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THE HILMER DOCTRINE, SELF-COLLISION, NOVELTY AND THE DEFINITION OF PRIOR ART

KATE H. MURASHIGE

INTRODUCTION

By design, patent systems provide successful applicants with property rights in their inventions and discoveries. Each patent system must define the nature of the rights obtained, who may obtain them, the subject matter in which they may be obtained, and the criteria by which these factors are determined. Currently, in all industrialized countries, the criteria for patentability include at least some form of the “new, useful and nonobvious” trilogy used in the United States.

However, the application of these criteria, as well as the terms themselves, may be different in each patent system. For example, “nonobvious” may be referred to as “inventive,” and “useful” may be referred to as having “industrial application.” Depending on what terms are used, different patentability conclusions may be drawn. For example, in some jurisdictions, the requirement for industrial applicability, as opposed to usefulness, appears to exclude claims regarding methods of treating humans. Nevertheless, no jurisdiction permits property rights to be acquired and maintained in inventions and discoveries that are not determined to be new, inventive, and useful according to some specific standards.

This Article contrasts the application of prior art in first-to-file jurisdictions with the first-to-invent system in the United States. In particular, this Article will defend the Hilmer doctrine as an important feature of the United States system which is designed to benefit United States inventors to the detriment of non-United States inventors.

I. “PRIOR ART” IS PRIOR TO WHAT?

In defining “prior art,” the first essential element concerns the date from which “prior” is measured. Prior to what?

In jurisdictions using the “first-to-file” system,¹ protection is

1. The “first-to-file” system is used by essentially all of the industrialized countries worldwide. The United States and the Philippines are the only jurisdictions with significant patent structures that do not use this system. The sys-

awarded to the first inventor to file for patent protection. Therefore, the date of interest is the effective filing date. This is not necessarily the only theoretically possible date from which to measure backwards, but it is universally applied in first-to-file jurisdictions and is clearly the most workable.

Because of the jurisdictional nature of the rights being granted and the existence of international treaties, such as the Paris Convention² and the Patent Cooperation Treaty ("PCT"),³ an issue arises that involves ascertaining the "effective" filing date for the jurisdiction in question. For members of the Paris Convention, the effective date against which prior art generally is measured is the Convention priority date. For example, prior art could be measured against the application date of any foreign counterparts from which the national application, filed within one year, claims priority. However, this is the effective filing date with respect to prior art generally, and is not necessarily the effective filing date to which a grace period is applicable as is further discussed below. Therefore, absent any statutory bars and grace periods, the starting point for prior art in a first-to-file jurisdiction is simply the effective filing date of the national application.

In the first-to-invent system, the starting point from which prior art is measured becomes more complicated. The United States is the only significant industrialized jurisdiction which maintains a "first-to-invent" system.⁴ Generally, the starting point is the date of invention.⁵ In the United States, however, measuring prior

tem is based on the premise that the first inventor to get his/her invention into written form, and thus disclose it to the public, deserves to receive the patent. Jochen Pagenberg, *The WIPO Patent Harmonization Treaty*, 19 AIPLA Q. J. 2 (1991).

2. See *Paris Convention for the Protection of Industrial Property*, WIPO, art. 13(2)(a), Doc. 274(E) (1992). Article 4 of the Paris Convention provides, inter alia, that a patent applicant in a signatory country shall enjoy a "right of priority" in other signatory countries for a period of one year, i.e., a right during that year to claim priority in other countries and enjoy the benefit of a filing date equal to the filing date of the original application, rather than the date the claim for priority is made. *Id.* The United States' adherence to the Paris Convention is reflected in 35 U.S.C. § 119 (1988). For a discussion of the Paris Convention at work in the United States, see Yasuko Kawai v. Metlesics, 480 F.2d 880 (C.C.P.A. 1973).

3. June 19, 1970, 28 U.S.T. 7645, T.I.A.S. 8733. The PCT provides an international filing, searching, and examination procedure for applicants from member countries. The results of such examinations are not binding and eventually the application must be filed individually in the member countries.

4. The United States Patent and Trademark Office ("PTO") has used the first-to-invent system for the past 150 years. Charles R.B. Macedo, *First-to-file: Is American Adoption of the International Standard in Patent Law Worth the Price?*, 18 AIPLA Q. J. 193, 195 (1990). The Philippines is the only other country to use a first-to-invent system. *Id.* at 196 n.10; see also *supra* note 1.

5. The date of invention is a hazy concept at best. *Fiers v. Sugano*, 984 F.2d 1164 (Fed. Cir. 1993); *Amgen, Inc. v. Chugai Pharmaceutical Co.*, 927 F.2d 1200 (Fed. Cir. 1993).

art backwards from the effective filing date is more usefully viewed as being related to statutory bars or grace periods as opposed to defining actual "prior art."

In the United States, sections 102 and 103 of Title 35 of the United States Code define prior art.⁶ In section 102, subsections (a), (e), and (g) define what constitutes the situation at the time the invention is made.⁷ The remaining subsections of section 102 do not directly pertain to what constitutes prior art. Section 102(f) is simply intended to assure that only the inventor can obtain protection for the invention. While sections 102(b), (c), and (d) assume that the inventorship is correct, the subsections proscribe certain activities or define events prior to the filing of an application which would defeat patentability. Furthermore, section 102(b) includes activities of others prior to the filing of the application by the inventor. This level of complexity is not found in first-to-file jurisdictions.

Thus, "prior" in the term "prior art" refers to the time period before the effective filing date of the application in first-to-file jurisdictions. In a first-to-invent jurisdiction, however, "prior" refers to

6. 35 U.S.C. §§ 102-03 (1988). Section 102 relates to novelty; section 103 concerns nonobvious use.

7. 35 U.S.C. § 102 reads as follows:

Conditions for patentability; novelty and loss of right to patent a person shall be entitled to a patent unless

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

(c) he has abandoned the invention, or

(d) the invention was first patented or caused to be patented, or was the subject of an inventor's certificate, by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application for patent or inventor's certificate filed more than twelve months before the filing of the application in the United States, or

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent, or

(f) he did not himself invent the subject matter sought to be patented, or

(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

35 U.S.C. § 102.

the time period preceding the moment when the invention was "made."⁸

II. GRACE PERIOD VERSUS STATUTORY BAR

Notwithstanding the use of the effective filing date in first-to-file jurisdictions as the measurement date for prior art, some first-to-file jurisdictions provide grace periods for filing an application after various forms of public disclosure have been filed regarding the subject invention. Although there is no grace period in the European Patent Office ("EPO"),⁹ Canada provides a one year grace period requiring no particular procedural formalities.¹⁰ Article 30 of the Japanese patent statute provides a six month grace period which requires concomitant notification of the disclosure for which the grace period is claimed at the time of filing with a "gansho" or petition requesting the grace period.¹¹

Grace periods in Canada and Japan are calculated from the *actual* national filing dates within those countries.¹² A priority application in another jurisdiction or a PCT application which fails to designate Canada or Japan will *not* do. Furthermore, the grace period applies to disclosures made either by the applicant himself or by another if derived from the applicant. It is impossible to overcome an independent third party's disclosure of the same subject matter by use of a grace period.

This is in contrast to the statutory bar in the United States as provided in section 102(b). Section 102(b) requires that a United States or PCT application designating the United States be on file within one year of the granting of a patent, or within one year of a description in a printed publication anywhere, or within one year of the first public use or sale in the United States.¹³ The date from which the bar is calculated is a national filing in the United States or a PCT application designating the United States. However, publications of independent inventors can be overcome under section 1.131 of Title 37 of the Code of Federal Regulations¹⁴ by evidence

8. The word "made" is itself a term of art. Its meaning differs depending on whether the invention was made in the United States or abroad.

9. The EPO is a regional system for examination of patent applications for almost all of Western Europe. A European patent, once granted, must then be converted into a "bundle" of national patents in order to become enforceable.

10. *Patent Act*, R.S.C. 203, s.29 (1990).

11. Tetsu Tanabe & Harold C. Wegner, *Japanese Patent Law*, AIPPI JAPAN (1979).

12. A PCT application designating Canada or Japan can also be used to calculate the grace period.

13. 35 U.S.C. § 102(b).

14. 37 C.F.R. § 1.131 (1991). Section 1.131 provides that:

(a) When any claim of an application or a patent under reexamination is rejected on reference to a domestic patent which substantially shows or

showing prior invention by the inventor/applicant. The entire inventive entity must provide this evidence and that evidence must relate to activities within the United States.¹⁵ This is a derivative of a first-to-invent system. A statutory bar, as opposed to a grace period, makes more sense in such a system, while the logic of a strict grace period is more appropriate to a first-to-file system.

III. UNIVERSAL VERSUS LOCAL NOVELTY

Another distinction which can be made between systems is based on the geographical location of the disclosure. In general, with respect to public prior art, the European patent system is based on an absolute novelty standard that is geographically neutral. Under this standard, novelty is defeated by any type of disclosure not protected by confidentiality anywhere in the world prior to the effective date of application. Other jurisdictions, such as the United States and Japan, have "mixed" standards.

As set forth above, the United States, in section 102(b), recognizes patents or printed publications anywhere in the world as a bar to the date of application in the United States. However, section 102(b) only recognizes public use or sale within the United States. The same is true of section 102(a) which recognizes printed publications prior to the invention date anywhere, but only recognizes knowledge or use by others in the United States prior to the invention date.

Of course this is also a part of section 102(g), which provides the basic notion that the patent will be awarded to the first-to-in-

describes but does not claim the same patentable invention, as defined in section 1.601(n), as the rejected invention, or on reference to a foreign patent or to a printed publication, and the inventor of the subject matter of the rejected claim, the owner of the patent under reexamination, or the person qualified under sections 1.42, 1.43 or 1.47, shall make oath or declaration as to facts showing a completion of the invention in this country before the filing date of the application on which the domestic patent issued, or before the date of the foreign patent, or before the date of the printed publication, then the patent or publication cited shall not bar the grant of a patent to the inventor or the confirmation of the patentability of the claims of the patent, unless the date of such patent or printed publication is more than one year prior to the date on which the inventor's or patent owner's application was filed in this country.

(b) The showing of facts shall be such, in character and weight, as to establish reduction to practice prior to the effective date of the reference, or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to said date to a subsequent reduction to practice or to the filing of the application. Original exhibits of drawings or records, or photocopies thereof, must accompany and form part of the affidavit or declaration of their absence satisfactorily explained.

37 C.F.R. § 1.131 (1991).

15. 35 U.S.C. § 104 (1988).

vent in the United States.¹⁶ While section 102(g) recognizes priority applications under the Paris Convention as effective dates of invention (provided they meet the requirements of disclosure in section 112),¹⁷ they can serve only as a "naked" date in view of section 104. Section 104 provides that the applicant or patentee "may not establish a date of invention by reference to knowledge or use thereof, or other activity with respect thereto, in a foreign country, except as provided in sections 119 and 365 of this title."¹⁸ Thus, if, for example, the priority application was found adequate only as a conception record, diligence toward reduction to practice could not be established if it were conducted outside of the United States.¹⁹ It is substantially ineffective simply to introduce conception records of inventions reduced to practice abroad into the United States without providing some proof of diligence between conception²⁰ and actual or constructive reduction to practice inside the United States.²¹

16. 35 U.S.C. § 102(g) (stating that, not only should the dates of conception and reduction to practice be considered in determining patentability, but also the reasonable diligence of the one who was first to conceive but last to reduce the invention to practice).

17. 35 U.S.C. § 112 (1988) reads in pertinent part:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

35 U.S.C. § 112.

18. 35 U.S.C. § 119, 365 (1988). Section 119 pertains to Convention priority applications, while section 365 pertains to conversion of PCT applications into United States filings.

19. The "United States" is defined as "the United States of America, its territories and possessions." 35 U.S.C. § 100(c) (1988).

20. A date of conception can be established in the United States as of the date that an enabling disclosure enters the United States; it appears that while it is effective to have the disclosure read and understood by a corroborating witness, it has been held sufficient that the disclosure merely go into secure files. *Clevenger v. Kooi*, 190 U.S.P.Q. 188 (BNA 1974). However, diligence toward reduction to practice must be established by acts performed within the United States, which can include, for example, preparing claimed compounds or preparing the patent application. *Kondo v. Martel*, 220 U.S.P.Q. 47 (BNA 1983). Simply introducing into the United States evidence of proof of acts conducted abroad is insufficient. *Id.* Indeed, in *Kondo* it was held insufficient to submit a claimed compound (an actual reduction to practice) with a drawing of its structure and a boiling point. *Id.* The Board distinguished *Breuer v. DeMarinis*, 558 F.2d 22 (Fed. Cir. 1977), where the compound was accompanied by an IR spectrum. *Id.* Importation of the product of a patented process in the United States does not serve as reduction to practice of the process when the process was practiced abroad. *Shurie v. Richmond*, 699 F.2d 1156 (Fed. Cir. 1983).

21. The filing of a patent application that meets the requirements of the first paragraph of section 112 constitutes constructive reduction to practice. See *supra* note 17 for the complete text of 35 U.S.C. § 112.

The geographic distinction is also relevant to section 102(e).²²

Similarly, the provisions of the Japanese statute defining prior art make a distinction between publications and public knowledge or use.²³ Publications are effective regardless of where they appear, while public knowledge or public working must be shown in Japan.

IV. NOVELTY VERSUS INVENTIVE STEP

Most patent statutes also make a distinction between prior art which is available to defeat novelty and prior art which may be applied with respect to the "inventive step" criterion. In general, the rule is that prior art that is available to the public as of its effective date can be used with respect to both criteria. Prior art that is somehow sequestered at its effective date, is applicable only with respect to novelty. However, there is one exception in the United States, namely section 102(e).²⁴

The only prior art not available to the public as of its effective date is the patent literature. In general, when a patent application is published²⁵ it becomes effective prior art with respect to both novelty and inventive step as of its *publication* date. However, it is also effective as prior art, at least with regard to novelty, as of its *filing* date with respect to patent applicants in the same jurisdictions in which it had been filed. In most cases, for example in Europe and Japan, this earlier filing date is effective only with respect to novelty. In the United States, however, nonobviousness is also included in the inquiry.

Considerable controversy exists over the use of nonpublic prior art to defeat patentability on the basis of obviousness or lack of inventive step. The problem is complicated, even with respect to published prior art, in that the standards for what is considered obvious or noninventive vary from jurisdiction to jurisdiction and are subjective at best within any jurisdiction. While the United States is said to use an "objective" test, inherent in the word "obvious" is a subjective standard.²⁶ For example, whether an invention would be

22. See *infra* notes 49-59 and accompanying pages for a discussion of section 102(e) and its limitations to patent applications filed "in the United States."

23. Tanabe & Wegner, *supra* note 11; JAPANESE PATENT LAW, art. 29, para. 1, items 1-3 (1988).

24. Section 102(e) states that "a person shall be entitled to a patent unless the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent." 35 U.S.C. § 102(e). Under section 102(e), the issued U.S. patent becomes available as a reference when it issues, but its effective date is that of its filing in the United States.

25. Presently in the United States, a patent application is published only through issuance.

26. The factual inquiries under the obviousness standard are: (1) what differences exist between the invention and the state of the art at the time the

obvious to one skilled in the art is inevitably a subjective determination based on factual inquiries.

The European approach to inventive step generally uses a "problem and solution" analysis. The determination, for example, would rest on whether the claimed solution to a particular problem is inventive.²⁷ Thus, the application of certain prior art with respect only to novelty has a certain appeal. In the United States, prior art under section 102(f) or 102(g) is only available with respect to novelty and is specifically exempted from section 103 by a 1984 amendment.²⁸ A similar provision was not made with respect to the non-public art of section 102(e) which has additional problems commonly referred to as "the Hilmer doctrine."²⁹

An additional issue with respect to the impact of earlier filed, but unpublished applications, arises in the context of "self-collision." This issue relates to whether an earlier filed, but unpublished application by the same inventor, is or is not considered prior art with respect to a later application to the same or similar subject matter. At one extreme is the proposal that earlier applications by the same inventor simply do not constitute prior art. The consequence of such a rule is the possibility of what is described in the United States as "double patenting."³⁰ This is not a serious consideration in most jurisdictions which publish applications eighteen months or more after the priority date, since the maximum patent term extension obtainable would be eighteen months. The effect of double patenting, at least with respect to the same subject matter, is

invention was made; (2) the level of skill of one ordinarily skilled in the art; and (3) whether the differences would, at the time the invention was made, have been obvious to this person of ordinary skill. *Graham v. John Deere*, 383 U.S. 1 (1954). While testimony could certainly be adduced with respect to the third criterion, in reality, this will almost always be a subjective judgment. It has also been generally held that "secondary considerations" such as commercial success, which actually can be objective, should always be considered.

27. It is unclear whether it would ever be possible to enunciate a truly objective standard of obviousness or inventive step. It should be noted that "secondary considerations" can only go to show nonobviousness; under currently accepted philosophies underlying patent systems, "secondary considerations" could not be applied to show that an invention was obvious.

28. 35 U.S.C. § 103. Section 103 provides:

Subject matter developed by another person, which qualifies as prior art not only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

35 U.S.C. § 103.

This section was amended to remedy the problems created by the holding in *In re Bass*, 474 F.2d 1276 (C.C.P.A. 1966).

29. See *infra* notes 32-55 and accompanying text for a discussion of the Hilmer doctrine.

30. "Double patenting" describes the situation where two applications made to a claim amount to the same invention or an obvious variation of it.

avoided in the United States by requiring that the subject matter be "new" under section 101.³¹

Alternative proposals regarding self-collision include those wherein an applicant would have a specified time limit to file continuing applications and claim the priority of the first application in jurisdictions that do not have this practice.³²

V. THE HILMER DOCTRINE

United States patent practitioners are very familiar with the "Hilmer doctrine."³³ In its most straightforward form, the Hilmer doctrine stands for the proposition that the disclosure of an issued patent in the United States is available as prior art under section 102(e) against other United States applicants as of its filing date as a United States national application.³⁴ Its effective date as prior art is *not* its "priority date" based on a foreign national application, nor is it the filing date of an international PCT application from which priority is claimed, even if the United States is designated.³⁵

The first portion of the foregoing sentence is a result of the holding of the United States Court of Customs and Patent Appeals in *Hilmer I*,³⁶ the second is an explicit statement in the statute. In enacting the requisite statutory provisions to establish the effect of international PCT applications, this aspect of the holding in *Hilmer I* was codified in sections 363 and 375(a) of Title 35 in the United States Code.³⁷ The fate of section 102(e) and its interpretation in the *Hilmer* cases is a subject of considerable controversy under any harmonization proposal. A review of the origins of the Hilmer doc-

31. 35 U.S.C. § 101 (1988).

32. See generally Pagenberg, *supra* note 1, at 1 (discussing the self-collision rule and proposals regarding the time limit to file supplementary applications).

33. The "Hilmer doctrine" was established in *In re Hilmer*, 359 F.2d 859 (C.C.P.A. 1966) (*Hilmer I*) and was discussed further in *In re Hilmer*, 424 F.2d 1108 (C.C.P.A. 1970) (*Hilmer II*).

34. *Hilmer I*, 359 F.2d at 879.

35. *Id.*

36. *Id.* at 861.

37. Section 363 provides:

An international application designating the United States shall have the effect, from its international filing date under Article 11 of the treaty, of a national application for patent regularly filed in the PTO except as otherwise provided in section 102(e) of this title.

35 U.S.C. § 363 (1988).

Section 375(a) provides:

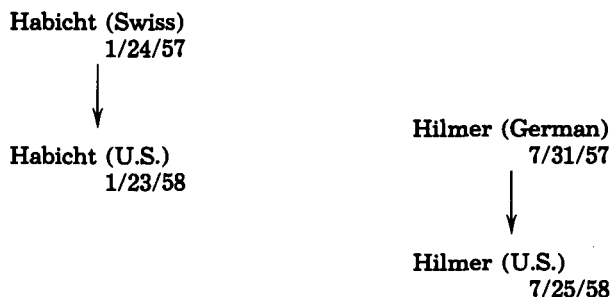
A patent may be issued by the Commissioner based on an international application designating the United States, in accordance with the provisions of this title, subject to section 102(e) of this title, such patent shall have the force and effect of a patent issued on a national application filed under the provisions of chapter 11 of this title.

35 U.S.C. § 375(a) (1988).

trine will show why this section of the statute receives so much attention.

Hilmer I contains an extensive discussion of the reasoning applied in reaching the conclusion that an issued United States patent is a prior art reference only as of its filing date in the United States and not as of the date of any Convention document from which priority is claimed. *Hilmer II* extends this doctrine to application of section 102(g) under circumstances where there is no decision as to priority with respect to contested interfering subject matter.

The *Hilmer* cases arose from two series of relatively contemporaneous applications, each based on a non-United States priority document. The timelines are shown diagrammatically as follows:



Habicht had prevailed in an interference proceeding in the PTO to determine who was first to invent with respect to the subject matter of a count³⁸ to which Habicht's claim 1 corresponded and which covered compounds of the formula:



i.e., containing an *aromatic* ring system. Hilmer conceded priority with respect to this subject matter, so Habicht prevailed in the interference proceeding as to this invention.

The claims at issue in the Hilmer cases did not correspond to the count in interference and were directed to compounds of the formula:



i.e., containing a *saturated* ring system. Habicht did not disclose these compounds. The sole difference between the subject matter for which priority has been settled and that for which it has not was the nature of the ring system as saturated or aromatic.

38. A "count" defines the subject matter of an interference proceeding. It is with respect to the subject matter of the count that priority of invention is determined. Claims "corresponding" to the count are deemed to cover subject matter that is patentably indistinct from the subject matter of the count. The count and claims corresponding to it need not be absolutely identical.

The subject matter of the interference was readily resolved as both parties were accorded priority of their earlier-filed applications in Switzerland or Germany. Additionally, priority as to that subject matter was conceded by Hilmer.³⁹ However, the claims as to the compounds with saturated ring systems in Hilmer (and not disclosed by Habicht) were not considered to correspond to the count and were thus examined by the PTO independent of the interference proceeding.

Claims directed to this exclusively Hilmer subject matter were rejected over the combination of the Habicht disclosure of the above compounds containing aromatic rings along with an additional secondary reference. Because Habicht was issued a United States patent, the patent was available as a reference as of its effective filing date under section 102(e). There was no dispute that Hilmer was to be accorded *priority* to its German application in accordance with section 119.⁴⁰

Thus, the sole issue became whether disclosure of the *analogous* aromatic compounds by Habicht could be used as a reference under section 102(e) only as of Habicht's United States filing date (which would not defeat Hilmer's claims), or whether it was effective as prior art as of Habicht's Swiss priority date (which would defeat Hilmer's claims).⁴¹

With respect to the effective date as prior art under section 102(e), there had, at the time of *Hilmer I*, evidently been a recent change of the position taken on this matter by the United States Patent and Trademark Office ("PTO"). Several PTO Board decisions had been rendered and a notice in the PTO Official Gazette ("OG") was published, and was apparently intended to alter a number of years of PTO practice on this point. *Hilmer I* refers to a Commissioner of Patents notice published in the June 9, 1964, OG, which stated:

[R]evoking a very long-standing section of the Manual of Patent Procedure (MPEP), 715.01 "Reference Claims Foreign Filing Date," based on a Commissioner's decision of May 9, 1935, *Viviani v. Taylor v.*

39. Since both parties were foreign applicants and, as discussed above, only activities within the United States are considered with regard to establishing conception and diligence to reduction to practice, the earliest possible date on which either party could rely was the filing date of the non-United States application from which priority was claimed.

40. See text accompanying note 49 *infra* for the relevant parts of 35 U.S.C. § 119.

41. *Hilmer II* dealt with perhaps a more subtle issue: Whether Habicht's establishment of prior invention of the aromatic compounds made the disclosure a reference under section 102(g) as of the Swiss filing date. The answer was no, but the decision is now probably moot in view of the 1984 amendment to section 103. See *supra* note 28 for the text of the 1984 amendment to section 103. Had the issue been anticipation rather than obviousness, the decision in the interference would have been determinative.

Herzog, 72 USPQ 448, and providing that an applicant need not ante-date the foreign filing date of a reference. The Notice stated that "foreign filing date is considered the effective date in those situations where claimed subject matter of the domestic patent (or disclosed matter related thereto) is being used as the basis for rejection, and where no question of interference exists."⁴²

The logic behind this notice evidently resided in the wording of section 119, which states in pertinent part:

an application for a patent for the same invention in a foreign [convention] country . . . shall have the same effect as the same application would have if filed in this country . . . if the application in this country is filed within twelve months from the earliest date on which such foreign application was filed . . .⁴³

The Board in the *Hilmer* decision, consistent with the notice in the OG, simply interpreted section 119 as standing for the proposition that the patent must be given the same prior art effect under section 102(e) as an application filed in the PTO.

The court reversed the Board's decision on the basis that to interpret "the same effect" was broader than the clear intention of Congress in enacting the statute.⁴⁴ The court said that "the same effect" simply meant the applicant would be accorded the filing date of the foreign application for purposes of *priority* of invention and with respect to subsequent publications.⁴⁵

In ascertaining the statute's intent, the court quoted from the report of a commission created by Congress in 1898 to study the effect of the Paris Convention, in connection with the predecessor statute to section 119.⁴⁶ The commission noted that the purpose of the Paris Convention was to allow applications in one member country to delay application in other member countries for the convention period and still remain unaffected by intervening publications.⁴⁷ This is of critical importance in jurisdictions where absolute novelty is the standard. The court in *Hilmer I* concluded that this is *all* that was meant by "the same effect."

Section 119 itself makes an exception to a more sweeping interpretation of "the same effect" by specifically requiring the filing of a national application in the United States to avoid the statutory bar of section 102(b).⁴⁸ After stating that the foreign filing shall have "the same effect," section 119 goes on to state:

42. *Hilmer I*, 359 F.2d at 865.

43. 35 U.S.C. § 119.

44. *Hilmer I*, 359 F.2d at 872-76.

45. *Id.* at 876.

46. *Id.* at 872.

47. *Id.* at 873.

48. See *supra* note 7 for the complete text of 35 U.S.C. § 102(b).

[B]ut no patent shall be granted on any application for patent for an invention which had been patented or described in a printed publication in any country more than one year before the date of the actual filing of the application in this country, or which had been in public use or on sale in this country more than one year prior to such filing.⁴⁹

Thus, having concluded that this exception shows that "same effect" does not mean precisely what it states, the court in *Hilmer I* reasoned that the words should be limited to what the section of the statute was clearly intended to do, namely allowing the applicant to avoid intervening publications between the foreign Convention application date and the filing date of the United States application.

In specifically discussing section 102(e), the court first asserted that section 102(e) is an essentially different type of statutory provision from section 119. The court stated that section 119 gives affirmative priority rights to applicants, whereas 102(e) is a "negative" provision which defeats applicants.⁵⁰ The court further stated that section 102(e) is a codification of the Supreme Court decision in *Alexander Milburn Co. v. Davis-Bournonville Co.*⁵¹

However, the court in *Hilmer I* distinguished *Milburn* because there was no foreign application involved. The court pointed out that the United States Supreme Court in *Milburn* simply held that the disclosure by another in an issued patent was effective as of its filing date in the United States as a reference against other applicants.⁵² Then, citing the difficulties created by "secret" prior art, as is the nature of section 102(e) references, the *Hilmer I* court stated that *Milburn* and its progeny had "gone far enough" in the direction of allowing applicability of such secret prior art by permitting its effective date as prior art to correspond to the United States filing date.⁵³ Summarizing, the court stated as follows:

[T]he prohibitions of 104, the limitations in sections 102(a) and 102(g) to 'in this country,' and the specifying in 102(e) of an application filed 'in the United States' clearly demonstrates a policy in our patent statutes to the effect that knowledge and acts in a foreign country are not to defeat the rights of applicants for patents, except as applicants may become involved in *priority* disputes.⁵⁴

Following a lengthy and circuitous argument that its earlier holding in *In re Walker*⁵⁵ was being followed, the *Hilmer I* court based its decision largely on this policy consideration.

49. 35 U.S.C. § 119.

50. *Hilmer I*, 359 F.2d at 876.

51. 270 U.S. 390 (1926).

52. *Milburn*, 270 U.S. at 401. It was also made clear by the Court in *Milburn* that no particular distinction should be made between the claimed subject matter and the subject matter of the disclosure. *Id.*

53. *Hilmer I*, 359 F.2d at 877.

54. *Id.* at 878.

55. 213 F.2d 332 (C.C.P.A. 1954) (emphasis added).

In addition, the *Hilmer I* court dismissed an analogy the Board of Appeals had made to section 120, applicable to continuing applications based on United States filings.⁵⁶ Section 120 provides that subsequent applications will have "the same effect" with respect to dates for an invention disclosed in an earlier-filed United States application under the conditions of continuing applications.⁵⁷

In a dissent, the court criticized the majority's reliance on *In re Walker*.⁵⁸ According to the dissenters, *Walker* was based on the adverse award of priority of invention against the appellant, not the disclosure of an earlier-filed foreign application, although the latter was discussed in dicta.⁵⁹ But, it is apparent from the majority opinion that the basis for the actual holding in *In re Walker* was not crystal clear.

Nevertheless, the holding in *Hilmer I* has been consistently followed, and the effective date for application of section 102(e) appears settled to be the filing date of the application in the PTO, and not that of any Convention documents. This is true by virtue of *Hilmer II* for national or regional applications in foreign jurisdictions. For international applications, whether or not they designate the United States, this is codified in sections 363 and 375 of Title 35 in the United States Code.

VI. THE EFFECT OF 35 U.S.C. § 102(e) IN RELATED INVENTIONS

The fixation in United States patent law in making only "the inventor" the applicant and in adhering strictly to priority of invention to decide patent entitlement, creates a number of problems when research is done in the context of a large organization. Even more serious are the problems that arise when research is done in the context of cooperation between two or more organizations. As such research projects develop, it is possible to identify various potential patent claims having different inventive entities, though resulting from a common effort and having at least some community of interest in their ownership. In first-to-file jurisdictions, the invention, for purposes of property rights, does not exist at all until an application is filed. In contrast, in first-to-invent jurisdictions an unexamined or carelessly monitored sequence of events can impair the validity of, or possibly prevent the issuance of, claims which would otherwise be patentable.

56. *Hilmer I*, 359 F.2d at 879.

57. 35 U.S.C. § 120 (1988). Section 120 now also references earlier applications filed under section 363, concerning effect on the national phase of a PCT application, but specifically excepts the inclusion of the effect of such PCT application under section 102(e).

58. *Hilmer I*, 359 F.2d at 884.

59. *Id.*

The provisions of section 102 related to date of invention all permit the use of various procedures to obviate prior art, which is cited with respect to the date of application. References cited under section 102(a) or (e) can be overcome if: (1) the referenced activity or publication can be predated by a priority application entitled to the benefit of section 119; or (2) activities showing invention in the United States prior to the effective date of the reference can be shown pursuant to a declaration under section 1.131⁶⁰; or (3) the publication or disclosure can be shown to be the work of the applicant inventive entity.⁶¹ Section 102(g) interference proceedings are also available. In instituting these proceedings, it is not necessary to formally overcome a rejection under section 102(e) prior to the institution of an interference. In the event that the United States replaces its first-to-invent system with a first-to-file system, presumably section 102(a) would be modified so that the application for invention by the applicant, whether it be in the United States or a convention application, would be the reference point. Thus, section 102(g) would appear unnecessary since only the filing of an application would evidence the making of an invention.

Prior art cited only under section 102(f) or (g) is excepted from the requirement for nonobviousness in section 103. At least with respect to research conducted under the auspices of a single organization, the problems caused by the first-to-invent system as exemplified in *In re Bass*⁶² are largely obviated. As a result, cooperative research among various potential assignees is disadvantaged in relation to research conducted solely for the benefit of a single institution. This has made the assignability of inventions in the context of cooperative research programs an issue.

The amendment to section 103 excepting section 102(f) and (g) did not include prior art under section 102(e), thus creating a trap for the unwary. Clearly, applications to similar subject matter cannot safely be filed on different dates by the same assignee unless the inventive entities are exactly identical. This has necessitated the filing of continuations-in-part, *along with abandonment of ini-*

60. See *supra* note 14 for the text of 37 C.F.R. § 1.131 (1991).

61. It frequently happens that the authorship of a publication and the inventive entity on a patent application are not absolutely identical. It has been held that since the criteria for coauthorship and for status as an inventor are not identical, a mismatch between authors of a publication and the inventive entity does not itself raise a presumption that the invention described in the publication is not properly ascribed to the stated inventive entity. However, it may be necessary to submit a "Katz" declaration establishing that additional coauthors, for example, merely conducted work under the direction of the named inventors. *In re Katz*, 687 F.2d 450 (C.C.P.A. 1982).

62. 474 F.2d 1276 (C.C.P.A. 1973). The ruling in *In re Bass* led to the amendment of section 103 to remove sections 102(f) and (g) prior art from consideration under an obviousness standard when both the prior and considered inventions are commonly assigned. *Id.*

tially filed cases, whenever the inventorship entity changes. The earlier applications cannot be allowed to issue as patents without becoming section 102(e) references with respect to the subsequent applications containing modifications or improvements.

VII. THE FATE OF SECTION 102(e) UNDER HARMONIZATION

Assuming the United States adopts a first-to-file system, section 102(e) would have to be modified so that the date of invention is replaced by the date of application. However, this simple change would not necessarily change the Hilmer doctrine as it applies to nonobviousness. Unless the statute were further amended, the prior art effect of competing applications under current section 103 would still be restricted to their United States filing dates. The rationale for much of the holding in *Hilmer I* fails in any attempt to harmonize world patent protection. Inherent in any attempts at harmonization is the discarding of provisions which unduly favor the nationals of a particular jurisdiction. Therefore, some revision of the statute is clearly in order.

There are a number of options. Most proposals require that, in order for the application to be used as a reference, the application must be published or issued before it can be applied at all. There appears to be no serious argument about this point. However, there might be if publication continues to require issuance in the United States. An earlier-issued patent might be automatically invalidated by a later-issued one, for the reasons explained below. The effect of publication can be divided with respect to anticipation and obviousness and a number of possible effective dates could be considered. Possible effective dates are summarized in the chart below.

Possibilities for Restructuring the Hilmer Doctrine Under a First-to-File System

Date of Effectiveness as Prior Art Once Published or Issued	<u>Novelty</u>	<u>Nonobviousness</u>
Publication/Issue	Yes	Yes
Filing Date in United States	Yes	Yes/No
PCT designating United States	Yes	Yes/No
Non-United States convention	Yes	Yes/No

As seen in the above chart, the reference *must* be effective with respect to its claims as of its filing date in the United States and with respect to any convention application with respect to novelty since this is a first-to-file system. The first-to-file *automatically* succeeds unless multiple patents to the same subject matter are permitted. Nonobviousness is another matter. If the Hilmer doctrine were to be retained, only the United States filing date would count.

The Advisory Commission on Patent Law Reform recommended that if the United States maintains a first-to-invent system, the Hilmer doctrine should be maintained as is,⁶³ regardless of whether publication of applications is adopted. Either issuance or publication, whichever occurs first, would trigger consideration. However, if first-to-file is adopted in the United States, the proposal of the Commission is that the effective date as a reference with respect to novelty would be the foreign or domestic priority date—as it *must* be with respect to claimed subject matter—and for obviousness the United States filing date would remain. This would not be exactly harmonious with practices elsewhere and represents essentially no change from *Hilmer*. In the foregoing chart, only the bottom two “no” options are chosen.

Practices in the European Patent Convention and in Japan are similar. The European Convention, in Article 89, explicitly recognizes the effectiveness of a Convention priority document as an effective filing *both* for priority and as prior art. This Article explicitly states that the “effective filing date” is that of the priority application with respect to Article 54, paragraph 2 which specifies the date against which the existent prior art is judged; Article 54, paragraph 3 which describes the prior art effect of other European applications; and with respect to Article 60(2), which assures right of protection to the first inventor to file. The “whole contents” of European applications are available as prior art. However, unpublished applications are considered prior art only with respect to a novelty standard, and do not have an impact on inventive step (Article 56). Therefore, in the foregoing chart, all of the “no” options are chosen.

The same is true under Japanese Patent Law. Rights under the Paris Convention are attributable to priority applications both for the purpose of filing date priority and also with respect to prior art effect. Japanese applications become available as references upon publication; their effective dates with respect to obviousness or “easy to make” is the publication date; the effective dates with respect to anticipation are effective filing dates, which necessarily includes the priority application.⁶⁴

SUMMARY

The combination of the Paris Convention with the first-to-file system necessarily leads to the consideration of claims in earlier-filed applications. Once applications are published they become prior art as to novelty as of their earliest priority date. While it is

63. Harry F. Manbeck et al., *AIPLA Selected Legal Papers X:3-20* (1993).

64. Tanabe & Wegner, *supra* note 11.

not necessary to require publication before these applications can be considered, there seems to be no sentiment that this should not be the case. Awkward situations will arise if applications continue to be published only on issuance in the United States. Replacing a first-to-invent system with a first-to-file system necessarily removes one arm of the Hilmer doctrine. Most jurisdictions world-wide treat non-published prior art, such as unpublished pending applications in the same jurisdiction, as a reference only for novelty, not with respect to nonobviousness. The Hilmer doctrine assumes that section 103 includes reference to all provisions of section 102. Therefore, without a statutory change a discrepancy, with respect to priority and to value as a reference, would be maintained between applications filed in the United States and applications filed abroad.