by Section 1(2)."

Mr Brown has drawn my attention to the reasoning in Gale's application concerning the "basis" of the claimed invention. However, in his decision, Aldous J quoted from the Court of Appeal decision in Merrill Lynch Inc's Application [1989] RPC 561:-

"... where a claim is directed to a product, it is important to consider whether the product claimed is a new technical product or merely an ordinary product programmed in a different way as in the latter case the claim is in reality to the programme and therefore could not relate to a patentable invention. ... a claim to an ordinary computer when programmed is in effect a claim to the programme and therefore will be disqualified from being patentable unless it is incorporated in or used in or for a process which produces a technical effect."

In my opinion the independent claims when properly construed relate to a known computer programmed to effect translation and the characterising feature of the claims is the automatic selection of the input language - the precise manner in which this step is implemented is not described nor specified in the claims, but I assume that a programmer skilled in the art would have no difficulty in effecting it. Therefore I consider that the "basis" of these claims is a novel program and accordingly for them to be patentable a technical contribution must be present - as there would be in Mr Brown's example of a central heating control system.

I accept Mr Brown's argument that, for example, an automatic spell checking system is not necessarily excluded from patentability but, in my opinion he is not helped by the decision of the Technical Board of Appeal in T 121/85 because, as stated therein, the patentability of a system that is basically not of a technical nature but of a linguistic nature depends on the inclusion of features which make a contribution in a field outside the range of excluded matters. In this invention the characterising feature relates to the selection of the input language which I do not consider is, of itself, a technical contribution. The data being processed derives its significance from linguistic considerations only and such data is not technical data.

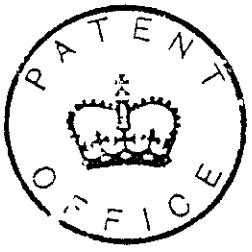
Therefore I support the examiner's objection that the invention claimed is excluded from patentability by virtue of Section 1(2)(c) and I consider that, on the basis of the specification filed, it is not possible to draft allowable claims. The application has gone beyond the period for putting it in order for grant and consequently it is deemed to have been refused by the Comptroller at the end of that period, ie 28 May 1991.

Any appeal from this decision should be lodged within a period of 6 weeks of the date of this decision as stated below.

Signed this 11th day of September 1991

[redacted]

Mrs J A Wilson
Principal Examiner, acting for the Comptroller



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