

COMMISSIONER'S DECISION

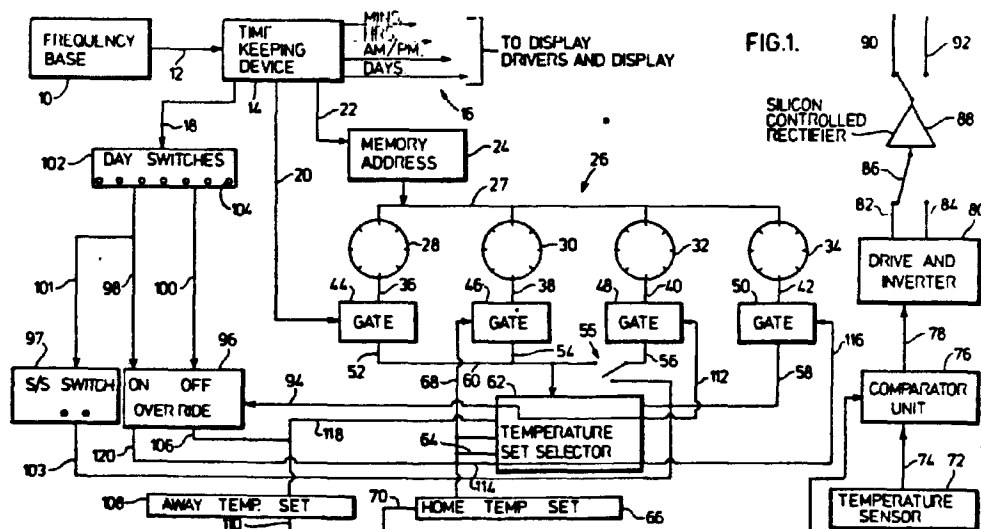
OBVIOUSNESS: Electronic Temperature Control

An electronic arrangement for automatically changing and controlling the ambient temperature in a building does obtain results different from the results that may be achieved by the cited art and is considered patentable.

Final Action Reversed.

Patent application 292,964 (Class 342-19.6) was filed on December 13, 1977
for an invention entitled ELECTRONIC TEMPERATURE CONTROL. The inventor is
David V. Reid. The Examiner in charge of the application issued a Final
Action on March 23, 1983 refusing to allow the application to proceed to
patent. The inventor attended the Hearing on July 18, 1984, and was
represented by his patent agent, Mr. T.S. Johnson.

The subject matter of this application relates to an electronic device for automatically changing and controlling the ambient temperature in a building. Figure 1 reproduced below, shows the arrangement.



The main components include timing devices, a memory component to store predetermined times and functions, temperature set components, a temperature sensor, and a comparator unit. By means of these components and the interconnecting circuitry, signals are matched from the time keeping devices with those in the memory component to select a particular temperature set which then sends signals to the comparator, which compares them with signals from the temperature sensor, and an appropriate signal is obtained to effect the desired heating or cooling.

In the Final Action the Examiner rejected the application for lack of invention in view of United States patent

3,903,515

Sept. 2, 1975

Haydon et al

This patent is directed to a method and apparatus for controlling predetermined functions at predetermined times, among them heating and air conditioning systems.

The Examiner refused the application for lacking invention in view of the Haydon patent, and in view of common general knowledge and structure known in the art. He views Haydon as designed to control any kind of variables or functions. Concerning Applicant's feature of comparing the building temperatures with predetermined temperatures, the Examiner compares this to a home thermostat.

In his response, Applicant maintains there is no indication in the Haydon patent of how to control both heating and cooling means with a single temperature sensor. He says the Haydon system is concerned with operating a specific function at a specific time and that it would turn the heating

or cooling system on or off at a specific time regardless of the desired temperature in the building. Applicant refers to his system as controlling a building temperature at one level during one period of the day and another level during another period, and in his response submitted a claim for consideration. At the Hearing he presented another claim which he feels better defines his features.

The issue before the Board is whether or not there is patentable subject matter in the application in view of the cited art. We will consider the claim presented at the Hearing, which reads:

An electronic device for monitoring ambient temperature in a building and for automatically and continuously operating temperature controlling means to prevent the ambient temperature from moving from a first temperature to a second temperature during one selected period of a day and to allow the ambient temperature to move under control to such second temperature during another selected period of the day, said device comprising electronic timekeeping means for keeping time throughout the day, memory means for storing at least two times of the day which determine such one and another selected periods of the day, temperature setting means for setting the first and second temperatures, electronic selector means for selecting which of the first and second temperatures determines the ambient temperature, means for comparing the time from said timekeeping means with time stored in said memory means and electronically activating the selector means to select the first and second temperatures, temperature sensing means for sensing the ambient temperature and electronic comparator means for comparing the temperature sensed by said temperature sensing means with the first temperature at the one period of the day and to activate the temperature controlling means only when the ambient temperature is between the first and second temperatures to cause the ambient temperature to move generally to the first temperature at such one period of the day, and for comparing the temperature sensed with the second temperature at the other period of the day and to operate the temperature controlling means to allow the ambient temperature to move to such second temperature without going substantially therebeyond at such other period of the day.

At the Hearing Mr. Johnson emphasized the continuously operating temperature controlling feature of Applicant's device. He referred to the Haydon reference noting that it only provides for turning devices on or off for selected periods,

whereas Applicant provides a temperature means responsive to prevent an inside ambient temperature moving from a first temperature to a second temperature during one period of a day, and to allow the ambient temperature to move under control to a second temperature without going substantially therebeyond at another period of the day. Mr. Reid presented a sample of his device which he said included elements responding to two different temperatures to obtain the operation he disclosed. He submitted two affidavits attesting to the operability of his device. In these he refers to discussions between himself and a company which did not accept that his device would obtain the results, and he swears his invention would not have been obvious to one skilled in the art.

The Examiner observed that Applicant's claim does not read on the Haydon patent, and after looking at the sample felt that the device would function. He noted however he was not sure the disclosure was sufficient. It was pointed out by the Board that no objection to the disclosure was made in the Final Action. It was further noted that in a previous Commissioner's Decision taken on this application, it was found the disclosure was sufficient to enable a person skilled in the art to obtain various elements to assemble Applicant's device. The Examiner recognizes that so long as there is a proper disclosure, then the claim is satisfactory when compared with the drawing.

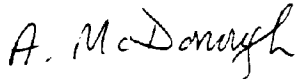
It is useful at this point to recall that the disclosure, claims and drawings of an application together form the specification. Section 36 of the Act lays out the requirements of the disclosure and claims, and Section 39 pertains to the drawings. The significance of the role each of the parts plays in a specification is found in Western Electric Co. v Baldwin International Radio of Canada 1934 SCR 570 at 579 and Consolboard Inc. v MacMillan Bloedel (Sask.) Ltd. (1981) 1 S.C.R. 504. Therefore, if by comparison of the words and the drawings the subject matter is understandable, then the specification should be acceptable.

Mr. Reid commented there were many ways of assembling his structure, for example using digital or analog elements. He argued that he felt his diagram shows how to link his comparator into his circuit, and his specification describes how to

derive benefits from his temperature settings including home and away conditions. We note too, the Examiner remarked at the Hearing that a bit of hindsight would be needed to arrange a thermostat having two settings into a device similar to Applicant's structure. He noted further a person skilled in the art knows of options available and their drawbacks.

We find no difficulty in understanding the claim when considered with the disclosure and the drawings. In our opinion Applicant has presented a combination of elements which obtains results different from the results that may be achieved by the Haydon patent and which may not fairly be said to be encompassed by Haydon. We would agree that Applicant's device is directed to an advance in the art in view of the sample of the device and the arguments presented at the Hearing, and the affidavits submitted subsequently thereto.

We recommend that the rejection of the application for lacking invention be withdrawn and that the claim presented at the Hearing be accepted, and the application returned for prosecution consistent with our findings.



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 am remanding the application for prosecution consistent with my decision.



J.H.A. Gariépy
Commissioner of Patents

Dated in Hull, Québec

this 6th. day of May, 1985

Agent for Applicant

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