Commissioner's Decision #1255
Décision du commissaire #1255

TOPIC: O

SUJET: O

Application No: 2,124,907 (Class G08B-003/00)

Demande No: 2,124,907 (Classe G08B-003/00)

COMMISSIONER'S DECISION SUMMARY

C.D. 1255 Application 2,124,907

Obviousness

The examiner rejected this application on the basis that the invention claimed was obvious, at the claim date, over cited prior art, which consisted of one Canadian patent. One Canadian patent application and four patents were cited as references of interest. The Board found that the applicant was claiming an invention which was not obvious.

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

IN THE CANADIAN PATENT OFFICE

DECISION OF THE COMMISSIONER OF PATENTS

Patent application 2,124,907 having been rejected under Rule 30(4) of the Patent Rules, the Applicant asked that the Final Action of the Examiner be reviewed. The rejection has consequently been considered by the Patent Appeal Board and by the Commissioner of Patents. The findings of the Board and the ruling of the Commissioner are as follows:

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This decision deals with the Applicant's request for a review by the Commissioner of Patents of the Examiner's Final Action dated March 3, 1999, on application 2,124,907 (International Classification G08B-003/00), filed on June 1, 1994 and entitled "Water-Sensing Alarm for Water Control Systems". The inventor and applicant is Lawrence M. Janesky

The application relates to a system to control ground water in a basement. Water which enters the basement is channelled to a sump containing a pump that is actuated when the water reaches a predetermined level. If, for some reason, the pump does not start, there is a possibility of basement flooding. The system includes an alarm which detects that the water has risen above the pump actuation level and sounds an audible warning.

Figure 1 of the application shows the complete system and figure 2 show the components of the alarm.

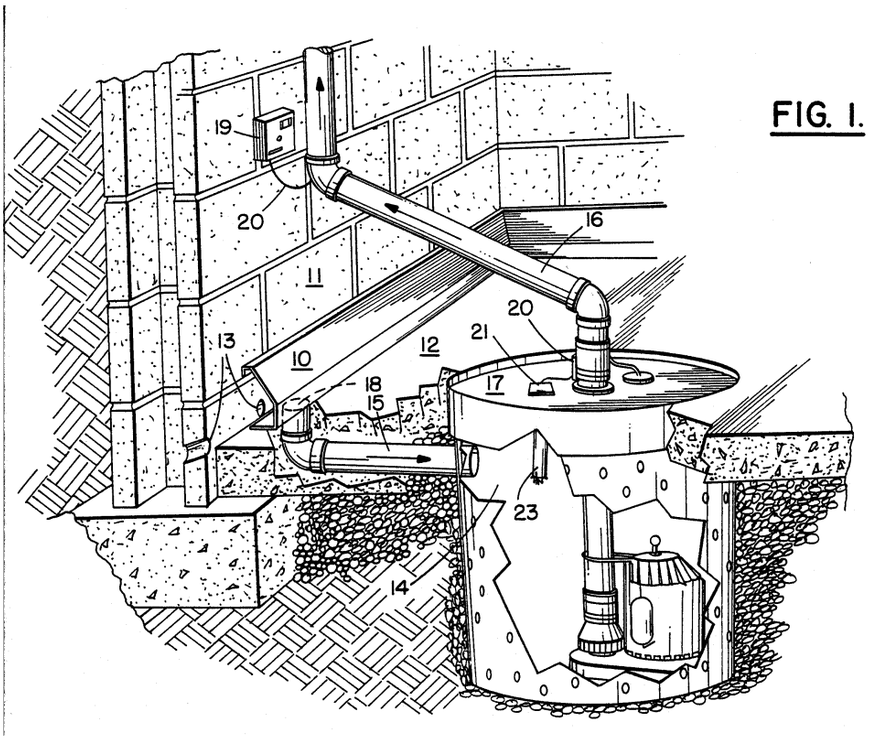
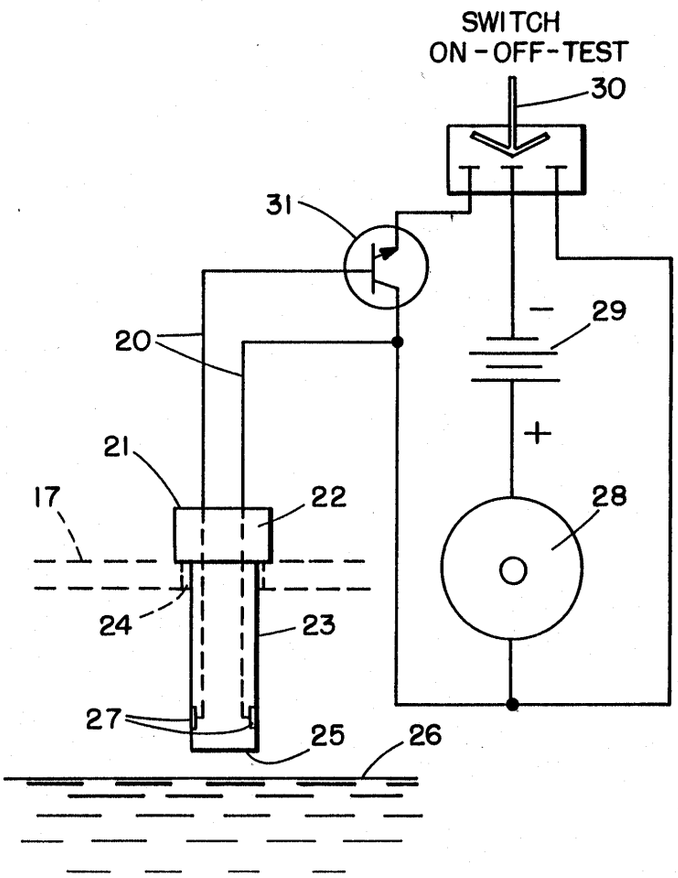


FIG. 1.

FIG. 2.



In figure 1, water enters the basement through holes 13 and is channelled to sump 14. When the water reaches a predetermined level, the pump is actuated and the water is pumped to a remote location through pipe 16. If the pump does not operate as expected, the alarm sounds a warning. As can be seen in figure 2, when the water level rises so that contacts 27 are immersed, an electrical circuit is completed and component 28 sounds an audible alarm.

Claim 1 of the application reads as follows:

> In a water control system for admitting exterior ground water into a subterranean room, channelling it into a sump pump reservoir having a cover and containing a water level-actuated sump pump, and automatically pumping the water therefrom whenever the water level rises to the pump actuation level, the improvement which comprises an alarm which is activated whenever the water level in the sump pump reservoir rises above the pump-actuation level, said alarm comprising an open electrical circuit including a power source, an audible warning means and an elongate, removable probe member comprising an elongate housing having an adjustable position upper stop member and a lower contact end containing exposed spaced contacts which, when immersed in water, close said circuit to activate said audible warning means, said probe member housing extending though an opening in said reservoir cover and being supported by engagement between said adjustable position upper stop member and the upper surface of said cover, the contact end of said probe member being contained within the sump pump reservoir, supported at a predetermined variable alarm activation level, above said sump-pump actuation level, to provide an audible warning whenever the water level rises to said alarm activation level.

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

Canadian patent		
1,261,940	September 26, 1989	Ottenhof

The Examiner also brought the following patent documents to the attention of the Applicant as references of interest to show the state of the art:

Canadian patent application		
2,040,391	November 30, 1991	Barbier
Canadian patents		
1,256,301	June 27, 1989	Marsh
1,318,389	May 5, 1993	Olsen et al
1,086,402	September 23, 1980	Piper et al
1,243,375	October 18, 1988	Branz

Canadian patent 1,261,940 is entitled AWater Backup Alarm System@. Figures 1 and 2 of that patent are shown below. Figure 1 shows the alarm in a pipe of a septic system and figure 2 shows shows the alarm before it is placed in the pipe. In normal operation, waste water flows though pipe 14. Should a back-up occur, the water level in pipe 14 rises and will eventually reach contacts 24 and 24a, closing a circuit and sounding an alarm.

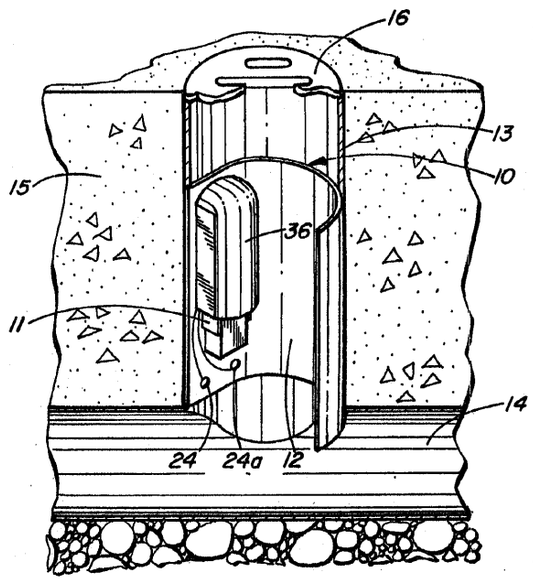


FIG. 1

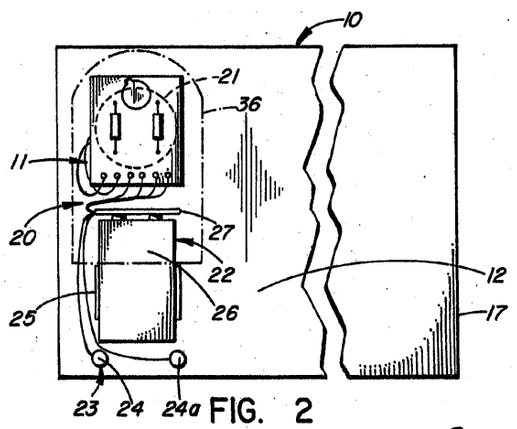


FIG. 2

In rejecting claims 1 and 2, the Examiner stated, in part:

> Ottenhof teaches a method and device for activating an alarm when a liquid comes in contact with electrical contacts at a predetermined height.
>
> All references of interest are presented as a small sampling of the art showing various methods where when a fluid reaches a particular level of interest an alarm or other process can be initiated. Moreover, these documents show that the apparatus used is capable of having the level of detection adjusted and that it is common practice in the art to have this feature incorporated into a level detector.
>
> The claims on file do not comply with Section 28.3 of the Patent Act. The subject matter of these claims would have been obvious on the claim date to a person skilled in the art or science to which they pertain having regard to Ottenhof and common general knowledge in the art.
>
> .....
>
> In the Applicant=s correspondence dated January 19, 1999, the applicant states AIt is highly advantageous in sump pump installations to be able to adjust the alarm activation level up or down, depending upon the volume of the container and the rate of entry of exterior ground water. The prior art including that cited has no disclosure or suggestion of an adjustably-positionable stop member on an elongated probe member to vary alarm activation level within the container.@ (underlining added)
>
> It should be noted that the applicant claimed the feature without any details on how it is achieved. The description mentions at the last few lines of page 5 that shim rings could be used to raise the alarm activation level. Although Ottenhof did not disclose this particular solution for adjusting the alarm level, it would be obvious even for a person not versed in the art to insert shims beneath the stop member.

In its September 3, 1999 reply to the Examiner=s Final Action, the Applicant stated, in part:

> The invention according to claim 1 is directed to a water control system for admitting exterior ground water into a subterranean room, channelling it in to a sump-pump reservoir having a cover and containing a water level actuated sump-pump, comprising an alarm which is activated whenever the water level in the sump-pump reservoir rises above the pump-actuation level, the alarm system including, inter alia, an elongate removable probe member comprising an elongate housing having an adjustable position upper stop member..., the probe member housing extending through an opening in the reservoir cover and being supported by engagement between the adjustable position upper stop member and the upper surface of the cover, the lower end of the probe member being contained within the sump-pump reservoir and supported at a predetermined variable alarm activation level above the sump-pump actuation level. We submit that there is no disclosure or suggestion in CA-1261940 of an adjustable probe arrangement as defined in claim 1. This document discloses a probe which in one embodiment is attached to a 1/8 thick PVC plate or sheet which is inserted into a drainpipe, resiliently conforms to the shape of the drainpipe and is held in place by friction between the engaged surfaces. In another embodiment, as described on page 7, lines 19 to 23 of this document, the alarm can be suspended from support means formed as an integral part of a drain cover.. In paragraphs (e) and (f) on page 3 of the Office Action, the Examiner argues that, in the case of the plastic sheet mounting , the probe level is adjusted simply by re-rolling the sheet of plastic on which the alarm is located, moving it to a new location within the pipe and releasing the role (sic) to re-engage the inner surface of the pipe wall. The Examiner further argues that in the case of the alarm being supported by support means formed as an

> integral part of the cover, it would be common practice to incorporate a feature which allows for the adjustment of the level to be detected.
>
> However, there is no discussion in CA-1261940 of the need to adjust the height of the probe once the probe has been installed and there is no indication of the means for doing so. The Examiner argues that the level of the alarm can be adjusted simply by re-rolling the sheet of plastic, but this is not what the document teaches. While it may be possible to roll-up a 1/8 inch thick PVC plastic sheet whose outside surface is pressed against a pipe wall and is not readily accessible, this operation is unlikely to be Asimple@. Furthermore, the purpose of the alarm system disclosed in CA-1261940 is to detect a back-up condition in a sewage system by detecting the presence of waste water a fixed distance above a horizontal drain pipe. There is nothing in this document to suggest that the nature of the back-up condition varies with time in such a way that it is necessary from time to time to adjust the level of the alarm probe. The system is simply intended to detect a back-up condition. Therefore, there is no need for an adjustable alarm activation level. We therefore submit that it would not be obvious to incorporate a feature that allows for the adjustment of the level to be detected in the support means which is integrally formed with the drain cover, as suggested by the Examiner.

On November 12, 1999, the Applicant requested that an oral hearing be conducted in respect of the application. On December 15, 1999, the Applicant withdrew that request.

The Board must now decide if the alleged invention claimed in the instant application is obvious in view of the reference cited by the Examiner, along with the state of the art as shown in the references of interest.

The requirement that an invention not be obvious is set out in Subsection 28.3 of the *Patent Act* which reads as follows:

> The subject-matter defined by a claim in an application for a patent in Canada must be subject-matter that would not have been obvious on the claim date to a person skilled in the art or science to which it pertains, having regard to
> (a) information disclosed more than one year before the filing date by the applicant, or by a person who obtained knowledge, directly or indirectly, from the applicant in such a manner that the information became available to the public in Canada or elsewhere ; and
> (b) information disclosed before the claim date by a person not mentioned in paragraph (a) in such a manner that the information became available to the public in Canada or elsewhere.

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

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

To begin the test for obviousness, the Board must first determine what was the state of the art in this field of technology at the claim date (June 1, 1994). From the material which the Examiner has brought to the Applicant=s attention, it is evident that devices which sound an alarm when a liquid rises above a predetermined level were very well known. Also, patent1,261,940 shows that this type of device has been used in septic systems where a rise in water level could cause flooding in a basement.

The Applicant has argued that its use of an alarm in a system which controls ground water entering a basement is not taught or suggested by the use of an alarm in a septic system. The Board disagrees. Using the above quoted test, the Board believes that an unimaginative skilled technician would be led directly and without difficulty to the use of a high water alarm in a ground water control system with the knowledge of the septic system water back up alarm.

However, the Board also notes that the Applicant has not merely incorporated a well-know alarm into its ground water control system. The alarm which the Applicant uses has several features which are not shown in the prior art. The water level detecting probe of the alarm is placed in its operating location merely by inserting it into a hole in the sump cover. The operating position of the probe can also be changed to adjust the water level at which the alarm is sounded. Each of these features can be employed without removing covers or using tools.

The Board concludes that, while the general concept of using an alarm in a ground water control system is obvious in view of the prior art which the Examiner has cited, the use of the specific probe which is claimed in claim 1 brings features to the system which are new, useful and unobvious. As a result, the Board concludes that the alleged invention disclosed and claimed in this application was not obvious at the claim date and that the application complies with the requirements of Subsection 28(3) of the *Patent Act.*

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

P.J. Davies	Michael Gillen	M. Wilson
Chairman	Member	Member

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

David Tobin
Commissioner of Patents

Dated at Gatineau, Quebec
this 21 day of March, 2003