

Reissue: The matter introduced for reissue was held not to be covered in the application, nor known to the Applicant prior to issue; variations of description between the affidavit and document evidence when compared with the application were found unacceptable. Rejection affirmed.

On October 27, 1989 Mr. P. McBurney, the Patent Agent, confirmed that the request for a Hearing be waived, and that a review proceed on the basis of the Applicant's submissions of record.

To position transducer 28 inside the dome, lugs 30 and 32 are placed in respective dome openings 23, 24 and slid through the slits over the tongues until they seat in the detent notches. In this way the pressure between the parallel diaphragm 34 and the membrane 4 is set, as further tightening is prevented due to the walls 46, 48, of the detents. Release pressure causes the lugs to ride out of the detent notches and down the tongues. Over or under tightening is thereby avoided.

In operation each plastic dome is designed to be interchangeable with, and to set and maintain a standard pressure contact between its membrane and a diaphragm of, a compatible transducer. This setting of the pressure is designed to provide the same predetermined signal value by the initial contact of a membrane and diaphragm and therefore no rezeroing of the monitoring apparatus connected to the transducer is needed when the domes are interchanged. Moreover, correctness of the output signals is ensured when the diaphragm reacts to blood pressure variations caused by the membrane.

In taking the Final Action the Examiner said, in part, as follows:

...

Part 3 of the petition states that the respects in which the patent is deemed defective or inoperative are as follows: All of the claims of said patent recite "means defining detent notches next to said ramps" and such detent notches are not essential to the practice of or essential to apparatus embodying the invention. The disclosure of patent 1,119,013 describes an advance in the art whereby the pressure between the membrane of the pressure dome and the diaphragm of the transducer does not depend on applied torque. The disclosure describes resilient tongues with ramps sloping towards the membrane with means defining detent notches next to the ramps. This provides spring loading to a fixed position. In no part of the disclosure did applicant indicate that any means other than a detent would be used to fix the predetermined position of the pressure dome.

In part 4 of the petition reference is made to the attached disclosure of the invention written by one of the inventors. In this disclosure the importance of spring loading for the pressure dome is emphasized by the marginal note on the first page "spring includes detent" is very specific in conveying the inventor's invention. It does not allow for any other means to hold the pressure dome in a predetermined position, only a detent. The fact that the petition states that the marginal note was made when the inventor was discussing the invention with a patent attorney only serves to reinforce the fact that the invention as disclosed includes a detent.

Part 5 of the petition states that the amended disclosure and claims result from an analysis to determine whether the claims of the patent would cover competitive products. Reissue is not permitted to change the claims because the patent can be circumvented by others, unless the applicant can show that he intended to protect in the original patent what he claims in the reissue, but failed to do so by reason of error arising from inadvertence, accident or mistake. It is held that there is no evidence to show that applicant intended to disclose and claim anything other than that which appears in the original patent number 1,119,013.

...

The Applicant responded, in part, as follows:

On the question of intention, the petition for reissue states that the intention of the inventors was to describe and claim a pressure dome wherein, inter alia, some means would be provided to hold the pressure dome in position on a transducer after these two components had assumed predetermined positions with respect to each other, that in the preferred embodiment of the invention the means in question are detent notches, but that it was not the intention of the inventors that the means in question be restricted to detent notches. The petition for reissue also states that the Patent Attorney who prepared the application which ultimately matured to Canadian Patent 1,119,013 misunderstood the scope of the invention and failed to appreciate that, in its broadest concept, detent notches were not essential to the invention, only some means, which might be detent notches, for holding the pressure dome and transducer in position relative to one another after they had been moved into predetermined positions with respect to each other so that the pressure dome would be seated with a predetermined pressure against the transducer diaphragm.

...

A response to the office Action dated December 4, 1986 was filed, all of which is incorporated herein by reference, in which, to supplement the clear statements in the petition with respect to intention, Affidavits of Donald M. Timbie, the Patent Attorney who prepared the application, and one of the inventors, Alexander Tykulsky, were filed. Both of these Affidavits deal directly with the question of intention, and Mr. Tykulsky's Affidavit concludes with the statement "It was not my intention that the invention be restricted to the inclusion of one or more detent notches".

...

... as for the concluding sentence of the sixth paragraph of the Office Action (September 8, 1986) that "in no part of the disclosure did applicant indicate that any means other than a detent would be used to fix the predetermined position of the pressure dome", it must be realized that two separate and entirely independent functions are attributable to what are referred to as the detent notches in Canadian Patent 1,119,013. One of the functions is clearly set out at lines 15 to 18 on page 4 of the patent where it is stated that further rotation causes the projections to drop into the detent notches, thereby determining the force applied between the membrane and the diaphragm and the value of any offset signal produced by monitoring apparatus coupled to the transducer. However, this function clearly has nothing to do with the detent capability of the detent notches. This function clearly results from a straightening out of the ramp 38 as shown by reference number 42. The other function of the detent notches is set out on page 4 of the patent at lines 19 to 21 where it is stated that shoulders are located at the sides of the detent notches that are remote from the ends of the tongues so as to prevent further rotation. The error that occurred in the drafting of the claims for Canadian Patent 1,119,013 lies in the inclusion in those claims of "detent notches" when the latter function performed by such detent notches is not essential to the invention and the former function does not require the presence of a detent notch, if that term is construed as something which restrains further rotation.

...

Referring to ... the last paragraph on page 1 of the Office Action, (September 8, 1986) the Examiner has concluded that the fact that the marginal note was made when the inventor was discussing the invention with the Patent Attorney serves to reinforce the fact that the invention as disclosed includes a detent. Exactly the opposite is true. Thus, as clearly set out in the Affidavit of Mr. Timbie, the marginal notation was added by Mr. Tykulsky to the original disclosure at the time when the original disclosure was being discussed with Mr. Tykulsky by Mr. Timbie. It was not part of the original disclosure, which clearly indicates that the presence of a detent was non-essential to the invention. The language "spring includes detent" marginally added simply refers to a predetermined embodiment of the invention that incorporates a detent function.

As for the first paragraph on page 2 of the Office Action, while reissue may not be permitted to change claims because a patent can be circumvented by others, this is not the reason for reissue in the present instance. The mere fact that the error was discovered as a result of an analysis to determine whether the claims of the patent would cover competitive products does not mean that the reason for reissue in the present instance is to avoid having the patent circumvented by others.

...

The issue before the Board is whether or not the subject matter in the amendments to the disclosure, and in claims 3 to 10 of the application for reissue, is directed to the same invention as Patent 1,119,013, and whether or not there was an error in omitting to disclose and claim that subject matter. Claim 3 reads:

A pressure dome for attachment to a transducer having outwardly extending projections, comprising
a body having a hollow formed therein,
a flexible membrane,
means mounting said membrane across said hollow so as to form a space therebetween,
ports extending through said body so as to provide access to said hollow from a point outside said body, and
resilient tongues extending from said body on the side opposite said membrane from said hollow, said tongues lying within a cylinder having an axis perpendicular to said membrane and having ramps including portions sloping toward said membrane from their ends, said ramps also including parts configured so as to be adapted, in conjunction with said resilient tongues, to hold said pressure dome in position on the transducer after the projections have moved along said ramps to a predetermined position.

This decision uses the section numbering of the Patent Act in force on December 12, 1988, whereas the prosecution uses that in effect before that date.

In Applicant's response to the Final Action it is said the term "detent notch" is not essential if construed as restraining further rotation. From the Board's understanding of the original application, that is one of two essential functions provided by the detents in obtaining the invention, namely, ensuring no over or under tightening of the dome, the other being, at the same time providing a predetermined pressure contact between the membrane and the dome. Another function of the detent and the resilient tongue, found in the original application, is that in the event of an overload delivered to the transducer diaphragm the resilience of the tongue permits the dome to lift from the transducer to provide relief. These features are covered in issued claim 1 by the detent notch in combination with the other elements, and are described in the disclosure of the invention written by Mr. A. Tykulsky that is attached to the Petition for Reissue. No other arrangement has been set forth in the original application to achieve the above results. Mr. Tykulsky's written description refers to springs being part of the dome, however, the sketches accompanying the written description show detents formed in the sidewall of the dome, but no other arrangement.

In studying the amendments to the disclosure of the reissue application it is seen on page 4 lines 17 to 24 that the ramps are configured by the inclusion of detents. This agrees with issued claim 1.

On page 5 of the reissue application lines 34 and 35, the term "flat portions of the tongue" is introduced for the first time, as is the feature on lines 39 to 41 of a small protuberance, or guard which is again mentioned on page 6, between the ramp and flat portion to prevent backward sliding of the lugs. The structure set out in these lines does not achieve the objective of preventing over tightening presented in the written disclosure and sketches and the original application. The Board considers the inclusion of the new subject matter on pages 5 and 6 is not acceptable, in that it does not describe the same invention found in either of the applicant's above documents.

The term channel is introduced on pages 7 and 9 of the reissue application. However, this term is not considered to be the same as a slit. A channel is a groove whereas a slit as used in the original application is a cut right through the wall. Further, the original application is silent concerning anything other than a slit. The additional matter on pages 7 and 9 is unacceptable, in that it is directed to different subject matter from the Patent.

Following from the reasons that the new matter in the reissue application on pages 5, 7, and 9, is not permissible, the new statements of claim on page 3 regarding "parts configured so as to be adapted", and on page 4 regarding "channels", and "walls so configured as to be adapted", are not supportable by Mr. Tykulsky's written disclosure and sketches, nor by the original description.

The Board finds the additions to the reissue application, other than on page 4, are not part of the invention originally developed. The matter on page 4 however brings no patentable change to the invention defined in issued claims 1 and 2, nor does it support the matter defined in claims 3 to 10.

From a review of Mr. Tykulsky's written description, part 1 particularly stresses the importance of having a predetermined pressure against the transducer diaphragm. It says the stress applied causes an offset proportional thereto, on the transducer, and if too large the monitor may not accommodate it, or if too light leakage may occur. It adds the dome applies a known correct pressure regardless of the manual strength of the assembler.

In part 4 of his written description Mr. Tykulsky says in case of an overload to the transducer the springs lift the dome thus providing additional volume to safeguard the transducer. Part 6 thereof, noted as subsidiary to part 1, describes the predetermined loading as permitting removal and restoral of the dome without rezeroing the monitor.

Moving to Mr. Tykulsky's affidavit, in part 2 he attests the essence of the invention is to limit the amount of pressure between the membrane and the diaphragm surface regardless of the amount of torque in assembling the dome and transducer. The Board finds this in agreement with the written description and the original application.

Mr. Tykulsky writes in part 3 of his affidavit that the detent notches, in preventing the dome and the transducer from becoming unscrewed, are for a different purpose. He says in part 4 they contribute nothing to the concept of setting the "maximum pressure obtainable" between the membrane and the diaphragm. In part 5 Mr. Tykulsky indicates the desired objective of the invention is the attainment of "a pressure" between the membrane and diaphragm "that lies within a predetermined small range". Further in Part 5, he says, to do this, all that is necessary is a surface at the end of a ramp of such shape that a pin of a transducer riding on it will not significantly alter the amount of depression of the spring-like tongue, adding that whether the shape is a notch or not is unimportant.

In the Board's opinion, parts 3, 4 and 5, of the affidavit introduce variations between what is disclosed therein and what is contained in Mr. Tykulsky's written disclosure and sketches, and what is set out in the original application of the Patent.

The Board agrees with that portion of part 5 of the affidavit saying that one of the objectives is to provide a pressure within a predetermined small range, but finds part 5 has not addressed the other objective set out in part 1 of Mr. Tykulsky's written description, namely, ensuring that a predetermined pressure is applied at all times regardless of the manual strength of the assembler.

Regarding parts 3 and 4 of the affidavit, the Board thinks they are contradictory to what has been set out in the original application, and the written description. The Board sees nothing in the latter two documents that relates to a concept of setting a maximum pressure, instead, they describe a pressure in keeping with the predetermined small range set out in part 5 of the affidavit.

Apropos the statement in part 5 of the affidavit that a pin riding on a "ramp of such shape" is all that is necessary, the Board is not persuaded this is all that is needed in view of the above two documents, for neither refers to a pin or such a ramp, nor to the absence of any means to prevent over or under tightening. The Board thinks the statement is unsupportable by the original application. Further, the two documents make no allusion nor reference to other structure to limit over or under pressure, only the detent.

In the Petition for Reissue, the Applicant says in part 5 the knowledge of the new facts included in the amended disclosure in light of which the new claims 3 to 10 were drafted, occurred as a result of analysis in the latter part of 1983 to determine if claims 1 and 2 of the issued patent covered competitive products. In the Board's opinion this is not a valid reason for it does not establish the newly discovered facts

occurred to the Applicant during the prosecution and development of the application up to its issue to Patent. The reason persuades the Board to an opposite viewpoint, namely, that the facts were not evident at the time of issue and only came to light on reviewing competitive products after the Patent had been granted. In summary the Board is satisfied the newly added matter on page 5 of the reissued application introduces arrangements, not covered in, nor known to the Applicant prior to issue of, the Patent. Further, the Board finds the reason in part 5 of the Petition is unacceptable.

In reviewing the claims for reissue, the Board finds claim 3 and claims dependent thereon define the new matter on page 5 and are unacceptable. Concerning claim 4 and claims dependent thereon, they bring no substantial change to the issued claims and are not acceptable for reissue which may be used only to bring patentable changes to the Patent.

In claim 3 the definition of the ramps includes that in conjunction with the resilient tongues they hold the pressure dome in position on the transducer, no mention being made to position the membrane on the diaphragm. In issued claim 1 detent notches are defined next to the ramps, and it is this arrangement that is described in the original application of the Patent to achieve the desired pressure contact between the membrane and diaphragm, and at the same time to prevent over or under pressure. Nowhere in the original description of the Patent is there any mention of any other way to ensure that the above purposes are achieved. Claim 3 does not fully define the originally disclosed invention.

Claim 4 includes detents positioned at predetermined positions and for this reason it sets out the features that obtain the aims of the invention originally disclosed, and therefore is directed to no more than is claimed in the patent.

Claims 5 and 6 as they are dependent on claim 3 do not add any patentable features to claim 3. Claim 6 as it is dependent on claim 4 sets out no more than the features claimed in the patent.

Claim 7, like claim 3, does not fully define the invention disclosed, in that the detents are not included. Claim 8 does recite the detents, and for this reason defines no more than claimed in the patent.

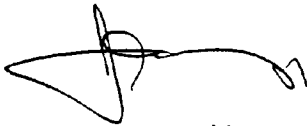
Claims 9 and 10 as dependent on claim 7 do not add any patentable features to claim 7. Claim 10 as dependent on claim 8 defines no more than claimed in the patent.

After reviewing the amendments in the reissue application, the reasons in the Petition for Reissue, the original application, Mr. Tykulsky's written description and sketches, and his affidavit, the Board recommends that the refusal of the Petition for Reissue be affirmed.



M. G. Brown
Acting Chairman
Patent Appeal Board

I concur with the findings and the recommendation of the Patent Appeal Board. Accordingly, I refuse to grant a reissue patent on this application. The Applicant has six months within which to appeal my decision under the provisions of Section 42 of the Patent Act.



J.H.A. Gariépy
Commissioner of Patents

dated this 28 day of December 19
Hull, Quebec

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