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SECRET PRIOR ART AND THE DUTY OF DISCLOSURE

Bradley J. Hulbert*

The federal district courts and the Court of Customs and Patent Appeals have issued conflicting opinions as to the use of "secret," section 102(g) technical developments as prior art to invalidate a patent. The courts should now rationalize the decisions so as to maintain the principle that only the first inventor is entitled to a patent. Moreover, the United States Patent and Trademark Office rules must be construed as specifically requiring applicants to state what they know, or what they are in a position to find out, regarding whether the inventor is entitled to a patent in light of "secret" technical developments.

I. INTRODUCTION

A person who invents or discovers something useful may apply for a patent, a special type of contract with the United States government. In return for fully disclosing how to make and use the new discovery and thus

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1. The term prior art refers to those writings and activities that relate to the novelty or non-obviousness of a claimed invention. See 35 U.S.C. § 301 (1976) ("Any person at any time may cite to the Office . . . prior art . . . [which has] a bearing on the patentability of any claim"). Prior art is "secret" when its contents are not known at important junctures in the patent procurement, licensing, and litigation process. For example, (1) when the inventor's disclosure is evaluated for deciding whether to file; (2) when a decision whether to litigate, or whether to take or offer a license must be made; and (3) when a potential purchaser or licensee is trying to determine the value of the patent. Bretschneider, Secret Prior Art—Trap for the Unwary, in 1978 BNA Patent Law Conference Coursebook, 11 Critical Areas of United States Patent Law Which Affect Your Daily Practice 28 (1978).


3. A patent can be denied under 35 U.S.C. § 112 (1976) for failure to properly disclose and claim the invention.

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. See Ellipse Corp. v. Ford Motor Co., 452 F.2d 163, 171 U.S.P.Q. 513 (7th Cir. 1971) (purposes of § 112 are to warn others skilled in art against infringement and enable them to benefit from teachings of patent), cert. denied, 406 U.S. 948, 173 U.S.P.Q. 705 (1972); Corning Glass Works
advancing the arts and sciences, the government will grant the inventor the exclusive rights to his invention in the United States. The patent entitles its owner to sue, in federal court, anyone who makes, uses, sells, or otherwise

4. 35 U.S.C. § 101 allows applicants to obtain patents only for "useful" inventions. See note 2 supra and note 13 infra; UNITED STATES DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE §§ 706.03(p), 608.01(p) (4th rev. ed. 1981) [hereinafter cited as M.P.E.P.]. The M.P.E.P. is published under the authority of the Commissioner of Patents and Trademarks (Commissioner) as "a reference work of the practices and procedures relative to the prosecution of patent applications before the" Patent Office. Id. at III (Foreword).


7. See, e.g., Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 173 U.S.P.Q. 769 (1972) (the meaning of "make" requires that a thing be "actually associated in an operable assembly").

The conditions for a patentable invention are set out in Title 35 of the United States Code. Under the statute, patentability is dependent upon three

infringes,¹⁰ his invention.¹¹ These exclusive rights commence on the date the patent issues and continue for seventeen years.¹²

infringes because it perpetuates infringing use): Bauer v. O'Donnell, 229 U.S. 1 (1913) (“The right to use is a comprehensive term and embraces within its meaning the right to put into service any given invention”).

9. See, e.g., American Chem. Paint Co. v. Thompson Chem. Corp., 244 F.2d 64, 113 U.S.P.Q. 103 (9th Cir. 1957) (patent owner has a separate and independent cause of action against a manufacturer to recover damages and profits and to restrain one who resells a product he purchased from an infringing manufacturer).


11. 35 U.S.C. § 271(a) (1976). In addition to direct infringement prohibited by § 271(a), inducement of direct infringement is prohibited under § 271(b). Moreover, contributory infringement is prohibited under § 271(c). “[W]hoever sells a component of a patented machine, . . . knowing the same to be especially made or especially adapted for use in an infringement of such patent . . . shall be liable . . . . ” However, there can be no contributory infringement under § 271(b) or (c), in the absence of direct infringement. See, e.g., Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336, 341-42, 128 U.S.P.Q. 354, 357 (1961) (because replacement of patented component constituted permissible repair, there was no direct infringement, consequently, the seller of repair components is not liable for contributory infringement).

12. Under 35 U.S.C. § 154 (1976), a patentee may “exclude others from making, using, or selling the invention throughout the United States” for a term of 17 years. Design patents, which entitle the owner to exclude others from making, using, or selling devices having the same appearance as the patented design, may be granted for terms of either 3.5, 7, or 14 years, depending on the fee the applicant elects to pay. 35 U.S.C. § 173 (1976). Interestingly, the case law remains unsettled, whether during the term of a patent, an inventor should be granted the right to exclude all or just some others. Cf. notes 122-26 and accompanying text infra.
conditions: novelty, utility, and nonobviousness. Section 101 establishes the novelty and utility requirements.\(^1\) Section 102, which further defines novelty, grants an inventor the right to receive a patent for his invention unless certain conditions exist.\(^4\) Section 102(g) of Title 35 sets forth one such condition for disallowing a patent.\(^5\) An applicant is not entitled to a valid patent unless—

13. Section 101, which defines patentable inventions provides: “Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.” 35 U.S.C. § 101 (1976). The term process is defined broadly as “process, art or method and includes a new use of a known process, machine, manufacture, composition of matter, or material.” 35 U.S.C. § 100 (1976); M.P.E.P., supra note 4, at § 701.

14. § 102. 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 . . . 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

(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 . . . .


15. The conditions for disallowing patents are known as the statutory bars. The statutory bars to patentability are 35 U.S.C. §§ 101, 102, 103, 112, 116, 184, 186, 256 (1976). The § 102 bars generally define that novelty is not present when the applicant for a patent:

(1) is not an inventor (§ 102(f)). See, e.g., Saul v. International Harvester Co., 170 F. Supp. 374, 377, 120 U.S.P.Q. 177, 180 (E.D. Wis. 1959) (patent invalidated because patentees brought problem of manufacturing an improved peg rack to a company whose employees actually conceived and developed every element recited in the claims), aff'd, 276 F.2d 361, 125 U.S.P.Q. 42 (7th Cir. 1960); or

(2) is not the first inventor (§§ 102(a), (e), (g)). See, e.g., Allen v. W. H. Brady Co., 508 F.2d 64, 184 U.S.P.Q. 385 (7th Cir. 1974) (in determining priority, abandonment is irrelevant unless it occurred before applicant's invention date); Kardulas v. Florida Mach. Prod. Co., 438 F.2d 1118, 168 U.S.P.Q. 673 (5th Cir. 1971) (party who first either actually or constructively reduces invention to practice is entitled to priority; however, if a second party conceived of invention first, and was diligent in reducing it to practice, he is entitled to a patent even though he was the last to reduce to practice); Continental Copper & Steel Indus., Inc. v. New York Wire Co., 196 U.S.P.Q. 30 (M.D. Pa. 1976) (abandonment must be as voluntary and complete cessation of efforts to exploit invention); Potter Instrument Co. v. ODEC Computer Sys., Inc., 370 F. Supp. 198, 181 U.S.P.Q. 572 (D.R.I.) (§ 102(a) bar does not encompass prior knowledge or use by others which is derived from applicant), aff'd, 499 F.2d 209, 182 U.S.P.Q. 386 (1st Cir. 1974). Accord, Illinois Tool Works, Inc. v. Solo Cup Co., 461 F.2d 265, 172 U.S.P.Q. 385 (7th Cir.), cert. denied, 407 U.S. 916, 174 U.S.P.Q. 65 (1972); General Steel Prods. Co. v. Lorenz, 204 F. Supp. 518, 132 U.S.P.Q. 574 (S.D. Fla. 1962) (copending applications of third parties are
patent if, before the applicant made his invention, it "was made in this country by another who had not abandoned, suppressed, or concealed it." Consequently, if two inventors diligently work in complete ignorance of one another and independently develop identical inventions, section 102 mandates that only the "first" inventor has the right to obtain a patent.

Nonobviousness, the final requirement for obtaining a patent, is embodied in section 103 of Title 35. If the invention is an "obvious" modification of available as references to establish claim of first invention), aff'd on other grounds, 337 F.2d 726, 143 U.S.P.Q. 140 (5th Cir. 1964); In re Borst, 345 F.2d 851, 145 U.S.P.Q. 554 (C.C.P.A. 1965) (knowledge as contemplated by § 102(a) must be sufficient to enable one skilled in the art to actually reduce invention to practice); or

(3) is not diligent in filing his application (§§ 102(b), (d)). See, e.g., Monroe Auto Equip. Co. v. Heckethorn Mfg. & Supply Co., 332 F.2d 406, 415, 141 U.S.P.Q. 549, 558 (6th Cir.) (sale of a patented device more than one year prior to the filing date of the patent renders the patent invalid under § 102(b)), cert. denied, 379 U.S. 888, 143 U.S.P.Q. 465 (1964); Watson v. Allen, 254 F.2d 342, 345, 117 U.S.P.Q. 68, 70 (D.C. Cir. 1958) (public use under § 102(b) exists as a bar to patentability where the invention is used by, or exposed to, anyone other than the inventor or persons under an obligation of secrecy to him); Dix-Seed Corp. v. New Haven Trap Rock Co., 236 F. Supp. 914, 916, 144 U.S.P.Q. 57, 60 (D. Conn. 1964) (§ 102(b) imposes a condition that the inventor act with deliberate speed in filing his patent application or his rights to a legal monopoly will be barred). Accord, American Infra-Red Radiant Co. v. Lambert Indus., Inc., 360 F.2d 977, 149 U.S.P.Q. 722 (6th Cir.), cert. denied, 385 U.S. 920, 151 U.S.P.Q. 757 (1966); or

(4) abandoned or forfeited his invention before his filing date (§ 102(c)). See, e.g., Davis Harvester Co. v. Long Mfg. Co., 252 F. Supp. 989, 1009, 149 U.S.P.Q. 420, 436 (E.D. N.C.) (mere delay will not amount to abandonment, but nonclaim for a period of time of considerable duration will amount to abandonment, due to the fact that the public's right to free use of the invention is postponed and intention of patent laws is defeated), aff'd per curiam, 373 F.2d 513, 152 U.S.P.Q. 655 (4th Cir. 1967). See G. Koenig, Patent Invalidity: A Statistical and Substantive Analysis § 204[3][b] n. 123 (rev. ed. 1980).

17. See Mareconi Wireless Tel. Co. v. United States, 320 U.S. 1, 34-35, 57 U.S.P.Q. 471, 486 (1943) ("It is well established that as between two inventors priority of invention will be awarded to the one who by satisfying proof can show that he first conceived of the invention"); Boyce v. Anderson, 451 F.2d 818, 820, 171 U.S.P.Q. 792, 793 (9th Cir. 1971) ("The inventor who is first to both conceive the invention and reduce it to practice is awarded priority . . . . But if the first to conceive the invention is the last to reduce it to practice, he will still be awarded priority if he was diligent in reducing his invention to practice from a time just prior to the second inventor's conception"); Tibbetts Indus. Inc. v. Knowles Elecs., Inc., 386 F.2d 209, 211, 156 U.S.P.Q. 65, 66 (7th Cir. 1967) ("the first to conceive and reduce the invention to practice is entitled to an award of priority and the issuance of a patent, unless he has abandoned, suppressed, or concealed it"), cert. denied, 390 U.S. 953, 156 U.S.P.Q. 720 (1968). Accord, National Nut Co. v. Sontag Chain Stores Co., 107 F.2d 318, 333, 43 U.S.P.Q. 302, 316 (9th Cir. 1939), rev'd on other grounds, 310 U.S. 281, 45 U.S.P.Q. 448 (1940); Evans v. Associated Automatic Sprinkler Co., 241 F. 252, 254 (3d Cir. 1917). But see Roberts, First to Invent—A Fading Concept?, 61 J. PAT. OFF. Soc'y 350 (1979) (developments in interference practice have made it more difficult for the first to invent to establish his rights to a patent).
18. § 103. Conditions for patentability; non-obvious subject matter. 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 differences 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...
the "prior art," no patent will issue. The courts occasionally have grappled with the question of to what extent they should consider "secret" section 102(g) technical developments as "prior art" under section 103. Often, an inventor realistically could not have known of a similar but prior invention made by another, even if the invention was not "abandoned, suppressed, or concealed." Understandably, judges appear reluctant to deny a hard-working inventor a patent on the basis that the inventor's work is an "obvious" modification of a "secret" invention used by another. To permit "secret" 102(g) prior art to become the basis for deciding the obviousness, and therefore patentability, of the inventor's work seems unfair and contrary to the public policy of rewarding inventors.

Presently, the position of the Court of Customs and Patent Appeals (C.C.P.A.) as to the extent the United States Patent and Trademark Office (Patent Office) may use secret prior art to deny an inventor a patent is in direct conflict with all other federal courts. Moreover, the Patent Office

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.


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.


20. See note 59 and accompanying text infra.


rules fail to address directly this issue. Instead, the rules provide ambiguous and misleading direction as to whether an inventor must disclose to the Patent Office relevant information regarding secret prior art to which he has access. This Article attempts to reconcile the C.C.P.A.'s decisions with those of the federal district courts, to provide a reasoned approach to interpreting the related Patent Office rules, and to supply recommendations to those preparing patent applications for corporate research and development (R & D) programs.

II. Background

A person who discovers or invents something useful may apply for a patent by preparing a patent application and submitting it to the United States Commissioner of Patents. Ordinarily, after some negotiation, the Commissioner of Patents and the applicant agree to the scope of the invention to be defined by the patent. The United States government then issues a patent to the applicant, the contents of which become available for the entire world to read and learn from.

The application for a patent, an offer to make a special contract with the United States government, must be presented in a specialized format. The

24. See notes 140-45 and accompanying text infra.
25. Utility is a literal requirement under the patent statute. See note 13 supra.
27. Memoranda sent out by the Patent Office regarding the merits of an application are called "Office Actions." In the first Office Action, the Patent Office examiner includes copies of prior art references cited against the claims and a short statement of the rejection or allowance of each of the claims. The applicant is then able to amend the rejected claims to overcome the cited references. The Patent Office will respond to such an amendment with another action either allowing or rejecting the claims. This process continues until the Patent Office either allows all the claims or makes a "final" rejection, which is usually done in the second Office Action. See M.P.E.P. supra note 4, at § 707. Upon receiving a "final" rejection the applicant can appeal to the Board of Appeals in the Patent Office. 35 U.S.C. § 134 (1976); M.P.E.P., supra note 4, at § 1205. Each appeal is heard by at least three members of the Board of Appeals. An applicant dissatisfied with a decision of the Board may appeal to the U.S. Court of Custom and Patent Appeals (C.C.P.A.), or to the U.S. District Court for the District of Columbia. 35 U.S.C. §§ 141, 145 (1976). See Paley v. Wolk, 262 F. Supp. 640, 151 U.S.P.Q. 688 (N.D. Ill. 1965) (venue lies only in the District Court for the District of Columbia), aff'd per curiam sub nom. Paley v. Brenner, 151 U.S.P.Q. 669 (7th Cir. 1966), cert. denied, 386 U.S. 963, 152 U.S.P.Q. 844 (1967); M.P.E.P., supra note 4, at § 1202). See also Aetna Steel Prods. Corp. v. Southwest Prods. Co., 282 F.2d 323, 334, 127 U.S.P.Q. 23, 31 (9th Cir. 1960) (unless a rejection of a patent application has been appealed to the board of appeals, a district court is powerless to grant a patent), cert. denied, 365 U.S. 845, 128 U.S.P.Q. 557 (1961).
28. 37 C.F.R. § 1.51 (1981) provides:

(a) Applications for patents must be made to the Commissioner of Patents and Trademarks. A complete application comprises:

(1) A specification, including a claim or claims,
(2) An oath or declaration,
(3) Drawings, when necessary, and
(4) The prescribed filing fee.
first part of the application, often loosely referred to as the specification,\(^2\) describes the invention and the related technology such that one of ordinary skill in the art\(^3\) could readily make and use the invention.\(^3\) The claims, the last part of the application, define the "metes and bounds"\(^3\) of the invention "claimed" to have been invented by the applicant.\(^3\)

After the patent application is filed with the United States Patent Office in Washington,\(^3\) a patent examiner will read the application\(^3\) to determine whether the described invention meets the statutory standards of patentability.\(^3\) With the current backlog in the Patent Office, the average pendency

(b) Applicants are encouraged to file a prior art statement at the time of filing the application or within three months thereafter.

Id. (references omitted). For details and guidelines for drafting patent applications, see M.P.E.P.,\(^4\) supra note 4, at Ch. 600.

29. See 37 C.F.R. §§ 1.71-1.77 (1981); M.P.E.P.,\(^5\) supra note 4, at § 608.

30. The specification must describe at least one specific embodiment of the invention "in such full, clear, concise, and exact terms or 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 (1976). See In re Glass, 492 F.2d 1228, 181 U.S.P.Q. 31 (C.C.P.A. 1974).

31. Although the public may not actually make or use the invention without a license until the patent expires, the teachings of the patent immediately contribute to the store of public knowledge. Copies of all issued patents are freely available to anyone for a nominal fee. 37 C.F.R. § 1.11 (a) (1981) (files of issued patents are open to the public and copies may be obtained "upon paying the fee"); See M.P.E.P.,\(^6\) supra note 4, at 2 (a copy of any U.S. patent may be ordered by mail from the Patent Office for the nominal fee of 50c).


33. 37 C.F.R. § 1.41(b) (1981). The Patent Office practice requires each claim to be the object of a single sentence beginning with "I (or we) claim." The claims should be arranged so that the first claim presented is the broadest. Furthermore, product and process claims should be separately grouped. See M.P.E.P.,\(^6\) supra note 4, at § 608.01(m). The patent statute and the rules permit practitioners to draft a series of claims approximating a spectrum of patent protection. Therefore, if the broad claims are later invalidated over prior art after the patent has issued, the narrower claims may remain valid and enforceable because they do not read directly on the prior art. For a discussion of claim drafting see I. KAYTON, PATENT PREPARATION & PROSECUTION PRACTICE 3-1 to 3-22 (1979).

34. An application to obtain a patent must be filed by either physically depositing the application at the Patent Office or mailing it to the Commissioner of Patents. See 37 C.F.R. §§ 1.53, 1.6 (1981); M.P.E.P.,\(^7\) supra note 4, at § 502.

35. See note 27 supra.

36. See note 15 supra and note 61 infra. Section 102(g) stipulates that an applicant for a patent must have "invented" his device or process before anyone else. The individual who first conceives of the invention, and thereafter diligently works to reduce the conception to something that is operable and practicable, is usually considered the "first" inventor. As such, he is entitled to a patent to the exclusion of others. See Potter Instrument Co. v. ODEC Computer Sys., Inc., 370 F. Supp. 198, 181 U.S.P.Q. 572 (D.R.I.), aff'd, 499 F.2d 209, 182 U.S.P.Q. 386 (1st Cir. 1974); Gyromat Corp. v. H.G. Fischer & Co., 167 U.S.P.Q. 326 (N.D. Ill. 1970); Barnard v.
of a patent application is twenty-three months. However, it is not unheard
of to find applications that have been on file for as long as seventeen years
but have not yet issued.

During the prosecution of a patent application, the Patent Office holds the
contents in strict secrecy. Unless disclosed by the applicant, the public

Fruehauf Trailer Co., 260 F. Supp. 605, 151 U.S.P.Q. 103 (S.D. Tex. 1966); Peeler v. Miller,
535 F.2d 647, 190 U.S.P.Q. 117 (C.C.P.A. 1976); Young v. Dworkin, 489 F.2d 1277, 180
1945); M.P.E.P., supra note 4, at § 706.02.

of a patent application was 22.6 months in 1980, and 22.4 months in 1981. The total backlog in
the Patent Office at the end of fiscal year 1981 was 221,538 applications, increased from 217,003
in 1980. Id. at 15.; Departments of Commerce, Justice & State, The Judiciary & Related
Agencies Appropriations for 1982: Hearings Before a Subcomm. of the Comm. on Appropria-
Hearings, Banner statement]. This average includes pending applications which have formally
been granted “special” status and are therefore given expedited treatment. See 37 C.F.R. § 1.102
(1981); M.P.E.P., supra note 4, at § 708.01. M.P.E.P., supra note 4, at § 708.02, suggests that
the Commissioner of Patents will grant an applicant’s petition to make an application special if,
for example, the invention will “enhance the quality of the environment of mankind by contrib-
uting to the restoration or maintenance of the basic life-sustaining natural elements—air, water,
and soil.” Id. at v.

In a somewhat less idealistic approach, the Patent Office also will advance the prosecution of a
patent application out of turn when “the inventions are deemed of peculiar importance to some
branch of the public service and when for that reason the head of some department of the
Government requests immediate action and the Commissioner so orders.” 37 C.F.R. § 1.102;
M.P.E.P., supra note 4, at § 708.01(a).

filed in 1947 and patent issued in 1964). Every week, in its publication, the Official Gazette, the
Patent Office lists the serial numbers of the oldest applications awaiting office actions. The
Patent Office apparently keeps the prosecution of patent applications pending over five years on
a sufficiently regular basis to warrant special rules about such applications. See M.P.E.P., supra
note 4, at § 707.02(a) (“every effort [should be] made to terminate [the] prosecution” of
applications that have been on file more than five years) and M.P.E.P., supra note 4, at §
708.01(i) (supervisors should consider applications over five years old as “specials”).

39. 35 U.S.C. § 122 (1976) provides:
Applications for patents shall be kept in confidence by the Patent and Trademark
Office and no information concerning the same given without authority of the
applicant or owner unless necessary to carry out the provisions of any Act of
Congress or in such special circumstances as may be determined by the Commis-
sioner.

See also Misegades v. Schuyler, 170 U.S.P.Q. 128 (E.D. Va. 1971) (confidential status afforded
not only to application per se, but to all prosecution papers relating thereto); C.F.R. § 1.14
Minn. 1963) (§ 122 applies only to the Patent Office and not to the federal courts); Meese v.
of application when material to resolution of dispute before it). Such secrecy is maintained until
the Patent Office fulfills its “side of the bargain” and indicates that it is about to issue a patent to
the applicant. Until this time, the applicant remains free to withdraw his application from
consideration for a patent and continue to use all information disclosed in the application as a
trade secret. See 37 C.F.R. § 1.138; M.P.E.P., supra note 4, at § 102.

example, by stating that the application is “hereby incorporated by reference” to a parent
will first become aware of the application's contents when the application finally issues as a patent. Nevertheless, section 102(e) states that an inventor may not receive a patent if he made his invention at a time when another's application for an identical invention, held in strict secrecy by the Patent Office, was already on file with the Patent Office.\footnote{35 U.S.C. § 102(e) (1976) (text of § 102(e) at note 14 supra). See, e.g., Hazeltine Research, Inc. v. Brenner, 382 U.S. 252, 147 U.S.P.Q. 429 (1965) (unclaimed disclosures in issued U.S. patents are effective as of the application date for determination of nonobviousness under § 103 as well as for anticipation under § 102(e)); Studiengesellschaft Kohle v. Eastman Kodak Co., 616 F.2d 1315, 1337-38, 206 U.S.P.Q. 577, 597 (5th Cir. 1980) (the meaning of the term "application . . . filed" in § 102(e) does not include a foreign application entitled to a right of priority in the U.S. under § 119); In re Wertheim, 646 F.2d 527, 209 U.S.P.Q. 554 (C.C.P.A. 1981) (reference patent is entitled to benefit of the filing date of a remote application only if the disclosures of the remote application provide support for the claims actually appearing in the reference patent); In re Klesper, 397 F.2d 882, 158 U.S.P.Q. 256 (C.C.P.A. 1968) (patent purporting to be a "continuation-in-part" of a prior application is entitled to filing date of parent application as to all subject matter carried over into it from parent for § 102(e) purposes). See generally Chisum, Sources of Prior Art in Patent Law, 52 WASH. L. REv. 1 (1976); Fishman, An Analysis of the Combined Effect of 35 U.S.C. Section 119 and 35 U.S.C. Section 102(e), 46 J. PAT. OFF. Soc'y 181 (1964).}

Neither prior art defined by section 102(g)—work "made in this country by another"—nor by section 102(e)—the contents of a secret patent application—is usually well-known to the public. Nonetheless either type of prior art may be used to disqualify a later inventor from receiving a patent on an identical invention. The United States Supreme Court has never stated explicitly whether section 102(g) "secret" prior art should be used in conjunction with the section 103 standard of obviousness.\footnote{Early lower court decisions considering this question include, Deep Welding, Inc. v. Scialky Bros., Inc., 417 F.2d 1227, 1233, 163 U.S.P.Q. 144, 149 (7th Cir. 1969) ("if the state of the art anticipated or made obvious the invention sought to be patented, 35 U.S.C. § 103 (as well as §§ 102(a), (b), (c), (e), or (g)) requires a holding of invalidity"), cert. denied, 397 U.S. 1037, 165 U.S.P.Q. 290 (1970). Cf. Grinnell Corp. v. Virginia Elec. and Power Co., 277 F. Supp. 507, 518, 156 U.S.P.Q. 443, 452-53 (E.D. Va. 1967) ("the same reasons of public policy which forbid prior suppressed and concealed activities from invalidating a patent under 35 U.S.C. § 102(g) are also applicable to 35 U.S.C. § 103"). Similarly, the C.C.P.A. has treated prior invention of another, as determined by an interference priority award under § 102(g), as a basis for determining obviousness. In re Risse, 378 F.2d 956, 154 U.S.P.Q. 1, 7 (C.C.P.A. 1967); In re Yule, 146 U.S.P.Q. 400 (C.C.P.A. 1965); In re Taub, 146 U.S.P.Q. 384 (C.C.P.A. 1965). The Patent Office Board of Appeals has also adopted this view. See In re Robbins, 156 U.S.P.Q. 707 (Pat. Off. Bd. App. 1966); In re Stalego, 154 U.S.P.Q. 52 (Pat. Off. Bd. App. 1966); In re Thelin, 152 U.S.P.Q. 624 (Pat. Off. Bd. App. 1966). Cf. International Class Co., Inc. v. United States, 408 F.2d 395, 159 U.S.P.Q. 434 (Cl. Cl. 1969) (unclear whether the Court of Claims considered a combination of § 102(g) and § 103 prior art acceptable).} The Court, however,
has considered whether section 102(e) prior art should be considered when reviewing secret patent applications for obviousness.

In *Hazeltine Research, Inc. v. Brenner*, the Court held that section 102(e) art may be used as a basis for determining the obviousness of an invention under section 103. In reaching this decision, the Court purposefully dismissed the inherent delays of Patent Office practice. Typically, it takes years to obtain a patent after filing an application. Assuming, however, that the Patent Office began to process applications quickly, an applicant could theoretically receive a patent "immediately" after an acceptable application had been filed. Under these circumstances, applications would lose their secrecy "soon" after their filing. Unknown section 102(e) art would then no longer exist because the contents of a patent application would be disclosed promptly in the issued patent, and therefore freely usable under the clear meaning of section 103. Although the *Hazeltine* Court acknowledged that the assumption is untrue and the teachings of applications are often hidden in the Patent Office for extended periods, the Court declared that the administrative delays in the Patent Office should not determine the definition of prior art, and thus, whether one is entitled to a patent.

The narrow holding of the *Hazeltine* Court regarding use of section 102(e) art as a basis for determining the obviousness of an invention under section 103 should not be expanded to encompass other categories of prior art. The Court's rationale was based on the unique characteristics of section 102(e) art. In broad dicta at the end of its opinion, however, the Court discussed the purposes of the patent laws. Specifically, in applying the standard of section 103 obviousness, the Court stated that it could "see no reason to read into section 103 a restricted definition of 'prior art' which would lower the standard of patentability to such an extent that there might exist two patents where the Congress has plainly directed there should be only one." This broad generalization about the legislative intent behind the patent laws has been used by the courts as justification for expanding the categories of prior art that serve as a basis for determining obviousness under section 103.

Section 102(g) "secret" art remains unknown to inventors not because of any delays in Patent Office practice, but because the first inventor has chosen
to delay applying for a patent or widely publishing his work. Nonetheless, courts occasionally have determined that section 102(g) "secret" art, like secret patent applications under section 102(e), should be considered prior art for all purposes, including a determination of obviousness under section 103.

For example, in Sutter Products Co. v. Pettibone Mulliken, the plaintiff, Sutter, had received a patent on a machine for forming molds. The defendant, accused of infringement, claimed that Sutter's patent was obvious in light of a patent for a molding machine issued to a Mr. Harrison. In an attempt to avoid the Harrison patent as prior art, Sutter established that his invention had been conceived of by July 1954, well before Harrison's filing date. The defendant, however, proved that Harrison had conceived, and made a "working model," of his invention by June 1954, a month before Sutter's conception date. Sutter complained that the Harrison machine had not been disclosed to anyone, including the Patent Office. Sutter reasoned that prior art should only include "matters of public knowledge." Harrison's activities, therefore, should not be used as a basis for deciding whether Sutter's invention was obvious under section 103. The Court of Appeals for the Seventh Circuit relied upon the decision in Hazeltine to justify rejecting this argument. The court reasoned that since pending secret

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53. 428 F.2d 639, 166 U.S.P.Q. 100 (7th Cir. 1970).

54. Harrison's Patent No. 2,864,134 was filed on January 27, 1955, about five months before the filing date of the first of the Sutter patents. Id. at 644, 166 U.S.P.Q. at 103.

55. Evidence from the plaintiff's deposition demonstrated that proposal drawings of plaintiff's machine were prepared in early July, 1954 and that the plaintiff's invention was reduced to practice by December, 1954 when the first machine was delivered to a customer. Id.

56. The defendants were able to predate the plaintiff's July 1, 1959 conception date. The deposition of Harrison's attorney indicated that he observed a working model of Harrison's invention in the early part of 1954. He prepared a patent application and drawings which he forwarded to Harrison on June 9, 1954. Accordingly, Harrison's invention was reduced to practice before the plaintiff's conception date. Id. at 645, 166 U.S.P.Q. at 104.

57. Id.
patent applications are considered prior art, other matters also beyond the
realm of available, published knowledge must be regarded as prior art.\textsuperscript{58}
Thus, the court employed the Harrison patent to declare Sutter's patent
invalid for obviousness. Other federal district courts and courts of appeals
have concurred with the Sutter court's approach.\textsuperscript{59}

The Sutter decision occurred in the context of adversarial litigation involving
an issued patent. Typically, in such litigation, the patentee zealously
attempts to prove the validity of his patent while his adversary struggles to
establish that the patent is invalid. In the effort to prevail, each party has the
same opportunity to search for and to analyze the prior art, secret or other-
wise. Each side can explain or argue to the fact finder how the patent was or
was not obvious in light of the prior art.

An administrative proceeding involving a pending patent application, on
the other hand, is unlike adversarial litigation over an issued patent.\textsuperscript{60} For
example, an inventor may feel that his application has fully complied with
all the statutory requirements for patentability\textsuperscript{61} and that the government

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{58} 428 F.2d at 645-46, 166 U.S.P.Q. at 104.
\item \textsuperscript{59} See Cardiac Pacemakers, Inc. v. Cordis Corps., No. 4-77-427, slip op. at 11 (D. Minn.
filed Aug. 31, 1981) ("Prior reductions to practice under 35 U.S.C. § 102(g) are properly
considered in making a determination of obviousness under 35 U.S.C. § 103"), \textit{appeal
docketed}, No. 81-2048 (8th Cir. Sept. 30, 1981); Norris Indus., Inc. v. Tappan Co., 193 U.S.P.Q. 521, 527
§ 102"), \textit{affd}, 599 F.2d 908, 203 U.S.P.Q. 169 (9th Cir. 1979); Westwood Chem., Inc. v. Dow
Corning Corp., 189 U.S.P.Q. 649, 666, 678 (E.D. Mich. 1975) ("Prior private or secret knowl-
eedge is available as prior art invalidating a patent under § 102(g)" and is clearly evidence of
169 (S.D. Ohio 1979) (suggests that under Sutter, only § 102(g) art that has been quickly
disclosed to the public constitutes prior art usable in making the § 103 obviousness determina-
tion).
\item \textsuperscript{60} See Beckman Instruments, Inc. v. Chemtronics, Inc., 428 F.2d 555, 565, 165 U.S.P.Q.
355, 363 (5th Cir.) ("[o]ur patent system could not function successfully if applicants were
allowed to approach the Patent Office as an arm's length adversary"), \textit{cert. denied}, 400 U.S. 956
(1970); Charles Pfizer & Co. v. FTC, 401 F.2d 574, 579, 159 U.S.P.Q. 193, 195 (6th Cir. 1968)
(because the Patent Office does not have testing facilities, and therefore, must rely on the
representations of the applicant, the process cannot be adversarial, \textit{cert. denied}, 394 U.S. 920,
(C.C.P.A. 1970) (recognizing ex parte nature of patent prosecution).

The role of the Patent Office examiner is adversary only insofar as he has working knowledge
of the technology of the invention, and access to technical information. 37 C.F.R. § 1.104 (1981)
provides:

Nature of examination; examiner's action. (a) On taking up an application for
examination, the examiner shall make a thorough study thereof and shall make a
thorough investigation of the available prior art relating to the subject matter of the
invention sought to be patented. The examination shall be complete with respect
both to compliance of the application with the statutes and rules and to the patent-
ability of the invention as claimed, as well as with respect to matters of form, unless
otherwise indicated.

\item \textsuperscript{61} All the statutory requirements are set forth in 35 U.S.C. §§ 1-293 (1976). The require-
ments for patent applications are primarily contained in §§ 101-103.
\end{itemize}
\end{footnotesize}
has refused unreasonably to issue him a patent. In this situation, the inventor may sue the Commissioner of Patents and Trademarks to obtain the patent he feels has been withheld unjustifiably. The United States government simply has not allocated sufficient resources to consistently provide full opposition in these ex parte proceedings. Unlike adversarial litigation involving issued patents, ex parte proceedings do not benefit from two motivated litigators, each trying to analyze the prior art and present it in the light most favorable to its side of the case.

III. THE PATENT OFFICE POSITION

If the Patent Office has cited, as prior art, a patent with an earlier filing date than that of an application, the inventor generally responds, if possible, by filing a "Rule 131 affidavit." The affidavit simply states that the applicant completed his invention before the effective filing date of the cited patent.

62. 37 C.F.R. §§ 1.181, 1.304 (1981); M.P.E.P., supra note 4, at § 1216. See note 27 supra. The petition procedure outlined in Rule 181 is authorized by 35 U.S.C. § 6 (1976), directs the Commissioner of Patents and Trademarks to "superintend or perform all duties required by law respecting the granting and issuing of patents" and authorizes him to "establish regulations, not inconsistent with law, for the conduct of proceedings in the Patent and Trademark Office."

63. See generally Hearings, Banner statement, supra note 37.

64. Only issued patents and not patent applications may be cited by the Patent Office as prior art. 37 C.F.R. § 1.14 (1981); M.P.E.P., supra note 4, at ch. 100.

65. C.F.R. § 1.131 (1981); M.P.E.P., supra note 4, at § 715. Rule 131 provides:

(a) 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 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.

(b) The showing of facts shall be such, in character and weight, as to establish a 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 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 or their absence satisfactorily explained.

Id. See In re Eickmeyer, 602 F.2d 974, 202 U.S.P.Q. 665 (C.C.P.A. 1979) (although test for sufficiency of affidavit under Rule 131 parallels that for determining priority of invention under § 102(g) in an interference, Rule 131 practice is not controlled by interference law. "Conception" and "reduction to practice" may have different meanings in each context); In re Speller, 500 F.2d 1170, 182 U.S.P.Q. 614 (C.C.P.A. 1974) (purpose of Rule 131 showing is to broadly establish possession of invention); In re Moore, 444 F.2d 572, 170 U.S.P.Q. 260 (C.C.P.A. 1971) (purpose of filing Rule 131 affidavit is merely to antedate effective date of reference); In re Stryker, 435 F.2d 1340, 168 U.S.P.Q. 372 (C.C.P.A. 1971) (where Rule 131 affidavit was used to swear behind a § 103 reference that was narrower than rejected claim, court held that although affidavit showed priority with respect to the references taught, it was inadequate because it did not disclose possession of the narrowing feature); In re Tanezyn, 347 F.2d 832, 146 U.S.P.Q. 298
The Patent Office presumes that the inventor of the cited patent conceived of his invention on the day he filed his patent application.67 Because the applicant swears in his Rule 131 affidavit that he conceived of his invention before the filing date of the cited patent, the Patent Office usually disregards the cited patent as prior art.68

In actuality, the invention disclosed in the cited patent may have been known or used by others in the United States before the applicant conceived of his invention. Usually, a patent issuing on an application in such a situation would be invalid under various sections of Title 35.69 Although it recognizes this possibility, the Patent Office usually does not consider the cited patent as prior art after the applicant files a proper “Rule 131” affidavit,70 preferring instead to leave the resolution of involved fact questions such as the actual order of invention to the courts.

(C.C.P.A. 1965) (to antedate a reference, Rule 131 affidavit must show in addition to what the reference shows, possession of either whole invention claimed or something falling within the claim so that the claim as a whole reads on it). See generally Walterscheid, Rule 131 Practice, 57 J. PAT. OFF. Soc’y 336 (1975); Note, Rule 131 Affidavits in Patent Law and Practice: Transformation from Rule to Reason, 34 GEO. WASH. L. Rev. 507 (1966).

66. In a Rule 131 affidavit, the affiant may either allege the actual date of invention or state the specified acts occurred prior to a specified date. M.P.E.P., supra note 4, at § 715.07. The general rules on priority of invention apply. See note 17 and accompanying text supra. Therefore, in order to be effective, the Rule 131 affidavit must demonstrate either (1) reduction to practice prior to the effective date of the reference, or (2) conception of the invention prior to the effective date of the reference, coupled with due diligence from said date to a subsequent reduction to practice or to the filing of the application. See In re Schaub, 537 F.2d 509, 190 U.S.P.Q. 324 (C.C.P.A. 1976); In re Dardick, 496 F.2d 1234, 181 U.S.P.Q. 834 (C.C.P.A. 1974); In re Stryker, 435 F.2d 1340, 168 U.S.P.Q. 372 (C.C.P.A. 1971); In re Clarke, 356 F.2d 987, 148 U.S.P.Q. 665 (C.C.P.A. 1966); In re Hostettler, 356 F.2d 562, 148 U.S.P.Q. 514 (C.C.P.A. 1966). See generally 1 D. CHISUM, supra note 10, at § 3.08.

67. See notes 70 & 108 infra.

68. M.P.E.P., supra note 4, at § 715.

69. See notes 11 & 14-15 supra. However, a Rule 131 affidavit cannot remove a reference that constitutes a statutory bar. Rule 131(a) provides that an affidavit is ineffective where “the date of such patent or printed publication be more than 1 year prior to the date on which the application was filed in this country.” 37 C.F.R. § 1.131(a).

In addition, a Rule 131 affidavit can not remove a United States patent that claims the subject matter in question. Id. In this case, an “interference proceeding” is required to resolve the issue of priority. See note 110 infra. Furthermore, a Rule 131 affidavit expressly refers only to antedating prior domestic and foreign patents and publications. Sometimes a prior domestic patent or publication may reflect work of an earlier date in this country which constitutes grounds for rejection under § 102(a) (prior license or knowledge), or § 102(g) (prior invention). A Rule 131 affidavit is not applicable when the reference is a domestic patent claiming the same or substantially the same invention as the applicant. In re Clarke, 457 F.2d 1004, 173 U.S.P.Q. 359 (C.C.P.A. 1972). Finally, a Rule 131 affidavit is ineffective to remove as a reference either a publication or foreign patent which has a date more than one year prior to the applicant’s filing date. See In re Hassler, 347 F.2d 911, 146 U.S.P.Q. 167 (C.C.P.A. 1965); In re Foster, 343 F.2d 980, 145 U.S.P.Q. 166 (C.C.P.A. 1965).

70. Obviously, affidavits to establish that a reference is not prior art must be supported by some evidence. However, unless the affidavit is ambiguous, or inconsistent, the statements made by the affiant go uncontroverted because of the ex parte nature of the prosecution proceeding. The applicant need only make a prima facie showing of prior invention. Under this standard,
In future adversarial litigation, such as an infringement suit, a patent cited by the Patent Office but disregarded in light of a Rule 131 affidavit undoubtedly will be studied by the parties. The fact finder may then compare this cited patent to the patent in suit and determine the relative dates of invention and reduction to practice, whether either of the patented inventions was "abandoned, suppressed, or concealed," and whether one invention is an "obvious" modification of the other.

facts and supporting documentary evidence that give rise to an inference that the invention was completed before the reference date must be produced. The facts supporting the inference that an actual reduction to practice occurred before the reference date do not have to be corroborated. See In re Harry, 333 F.2d 920, 142 U.S.P.Q. 164 (C.C.P.A. 1964). As Chisum notes: "[T]he office normally accepts an affidavit that is sufficient on its face. Because of this reliance, the area of Rule 131 affidavits is a ripe one for application of the duty of candor and full and fair disclosure." 4 D. CHISUM, supra note 10, at § 19.03(2). But see Timely Products Corp. v. Arron, 523 F.2d 288, 187 U.S.P.Q. 257 (2d Cir. 1975) (Rule 131 affidavit disregarded and patentee found guilty of inequitable conduct); University of Ill. Foundation v. Blonder-Tongue Labs., 422 F.2d 769, 164 U.S.P.Q. 545 (7th Cir. 1970) (Rule 131 affidavit filed that failed to point out an earlier first publication date, thus the court concluded that the affidavit detracted from presumption of patent validity, but stopped short of finding fraud), rev'd on other grounds, 402 U.S. 313, 169 U.S.P.Q. 513 (1970).

71. Standards of proof are more stringent in the inter partes proceedings of interferences and patent infringement litigation. Unlike affidavit practice, corroboration is required. Moreover, the inventor can be subjected to intensive cross-examination on every aspect of his diligence, conception, and reduction to practice. This is true regardless of whether the inventor is attempting to antedate a reference under §§ 102(a) or (e), or someone else's date of invention under § 102(g). See 28 U.S.C. § 1338(a) (1976) (jurisdiction of federal district courts to hear patent matters); Fed. R. Civ. P. 43 ("Taking of Testimony"); Fed. R. Evid. 611 ("Mode and Order of Interrogation and Presentation"); 37 C.F.R. §§ 1.251-1.259 (1981) ("Interferences: Trial").


73. The majority of patents on which a court renders an opinion, are held obvious under 35 U.S.C. § 103 (1976), and therefore, invalid. See G. KOENIG, PATENT INVALIDITY: A STATISTICAL AND SUBSTANTIVE ANALYSIS § 507(2) (rev. ed. 1980); DYNAMICS OF THE PATENT SYSTEM 55-72 (W. Ball ed. 1960) (floor discussion of Cooch paper led by C.M. Dann). See also Conner, Winning Patent Infringement Suits—The Art of Swimming Against the Tide, 4.401 in NONOBVIOUSNESS—THE ULTIMATE CONDITION OF PATENTABILITY (J. Witherspoon ed. 1980). The standard of obviousness began with the Supreme Court decision in Hotchkiss v. Greenwood, 52 U.S. (11 How.) 248, 266 (1850) ("unless more ingenuity and skill in applying the old method . . . were required
On occasion, the Patent Office becomes convinced of the actual order of invention and will deny a patent to an inventor even though a Rule 131 affidavit has been filed to overcome the cited prior art. This may occur when both the applicant and the inventor of the cited patent have assigned the rights to their inventions to the same assignee. For example, such a situation formed the factual basis for the decision in *In re Bass*, in which the two inventors worked for the same corporate employer.

In *Bass*, Messrs. Bass, Jenkins, and Horvat, the patent applicants, had invented a vacuum system for controlling the buildup of fibers on textile carding machines. The Patent Office rejected some of the claims of the application primarily on the basis of a cited patent disclosing a suction nozzle and having a filing date seven weeks earlier than the *Bass* inventors' application. Not only did the *Bass* inventors and the inventors of the suction nozzle patent work for the same corporate employer, but Mr. Bass was named as one of the inventors of the cited "earlier" suction nozzle patent. Although the *Bass* inventors filed a Rule 131 affidavit, the Patent Office...
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contended that the suction nozzle, in fact, was used before the Bass inventors developed the cleaning system disclosed in the pending application.

The Patent Office apparently assumed that if the corporate employer processed applications in the approximate order in which the inventions were actually made, the cited patent described a device that was invented earlier. Moreover, Mr. Bass clearly knew of the "earlier" suction nozzle; yet, when he filed his Rule 131 affidavit, he only stated that he had conceived of the vacuum system before the filing date of the application describing the suction nozzle. Although he easily could have, he failed to state that the vacuum system was in fact invented before the suction nozzle. Therefore, it is logical to presume that the suction nozzle had been invented first.

Apparently the suction nozzle fell within the scope of section 102(g), which describes an "invention . . . made in this country by another who had not abandoned, suppressed, or concealed it." However, because there was no evidence in the record establishing that the suction nozzle had been disclosed to anyone or described in a patent application, the Patent Office was reluctant to base the rejection of the suction nozzle patent on section 102(g). Rather, the suction nozzle patent was rejected on the basis of obviousness under section 103. The issue presented to the C.C.P.A., similar to that in Sutter Products Co. v. Pettibone Mulliken Corp., was whether the prior art described by section 102, but not sufficient to reject the invention as anticipated, may nevertheless be used to show that the invention was obvious, and therefore unpatentable, under section 103.

Judge Rich's lead opinion in In re Bass acknowledged the difficulty in determining whether an invention is equivalent to the prior art, or merely constitutes a "minor" obvious variation of the prior art when he stated that "full anticipation situations under section 102 shade into obviousness rejections under section 103 because of discernible differences." An illustration of this problem would be an "inventor" who filed a patent application on a machine that differed from an earlier invented device only in the substitution of screws for bolts. To assert that the later "invention" using screws

80. 428 F.2d 639, 166 U.S.P.Q. 100 (7th Cir. 1970).
81. Three opinions were filed in Bass. All the judges agreed on the disposition of the claims, but differed on the rationale for the decision.
84. 474 F.2d at 1285, 177 U.S.P.Q. at 185.
instead of bolts belongs only in one classification, either as an "obvious modification" of the prior art or an equivalent of the prior art, but not both, would be nonsense. One then would be forced to argue either that to substitute screws for bolts is not "obvious" or that screws are not the equivalent of bolts. The former position is absurd, while the latter position essentially asserts that there can be no equivalents and vitiates all meaning for section 102. A later-invented device may well be both equivalent to, and an obvious modification of, the prior art.

If sufficiently "minor," an obvious variation also may be viewed as within the scope of an "equivalent" section 102 variation. Determining whether an obvious variation is minor enough to constitute an equivalent construction is a matter of judgment. Adequate guidelines do not exist for making a judgment as to whether a prior art rejection is based upon section 102, section 103, or both. Accordingly, Judge Rich concluded that he could not sanction an interpretation of the patent statute under which the classification of prior art as either section 102 or section 103 would have a profound impact on the question of whether an invention is patentable. Under Rich's approach, any art described by section 102 is available for determining questions of obviousness under section 103.

In a separate opinion, Judge Baldwin opposed Judge Rich's approach on policy grounds. He asserted that considering art described by section 102(g) as prior art under section 103 would tend to make the patent system more uncertain. Corporate policymakers might decide that it is not worthwhile to apply for a patent if, despite his best efforts, he cannot have any certainty that the patents are valid.

86. Chisum notes: "Since the difference between lack of novelty and obviousness is one of degree, it would be inappropriate to treat a prior invention as prior art for one purpose but not the other." Chisum, Prior Invention and Patentability, 63 J. PAT. OFF. SOC'Y 397, 405-06 (1981). See note 59 and accompanying text supra.

87. 474 F.2d at 1285, 177 U.S.P.Q. at 185.

88. Judge Lane filed the third opinion in Bass, stating that a prior invention was prior art for all purposes. He felt this was only true, however, if: (1) the invention had not been "abandoned, suppressed, or concealed," and (2) the invention had been included in an issued, earlier filed patent. 474 F.2d at 1307, 177 U.S.P.Q. at 201.

the date of an applicant's invention which he does not know about, and most often could not know about, subsequently might be used to invalidate the patent issued to the applicant. Consequently, the incentive to apply for a patent and to teach the public about the invention could be significantly diminished.

The impact of the Bass holding is most strongly felt in the context of R & D departments. Technical advances spawned by organized research necessarily evolve in incremental stages. Although not specifically addressed, Judge Rich's interpretation of prior art described by section 102(g) presents the possibility that the special knowledge of an inventor's coworker could be the basis for denying a corporate inventor his right to a patent. Corporate managers might respond to this possibility by decreasing their reliance on patent protection and increasing their use of trade secrets. Additionally, the risk posed by Judge Rich's rationale might convince managers that ade-

In addition to forfeiting his right to a patent, one who suppresses or conceals an invention might also lose his status as "first inventor" for purposes of opposing the patent application of a subsequent inventor. Thus, the trade secret user could be subjected to liability for infringement. See Painton & Co. v. Bourns, Inc., 422 F.2d 216, 169 U.S.P.Q. 528 (2d Cir. 1971); Young v. Dworkin, 489 F.2d 1277, 180 U.S.P.Q. 388 (C.C.P.A. 1974); Severson v. Olson, 64 F.2d 694, 697 (C.C.P.A. 1933). It has been suggested that the non-informing public use by a trade secret owner who has successfully proved his first inventor status should not be used to prevent a valid patent from issuing on the same invention which was independently discovered by a subsequent inventor. See Bennett, The Trade Secret Owner Versus the Patentee for the Same Invention: A Conflict?, 57 J. PAT. OFF. SOC'Y 742 (1975); Burke, The Non-Informing Public Use Concept and its Application to Patent-Trade Secret Conflicts, 63 J. PAT. OFF. SOC'Y 459 (1981); Jordá, The Rights of the First-Inventor Trade Secret User Against Those of the Second Inventor Patentee, 61 J. PAT. OFF. SOC'Y 593 (1979); Robbins, The Rights of the First Inventor-Trade Secret User Against Those of the Second Inventor Patentee, 61 J. PAT. OFF. SOC'Y 574 (1979). See generally 2 R. MILGRIM, TRADE SECRETS 8-3 (1981) ("Patents in Relation to Trade Secrets").

90. Judge Baldwin argued that Judge Rich's approach, in effect, will increase the number of patents issued that are invalid:

The net result of that holding would be to eradicate all the methods by which an applicant could find out the actual effective date of any reference, whether the reference was filed or published before or after the applicant's filing date, save one—he will find out the actual effective date of the reference when it is interposed against his patent in an infringement or declaratory judgment action.

474 F.2d at 1305, 177 U.S.P.Q. at 200.

91. For a discussion of this problem see Meyer, "Obvious" Differences—What Should the Points of Reference Be?, 55 J. PAT. OFF. SOC'Y 516, 520-21 (1973). See also Pitlick, A Proposed Compromise to the "Prior Art" Controversy Surrounding In Re Hellsund and In Re Bass, 56 J. PAT. OFF. SOC'Y 699, 708-11 (1979) (suggesting that because § 102(g) is restricted to inventions made "in this country," if Bass is rigorously followed, American industries might choose to move their R & D outside the United States). For additional discussion of the Bass case, see generally Raizes, Are Claims Obtained By the Use of Rule 131 Affidavits or Terminal Disclaimers Valid?—The Application of Section 102(g), 56 J. PAT. OFF. SOC'Y 68 (1974); Rosenstock, Prior Art Under 35 U.S.C. Section 103 Includes Prior Invention—In re Bass and In re Hellsund, 56 J. PAT. OFF. SOC'Y 263 (1974).

quate and certain protection for intellectual property is not possible. Substantial expenditures for corporate research and development would essentially be "gifts" to competitors.\footnote{In re Bass, the only direct evidence relating to dates of invention were the filing dates of the two applications and the Rule 131 affidavit. Five claims of the Bass application were declared nonobvious because the C.C.P.A. was unable to reach a consensus as to why the cited patent should be removed as a prior art reference. Despite this conflict, the Bass ruling may be interpreted as resting upon the proposition that the actual date of a prior art invention may not be established by presumption or inference, but only by direct evidence. In order to refuse to issue the patent, the Patent Office was required to meet the burden of proving that the Bass inventor's vacuum system was not invented first. By only relying on the presumption that the suction nozzle was invented before the date of invention alleged in the Bass Rule 131 affidavit, the Patent Office failed to meet its burden of proof. Accordingly, the suction nozzle patent should have been disregarded by the Patent Office.}

The disparate rationales of the C.C.P.A. in Bass were partially reconciled in In re Clemens. In that case, Judge Baldwin's more restrictive view of prior art received limited endorsement. Three inventors, referred to collectively as Clemens, developed and applied for a patent on a purification process.\footnote{None of the reported opinions have discussed the distinction between using secret prior art as a primary or secondary reference. Such an omission invites a patentee involved in future litigation to argue a further limitation of the Bass decision. A patentee might point out the Bass should be construed to only authorize the use of secret prior art as a secondary reference "to fill in details" and not as a primary reference "to show the thrust" of the invention being claimed. Notably, however, such an interpretation lacks any explicit judicial support.}

During the prosecution of the application, the Patent Office sustained its burden of proof with regard to the Jenkins patent which disclosed a cylinder screen for catching waste. The evidence indicated conception by Jenkins on December 5, 1963, and conception by Bass, Jenkins, and Horvat on Feb. 10, 1964. This evidence, coupled with the one year difference in filing dates, justified inferring prior invention by Jenkins. 474 F.2d 1276, 1287, 177 U.S.P.Q. 186-87. 622 F.2d 1029, 206 U.S.P.Q. 289 (C.C.P.A. 1980). The claims disclosed a process for removing dissolved solids from condensate water in a steam regenerating system by using vinyl benzyl chloride-based resins (VBC's).
cited a chemical patent issued to a Mr. Barrett as prior art. As in Bass, both
the patent application and the prior art patent had a common assignee.101

The Patent Office emphasized that the Clemens process was adapted for
use with the composition invented by Mr. Barrett and disclosed in the cited
prior patent.102 The Patent Office apparently assumed, from the overlap-
ring subject matter and the existence of a common assignee, that the inven-
tors had talked with one another at work and that the Clemens process had
been developed after Mr. Barrett had made his composition. In the first of
two alternate holdings,103 the C.C.P.A. dismissed the Patent Office assump-
tion as pure speculation.104 The Barrett composition was not necessarily
developed first, and since the Patent Office did not prove otherwise, the
C.C.P.A. refused to engage in a game of guessing which invention had
indeed been first.105 This rationale appears consistent with the narrow
interpretation that may be given to the In re Bass decision.

Disturbingly, Clemens had filed a Rule 131 affidavit directed toward
removing the Barrett patent as section 102(g) prior art; yet, the C.C.P.A.
specifically ignored the affidavit.106 The earlier filing date of the Barrett

101. Patents are usually considered personal property and may be assigned easily. See 35
U.S.C. § 261 (1976). Assignments may, but need not, be recorded in the Patent Office. If
recorded, however, its purchasers or mortgagees have constructive notice of the assignment. Id.,
37 C.F.R. §§ 1.331-.333; M.P.E.P., supra note 4, at ch. 300. Interestingly, one of the more
unusual rules promulgated by the Patent Office deals with the protection of assignees. M.P.E.P.,
supra note 4, at § 304 concerns pending applications that are submitted by the same applicant
and claim overlapping subject matter. Under this rule, if the application that was filed last is
assigned (and the assignment is recorded in the Patent Office), that application is prior art for the
earlier filed application. Without the rule, the earlier filed application would be prior art and a
dishonest applicant would be able to sell the later filed patent knowing that it is worthless and
that it eventually will be declared invalid in light of the earlier filed application. Nonetheless, the
rule presents the anomalous situation in which a more recent application is "prior art" for an
older application. Cf. note 160 infra.

102. 622 F.2d at 1034, 206 U.S.P.Q. at 294. The court stated that "[c]onsidering, then, that
Barrett not only discloses and claims aminating vinyl benzyl chloride polymers to form strong
base ion exchange resins, but also describes steam-boiler condensate polishing as a specific utility
for such resins, we conclude that Barrett is prima facie available for the 35 U.S.C. § 103
rejection". Id.

103. Two rejections by the examiner and affirmed by the board of appeals were before the
Clemens court. In addition to the Bass priority issue, the claims were rejected as prima facie
obvious in light of the use of structurally similar resins. The applicants submitted test evidence
purporting to show that their VBC resins were unexpectedly superior over the closest prior art.
The court, however, held the test evidence insufficient except as to one claim. 622 F.2d at 1035-

104. Quoting Bass, the court declared: "We do not think it was incumbent on the applicants
to prove it was not prior, merely because the Patent Office thinks it might have been." 622 F.2d
at 1039, 206 U.S.P.Q. at 298 (emphasis in original). The court went on to say that the fact "that
Barrett’s patent is coassigned with appellants’ application does not alter this rule". Id.

105. 622 F.2d at 1038, 206 U.S.P.Q. at 298.

106. The C.C.P.A. usually does not ignore Rule 131 affidavits, but rather accepts statements
in an applicant’s disclosure as proof absent contrary disclosure. See In re Clinton, 527 F.2d 1226,
SECRET PRIOR ART

1981]

The patent, coupled with the compatibility of the Barrett composition and the Clemens process, without more, was simply deemed insufficient to qualify the Barrett patent as prior art. Notwithstanding the reasonable inferences made by the Patent Office, no direct evidence was adduced in support of the proposition that the Clemens inventors had knowledge of Barrett's invention before making their own. Accordingly, the Clemens court, in its second alternative holding, reasoned that "knowledge which has not been shown to have been known to either the public or the applicants" cannot be considered as prior art in assessing obviousness under section 103.107

When an applicant knows of "secret" section 102(g) prior art and dutifully discloses this information to the Patent Office, the second alternative holding Clemens suggests that the information cannot be considered "secret" with respect to the applicant. Consequently, the Patent Office may use the disclosed "secret" prior art to determine obviousness under section 103. On the other hand, an applicant who fails to make such a disclosure places the burden on the Patent Office to prove that the applicant possessed knowledge of the "secret" prior art. Without that direct evidence, the cited prior art must be removed as a reference.

These consequences of the Clemens decision are objectionable for two reasons. First, an unwieldy and unnecessary burden of proof is placed upon the Patent Office in the situation where the applicant fails to disclose "secret" prior art. Under Clemens, the Patent Office is required to establish whether the applicant had actual knowledge of the "secret" prior art. Second, the Clemens approach, like that in In re Bass, fails to address whether any of the applicants have breached their duty of candor toward the Patent Office.

IV. OBJECTIONS TO THE C.C.P.A.'S APPROACH

A. Burden on the Patent Office Under the Clemens Definition of Prior Art

The narrow holdings of Clemens and Bass support the principle that in single party proceedings, absent direct evidence of the facts, neither the C.C.P.A. nor the Patent Office should rely upon presumption or speculation to guess the relative dates of invention at issue. A prior art patent must be considered as having been invented on its filing date unless direct evidence is offered to the contrary.108 Whenever the Patent Office fails to prove that

(affidavits to show that specification disclosure is sufficient need not be considered by Patent Office). See also note 68 and accompanying text infra.

108. In Bates v. Coe, 98 U.S. 31, 34 (1878), the Supreme Court held:
The presumption in respect to the invention described in the patent suit, if it is accompanied by the application for same, is that it was made at the time the application was filed; and the complainant or plaintiff may, if he can, introduce proof to show that it was made at a much earlier date.
the prior art invention date preceded that of the applicant, the inventor is entitled to receive a patent.

This result is laudable because the Patent Office is not well-equipped to hear testimony,\(^\text{109}\) which in effect would entail conducting a trial\(^\text{110}\) to determine when an individual conceived of his complete invention\(^\text{111}\) and whether he was diligent in reducing his idea to practice.\(^\text{112}\) It is more efficient to issue the patent upon a preliminary showing that there is no direct evidence that the applicant's invention was not first. If the patent is involved later in a lawsuit, the trier of fact may, in the appropriate judicial and adversarial setting, consider all the evidence regarding the obviousness issue. Only after a complete presentation of all relevant evidence should the trier of fact make a determination as to whether the invention was obvious in light of the relevant prior art.\(^\text{113}\)

The second alternative holding in Clemens logically supports the principle that section 102(g) prior art should never be used as a measure of obviousness, since to do otherwise would deter "the innovative spirit."\(^\text{114}\) To avoid impractical results, the Clemens decision should be strictly limited to its first,

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\(^{109}\) See note 60 supra. For a discussion concerning the present problems of the Patent Office see Hearings, Banner statement, supra note 37. For statistical and background information, see [1981] Commissioner of Patents and Trademarks Ann. Rep.

\(^{110}\) 35 U.S.C. § 135 (1976) provides for an inter partes proceeding before the Patent Office. An interference is an administrative proceeding in which the first inventor is determined from a group of claimants with substantially the same invention. 37 C.F.R. § 1.201(a) (1981). Like other inter party proceedings, interferences can be expensive and lengthy. See M.P.E.P., supra note 4, at § 1101. They are actual trials, with much the same discovery and pretrial motion procedures as any other judicial, fact-finding proceeding. See 37 C.F.R. §§ 1.231, 1.251-.259; M.P.E.P., supra note 4, at § 1105. See generally M.P.E.P., supra note 4, at ch. 1100.


narrow holding\textsuperscript{115}—in the absence of direct evidence, the Patent Office should not speculate as to the relevant dates of invention.\textsuperscript{116} If the Clemens court truly endorsed the policy of promoting the innovative spirit, it should have insured that the “first”\textsuperscript{117} inventor retained undivided exclusive patent rights.\textsuperscript{118} The first inventor should be guaranteed rights to obtain a patent on his invention and those innovations that represent “obvious” modifications of his inventive concept.\textsuperscript{119} This first alternative holding of Clemens adopts a restricted definition of prior art. Under this definition, two or more inventors are permitted individually to have a patent for highly similar (although not identical) inventions.

Under this restricted Clemens definition of prior art, an applicant with a “white heart” but an “empty mind”\textsuperscript{120} is immunized from the effect of some

\begin{itemize}
  \item \textsuperscript{115} The C.C.P.A. has only recently developed the rule espoused in the second alternate holding of Clemens. See notes 89-92 and accompanying text supra. Dicta in later decisions has fully embraced the rule, however, and made it clear that the C.C.P.A. does not believe that an invention can ever be obvious in light of secret, § 102(g) art. For example, the C.C.P.A. virtually invited an opportunity to overrule Judge Rich’s Bass opinion in In re Worthem, 646 F.2d 527, 209 U.S.P.Q. 554 (C.C.P.A. 1981).
  \item \textsuperscript{116} 622 F.2d at 1029, 206 U.S.P.Q. at 298-99. Such a construction may be viewed as consistent with the patent statute. Although § 103 does not explicitly exempt certain references, it may be interpreted to suggest that prior art references must be “disclosed or described.” See note 18, supra. Thus, one can colorably argue that art is not “disclosed or described” if only the inventor of the art knows about it. Therefore, the art should not be used in conjunction with the § 103 standard of obviousness. But see notes 1 & 81-87 and accompanying text supra.
  \item \textsuperscript{117} The United States, the Republic of the Philippines, and Canada are the only countries which provide that monopolies for new inventions are authorized only for the first inventor. Other countries have patent systems which presume the first applicant to file a patent application in the patent office is the first inventor. Obviously, this type of system is simpler to administer but gives rise to chances for unfairness. However, over the years, developments in the United States interference practice has become more complicated. As a result, the first inventor is often unable to establish his patent rights. See Jackson, Interference—Pro and Con, 50 J. PAT. Off. Soc’y 53 (1968); Roberts, First To Invent: A Fading Concept?, 61 J. PAT. Off. Soc’y 350 (1979).
  \item \textsuperscript{118} Innovation is a capital intensive investment. Without patent monopolies, potential investors might choose not to invest substantial resources in the development of new technologies only to have others, who make no comparable expenditures, freely exploit the economic returns. This may deter investors from innovation or may cause them to channel their resources into developments which can be effectively protected as trade secrets. As a result, progress in science and technology would be slowed due to the lack of public disclosure of frontier R & D. Kitch, The Nature and Function of the Patent System, 20 J.L. & Econ. 265 (1977).
  \item \textsuperscript{119} A related question is whether the discoveries of a first inventor who opted for trade secret protection should be used as prior art under § 103 against a later inventor who discloses his invention in a patent. The incentive function would not be furthered by denying a patent to the second inventor on his original innovation. See note 89 supra.
  \item \textsuperscript{120} See SEC v. Texas Int’l Co., 498 F. Supp. 1231, 1233 (N.D. Ill. 1980); SEC v. National Student Marketing Corp., 457 F. Supp. 682, 711 (D.D.C. 1978); Valente v. Pepsico, Inc., 454 F. Supp. 1228, 1251 (D. Del. 1978); Continental Assurance Co. v. American Bankshares, 439 F. Supp. 804, 808 (E.D. Wis. 1977). The white heart/empty mind standard is a subjective test for recklessness frequently used in the area of securities regulation with the requirement of something more egregious than “inexcusable negligence.” Conduct which presents a danger of misleading that is either known to the defendant or is so obvious that the actor must have been aware of it falls into this category. See Sundstrand Corp. v. Sun Chem. Corp., 553 F.2d 1033, 1045 (7th Cir. 1977).
\end{itemize}
references that may pose a problem for a diligent applicant who keeps informed about the recent developments in his art. As a result of Clemens, two or more inventors could each obtain a patent for the same general invention, neither of which is prior art for the other. This type of situation could arise when a prior invented device is followed by the development of an obvious improvement by one completely ignorant of the first device's existence. The Clemens decision protects the patentability of the later-invented device by removing the first invention from the realm of applicable prior art. Consequently, the value of the patent rights acquired by the first inventor is diluted by the presence of the second inventor who shares the same rights.¹²¹

The C.C.P.A. could justify the restricted Clemens definition by pointing out that the Patent Office routinely issues two or more patents, to different inventors, for identical inventions.²² A diagram outlining when this occurs is provided below.

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIONS OF INVENTOR NO. 1</th>
<th>ACTIONS OF INVENTOR NO. 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Invention conceived and patent filed in a foreign country</td>
<td>Invention conceived</td>
</tr>
<tr>
<td>2.</td>
<td>U.S. patent application filed</td>
<td>U.S. patent application filed</td>
</tr>
<tr>
<td>3.</td>
<td>U.S. patent application filed</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>U.S. patent issues</td>
<td></td>
</tr>
</tbody>
</table>

¹²¹ The practice of extending patents to an obvious modification of a prior invention only marginally contributes to the public welfare and may reduce the positive incentives of the patent system by decreasing the scope of the first patentee's monopoly. See Kitch, The Nature & Function of the Patent System, 20 J.L. & Econ. 265, 276 (1977). Under the doctrine of equivalents, pioneering inventions are entitled to a broad range of equivalents but non-pioneering inventions are limited to the construction disclosed. See Cimiotti Unhairing Co. v. American Fur Refining, Co., 198 U.S. 399 (1905); Swanson v. Unarco Indus., Inc., 479 F.2d 664, 178 U.S.P.Q. 17 (10th Cir. 1973); Ex-Cell-O Corp. v. Litton Indus. Prods., Inc., 479 F. Supp. 671, 205 U.S.P.Q. 612 (E.D. Mich. 1979); Mobil Oil Corp. v. W.R. Grace & Co., 367 F. Supp. 207, 180 U.S.P.Q. 418 (D. Conn. 1973); Sperry Prods., Inc. v. Aluminum Co. of America, 171 F. Supp. 901, 120 U.S.P.Q. 362 (N.D. Ohio 1979). Therefore, it might be preferable to use this doctrine to permit the patentee credited with the real technological breakthrough to assert his claims to their limit and maximize the commercial value of the patent. By requiring others to license, the patent owner is put in a position to coordinate the search for technological and market enhancement. In this manner, duplicative investments will be avoided and information quickly exchanged among the researchers.

¹²² See e.g., In re Hilmer, 359 F.2d 859, 149 U.S.P.Q. 480 (C.C.P.A. 1966) (earlier foreign effective filing date cannot be used to negate novelty). Furthermore, material disclosed in foreign patent applications does not operate as a § 102(e) reference as of the date of foreign filing, but rather as of the actual filing date of the United States patent entitled to the priority date of the
In such circumstances, the early conception and filing dates of Inventor No. 1 allow him to avoid the effect of prior art references dated after Time 1 and to obtain a patent. According to the C.C.P.A., only applications filed in the United States may constitute prior art. Therefore, as long as Inventor No. 2 declares that he conceived of his invention prior to Time 3, the actions of Inventor No. 1 are unavailable as prior art. Even though Inventor No. 2 conceived of, and filed an application for his invention after Inventor No. 1, he is equally entitled to obtain a patent. Consequently, both inventors possess the "exclusive" right to sue any infringer, and an unfortunate infringer would have to pay royalties to both.

The innovative spirit so highly regarded in Clemens is best encouraged by allowing the "first" inventor to exclude all others. This arrangement


124. Such a scenario was the factual situation in In re Hilmer, 424 F.2d 1108, 165 U.S.P.Q. 255 (C.C.P.A. 1970) and in In re Hilmer, 359 F.2d 859, 149 U.S.P.Q. 480 (C.C.P.A. 1966), in which the court held that knowledge and acts in a foreign country shall not defeat the rights of United States citizens applying for patents. Moreover, § 119 of Title 35 gives affirmative priority rights to United States citizens who file for patents in foreign countries in order to save them from patent defeating provisions such as §§ 102(a), (e), and (g). See In re Klesper, 397 F.2d 882, 158 U.S.P.Q. 256 (C.C.P.A. 1968). The court in Waterman-Bic Pen Corp. v. W.A. Sheaffer Pen Co., 267 F. Supp. 849, 854, 153 U.S.P.Q. 499, 502 (D. Del. 1967) noted: "The legislative history of § 119 emphasizes the benefits to United States Citizens . . . § 119 should be read merely to effectuate the reciprocity envisaged by its framers by giving a United States application the benefit of its foreign filing date . . . ." Cf. Studiengesellschaft Kohle v. Eastman Kodak Co., 616 F.2d 1315, 1338, 206 U.S.P.Q. 577, 597 (5th Cir. 1980), (foreign application filed 10 months before the filing of a United States application deemed not to constitute prior art), cert. denied, 101 S. Ct. 573, 208 U.S.P.Q. 88 (1980). Such blatant evidence of national protectionism appears elsewhere in patent law. For example, oaths may be taken by U.S. applicants with very few formalities. See 37 C.F.R. § 1.65 (1981). However, 37 C.F.R. § 1.67(b) mandates that:

When the oath is taken before an officer in a country foreign to the United States, all the application papers, except the drawings, must be attached together and a ribbon passed one or more times through all the sheets of the application, except the drawings, and the ends of said ribbon brought together under the seal before the latter is affixed and impressed, or each sheet must be impressed with the official seal of the officer before whom the oath is taken.

Id. Apparently, the Patent Office considers foreigners untrustworthy and requires the ribbon to help ensure they remain honest.

125. However, if the specification of Inventor No. 1's foreign patent had been published anytime before Inventor No. 2's effective filing date, then it would be a prior art reference against Inventor No. 2's claims. 35 U.S.C. § 102(a) (1976). In this situation, Inventor No. 2 would be entitled to file a Rule 131 affidavit to establish that he completed his invention in the United States before the publication of the foreign patent specification.

126. The law remains untested as to whether Inventor No. 1 could institute a reissue proceeding and eliminate Inventor No. 2 as a patentee.

127. See notes 114-16 and accompanying text supra.
provides potentially the greatest monetary reward to the earliest inventors.\footnote{128} The public benefits through the prompt disclosure of new developments by inventors encouraged to be first.

Moreover, the \textit{Clemens} restricted definition of prior art makes patent law unnecessarily more complex.\footnote{129} In addition to having to determine priority of invention and to identify relevant prior art, courts now must resolve the factual question of what the applicant's knowledge was during the development of his invention.\footnote{130}

The \textit{Clemens} restricted definition makes the job of a fact-finder nearly impossible. Fact-finders routinely consider evidence of contemporaneous, but not necessarily prior, developments as an indication of what was obvious to one of ordinary skill in the art.\footnote{131} If section 102(g) art is deemed unavailable in light of \textit{Clemens} to determine whether a particular invention was an obvious modification of the prior art, a judge or jury will have to follow a tortuous mental process.\footnote{132} On one hand, the fact-finder could not consider the earlier section 102(g) work as a primary basis for determining the issue of obviousness. Nevertheless, the fact-finder could use the same section 102(g) work as a secondary consideration in determining what developments were obvious to one of ordinary skill.\footnote{133} This subtle distinction is likely to cause difficulties for the finder of fact in a trial.\footnote{134}

\footnote{128} See note 118 \textit{supra}.

\footnote{129} Speaking to the complicated nature of patent law, Judge Rich remarked that various inventorship provisions of Title 35 create "complexities and delays which could be avoided under a less rigid statute." \textit{In re Sarett}, 327 F.2d 1005, 1010 n.7, 140 U.S.P.Q. 474, 479 n.7 (C.C.P.A. 1964).

\footnote{130} The \textit{Clemens} court invited the Patent Office to reopen prosecution after this decision if they had evidence that would render a rejection on the grounds of actual knowledge justifiable. 622 F.2d at 1039 n.20, 206 U.S.P.Q. at 299 n.20.


\footnote{132} For cases illustrating the complexities of formulating rejections, see \textit{In re Shaffer}, 229 F.2d 476, 108 U.S.P.Q. 326 (C.C.P.A. 1956); \textit{In re Carter}, 212 F.2d 189, 101 U.S.P.Q. 290 (C.C.P.A. 1954). There is no universal formula for combining or modifying prior art references to guide an examiner formulating a rejection based on obviousness. See, e.g., Canadian Ingersoll-Rand Co. v. Peterson Prod., Inc., 223 F. Supp. 803, 139 U.S.P.Q. 61 (N.D. Cal. 1963) (combining references even though secondary reference cannot be wholly incorporated into primary reference); \textit{In re Bent}, 339 F.2d 255, 144 U.S.P.Q. 28 (C.C.P.A. 1964) (not improper to combine the features of two references even though such a combination is impractical). \textit{But see In re Markham}, 330 F.2d 358, 141 U.S.P.Q. 291 (C.C.P.A. 1964) (insufficient to show that each separate element of claimed combination can be found in one or more prior art references).

\footnote{133} See note 96 \textit{infra}.

\footnote{134} Although juries are typically not required in patent cases, most issues in patent cases may be tried before a jury. See, e.g., Graham v. John Deere Co., 383 U.S. 1, 148 U.S.P.Q. 459 (1966) (scope and content of prior art, differences between prior art and scope of claims, level of ordinary skill in the art); Dairy Queen, Inc. v. Wood, 369 U.S. 469, 133 U.S.P.Q. 294 (1962)
Furthermore, the *Clemens* definition of prior art evinces a considerable reliance on applicants to disclose facts to the Patent Office. The *Clemens* court, however, did not take precautions to insure complete disclosure. Under *Clemens*, the work of the first inventor is not prior art with respect to the work of a second, later inventor, if the first inventor’s work remains secret. Disturbingly, neither the *Bass* nor the *Clemens* court considered inquiring into the actual knowledge the second inventor may have had regarding the first inventor’s work. The *Clemens* decision does not require the inventors to disclose any technical or relevant knowledge acquired during the period in which each developed his device. The *Bass* court requested only that applicants swear to a conception date for their invention that was earlier than the filing date of the prior art reference. These two cases thus legitimize an applicant’s failure to make certain factual statements in order to obtain a patent.

**B. Rule 131 and the Half-Truth**

A serious shortcoming of both the *Clemens* and *Bass* decisions is the seemingly purposeful ignorance of the realities of working in corporate research and development departments.¹³⁵ Engineers devote a large portion of their professional careers to working on projects for corporate R & D departments. Certainly common sense and human nature suggest that these engineers frequently will discuss their current projects with one another. In both *Bass* and *Clemens*, the applicants and the inventors of the prior art had assigned their patent rights to a common assignee.¹³⁶ The applicants and the

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¹³⁶ Although 35 U.S.C. § 111 (1976) allows only individuals, not corporations or other legal entities, to be named as inventors in patent applications, an inventor can assign rights in his invention to any legal entity, even before the invention is conceived. 35 U.S.C. § 261 (1976). Under special circumstances, persons other than the inventor may apply for a patent on the inventor’s behalf. 35 U.S.C. §§ 117, 118 (1976). See, e.g., A.F. Stoddard & Co. v. Dann, 564 F.2d 556, 195 U.S.P.Q. 97 (D.C. Cir. 1977) (employee-assignor refused to execute the application). Most large companies require their technical employees to sign invention assignment
prior art inventors actually might have worked in the same corporate R & D departments, and under such circumstances, the applicants probably would have known of the secret prior art. The Patent Office should have required the inventors in both Bass and Clemens to swear that they indeed had been the first inventors. An applicant's failure to swear that he was not the first inventor and that he was without knowledge of the "secret" prior art then could have provided the basis for a default judgment. Such a judgment would obviate the entire proceeding. It is likely in Bass and Clemens, however, that the inventors possessed actual knowledge of the prior art. Under these circumstances, the Rule 131 affidavits that the inventors submitted represented "half truths." That is, although each affiant stated under oath that he conceived of his invention before the filing date of the prior art reference, he failed to disclose the actual extent of his knowledge of the prior invention.

Merely antedating the filing date of a prior art reference may not be sufficient to obviate it as prior art. The applicant's claimed invention must have been conceived of before the prior art device. If the Bass and Clemens inventors had knowledge that earlier, related work had been invented first, they misled the Patent Office by declaring that their device had been conceived of before the earlier inventor's filing date. The fact that the earlier invention was "first" should establish it as prior art and make the Rule 131 affidavit, at best, irrelevant. Submitting a Rule 131 affidavit in such a


137. Under 35 U.S.C. § 135 (1976), an interference can be declared by the Commissioner of the Patent and Trademark Office when he or his delegatee feels that two applications (or an application and a patent) claim the same invention. In such a proceeding, the Board of Patent Interferences conducts a type of trial, with both parties presenting evidence as to who was the first to invent the claimed device. However, under 37 C.F.R. § 1.201(c) (1981), "interferences will not be declared nor continued between applications or applications and patents owned by the same party unless good cause is shown therefor." The purpose of this rule is to insure genuine adversity in interference proceedings. The Patent Office rules seem to place the duty on the common assignee to investigate the matter and state the order of inventions when there is a dispute. See, e.g., 37 C.F.R. § 1.78(c) (1981); M.P.E.P., supra note 4, at § 804.03 (requiring such a statement or election where two applications contain conflicting claims). But see Ampex Corp. v. Memorex Corp., 205 U.S.P.Q. 794, 797 (N.D. Calif. 1980); Margolis v. Banner, 599 F.2d 435, 202 U.S.P.Q. 365 (C.C.P.A. 1979); In re Rekers, 203 U.S.P.Q. 1034 (Dep. Ass't. Comm'r. Pat. 1979) (conflicting authorities as to Patent Office's power to demand election of common assignee).

138. Cf. In re Ogiue, 517 F.2d 1382, 186 U.S.P.Q. 227 (C.C.P.A. 1975). In this case Ogiue attempted to remove a prior United States patent as a reference by claiming foreign priority. The examiner, noting the similarity of inventions, ordered him to provoke an interference by copying claims or to suffer rejection under § 103. Ogiue refused to copy. The C.C.P.A. affirmed final rejection of his patent, holding that refusal to copy resulted in a concession that the subject matter of those claims was prior art under § 103. Id. at 1391, 186 U.S.P.Q. at 235.

139. See note 36 supra.
case eliminates the reference as prior art, and possibly allows the inventors to obtain a patent on subject matter disclosed in a prior invention.

The *Clemens* and *Bass* courts apparently found the limited content of these affidavits sufficient and any further disclosure superfluous. It is submitted, however, that both the Patent Office and the court have the authority to compel complete disclosure, thus avoiding the controversies which arose in both the *Clemens* and *Bass* cases. For example, 37 C.F.R. section 1.56 (Rule 56) provides:

A duty of candor and good faith toward the Patent and Trademark Office rests on the inventor, on each attorney or agent who prepares or prosecutes the application and on every other individual who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application. All such individuals have a duty to disclose to the Office information they are aware of which is material to the examination of the application.

Moreover, 37 C.F.R. section 1.78(c) (Rule 78(c)) states that “[w]here two or more applications, or an application and a patent naming different inventors and owned by the same party contain conflicting claims, the assignee may be called upon to state which named inventor is the prior inventor.”

It is submitted that the duty of candor and good faith imposed on patentees and their assignees by Rule 56 or the language of Rule 78(c) authorizes the Patent Office to require that a corporate assignee stipulate to the dates of initiation of relevant projects in its R & D department. Furthermore, the significantly broad mandate of Rule 56 also can be interpreted as requiring an inventor to state all that he knows or easily could discover about prior art.

This duty includes an obligation to question one's employer to find

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140. Corporations, as assignees, can avoid § 102(e) prior art problems by simultaneously filing applications on related inventions. See *In re Newton*, 414 F.2d 1400, 163 U.S.P.Q. 34 (C.C.P.A. 1969).


143. In announcing Rule 56, the Patent Office cited the definition of materiality used by the Supreme Court in *TSC Indus., Inc. v. Northway, Inc.*, 426 U.S. 438 (1976) (standard should not be so low that persons would be subjected to liability for insignificant omissions or misstatements but should ensure informed decision making).

out the invention date of a cited reference, and if relevant, to report the findings to the Patent Office. Although such an interpretation of this duty ignores the literal wording of Rule 131, which only requires that an inventor swear behind the cited reference’s filing date, Rule 131 must be construed in light of the duty of candor and good faith.

When so construed, a Rule 131 affidavit is prohibited when its use would probably prove misleading. Thus, it can not be used when an applicant knows the cited reference was invented before his own invention. Similarly, such an affidavit should be disallowed when an applicant is in a position to discover (and thereafter to disclose) the relative dates of invention for his own and for the cited reference.

This proposed construction of the regulations would shift the burden of uncovering when an inventor’s coworker created a reference from the Patent Office to the inventors and their assignees—the individuals with actual knowledge of the information. The Bass and Clemens decisions do not contain evidence that the Patent Office raised, or the courts considered, the possibility that the applicants might have been withholding information. Interestingly, other courts have very rarely addressed this issue.

Timely Products Corp. v. Arron is the leading case mandating a strict duty of disclosure. In that case, the applicant, Mr. Arron, applied for a patent on an electrically heated sock. A Patent Office examiner cited a patent issued to a Mr. Costanzo as prior art. Mr. Arron thereafter filed a Rule 131 affidavit. In the affidavit, Arron stated “that he had been associated with another in his work [on the electric sock] prior to Costanzo’s filing date.” Mr. Arron failed to disclose, however, that Costanzo was the other person referred to in the affidavit. Arron and Costanzo were aware of each other’s activities. The court was particularly disturbed by the fact that Arron knew that Costanzo’s invention “had been conceived, reduced to practice and even


145. See L. F. Strassheim Co. v. Gold Medal Folding Furniture Co., 477 F.2d 818, 177 U.S.P.Q. 673 (7th Cir. 1973) (suggesting duty exists on part of attorney or applicant to pursue the matter further if facts lead him to believe a statutory bar may exist). Cf. Akers v. American Subsidiary, Inc., 177 U.S.P.Q. 518 (E.D. Wis. 1973) (duty to investigate, but failure to investigate did not result in finding of fraud or bad faith).


148. Id. at 297, 187 U.S.P.Q. at 263.
offered for sale before he [Arron] started work on his alleged improvement."

Nevertheless, Arron's Rule 131 affidavit was technically correct. Arron, in fact, had made his invention before Costanzo's filing date. Because Arron actually used Costanzo's sock as the point of departure for his own work, the court was incensed that Arron failed to disclose the additional knowledge that the Costanzo patent was clearly prior art against which Arron's alleged improvements should have been measured. Consequently, the Court of Appeals for the Second Circuit went one step further than the district court and held that the Arron patent was not only unenforceable on the ground of unclean hands, but also that it was invalid on the ground of fraud.

The situation in corporate R & D departments is often similar to the circumstances of Timely Products. The inventors know, at least to some extent, of the work of their fellow researchers. Under the high standard of disclosure enunciated in Timely Products, applicants for a patent have a duty to disclose all material prior art, even though the literal wording of Rule 131 fails to list this as a requirement.

Arguably, since the Patent Office rule only requires an applicant to swear behind a filing date, the Patent Office should be prevented from later asking for additional information or alleging fraud because a patentee failed to disclose such information. This literal interpretation of the Patent Office rules was apparently adopted by the Court of Appeals for the First Circuit in Nashua Corp. v. RCA Corp. Nashua, a licensee under an express agreement with RCA, sued for a declaratory judgment of patent invalidity. The court invalidated the patent as obvious. Nashua claimed it was therefore entitled to a refund of royalties paid to RCA.

During prosecution of the patent application, Mr. Greig, the RCA inventor, filed a Rule 131 affidavit, swearing behind the filing date of a patent issued to a Mr. Thompsen. Mr. Thompsen was a fellow scientist of Mr. Greig at RCA. Mr. Thompsen's patent application began with a description of related and supposedly confidential work going on at RCA. The Nashua court agreed that since RCA knew of Mr. Thompsen's work, it was improper for RCA to allow Mr. Greig to swear behind the Thompsen patent. If RCA knew that the Thompsen patent was developed earlier, the Rule 131 affidavit improperly removed the patent as a prior art reference. The court noted that the affidavit "was a true statement and a full compliance with Rule 131," but ultimately refused to conclude that "RCA filed the affidavit

149. 523 F.2d at 298, 187 U.S.P.Q. at 264.
150. Id. Knowledge which the inventor actually derived from other persons prior to making his invention is properly considered prior art. See Dale Elec., Inc. v. R.C.L. Elec., 488 F.2d 382, 180 U.S.P.Q. 225 (1st Cir. 1973). See generally 2 D. CHISUM, supra note 10, at § 503(3)(d).
152. 431 F.2d 220, 166 U.S.P.Q. 449 (1st Cir. 1970).
154. 431 F.2d at 226, 166 U.S.P.Q. at 453.
realizing that its effect would be to materially misrepresent the prior art and deliberately intending such misrepresentation.” Consequently, the court denied Nashua’s claim for a refund of royalties. Notably, the Nashua court did not hold that the Patent Office was not misled. Rather, it simply could not find a sufficiently malicious intent to warrant the imposition of a high financial penalty on RCA.

In Timely Products, Mr. Arron, as employee and inventor, apparently knew he was misleading the Patent Office. Although he alluded to the critical facts in his Rule 131 affidavit, the court found that he actively “concealed the . . . important facts” from the Patent Office. The court punished Mr. Arron because he tried to obtain a patent for his own personal gain as a result of someone else’s work. The reasoning of the Nashua court, in contrast, focused on the culpability of RCA, the assignee. Every individual involved with the patent application at the corporation, including its inventors and patent attorneys, “went by the book.” Even though it is clear from hindsight that the Patent Office would be misled by Mr. Greig’s affidavit, no one was found to have an evil heart. Perhaps the court simply felt that a lower standard for duty of disclosure should be imposed on large, generally bureaucratic corporations. Most likely, neither the inventors nor the attorneys employed by the corporation would receive immediate, personal gain as a result of filing the technically accurate, yet misleading, Rule 131 affidavit. The filing of the misleading affidavit may have been due more to the fact that the corporate assignee lacked a centralized record keeping system for patents than to any malicious intent of the corporation’s patent counsel. The Nashua court declined to punish either the inventors or their assignee for what probably amounted to no more than a lax attitude toward record keeping.

The fact that the Nashua Court upheld the patent’s validity and determined that RCA had not acted maliciously should not provide great comfort to large corporate employers. The Patent Office rules do not distinguish between applications by individuals and those that are “shepherded”

155. Id. at 227, 166 U.S.P.Q. at 454.
156. Cf. Hazel-Atlas Glass Co. v. Hartford-Empire Co., 322 U.S. 238, 61 U.S.P.Q. 241 (1944) (holding that plaintiff who published spurious article written to show evidence of patentability deliberately intended to deceive the Patent Office); Keystone Driller Co. v. General Excavator Co., 290 U.S. 240, 19 U.S.P.Q. 228 (1933) (in a case of deliberate suppression of evidence of prior art including bribing prior user to keep silent, Court held plaintiff guilty of unclean hands). Occasionally, however, courts have implied that counsel representing an infringer may raise the defense of inequitable conduct simply because they cannot make colorable arguments for any defenses relating more to the merits (such as anticipation, obviousness, or noninfringement). See Pfizer, Inc. v. International Rectifier Corp., 538 F.2d 180, 196, 190 U.S.P.Q. 273, 276. (8th Cir. 1976) (“An infringement defendant in complex litigation should not be permitted to sidestep . . . main issues by nit-picking with the patent file . . . a patentee’s oversights are easily magnified out of proportion by one accused of infringement seeking to escape the reach of the patent”).
through the application process by large corporations. Another court considering a similar situation simply may find that the corporate R & D department, or at least the patent department, is sophisticated and should know better than to file misleading statements.\footnote{158}

Corporate R & D departments need not disclose their projects to the entire world. Good sense dictates, however, that if a corporate assignee owns so many patent rights that its employees do not readily know of each other’s activities with the Patent Office, then the corporation should institute a central recording system for patent prosecution matters. The system need not be expensive or complicated.\footnote{159} Even simple records, however, may become important during the prosecution of a patent if an Examiner cites a prior art reference that has been assigned to the corporation. A proper recording system will alert the applicant that no Rule 131 affidavit should issue unless the inventor can swear behind both the prior art reference’s filing date and its conception date. Even though the Patent Office has not yet required such a procedure, this type of system could prevent a \textit{Timely Products} allegation of fraud.

\section*{V. Conclusion}

The C.C.P.A. decisions in \textit{Bass} and \textit{Clemens} should be narrowly construed as requiring that the Patent Office and the C.C.P.A. refrain from speculating as to the order in which two inventions were actually made. This narrow construction is appropriate because it prevents determinations of


159. For example, a dual card file could suffice. The first file could include a card for each patent or research project that the corporation was planning. Each card should contain the project title and a detailed description of the project, including the names of the persons associated with it and dates relating to the conception, and reduction to practice of each phase of the project. The second file would have a card for each individual listed in the first file. This employee-inventor file would list the title of every project that the named individual was associated with and contain a brief description of his involvement with the project. Under this system, whenever the corporation’s patent counsel wanted to file a Rule 131 affidavit in order to swear behind a cited reference, he only need look up the inventors named on the cited reference. He then could quickly consult the project file and read descriptions of the projects that the inventors were involved with and determine whether any corporate employees were involved with the development taught in the cited reference. If so, counsel would then also have learned whether the cited reference constituted a truly earlier invention which should not be sworn behind.
priority of invention from being made in ex parte proceedings. An adversarial setting is a more appropriate forum for these determinations because after each side presents its point of view, the fact finder can judge the demeanor of the witnesses and make, if nothing else, a visceral determination of who is more credible. Because the Patent Office and C.C.P.A. cannot conduct extensive discovery or observe live witnesses, but only can view the established record, the record should be as complete as possible, and applicants must avoid "playing games" with the record. The Patent Office should deny a patent to the applicant who files a Rule 131 affidavit knowing that he can only swear behind the filing date, and not the actual invention date, of a prior art reference. Furthermore, the Patent Office should require the parties in the early stages of the application process to disclose what they know or could easily discover about prior art inventions.

At present, the Patent Office has not explicitly required inventors or their assignees to disclose all that they know about secret prior art regarding patent applications which have been filed. The spirit of Rule 131, the finding of fraud in *Timely Products*, and the simple fact that the court in *Nashua* focused on RCA's culpability serve as fair warning to those filing before the Patent Office. The decisions of the Patent Office on patentability must be as informed as possible. An affidavit filed pursuant to Rule 131 which is only "half true" adversely affects the decision making process in the Patent Office. A court uncovering misleading statements may conclude that the underlying patent was procured by fraud and render it invalid. To avoid such a result, the Bass and Clemens decisions should be construed as requiring an affiant to state all that he knows or could reasonably discover concerning prior inventions. No Rule 131 affidavit should be filed unless the affiant can swear behind both the prior art reference's filing and conception dates.

Superficially, one might argue that this proposal makes the patent system unduly arbitrary. A corporation's ability to swear behind a reference would then depend on whether the corporation was the assignee of the reference. Importantly, however, a corporation only stands to lose by its failure to file a "fully truthful" Rule 131 affidavit. Swearing behind the filing date only to later have the patent declared invalid in a court proceeding usually proves embarrassing to corporate management. Moreover, a finding of fraud could prove quite expensive, because it could obligate the assignees to repay

160. See Beckman Instruments, Inc. v. Chemtronics, Inc., 428 F. 2d 555, 566, 165 U.S.P.Q. 355, 364 (5th Cir.) (the court's remark that plaintiff's assertion that the withheld art was irrelevant was "utterly incredible" likely caused embarrassment to corporation), *cert. denied*, 400 U.S. 956, 168 U.S.P.Q. 1 (1970); *In re Stockebrand*, 197 U.S.P.Q. 857 (Comm'r. Pat. 1978) (commissioner's open disbelief of the explanations offered for the alleged misconduct likely proved embarrassing to corporation). *Cf.* Pfizer, Inc. v. International Rectifier Corp., 538 F. 2d 180, 183, 190 U.S.P.Q. 273, 276 (8th Cir. 1976) (characterized the plaintiffs' conduct as "at the very least a calculated recklessness about the truth").
royalties to its Licensees. Corporate assignees can avoid such expenses if they discover and admit that the patent is invalid during the prosecution of the application.
