

AN EXAMINER'S WHIM

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There is a complete lack of unity among Examiners at the United States Patent and Trademark Office (PTO) as to terms or expressions which qualify as bases for rejecting claims under the umbrella of 35 U.S.C. § 112, second paragraph. Notwithstanding the clear language of MPEP § 706.03:

The primary object of the examination of an application is to determine whether or not the claims define a patentable advance over the prior art. This consideration should not be relegated to a secondary position while undue emphasis is given to non-prior art or to "technical" rejections. Effort in examining should be concentrated on truly essential matters, minimizing or eliminating effort on technical rejections that are not really critical.

Examiners regularly harass applicants by using formal grounds of rejection in a manner which impedes resolution of more important issues, adds considerably to the cost of obtaining patent protection and materially increases prosecution time, thus significantly taxing the entire patent system. Although the problem is most apparent at the examining level, it certainly not so limited.

There is little consistency among Examiners as to particular terms, expressions or types of claims which qualify as bases for rejection. Some of these and their alleged bases are indicated in Table I.

Table I

Items	Support and Comment
Composition claims which fail to state a use or which fail to recite proportions of	Compositions are meaningless without a designated use; the nature of the invention may not be apparent by the recitation of ingredients alone. Without proportions, the amount of one or more stated

ingredients. ingredients may be inadequate to achieve the result required by the disclosed invention.

'characterized' Some Examiners allege that this term is incomprehensible and is in conflict with established claim formats, notwithstanding the fact that the entire rest of the world fully understands exactly what is meant.

'general' or 'generally' These terms are regarded by some Examiners as indefinite and as detracting from the term they modify. The most commonly criticized expression is a reference to a 'compound of the general formula' immediately preceding a structural formula.

'substantial' or 'substantially' Some Examiners claim that it is impossible to know how far the term 'substantial' can vary from the norm it modifies, even when the degree of variance is not the basis on which patentability is predicated. Similar criticism has been made of 'about' and 'approximately.'

'at least one' (without any specified or inferred upper limit; In addition to being criticized as failing to define the disclosed invention because of undue breadth, failure to provide an upper limit has also led to

occurrence of 'at least two' or merely 'a plurality' are not included) rejections under the first paragraph of 35 U.S.C. § 112 on the basis that it includes astronomical, and thus insupportable, numbers. In virtually all cases, the upper limit is not a critical part of what the applicant regards as his invention.

element numbers (taken from drawings) in claims in applications under the Patent Cooperation Treaty (PCT), some Examiners persist that element numbers in claims make the scope of claims impossible to evaluate.

'adapted' Individual Examiners insist that any adaptation be structurally defined in the claims even when patentability is not predicated on such adaptation.

'associated' or 'association' These terms are subject to the same criticism as 'adapted'. (See entry above.)

relative terms such as 'large,' 'small,' 'low,' 'high,' 'thin,' 'weak,' 'soft' As the nature of the term may be in the eye of the beholder, some Examiners fail to recognize or appreciate actual expertise in any particular art and insist that claims set forth more exact parameters.

Greek letters An objection made orally, but not on the record, is

that Greek letters are difficult to input into computers or to retrieve from computer searches.

Parentheses or brackets Some Examiners completely refuse to recognize either parentheses or brackets as forms of accepted punctuation which have established uses. Objection to the use of brackets in claims has a marginal rationale, since such objection precludes one method of amending claims.

'and/or' The objection to the expression 'and/or' goes back to the dark ages when alternative expressions were virtually precluded, yet some Examiners persist in refusing to allow claims in which the expression appears.

'optionally' Notwithstanding the fact that published decisions clearly approve of the use of this term, some Examiners still require use of alternative expressions before they will allow a claim.

'synthetic' This term is fairly seldom criticized. However, insisting that a product be defined structurally over a prior art counterpart can prove extremely frustrating when an inventor makes a fantastic

advancement in the art by finding out how to make synthetically a product which, previously, could only be procured in minute quantities as a natural extract from a rare source.

Generic terms, such as Even though these terms are rarely relied upon for

'alkyl,' 'aryl,' distinguishing over prior art or for defining that
'organic,' 'integer,' which an applicant regards as his invention,
'aromatic,' together, they are criticized as being unduly broad,
'heterocyclic,' inadequately supported, inclusive of inoperable
'aliphatic,' embodiments, indefinite and not defining what
'alkoxy,' applicant regards as his invention.

'heteroaryl,'

'hydrocarbon,'

without clear and

fairly narrow

limitations

'relatively' This term is regarded by some Examiners as indefinite

or as introducing indefiniteness into limitations

that would be regarded as definite in its absence.

Reference to the Since there are several accepted forms (primarily two)

Periodic Table of the Periodic Table, failure to identify the

precise form intended has been held to be indefinite, even though any artisan would completely and fully understand precisely what is meant from the disclosure on which the claims are based.

'type' Use of this term has been criticized on the appeal level as well as on the Examiner level, notwithstanding the fact that what is meant in context is often readily and fully understood by any artisan.

'such as' The providing of examples in claims cannot be regarded as necessarily rendering a claim indefinite. The expression 'a solution of substance A in a solvent, such as water, alcohol and acetone' is certainly not significantly different from 'substance A dissolved in a member selected from the group consisting of water, alcohol, acetone, or any other solvent for that substance.' The position that those skilled in the art understand 'consisting of' and not 'such as' verges on the absurd.

'assembly' Although what is meant by an 'assembly' may vary from one case to another, the meaning of the term should be apparent from the state of the involved art and

the disclosure on which a particular claim is based.

If further explanation is required, a record explanation of what is intended should be adequate as long as the explained scope is supported by or not in conflict with the disclosure.

Product-by-properties Although this type of claim is now well established, claims it has not been encountered by many Examiners, who refuse to be influenced by examples, issued patents or even cited cases.

Product referred to by It may be true that a product can be altered without trademark in the notice even though it is identified by the same claims trademark, but this position somehow loses sight of the fact that a great number of trademarks have been applied to products which have consistently been substantially the same over an extended period of time. Unless the PTO has reason to believe that an involved product is subject to significant change, an applicant should not be forced to analyze an employed product in order to obtain patent protection for an invention which employs a readily-available marketed product.

'appropriate' This adjective has been regarded as indefinite as not setting forth the parameters involved, even when suitable examples are provided by the disclosure.

Process claims with This is a strictly formal matter. There is absolutely no question of understanding what is meant or the scope of any process claim using a different verb form. Making an applicant reformulate his process claims merely to satisfy an Examiner is a waste of time and places an undue burden on the entire process.

'stable' Although this term is ordinarily understood in the context in which it appears, particularly when evaluated in the light of the disclosure on which it is based, some Examiners insist that it be limited as to the nature of the stability, shelf life, light, ozone, temperature, etc.

Markush claims for With the relaxation of alternative forms, Markush process steps, for members are appropriate if they have a relationship which entitles them to be included in a single group treated or inclusive for an applicant's disclosed purpose. of what are regarded as restrictable

components

'leaving group' This term is a well recognized and well understood expression among organic synthesisists. Criticism of the term in contexts is insupportable where the precise nature of the group is in no way critical.

Products in plural form Claims beginning with, e.g., 'Compounds of the formula' have been criticized as indefinite because it appears that more than one compound is required to infringe the claim, even though that is clearly beyond the intention of the applicant. Although there may be some justification to this approach, it is unlikely that anyone would be misled.

'replaced' In the context of an independent claim, stating that a particular element is optionally replaced by another should be completely acceptable. In the context of a dependent claim, stating that a particular element in a parent claim is optionally replaced by another raises a problem insofar as the dependent claim no longer has all of the limitations of the parent claim and is thus not a proper dependent claim.

'functional' The nature and scope of this term are often

challenged, even when its exact nature is not relied upon for patentability.

'substituted' When a particular chemical structure has or may have substituents, Examiners often insist that the nature and scope of such substituents be clearly set forth in the claims, even when patentability is not predicated thereon.

'salt' Criticism of this term most often appears in the context of pharmaceutical or agricultural compounds. Some Examiners insist that the term is too broad because it includes poisonous salts. The fallacy of this position is that even the so-called poisonous salts are useful as intermediates for preparing, by well known and established procedures, non-poisonous salts. The ground of rejection places an undue burden on the examination process.

Reference to a figure The position that a claim must be a complete entity or drawing without incorporation (by reference) of subject matter set forth in the drawing or in the specification is unwarranted. Figures in the drawings (particularly graphs) are clearly

acceptable subject matter for incorporation into claims.

Use of a slash (/) Such use is alleged to be confusing and not understood.

*349 The author has encountered recent rejections of claims on each of the noted bases.

The fact that the PTO now has a quality review procedure is noteworthy, since claims of issued patents must be regarded as reflecting what the PTO considers to be accepted claim practice. Although claims actually published in the Official Gazette may not be representative of the many other claims which are allowed and reviewed, they are readily available for evaluating that which passes muster.

In this light, claims from approximately 265 patents (USP 5,138,714 to USP 5,138,978; USP 5,139,842 to USP 5,140,105; and USP 5,140,200 to USP 5,140,465), randomly selected from each of the three technologically distinct sections of the August 18, 1992, issue of the Official Gazette and a similar number of patents (USP 5,345,608 to 5,345,875; USP 5,346,793 to 5,347,060; and USP 5,347,200 to 5,347,470) from the same sections, respectively, of the September 13, 1994, issue of the Official Gazette, were reviewed. From the claims of almost 1600 patents considered, the following statistics evolved (the numbers in parentheses are from the 1994 review):

Table II

Terminology	mechanical	chemical	electrical	total
Composition without use and/or without proportions		11 (19)		11 (19)
'characterized'	5 (5)	12 (8)	10 (10)	27 (23)
'general', generally'	21 (30)	15 (7)	4 (6)	40 (43)

'substantial', 'substantially' 36 (57) 29 (16) 35 (40) 100 (113)

'at least one' 13 (44) 26 (23) 14 (21) 53 (88)

Element number 9 (9) 3 11 (2) 23 (11)

'adapted' 21 (27) 3 (1) 11 (12) 35 (40)

'associated', 'association' 11 (13) 1 (4) 14 (6) 26 (23)

'large' (1) 1 (1) (2) 1 (4)

'small' (4) 1 (1) (3) 1 (8)

'low' 1 (5) 1 (4) 1 (4) 3 (13)

'thin' 1 (4) (1) 3 (3) 4 (8)

'weak' 1 1 (1) 2 (1)

'soft' (1) 2 2(1)

'high' 1 (4) (5) 2 (6) 3 (15)

'strong' 1 (1) 1 (1)

Greek letter (1) 9 (20) 7 (9) 16 (30)

Parentheses (6) 9 (27) 1 (18) 10 (41)

'and/or' (2) 7 (6) 1 (1) 8 (9)

'optionally'	14 (21)	(1)	14 (22)
'synthetic'	(1)	1 (2)	1 (3)
'alkyl'	8 (16)		8 (16)
'aryl'	11 (17)		11 (17)
'integer'	1		1
'aromatic'	1 (2)		1 (2)
'heterocyclic'	7 (6)		7 (6)
'aliphatic'	1 (3)		1 (3)
'alkoxy'	1 (7)		1 (7)
'heteroaryl'	3 (2)		3 (2)
'hydrocarbon'	1 (8)		1 (8)
'organic'	(1)	1 (15)	(1) 1 (17)
'relatively'	1 (4)	3	4 (4)
Drawing	1 (1)	1	2 (1)
Periodic Table	2 (5)	2	4 (5)

'type'	1 (15)	1 (2)	3 (4)	5 (11)
'such'	3 (1)			3 (1)
'assembly'	10 (12)		(4)	10 (16)
Product by properties		1	5	6
Trademark	1			1
'appropriate'	2			2
Verb tense	1	(5)	(1)	1 (6)
'stable'	1 (2)	(1)		1 (3)
Markush		2 (4)		2 (4)
Plural	3 (29)			3 (29)
'leaving group'		1		1
'replaced'		1 (1)		1 (1)
'functional'		1 (9)		1 (9)
Brackets		1		1
Slash (/) other than in 'and/or'	4 (4)	1 (8)	4 (16)	9 (28)

'substituted'	4 (1)	4 (1)

'salt'	1 (1)	1 (1)

Totals	143 (241)	208 (319) 127 (173) 478 (733)

*351 From the preceding it is noteworthy that, of the noted alleged improprieties, significantly more than 450 (700 in the more recent review) were found in claims of about 800 reviewed patents. The selected informalities are, perhaps, challenged more in chemical technologies than in others, and a number of the informalities apply only to claims in chemical areas. Of the 51 selected criteria, 26 were found only in chemical claims. The higher incidence found in chemical claims is thus readily understood.

The amount of time required for such relatively insignificant issues is appalling. If none of the instantly reported issues had ever been raised in the prosecution of any application before the PTO, the quality of issued patents would probably not have been significantly altered in any material way. The amount of time expended by both Examiners and applicants, the cost imposed on applicants and the resulting delay in prosecution are undue and completely unwarranted burdens on the patent system, with virtually no gain.

The instantly reviewed issues are those encountered on the desk of a single practitioner with a primarily chemical prosecution docket. Equally abhorrent, but different issues may be prevalent on different dockets. The initially cited instructions from the MPEP should be strictly enforced. If the PTO is serious about reducing prosecution time, the type of formal grounds of rejection reported herein should be completely eliminated so that both Examiners and applicants can devote their time and energy to distinguishing adequately over prior art and avoiding impediments which, in most cases, serve no useful purpose.