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SOURCES OF PRIOR ART IN PATENT LAW

Donald S. Chisum*

The patent system seeks to enrich the technological arts.¹ By offering to inventors a limited period of legal monopoly,² it attempts to stimulate development of new and useful products and processes and to induce disclosure of such products and processes as might otherwise be kept secret.³ The eight basic conditions of patentability—eligible subject matter,⁴ originality,⁵ utility,⁶ novelty,⁷ nonobviousness,⁸

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1. This goal is expressly stated in article I of the United States Constitution. "The Congress shall have Power . . . To promote the Progress of . . . useful Arts, by securing for limited Times to . . . Inventors the exclusive Right to their respective . . . Discoveries." U.S. CONST. art. I, § 8. As the Supreme Court notes, this clause "is both a grant of power and a limitation," and Congress may not "enlarge the patent monopoly without regard to the innovation, advancement or social benefit gained thereby." *Graham v. John Deere Co.*, 383 U.S. 1, 5-6 (1966).

2. Currently, the period is seventeen years from the date the patent is issued by the Patent and Trademark Office. 35 U.S.C. § 154 (1970). A patent revision bill pending in Congress would alter the period to twenty years from the date that an application is filed in order to discourage deliberate delay in the prosecution of patent applications. S. 2255, 94th Cong., 1st Sess. § 154(b) (1975). See PRESIDENT'S COMM'N ON THE PATENT SYSTEM, "TO PROMOTE THE PROGRESS OF . . . USEFUL ARTS" IN AN AGE OF EXPLODING TECHNOLOGY 33-34 (1966).

3. See *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480-82 (1974).

4. One may obtain a patent only for a "process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101 (1970). The last three classes (machines, manufactures and compositions of matter) are often referred to as "product" patents. The three product classes encompass virtually all structural entities made by man because of the "catch all" definition of "manufacture." *Park-In Theatres v. Rogers*, 130 F.2d 745 (9th Cir. 1942); 1 W. ROBINSON, *THE LAW OF PATENTS FOR USEFUL INVENTIONS* 270 (1890) ("every article devised by man except machinery upon the one side, and compositions of matter . . . upon the other"). Excluded are so-called "printed matter," *In re Russell*, 48 F.2d 668 (C.C.P.A. 1931), and "products of nature," *Ex Parte Latimer*, 1889 C.D. 123, 46 Off. G. 1638 (Comm. Pat. 1889). Processes, the first class, present greater problems of definition. See *Gottschalk v. Benson*, 409 U.S. 63 (1972) (formula useful in programming computers is not a patentable process).

5. A person must be an original and independent inventor and must not have derived the inventive concept from any other source or person. 35 U.S.C. § 102(f) (1970). See *Hedgewick v. Akers*, 497 F.2d 905 (C.C.P.A. 1974); *Applegate v. Scherer*, 332 F.2d 571, 573 n.1 (C.C.P.A. 1964). See also text accompanying note 58 *infra*.

6. An invention must be "useful." 35 U.S.C. § 101 (1970). Although a patent may not issue for an invention with no known utility, *Brenner v. Manson*, 383 U.S.

statutory bar,⁹ definite claiming,¹⁰ and disclosure¹¹—assure in a rough sort of way that the public receives its *quid pro quo* of enrichment for the economic pain of monopoly. None of the eight is more important than the condition of nonobviousness, which precludes a patent for a product or process that is literally new but an obvious variation or modification of old products, processes, and technology.

Recognized at least as early as 1851,¹² the nonobviousness requirement was codified in 1952 as Section 103 of the Patent Act:¹³

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the dif-

519 (1966). an invention need not meet any specific degree or level of utility. *See, e.g.,* Campbell v. Wettstein, 476 F.2d 642 (C.C.P.A. 1973)(compounds which inhibit pregnancy in rats). The utility requirement bars patents on both inventions useful only in unlawful activity or fraud, Fuller v. Berger, 120 F. 274 (7th Cir. 1903)(bogus coin detector used on illegal gambling machines, patentable because it could be used on legal machines); Rickard v. DuBon, 103 F. 868 (2d Cir. 1900)(chemical treatment designed to artificially spot tobacco and deceive the public), and on inoperable inventions. *e.g.,* Puharich v. Brenner, 415 F.2d 979 (D.C. Cir. 1969)(device for expanding powers of extrasensory perception).

7. A process or product must be literally new. 35 U.S.C. §§ 102(a), 102(e), 102(g) (1970). The test of novelty is whether the inventor's claim for a patent covers or "reads on" a product or process in the prior art. Peters v. Active Mfg. Co., 129 U.S. 530, 537 (1889) ("That which infringes, if later, would anticipate if earlier."). An identical old product or process anticipates a later invention even though the old product or process was used for a different purpose or in a different art. *In re Thuau*, 135 F.2d 344 (C.C.P.A. 1943)(chemical compound previously used for tanning found to be useful in treating disease).

8. 35 U.S.C. § 103 (1970). *See* text accompanying notes 12–14 *infra*.

9. An inventor must apply for a patent within a year after the invention is (1) patented, (2) described in a printed publication in this or a foreign country, or (3) in public use or on sale in this country. 35 U.S.C. § 102(b) (1970). *See* Egbert v. Lippmann, 104 U.S. 33 (1881)(wearing of corset by inventor's girl friend is "public use"); City of Elizabeth v. American Nicholson Pavement Co., 97 U.S. 126 (1877)(experimental use by inventor is not a "public use"). *See also* text accompanying note 33 *infra*.

10. The inventor must include in his application for a patent "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 (1970). Indefinite claims are invalid. *See* General Elec. Co. v. Wabash Appliance Corp., 304 U.S. 364 (1938)(difficulty of making adequate description cannot justify a claim describing nothing new except in functional terms); Georgia-Pacific Corp. v. United States Plywood Corp., 258 F.2d 124, 134–38 (2d Cir. 1958)(patentee must draft specifications as precisely as subject matter permits or risk judicial invalidation). The claims measure the invention for the purpose of determining both patentability and infringement.

11. The inventor must include in his application for a patent a 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." 35 U.S.C. § 112 (1970). This is commonly referred to as the "enablement" requirement. *See, e.g., In re Ghiron*, 442 F.2d 985, 991–92 (C.C.P.A. 1971).

12. Hotchkiss v. Greenwood, 52 U.S. (11 How.) 248 (1851).

13. 35 U.S.C. § 103 (1970).

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ferences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

In 1966, the Supreme Court in *Graham v. John Deere Co.* reviewed the history and purpose of Section 103 and directed both the courts and the Patent and Trademark Office to adopt the following mode of analysis:¹⁴

While the ultimate question of patent validity is one of law . . . the § 103 condition . . . lends itself to several basic factual inquiries. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.

Under the language of Section 103 and the *Graham* analysis, the “prior art” plays a fundamental role. It is the standard against which an inventor’s claim for a new product or process is measured. Yet the meaning of prior art is not expressly defined in Section 103 and has been dealt with only rarely by the Supreme Court, never in an exhaustive fashion.

The question of what is prior art involves at least four different dimensions. The first is the dimension of time. When does art become “prior”? When, if ever, is it too old and forgotten to be considered prior art? The second is the dimension of place. The patent statutes make both United States and foreign patents and publications prior art, but limit knowledge, use, and invention to “in this country.”¹⁵ When is something “in this country,” and why is this distinction made? The third is the dimension of scope. What is the pertinent art to which the invention pertains? How far into analogous fields can one look to find prior art?

Interesting as all of these questions are, this article will focus pri-

14. 383 U.S. 1, 17 (1966). For other recent Supreme Court decisions on the nonobviousness condition, see *Sakraida v. AG Pro, Inc.*, 96 S. Ct. 1532 (1976); *Dann v. Johnston*, 96 S. Ct. 1393 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969); *United States v. Adams*, 383 U.S. 39 (1966).

15. 35 U.S.C. §§ 102(a), (b), (d) (1970).

marily on the fourth dimension of prior art—that of content. This dimension delineates the types of sources that may be cited and used as references in determining nonobviousness. As an empirical matter, the most commonly cited references are prior patents and publications. It is clear, however, that other types of material are also in the prior art.

Section 103 does not expressly designate the sources of prior art, but the modifying phrase “though not identically disclosed or described as set forth in section 102”¹⁶ implies their inclusion in the provisions of Section 102.¹⁷ Legislative history supports this inference.¹⁸ The exact relationship between the novelty and statutory bar provisions of Section 102 and prior art under Section 103 raises two questions. First, how much of Section 102 defines prior art? Second, can there be prior art outside the terms of Section 102? The following sections of this article will attempt to answer those questions by considering each of the parts of Section 102 as well as a number of other problem areas.

16. *Id.* § 103.

17. 35 U.S.C. § 102 (1970), *as amended*, 35 U.S.C. § 102(d), (e) (Supp. V, 1975), provides:

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 the 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.

18. Both the House and the Senate Reports on the Patent Act of 1952 note that Section 103 “refers to the difference between the subject matter sought to be patented and the prior art, *meaning what was known before as described in section 102.*” S. REP. NO. 1979, 82d Cong., 2d Sess. 6 (1952); H.R. Rep. No. 1923, 82d Cong., 2d Sess. 7 (1952)(emphasis added).

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I. SECTION 102

A. *Prior Knowledge or Use, Publications, and Patents—Section 102(a)*

Section 102(a) is the primary novelty provision, and there is no question that the sources mentioned in it—(1) things “known or used by others in this country”; (2) things “patented . . . in this or a foreign country”; and (3) things “described in a printed publication in this or a foreign country”—are sources of prior art for purposes of Section 103.

Although extensive consideration of what is knowledge or use, what is a patent, and what is a printed publication is beyond the scope of this article, such questions merit a brief discussion. Courts frequently state that “known or used” in Section 102(a) means “public knowledge or use” or knowledge or use “accessible to the public.”¹⁹ But the cases also indicate that an invention is so known and used even though the knower or user takes no affirmative steps to make the matter known widely to those skilled in the art or to the public generally.²⁰ At best, the implied qualification of “public” means the absence of an affirmative effort to conceal.²¹ Courts also state that “known or used” means knowledge or use of the invention actually reduced to practice.²² “Reduction to practice” in patent law occurs only when an actual working embodiment of the invention is constructed and tested.²³ Models and paper descriptions are evidence of “conception” in

19. See, e.g., *Connecticut Valley Enterprises v. United States*, 348 F.2d 949, 952 (Ct. Cl. 1965). The Reviser’s Notes to the Patent Act of 1952 state: “The interpretation by the courts of [§ 102(a)] as being more restricted than the actual language would suggest (for example, “known” has been held to mean “publicly known”) is recognized but no change in the language is made at this time.” H.R. Rep. No. 1923, 82d Cong., 2d Sess. 17 (1952).

20. See *Rosaire v. Baroid Sales Div., Nat’l Lead Co.*, 218 F.2d 72, 74–75 (5th Cir. 1955). See also *E.W. Bliss Co. v. Southern Can Co.*, 251 F. 903, 908 (D. Md. 1918), *aff’d*, 265 F. 1018 (4th Cir. 1920).

21. See *Jones Knitting Corp. v. Morgan*, 361 F.2d 451, 455 (3d Cir. 1966); *Gillman v. Stern*, 114 F.2d 28 (2d Cir. 1940). Although deliberately concealed subject matter may not constitute knowledge or use within the meaning of § 102(a), it may nevertheless constitute prior invention within the meaning of § 102(g). See text accompanying note 65 *infra*. But prior secret invention is subject to the condition subsequent stated in Section 102(g)—that the prior inventor must not have abandoned, suppressed, or concealed the invention. Prior knowledge or use and prior invention are closely related, and the courts do not always distinguish between the two. See, e.g., *Coffin v. Ogden*, 85 U.S. (18 Wall.) 120 (1874).

22. E.g., *Stearns v. Tinker & Rasor*, 220 F.2d 49, 56 (9th Cir. 1955).

23. See *Corona Cord Tire Co. v. Dovan Chem. Corp.*, 276 U.S. 358 (1928); *Sinko Tool & Mfg. Co. v. Automatic Devices Corp.*, 157 F.2d 974, 977 (2d Cir. 1946).

determining priority between rival inventors but do not constitute reduction to practice.²⁴ In *In re Borst*,²⁵ however, the Court of Customs and Patent Appeals held that a complete written description does constitute knowledge or use even without reduction to practice.²⁶ Perhaps the confusion on this point could be resolved by distinguishing "known," which must be public but need not be reduced to practice, from "used," which need only be not deliberately concealed but must be reduced to practice.

"Patented" is significant only with respect to foreign patents because all United States patents are published on the day of issuance and therefore constitute printed publications as well as patents.²⁷ Not all foreign patents are published.²⁸ Generally, a privilege under the law of a foreign country will be considered a "patent" if it confers "an exclusive privilege . . . [which] amounts to a substantial monopoly."²⁹ Although the prevailing rule is that only what is *claimed* in a foreign document is "patented,"³⁰ there is little justification for treating some but not all of the disclosures of a single document as prior art, so long as the unclaimed disclosures are germane to what is claimed.

The phrase "printed publication" has been read expansively. "Pub-

24. See *Fitzgerald v. Arbib*, 268 F.2d 763 (C.C.P.A. 1959); *Hunter v. Stikeman*, 13 App. D.C. 214 (1898).

25. 345 F.2d 851 (C.C.P.A. 1965).

26. *Borst* is criticized in Note, *Novelty and Reduction to Practice: Patent Confusion*, 75 YALE L.J. 1194, 1199 (1966).

27. 35 U.S.C. § 11 (1970). See PATENT & TRADEMARK OFFICE, U.S. DEPT OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE § 1309 (3d. ed. 1961, rev. 1976).

28. See 2 J. BAXTER, WORLD PATENT LAW AND PRACTICE 97.2 (1975).

29. *Atlas Glass Co. v. Simonds Mfg. Co.*, 102 F. 643, 646 (3d Cir. 1900). Two forms of German grants—the "Gebrauchsmuster" and the "Geschmacksmuster"—have presented problems in determining what is a "patent." A Gebrauchsmuster or petty patent is a "patent" even though it is limited in duration to six years. See, e.g., *Bendix Corp. v. Balax, Inc.* 421 F.2d 809, 811-16 (7th Cir. 1970). A Geschmacksmuster or design registration is more like a copyright than a patent in terms of the protection given; it is not published and gives protection only against copying. Although one decision has held that a Geschmacksmuster is a patent for purposes of Section 102(d), *In re Talbott*, 443 F.2d 1397 (C.C.P.A. 1971), thereby imposing a duty on the registrant to seek United States design protection promptly, it can be argued that that holding should not be extended to §§ 102(a) and 102(b), which would make such design registrations prior art.

30. See *In re Fuge*, 272 F.2d 954 (C.C.P.A. 1959); *Carter Prods. v. Colgate-Palmolive Co.*, 130 F. Supp. 557 (D. Md. 1955), *aff'd*, 230 F.2d 855 (4th Cir. 1956). The specifications of an unpublished foreign patent may be resorted to in order to interpret the scope of the claim or to clarify its meaning so long as the specification is not used to add completely new material to what is disclosed by the claim. See *Bendix Corp. v. Balax, Inc.* 421 F.2d 809, 813 (7th Cir. 1970); *Ex parte Ovist & Kjnonaas*, 152 U.S.P.Q. 709 (Pat. Off. Bd. App. 1963).

lication” includes any significant amount of distribution,³¹ and “printed” includes such modern media as microfilm.³²

B. In Public Use or On Sale—Section 102(b)

Section 102(b) is the primary statutory bar provision. It duplicates two of the sources mentioned in Section 102(a) (patents and printed publications) and substitutes “in public use or on sale in this country” for “known or used by others in this country.” Technically, Section 102(b) does not define sources of prior art for purposes of Section 103. While Sections 102(a) and 103 determine what is a patentable invention at the date of invention, Section 102(b) is concerned with the effect of delay in applying for a patent. It may be and usually is triggered by the actions of the inventor.³³ In any case, looking to Section 102(b) would not significantly expand the sources of prior art for Section 103, because most things “in public use or on sale” within the meaning of Section 102(b) would also be “known or used” within the meaning of Section 102(a).³⁴

The more interesting question about Section 102(b) is whether it implicitly includes an obviousness standard comparable to that of Section 103. The dependent clause in Section 103 (“though the invention is not identically disclosed or described as set forth in section 102”) suggests that Section 102(b) applies only where the identical subject matter is patented, published, or in public use or on sale at a time more than one year prior to the date when the inventor applies for a patent on that subject matter. Strict identity clearly is the standard of novelty under Section 102(a),³⁵ and some decisions assume

31. See *Potter Instrument Co. v. Odec Computer Systems*, 499 F.2d 209, 210 n.2 (1st Cir. 1974); *Popeil Bros. v. Schick Elec., Inc.*, 494 F.2d 162 (7th Cir. 1974); *Deep Welding, Inc. v. Sciaky Bros.*, 417 F.2d 1227, 1235 (7th Cir. 1969); *Jockmus v. Leviton*, 28 F.2d 812 (2d Cir. 1928).

32. See *Philips Electronic & Pharmaceutical Indus. Corp. v. Thermal & Electronics Indus., Inc.*, 450 F.2d 1164, 1169–72 (3d Cir. 1971). But see *In re Tenny*, 254 F.2d 619 (C.C.P.A. 1958).

33. See, e.g., *International Tooth-Crown Co. v. Gaylord*, 140 U.S. 55 (1891); *Hall v. MacNeale*, 107 U.S. 90 (1883); *Tucker Aluminum Prods., Inc. v. Grossman*, 312 F.2d 293 (9th Cir. 1963).

34. Secret commercial use of an invention by the first inventor or his assignee constitutes “public use.” See *Metallizing Eng’r Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516 (2d Cir. 1946). Use by another, however, may have to be more public. See *Chemithon Corp. v. Procter & Gamble Co.*, 287 F. Supp. 291, 306–14 (D. Md. 1968), *aff’d*, 427 F.2d 893 (4th Cir. 1970).

35. See, e.g., *Cool-Fin Elec. Corp. v. International Elec. Research Corp.*, 491 F.2d

without analysis that the same standard applies to Section 102(b).³⁶ The Court of Customs and Patent Appeals, however, has held that Section 102(b) contains an obviousness standard rather than an identity standard. In *In re Foster*,³⁷ Foster applied for a patent on August 21, 1956. The Patent and Trademark Office rejected the claim as obvious in the light of a publication by one Binder dated August, 1954. Foster filed an affidavit under Rule 131³⁸ showing invention by December 26, 1952—that is, before the Binder publication. Foster argued that Binder's publication was not prior art as of the date of invention under Section 103 and that Binder did not fully disclose the identical invention so as to constitute a statutory bar under Section 102(b). The court disagreed, overruling its recent decision to the contrary in *In re Palmquist*.³⁹ Rule 131 and its predecessor always had prohibited antedating a reference having a date more than a year prior to the filing date.⁴⁰ The Court found that Congress, in enacting Section 103, did not intend to alter that interpretation of the statutory bar provisions:⁴¹

[S]ince the purpose of the statute has always been to require filing of the application within the prescribed period after the time the public came into possession of the invention, we cannot see that it makes any difference *how* it came into such possession, whether by a public use, a sale, a single patent or publication, or by combinations of one or more of the foregoing. In considering this principle *we assume*, of course, that by these means *the invention has become obvious* to that segment of the "public" having ordinary skill in the art. Once this has

660 (9th Cir. 1974); *A.J. Indus., Inc. v. Dayton Steel Foundry Co.*, 394 F.2d 357, 359 (6th Cir. 1968). See note 7 *supra*.

36. See, e.g., *Tee-Pak, Inc. v. St. Regis Paper Co.*, 491 F.2d 1193, 1197-98 (6th Cir. 1974).

37. 343 F.2d 980 (C.C.P.A. 1965).

38. Rule 131(a) of the Patent and Trademark Office provides:

When any claim of an application is rejected on reference to a domestic patent which substantially shows or describes but does not claim the rejected invention, or on reference to a foreign patent or to a printed publication, and the applicant 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 applicant, *unless the date of such patent or printed publication be more than one year prior to the date on which the application was filed in this country.*

37 C.F.R. § 1.131(a) (1975) (emphasis added).

39. 319 F.2d 547 (C.C.P.A. 1963).

40. 343 F.2d at 987 n.8. See note 38 *supra*.

41. 343 F.2d at 988.

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happened, the purpose of the law is to give the inventor only a year within which to file and this would seem to be liberal treatment. . . .

As to dealing with the express language of 102(b), for example, “described in a printed publication,” technically, we see no reason to so read the words of the statute as to preclude the use of more than one reference; nor do we find in the context anything to show that “a printed publication” cannot include two or more printed publications.

At least two courts of appeals have adopted the *Foster* holding.⁴² The Court of Appeals for the Third Circuit noted in *Package Devices, Inc. v. Sun Ray Drug Co.* that “what *Foster* teaches is that Section 102(b) containing the critical bar date of one year prior to the patent application as the time for determining patentability implicitly contains the obviousness test of Section 103.”⁴³

Assuming that Section 102(b) contains an obviousness standard, the question then arises as to what is the prior art for determining obviousness. Is it the same as that used under Section 103? The prior art under Section 102(b) clearly includes all Section 103 prior art sources in existence prior to the applicant’s date of invention. In addition, it includes sources enumerated in Section 102(b) with effective dates more than one year before the applicant’s filing date (*i.e.*, patents, publications, and matters on sale or in public use). But, as will be seen,⁴⁴ certain nonpublic matter is treated as prior art under Section 103. Under Section 102(e), the disclosures of a United States patent are prior art as of the application filing date, and under Section 102(g), prior inventions by others are prior art as of the date of invention. Are these nonpublic sources also prior art under the obviousness standard of Section 102(b)? There is no textual support for using such sources in Section 102(b); accordingly, Section 102(b) has traditionally been limited to public matters.

To date, the Court of Customs and Patent Appeals has limited *Foster* to publications and issued patents with effective dates more

42. *Frantz Mfg. Co. v. Phenix Mfg. Co.*, 457 F.2d 314 (7th Cir. 1972); *Package Devices, Inc. v. Sun Ray Drug Co.*, 432 F.2d 272 (3d Cir. 1970). *Cf.* *Minnesota Mining & Mfg. Co. v. Kent Indus., Inc.*, 409 F.2d 99, 101 (6th Cir. 1969); *Tri-Wall Containers, Inc. v. United States*, 408 F.2d 748, 751 (Ct. Cl. 1969); *Jack Winter, Inc. v. Koratron Co.*, 375 F. Supp. 1, 33–34 (N.D. Cal. 1974); *Kraus v. Emhart Corp.*, 320 F. Supp. 60, 64 (N.D. Cal. 1970); *Dix-Seal Corp. v. New Haven Trap Rock Co.*, 236 F. Supp. 914 (D. Conn. 1964).

43. 432 F.2d at 275.

44. See text following note 56 *infra*.

than one year prior to the applicant's filing date.⁴⁵ However, the Third Circuit in *Package Devices* applied *Foster* to patents whose filing dates fell in the critical period between the applicant's date of invention and the date one year prior to the applicant's filing date without expressly considering the matter.⁴⁶

C. *Abandonment—Section 102(c)*

Section 102(c) bars a patent if the inventor "has abandoned the invention." Abandonment is rarely relied upon as a ground for denying or invalidating a patent, primarily because the explicit statutory bar provision of Section 102(b) covers most situations where a finding of abandonment might otherwise be appropriate.⁴⁷ An inventor who has truly abandoned certain subject matter should not later be able to obtain a patent on an obvious modification or variation of that subject matter. In other words, Section 102(c), like Section 102(b), should be read as containing an obviousness standard.

D. *Foreign Patenting—Section 102(d)*

Section 102(d) requires persons who seek patent protection in foreign countries to apply promptly for patent protection in the United States. Issuance of a foreign patent before the inventor applies in the United States bars a United States patent unless the application was filed within twelve months of applying for the foreign patent.⁴⁸ As with Sections 102(b) and 102(c), an inventor who is barred from

45. See *In re Ownby*, 471 F.2d 1233, 1236 (C.C.P.A. 1973)(patent with issue date more than one year before application filing date); *In re Bergstrom*, 427 F.2d 1394 (C.C.P.A. 1970)(publication). Rule 131 refers to the "date of such patent," meaning presumably the issue date. See text accompanying notes 37-40 *supra*.

46. 432 F.2d at 274-75. The patentee's date of invention was February 4, 1947, and his filing date was September 2, 1949. The court approved without discussion use as prior art of a patent with a filing date of June 1948.

47. A number of early cases indicated that secret commercial exploitation constituted abandonment of the right to a patent. See *Kendall v. Winsor*, 62 U.S. (21 How.) 322 (1859); *MacBeth-Evans Glass Co. v. General Elec. Co.*, 246 F. 695, 700-02 (6th Cir. 1917). It is now clear, however, that such secret exploitation is a "public use" evoking Section 102(b). *Metallizing Eng'r Co. v. Kenyon Bearing & Auto Parts Co.*, 153 F.2d 516 (2d Cir. 1946).

48. Applying for a United States patent within 12 months of applying for a foreign patent is a wise step for two reasons. First, it eliminates any possibility of the Section 102(d) bar arising from issuance of the foreign patent. Second, it provides the applicant in the United States with the benefit of the foreign filing date. 35 U.S.C. § 119 (1970).

claiming certain subject matter by Section 102(d) should not be able to claim an obvious modification or variation of that subject matter.⁴⁹

E. Description in a United States Patent—Section 102(e)

Section 102(e) is a specialized novelty provision which bars a patent on an invention “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.”⁵⁰ It codifies the ruling of the Supreme Court in *Alexander Milburn Co. v. Davis-Bournonville Co.*⁵¹

In *Milburn*, Whitford’s patent on a welding apparatus issued on June 4, 1912, on an application filed March 4, 1911. Whitford could not prove a date of invention prior to his application date. Another patent issued to Clifford on February 6, 1912, on an application filed January 31, 1911. Clifford’s patent “gave a complete and adequate description of the thing patented to Whitford, but . . . did not claim it.”⁵²

Applying traditional concepts of novelty, it did not appear that Clifford’s pending application anticipated Whitford. At Whitford’s date of invention (*i.e.*, his first filing date), Clifford’s application was neither a patent nor a printed publication. Because it was secret by law,⁵³ it did not constitute matter “known or used.” Finally, it did not necessarily constitute prior invention by another, because Clifford may have never actually reduced the unclaimed matter to practice. The doctrine of constructive reduction to practice had theretofore been limited to matter actually claimed.⁵⁴ Nevertheless, the Court

49. *Cf. Duplan Corp. v. Deering Milliken Research Corp.*, 487 F.2d 459 (4th Cir. 1973).

50. 35 U.S.C. § 102(e) (1970).

51. 270 U.S. 390 (1926)(Holmes, J.).

52. *Id.* at 399.

53. 35 U.S.C. § 122 (1970). A proposed patent revision provides for publication of pending patent applications eighteen months after filing. S. 2255, 94th Cong., 1st Sess. § 122 (1975).

54. Under the doctrine of constructive reduction to practice, the filing of a complete patent application adequately disclosing the invention constitutes reduction to practice. *See Dolbear v. American Bell Tel. Co.*, 126 U.S. 1 (1888); *Automatic Weighing Mach. Co. v. Pneumatic Scale Corp.*, 166 F. 288, 297 (1st Cir. 1909). When the patent issues, however, the application ceases to constitute the constructive reduction to practice as to unclaimed material. *See Wainwright v. Parker*, 32 App. D.C. 431 (1909). *Milburn* did not change this rule insofar as priority between inventors claiming the same subject matter is concerned. *See Conover v. Downs*, 35 F.2d 59 (C.C.P.A. 1929).

ruled that Clifford's application was effective on its filing date to anticipate that of Whitford. Holmes reasoned that "[t]he delays of the Patent Office ought not to cut down the effect of what has been done."⁵⁵ If the Patent Office had processed Clifford's application and issued a patent immediately, that action would have barred a patent to Whitford.

Milburn and its codification in Section 102(e) directly relate only to novelty. In *Hazeltine Research, Inc. v. Brenner*,⁵⁶ however, the Supreme Court in a brief opinion extended the rationale of *Milburn* and Section 102(e) to the determination of prior art under Section 103.

Thus, all matter adequately described in an issued United States patent is fully effective as a reference as of the date when the application for the patent was filed. This rule characterizes material as prior art in determining obviousness as of a time when the material is not available to the public. And it does so retroactively—when the patent later issues. Making secret material prior art might be questioned on grounds of fairness, but fairness to individual inventors is not the primary concern of the patent system.⁵⁷ Rather, that system gives the inventor the right to a legal monopoly in exchange for an actual advance in the useful arts, but not in exchange for that which the inventor reasonably, though erroneously, believes to be such an advance. It is entirely appropriate to include in prior art material which is not, but will in due course become, publicly available.

F. *Derivation from Another—Section 102(f)*

Section 102(f) states the requirement of originality. In its strict application, that requirement bars a person from obtaining a patent if he derives a *complete* idea for the invention from another source.⁵⁸ But consider the case where a person derives an idea from another source which is not a complete idea for the invention but which, combined with the relevant prior art and the ordinary level of skill in the art, renders the invention obvious. Is the derived information prior art for

55. 270 U.S. at 401.

56. 382 U.S. 252 (1965).

57. See, e.g., *H.K. Regar & Sons v. Scott & Williams Inc.*, 63 F.2d 229, 231 (2d Cir. 1933); *Weis v. Woodman*, 65 F.2d 274 (C.C.P.A. 1933).

58. See, e.g., *Hedgewick v. Akers*, 497 F.2d 905, 907 (C.C.P.A. 1974); *MacMillan v. Moffett*, 432 F.2d 1237 (C.C.P.A. 1970); *Alden v. Dewey*, 1 F. Cas. 329 (No. 153)(C.C.D. Mass. 1840).

the purpose of determining obviousness under Section 103? The issue is of importance when the derived information is not otherwise part of the prior art—for example, when the knowledge is secret or is knowledge known or used publicly only in foreign countries.⁵⁹

The limited case authority which exists indicates an affirmative answer.⁶⁰ In *Dale Electronics, Inc. v. R.C.L. Electronics, Inc.*,⁶¹ the Court of Appeals for the First Circuit invalidated Hay's patent on the use of beryllium oxide as the core of an electrical resistor. Hay learned of the characteristics of beryllium oxide by talking to a salesman at a trade show and examining a graph supplied by the National Beryllia Corporation. The owner of Hay's patent argued that "none of these can constitute prior art because they are not or have not been proven to be 'publications.'" The court was not impressed:⁶²

[The patent owner] seems to be seizing on one category of prior art as exclusive. In *Graham* . . . the [Supreme] Court refers to the Congressional reports in relation to § 103 defining the condition of obviousness as referring to 'the difference between the subject matter sought to be patented and the prior art, meaning what was known before as described in section 102.' Section 102 refers to the conditions which foreclose invention. Among them are that the invention was 'known . . . by others', § 102(a), and that the supposed inventor 'did not himself invent the subject matter', § 102(f). Since § 102 is the referent for § 103, we draw the conclusion that if the facts that the whole of an invention was known to others or that none of the invention was created by the patent applicant bar entitlement under § 102, the condition of knowledge by others or the borrowing by the applicant of a sufficient body of lore to make the invention obvious bars entitlement under § 103.

The holding in *Dale Electronics* is basically sound because one should not be able to obtain a patent for an obvious modification or improvement of the idea of another. In at least one instance, however, derived knowledge should not be treated as prior art—the troublesome area of joint and sole invention. Patent law treats the joint work

59. See Part I—A *supra*.

60. See *Ex parte Stalego*, 154 U.S.P.Q. 52, 53 (Pat. Off. Bd. App. 1966); *Ex parte Thelin*, 152 U.S.P.Q. 624, 625 (Pat. Off. Bd. App. 1966).

61. 488 F.2d 382 (1st Cir. 1973). See also *General Tire & Rubber Co. v. Jefferson Chemical Co.*, 497 F.2d 1283, 1287, 1291 (2d Cir. 1974). But see *In re Bass*, 474 F.2d 1276, 1290 (C.C.P.A. 1973)(§ 102(f) has "no relation to § 103 and no relevancy to what is 'prior art' under § 103").

62. 488 F.2d at 386 (citations omitted).

of two or more persons as a separate "inventorship entity" from the individual work of those persons.⁶³ But it would stretch the fiction of separate inventorship entities too far to treat all the knowledge which each of the joint inventors brings into a corroboration on a joint invention as prior art under Section 102(f). The prior secret work of one joint inventor should be prior art as to a later invention by the joint inventors only under Section 102(g), which requires reduction to practice and no abandonment, suppression, or concealment.⁶⁴

G. *Prior Invention by Another—Section 102(g)*

Section 102(g) codifies the rules developed by the courts for determining priority when two or more persons each claim to have independently invented the same subject matter. The general rule is that priority goes to the person who first reduced an embodiment of the invention to practice.⁶⁵ This rule is subject to two exceptions. The inventor who was the first to conceive the subject matter but the last to reduce to practice will prevail if he exercised reasonable diligence in reducing to practice from a time just prior to when the first person to reduce to practice conceived the subject matter.⁶⁶ Further, the second to reduce to practice will prevail if the first abandoned, suppressed, or concealed the invention.⁶⁷

The question whether prior invention under Section 102(g) is a source of prior art under Section 103 in situations where there is no priority contest over identical subject matter received an affirmative answer in two recent cases which are of such interest as to deserve full consideration.

63. See text accompanying note 111 *infra*.

64. See text accompanying note 70 *infra*.

65. See 35 U.S.C. § 102(g) (1970); *Bedford v. Hunt*, 3 F. Cas. 37 (No. 1217) (C.C.D. Mass. 1817).

66. See *Christie v. Seybold*, 55 F. 69, 76 (6th Cir. 1893); *Boyce v. Anderson*, 451 F.2d 818, 820 (9th Cir. 1971). Priority is not a race of diligence, inasmuch as the diligence of the first to reduce to practice is immaterial. See *Steinberg v. Seitz*, 517 F.2d 1359, 1364 (C.C.P.A. 1975); *Bickhart v. Crissey*, 299 F. 703, 704 (1924). Theoretically, the rule on priority can lead to a paradox in a three-party interference, that is, *A* prevails over *B*, *B* prevails over *C*, and *C* prevails over *A*. See Stern, *Priority Paradoxes in Patent Law*, 16 VAND. L. REV. 131 (1962).

67. 35 U.S.C. § 102(g) (1970). See *Cochran v. Kresock*, 530 F.2d 385 (C.C.P.A. 1976); *Young v. Dworkin*, 489 F.2d 1277 (C.C.P.A. 1974); *Mason v. Hepburn*, 13 App. D.C. 86 (1898).

Prior Art in Patent Law

1. *Sutter Products Co. v. Pettibone Mulliken Corp.*⁶⁸

Sutter Products concerned the validity of Sutter's patent which issued on October 21, 1958, on an application filed July 23, 1955. The defendant, Pettibone Mulliken, cited a patent to Harrison as prior art. Harrison's invention had a filing date of January 27, 1955, and hence, under Section 102(e) and *Hazeltine Research*,⁶⁹ was prior art. In order to eliminate Harrison as a reference, Sutter showed a date of invention prior to Harrison's filing date by establishing conception on July 1, 1954, and reduction to practice on December 28, 1954. Undaunted, the defendant established by deposition of Harrison and his attorney that Harrison invented the machine claimed in his patent by June 9, 1954. Sutter demurred, arguing that such prior invention by Harrison was not prior art because it was secret. The Court of Appeals for the Seventh Circuit disagreed, relying on the *Hazeltine* Court's position that prior art is not confined to matters of public knowledge. Thus, prior art includes everything used to determine novelty under Section 102.

2. *In re Bass*⁷⁰

In *Bass*, the Court of Customs and Patent Appeals adopted the holding of *Sutter Products* and applied it to a case of multiple joint and sole inventions arising out of the same corporate research project. One patent issued to Bass and Horvat as joint inventors on an application filed August 23, 1965. A second patent issued to Jenkins as sole inventor on an application filed October 13, 1964. Bass, Horvat, and Jenkins then sought a third patent on an application filed October 11, 1965. Because patent law treats the joint work of two or more persons as being by a separate "inventorship entity" rather than by the individual persons,⁷¹ the patents to Bass-Horvat and to Jenkins were potentially available as prior art to determine the obviousness of the invention by Bass-Horvat-Jenkins. To avoid use of Bass-Horvat and Jenkins, the joint inventors filed affidavits showing a date of invention prior to the filing dates of the two patents.

68. 428 F.2d 639 (7th Cir. 1970).

69. See note 56 and accompanying text *supra*.

70. 474 F.2d 1276 (C.C.P.A. 1973).

71. See text accompanying note 111 *infra*.

The Patent and Trademark Office ruled that the affidavits removed the two patents as references under Section 102(e), but did not remove the prior inventions by Bass-Horvat and Jenkins as references under Section 102(g). Because all three worked for the same company which owned the application, the Patent and Trademark Office presumed that the three applications were filed in the order of invention. It then rejected the claims of the Bass-Horvat-Jenkins application as obvious under Section 103 in the light of the prior art, which included Bass-Horvat and Jenkins.

While the Court of Customs and Patent Appeals unanimously affirmed rejection as to some claims and reversed as to others, the five judges divided sharply on the Section 102(g) issue. In the lead opinion for two judges, Judge Rich relied upon *Hazeltine Research* and *Sutter Products* to conclude that "the use of the prior invention of another who had not abandoned, suppressed, or concealed it under the circumstances of this case which include the disclosure of such invention in an issued patent, is available as 'prior art' within the meaning of that term in § 103 by virtue of § 102(g)."⁷² Judge Rich then reviewed the issue of whether priority of invention had been shown. He found that the affidavits indicated priority of conception by Jenkins and simultaneous reduction to practice.⁷³ Priority in Jenkins was further evidenced by the one year gap in filing of applications. But he found no evidentiary support for priority in Bass-Horvat. The seven-week gap in filing dates was "too short to be significant."⁷⁴ Hence, the Patent and Trademark Office failed to make out "a prima facie case of prior invention."⁷⁵

In a concurring opinion, Judge Baldwin argued that prior invention under Section 102(g) should not constitute prior art under Section 103; that *Sutter Products* was wrong; and that *Hazeltine* pushed back the effective date of patents only to the application filing date, not to the prior date of invention. He contended that the *Bass* holding cre-

72. 474 F.2d at 1286-87.

73. With simultaneous reduction to practice, priority belongs to the first to conceive. *McParland v. Beall*, 45 App. D.C. 162 (1916). See also *Van Otteren v. Hafner*, 278 F.2d 738, 742 (C.C.P.A. 1960). Where both parties file for a patent on the same day and neither show a pre-filing date of conception or reduction to practice, neither party is entitled to priority—a rather strange result. See, e.g., *Lassman v. Brossi, Gerecke & Kyburz*, 159 U.S.P.Q. 182, 185 (Pat. Off. Bd. Intf. 1967).

74. 474 F.2d at 1288.

75. *Id.* at 1287-88. For a criticism of this conclusion see text accompanying note 80 *infra*.

ated havoc for organized research programs and will lead to increased secrecy.⁷⁶

Judge Lane filed a concurring opinion in which he argued that the inconsistent conclusions of Judges Rich and Baldwin were on points of law “not necessarily involved nor essential to the disposition of this appeal.”⁷⁷ Yet to resolve the two-two split, he stated his view that “the prior invention of another who had not abandoned, suppressed, or concealed it, *under the circumstances of this case* which include the disclosure of such invention in an issued patent, is available as ‘prior art’ within the meaning of that term in § 103 by virtue of § 102(g).”⁷⁸ Because this statement conforms to that of Judge Rich, a majority of the court did rule that prior invention under Section 102(g) is prior art.

3. *Some comments on Sutter Products and Bass*

The *Bass* and *Sutter Products* decisions raise a number of questions and problems. The first is whether the holdings should be limited to situations where the prior invention is in due course disclosed in an issued patent. *Sutter Products* involved such a situation, and the holding in *Bass* was expressly so limited. It should not matter, however, how the prior inventor undertakes to make the invention public—whether by applying for a patent, publishing the invention, or putting the invention into public use.⁷⁹ The only condition subsequent should be that expressly stated in Section 102(g)—that the prior inventor abandons, conceals, or suppresses the invention.

76. Judge Baldwin’s reasoning was as follows:

Most [inventions] are the result of carefully planned scientific research, often with numerous persons working on various aspects of a given problem. Invention is often reached via a large number of small steps forward. Given the possibility that the special knowledge of the inventor’s coworkers developed during the pursuance of the invention would be usable against any patent based on the invention which is the end result of the research effort, investors and corporate management would, or should, be most wary of using the patent system to protect any commercially valuable invention, rather than following the trade secret route.

474 F.2d at 1304.

77. *Id.* at 1306.

78. *Id.* at 1307 (emphasis in original).

79. *See, e.g.,* *Corona Cord Tire Co. v. Dovon Chem. Corp.*, 276 U.S. 358, 383–84 (1928) (scientific lecture constitutes disclosure to the public, even though there was no commercial use); *Dunlop Holdings Ltd. v. Ram Golf Corp.*, 524 F.2d 33 (7th Cir. 1975) (prior invention established so as to invalidate subsequent patent where inventor of covering for golf balls provided samples and ordered material for commercial production, but had never revealed the substance used for the covers).

A second question concerns Judge Rich's conclusion that the Patent and Trademark Office failed to make out a prima facie case of prior invention by Bass-Horvat. Inasmuch as the same company owned both applications, it should know (or be required to determine) the order of invention and state it.⁸⁰ The appellant in *Bass* maintained that the two ideas "were invented simultaneously." But truly simultaneous conception is a remote possibility, even where there is a single research project and overlap in the composition of the inventorship entities.

A third question concerns the meaning of "abandoned, suppressed or concealed" in the *Bass* context of organized corporate research. Consider the following hypothetical. Company *M* sponsors a research project and employee *X* conceives and reduces to practice concept *A*. The company decides not to seek a patent on *A*. Work continues and employees *X* and *Y* jointly conceive and reduce to practice concept *B*, which is an improvement upon concept *A*. Can *X* and *Y* obtain a patent on concept *B*, assuming that it is obvious in light of *A* and the prior art? If the fiction of separate inventorship entities is applied consistently, *X*'s failure to diligently seek a patent on or otherwise publicly disclose *A* vests a superior right to a patent in the "second inventor," *X* and *Y*. This should be true even though concept *A* is necessarily disclosed in the application claiming concept *B* and even though *X* and *Y* "derived" the concept of *A* from *X*.

The policy aspects of the *Bass* holding are also of interest. In the example above, the combination of the fiction of separate inventorship entities and the use of prior invention as prior art means that company *M* may obtain only a patent on *A* or one on *B* even though its research effort and investment produced both. This may discourage some research or induce secrecy where that is possible. It also creates an incentive to shade the facts or deliberately to misrepresent who invented what.⁸¹ If *A* and *B* are invented by the same inventorship entity, company *M* may obtain a patent on both, the problem being treated solely as one of double patenting.⁸²

80. The policy of the Patent and Trademark Office is to require a common assignee to state the priority between applications by different inventorship entities for related subjects. PATENT & TRADEMARK OFFICE, U.S. DEP'T OF COMMERCE, MANUAL OF PATENT EXAMINING PROCEDURE § 804.03 (3d ed. 1961, rev. 1976).

81. Of course, discovery of such a fraud would result in both patents being unenforceable and could lead to antitrust liability. *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172, 177 (1965); see also *Precision Instrument Mfg. Co. v. Automotive Maint. Mach. Co.*, 324 U.S. 806 (1945).

The contrary argument is that a patent should issue only when the work of one person or group of persons is a significant advance over the prior work of another person or group of persons. Corporations and persons working for them should have no greater rights than persons working individually. The Ford Administration recently made this argument in response to a proposal by the American Patent Law Association to create a concept of corporate inventorship:⁸³

[T]here is an inherent bias against individual inventors under the APLA suggestion. Individuals, not working under one centralized—i.e., corporate—auspice, could not accumulate and aggregate their separate trivial advances to make a patentable “invention,” because (as under present law) each person’s work would be citable as prior art against the next person’s incremental improvement. Yet this would not be true for inventors (or their assignee) if they worked under a single corporate roof.

II. OTHER POTENTIAL SOURCES AND PROBLEMS

A. Admissions as to Prior Art

If an applicant or patentee admits that certain material is prior art, then that admission will be accepted as binding.⁸⁴ The question of admissions arose in *In re Hellsund*,⁸⁵ decided the same day as *Bass*. *Hellsund*’s application claimed an improvement on a certain process patented to Opel and Bottoms. The applications of both *Hellsund* and Opel-Bottoms were assigned to the same assignee and were filed on the same day (evidently to avoid being potential references against

82. Obtaining two patents on related subject matter extends the 17-year statutory period of monopoly. Under the doctrine of double patenting the second patent is invalid if it is obvious in the light of the claims of the first. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894). The inventor may obtain a second patent by disclaiming the term of the second patent which extends beyond that of the first patent. 35 U.S.C. § 253 (1970); *In re Vogel*, 422 F.2d 438, 441–42 (C.C.P.A. 1970). Such terminal disclaimer, however, will not affect the question of patentability when separate inventorship entities are involved—even when both applications are owned by the same person or company. See *In re Fong*, 378 F.2d 977, 979–80 n.1 (C.C.P.A. 1967).

83. “Memorandum Concerning APLA Letter on Administration Patent Law Reform Program,” published in *BNA Pat., Tm. & Cop. J.* No. 268 (Special Supp.) at 40 (March 4, 1976).

84. See *Corning Glass Works v. Brenner*, 470 F.2d 410, 419 (D.C. Cir. 1972); *In re Garfinkel*, 437 F.2d 1000, 1004 (C.C.P.A. 1971); *In re LoPresti*, 333 F.2d 932, 934 (C.C.P.A. 1964). See generally *Turner, Admissions as Prior Art Under 35 USC 103*, 52 J. PAT. OFF. Soc’y 249 (1970).

85. 474 F.2d 1307 (C.C.P.A. 1973).

each other under Section 102(e)). The common assignee described Hellsund's work as an improvement on the basic concept of Opel and Bottoms. The Patent Office rejected Hellsund's claims, using Opel-Bottoms as prior art under Section 103 by virtue of Section 102(g).

A majority of three judges of the Court of Customs and Patent Appeals held that the work of Opel-Bottoms could be considered prior art as an admission without reaching the question of Section 102(g). Judges Rich and Baldwin again broke lances by filing separate concurring opinions. Judge Rich felt that Hellsund and his assignee had only admitted that Opel-Bottoms was prior work, not that it was prior art. Since prior art includes only those sources described in Section 102, admitted prior work could be used as prior art only if predicated on one of those sections. Judge Rich reiterated his view in *Bass* that the prior invention by Opel-Bottoms was potentially prior art by virtue of Section 102(g). But Section 102(g) allows for avoidance of a reference if the first inventor abandoned, concealed, or suppressed the invention. Judge Rich construed the *Hellsund* majority as making "all admissions by applicants of prior invention by others 'prior art' without limitation."⁸⁶

Judge Baldwin felt that prior art in Section 103 had a meaning apart from the provisions of Section 102:⁸⁷

Nowhere in the 1952 Act is it stated that the term "prior art" as used in section 103 is *defined* by section 102. After reviewing the legislative history of the 1952 Act, especially sections 102 and 103, I have concluded that the term was used in section 103 as a term of art. That is, the drafters intended the term "prior art" to have the same meaning in section 103 as had been established by the courts over the years, rather than giving it some special meaning to be defined in the statute. Since section 102 does not define what is "prior art," material may be "prior art" within the meaning of section 103 although that material is not mentioned in section 102. Likewise, while much of what *is* mentioned as defeating novelty or establishing loss of right under section 102 is also "prior art" under section 103, much of section 102 deals with matter which is not prior art at all. Section 102(c) is one obvious example. I contend that section 102(g) is another.

Thus Judge Baldwin felt that the *Hellsund* case did not clearly hold

86. 474 F.2d at 1314 (emphasis omitted).

87. 474 F.2d at 1316-17 (footnote omitted)(emphasis in original).

that prior invention under Section 102(g) is prior art under Section 103. Admissions could be prior art without any analog in Section 102.

In *In re Nomiya*,⁸⁸ Judge Rich took the opportunity to clarify his view on admissions. The applicants, Japanese citizens, claimed an improvement in transistors. In the “Description of Prior Art” section of their application, the applicants included a drawing showing a certain combination. The Patent Office rejected their claim as obvious in light of the disclosed combination and certain other references. The applicants argued that there was no statutory basis for treating the drawing as prior art under Section 103, because unpatented and unpublished knowledge in a foreign country is not mentioned in Section 102. The court rejected this contention: anything admitted to be prior art in those very words (*Ipsissimis verbis*) is prior art, regardless of whether there is a statutory basis for it.⁸⁹

After *Nomiya*, it is clear that any treatment by an applicant of material as prior art will be binding on him as an admission. As to the relation between admissions and Section 102, it will be rare that an admission would not have a basis in Section 102 anyway if derived information is treated as prior art by virtue of Section 102(f)⁹⁰ and prior invention is treated as prior art by virtue of Section 102(g).⁹¹ Probably the only situation would be where the applicant includes in his application either prior secret knowledge not amounting to invention or prior foreign knowledge, which he actually acquired only after the date of invention.

B. *The Doctrine of Lost Counts*

In a recent decision, *In re McKellin*,⁹² the Court of Customs and Patent Appeals solidified the view that prior art under Section 103 is limited to things mentioned in Section 102 by extinguishing the “doctrine of lost counts.” A count is the equivalent of a claim and is the vehicle for determining priority between different applicants claiming

88. 509 F.2d 566 (C.C.P.A. 1975).

89. In a footnote Judge Rich pointed out that the ruling was consistent with his concurring opinion in *Hellsund*, because there the applicant had admitted only that certain material was “prior invention,” not that it was “prior art.” 509 F.2d at 571 n.5.

90. See text accompanying note 58 *supra*.

91. See Part I–G *supra*.

92. 529 F.2d 1324 (C.C.P.A. 1976).

the same invention in an interference proceeding⁹³ in the Patent and Trademark Office. If priority is awarded against an applicant as to a certain count, the doctrine of lost counts would allow use of that count as prior art against that applicant's attempt to claim different but related subject matter.⁹⁴

The facts of *McKellin* can be stated in simplified form. McKellin filed an application for a United States patent on June 6, 1963, claiming chemical compounds *A*, *B*, and *C* and a generic group of compounds including *A*, *B*, *C*, and other compounds. Maltha filed an application for a United States patent on October 10, 1963, disclosing and claiming compound *D*. A patent issued to Maltha on November 5, 1968. McKellin then copied Maltha's claim for *D*, which is within McKellin's generic group, and an interference was declared between McKellin and Maltha. The Patent and Trademark Office awarded priority to Maltha. Maltha filed an application for a patent in the Netherlands on October 12, 1962, and was entitled to the benefit of that filing date in the United States under 35 U.S.C. § 119. McKellin could not show a date of invention prior to Maltha's Netherlands filing date.

McKellin continued his application *ex parte*, seeking a claim on *A*, *B*, and *C*. The Patent and Trademark Office rejected these claims as obvious in the light of *D* ("the lost count"). On appeal, the court held that the lost count is not prior art under Section 103. Section 135, dealing with interferences, does provide that an adverse decision on priority "shall constitute the final refusal by the Patent Office of the claims involved."⁹⁵ This is procedural in nature, however, and does not create prior art. To constitute prior art, a lost count must have a basis in Section 102. Maltha's filing abroad was not a patent or publication within the meaning of Sections 102(a) or (b). Being abroad, it did not qualify under Sections 102(a) or (g) as prior knowledge or use or prior invention "in this country." Therefore, the lost count was not prior art. The court relied in part on its decisions in *In re Hilmer*⁹⁶ which held that a foreign filing entitled to the benefit of Section 119

93. "Interference proceedings" are discussed in Crews & Crews. *Introduction to Interference Law and Practice*, 46 J. PAT. OFF. SOC'Y 755 (1964).

94. See *In re Bass*, 474 F.2d 1276, 1302 (C.C.P.A. 1973) (Baldwin, J., concurring).

95. 35 U.S.C. § 135(a) (1970).

96. 424 F.2d 1108 (C.C.P.A. 1970).

does not thereby become “in this country” within the meaning of Sections 102(e) and 102(g).

The holding in *McKellin* permits a unique and anomalous situation—issuance of valid patents to different inventors claiming subject matter that is not patentably distinct. The majority recognized this but simply noted that “it is for Congress to decide whether to change the law.”⁹⁷

C. *The Inventor's Own Work as Prior Art*

1. *The general principle*

As a general principle, an inventor's own prior *original* work cannot be cited as part of the prior art to show that his later invention is obvious under Section 103.⁹⁸ This principle is subject to two important exceptions. First the inventor's own work disclosed in the form of a patent, printed publication, or public use with a date more than one year before the application for a patent on the invention becomes prior art as to the invention.⁹⁹ Second, one person's prior publication, patent or invention is prior art as to a later joint invention, even though that person is one of the joint inventors.¹⁰⁰

In *In re Jaeger*,¹⁰¹ the Court of Customs and Patent Appeals cast some doubt on the validity of the general principle. Jaeger and Rusnak filed an application claiming a certain improvement on a “jig boring machine.” The Patent Office rejected the claims as obvious under Section 103, relying in part on a prior patent to Rusnak alone. In affirming the rejection, the court dismissed the applicant's argument that it should “look more generously on this case because the closest art is a previous development of the same inventor”:¹⁰²

No authority is cited to support this proposition and we know of none.

The law makes no distinction between prior art of an applicant's own

97. 529 F.2d at 1329.

98. See, e.g., *Corning Glass Works v. Brenner*, 470 F.2d 410, 418 (D.C. Cir. 1972); *In re Mathews*, 408 F.2d 1393 (C.C.P.A. 1969); *Ex parte Seaborg*, 131 U.S.P.Q. 202 (Pat. Off. Bd. App. 1960); *Ex parte Lemieux*, 115 U.S.P.Q. 148 (Pat. Off. Bd. App. 1957). Cf. *In re Kuehl*, 475 F.2d 658 (C.C.P.A. 1973); *In re Ruff*, 256 F.2d 590 (C.C.P.A. 1958).

99. See Part II-C-2 *infra*.

100. See Part II-C-3 *infra*.

101. 241 F.2d 723 (C.C.P.A. 1957).

102. *Id.* at 726.

making and the prior art of others. . . . To support a separate patent, an improvement must meet all of the statutory requirements of patentability which this one fails to do.

The literal wording of Section 102(a) supports the *Jaeger* suggestion. "Known or used" is expressly qualified by "by others" while "patented or described in a printed publication" is not. It can fairly be implied from Section 102(b), however, that an inventor may publish or patent the early results of his work, subject only to the one-year statutory bar provision. If he can publish the same invention, he ought to be able to publish material that renders his own later work obvious. The real concern in *Jaeger* was with double patenting, and to that extent it has been rendered obsolete by later developments in the law of double patenting.¹⁰³ In any event, the statement in *Jaeger* is dictum since on its facts the case fits within both exceptions to the general principle. The patent to Rusnak issued on May 4, 1948, over a year before *Jaeger*-Rusnak filed their application on July 22, 1950. Thus, Rusnak was a statutory bar. Rusnak's sole work in the form of a patent is usable against the separate inventorship entity of *Jaeger*-Rusnak.

In *Illinois Tool Works, Inc. v. Solo Cup Co.*,¹⁰⁴ the Seventh Circuit Court of Appeals squarely upheld the general principle, dispelling the possible implications of *Jaeger*. Edwards, an employee of Illinois Tool (ITW), developed a thin-walled plastic container, and ITW filed an application for a patent on the invention on November 29, 1957. In December of 1957, ITW began selling the container. In June 1958, Edwards developed an improvement in the container, and ITW filed for a patent on that improvement on October 29, 1958. Thereafter, both patents issued. In a suit for infringement, the district court ruled that Edwards' improvement patent was obvious in light of the cups put in public use by ITW prior to Edwards' invention of the improvement. The court of appeals held that the cups in public use could not be used as prior art because the cups were Edwards' own work and the public use was less than one year prior to the application (and hence not a statutory bar under Section 102(b)). The court limited *Jaeger* to cases where the inventor's own work constitutes a statutory bar.

103. See note 82 *supra*.

104. 461 F.2d 265 (7th Cir. 1972). See also *In re Gibbs*, 437 F.2d 486 (C.C.P.A. 1971).

2. *Statutory bar*

It has long been accepted that an inventor's patent, publication, or public use can be used as a reference to determine obviousness of his later invention if the reference has an effective date that would make it a statutory bar under Section 102(b).¹⁰⁵ In the *Graham* case,¹⁰⁶ the Supreme Court invalidated an improvement patent to Graham, relying in part on a prior patent to Graham. The exception is not limited to the rationale of double patenting,¹⁰⁷ because the exception precludes a patent on a later obvious variation even if the inventor files a terminal disclaimer to avoid any double patenting problem. Use of an inventor's own prior public work follows logically from the notion that the statutory bar provision of Section 102(b) contains an obviousness standard.

3. *Joint and sole inventorship*

The second exception to the general principle is not really an exception. Rather, it is a definition of what constitutes "one's own" work. As was seen in the discussion of the *Bass* case,¹⁰⁸ the fiction of separate inventorship entities is applied in patent law to make the sole work of one person usable against the joint work of that person with another. Thus, X , Y , Z , $X + Y$, $X + Z$, $Y + Z$, and $X + Y + Z$ are treated as though they were entirely different persons. A full discussion of what constitutes joint invention is beyond the scope of the present article, but generally, each person who contributes to the original conception of the subject matter of the invention something beyond the ordinary skill in the art is a joint inventor.¹⁰⁹ The vagueness of this standard often leads to mistakes in determining inventorship, and Congress has provided means of correcting innocent mistakes under some circumstances.¹¹⁰

The leading case applying the fiction of separate inventorship to the

105. *Ex parte* Ensign, 2 U.S.P.Q. 214 (Pat. Off. Bd. App. 1929). *Cf.* *Package Devices, Inc. v. Sun Ray Drug Co.*, 432 F.2d 272, 274-75 (3rd Cir. 1970). For a discussion of the *Package Devices* case see text accompanying note 46 *supra*.

106. *Graham v. John Deere Co.*, 383 U.S. 1 (1966).

107. *See* note 82 *supra*.

108. *See* text accompanying notes 70-78 *supra*.

109. *Monsanto Co. v. Kamp*, 269 F. Supp. 818, 824 (D.D.C. 1967).

110. 35 U.S.C. §§ 116, 256 (1970). *See* *Iowa State Univ. Research Found'n v. Sperry Rand Corp.*, 444 F.2d 406 (4th Cir. 1971).

determination of prior art is *In re Land*.¹¹¹ Land and Rogers filed an application as joint inventors on February 13, 1956, for certain "photographic color processes." Among the references cited by the Patent and Trademark Office against the Land-Rogers application were patents to Land and Rogers individually with prior filing dates. All the applications and patents were assigned to a common assignee, Polaroid Corporation. The court held that each of these references was an application "by another." Land, Rogers, and Land-Rogers (joint inventors) are discrete "inventive entities." Thus, in order to remove those patents as references under Section 102(e) and 103, Land-Rogers bore the burden of proving that their joint work dated back prior to the filing date of the Land and Rogers sole applications or that the disclosures in those applications were derived from their joint work.

In the discussion of Section 102(f) above, it was argued that this fiction of separate inventorship entities should not extend so far as to make all the knowledge which each joint inventor brings into a corroborative effort prior art.

III. CONCLUSION

A number of conclusions emerge from this brief exploration of the dimension of content of prior art. First, the sources which determine novelty and originality, those mentioned in Sections 102(a), 102(e), 102(f), and 102(g), also create prior art under the nonobviousness requirement of Section 103. Second, the statutory bar provisions in Section 102, Sections 102(b), 102(c), and 102(d), do not create prior art but instead incorporate an obviousness standard comparable to that of Section 103. Third, nothing can be prior art under Section 103 without a statutory basis in Section 102. Finally, an inventor's own work may constitute prior art against him where it is a statutory bar or where there is a variance in the "inventorship entity."

111. 368 F.2d 866 (C.C.P.A. 1966).