

COMMISSIONER'S DECISION

Section 36 - Dispenser For Liquefied Gas

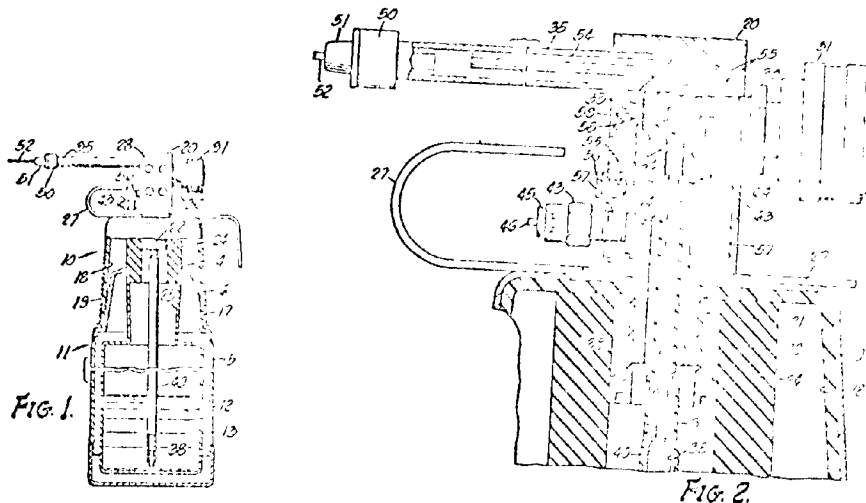
The rejection was based on a failure to claim in distinct and explicit terminology. Claims submitted in response to the Final Action did not include all the essential components and an amendment to the claims is suggested.

Final Action: Affirmed.

Patent application 278,421 (Class 62-77), was filed on May 13, 1977, for an invention entitled "Self-Pressurizing Cryogenic Apparatus And Method." The inventor is Harold D. Gregory. The Examiner in charge of the application took a Final Action on September 25, 1978, refusing to allow it to proceed to patent.

The subject matter of this application is a device for dispensing liquefied gas to freeze a selected area of a surface. It is designed to be used by doctors to dispense coolant directly onto an area to be necrotized.

Figures 1 and 2 shown below are illustrative of the device:



In the Final Action the Examiner rejected claims 1 to 6 as incomplete under Section 36 of the Patent Act. He gave the following reasons (in part)

...

The claims are again rejected as incomplete. It is held that for proper, effective, useful operation, all the matter of claims 1-6 must be present in claim 1. Any claim including all the features in claims 1-6 will be favourably considered for allowance. In the disclosure the direction is that all of the features collectively in claims 1-6 are required for operability.

Presently claim 1, for example at line 5 sets forth a "means for varying the pressure" followed by a qualifying phrase that this "means" achieve quite an involved result regarding the possibility of a flow of gaseous cryogen or a dual phase flow. There is no means known which will perform this desired result. Thus the claim is indefinite in couching the means statement in terms of a desired result. The invention is not particularly indicated and distinctly claimed in distinct and explicit terms until all the features of claims 1-6 are set forth in a single claim.

The statutory guide here is Section 36(1) and (2) of the Patent Act.

Applicant in the latest letter on page 2 admits the "means" of claim 1 "comprises the passage 55, the restrictor 63 and the valve 56 at the outlet of passage 55". This being the case, then each should be claimed. This, it is held is in effect what claims 1-6 set forth.

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In response to the Final Action the Applicant replaced claims 1 to 9 with an amended set of claims numbered 1 to 6, and argued as follows:

...

Thus, Applicant has provided a new main claim which recited the essential features of the bleed passage in communication with both the expansion chamber and the atmosphere and a valve controlling the opening of the bleed passage to atmosphere which features are essential to produce the two types of flow described and claimed. Thus as will be seen in the new main claim, when the valve in question is closed, a flow of gaseous phase cryogen is provided from the outlet and when open, a dual phase flow of finely divided liquid cryogen mixed with the gaseous phase cryogen is provided from the outlet.

The subsequent claims set forth various features which Applicant considers to be important but not essential for operability relative to the device of the invention.

Applicant would submit that the new claims submitted herewith do comply with the requirements of Section 36 (1) and (2) of the Patent Act and thus the Examiner's rejection of the claims on this basis should be withdrawn. Further, Applicant would suggest that the language of the new main claim does set forth the structure referred to by the Examiner in the first paragraph on the second page of the Office Action, although in much broader language. Applicant would submit that this language is certainly supported by the disclosure and in the absence of any art requiring restriction to any more specific terms, should be allowed in the application.

...

Newly proposed claim 1 reads as follows:

Cryogenic apparatus for producing sub-freezing temperatures comprising an expansion chamber having an inlet and an outlet and adapted to be connected to a source of pressurized liquid cryogen maintained substantially at a predetermined pressure, bleed passage means in communication with the interior of the expansion chamber and the atmosphere, communication to the atmosphere being controlled by a valve which when closed provides a flow of gaseous phase cryogen from said outlet and when open provides a dual phase flow of finely divided liquid cryogen mixed with the gaseous phase cryogen from said outlet.

With respect to the latter portion of this claim, beginning at "bleed passage means," we agree with Applicant that the new main claim "recites the essential features of the bleed passage in communication with both the expansion chamber and the atmosphere and a valve controlling the opening of the bleed passage to atmosphere..."

The question left to consider is whether the first three lines of the claim include the essential components of the invention. It is well established that a valid claim must be framed in distinct and clear language, and that it must not embrace more than that which the patentee has invented and has described in his specification.

It is emphasized in the disclosure that this invention "is instantly self-stabilizing and effective to dispense a continuous non-varying coolant jet or a readily varied jet of either single or dual phase coolant". This is attained "by properly proportioning the sizes of the outlet and venting orifices." Page 4 of the disclosure states at line 2 f.f. "... when open, a coolant flow control valve permits the coolant to flow into an expansion chamber equipped with a relatively long small bore outlet nozzle or orifice and a normally open venting orifice cooperating with the outlet or coolant jetting orifice to limit the pressure differential across the flow control valve to a fraction of the pressure in the supply chamber."

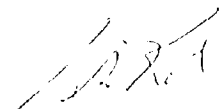
From this we conclude that in order for the invention to operate in an "instant self stabilizing and effective to dispense" manner as described, it is necessary to have a flow control valve and a restricted outlet from the expansion chamber.

As currently structured claim 1 does not include these essential components, and, as such it does not comply with the requirements of Section 36 of the Patent Act. This also applies to claims 2 to 6 which depend on claim 1.

We are satisfied that there is novelty in the combination and ingenuity in the invention. We recommend that claim 1 be accepted if the words "a relatively long small bore outlet nozzle" is added after "and" to replace the words "an outlet" in line 2 and the words "by a flow control valve" inserted after "connected" in line 3.

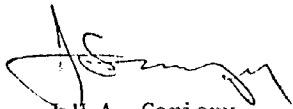


G. Asher
Chairman
Patent Appeal Board, Canada



S.D. Kot
Member

I have carefully reviewed the prosecution of this application and considered the recommendation of the Patent Appeal Board. I concur with the reasoning and findings of the Board. Accordingly I now reject claims 1 to 6 inclusive. The Applicant has 6 months in which to submit an appropriate amendment along the lines discussed by the Board or to appeal my decision under the provisions of Section 44 of the Patent Act.



J.H.A. Gariepy
Commissioner of Patents

Dated at Hull, Quebec

this 14th. day of December, 1979

Agent for Applicant

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