

COMMISSIONER'S DECISION

Breadth of claims; lack of support - A class of "Amino-substituted tetracyclic compound's is claimed. Examiner objected to the number of compounds covered. Applicant amended to find support - accepted. Proposed claims were considered not to go beyond sound prediction of utility for the class claimed; claims are allowable in principle - Objection reversed in part.

This decision deals with a request for a review by the Commissioner of Patents of an examiner's Final Action under Rule 47 of the Patent Rules, dated July 24, 1980 on application serial number 318,927 (class 260-200.1). The application which is a divisional application of application 199,996 (since issued to Canadian Patent 1,051,877) has an effective filing date of May 15, 1974 and is entitled "AMINO-SUBSTITUTED TETRACYCLIC COMPOUNDS".

The application under review relates to processes and compounds which are intermediates to the processes and products claimed in the parent case. The intermediate compounds are, themselves, described as being pharmacologically active and the final products are medicinal compounds.

In the Final Action the examiner made three objections to the claims in the divisional, as follows:

- (1) claims 1 to 5, 28 and 29 are too broad in view of the disclosure
- (2) claim 1 includes inoperative subject matter
- (3) claims 9 to 20, 25 to 27, 32 to 37, 40 and 41 lack support in the disclosure

In response to the Final Action, Applicant suggested an amendment which would overcome objections (2) and (3) above and would at the same time substitute proposed claims 1 to 5, 13 and 14 for claims 1 to 5, 28 and 29 at present in the case. (An obvious typographical error in proposed claim 1 was corrected by a telephone call to Applicant's agent.) The Board recommends that the part of the amendment that overcomes the examiner's (2) and (3) be accepted and we will not consider these objections further. This leaves for consideration proposed claims 1 to 5, 13 and 14 which, according to the examiner, are not allowable because of the number of compounds they cover.

The examiner has required that the broad process and product claims be restricted to cover only compounds that he considers have been adequately disclosed and exemplified. Applicant disagrees with the examiner and has asked the Commissioner of Patents to review the Final Action and to find that claims of the breadth he has proposed are, in principle, allowable to him.

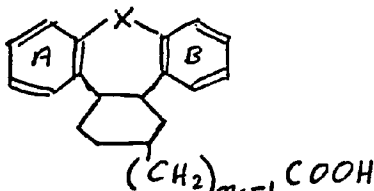
The position taken by the examiner in his Final Action is shown in the following passage:

. . .

The examiner contends however that applicant is not necessarily entitled to claims for the intermediates of the general formula (XII) of equivalent scope as those obtained for the final product (I) of the parent patent. The parent patent discloses and claims several methods of preparing the final products of general formula (I) many of which do not involve intermediates of formula (XII) at all. In fact claim 1 of the patent defines seven alternative methods of preparing the final products of general formula (I) each starting with a different starting material. Of these seven processes only one involves intermediates of general formula (XII), that is, process (g) wherein compounds of general formula (XII) may be used as intermediates in the preparation of starting material (VIII). Even in this process it is not essential that compounds of general formula (XII) be used. Reference to page 7, lines 2 to 4 of the patent is made which indicates that in the preparation of the primary amide of formula VIII the preparation of the corresponding carboxyl compound (compound of general formula XII) may be completely bypassed. It is clear from reviewing the parent patent that a large proportion of the processes disclosed and exemplified for preparing the compounds of general formula (I) do not utilize the intermediates of general formula (XII) claimed in this application. The fact that applicant was able to obtain broad claims to the compound of general formula (I) which are based on processes through routes other than those utilizing compounds of general formula (XII) does not in itself entitle applicant to claims to compounds of general formula (XII) of equivalent scope.

Applicant is entitled to claims to compounds of general formula (XII) which are adequately disclosed and exemplified by the disclosure. The only such compounds are those of general formula (XII) wherein rings A and B are unsubstituted and X is oxygen or $-\text{CH}_2-$. Claims 1 to 5, 28 and 29 must be restricted accordingly.

The general formula (XII) is



and in the proposed claims X represents oxygen, sulphur, the group = NR₇ or the group - CH₂-; rings A and B may have as substituents a halogen, an alkoxy group of 1 to 4 carbon atoms, an alkyl group of 1 to 4 carbon atoms and a hydroxy group; ring B may also have a trifluoromethyl group; R₇ represents hydrogen or methyl and n is 1 or 2. The restrictions required by the examiner are shown in the second paragraph quoted above from his Final Action.

In the above passage the examiner was responding to Applicant's argument that the divisional application should be allowed with claims of "equivalent" scope to those allowed and issued to patent in the parent case. The examiner thus made it plain that his objection is based on the relationship between the claims and disclosure of this divisional application, and not on a relationship between the claims of this application and the specification of the parent case.

The Board would like to point out that Section 38(3) says, in part:

Such divisional applications shall be deemed to be separate and distinct applications under this Act, to which the provisions thereof apply as fully as may be...

Since the provisions of the Act apply to this divisional "as fully as may be" the Board considers that this specification must meet the provisions of the Act independently, without relying on the parent case for information contained in the parent but not present in the divisional application. The Board is therefore of the opinion that Applicant's argument based on what has been allowed in the parent case and what is an "equivalent" claim in this case has no bearing on the question of what should be allowed in this divisional application.

During the prosecution, Applicant argued that a sound prediction can be made that a person skilled in the art would be able to convert all the intermediates into the final products claimed in the parent case. The examiner has not disputed the soundness of this prediction. He has, however, maintained that useful pharmacological activity, on which invention is predicated, either for the compounds in their own right as medicinals or as intermediates for other medicinal compounds, cannot be predicted for the number of compounds claimed from the few that have been disclosed. To meet this objection, Applicant has argued for what he calls the "dual utility" of these intermediates. On one hand they are medicinal compounds but on the other hand they are simply chemical entities prepared on the route to the final products, and as such their predictability is greater than it would be in the difficult-to-predict medicinal arts.

The Board has no doubt after reading pages 1, 2 and 3 of this disclosure that the substances defined by general formula (XII) are prepared by chemical processes and that the ultimate utility of the new intermediate compounds is clearly, directly or indirectly, dependent on medicinal properties. We do not agree, therefore, with Applicant's argument for a "dual utility" that should cause these compounds to be viewed as medicinal subject matter in one light but as mere chemical entities in another. We think that these intermediates are firmly in the area of compounds intended for medicine as envisaged by the Patent Act.

In Monsanto Company v. The Commissioner of Patents (1979) S.C.R. at 1121, the Supreme Court said:

In my opinion the Commissioner cannot refuse a patent because the inventor has not fully tested and proved it in all its claimed applications.

This has since been elaborated by the recent decision in Ciba-Geigy v. Commissioner of Patents, Federal Court, May 28, 1982. With these cases in mind, the Board is of the opinion that the examiner's requirement that the claims be restricted to what Applicant has exemplified goes too far and should not be upheld by the Commissioner. The examiner would also restrict the claims to what he considers to be adequately disclosed, in fact the examiner has linked the objections of inadequate disclosure and exemplification together. The Board notes that the compounds are defined in exactly the same terms, or in the case of X in narrower terms, in the claims as in the disclosure and, consequently, we think the claimed subject matter has in fact been disclosed. Since the general formula (XII) and its associated definitions are sufficient to identify the subject matter claimed and disclosed, the Board considers that what is being claimed has also been "adequately" disclosed or, in patent jargon, the claims are supported by the disclosure. We recommend therefore that the requirements made by the examiner based on inadequacy of disclosure and exemplification should not be upheld.

The question of how broadly claims may be drawn in terms of chemical classes, where actual preparation and testing is necessarily limited, by practical considerations, to certain members of the classes and consequently physical data are not available for all the compounds covered by the claims is a difficult one to resolve. It has been examined many times by the courts. See for example Hoechst v. Gilbert, (1966) S.C.R. 189, where the Supreme Court adopted the view that no one may obtain a valid patent for an unproved and untested hypothesis in an uncharted field; or B.V.D. v. Canadian Celanese, (1936) Ex. C.R. 139, and 1937 S.C.R. 221 where the courts spoke about claims going beyond the invention. In Boehringer Sohn v. Bell Craig, (1962) Ex. C.R. 339, it was said that an inventor cannot patent more than he has invented and in Rhône Poulenc v. Gilbert, claims were held invalid because substances claimed had never been made or tested. It is thus clear that there are limits to what may be claimed as the invention in any particular case. Even in Monsanto, which Applicant has cited, where the Commissioner was directed to allow an application to issue to patent for a group of compounds, not all of which had been prepared or

tested, the Supreme Court would not go beyond a "reasonably sound" prediction into the area of speculation.

Notwithstanding the Monsanto case where it was said:

...what is meant by a "sound prediction". It cannot mean a certainty since it does not exclude all risk that some of the area covered may prove devoid of utility.

and also:

...the Board, in spite of a complete absence of any evidence of unsoundness of the prediction, deny the claims and would in the end limit them to the area of proven utility instead of allowing them to the extent of predicted utility. In my view this is contrary to S. 42 of the Patent Act.

the courts have, on several occasions, cautioned against overclaiming.

See, for example, Gilbert v. Sandoz, 64 C.P.R. 37,

Indeed one may even be disposed to wonder why such blatant assertions of the usefulness of large classes of substances, most of which obviously have never been made, should appear in patent specifications or why applications for patents based on such wild assertions are not rejected out of hand as being palpably false.

and also Farbwerke Hoechst v. The Commissioner of Patents, (1966) Ex.

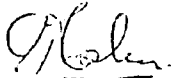
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Applicants...deliberately set out to monopolize what was for the most part an unexplored field of organic chemistry so as to prevent others during the life of the patent from exercising their right to search in that field for...new substances.

Neither of these cautionary statements appears to be a fair comment on this application. The Board takes the view that the definitions of the substituents on rings A and B in formula (XII) are acceptable. They appear to us to cover the usual, simple substituents commonly included in patent specifications to cautiously embrace closely related compounds and, since we cannot say they are obviously false, we regard them as unobjectionable. We have some doubt about the definitions of X to include nitrogen and sulphur as hetero atoms even though such compounds are disclosed. These definitions may cover more than a single class of compounds and may be thought

to cover several classes but, in the absence of any evidence that nitrogen and sulphur heterocycles lack utility, we are prepared to give the benefit of the doubt to Applicant.

Accordingly, the Board recommends that the Commissioner finds proposed claims 1 to 5, 13 and 14 allowable in principle.

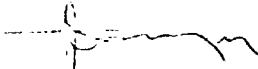


G. A. Asher
Chairman
Patent Appeal Board, Canada



A. McDonough
Member

I have reviewed the prosecution of this application and concur with the reasoning and findings of the Board. Accordingly, I direct that prosecution should be resumed on the basis of the amended specification.



J.H.A. Gariépy
Commissioner of Patents

Dated at Hull, Quebec
this 12th. day of November, 1982

Agent for Applicant

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