

ESTABLISHING "THE TIME THE INVENTION WAS MADE"

By
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I. INTRODUCTION

At the outset it may be well to explain what a paper devoted to 35 USC 112, 119, and 120 is doing among a collection of papers dealing with 35 USC 103. The reason for its presence in this collection is that an applicant's or a patentee's "date of invention" determines whether particular patents, publications, and acts are or are not available as references—that is, whether or not particular art is "prior art." If the effective date of a patent, publication, or act is prior to an applicant's or patentee's date of invention, it is prior art, and, if not, it is not.¹ Thus, one must establish "the time the invention was made," at least provisionally,² before it makes any sense to begin all the other analysis discussed in other papers in this collection.

Also at the outset it is appropriate to state briefly and rather conclusorily what the phrase "the invention was made" means. While there are various possible ways of categorizing the actions which are recognized as constituting the making of an invention, for purposes of

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1. This statement is subject to two caveats. First, at least in infringement litigation, courts sometimes use patents, publications, or acts the effective dates of which are subsequent to but contemporaneous with a patentee's invention date as evidence of obviousness on the ground that, while not technically part of the prior art, they are evidence of what constituted the level of ordinary skill in the art at that time. See, e.g., *Reeves Bros. v. U.S. Laminating Corp.*, 282 F. Supp. 118, 157 USPQ 235, 253 (EDNY 1968) (which also holds that the filing rather than issue dates of foreign patents are relevant for this purpose), and cases cited therein. Although no case is known in which this ploy has been tried by an examiner, on principle it would seem equally applicable to prosecution. Second, a patent, printed publication, or act can be "prior art" at least in the sense of being an effective reference even though its effective date is not in fact prior to the applicant or patentee's date of invention if its effective date is more than one year prior to the applicant's or patentee's effective U.S. filing date—that is, if it is a statutory bar. *In re Foster* 343 F.2d 980, 145 USPQ 166 (CCPA 1965).

2. An applicant's or patentee's filing date is taken as his invention date unless he seeks to obtain the benefit of an earlier date by one or more of the techniques discussed in this paper.

this paper they may be categorized as either (1) actual reduction to practice or conception plus diligence or (2) constructive reduction to practice, either here or abroad.³ In terms familiar to most practitioners, the former are proved during prosecution by affidavits or declarations under Rule 131⁴ (during litigation, the substance of the proof is the same, but the way in which it is offered is of course different), and the latter are proved during either prosecution or litigation by establishing entitlement to the benefit of the filing date of an earlier U.S. application under 35 USC 120 or of an earlier foreign application under 35 USC 119.

This paper is not intended to deal comprehensively with all the problems which can arise in establishing the time an invention was made. Instead it discusses in some depth two lines of important cases in the Court of Customs and Patent Appeals (hereinafter, the "CCPA") which one might assume a priori would yield similar results but which in fact yield dramatically different results. In brief summary, one line of cases deals with attempts to establish the time various inventions were made by way of constructive reductions to practice, and it holds that, in order to be successful, an inventor must prove possession prior to the reference date of something very close to what he is claiming in the claim under consideration;⁵ the other line of cases deals with attempts to establish the time various inventions were made by way of actual reductions to practice or conception plus diligence, and it holds that inventors can get away with a great deal less, both as to pre-reference date knowledge of the scope of the invention later claimed and as to pre-reference date knowledge of its utility.

II. THE ACTUAL-REDUCTION-TO-PRACTICE AND CONCEPTION-PLUS-DILIGENCE CASES⁶

3. No attempt is made to define the terms "actual reduction to practice," "conception," "diligence," or "constructive reduction to practice" here. For introductory discussions of these terms, see Osha, "Substantive Aspects of Interference Practice (Conception, Diligence and Reduction to Practice)" in *Interference Practice* (Sughrue, ed., 1976), and Gholz, "Interference Practice," at page 24-3, in *Patent Preparation and Prosecution Practice* (Kayton, ed., 1977).

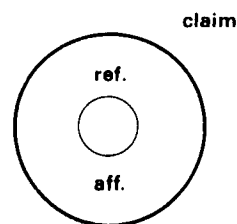
4. 37 CFR 1.131.

5. The proof in all cases is, of course, on a claim by claim basis, and it is perfectly possible for an inventor to establish different dates of invention as to different claims.

6. See generally Hennessey, "Overcoming Rejections with Affidavits," at 12-1 to 12-43, in *Patent Preparation and Prosecution Practice* (Kayton, ed., 1977), Walterscheid, *Rule 131 Practice*, 57 IPOS 336 (1975), Lang, *Requirements of Rule 131 Affidavits to Antedate References Cited Against Generic Chemical Claims*, 44 IPOS 551 (1962), and Levy, *Ex Parte Proof of Priority of the Chemical Genus*, 26 IPOS 367, 576 (1944).

A. The Scope-of-Showing Cases⁷

In re Stempel, 241 F.2d 775, 113 USPQ 77 (CCPA 1957)



Although cases involving the problems under discussion here go back time out of mind, the point of departure for all modern analysis of Rule 131 practice is Judge Rich's opinion for the unanimous court in *In re Stempel*. In that case, the reference showed a species, the claims were to genres encompassing the species, and the affidavit showed prior actual reduction to practice of the same species showed by the reference.⁸ The board had held the affidavit ineffective on the ground that

"To obtain allowance of generic claims here appellant must establish that he was in possession of the *generic* invention prior to the effective date of the reference, i.e. the affidavits under Rule 131 must show as much as the minimum required by a patent specification to furnish such support.⁹

The court reversed on the ground that "all the applicant can be required to show is priority with respect to so much of the claimed invention as the reference happens to show."¹⁰ An older board case¹¹ in which the reference's disclosure was broader than and encompassed the affidavit disclosure was distinguished on the ground that "there was still anticipatory matter in the reference, not antedated, by

7. The format of this paper is a series of brief discussions in chronological order of the leading cases in the two lines of cases under discussion. This format is believed appropriate because the CCPA, unlike the courts discussed in Mr. Loggerwell's paper, is a continuing court which sits as a single panel, and its opinions consequently have more consistency and are more readily subjected to chronological analysis than is the case with some other courts.

Additionally, I have illustrated each of the cases in the first line by a Venn diagram. While it is hoped that these illustrations will be helpful to the reader, it should be emphasized that they are of necessity highly simplified and reflect my personal summaries of the facts stated by the court; thus, reliance on the illustrations should not substitute for careful analysis of the facts stated in the opinions.

8. The opinion says nothing about the utility of the compound, either with reference to what the reference disclosed or what the affidavit showed. Of course, *In re Stempel* was decided before such cases as *In re Wilkinson*, 304 F.2d 673, 134 USPQ 171 (CCPA 1962), focused on what must be shown in this regard.

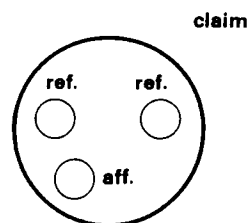
9. 113 USPQ at 79; emphasis in the original.

10. 113 USPQ at 81.

11. *Ex parte Young*, 104 USPQ 181 (POBA 1954).

reason of which it could remain a good reference,"¹² implying that an affidavit showing must be commensurate in scope with the reference showing, and an older CCPA case¹³ was distinguished as involving lack of support in earlier copending applications on the filing date of which the appellant was attempting to rely rather than the sufficiency of a Rule 131 (or its predecessor, Rule 75) affidavit. The court did not, however, explain why the latter distinction should lead to a different result.

In re Fong, 228 F.2d 932, 129 USPQ 264 (CCPA 1961)



In *In re Fong*, the claims were to a mixture of a solid suspending agent with any detergent, the reference showed mixtures of that agent with two detergents, and the affidavit showed actual reduction to practice with a third detergent. The examiner held the affidavit ineffective on the ground that

"An affidavit showing the reduction to practice of one species, not sufficient by itself to support a genus, does not overcome the reference for a generic claim, particularly where the species shown in the affidavit is different from that of the reference."¹⁴

Significantly, the examiner also rejected the claims on the ground that the disclosure in the application of the same mixture shown by the affidavit did not support the claims, but the board *reversed* that rejection.

On appeal, the CCPA, noting and relying on the board's reversal of the undue breadth rejection, reversed the remaining rejection on the ground that there was no true genus/species relationship involved because the invention was the use of the particular soil suspending agent with any detergent. In essence, I believe, it held the broad subject matter of the claims obvious in view of the species (or embodiment) actually reduced to practice, although there was certainly in the words of *Stempel*, "still anticipatory matter in the reference, not antedated."

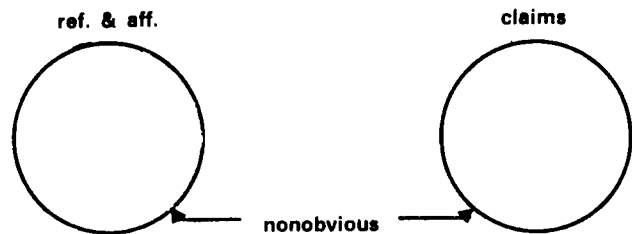
12. 113 USPQ at 80; emphasis in the original.

13. *In re Steenbock*, 83 F.2d 912, 30 USPQ 45 (CCPA 1936).

14. 129 USPQ at 267.

Two judges dissented on the ground that the affidavit did not show recognition of a generic invention prior to the reference date. The majority did not specifically address the necessity of such a showing, since it found that there was not true genus/species relationship, but it is noteworthy that *Stempel* does not indicate that such a showing must be made, and *In re Schaub*,¹⁵ a much more recent case discussed *infra*, appears to hold that no such showing is required.

In re Tanczyn, 347 F.2d 830, 146 USPQ 298 (CCPA 1965).



In this case there were two references, one showing a three-component alloy which for present purposes can be called ABC, and the other showing a three-component alloy ABD. The claims were to the alloy ABCD, and the affidavit showed prior actual reduction to practice of the alloy ABC. The board held the affidavit ineffective on the ground that the actual reduction for practice was not within the scope of the claims, and for once the CCPA agreed:

"It is not sufficient to show in a Rule 131 affidavit that an invention wholly outside of that being claimed was made prior to the reference date. Such fact is irrelevant."¹⁶

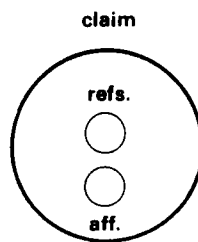
It should, however, be noted that the court *reversed* the obviousness rejection employing the references one of which the appellant had sought to remove by his Rule 131 declaration. Thus, it can reasonably be asked whether the result would have been the same if the affidavit had showed prior possession of something outside the scope of the claims, but obvious in view of the claimed subject matter.¹⁷

15. 537 F.2d 509, 190 USPQ 324 (CCPA 1976).

16. 146 USPQ at 301.

17. This question will be returned to *infra*, in connection with *In re Spiller*.

In re Hostettler, 356 F.2d 562, 148 USPQ 514 (CCPA 1966).



Here, the claim was to a process of reacting one group of compounds of any functionality with another group of compounds of any functionality¹⁸ in the presence of a specific catalyst. The overall reaction was old; the catalyst was new. The affidavit showed actual reduction to practice only of the monomeric reaction; the references disclosed polymeric reactions. The Patent Office held the affidavit ineffective because it did not show actual reduction to practice of either what was shown by the references (that is, there is no *Stempel*-type showing) or of the genus recited in the claims. The CCPA reversed, employing logic very similar to that utilized in *In re Fong* and making the following highly quotable assertion:

"Rule 131 requires applicant to make oath to facts showing a completion "of the invention." That requirement does not mean affiant must show a reduction to practice of every embodiment of the invention. Nor is that requirement coextensive with the amount of disclosure necessary to support a claim under 35 USC 112."¹⁹

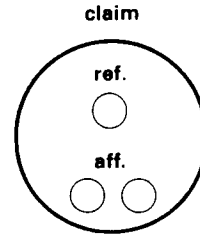
However, as in *Fong* there is much emphasis on the obviousness of the generic invention from the species actually reduced to practice,²⁰ and there is a strong implication that the result might have been different if the generic invention had not been obvious from the species actually reduced to practice.

18. The court explained that, in this context, the word "functionality" "refers to the reactive or functional groups of the reactants" and that the phrase "any functionality" "means having one or any number of functional groups per reactant molecule." 148 USPQ at 515 n.2.

19. 148 USPQ at 516.

20. For example: "Certainly appellants should not be required to submit facts under Rule 131 showing that they reduced to practice that which is obvious in addition to those facts offered as showing a completion of the invention, for the purposes of antedating a reference." 148 USPQ at 517.

In re Clarke, 356 F.2d 987, 148 USPQ 665 (CCPA 1966).



The claims were to a chemical genus. The reference showed one species within the genus; the affidavit showed actual reduction to practice of two other species within the genus and alleged conception of the genus prior to the reference date but relied solely on the evidence concerning the species in support of that allegation. As in *Hostettler*, the Patent Office argued that Clarke had to antedate the reference species a la *Stempel*, and again the CCPA rejected that position. This time, however, it affirmed the rejection. In doing so, it intermingled two themes. First, the court again rejected the contention that the affidavit must show support for the claim in the sense of section 112. "Rather, it is how much the *reference* shows of the claimed invention that is crucial to the requirement of what the affidavit must show."²¹ An applicant must show prior possession of "so much of the invention as to encompass the reference disclosure,"²² not prior

21. 148 USPQ at 669; emphasis in the original. Interestingly (particularly in light of the constructive-reduction-to-practice cases discussed *infra*), the court continued as follows:

"If the question of how much need be shown in antedating affidavits is cast in terms of *support* for the *claims*, then an applicant would be required to show as much as is required by 35 U.S.C. 112 to *support* a generic *claim*. However, we think such analysis in terms of support for the claims to be erroneous and improper here."

148 USPQ at 669; emphasis in the original. No reason was given to explain why the court thought "such analysis ... to be erroneous and improper here."

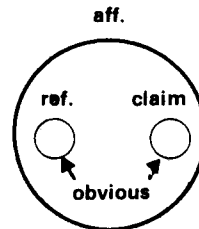
22. 148 USPQ at 670; emphasis omitted. The court justified this rule as a logical extension of *Stempel* with the following language:

"We believe the rule in *Stempel* ... is not limited to fact situations where the inventor can show priority as to the identical compound described in the reference. It seems that in an appropriate case an applicant should not be prevented from obtaining a patent to an invention where a compound described in a reference would have been obvious to one of ordinary skill in that art in view of what the affiant proves was completed with respect to the invention prior to the effective date of the reference."

148 USPQ at 669-70; emphasis in the original. Query: Does this mean *prima facie* obvious or legally obvious? The court stated that such a showing "should be accepted as establishing *prima facie* a case of inventorship prior to the reference, sufficient for the purpose of overcoming the reference in an *ex parte* case." 148 USPQ at 670. Does that simply mean that the reference author/inventor might subsequently establish an earlier

possession of subject matter of the same scope as the claim unless the reference shows equally broad subject matter. Second, though much less clearly, the CCPA was apparently of the view at that time that the applicant also had to (or at least that it would help in some unspecified way if he did) show prior appreciation that the invention was generic in character, although he apparently did not have to show prior conception of the bounds of the genus.²³ Apparently, this could be accomplished either by a showing of a recognition of the common properties (utilities) of a relatively small number of individual species actually reduced to practice or by the actual reduction to practice of a larger number of individual species absent the recognition of their common properties or utilities.

In re Stryker, 435 F.2d 1340, 168 USPQ 372 (CCPA 1971).



In this case, the affidavit did not show actual reduction to practice of the same obvious limitation which prevented the claim from reading on the reference. The board held the affidavit ineffective on the ground

date in an interference? Or does it mean that, in a subsequent infringement action, a third party could rebut the prima facie case of inventorship prior to the reference by proving, for instance, that the reference species possessed highly advantageous properties which made it legally nonobvious in view of the species actually reduced to practice?

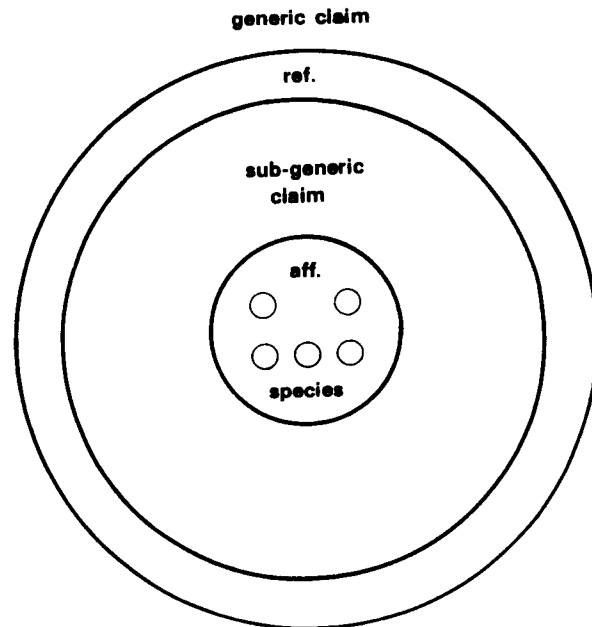
23. After stating that an applicant did not have to show prior possession of the identical subject matter shown by the reference so long as he could show prior possession of subject matter obvious in view of the subject matter shown by the reference, the court continued as follows:

"This is particularly true when the inventor had already appreciated that the invention was generic in nature from his work on diverse species and was endeavoring to determine by exercise of reasonable diligence the precise scope of the invention."

148 USPQ at 670. This hazy language leaves it completely unclear whether prior appreciation that the invention was generic in nature is necessary to the application of the rule, whether, if so, the appreciation must stem from work on diverse species of the genus or may be based on the other considerations (including fortuitous ignorance—i.e., the situation where the invention was in fact generic in character and the inventor believed it so because the inventor's belief was based on his ignorance or misunderstanding), and whether diligent endeavors to determine the precise scope of the invention are additionally necessary.

that "The *claimed* invention must be shown in the affidavit,"²⁴ citing *Tanczyn*. The CCPA reversed, reasoning that it would be anomalous to permit the reference to be removed if appellant broadened his claims: "It cannot be the law that the same affidavit is insufficient to remove the same reference applied against the slightly narrower claims presented here."²⁵ *Tanczyn* was distinguished on the ground that "the subject matter shown in the reference and the affidavit was so different from the claimed invention that the claims were unobvious and patentable over the reference."²⁶

In re Mantell, 454 F.2d 1398, 172 USPQ 530 (CCPA 1972).



24. 168 USPQ at 373; emphasis in the original.

25. 168 USPQ at 373. This rationale should be compared with the rationale of such cases as *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976), and *In re Voss*, 557 F.2d 812, 194 USPQ 267 (CCPA 1977), discussed *infra*.

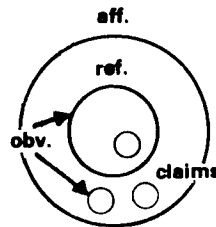
26. 168 USPQ at 373. While this distinction is true enough factually, it does not deal with the oft-quoted statement in *Tanczyn* that an actual-reduction-to-practice outside the scope of the claim is "wholly irrelevant." In *Stryker*, there was no corroborating evidence establishing the value in the actual-reduction-to-practice of one factor listed in the claim, leaving it unclear whether the actual reduction to practice had been inside or outside the claim, but what if it had been affirmatively established, as well it might be in subsequent litigation, that the actual-reduction-to-practice was wholly outside the scope of the claim, but obvious in view of subject matter within the scope of the claim? Would Stryker be entitled to antedate the reference, or would he not?

In this factually complex case there were three classes of claims: a genus encompassing the reference disclosure, a subgenus within the reference disclosure, and species within the subgenus. The affidavit showed actual reduction to practice of species within the subgenus but different from those recited in the species²⁷ claims.

The CCPA affirmed the rejection of the broad claims, reversed the rejection of the intermediate claims, and remanded the narrower claims. The affirmance was based on the statement that "we do not think the evidence in the present case affords a reasonable basis for inferring generic applicability of the invention,"²⁷ and the reversal was based on the converse proposition that possession of the claimed subgenus could be reasonably inferred from possession of the various species actually reduced to practice.²⁸ It is the remand, however, which makes this case interesting:

"On remand, the Patent Office should consider separately the status of claims drawn to species which are disclosed in the reference and those directed to species not disclosed in the reference to determine whether different showings under Rule 131 are required. In each instance, consideration should be given the sufficiency of the affidavit showing as applied to the remanded claims. The cases which have typically come before this court involving Rule 131 and genus-species relationships have pertained either to genus claims or genus and species claims wherein the claimed species have been actually reduced to practice prior to the reference date. The claims herein remanded present the situation of being directed to species which have not been reduced to practice prior to the effective date of the reference, but which are within a subgenus possession of which may be reasonably inferred from other species which were reduced to practice. Compare *In re Gladrow*, 56 CCPA 927, 938, 406 F.2d 1376, 1384, 160 USPQ 674, 680 (1969)."²⁹

In re Spiller, 500 F.2d 1170, 182 USPQ 614 (CCPA 1974).



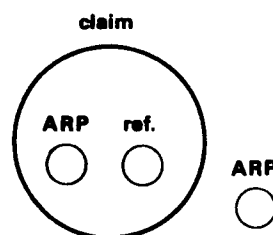
27. 172 USPQ at 533. It is unclear from the opinion whether the reference is to the claimed genus or to the genus disclosed by the reference, but, under *Clarke*, it clearly should have been the latter.

28. 172 USPQ at 534.

29. 172 USPQ at 534. Compare also *Fields v. Conover*, 443 F.2d 1386, 170 USPQ 276 (CCPA 1971), which involved the constructive-reduction-to-practice analog of this situation.

This case may provide the answer to the question left open in *Mantell*, though it does not say so in so many words. Like *Mantell*, it involved complicated facts and many claims. Some claims read on the reference; other claims read on subject matter obvious in view of the reference. The affidavit showed prior actual reduction to practice of the "basic invention" or "the heart of this invention,"³⁰ but it did *not* show actual reduction to practice of everything shown by the reference. Nevertheless, the CCPA held that the affidavit removed the reference, reasoning that "it is sufficient that appellant has shown a reduction to practice of his basic invention, which showing will also suffice as to claims differing therefrom only in details which are obvious to one of ordinary skill in the art."³¹ It added the caveat that "the affidavit showing must still establish possession of the invention and not just of what a reference happens to show if this is 'wholly outside' what is being claimed,"³² citing *Tanczyn*. But what if the actual reduction to practice were of something literally outside the scope of the claim, but at least some of the subject matter of the claim were obvious in view of the subject matter actually reduced to practice? That was not the case in *Tanczyn*, and it would seem on principle that the result should be the same whether the subject matter actually reduced to practice was just inside or just outside the scope of the claim.³³

In re Schaub, 537 F.2d 509, 190 USPQ 324 (CCPA 1976).



30. 182 USPQ at 620.

31. 182 USPQ at 620. The court expressly recognized that it was extending *Stryker* to the situation "where the Rule 131 showing is not fully commensurate with the reference but renders the claimed invention obvious." 182 USPQ at 619.

32. 182 USPQ at 619; emphasis in the original.

33. Walterscheid, *Rule 131 Practice*, 57 JPOS 336, 355 (1975), apparently so interprets *Spiller*, although his analysis doesn't focus precisely on this point. According to him, *Spiller*

"serves to restrict the language of *Tanczyn* to those situations wherein the claimed invention is unobvious over the cited reference. ... Clearly ... 'possession of the invention' is established if the difference(s) between the affidavit showing and the claims are obvious."

This is the latest of this line of cases. The claims involved were to a genus of acids, and the reference showed a species within that genus. The affidavit showed actual reduction to practice of two species, one a next adjacent homolog of the acid shown in the reference and the other the ester of the other next adjacent homolog of the reference acid. That is, if the second species actually reduced to practice had been the acid, the reference acid would have been bracketed by two species falling within the scope of the claim, but, as it was, one of the species actually reduced to practice fell outside the scope of the claim. The board affirmed the rejection on the ground that appellants hadn't proved that, as of the reference date, they viewed their invention as embracing a series of homologous acids, since the two species actually reduced to practice were isomers of each other and only one was an acid. The court reversed on the ground that

"Such a showing is unnecessary when it is otherwise established that the facts set out in the affidavits are such as "would persuade one of ordinary skill in the art to a reasonable certainty that the applicant possessed so much of the invention as to encompass the reference disclosure."³⁴

Apparently, then, the inventor's routes are alternative; he can establish *either* that he recognized that his invention was generic prior to the reference date³⁵ or that the mythical man of ordinary skill in the art would have done so even if he himself did not actually do so. The former route is, however, apparently subject to the caveat suggested by *In re Mantell* that the inventor's recognition that his invention was generic must have been "reasonable," which in practice may amount to very much the same thing as saying that the mythical man would also have recognized the generic nature of the invention.

In re Schaub is also significant for its indication that the test measuring the penumbra of the species actually reduced to practice is *prima facie*, or "structural" obviousness, not legal obviousness. That is, an inventor can establish at least for purposes of prosecution that he "possessed so much of the invention as to encompass the reference disclosure" by reference to the same presumptions and inferences relied on by examiners in aid of obviousness rejections. However, those presumptions and inferences are of course, rebuttable by objective evidence of nonobviousness when relied on by the examiners, and it would seem equally reasonable that they could be rebutted (particularly in subsequent litigation) when relied on by inventors. The unanswered question, however, is what the effect of such rebuttal would be and whether it would make any difference whether the litigation

34. 190 USPQ at 326.

35. Compare *In re Clarke* 356 F.2d 987, 148 USPQ 665 (CCPA 1966), discussed *supra*.

was with a rival inventor or with a third party. On principle, it would seem that such evidence should result in the refusal to permit antedating of the reference, particularly where the litigation was with a rival inventor,³⁶ but no case is known which deals with this question.

B. Prior Activity Cases

Two cases, *In re Wilkinson*, 304 F.2d 673, 134 USPQ 171 (CCPA 1962), and *In re Moore*, 444 F.2d 572, 170 USPQ 260 (CCPA 1971), represent a distinct subcategory of the actual-reduction-to-practice cases. In these cases, the claims are to a compound or a process for producing a compound, the reference shows the compound and how to make it or the process, but does not disclose a utility for the compound and no such utility is obvious, and the affidavit shows actual reduction to practice of the compound or process, but no recognition of a utility for the compound. In *Moore*, which simply reaffirms the continuing validity of *Wilkinson* notwithstanding the intervening Supreme Court decision in *Brenner v. Manson*, 383 U.S. 519 (1966), the board held the appellant's affidavit ineffective on the ground that the affidavit must show "completion of the invention" in the sense of interference law—i.e., enough to win an interference if the other party were entitled to the reference date. That holding was reversed on the ground that "an applicant need not be required to show any more acts with regard to the subject matter claims than can be carried out by one of ordinary skill in the pertinent art following the description contained in the reference."³⁷

But what did the court mean by "acts"? *Not* conception and diligence; the court went out of its way to emphasize that an applicant needs more than conception to get behind a reference. Rather, it called "discovery or identification of a chemical compound" one act, "the determination of how to make it" another, and "the determination of a practical utility when one is not obvious" the third.³⁸

However, if a reference shows only the first of those "acts" (e.g., it only shows the structure of a chemical compound and there is no obvious way to make that compound), an applicant need not file an affidavit at all—that is, he need not prove that he "discovered" or "identified" the compound prior to the reference. The reference is simply nugatory.³⁹

36. Cf. *Fields v. Conover*, 443 F.2d 1386, 170 USPQ 276 (CCPA 1971), which involved the constructive-reduction-to-practice analog of this situation and which sets forth a policy rationale which is believed to be equally applicable to the actual-reduction-to-practice situation. But cf. *In re Moore*, 444 F.2d 572, 170 USPQ 260, 267 (CCPA 1971), discussed *infra*, which draws a distinction "between an interference proceeding on the one hand and an ex parte proceeding to obtain a patent on the other" which is arguably equally relevant here.

37. 170 USPQ at 267.

38. 170 USPQ at 267.

39. *In re Le Grice*, 301 F.2d 929, 133 USPQ 365 (CCPA 1962).

Accordingly, it is submitted that *In re Wilkinson* and *In re Moore* in reality set forth a special rule fashioned for their special factual situation and that their special rule can only be justified on the basis of the policy considerations set forth in the *Moore* opinion as follows:

"Accepting the logic of the Patent Office position, however, requires that one ignore certain basic important distinctions between an interference proceeding on the one hand and an *ex parte* proceeding to obtain a patent on the other. In the former, one party is nearly always going to prevail, a patent will issue, and the knowledge pertaining to the involved invention will very likely become public and be exploited under the protection of the patent. In an *ex parte* proceeding, however, the principal question is the applicant's right to a patent under the statute. The public may well gain knowledge only when a patent is granted. It happens to be the law that where there has been public disclosure by another of the subject matter of a patent claim along with enough enabling description to place the capability of preparing that subject matter within the possession of the public at a time prior to an applicant's filing date, such publication will prima facie negative novelty in the subject matter and prevent its being claimed directly in a patent. *In re Wilder*, 57 CCPA 1314, 429 F.2d 447, 166 USPQ 535 (1970); *In re Brown*, 51 CCPA 1254, 329 F.2d 1006, 141 USPQ 245 (1964). Such a disclosure in an application would not, however, give an applicant the statutory right to a patent, even if there were no anticipating reference, unless that disclosure were also accompanied by a satisfactory description of how to use the claimed subject matter if such is not already obvious. 35 USC 112. *In re Hafner*, 56 CCPA 1424, 410 F.2d 1403, 161 USPQ 783 (1969). In a situation such as we have before us, where the applicants have, in their applications, fully satisfied the statutory requirements for obtaining a patent, in effect offering to give the public more than was described in the reference, policy considerations totally different from those prevailing in a priority contest command that the Patent Office logic be rejected."⁴⁰

C. Summary

Pushing an invention date back by proving actual reduction to practice or conception plus diligence is relatively easy. An inventor need not prove pre-reference date possession of enough to support the claim in the sense of 35 USC 112, either as to scope or as to utility. Moreover, the trend is to give the inventor credit, not only for what he actually possessed prior to the reference date, but for subject matter which is prima facie obvious in view of what he actually possessed at the relevant time.

III. CONSTRUCTIVE-REDUCTION-TO-PRACTICE CASES⁴¹

⁴⁰ 170 USPQ at 267; footnote omitted.

⁴¹ See generally Sutton, "Continuing Application Practice" and "Foreign Priority," in *Patent Preparation and Prosecution Practice* (Kayton, ed., 1977).

A. Scope-of-Showing Cases

In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976).

Judge Rich's majority opinion in *In re Wertheim* is a good place to begin a discussion of the second line of cases treated in this paper because it is recent, controversial, and neatly illustrative of the difference between establishing the date of invention by proof of an actual reduction to practice (or conception plus diligence) on the one hand and by proof of a constructive reduction to practice on the other. It involved process claim reciting "at least 35 percent" or "between 35 percent and 60 percent" of a particular ingredient. The priority application on the date of which appellants were seeking to rely disclosed a range of 25 percent to 60 percent of that ingredient and contained specific examples having concentrations of 36 percent and 50 percent of that ingredient.

In approaching the issue, the opinion sets forth two general rules. First, it states that:

"The function of the description requirement is to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him; how the specification accomplishes this is not material. . . . It is not necessary that the [priority] application describe the claim limitations exactly . . . , but only so clearly that persons of ordinary skill in the art will recognize from the disclosure that appellants invented processes including those limitations."⁴²

Second, and probably more important, it states that:

"The primary consideration is *factual* and depends on the nature of the invention and the amount of knowledge imparted to those skilled in the art by the [priority] disclosure. . . . Broadly articulated rules are particularly inappropriate in this area. . . . Mere comparison of ranges is not enough, nor are mechanical rules a substitute for an analysis of each case on its facts to determine whether an application conveys to those skilled in the art the information that the applicant invented the subject matter of the claims."⁴³

With this as an introduction, a four-judge majority of the court held that the claims reciting "between 35 percent and 60 percent" of the ingredient in question were supported by the Swiss priority case, but that the claim reciting "at least 35 percent" of that ingredient were not. The distinction, according to the majority, was that the former were encompassed within the priority disclosure; the latter read on subject matter outside that disclosure.⁴⁴ However, the court emphasized that the claimed range was only "somewhat narrower" than the range disclosed in the priority application and that not all encompassed ranges would be supported by such a disclosure: "Where it is clear, for

42. 191 USPQ at 96.

43. 191 USPQ at 96-97.

44. See also *In re Voss*, 557 F.2d 812, 194 USPQ 267, 272n. 14 (CCPA 1977).

instance, that the broad described range pertains to a different invention than the narrower (and subsumed) claimed range, then the broader range does not describe the narrower range."⁴⁵ Although it does not say so, it would seem that what the court meant by a narrower and subsumed range pertaining to a different invention than an encompassing range is that the subject matter within the narrower range is nonobvious in view of the subject matter of the broader range.

Judge Miller's dissent from the foregoing was extremely interesting. According to him,

"It is not necessary when antedating a reference under 35 USC 102(a) or (e) to establish a prior reduction to practice, constructive or actual, of *all* the subject matter falling within the claims. It is necessary only to establish a reduction to practice of sufficient subject matter to render the claimed invention obvious to one of ordinary skill in the art."⁴⁶

And for this proposition he cited *In re Spiller*, one of the previously discussed actual reduction-to-practice cases! Thus, it appears that Judge Miller was willing to completely discard the distinctions which have grown up between the two lines of cases discussed herein, treating all cases in which an applicant attempts to antedate a reference, by whatever method, in the fashion developed for attempts to antedate a reference by means of establishing a prior actual reduction to practice (or conception plus diligence).

In re Blaser, 556 F.2d 534, 194 USPQ 122 (CCPA 1977).

The next case in this series involved three claim recitations which were allegedly not supported in the priority application.

The first recitation was "heating the reaction blend ... to 80°C. to 200°C.," whereas the priority application disclosed a range of 60°C. to 200°C. The court said that the disposition of that aspect of the appeal was controlled by *Wertheim* even though the priority application did not contain specific examples falling within the narrower range, a factor expressly relied on in *Wertheim*.

The second recitation was "said share of said water in said mixture is from 1.2 to 1.6 mols." The court held that recitation supported by disclosure in the priority document of the upper limit and a number of examples which "encompassed the range of 1.2 to 1.5 mols."⁴⁷

The third and most interesting of the recitations was "the share of said water in said mixture being from 0.6 to 1.6 mols," whereas the priority application disclosed only the upper limit. Appellants argued that, given their disclosure, it would have been simple (obvious?) to deter-

45. 191 USPQ at 98.

46. 191 USPQ at 105; emphasis in the original.

47. 194 USPQ at 126.

mine the lower limit of practical operation. A three-judge majority⁴⁸ rejected the argument with the enigmatic comment that "enablement and obviousness are not the issue; description of the invention is."⁴⁹ Curiously, Judge Miller did not dissent, but two of the judges who had been in the majority in *Wertheim* did, arguing that appellants should not be penalized for properly limiting their claims to the "practical parameters" of the process.⁵⁰

In re Johnson, 558 F.2d 1008, 194 USPQ 187 (CCPA 1977).

In the most recent case in this series, appellants had lost an interference in which the sole count was drawn to a species within their originally disclosed genus. The claims were to a genus excluding a small subgenus including that species. The application contained many examples falling within the claimed genus, as well as examples falling within the excluded subgenus. However, there was no rejection over the lost count, so apparently the subject matter of the claims was nonobvious in view of the species recited in the lost count.

The board's holding that the appellants were not entitled to the benefit of the filing date of their earlier application was reversed with the following rather severe comment:

"The notion that one who fully discloses, and teaches those skilled in the art how to make and use, a genus and numerous species therewithin, has somehow failed to disclose, and teach the skilled in the art how to make and use, that genus minus two of the species, and has thus failed to satisfy the requirements of §112, first paragraph, appears to result from a hypertechnical application of legalistic prose relating to that provision of the statute [The priority application], having described the whole, necessarily described the remaining part."⁵¹

Fields v. Conover, 443 F.2d 1386, 170 USPQ 276 (CCPA 1971).

The "legalistic prose" which the court in *Johnson* said the board was applying hypertechnically came, of course, from the court's own opinions, and it is believed instructive at this point to compare the court's opinion in *Johnson* with its earlier opinion in *Fields v. Conover*. In that interference, Conover, who was the senior party and whose application disclosed an enormous genus of chemical compounds, had copied claims from Fields' patent. The copied claims were directed to a very small genus wholly encompassed by their enormous genus and to a species wholly encompassed by the small genus. The issues on appeal were whether Conover supported those claims in the sense of the how-to-make and the description requirements of the first para-

48. Including a visiting judge who delivered the opinion.

49. 194 USPQ at 125.

50. 194 USPQ at 126.

51. 194 USPQ at 196.

graph of 35 USC 112. The court held that Conover did support the claims insofar as the how-to-make requirement was concerned, but not insofar as the description requirement was concerned, because their application "falls far short . . . of the 'full, clear, concise, and exact,' written description . . . necessary to support added claims."⁵² The result was justified as follows:

"Conover is concededly first with an extremely broad discovery, broad claims have already been allowed, and broad, non-elected claims . . . are pending which, if allowed, will dominate most, if not all, the scope of Fields' claims. If Conover is allowed to copy Fields' claims merely because the application is sufficient to teach how to make and use the subject matter thereof and points indistinctly and ambiguously in the general direction of that subject matter, the socially valuable incentive to further research and development provided by the opportunity to obtain subservient patents will be considerably diminished."⁵³

How can *Johnson* be distinguished from *Fields v. Conover*? Well, in the first place, the ratio of the size of the claimed genus to the size of the originally disclosed genus was much larger in *Johnson* than it was in *Fields v. Conover*, but it must be remembered that the court did *not* hold that Fields' small subgenus was nonobvious in view of Conover's large genus. Second, Conover had no examples within the small genus, while *Johnson* did. And third, and probably most importantly, *Johnson* and Conover presented their claims for different reasons. *Johnson et al.* narrowed their original claims to avoid having them read on a lost interference count; Conover *et al.* presented their narrow claims (while still retaining their original broad claims) to try to lay claim to the specific, subservient invention of another—or so the court seemed to feel. The court in *Johnson* expressly indicated that "the factual context out of which the question under §112 arises is . . . [very material]"⁵⁴ to the question of the sufficiency of support, and the tone and result of the two opinions under consideration here suggests that it can in fact be determinative. Query, however, whether it makes sense to decide issues of claim support by first judging the purity of the proponent's motives in presenting the claim and whether such a test is consistent with the court's statement in the recent landmark case of *Squires v. Corbett*⁵⁵ that:

"the right to make a claim in a pending application, even for purposes of interference, depends, as it does with all pending claims, on compliance with the requirements of 35 USC 112, first paragraph. There is no other standard."⁵⁶

52. 170 USPQ at 280.

53. 170 USPQ at 280.

54. 194 USPQ at 196.

55. 560 F.2d 424, 194 USPQ 513 (CCPA 1977).

56. 194 USPQ at 520.

B. Prior Activity Cases

*Kawai v. Metlesics*⁵⁷ and *In re Laird*,⁵⁸ which were decided together because they presented the same issue, albeit one in the inter partes context and the other in the ex parte context, are the constructive-reduction-to-practice analogs of the previously discussed *Wilkinson* and *Moore* opinions. In these cases, the claims were to compounds, and the priority applications showed constructive reduction to practice of the compounds, but indicated no utility for them. However, in contrast to *Wilkinson* and *Moore*, there is no indication of whether or not the reference Laird was trying to get behind disclosed a utility for the compound, and apparently whether or not it did was not significant to the result. Also in contrast to *Wilkinson* and *Moore*, the rejection in *Laird* was affirmed, the court reasoning as follows:

"the written specification in the [priority] application is the evidence proving the invention of that which is [constructively] reduced to practice, i.e., the subject matter to which properly supported claims can be drawn. . . . [A]n invention cannot be considered as having been reduced to practice in the sense that a patent can be granted for it unless a practical utility for the invention has been discovered where such utility would not be obvious. . . . Therefore, a constructive reduction to practice, as opposed to an actual reduction to practice, is not proven unless the specification relied upon disclosed a practical utility for the invention where one would not be obvious."⁵⁹

C. Summary

Pushing an invention date back by proving prior constructive-reduction-to-practice of the invention is much harder than pushing it back by proving prior actual-reduction-to-practice of the invention or conception plus diligence. An inventor must establish support for the claim in the priority application in the sense of at least the enablement requirements of 35 USC 112, first paragraph, although he does not need literal descriptive support in the priority application, particularly if the claim is *narrower* than the disclosure in the priority application.

IV. CONCLUSION

Why the dramatically different results depending on whether an inventor is trying to establish an invention date by proof of an actual-reduction-to-practice or by proof of a previous constructive-reduction-to-practice? Particularly in the early opinions, there seems to be a prejudice against constructive-reduction-to-practice, almost the notion that inventors are getting something for nothing by being given any

57. 480 F.2d 880, 178 USPQ 158 (CCPA 1973).

58. 480 F.2d 880, 178 USPQ 158 (CCPA 1973).

59. 178 USPQ at 163.

credit for constructive-reduction-to-practice and that they should be happy to get anything and not ask for anything more.

The statute does not require this dichotomy in result. "[T]he invention" in 35 USC 119 and 120 could be read the same way as "the invention" in Rule 131. Of course, that observation does not suggest which of the two lines of cases discussed herein should be assimilated to the other, but it is submitted that *In re Moore*,⁶⁰ discussed previously in connection with the actual-reduction-to-practice activities cases, presents the best and most persuasive argument for adopting one result over the other and that its rationale is equally applicable to all four types of cases discussed in this paper.

In conclusion, I would like to offer a small suggestion. Until such time as the two divergent lines of cases are assimilated, an inventor is usually well advised to attempt to establish an early date of invention by means of proof of an actual-reduction-to-practice rather than by attempting to rely on a priority document, even if one is available to him. However, priority applications, besides being legal documents, are written descriptions of allegedly inventive subject matter. Thus, it would seem to be feasible to attach a U.S. priority document⁶¹ to a Rule 131 declaration as proof of conception, the filing date serving only as a conveniently established conception date. The inventor would still have to prove diligence leading to a subsequent actual or constructive-reduction-to-practice, but at least the application would oftentimes serve as a convenient, integrated conception document of unquestionable date and authenticity, and the sufficiency of the disclosure would be tested by the relatively liberal actual-reduction-to-practice cases discussed in the first section of this paper rather than by the far more exacting constructive-reduction-to-practice cases discussed in the second section. As should be apparent from the discussion of those cases, the difference in which line of cases is applied to evidence of similar scope and substance can often determine the result.

⁶⁰ 444 F.2d 572, 178 USPQ 260 (CCPA 1971).

⁶¹ 35 USC 104 rules against use of this ploy for foreign priority documents.