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# Clarifying Patent Terminology and Patent Concepts

## *An Introduction To Some Basic Concepts And Doctrine*

CARL S. KOENIG\*

THERE IS AN increasing need for the bench and bar to have more than a surface understanding of patent law. Patents play a role in many industries which is inseparable from other business practices and conditions. The lawyer who advises business firms while ignorant of patent law does so at his client's peril. Judges need an understanding which will enable them to extract some guides to decision from the inconsistent and often vacuous traditional patent doctrines.

To most lawyers who are not patent specialists, however, patent law appears to be a pathless jungle—a dark and mysterious forest of scientific technology, full of reptile-length sentences, roving terminology and fleetfooted concepts, where many carnivorous doctrines prowl by the dim light of day and antitrust prowls by the dimmer light of night, perpetually darkened by a semantic mist, and populated only by the heathen natives of the “patent bar” tribe.

Few dare to enter.

These dangerous beasts cannot be controlled and some paths through the forest cannot be cleared without light to see by. It is first necessary to dispel the semantic mist.

The semantic problems arise from the confusing “definitions” given to some key concepts, and the fact that other key terms have been used to refer to a half dozen or more different key concepts. The mist created is not easily penetrable by most lawyers who are not patent specialists. It is so irritating to the eyes of even the natives that there are ever-running battles against

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non-existent demons—false issues which have no substance below the verbal level. Even high-ranking government commissions can miss affecting the real, and tough, issues because they are striking out against the false ones.

There is no shortage of real, tough, controversial issues which need analysis, and need understanding by not only patent lawyers but the bench and bar generally. With the aim of preparing lawyers who are not patent specialists to grapple with or understand such issues, this paper discusses the content or lack of content in alternative “definitions” of key concepts, such as those referred to by the terms “patent,” “valid patent” and “essence of an invention,” and for several key terms, such as “invention” and “standard of invention,” it distinguishes the different concepts indiscriminately referred to by a single term. There is also some discussion of patent doctrine in addition to the doctrine presented in the analysis of terms and concepts, so that the non-patent lawyer will be provided with a minimum introduction to basic patent doctrine.

The paper will consider:

- I. “Patents,” “Valid Patents” and the “Presumption of Validity”
  - Definitions of a “patent”
  - “Valid” and “invalid” patents
  - “Apparently valid” patents, patents of “uncertain validity” and “apparently invalid” patents
  - Partial and total validity
  - Importance of these distinctions—the “license to sue” controversy
  - Relevant antitrust considerations
  - The “presumption of validity”
- II. What is “the invention”?
  - The nature of “claims”
  - Four types of uses of the term “invention”
  - Colloquial uses of “invention” vis-a-vis “claims”
  - “Invention” as a term of art
  - Clarity, confusion and the “invention”
  - The protection given to the “set of claimed inventions” in a “valid patent”
- III. The two meanings of the term “Standard of Invention”
  - The historical background
  - The two meanings of “standard of invention”
  - The current status of the “standard of invention”

## I

## "PATENTS," "VALID PATENTS," AND THE "PRESUMPTION OF VALIDITY"

*Definitions of a "patent"*

In defining a "patent," it is important to keep entirely separate and distinct (1) the definition and (2) the legal and factual consequences of owning a patent. If this maxim is not followed, and some consequences are built into the definition, utter confusion results in the discussion of the rights, privileges, no-rights, duties, etc., of a patent owner.

An example of a definition with improperly built-in consequences is the following: "A patent is a monopoly grant given to inventors by the government to reward them for making and disclosing their inventions." This definition builds in the legal consequence that the rights possessed by the owner of a patent give him a monopoly of something, which is not correct under present law. It also builds in the legal consequence that the rights possessed by the owner of a patent are created upon the issuance of the patent, which also is not correct. Further, it builds in a proposition to the effect that the patent system is based on a reward theory, or results in a reward to the inventor; this is questionable as a proposition of historical fact, dubious as a statement of what courts recognize as the goal of patent statutes, and uncertain as a prediction of the future income of inventors. All of these matters are appropriate ones for discussion, but building one view of them into the definition of a patent would foreclose discussion.

To avoid building in legal or factual consequences, a patent can most usefully be defined as: that *printed document* which is issued by the Commissioner of Patents when "it appears that the applicant is entitled to a patent under the law."<sup>1</sup> The focus of this definition is on the officially certified "piece of paper," a factual event, and not on future consequences which result from its issuance.

Correspondingly, the "issuance" of a patent is defined as: the authoritative act of the Commissioner of Patents of putting forth this document. The document is evidence that this authoritative act, as well as others, has in fact occurred. Again the focus is on a factual event, the previous occurrence of a human act, and not on consequences. The fact of the issuance of a patent may or may not have the factual consequence of giving the patentee a reward, or the legal consequences of giving the patentee certain rights; this is left open by the definitions.

*"Valid" and "invalid" patents*

"Validity" is not a property like size, weight or color. It is not the type of property which can be ascribed to a piece of paper. The printed document

<sup>1</sup> 35 U.S.C. § 131 (1952).

we call a patent cannot possess a property of validity. To ask whether a patent "is" valid or invalid is to misfocus the inquiry onto present and past events, and to wrongly indicate that sufficient study will lead to a certain answer. This question misses the basic point that validity refers to a prediction of the future behavior of human beings. Concern with the validity of a patent is a concern for whether all necessary conditions for the issuance of a patent will be found by courts to have been satisfied.

Patents can be held valid by the Supreme Court, one or more Courts of Appeal, District Courts or state courts, or be unadjudicated. When a patent has been held valid by a District Court, one can predict the outcome of future contests concerning its validity with greater certainty than when the patent was unadjudicated. A patent held valid by the Supreme Court will almost certainly be held valid in future contests, but even in this case new evidence could conceivably arise.<sup>2</sup> For all patents, therefore, statements regarding validity refer to predictions, of varying probability, of future court behavior.

The best way to maintain the proper focus and avoid an illusion of certainty would be to not use the term "valid patent" at all, and instead talk specifically about such things as past court decisions and the probability of various outcomes in future decisions by various courts.

If the term must be used, it should be restricted to the use given by the definition: A valid patent is a patent which to almost any informed observer appears to be one which almost certainly will not be held unenforceable because the conditions for the issuance of a patent were not met.<sup>3</sup> The focus here is primarily on probabilities concerning court decisions, with only secondary emphasis being given to events which occurred prior to the issuance of the patent. The definition requires high concurrence among both observers and courts, and includes both events in the patent examination process and events pertaining to the development of the product or process.

Correspondingly, an invalid patent is defined as a patent which to almost any informed observer appears to be one which almost certainly will be held unenforceable because the conditions for the issuance of a patent were not met.

Certainly prior to a court adjudication or validity it cannot be said with

<sup>2</sup> . . . One patent twice held valid [by the Supreme Court] in 1935 was denied validity by the same Justices in 1937. In *Bassick Mfg. Co. v. R. M. Hollingworth Co.*, 298 U.S. 415 [29 USPQ 311] (1936), the patentee had won 299 victories in the lower courts, but the Supreme Court held the patent invalid except as to narrow claims which were not infringed. . . .

*Picard v. United Aircraft Corp.*, 128 F.2d 632, 639 n.2, 53 USPQ 563, 569 n.2 (concurring opinion of Judge Frank).

<sup>3</sup> A patent is not defined as a valid patent when all relevant conditions for issuance are met, or are likely to be held to have been met, since the violation of some conditions may not be fatal.

sufficient confidence that a court will not hold the patent unenforceable, because the conditions for the issuance of a patent were not met, so as to justify using the term "valid patent."

*"Apparently valid" patents, patents of "uncertain validity" and "apparently invalid" patents*

Patents which are not clearly valid or invalid, as defined above, will be classified by patentees, potential infringers and observers as "apparently valid" patents, patents of "uncertain validity," or "apparently invalid" patents. This classification turns upon their estimate of the probability that the court which gets its hands on the patent will not find it unenforceable because the conditions for the issuance of a patent were not met. This classification of a patent will vary among classifiers, and will be a function of their knowledge of surrounding circumstances (e.g., prior inventors, prior references), their knowledge of Patent Office practices and legal doctrine, and their estimation of the other factors which influence court decisions (e.g., which circuit the trial would be held in, which side could obtain the sympathy of the trial court).

*Partial and total validity*

All patents contain a set of "claims." As will be described later, each patent claim describes something which the patentee seeks to protect. A court may hold some valid while holding others invalid, and some may go unlitigated in a specific court contest.

One litigation of a patent's validity does not necessarily settle the matter with respect to the patent claims specifically held valid or invalid.<sup>4</sup> It certainly does not settle, though it affects, the outcome of a future court decision on the validity of the unlitigated patent claims. A patent may well be considered a partially valid patent, a partially invalid patent and partially an apparently valid patent, for example, at the same time.

Depending on whether some or all of the patent claims qualify for the particular term's application, the qualification "partially" or "totally" must be added to the terms valid patent, apparently valid patent, patent of uncertain validity, apparently invalid patent and invalid patent.

<sup>4</sup> As to the effects of an adjudication on the same defendant, on customers of a successful defendant-manufacturer, on other defendants sued in the same circuit, and on other defendants sued in different circuits, see AMDUR, PATENT LAW AND PRACTICE, c. XXVI (on a motion for preliminary injunction) (1935); 3 WALKER, PATENTS §§ 683-85, 773, 787 (Deller's ed. 1937); 3 WALKER, PATENTS §§ 684, 773 (*Supp.* 1964); HOAR, PATENT TACTICS AND LAW § 14-36 (3d ed. 1950).

*Importance of these distinctions—The “license to sue” controversy*

The distinctions between a patent, valid patent, apparently valid patent, patent of uncertain validity, apparently invalid patent and invalid patent, and whether the validity is partial or total, are important. Consider the dispute as to whether the issuance of a patent is a grant to its owner of the “right” to exclude others from making, using or selling the “patented invention,” or whether it is merely a “license to sue” and establish this right.

As to whether the issuance of the patent constitutes the grant of this right, compare the language of 35 U.S.C. §154 (1952): “Every patent shall *constitute*. . . a grant. . . of the right to exclude others from making, using or selling the invention. . . .” [Emphasis added.] This section of the Patent Act does not say that the issuance of a patent *constitutes* a grant of the right. It merely prescribes a series of English words which are to appear on that printed document which is a patent. Whether the rights which these words purport to create are actually created is a question not dealt with by this section of the statute. That this is so is shown by the effect given to the precursor of this section,<sup>5</sup> which had read: “Every patent shall contain. . . a grant. . . of the *right to make*, use and vend the invention”; all patents had dutifully contained a series of words purporting to grant the right to make, use and vend; however the courts consistently held that the issuance of a patent did not constitute a grant of the right to make, use and vend, but rather, that when a patent was held valid the patentee had the quite different *right to exclude others from making*, using and vending the invention.

Only the owner of a valid patent can be secure that he can obtain the aid of a court (has a “right”) to so exclude others. The owner of a patent which potential defendants consider an apparently valid patent will be able to so exclude others (or obtain substantial license fees) to a large degree, without actually securing the aid of a court, by utilizing the threat of suit. The owner of a patent which potential defendants consider a patent of uncertain validity can do the same to a lesser degree. The owner of a patent which potential defendants consider an apparently invalid patent will usually (but not always) be unable to so exclude others (or obtain substantial license fees) by utilizing the threat of suit, and will not, if he himself considers the patent to be an apparently invalid patent, actually bring a suit to trial; but he nevertheless may be able to obtain revenue from the “nuisance value” of his patent.<sup>6</sup> The owner of an invalid patent will find himself unable to secure a court’s aid, or employ the threat of suit, to so exclude others.

<sup>5</sup> The former REV. STAT. § 4884 (1875), 35 (Old) U.S.C. § 40 (1946) [reprinted at 35 U.S.C.A. appendix II].

<sup>6</sup> “Even the legal profession contains a small group of what may be called ‘patent chasers,’ who use the threat of court challenge to exact out-of-court settlements when such settlements

Since the issuance of the patent is not conclusive of the right to so exclude others, all that the issuance of a patent, *per se*, grants is a "license to sue" in a federal court<sup>7</sup> to have determined whether or not the patentee has a right to so exclude others.<sup>8</sup>

### *Relevant Antitrust Considerations*

It was stated above that the owner of a patent which potential defendants consider an apparently valid patent will be able to exclude others or obtain substantial license fees, to a large degree, without actually securing the aid of a court, by utilizing the threat of suit. It must not be forgotten, however, that the classification of a patent as an apparently valid patent, patent of uncertain validity or apparently invalid patent will vary among potential defendants. Some potential defendants may consider a patent an apparently valid patent while others consider it an apparently invalid patent. Consider the following situation:<sup>9</sup>

... The author knows of one actual case where a patent, very vital to an entire industry, is held by the X Company. All of its competitors, except the Y Company, pay a substantial royalty for this device on every machine they build. The reason that Y Company pays no tribute is that it has found and bought and concealed a machine embodying the patented feature, and made more than two years before the filing of the patent application. X exacts no royalty from Y, and in return Y keeps the existence of this machine secret; for its production in any court would at once result in X's patent being declared absolutely void.

**Query:** Is the agreement between X and Y, to actively suppress evidence which would cause a court to hold the patent invalid, a contract which unreasonably restrains trade in violation of Section 1 of the Sherman Act?

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might be less than the cost of an ordinary defense." KURSH, *INSIDE THE PATENT OFFICE* 17 (1959).

<sup>7</sup> The proper court is sometimes the U.S. District Court [28 U.S.C. §1338 (1948)] and sometimes the Court of Claims [as amended: 28 U.S.C. § 1498 (1949)]. The venue provision is 28 U.S.C. § 1400 (1948). Service of process provisions are 28 U.S.C. § 1694 (1948) and 35 U.S.C. § 293 (1952). Court costs provisions are 28 U.S.C. § 1928 (1948) and 35 U.S.C. §§ 284, 288 (1952).

<sup>8</sup> "In the case of ordinary doubt, the policy of the patent system, as customarily maintained in the Patent Office, has been to give the applicant the benefit thereof, *because no absolute right of property is conferred by the grant of the patent . . .* The patentee is *merely put in a position to assert his prima facie* right against infringers who may in their defense raise the question of the validity of the patent, and have the same . . . adjudicated in the light of a full presentation and consideration of all the evidence attainable . . ." (Emphasis added.) *In re Thompson*, 26 App. D.C. 419, 425 (1906), quoted in U.S. PATENT OFFICE (GEORGE ROEMING), *COURT DECISIONS AS GUIDES TO PATENT OFFICE POLICY AND PERFORMANCE*, [Study No. 25 of the Subcommittee on Patents, Trademarks and Copyrights of the Committee on the Judiciary, U.S. Senate (86 Cong., 2nd Sess.)] 2-3 (1960).

<sup>9</sup> HOAR, *supra* note 4, at § 19-28.



Even without agreement, there are antitrust problems. Potential defendants may consider a patent apparently valid while the patentee has reason to consider the patent susceptible of being proved invalid. Consider the following view of the situation described above:<sup>10</sup>

... note that X's patent is *not* void—yet! And until it is declared void by some competent court, there is nothing illegal, or even immoral, in X continuing to collect royalties. No less an honest gentleman than the late Chief Justice Taft (ex-president of the United States), has expressed his opinion that it is not in the least unethical to conceal from an infringer the evidence which would unquestionably invalidate one's own patent. Mr. Taft aptly said: "We do not understand it to be contended that there was any relation between the Computing Scale Company and the Toledo Company which made it the duty of the former to furnish evidence to the latter to weaken its own case."<sup>70</sup> [fn. 70: *Toledo v. Computing*, 1924 C.D. 486. Cf. *Raymond v. Wickersham*, 54 (U.S.) P.Q. 244. In so far as the *Toledo* Case involved *active suppression* of evidence, as distinguished from mere *keeping quiet* about it, it is undoubtedly overruled by *Keystone v. General*, 19 (U.S.) P.Q. 228.]

In *Toledo v. Computing*,<sup>11</sup> the Supreme Court, *per* Chief Justice Taft, held that *active suppression* of evidence of patent invalidity [not letting other infringement suits go to trial when the defense obtained anticipatory scales built by another, and buying up and concealing all of the other available anticipatory scales], where some remaining scraps of evidence were not suppressed [possible witnesses were not kidnapped],—and said in dicta that *silence* about the existence of evidence of invalidity—did not constitute fraud which "actually prevented" the defendant-infringer from establishing invalidity and which would allow him to collaterally attack the judgment of infringement in an antitrust suit." *Raymond v. Wickersham*<sup>12</sup> also concerned a situation where judgment had already been rendered and the issue argued was the nature and consequences of the "fraud" practiced on the court. But in *Keystone Driller Co. v. General Excavator*,<sup>13</sup> where the issue of active suppression of evidence [obtaining a false affidavit from, and suppressing evidence of prior use by, another] was timely raised in the trial court, the Supreme Court held that *active suppression* of invalidity—and said in dicta that *silence* about the existence of evidence<sup>14</sup>—constituted an "unclean hands" defense which could be raised by a defendant-infringer. And in *Precision In-*

<sup>10</sup> *Ibid.*

<sup>11</sup> 261 U.S. 393 (1923).

<sup>12</sup> 129 F. 2d 522, 54 USPQ 244 (CCPA, 1942).

<sup>13</sup> 290 U.S. 240, 19 USPQ 228 (1933).

<sup>14</sup> . . . nothing about the case should be guarded, but everything that tends to a full and fair determination of the matters in controversy should be placed before the court . . . .  
*Id.* at 244, 19 USPQ at 230.

*strument Mfg. Co. v. Automotive Maintenance Machinery Co.*,<sup>15</sup> the Supreme Court, after discussing the reasons which "give the public a paramount interest in seeing that patent monopolies spring from backgrounds free from fraud or other inequitable conduct" and measuring the facts "by both public and private standards of equity,"<sup>16</sup> held that *silence* as to evidence of invalidity [in this case perjury] constituted an "unclean hands" defense, which could be raised by a defendant-*infringer-licensee* even if he had participated in the conduct which violated public standards of equity and the license contract forbade challenging validity. The Court referred to an "uncompromising duty to report" to the Patent Office "all facts concerning fraud or inequitable conduct."<sup>17</sup>

*Query*: Does the unilateral active suppression of evidence of invalidity by a *corporate* assignee of a patent constitute (1) a conspiracy which unreasonably restrains trade and is therefore *illegal* under Section 1 of the Sherman Act, under that act's "intracorporate conspiracy" doctrine, or (2) an attempt to monopolize which is *illegal* under Section 2 of the Sherman Act? In concert with other questionable activities, much less than active suppression has been held illegal. In *U.S. v. Krasnow*,<sup>18</sup> merely actively avoiding adjudication of validity [threatening or bringing harrassing suits against competitors and their retailers, with the settling of such suits when an aggressive defense was presented], in concert with other activities, caused a finding of a conspiracy to restrain trade and monopolize in violation of both Sections 1 and 2 of the Sherman Act. In *U.S. v. Singer Mfg. Co.*,<sup>19</sup> agreeing with others to be silent about prior art [settling interference suits and making agreements to be silent about prior art, so that patents of questionable novelty and priority issued], in concert with other activities, was held to be a conspiracy violation of Section 1 (and Section 2 ?) of the Sherman Act (the attempt to monopolize charge being dropped on appeal). Does it matter whether the active suppression occurs before or after the patent issues?<sup>20</sup> The Supreme Court will soon rule on private litigants' standing to sue for treble damages when such Sherman Act violations occur.<sup>21</sup>

<sup>15</sup> 324 U.S. 806, 65 USPQ 133 (1945).

<sup>16</sup> *Id.* at 816, 65 USPQ at 138.

<sup>17</sup> *Id.* at 818, 65 USPQ at 139.

<sup>18</sup> 143 F. Supp. 184, 110 USPQ 411 (E.D. Pa. 1956), *aff'd per curiam* 355 U.S. 5, 115 USPQ 70 (1957).

<sup>19</sup> 374 U.S. 174, 137 USPQ 808 (1963), *reversing* Chief Judge Ryan's decision reported at 205 F. Supp. 394, 133 USPQ 439 (S.D.N.Y. 1962).

<sup>20</sup> Where the suppression takes place before the patent issues, the question becomes whether the fraud on the Patent Office constitutes an antitrust violation. The FTC said yes in the Tetracycline Case [In the Matter of American Cyanamid Co., 3 TRADE REG. REP. ¶ 16527 (FTC, Aug. 8, 1963) and ¶ 16699 (FTC, Dec. 17, 1963), *appeal docketed*, Nos. 15788, 15799, 15801, 15805-06, 6th Cir., Mar. 2, 1964.] The same issue is raised by the case cited note 21 *infra*.

<sup>21</sup> The Seventh Circuit had held that a private litigant could not base a treble damage

*Query:* If a patentee knows of, but keeps quiet about, such evidence (without necessarily actively suppressing it) *before* signing a license agreement, is there a failure of consideration (since the promise to forbear asserting a claim of patent infringement is made by "one who has not an honest and reasonable belief in its validity"<sup>22</sup>) ? If so: since the failure of consideration takes place at the time of signing the license agreement rather than at the time of the adjudication of invalidity [the usual time consideration for a license agreement fails,<sup>23</sup> which is why a licensee usually cannot recover for royalties paid before the adjudication of invalidity<sup>24</sup>], can a *licensee* recover all royalties previously paid? He can when a suit by the government causes a patent to be adjudicated invalid for fraud on the Patent Office<sup>25</sup> and when the enforcement of a patent constitutes an antitrust violation.<sup>26</sup> Is the right to recover royalty payments a question of state law or federal law?<sup>27</sup>

It was said above that the owner of a patent which potential defendants consider an apparently invalid patent will usually be unable to exclude others, or obtain substantial license fees, by utilizing the threat of suit. But this is not always so. It may be possible for a large corporation with a questionable patent, by the threat of a suit (without bringing it to trial), to exclude (or obtain substantial license fees from) a smaller rival who cannot afford costly patent litigation.<sup>28</sup> The difference in the size of the firm is crucial because there is no additional cost to a large corporation with a law firm on retainer in bringing an extra suit, or in defending an extra suit; the smaller

antitrust suit on fraud on the Patent Office. *Walker Process Equip. Co. v. Food Machinery & Chemical Co.*, 335 F.2d 315, 142 USPQ 192 (7th Cir. 1964), *petition for cert. filed* 33 U.S. L. WEEK 3154 (U.S. Oct. 19, 1964) (No. 602), the United States as *amicus curiae* in support of the petition [379 U.S. 957 (1965)], *cert. granted* 379 U.S. 957 (1965).

<sup>22</sup> RESTATEMENT, CONTRACTS §§ 76, 78 (1933).

<sup>23</sup> HOAR, *supra* note 4, at 285 n.54.

<sup>24</sup> *Id.* at 286, text at n. 65.

<sup>25</sup> *Id.* at 286 n.66 and accompanying text.

<sup>26</sup> In the companion case to *Hazel-Atlas Glass Co. v. Hartford-Empire Co.*, 322 U.S. 238, 61 USPQ 241 (1944), the Supreme Court said in *Shawkee Mfg. Co. v. Hartford-Empire Co.*, 322 U.S. 271, 274, 61 USPQ 256, 257 (1944) that: "Whether this type of relief [recovery of costs, payments and damages] will be granted must depend upon further proceedings in the District Court." The Third Circuit Court of Appeals, in *Hartford-Empire Co. v. Shawkee Mfg. Co.*, 163 F.2d 474, 74 USPQ 252 (3d Cir. 1947), allowed recovery of payments in settlement, royalty payments and legal expenses, and authorized the District Court to grant punitive damages. The punitive damage claim was settled by the payment of a lump sum of almost a third of a million dollars. *Commissioner v. Glenshaw Glass Co.*, 211 F.2d 928, 929 (text at n.1), 930 n.5 (3d Cir. 1954).

<sup>27</sup> See *Sola Electric Co. v. Jefferson Electric Co.*, 317 U.S. 173, 55 USPQ 379 (1942).

<sup>28</sup> Note, *Recent Developments in the Law of Patents Under Thurman Arnold*, 45 COL. L. REV. 422, 431 n.42 (1945). See generally Ladd [formerly Commissioner of Patents, U.S. Patent Office], *Business Aggression Under The Patent System*, 26 U. CHI. L. REV. 353 (1959). Such activity, if bad faith can actually be shown, may result in a finding of an antitrust violation. *Id.* at 371, citing *Kobe Inc. v. Dempsey Pump Co.*, 196 F.2d 416, 94 USPQ 43 (10th Cir. 1952), *cert. denied*, 344 U.S. 837 (1952).

firm which must hire additional legal help for the occasion must bear the cost itself. Thus:

[T]he disparity between what the patent office grants and what the courts will enforce puts great weight on the relative ability of disputants in patent matters to bear large costs and delays of litigation. A patent is a license to sue: where the outcome is uncertain and the trial costly, the large patentee can in practice enforce claims against weaker rivals which courts would be unlikely to support.<sup>29</sup>

Examples of attempts to do this are described in *U.S. v. Krasnov* ("The financial strength of. . . [a potential manufacturer-defendant] was carefully checked and when it was found out that it was weak and, in fact, almost out of business, it was decided [by the patent owners, including a large corporation] to institute suit against that company."<sup>30</sup>) and *Marconi Wireless Telegraph Co. v. Kilbourne & Clark Mfg. Co.*<sup>31</sup> (plaintiff corporation brought infringement suits in several districts simultaneously in order to place unbearable litigation costs on one year old defendant corporation), and by Vaughn.<sup>32</sup> In such situations the patentee will avoid a court trial. E.g., *U.S. v. Krasnov* relates that the patent owners:

(1) brought ten suits against retailers without allowing the validity of the patent to be adjudicated in any of them; either the retailer agreed to discontinue purchasing competing lines, or, if the retail defendant showed any aggressiveness in the defense, the suit was dismissed or discontinued for lack of prosecution;<sup>33</sup>

(2) brought four suits against manufacturers, none of which was adjudicated on the merits;<sup>34</sup> and

(3) used the threat of future suit to cause other retailers to stop handling competing lines;<sup>35</sup>

no court had ever adjudicated the validity of the patent.

### *The "Presumption of Validity"*

A valid patent has been defined as one which to almost any informed observer appears to be one which almost certainly will not be held unenforceable because the conditions for the issuance of a patent were not met. There is certainly no justification for using this term prior to a court adjudication.

<sup>29</sup> KAYSER & TURNER, ANTITRUST POLICY 163 (1959). Mr. Kayser is an economist at Harvard University. Mr. Turner, formerly at the Harvard Law School, has recently been appointed Asst. Attorney General in charge of the Justice Department's Antitrust Division.

<sup>30</sup> 143 F. Supp. at 195, 110 USPQ at 417.

<sup>31</sup> 235 Fed. 719 (W.D.Wash. 1916).

<sup>32</sup> VAUGHN, THE UNITED STATES PATENT SYSTEM 209-10 (1956).

<sup>33</sup> 143 F. Supp. at 194, 195, 110 USPQ at 416, 418.

<sup>34</sup> *Id.* at 194-95, 110 USPQ at 416-17.

<sup>35</sup> *Id.* at 193-94, 110 USPQ at 416.

A patent will be classified as an apparently valid patent if it is estimated that the court which gets its hands on it will probably not find it unenforceable because the conditions for the issuance of a patent have not been met. The term "presumption of validity" does *not* refer to an estimator's rule of thumb which would assert that in fact most patents are apparently valid patents. It has no reference at all to the estimated outcome of court decisions.

The assertion that a patent has a presumption of validity (or is presumed to be a valid patent) is an assertion that the court which is about to determine validity should presume it from the mere fact that the patent was issued. By presuming validity the trial court is helping the patentee, who like all plaintiffs has the burden of proof, by placing a burden of some kind on the party challenging the patent.

It is an open issue whether the burden, placed on one opposing a patent in court by the presumption of validity, is a "burden of proof," a "burden of going forward" with some evidence, or something in-between. Consider the views of Mr. Thomas Cooch:<sup>36</sup>

A "presumption" is an aid to the party having the burden of proof upon an issue and operates to relieve him of the duty of presenting evidence until his adversary has introduced proof to rebut the presumption.

I want to throw out a word of caution here: don't rely too heavily on Section 282 of the Patent Act of 1952—it probably doesn't mean what the patent bar intended it to mean, but there has been no decision on this as yet.<sup>17</sup> [fn. 17. The question was dodged in *General Motors v. Estate Stove Co.*, 203 F.2d 912, 97 U.S.P.Q. 88 (6th Cir. 1953) on the basis that the Patent Act of 1952 did not apply.] Section 282 provides in its first paragraph:

"A patent shall be presumed valid. The burden of establishing invalidity of a patent shall rest on a party asserting it."

First of all, remember that a presumption is not evidence and disappears as soon as direct or positive evidence is introduced.

But you ask, what about the second sentence dealing with the burden of establishing invalidity? Doesn't that make a difference?

Possibly it does, but more likely it doesn't. In my opinion it merely says the same thing another way—that the party attacking the validity of a patent must introduce the first evidence on that issue. Thus, it merely *confirms* the common law rule that because of the presumption of validity the defendant has the initial *burden of going forward* with the evidence, and when he has gone forward with the evidence the patentee must meet his normal burden of proof.

If you thought that Section 282 *shifts the burden of proof* of invalidity to the

<sup>36</sup> Cooch, *The Standard of Invention in the Courts*, DYNAMICS OF THE PATENT SYSTEM: DISCUSSION OF TEN CRITICAL AREAS OF CONTEMPORARY PATENT LAW (transcript of delivered papers and floor discussion from ten patent law seminars held at the Villanova University School of Law, 1957) [hereinafter cited as DYNAMICS] 39-40 (Ball ed. 1960). Mr. Cooch is a permanent member of the Judicial Conference, U.S. Third Circuit. (Emphasis added.)

defendant I suggest you take another look at the exact words used: "burden of proof" is not even mentioned.

But, you say, doesn't "establish" mean the same as "prove"? Possibly so, but probably not, for if Congress had so intended it would have used the word "prove," which is a word of art.

Relevant also is the following commentary:<sup>37</sup>

I have been unable to find anything in the cases to indicate that the law with respect to the weight or strength and effect of presumptions has been changed by the 1952 Act. The same language is found in the recent cases as in those before the Act, and the treatment is not perceptibly different. However, courts are not uniform in the effect they give to presumptions generally, and this non-uniformity of treatment exists with respect to the presumption of validity in patent cases. So it may be of some use to look at the principal possible procedural effects of presumption. There are three main ways of treating them. Support can be found for each of these ways in patent cases.

The first one—the one that Mr. Cooch said is the common law rule—operates in this way: as soon as some evidence is introduced tending to show invalidity, the presumption disappears. Under this rule the patent would be held invalid unless some countervailing evidence is introduced. In other words, the presumption merely determines who has the initial burden of producing evidence, not how much or what quality the evidence must have.

The second manner in which presumptions have been treated is to give them a certain additional stature—to make them a kind of hurdle—which requires that substantial evidence of invalidity be presented before the burden shifts to the one asserting the patent. In other words, the evidence of invalidity must be such as to create at least a reasonable doubt about validity.

The third type of procedural effect sometimes given presumptions is to require that what is referred to as "clear and convincing proof of invalidity" be introduced in order to overcome the presumption. This is the view expressed by Justice Cardozo in the 1934 *RCA* Case and it's been repeated in many decisions since the 1952 Act.

The conclusion I would like to suggest be drawn is that you cannot tell, with any reasonable degree of certainty, which if any of these procedural effects a court will give to Section 282.

The justification for placing some burden on one opposing a patent is that some weight should be given to the Patent Office's adjudication on the issue of validity. The heaviness of the burden should therefore depend upon how good a job is done by the Patent Office when it adjudicates validity.

While there are many court statements saying that the presumption of validity can be overcome only with clear and satisfactory proof,<sup>38</sup> the courts have

<sup>37</sup> Beck, Remarks during Floor Discussion of Mr. Cooch's paper, *DYNAMICS* 65-66.

<sup>38</sup> Cases making such an assertion are collected in 2 *WALKER, PATENTS* §276 (Deller's ed.

usually been merely assuming this and stating it in passing rather than facing and deciding the issue.<sup>39</sup> But this assumption, which implies that the burden is a burden of proof, has long been recognized as inconsistent with the Patent Office policy of *sub silentio* resolving doubts as to the validity of claims in favor of the applicant.<sup>40</sup> This Patent Office policy, known as the "rule of doubt," consists of: (1) placing the burden of proof (the risk of non-persuasion) on the issue of validity on the Examiner, so that he must prove that the claims should be rejected rather than the applicant proving that the claims should be allowed,<sup>41</sup> (2) making the Examiner prove "beyond a reasonable doubt" that the claims should be rejected, by having him resolve all "reasonable doubts" in favor of the applicant,<sup>42</sup> and (3) prohibiting the Examiner from indicating when he is allowing claims only because he has a reasonable doubt (so that courts will not be able to tell which are the patents whose claims the Examiner doubted were valid)<sup>43</sup>. The justification for the Patent Office's policy is that an applicant should be allowed a day in court, and by the issuance of a patent the patentee "is merely put in a position to assert his *prima facie* right against infringers."<sup>44</sup> If the burden created by the presumption of validity was a burden of proof, then one could attain patent rights without ever having to establish that one is entitled thereto—the mere assertion of being entitled to a patent, made by the filing of an application, would place on the world the burden of proving that the asserted claims are unpatentable. That this is not the Supreme Court's view of how the mere filing of a patent application should affect the nation's economy can be seen from *Great A&P Co. v. Supermarket Equipment Co.*,<sup>45</sup> and the Patent Office's

1937), 3 *id.* at §701, and RIVISE & CAESAR, PATENTABILITY AND VALIDITY §6 (1936). The many ways of saying the same thing are collected in 2 WALKER, PATENTS §276 (SUPP. 1964) and 3 *id.* at §701.

<sup>39</sup> The same unquestioning assumption is made in U.S. PATENT OFFICE (GEORGE ROEMING), *supra* note 8, at 5-7 (text).

<sup>40</sup> GLASCOCK & STRINGHAM, PATENT SOLICITING AND EXAMINING §88 (1934); STRINGHAM, OUTLINE OF PATENT LAW §6510 (1937). See the arguments in §8580, *id.*

<sup>41</sup> U.S. PATENT OFFICE (GEORGE ROEMING), *supra* note 8, at 3, 4, and n.8.

<sup>42</sup> *Ibid.*; STRINGHAM, *supra* note 40, at § 6510; MCCRADY, PATENT OFFICE PRACTICE § 118 (4th ed. 1959).

<sup>43</sup> This is the rule of the Commissioner of Patent's decision in *Ex parte Overstrom*, 1903 C.D. 263 (1903) and U.S. PATENT OFFICE, MANUAL OF PATENT EXAMINING PROCEDURE (all editions) §707.07 (d); see also MCCRADY, *supra* note 42, §119, and STRINGHAM, *supra* note 40, §8580.

In contrast, the federal courts, the C.C.P.A., and the Patent Office Board of Appeals can indicate when it is allowing a claim because it has not been shown beyond a reasonable doubt that the claim is invalid. [The assertion in HOAR, *supra* note 4 at § 8-28, that the Board of Appeals may not so indicate, seems to be erroneous—see GLASCOCK & STRINGHAM, *supra* note 40, §88 (citing cases) and the 2nd edition of MCCRADY, PATENT OFFICE PRACTICE §130 (citing cases) (2nd ed. 1946).]

<sup>44</sup> *In re Thompson*, *supra* note 8, (*emphasis added*).

<sup>45</sup> 340 U.S. 147, 87 U.S.P.Q. 303 (1950).

analysis of this case.<sup>46</sup> The A&P Case implies that the "burden of establishing invalidity" which an opponent of a patent must bear is not a burden of proof,<sup>47</sup> but only a burden of going forward with evidence. Since the Examiner cannot disclose when he is using the rule of doubt (this prohibition being enforceable by the applicant if the Examiner should attempt to), all patents are on an equal footing. In *Berghane v. R.C.A.*,<sup>48</sup> decided and affirmed after the 1952 Patent Act, Chief Judge Leahy denied that there was a presumption of validity (in the sense of a burden of proof) in favor of a patent during a time when the Patent Office was following its rule of doubt, for during such times the Patent Office was not exercising its judgment as to validity but was passing that question on to the courts. The Patent Office is still following its rule of doubt, and not exercising its judgment on validity.

As indicated above, since the justification for placing any burden on one opposing a patent is to give some weight to the Patent Office's exercise of judgment on validity, the weight of the burden should depend upon how good a job is done by the Patent Office when it adjudicates validity. The Patent Office's rule of doubt alone could be considered enough reason for the burden not being a burden of proof. Full analysis of what the burden should be, however, would require analysis not only of the rule of doubt, but also analysis of the limited ability of the Examiner to gather the evidence upon which to adjudicate (e.g., his limited ability to make a "validity search" for prior references), the institutional pressures within the Patent Office (such as production quotas) which tend to prevent proper adjudication by the Examiners, and the effect of decisions by the Court of Customs and Patent Appeals<sup>49</sup> which force Examiners to allow patents under rules of law, and a "standard of invention," which is unacceptable to the Federal Courts.<sup>50</sup>

## II

### WHAT IS "THE INVENTION"?

#### *The Nature of "Claims"*

Every patent contains a copy of the "specification and drawings,"<sup>51</sup> which are the "specification" and "drawings" which were included in the patent

<sup>46</sup> U.S. PATENT OFFICE (GEORGE ROEMING), *Court Decisions as Guides to Patent Office Policy and Performance*, *supra* note 8, 8-11, 14 (text at note 39).

<sup>47</sup> See *id.* at 6 and n.12.

<sup>48</sup> 116 F. Supp. 200, 99 USPQ 264 (D.Del. 1953), *aff'd* 217 F.2d 490, 103 USPQ 406 (3d Cir. 1954).

<sup>49</sup> The Court of Customs and Patent Appeals is the court to which patent applicants may appeal if dissatisfied with a decision of the Patent Office Board of Appeals. 35 U.S.C. §141 (1952). An applicant can, in the alternative, bring a civil action against the Commissioner of Patents in the U.S. District Court for the District of Columbia. 35 U.S.C. §145 (1952).

<sup>50</sup> This latter may come to an end if the Supreme Court holds that it has jurisdiction in *Brenner v. Manson*, No. 932, U.S. Supreme Court, *granting cert.*, 380 U.S. 971 (1965), *reviewing*, 333 F.2d 234, 142 USPQ 35 (1964).

<sup>51</sup> 35 U.S.C. §154 (1952).



application<sup>52</sup> as amended during prosecution before the Patent Office. The "specification" in an application consists of two parts, one of which is also called a "specification,"<sup>53</sup> the other of which is called the "claims." The "specification" (in the narrower sense) includes a description of at least one "specific embodiment" of "the invention,"<sup>54</sup> and is followed by one or more "claims," which "claim" in varying degrees of breadth "the subject matter which the applicant regards as his invention."<sup>55</sup> "Ordinarily, the application will contain several claims, some of them 'broad,' that is, covering many devices besides the specific device disclosed, and some of them 'narrow,' that is, so limited that any reference upon which they 'read' will be practically the same as the [specific] disclosed device."<sup>56</sup> Broad claims stand somewhere between the applicant's specific embodiment and his "idea" (or "principle"), reaching toward the latter. Claims vary in breadth depending on (1) the variation in the number of features recited by the claim, and (2) the variation in the specificity of the description of any feature recited by the claim.<sup>57</sup>

Some claims in a patent may be infringed while narrower ones are not; some may be valid while broader ones are not. Hence in an infringement suit some claims of a patent may be held "valid and infringed," others "valid but not infringed" (or not infringed, with no holding on validity), and others "invalid" (with or without a holding on infringement).

#### *Four types of uses of the term "invention"*

The word "invention" has been used in different senses as a verb, an abstract and semi-abstract noun, and a concrete noun.

"Invention" has been used as a verb to refer to the *act* of inventing, as when one's thinking up a device is referred to as "invention."

"Invention" has also been used as an abstract noun to refer to a supposed inventive *quality* which a device or process is considered capable of possessing, as when it is asked of a device whether "invention is present" or whether it "lacks invention." It is similarly used as a semi-abstract noun to refer to a

<sup>52</sup> 35 U.S.C. §111 (1952).

<sup>53</sup> Sections 111, 112 para. 1, 112 paras. 2 and 154 of the 1952 Patent Act, 35 U.S.C. §§ 1-293 (1952), use the term "specification" to include both the "specification" (in the narrower sense) and the "claims." It is not clear whether the same is true for para. 3 of Section 112, which may be using the term specification in the narrower sense.

<sup>54</sup> "The specification shall contain a written description of the invention . . . and shall set forth the best mode contemplated by the inventor of carrying out his invention." 35 U.S.C. § 112 para. 1 (1952).

<sup>55</sup> "The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. § 112 para. 2 (1952).

<sup>56</sup> U.S. DEPARTMENT OF COMMERCE, PATENT OFFICE, TRAINING MANUAL FOR PATENT EXAMINERS: PART I: INTRODUCTION TO PATENT LAW AND EXAMINING PRACTICE 12 (1955 ed.). (Quotes added.)

<sup>57</sup> Cf. STRINGHAM, PATENT CLAIM DRAFTING §5033 (2d ed. 1952).

*class* of devices and processes which possess a *common* inventive *quality*, as when it is asked of a specific device whether "it is an invention." This sort of use is only meaningful if it is clearly kept in mind that the common "quality" is not inherent in the devices and processes, and specific criteria which will define the common "quality" must be chosen and articulated. Different criteria have been chosen by different people for different purposes, often while they were asserting that they had found the "true" criteria, causing a great deal of confusion and difficulty. This used to be especially troublesome because for many years the conditions for the issuance of a patent included the judicially determined criteria which defined "inventions." The 1952 Patent Act<sup>58</sup> adopted such criteria as conditions for the issuance of a patent without using the word "invention" in this sense, thus making the choice of criteria for defining "invention" irrelevant for most purposes. However the Patent Act is modified by, and interpreted in the light of, the Constitution,<sup>59</sup> which uses the word "discoveries" (*i.e.*: "inventions");<sup>60</sup> also, it can be argued that the conditions for the issuance of a patent set out in Patent Act are not exclusive of other conditions developed through judicial decisions; thus the choice of criteria for defining "invention" in this sense is *not* entirely irrelevant.

The fourth and most important type of use of the word "invention" is as a concrete noun, referring to a device or process, or set of devices or processes, which is defined in terms of *physical characteristics*. It is in this sense that "invention" is being used when one asserts that a certain "invention" is new and useful. It is this type of use of the word "invention" which is discussed in the following sections of part II of this paper.

#### *Colloquial uses of "invention" vis-à-vis "claims"*

In some colloquial uses, the term "the invention" is often used to refer to the "specific embodiment" which has been constructed by the inventor or which has been described in his specification. An example of such uses is the following:

. . . . A rejection is never to be taken literally. Remember that the Examiner is not rejecting your *invention*. He may be quite prepared to admit that your *invention* is patentable over the references. He is merely rejecting your claim: *i.e.*, the way in which you have expressed your invention.<sup>61</sup>

In another colloquial use, it is used to refer to the specific embodiment which (1) the applicant or patentee has sold commercially and (2) has any

<sup>58</sup> 35 U.S.C. §§ 1-293 (1952).

<sup>59</sup> See *infra* notes 123 and 176.

<sup>60</sup> See text at notes 120-123, and note 123, *infra*.

<sup>61</sup> HOAR, *supra* note 4, C.8 ("Fighting it Out") at § 8-38. (Emphasis added.).

tenuous relation whatsoever to what is disclosed in the patent application. The relationship may be as strong as a similarity of structure or as tenuous as an identity of product name, inventor or manufacturer.

Still another colloquial use is the use of the term "the invention" to refer to some vague *undefined* abstraction from the total set of specific embodiments described above (*i.e.*, the set of the specific embodiments built, described in the application, or sold). In this use, synonyms of the term "the invention" are the "essence" of what the patentee has invented, the "fruit and essence," the "fundamental conception," the "substance," the "gist," the "core," the "real invention," the "real nature," the "real novelty," the "principal feature," the "capital idea," the "material part," the "soul of the device," the "heart," the "substance and heart," and the "pith and marrow."<sup>62</sup> The value of these terms "is exclusively in any esthetic thrill that it gives us."<sup>63</sup> These words result from the ignoring of the language of the claims and the determining of the issue of infringement by "dream interpretation."<sup>64</sup> The tribunal depends

. . . upon its libido. It could go into a trance, if it wished, and during or after emerging from the trance it could enunciate such words . . . .<sup>65</sup>

The interrelation between colloquial uses of the term "invention" and "claims" is illustrated by the following example:

. . . . Suppose that a neolithic man, whom we may call Homer Sapiens, has just invented the first three-legged stool. Homer has found this stool . . . useful to sit upon while milking his cows . . . . So Homer explains *his invention* to an attorney, who undertakes to prepare a patent application. . . . the attorney may propose to claim *the invention* as: "A seat to be occupied by a man when milking cows, comprising a circular piece of wood in combination with three wooden legs of equal length for supporting the circular piece a fixed distance above the ground."

Although this proposed claim defines *the invention* accurately, upon second reading it appears to contain a number of unnecessary words. . . . After all *the invention* is essentially "a seat."

After going through . . . cogitations and mental gyrations, the patent attorney might decide upon these claims for his neolithic client's three-legged stool:

"What is claimed is:

1. A stool comprising a seat having a plurality of legs adapted to support the seat.
2. A stool comprising a substantially flat seat in combination with a plurality of legs of substantially equal length.

<sup>62</sup> Some of these terms are collected in GLASCOCK & STRINGHAM, PATENT LAW § 5950 (1943).

<sup>63</sup> *Id.* at § 5951.

<sup>64</sup> *Id.* at § 5940.

<sup>65</sup> *Ibid.*

3. A stool comprising a substantially flat circular seat in combination with three legs of substantially equal length adapted to support the seat a fixed distance from the ground.<sup>66</sup>

The underlined uses of the term "invention" in this neolithic man example are colloquial uses. The first two uses appear to refer to the specific embodiment which has been constructed by the inventor; the second two uses appear to refer to some vague undefined abstraction from the specific embodiment constructed by the inventor.

*"Invention" as a term of art*

The invention which would be protected by a valid patent which included the three claims in the above example is a set of three "claimed inventions,"—that of Claim 1, that of Claim 2, and that of Claim 3. All three claims are broader than the specific embodiment which is described in the first paragraph of the example.<sup>67</sup> Claim 1, for example, would exclude others from making, using or selling, *inter alia*, chairs with 2,3,4,5 or 6 legs, wooden or aluminum, with or without arms, with or without backs, with a level seat or with a seat built with a Danish-modern curve, for use in milking cows or for use by the fireside as an easy chair or for use playing the piano.

While at one place the 1952 Patent Act may use the term "the invention" to mean some vague undefined abstraction from disclosed specific embodiments,<sup>68</sup> all of—(1) the "patented invention" protected against infringement by §271 (a),<sup>69</sup> (2) "the invention" referred to in the grant contained in a patent,<sup>70</sup> and (3) "the subject matter sought to be patented"<sup>71</sup> which must meet the "standard of invention" of §103—are the set of that which is described in ("recited by") a claim of the patent. Each claim of a patent recites a sepa-

<sup>66</sup> BUCKLES, IDEAS, INVENTIONS AND PATENTS 85-86 (1957). *Cf. id.* at 193-95 (Emphasis added). This is a standard example for illustrating the nature of patent claims.

<sup>67</sup> See text at note 57, *supra*. Claims 1 and 2 require less features than Claim 3 requires and the specific embodiment constructed by the inventor possesses—e.g.: only two legs rather than three legs. The claims also vary in the specificity of their description—e.g.: Claim 1 requires "a seat," Claim 2 "a substantially flat seat," Claim 3 "a substantially flat circular seat." [The specific embodiment is described as "a circular piece of wood."] It is of course arbitrary whether a limitation in a claim is considered to add a feature to a claim (e.g., considering a claim limited to "at least 4 legs rather than "at least 3 legs" as having had a leg "added" to the recited structure) or to qualify a feature of a claim (e.g., considering a claim limited to "at least 4 legs" rather than "at least 3 legs" as having had its supporting structure "qualified.").

<sup>68</sup> See 35 U.S.C. § 112 para. 1 (1952), set forth in note 54, *supra*. Compare 35 U.S.C. § 271 (c) (1952), which uses the distinct, though vague and undefined, term: "material part of the invention."

<sup>69</sup> ". . . whoever . . . any patented invention, . . . infringes the patent." 35 U.S.C. § 271 (a) (1952).

<sup>70</sup> "Every patent shall contain . . . a grant . . . of the rights to exclude others from making, using and selling the invention . . ." 35 U.S.C. § 154 (1952).

<sup>71</sup> "A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that . . ." 35 U.S.C. § 103 (1952).

rate "patented invention" which may be infringed, and each must separately meet the "standard of invention."

In its most important uses as a term of art, therefore, the term "invention" refers either to the embodiments described in one of the claims or to the set of embodiments described in the set of claims.

*Clarity, confusion, and the "invention"*

The term "the invention" has in the past been used to refer to all of: (1) the first specific embodiment conceived of by the inventor, (2) any one of the specific devices disclosed in the application for a patent, (3) the set of the specific embodiments disclosed in the application, (4) the specific embodiment which the patentee has sold commercially and has any tenuous relation to what is disclosed in the patent application (e.g., the relation of similar structure or identity of product name or identity of inventor), (5) some vague undefined abstraction from the total set of specific embodiments described above (also called the "essence," the "heart," etc.), (6) the embodiments described in one of the claims, and (7) the set of embodiments described in the set of claims. The indiscriminate use of the term "the invention" to convey any of seven different meanings, without specifying which meaning, produces only misunderstanding.

Clarity would be best obtained by not using the term "the invention" at all. Instead, the following terms are suggested: For the meanings given in (1) to (4) above, use respectively: (1) "conceived-of-embodiment," (2) "disclosed embodiment," (3) "set of disclosed embodiments," and (4) "commercial embodiment." For the meaning given in (5) above, until the entire notion of protecting vague undefined abstractions is abandoned, using "abstracted embodiment" would point out the need, for each purpose, to define the abstraction used. For the sixth meaning given above, the embodiments described in a claim, the term "claimed invention" seems clearest. Correspondingly, for the seventh meaning given above, the set of embodiments described in the set of claims, the "set of claimed inventions" should be used.

If the term "the invention" must be used at all, its use would best be restricted to mean the "set of claimed inventions," since it is the set of claimed inventions which, individually, must meet the "standard of invention" and must mark the basis for protection against infringement.

As a term of art, therefore, the term "the invention" should not be used to refer to the specific embodiments described in the specification (often what the inventor has when he walks into his attorney's office), but should refer to the specific embodiments recited by the claims (often what the inventor first has when he walks out of the attorney's office).<sup>72</sup> When courts, bothered

<sup>72</sup> Cf. Comments of Mr. Washburn in *DYNAMICS* at 121-22. "[I]t was known that the division that this case would go into would resist strongly giving method claims if you only had

by the fact that a very broad claim covers devices very different from the specific embodiments described in the specification, hold a claim invalid as "broader than the invention" (rather than as "too broad"),<sup>73</sup> they are using the term "the invention" in a colloquial sense (regardless of whether they are reaching the correct result). Courts sometimes reach the same result in similar circumstances by: (1) holding the claim invalid as an attempt to patent an "idea," or (2) holding the claim invalid as an attempt to patent a "principle of nature," or (3) holding the claim invalid as an attempt to patent all means for solving a given problem, or (4) by using the specific embodiments described in the specification to interpret the words of the claim so as to find it "valid but not infringed," or (5) by holding that the claim, as so broadly interpreted, is invalid over liberally construed prior art. Courts are likely to do this when presented with such claims as the following:

In a device of the class described, a female member split at its outer end, and a headed male member insertible therein and adapted when seated to expand said split portion, said female member being recesses internally beyond the termination of its split portion to receive the inner end of the head of the male member.<sup>74</sup>

Thus, courts may do this in situations more restricted than those in which what is claimed is all means for solving a given problem. However, for an example of this latter type of claim, one which uses particularly inappropriate language is the eighth claim of a patent to Samuel Morse ("Improvement in Electro-Magnetic Telegraphs"),<sup>75</sup> which reads:

8. I do not propose to limit myself to the specific machinery, or parts of machinery, described in the foregoing specification and claims; the essence of my invention being the use of the motive-power of the electric or galvanic current, which I call electro-magnetism, however developed, for marking or printing intelligible characters, signs or letters, at any distances, being a new application of that power, of which I am the first inventor or discoverer.

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mental act performed, so the attorney worked long and hard to devise an apparatus which would perform the method." (Emphasis added.) *Queries*: Is the patent invalid if the attorney is not listed as a joint inventor? Is it a breach of professional ethics for the attorney to claim to be a joint inventor? In an attempted investigation of this matter by the government or by a defendant in an infringement suit, can the attorney and the client claim privilege on the basis of attorney-client communication, or, in the attorney's case, on the basis of attorney work-product?

<sup>73</sup> As to the subject of "too broad" claims generally, see both STRINGHAM, PATENT CLAIMS §§ 5060-5069 (1939) and STRINGHAM, PATENT CLAIM DRAFTING §§ 5030-5032 (2d ed. 1952). For background see STRINGHAM, PATENT CLAIM DRAFTING §§ 5050-5078 (1st ed. 1930).

<sup>74</sup> U.S. Patent No. 1,150,114 (Aug. 17, 1915), Claim 1. The specification discloses specific embodiments which are threaded locking screws, "particularly adapted for use in securing the lenses of an eyeglass in place upon the nose guard, but with slight modification adapted for use in practically any structure in which locking screws are desired." Patent No. 1,150,114, p. 1, col. 1, 11.15-20.

<sup>75</sup> U.S. Reissue Patent No. 117 (1848).

This claim was held "too broad, and not warranted by law" in *O'Reilly v. Morse* (Claims 1-7 were held valid and infringed.).<sup>76</sup>

Confusion is also often apparent when critics of a court decision holding the broad claims of a patent invalid, whether dissenting judges or commentators, maintain that because the patentee's "invention" has revolutionized the industry or been a tremendous commercial success, patent claims should not be held invalid on the grounds of obviousness. Such critics are often confusing (i) "the invention" in the colloquial sense of the embodiment which the patentee has sold commercially with (ii) the very different (and perhaps very obvious) "claimed invention" described by a broad claim. An example of this type of confusion is exhibited in the discussion of *Marconi Wireless Telegraph Co. v. United States*<sup>77</sup> by Buckles.<sup>78</sup> It is said there that the case "hinged upon the question of whether Marconi's creation of *wireless telegraphy* was the result of inventive skill or of 'ordinary skill in the art.'" (Emphasis added.) And indeed this is the position taken in the short dissenting opinions of Justice Frankfurter<sup>79</sup> and Justice Rutledge, which focus on the facts that Marconi had long been acknowledged as the first one to make wireless telegraphy commercial, and that in doing so he solved a problem which had eluded the best minds of his day.<sup>80</sup> However, examination of the majority opinion<sup>81</sup> reveals that:

1. The Supreme Court was *not* considering the *original* Marconi patent, but *only* a later patent *on an improvement*. (The original patent was held "not infringed" by the Court of Claims, but review of *that* holding was not sought.)<sup>82</sup>

2. The application (covering the improvement) presented to the Patent Office contained some claims which did, and some which did not, recite a variable inductance antenna tuner; the Examiner had taken the position that he would not allow the latter claims unless they were amended so as to also recite a variable inductance antenna tuner; the Examiner apparently did not have before him the prior patent to Lodge for a variable inductance antenna tuner.<sup>83</sup> The Court, having the Lodge patent before it, affirmed the Court of Claims decision holding the patent *on the improvement* invalid.

<sup>76</sup> 56 U.S. (15 How.) 62 (1853). As late as 1924 it was argued that this holding was incorrect and the claim should have been held valid—see KEIPER, *PIONEER INVENTIONS AND PIONEER PATENTS* 15-27 (2d ed. 1924); compare STRINGHAM, *PATENT CLAIM DRAFTING* § 5051 (1st ed. 1930). For other examples (the anesthetic use of ether; Bell's telephone patent) in which this issue was litigated, see STRINGHAM, *OUTLINE OF PATENT LAW* § 1107 (1937).

<sup>77</sup> 320 U.S. 1, 57 USPQ 471 (1943).

<sup>78</sup> BUCKLES, *supra* note 66, at 36-38.

<sup>79</sup> With whom Justice Roberts concurred.

<sup>80</sup> 320 U.S. at 62, 64, 57 USPQ at 497, 498 (1943).

<sup>81</sup> *Per* Chief Justice Stone, with whom Justices Douglas, Black, Reed and Jackson concurred.

<sup>82</sup> 320 U.S. at 4, 5, 57 USPQ at 473, 474 (1943).

<sup>83</sup> *Id.* at 31 & n.18, 57 USPQ at 484 & n. 18.

3. The Court pointed out that the commercial success of Marconi's wireless telegraphy was due to features other than the one to which the claims of *this* patent were directed.<sup>84</sup>

*The protection given to the "set of claimed inventions" in a "valid patent"*

THE "RIGHTS" WHICH FLOW FROM OWNING A VALID PATENT: The "patent right" is usually said to be the right to *exclude others* from *making, using or selling* the "patented invention" [*i.e.*: the set of claimed inventions]. "[W] however without authority makes, uses or sells any patented invention. . . infringes the patent."<sup>85</sup> It is important to note that owning a valid patent does *not* give the patentee himself any "right" or "privilege" to make, use or sell the "patented invention."<sup>86</sup> When this point is missed, confusion usually results.<sup>87</sup> The patent laws do *not* give the patentee the exclusive right to produce the "patented invention," but *only* the right to exclude others from producing it. Either the government or some other patent owner may have the "right" to prevent the patentee or his licensees from producing his own "patented invention," It is therefore *incorrect* to say that: "the patent holder is in a position of monopoly,"<sup>88</sup> or: "the general purpose of the patent law [is] to allow the patentee to get as much revenue from the patent as he can,"<sup>89</sup> or:

. . . it appears to be the intent of the patent law that the patentee be offered a monopolist's sanctuary with respect to his patent. . . . If the patentee discovers . . . that full exploitation of his patent suggests that he use tying arrangements . . . it would seem that the spirit of the [patent] law favors the legality of the tie-in.<sup>90</sup>

It is incorrect because one has a monopoly in the economic sense when one can exclusively make and sell a product (or authorize use of a process) for which there are no close substitutes available. The patent laws do not give the patentee the right to exclusively make and sell because they do not give him the right to do any making and selling; further, the patent laws do not give the patentee the right to exclude others from making and selling close substitutes—even perfect substitutes—which have different physical construc-

<sup>84</sup> *Id.* at 35 & n.20, 57 USPQ at 486 & n.20.

<sup>85</sup> U.S.C. § 271 (a) (1952).

<sup>86</sup> See text at note 5 *supra*.

<sup>87</sup> An example is the confusion in Note, 70 YALE L. J. 649 (1961), which results from this point having been missed in the beginning (*id.* at 649, text at n.2). Justice Black (harmlessly) missed this point in *Aro Mfg. Co. v. Convertible Top Replacement Co.* (I), 365 U.S. 336, 350 & n.5, 128 USPQ 354, 361 & n.5 (1961) (concurring opinion).

<sup>88</sup> NEALE, *THE ANTITRUST LAWS OF THE U.S.A.* 161 (1960).

<sup>89</sup> KAYSEN & TURNER, *supra* note 29, at 174.

<sup>90</sup> Burstein, *A Theory of Full-Line Forcing*, 55 Nw. U. L. REV. 62 (1960).



tions. Thus the *patent laws* do not give the patentee a *monopoly in the economic sense*.

There are distinctions between the rights concerned with excluding others from making and selling and those concerned with excluding others from using.<sup>91</sup>

The "patent right," in the sense of the right to exclude others from making, using or selling the "patented invention" [*i.e.*: the set of claimed inventions], is expanded by doctrines which permit a patentee to enjoin a *threat* of infringement and which treat as an infringer one who "actively induces"<sup>92</sup> infringement. It is also expanded by the doctrine of "contributory infringement," which permits a patentee to exclude others from acts in relation to something *less than the whole thing claimed* when there coexists "direct" infringement.<sup>93</sup>

The "patent right" was extended in 1964, by a closely divided Supreme Court in the 2nd *Aro* Case, to include the right to exclude others from *repairing* the "patented invention."<sup>94</sup>

<sup>91</sup> See *Bloomer v. McQueen*, 55 U.S. (14 How.) 539, 549 (1852) (*per* Justice Taney); *Mitchell v. Hawley*, 83 U.S. (16 Wall.) 544, 547 (1872) (*per* Justice Clifford); *Aro Mfg. Co. v. Convertible Top Replacement Co.* (I), 365 U.S. 336, 359-60, 128 USPQ 354, 364-5 (1961) (concurring opinion of Justice Black), and (II), 377 U.S. 476, 496-97, 141 USPQ 681, 690 (1964).

<sup>92</sup> "Actively induces" is the term used by 35 U.S.C. § 271 (b) [1952]. Courts had previously not used this term but had used the words "aid," "encourage" or "abet." Hoxie, "Misuse of Patents," *DYNAMICS* 376. For a discussion of how the term "actively induces" can be expanded or contracted depending upon one's emphasis on free trade in unpatented goods, see *id.* at 376-78.

<sup>93</sup> See generally the 2nd *Aro* Case, cited *infra* note 94.

<sup>94</sup> *Aro Mfg. Co. v. Convertible Top Replacement Co.* (II), 377 U.S. 476, 484-85, 141 USPQ 681, 685 (1964) (Justices Black, Douglas, Clark and Warren, C. J., dissenting). The extension to include repairing is limited by restrictions set out in part IV of the opinion of the Court (*id.* at 502-13, 141 USPQ at 692-96 [not joined in by Justice Harlan]), which undoubtedly will be supported by the four dissenting Justices; there the measure of damages is limited to damages arising from the prolongation of the original infringing use, thus excluding from damages the profits lost from not doing the repair job or supplying replacement unpatented components; there too the opinion states a specific refusal to express a view on whether the repairing organization can be held liable for the royalty which should have been paid on the original sale of the patented combination even if such royalty cannot be recovered from the original manufacturer or his customers (the "users"). Also, Justice White joined with the dissenting Justices to form a majority which held that the liability of contributory infringers for this extension [and all other contributory infringement extensions] was dependent on a showing of *scienter*, which for this extension was a showing that the repairing organization had actual knowledge that the object being repaired infringed a patent. *Id.*, text at 488 n.8; 141 USPQ, text at 687 n.8. The user, who now commits direct infringement by prolonging his use by having repairs made, is still liable without such *scienter* (*id.* at 514, 141 USPQ at 703 [opinion of Justice White]), but in the case of "ultimate consumers" this is not of practical significance. The drastic results which would come about if there should occur the widespread suing of consumers (and repairmen if the Court had not adopted the *scienter* requirement) is graphically described by Justice Black (*id.* at 529-30, 141 USPQ at 702-03), speaking for four Justices; but Justice Brennan, speaking for another four Justices, hints that such suits may be impermissible (as well as impractical) when there is a solvent and accessible manufacturer to sue (*id.* at 511-12, 141 USPQ at 696). On this latter issue see generally Ladd, *supra* note 28.

THE SCOPE OF PROTECTION AFFORDED BY THE "RIGHTS WHICH FLOW FROM OWNING A VALID PATENT": The apparent Supreme Court doctrine is that the scope of the "patented invention" protected against infringement is the scope of protection against direct infringement given to the owner of a (partially or totally) valid patent, and is measured *solely* by the valid claims. That is to say, the "patented invention" protected against infringement is the sets of specific embodiments which are recited by the claims being held valid. This doctrine was recently reaffirmed in the 1st *Aro* Case.<sup>95</sup>

The scope of protection which is afforded was formerly expanded by a doctrine of "virtual infringement" and a "doctrine of equivalents." The virtual infringement doctrine had permitted a patentee to exclude others from making, using or selling, etc. the "heart"<sup>96</sup> of any of the claimed inventions recited by the claims being held valid. When the doctrine of equivalents was considered relevant, and its operation was not suspended by the operation of "file wrapper estoppel,"<sup>97</sup> it expanded the sets of specific embodiments protected by the claims being held valid to include both the claimed inventions and what the court considered its "equivalents." Sometimes courts so extended claims while at the same time failing to consider the validity of the claims *as extended*, producing absurd results; for example, in *Graver Tank & Mfg. Co. v. Linde Air Products Co.*,<sup>98</sup> where the Supreme Court found narrow claims valid and broad claims invalid, on a rehearing *limited* to the issue of infringement of the narrow claims it found infringement by using the doctrine of equivalents to expand the narrow claims to the scope of the broad claims *previously found invalid*. The extent to which these claim-extension doctrines are used in the various federal circuits is surveyed in an article by Malone & Schmalz.<sup>99</sup> The virtual infringement doctrine was specifically rejected by the Supreme Court in the 1st *Aro* Case.<sup>100</sup> The doctrine of equiva-

<sup>95</sup> *Aro Mfg. Co. v. Convertible Top Replacement Co. (I)*, 365 U.S. 336, 339-40, 128 USPQ 354, 356-7 (1961) [discussed *infra*, text at notes 166-174] ("the claims made in the patent are the sole measure of the grant"), citing *McClain v. Ortmyer*, 141 U.S. 419 (1891) and the *Mercoïd Cases* [*Mercoïd Corp. v. Mid-Continent Investment Co. & Mercoïd Corp. v. Minneapolis-Honeywell Regulator Co.*], 320 U.S. 661 & 680, 60 USPQ 21 & 30 (1944).

<sup>96</sup> See notes 61-64 and accompanying text, *supra*, for a discussion of the notion of a "heart of an invention."

<sup>97</sup> See *Keith v. Charles E. Hires Co.*, 116 F.2d 46, 47 USPQ 402 (2d Cir. 1940) (per Judge Learned Hand); *Lewis v. Avco Mfg. Corp.*, 228 F.2d 919, 108 USPQ 147 (7th Cir. 1956).

<sup>98</sup> 336 U.S. 271, 80 USPQ 451 (1949), *on rehearing* 339 U.S. 605, 85 USPQ 328 (1950). The Court [336 U.S. at 276-77, 80 USPQ at 453] upheld the holding of the District Court [75 USPQ 231, 237 (1947)] that broad claims 24 and 26 were invalid because not limited to alkaline earth materials; the Court then limited the rehearing to the issue of infringement [339 U.S. at 607, 85 USPQ at 330] and proceeded to expand previously upheld claims which had been limited to alkaline earth materials [339 U.S. at 610, 85 USPQ at 331].

<sup>99</sup> Malone & Schmalz, *Peripheral Definition Theory v. Central Definition Theory in Patent Claim Interpretation: A Survey of the Federal Circuits*, 32 GEO. WASH. L. REV. 609 (1964).

<sup>100</sup> 365 U.S. at 344-45, 128 USPQ at 358-59 ("[T]his Court has made it clear . . . that there is no legally recognizable or protected 'essential' element, 'gist' or 'heart' of the invention. . . .").

lents is based on the virtual infringement doctrine, as has been pointed out by Judge Learned Hand,<sup>101</sup> since it is supposed to give a patentee patent rights with respect to the specific embodiment of another where (1) the claim cannot be "construed" to cover another's specific embodiment, (2) the specificity with which the features of the claim are recited make it narrower than the "heart" of the claimed invention, and (3) the specific embodiment of another is to be deemed an "equivalent" because it contains the same "heart." Thus the decision in the 1st *Aro* Case makes the present vitality of the doctrine of equivalents very doubtful. The Supreme Court may soon decide the issue.<sup>102</sup>

The scope of protection which will be afforded will receive additional de facto extension for the reason that potential defendants will consider themselves foreclosed by an apparently valid patent because of the *uncertainty* as to which might be construed to infringe (or what might be held an "equivalent").<sup>103</sup>

The scope of the protection which is afforded a valid patent will receive still additional de facto extension when the patent is part of a *block of related patents*, each of whose scope is uncertain (especially if the doctrine of equivalents has any vitality). When an entire block of patents is sued on, it is unlikely that a trial court would not find at least one of the patents in the block infringed, even if all the patents were such that if any were sued on alone a court could be expected to find it not infringed.<sup>104</sup>

The de facto scope of protection is also extended by the high *cost of patent litigation*, which enables a patentee to derive "nuisance value" income by licensing others to trade in items which a court would probably hold non-infringing.<sup>105</sup>

<sup>101</sup> *Keith v. Charles E. Hires Co.*, 116 F.2d 46, 48 col. 1, 47 USPQ 402, 404 col. 1 (2d Cir. 1940). *Cf. id.* at 49 col. 1 11.53-56, 47 USPQ at 405 col. 1 11.56-60.

<sup>102</sup> The doctrine of equivalents was used to find infringement in *Calmar, Inc. v. Cook Chemical Co.*, 336 F.2d 110, 142 USPQ 412 (8th Cir. 1964), *cert. granted* 380 U.S. 949 (1965) (Nos. 778 and 810). This was not one of the "questions presented." 33 U.S. LAW WEEK 3236 (Jan. 12, 1965).

<sup>103</sup> The desirability of minimizing such uncertainty is one basis of Justice Black's criticism, in the 1st *Aro* Case [365 U.S. at 358-59, 128 USPQ at 364 (concurring opinion)], of the vague standards for a type of direct infringement which were proposed in the separate opinions of Justice Brennan and Justice Harlan.

<sup>104</sup> This is a common fear among small businessmen. Patent, Trademark and Copyright Subcommittee of the Senate Committee on the Judiciary, *Report*, S. REP. No. 72, 85th Cong. 1st Sess., 13 at (e) (1957). A block of patents has a similar effect on decisions on validity. Independent patent owners tend to sell their rights to the owners of blocks of patents rather than compete—see *KAYSEN & TURNER, supra* note 29, at 166—and the size of blocks of patents tends to snowball. Mr. Justice White stated in *U.S. v. Singer Mfg. Co.*, 374 U.S. 174, 197-98, 137 USPQ 808, 818 (1963) (concurring opinion), that he considered to be an antitrust problem the purchase, per se, by a dominant manufacturer, of an important patent which would dominate new developments. *Query*: Is the sale of a patent, or the giving of an exclusive license, the sale of an "asset" within the meaning of Section 7 of the Clayton Act?

<sup>105</sup> *Cf.* note 6 and accompanying text, *supra*.

## III.

## THE TWO MEANINGS OF THE TERM "STANDARD OF INVENTION"

*The Historical Background*

The American concept of a patent has its roots in pre-1776 England and Colonial America.<sup>106</sup> From colonial times through the early nineteenth century, the legislatures of the several states issued to specific individuals patents on their "inventions" [colloquial use].<sup>107</sup> State patents fell into disuse during the early nineteenth century, and recent attempts to revive them have been held unconstitutional.<sup>108</sup>

Article 1, Section 8, Paragraph 8 of the United States Constitution (the "Patent Clause") provides:

The Congress shall have the power . . . To promote the progress of . . . useful arts, by securing for limited times to . . . inventors the exclusive right to their respective . . . discoveries.

Ever since 1790, Congress has provided that any "person" who has "invented or discovered" a manufacture, a machine, or something which was a member of other specifically designated classes of invention, or an improvement thereon, which was "*new and useful*," could obtain a patent if certain other conditions could be met.<sup>109</sup>

<sup>106</sup> These roots are extensively discussed in INLOW, *THE PATENT GRANT* 15-43 (1950) and BUGBEE, *THE EARLY AMERICAN LAW OF INTELLECTUAL PROPERTY: THE HISTORICAL FOUNDATIONS OF THE UNITED STATES PATENT AND COPYRIGHT SYSTEMS* 47-204 (1961).

<sup>107</sup> An exhaustive description of this is given by BUGBEE, *supra* note 106, at 140-249.

<sup>108</sup> The disuse of state patents during the early nineteenth century resulted from the advantages of national patents. *Id.* at 245. Bugbee stated (in 1961) that: "There is a general belief that states could legally grant patents today, provided that they do not conflict with Federal Laws or grants." *Id.* at 245 n.67. The legality of state patents in light of the Patent Clause of the Constitution had been argued by counsel in the famous case of *Gibbons v. Ogden*, 22 U.S. (9 Wheat.) 1, arguments for at 44-60, 84, 141-57, arguments against at 32-33, 165-77 (1824), which involved the constitutionality of a New York patent on Robert Fulton's steamboat; but Chief Justice Marshall, speaking for the Court, specifically declined to decide the issue (*id.* at 221), holding the state patent grant unconstitutional on the basis of the Commerce Clause (*id.* at 186-221). The view which Bugbee asserted to be "general belief," which was the view of losing counsel in *Gibbons v. Ogden*, was unanimously rejected by the Supreme Court in *Sears, Roebuck Co. v. Stiffel Co.*, 376 U.S. 225, 140 USPQ 524 (1964); the Court in the *Stiffel* Case held that grants of state patents, under any label, (including judicial decisions based on notions of "unfair competition") were constitutionally incompatible with the federal patent system projected by the Patent Clause. (The assertion that the *Stiffel* Case is inconsistent with Marshall's opinion in *Gibbons v. Ogden*, which is made in an article by Tom Arnold at 54 *TRADEMARK REPORTER* 413 (1964), is based on a misreading of the reported case; all of the thirteen supposed quotes from C. J. Marshall's opinion (54 *TRADEMARK REPORTER* at 424-25) are quotes from the arguments of counsel, which run from pages 1 to 186 of 22 U.S. (9 Wheat.)—none of these quotes are actually from Marshall's opinion at 22 U.S. (9 Wheat.) at 186-222.)

<sup>109</sup> The former Patent Acts are set out, in relevant part, in EDWARDS, *EFFORTS TO ESTABLISH A STATUTORY STANDARD OF INVENTION* [Study No. 7 of the Subcommittee on Patents, Trademarks & Copyrights of the Committee on the Judiciary, U.S. Senate (85th Cong. 1st Sess.)] 1-2 (1958).

In the patent statutes, the only type of "person" considered capable of being an inventor is a natural person, not a corporation. (One who was held as a slave was apparently considered a "person," but could not obtain a patent as an oath could not be taken that he was a "citizen" of a country.)<sup>110</sup> But under certain circumstances a corporation may file a patent application for an unwilling inventor,<sup>111</sup> or cause it to be issued to itself.<sup>112</sup>

Section 1 of the Patent Act of 1793,<sup>113</sup> which was in effect until 1836,<sup>114</sup> substituted the term "invented" for the term "invented or discovered." All Patent Acts before and since have used the term "invented or discovered,"<sup>115</sup> thus considering "inventor-inventing-invention" and "discoverer-discovering-discovery" synonymous terms within the constitutional reference to "inventors. . . [and] their. . . discoveries." It is doubtful whether any legal significance would attach to a distinction between "inventing" and "discovering."<sup>116</sup>

The corresponding provision in the present patent statute, the 1952 Patent Act provides:

§ 101. *Inventions [or discoveries<sup>117</sup>] patentable*

Whoever  
 invents or discovers  
 any<sup>118</sup>  
 new and useful  
 process,<sup>119</sup>  
 machine,  
 manufacture, or  
 composition of matter,

<sup>110</sup> Boyle, *Patents and Civil Rights in 1857-8*, 42 JOURNAL OF THE PATENT OFFICE SOCIETY 789 (1960).

<sup>111</sup> 35 U.S.C. § 118 (1952).

<sup>112</sup> 35 U.S.C. § 152 (1952).

<sup>113</sup> 1 Stat. 318, partially set forth in EDWARDS, *supra* note 109, at 1.

<sup>114</sup> *Ibid.*

<sup>115</sup> *Id.* at 1-2 and 35 U.S.C. § 100(a) (1952).

<sup>116</sup> Compare, e.g., FRESSENDEN, AN ESSAY ON THE LAW OF PATENTS FOR NEW INVENTIONS 188-89 maxim 5 (1810) ("Patents for improvements and additions to old arts, discoveries, machines and inventions may be obtained. . .") and LEE, WHAT CONSTITUTES PATENTABLE SUBJECT MATTER 6-9 (1894) (of no practical importance) with Wyman, *Merwin on Invention and 35 U.S.C. 103*, 42 JOURNAL OF THE PATENT OFFICE SOCIETY 814 (1960) (different "standards of invention" are required).

<sup>117</sup> "When used in this title unless the context otherwise indicates—The term 'invention' means invention or discovery." 35 U.S.C. § 100(a) (1952).

<sup>118</sup> Exceptions are carved out, however, by the Atomic Energy Act of 1954, and expansions are made by Chapter 15 (Plants) and Chapter 16 (Designs) of the 1952 Patent Act. These "classes of invention" are subject to special regulation and are not included in the discussion of "patents" in this paper.

<sup>119</sup> "When used in this title unless the context otherwise indicates—the term 'process' means 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(b) (1952). Section 100(b) has several difficulties of its own.

or any  
 new and useful  
 improvement thereof,  
 may obtain a patent therefor,  
 subject to the conditions and require-  
 ments of this title.

Prior to the Patent Act of 1952, the other specific statutory conditions to be met did not include a specified "standard of invention."

In the first half of the nineteenth century, the accepted legal doctrine was that a device was an "invention," by definition, if it was "new and useful." Justice Story, on circuit in 1825, rejected in *Earle v. Sawyer*<sup>120</sup> a suggested requirement of unobviousness to "persons skilled in the art who wished to produce the same result" as not within the terms or intendment of the Patent Act.

In 1850, the issue of what constituted "invention" reached the Supreme Court. In *Hotchkiss v. Greenwood*<sup>121</sup> the Court propounded the "black-letter legal doctrine"<sup>122</sup> that every "invention" *in addition to being "new and useful"* must be so differentiated from what was "old" that it could not be created from the old with the ingenuity and skill possessed by an ordinary mechanic acquainted with the business. Hence one who has created a new and useful device, has not *invented* a new and useful device, unless the device qualifies as an "*invention*": if it fails to so qualify, the device is considered "the work of the skillful mechanic, not that of the *inventor*."<sup>123</sup> Thirty years later, in *Pearce v. Mulford*,<sup>124</sup> the Supreme Court reformulated the verbal phrasing of its black letter legal doctrine so as to require from an improvement "something more than what is obvious to one skilled in the art to which it relates."

While as late as the turn of the century some still supported and favored the legal doctrine which had been announced by Justice Story,<sup>125</sup> the "test" of *Hotchkiss v. Greenwood* (and *Pearce v. Mulford*) had become the accept-

<sup>120</sup> 8 Fed. Cas. 254, No. 4247, at 256 (C.C.D. Mass. 1825).

<sup>121</sup> 52 U.S. (11 How.) 248, 267 (1850).

<sup>122</sup> A "black-letter legal doctrine" being a verbal "formula" or "proposition," usually but not necessarily in "if-then" form, which, because of the *assumption* that its terms have content which can be determined by a "finder of fact," is *supposed* to be of help to "decision-makers" in deciding concrete cases.

<sup>123</sup> (Emphasis added.) 52 U.S. (11 How.) at 267. All of the Patent Acts, including the present one, have used the word "invented." Notes 113-115 and accompanying text, *supra*. The Constitution uses the words "inventors" and "discoveries [inventions]." The Court in *Hotchkiss v. Greenwood* did not specify whether it was interpreting the Patent Act or the Constitution when it defined "inventor-invented-invention." In *Thompson v. Boisselier*, 114 U.S. 1, 11 ll. 7-8, 20-24 (1884), the Court specifically declares that it is interpreting both. See note 176 *infra*.

<sup>124</sup> 102 U.S. 112, 118 (1880).

<sup>125</sup> *E.g.*: LEE, *supra* note 116, at 31-35 (1894).

ed black-letter legal doctrine during the second half of the nineteenth century. It has remained the accepted doctrine during the twentieth century.<sup>126</sup>

*The two meanings of "standard of invention"*

The term "standard of invention" has two meanings. One meaning is: the term "standard of invention" is the *name* of the *verbal formula* which constitutes the black-letter legal doctrine propounded in *Hotchkiss v. Greenwood*. This is the meaning of the term "standard of invention" in such statements as: "The standard of invention is: the improvement must be unobvious to one skilled in the art to which it relates." and "The standard of invention requires something more than mere mechanical skill."

It has long been recognized, however, that the "standard of invention" (meaning the verbal formula which constitutes the legal doctrine) is of almost no help whatsoever to a "decision-maker" (judge, patent examiner, patentee, potential defendant, etc.) faced with the task of determining whether a claimed device is an "invention."<sup>127</sup> As early as 1891, the Supreme Court stated:<sup>128</sup>

"... The truth is the word [invention] cannot be defined in such manner as to afford any substantial aid in determining whether a particular device ... [meets the standard of invention.] In a given case, we may be able to say that there is present invention of a very high order. In another we can see that there is lacking that *impalpable something* which distinguishes invention from simple mechanical skill. Courts, adopting fixed principles as a guide, have by a process of exclusion determined that certain variations in old devices do or do not involve

<sup>126</sup> In 1941 an attempt was made to return to Justice Story's doctrine.

In the *Cuno Case* counsel argued that the "skill of the art" test laid down in *Hotchkiss v. Greenwood* was wrong and that "degree of invention or ingenuity is not a test contemplated by the Constitution and the patent laws to determine whether or not an invention or discovery shall receive protection\*\*\*."

FROST, *THE PATENT SYSTEM AND THE MODERN ECONOMY* [Study No. 2 of The Subcommittee on Patents, Trademarks & Copyrights of the Committee on the Judiciary, U.S. Senate (84th Cong. 2d Sess.)] 59 n.239 (1957), citing Brief for Petitioner, pp. 42-43, *Cuno Corp. v. Automatic Devices Corp.*, 314 U.S. at 84 [51 USPQ 272] (1941).

In a sweeping opinion famous for the extreme language used, this argument was rejected ... because:

"\*\*\* the new device, however useful it may be, must reveal the flash of creative genius, not merely the skill of the calling. If it fails, it has not established its right to a private grant on the public domain."

*Id.* at 50, citing 314 U.S. at 91 [51 USPQ at 275].

... The sweeping statements of the opinion appear to be more in the nature of an emphatic answer to this contention than an effort to establish a new standard. Indeed, the last sentence of the opinion states that the considerations set forth in the opinion "prevent any relaxation of the rule of the *Hotchkiss* case," (314 U.S. at 92) [51 USPQ at 276].

*Id.* at 59 n.239.

<sup>127</sup> "Invention" is here used in the sense of a semi-abstract noun which refers to a class of devices and processes which possess a common inventive quality. See *Four types of uses of the term "invention," supra*.

<sup>128</sup> *McClain v. Ortmyer*, 141 U.S. 419, 427 (1891).

invention; but whether the variation relied upon in a particular case is anything more than ordinary mechanical skill is a question which cannot be answered by applying [as] the test . . . any general definition.”

This has been perhaps best articulated in an oft-quoted passage by Judge Frank:<sup>129</sup>

“ ‘Invention’ for patent purposes has been difficult to define. Efforts to cage the concept in words have proved almost as unsuccessful as attempts verbally to imprison the concept ‘beautiful.’ Indeed, when one reads most discussions of ‘invention,’ one recalls Kipling’s ‘It’s pretty, but is it Art?’ and the aphorism that there is no sense in disputes about matters of taste. Anatole France once said that literary criticism is the adventure of the critic’s soul among masterpieces. To the casual observer, *judicial patent decisions are the adventures of the judges’ souls among inventions*. For a decision as to whether or not a thing is an invention is a ‘value’ judgment. So are many other judicial judgments in other legal provinces, but ‘invention’ is a *peculiarly elusive* standard.”

So, when the term “standard of invention” is used in a manner such as:

“Invention” being incapable of absolute definition, and its presence or absence being largely sensed rather than determined, the standard of invention is necessarily a variable one.<sup>130</sup>

it has a meaning different from the one already described (that of the name of the verbal formula which constitutes the legal doctrine). This second meaning is: the *amount* of difference between the “claimed invention” and the “prior art” which a “decision-maker” will require be present in order to consider the legal doctrine satisfied, *i.e.*, the *degree of unobviousness* that a “decision-maker” will require be present, *i.e.*, the *amount* of that impalpable something which a “decision-maker” will require be present. This is the meaning of the term “standard of invention” in the statement:

[J]udicial onslaughts have greatly increased the standard of skill expected in an art. . . . [they have] resulted in considerably increasing the standard of invention which the courts apply today. It is generally the opinion of the patent bar that this trend toward raising the standard of invention, which has been in progress for at least twenty years, has now expended its force and that at the present time a plateau has been reached which will presumably not be exceeded in the foreseeable future.<sup>131</sup>

and the statement:

<sup>129</sup> (Emphasis added.) *Picard v. United Aircraft Corporation*, 128 F.2d 632, 639 53 USPQ 563 (2d Cir. 1942) (concurring opinion).

<sup>130</sup> BUCKLES, *supra* note 66 at 48. Compare HAYES, *THE NATURE OF PATENTABLE INVENTION* (1945), whose 176 pages consist almost entirely of quotations of paragraphs of court decisions whose words purportedly set out verbal formulas defining “invention.”

<sup>131</sup> BUCKLES, *supra* note 66, at 49.



The Patent Office has been criticized for delay and for its low standard of . . . [invention] in relation to the standards enforced by the courts.<sup>132</sup>

The "standard of invention" (in this latter sense), as pointed out by Judge Frank, rests on a "value judgment"; it rests on the decision-maker's value judgment as to the political and economic nature and significance of the patent system.<sup>133</sup> At any point in time, these value judgments will be different among different classes of "decision-makers" (*e.g.*, the Supreme Court, the patent bar, the staff of patent Examiners, potential defendants, etc.), and will vary among the "decision-makers" in any class (*e.g.*, will vary among Supreme Court Justices, will vary among patent Examiners, etc.). Thus some "decision-makers" will demand "a little more," and others "a little less," before considering the "standard of invention" [meaning the verbal formula constituting the legal doctrine] to be met (*i.e.*, will have different "standards of invention").<sup>134</sup> Further, the value judgments of many "decision-makers" as to the nature of the patent grant have changed through time over the past hundred years; during the second half of the nineteenth century, political and economic cross-currents caused a patent to be thought of by Congress and the Supreme Court as a private property right (almost a natural right<sup>135</sup>) of

<sup>132</sup> KAYSEN & TURNER, *supra* note 29, at 163.

<sup>133</sup> While there is a huge amount of literature on the subject of the political and economic nature and significance of the patent system, only a small proportion of it actually attempts to analyze the subject. Much of it consists of nothing more than statements of conclusions, their authors apparently believing, in the words of Thurman Arnold, that:

(T)hey perform a real function in bolstering up the morale of the side on which they are used. The trick is to find a pair of polar words, in which the nice word fits your own position and the bad word is applied to the other fellow.

ARNOLD, *THE FOLKLORE OF CAPITALISM* 169 (1937). Much of the pre-1958 literature (446 items) is cited in ALLEN, *ECONOMIC ASPECTS OF PATENTS AND THE AMERICAN PATENT SYSTEM: A BIBLIOGRAPHY*, [Study No. 14 of the Subcommittee on Patents, Trademarks and Copyrights of the Committee on the Judiciary, U.S. Senate (85th Cong., 2d Sess.)] (1958). Other literature is cited in KURSCH, *INSIDE THE PATENT OFFICE* 154-159 (1959), STRINGHAM, *OUTLINE OF PATENT LAW* 514-16, 554-597 (1937), and TOULMIN, *INVENTION AND THE LAW* 317-340 (1936). Among the more recent literature is Blaustein, *Basic Economics and Patent Law*, 42 *JOURNAL OF THE PATENT OFFICE SOCIETY* 337 (1960), and SCHERER ET AL., *PATENTS AND THE CORPORATION* (2d ed. 1959). An annotated bibliography of publications concerning the patent system appears in each issue of *THE PATENT, TRADEMARK AND COPYRIGHT JOURNAL OF RESEARCH AND EDUCATION*, retitled *IDEA* as of Vol. 8 (1964), which also publishes research articles on the patent system.

<sup>134</sup> Cf. Zabel, *The Search for Rules Helpful in Determining Invention*, 30 *JOURNAL OF THE PATENT OFFICE SOCIETY* 854, 866 (1948), who argues that a criteria of invention should be defined in terms of economic considerations because of the fact that the "so called standard of invention can almost be said to vary between zero and infinity."

<sup>135</sup> . . . In holding [while on circuit, in *Jones v. Sewall*, 13 Fed. Cas. 1017, No. 7495 (C.C.D. Maine, 1873), *reversed on other grounds* 91 U.S. 171 (1895)] that the inventor has an absolute right to secure his invention by letters patent regardless of the will of the sovereign, Justice Clifford was in reality giving final confirmation to a position that had long been contended for by the manufacturing interests. It was the idea that the patent grant receives its right from the general laws of property and not from the arbitrary will of the king or the legislature.

an inventor,<sup>136</sup> however during the twentieth century, that view was replaced (at least in the Supreme Court)<sup>137</sup> by the view of a "patent" as "a private grant on the public domain."<sup>138</sup> Thus it is not surprising that as the twentieth century view displaced the nineteenth century view, the Supreme Court has come to demand "a little more" before it would consider the "standard of invention" (meaning the verbal formula constituting the legal doctrine) to be met (*i.e.*, the Supreme Court has been raising its "standard of invention"). The circuit courts of appeals,

... as early as 1932, and repeatedly since then, have recognized that the low condition of inventive level during the chief-justiceship of Justice Taft is no longer tolerable. . . .<sup>139</sup>

and have followed the example of Judge Learned Hand, who had in 1942 written:

... we cannot ... ignore the fact that the Supreme Court, whose word is final, has for a decade or more shown an increasing disposition to raise the standard of originality necessary for a patent. In this we recognize "a pronounced new doctrinal trend" which it is our duty, cautiously to be sure, to follow, not to resist.<sup>140</sup>

In 1943, the National Patent Planning Commission appointed by President Roosevelt<sup>141</sup> reported that "One of the greatest technical weaknesses of

INLOW, *supra* note 106, at 100-01. Long before this in *Wheaton v. Peters*, 33 U.S. (8 Pet.) 591, 658-61 (1834), the Supreme Court had given its original pre-Clifford disavowal to the natural law view, which had been urged on it by counsel ten years earlier in *Gibbons v. Ogden*, cited *supra* note 108, at 50-51, 146-48 (contra arguments at 174-75). The natural law view was unanimously rejected by a twentieth century Supreme Court, which declared that: "Patent rights exist only by virtue of statute. *Wheaton v. Peters*, . . ." *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 229 n.5, 140 USPQ 524, 527 n.5 (1964).

<sup>136</sup> An excellent description of how these economic and political cross-currents affected Congress and the Supreme Court, and the role of Mr. Justice Clifford in formulating nineteenth century Supreme Court patent doctrine, is given by INLOW, *supra* note 106, at 84-106. As to the development of the *concept* (of patent rights as private property rights) *itself*, during the first half of the nineteenth century, see *id.* at 59-83.

<sup>137</sup> Compare S. Chesterfield Oppenheim, *Patents and Antitrusts: Peaceful Coexistence*, 54 MICH. L. REV. 199, 203-4 (1955) ("In recent years there has been a questioning of the concept of the patent as a property right. . . . You will not find any unequivocal judicial countenance of these heresies."). In support, Prof. Oppenheim refers to 35 U.S.C. § 261 (1952) ("patents shall have the attributes of personal property"); however, it is irrelevant to Section 261, which merely makes the granted patent rights "personal property" for the purposes of "ownership" and "assignment," whether the granted rights are grants "on the public domain" or "private property rights."

<sup>138</sup> Mr. Justice Douglas in *Cuno Corp. v. Automatic Devices Corp.*, 314 U.S. 84, 91, 51 USPQ 272, 275 (1941).

<sup>139</sup> GLASCOCK & STRINGHAM, PATENT LAW § 3188. The Supreme Court's raising of its "standard of invention" thus dates from before President Franklin D. Roosevelt began making appointments to the Court. Judge Jerome Frank, as cited *supra* note 2.

<sup>140</sup> *Picard v. United Aircraft Corp.*, 128 F.2d 632, 636, 53 USPQ 563, 567 (1942). See also the quote from BUCKLES, text at note 131, *supra*.

<sup>141</sup> Executive Order 8977 (Dec. 16, 1941), 6 FED. REG. 6441 (1941), reprinted 24 JOURNAL OF

the patent system is the lack of a *definitive* yardstick as to what is invention. To provide *such* a yardstick. . . [i]t is proposed that Congress shall declare a national standard whereby patentability of an invention shall be determined."<sup>142</sup> It apparently felt that if the verbal formula which constituted the legal doctrine was declared by Congress, rather than the Supreme Court, this would somehow "assure that the various court of law and the Patent Office shall use the same standards,"<sup>143</sup> *i.e.*, would require the same amount of unobviousness,

### *The Current Status of the "Standard of Invention"*

In 1952 Congress passed a new Patent Act in which it set out in statute for the first time a verbal formula for the "standard of invention." Section 103 provides, in part<sup>144</sup>:

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THE PATENT OFFICE SOCIETY 15 (1942). Its members were Charles Kettering (Chairman), Chester Davis, Francis Gaines, Edward McGrady and Owen Young. Short profiles of the members are given *id.* at 17-18.

<sup>142</sup> (Emphasis added.) National Patent Planning Commission, *The American Patent System*, H. R. Doc. No. 239, 78th Cong. 1st Sess., 10 (1943); reprinted as 57 USPQ No. 12-Special Edition, 10 (1943); reprinted at 25 JOURNAL OF THE PATENT OFFICE SOCIETY 455 (1943), at 462.

<sup>143</sup> *Ibid.*

<sup>144</sup> Section 103 concludes: "Patentability shall not be negated by the manner in which the invention was made." This sentence was inserted to settle fears, probably unfounded, that the opinion in the *Cuno* Case [cited and discussed *supra* note 126] had substituted (or added) a subjective test of "invention" (*how* the applicant proceeded from *his knowledge* of the prior art to the claimed invention) for the objective "standard of invention" (an *amount* of difference between the claimed invention and the (*objective*) *prior art* which would have been unobvious to a person having ordinary skill in the art). A subjective test would be focused on the quality of the act of inventing, *i.e.*, the way the result (the set of claimed inventions?) was arrived at. The objective "standard of invention" is focused on the quality of the result itself, as measured by what it contributes to the existing stock of knowledge.

Eighty years ago the official view was that the Patent Act and the Constitution required *both* a subjective test and the objective one. In *Pearce v. Mulford*, 102 U.S. 112, 118 (1880), where the Supreme Court reformulated the verbal phrasing of the "standard of invention" to require that the "invention" be "something more than what is obvious to one skilled in the art to which it relates," the Court in the very same sentence first required that "it be the product of some exercise of the inventive faculties, . . ." In so doing it tied to the statute's word "invented" both a "standard of (what constituted an) invention" and a test for what constituted an "inventor" (*i.e.*: a subjective test of "invention"). In *Thompson v. Boisselier*, 114 U.S. 1, 11 (1884), the Court declared that both requirements were *constitutional* ones, saying that the Patent Clause requires that "the beneficiary must be an inventor and he must have made a discovery [invention]." The subjective test of "invention" seems to have been abandoned years before the *Cuno* Case. To the extent that the last sentence of § 103 rules out such a test, its only basis would have to be a constitutional one. The Supreme Court has not recently ruled on whether the first half of the constitutional doctrine of *Thompson v. Boisselier* still has any vitality. [As to the vitality of the second half, see note 176 *infra*.]

Note that to the extent that industry is unaware of the technological knowledge stored in libraries and in Patent Office files, "commercial success" is a subjective test of "invention" rather than an objective one.

Where an "inventor" has met the subjective test but perhaps not the objective one, some classes of "decision-makers" may be moved by counsel's stressing of his mental act—see Comments of Mr. Cooch, *DYNAMICS* at 72 (" . . . the courts have the idea that invention is

§ 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  
having ordinary skill  
in the art to which the  
subject matter pertains.

A history of the legislative efforts culminating in §103 is given by Edwards.<sup>145</sup>

Section 103 makes a comparison between the subject matter sought to be patented and the "prior art."

... Unlike another fictional character of the law, the Reasonable Prudent Man, this character whom I call Mr. Prior Art is not the product of intuition and changing modes of judgment. He is a paper and paste man, carefully put together by industrious lawyers making vigilant searches into dusty archives of the Patent Office, the libraries and workshops.<sup>146</sup>

However:

... The patentee, naturally, attempts to strictly limit the contents of each piece of paper pasted on Mr. Prior Art by showing that it has no relationship or only a limited relationship to the other pieces of paper.<sup>147</sup>

Section 103 specifically refers back to §102, which is directed to the many and diverse legal issues which relate to the "new"-ness of a claimed inven-

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not ... the mental process ... Now to speak of ... invention ... [as] his mental process ... may or may not be correct when we are talking to the Patent Office, but it is not correct in the courts.")

<sup>145</sup> EDWARDS, *supra* note 109, at 9-15.

<sup>146</sup> Rifkind, *Romance Discoverable in Patent Cases*, 37 JOURNAL OF THE PATENT OFFICE SOCIETY 319, 324 (1955).

<sup>147</sup> Blaustein, *supra* note 133, at 346.

tion; a reference whose date and form satisfy a criteria of §102, and which without combination with other references teaches the claimed invention, is considered to be "anticipatory art," and negates "new"-ness.<sup>148</sup> The legislative history of §103 indicates that the phrase "the prior art" in §103 is *not limited* to those references whose dates and forms satisfy a §102 criteria for anticipatory art.<sup>149</sup>

It has been questioned whether the phrase "the prior art" in §103 *includes all* references whose dates and forms satisfy a §102 criteria for anticipatory art.<sup>150</sup> Such a questioning is based on §103's declaration that obviousness is to be determined "at the time the invention was made," and asserts that Congress changed prior law so that references which date from after this time cannot form part of the prior art. (Only some §102 criteria require that references not date from after a patent applicant's act of inventing; other sections only require that references be more than 1 year older than the patent applicant's filing date.) The usual view is that one constructs the prior art (which may include obscure publications that a person with ordinary skill in the art would never have seen), and *then* determines whether "the differences are such that" they could be readily supplied (so as to form "the sub-

<sup>148</sup> For a general discussion of what constitutes anticipatory art, see Woodcock, *What is Prior Art?*, and the floor discussion following, in DYNAMICS at 263-332.

<sup>149</sup> In H.R. 3760 (82d Cong. 1st Sess.) (1951) (the bill on which the 1951 Hearings were held), § 103 read:

A patent may not be obtained though the invention is not identically disclosed or described in the prior art set forth in section 102 of this title, . . . .  
(Emphasis added.) The proposed substitute of the Bar Association of the City of New York read:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, . . . . (hearings, pp. 221-222).  
(Emphasis added.) EDWARDS, *supra* note 109, at 15.

The purpose of these proposed changes was to make it clear that all prior art is here meant and not merely the prior art referred to in section 102 which is limited to anticipatory art (hearings, pp. 221-222).

*Ibid.*

The committee, almost a year after the hearing, on May 20, 1952, in lieu of reporting H.R. 3760, introduced a fresh bill, H.R. 7794, which was approved and signed by the President, July 21, 1952.

Section 103 of the new bill, which became law without amendment, differed from section H.R. 3760 in that it incorporated the amendments proposed by the Bar Association of the City of New York, set forth above.

*Ibid.* However, in the House and Senate reports [H.R. REP. 1923, 82d Cong. 2d Sess., 7 (1952) and S. REP. 1979, 82d Cong. 2d Sess., 6 (1952)] is found the statement:

. . . [Section 103] refers to . . . the prior art, meaning what was known before as described in section 102.

*Id.* at 16. And Mr. P. J. Frederico, in his "Commentary on the New Patent Act," 35 U.S.C.A. § 1, 20 (1954), is ambiguous on this point when he says that:

. . . The antecedent of the words, "the prior art," which here appear in the statute for the first time, lies in the phrase "disclosed or described as set forth in Section 102" and hence these words refer to material specified in Section 102 as the basis for comparison.

<sup>150</sup> Woodcock, *supra* note 148, at 307-12. This has always been a minority view—see *id.* at 319-21, 325-26 (floor discussion).

ject matter as a whole") by a person with the general knowledge that one "having ordinary skill in the art" would have had "at the time the invention was made." How can the phrase "at the time the invention was made" be any more than a reminder to the courts not to take contemporaneous general knowledge for what was general knowledge when the patentee did his inventing? For if "invention" is being used in this phrase as a term of art and not colloquially, then it refers to the set of claimed inventions; in that case the time at which they are made would be either when the attorney finishes drafting them, the patent's filing date or the patent's issue date. In any event, the legislative history is clear that the term "the prior art" includes, at least, all references which satisfy a §102 anticipatory art criteria,<sup>151</sup> and there was no congressional intent to change prior decisional law on this point.<sup>152</sup> When the Court of Customs & Patent Appeals recently changed its long time position and read some §102 anticipatory art out of §103's "prior art,"<sup>153</sup> the reaction was sharp. It reversed itself a year later;<sup>154</sup> the U. S. District Courts,<sup>155</sup> the U. S. Courts of Appeals<sup>156</sup> and even the Patent Office Board of Appeals<sup>157</sup> emphatically responded by holding that the wording of §103 was not intended by Congress to change the previous decisional law in which the criteria for anticipatory art were also criteria for constructing the prior art used in applying the "standard of invention." This issue is now before the Supreme Court.<sup>158</sup>

Since §103 refers to "invention[s] . . . not identically . . . described as set forth in §102," one might assume that §102 concerns only cases where there is

<sup>151</sup> All of the legislative history set forth *supra* note 149 shows this clearly. *Accord*: Chief Judge Worley in *Switzer v. Sockman*, 333 F.2d 935, 944, 142 USPQ 226, 233 (CCPA, 1964) (concurring opinion). A breakdown of this problem by subsection of § 102 appears in Sobel, *Prior Art and Obviousness*, 47 JOURNAL OF THE PATENT OFFICE SOCIETY 79 (1965).

<sup>152</sup> See also note 165 and accompanying text *infra* (1952 Patent Act only intended to codify previous decisional law).

<sup>153</sup> *In re Palmquest*, 319 F.2d 547, 138 USPQ 234 (CCPA, 1963) (Worley, C. J., not participating) (§ 102 (b) art [publication printed more than one year before filing date]), *dissented from* *Switzer v. Sockman*, 333 F.2d 935, 944, 142 USPQ 226, 233 (CCPA, 1964) (concurring opinion of Worley, C. J.).

<sup>154</sup> *In re Harry*, 333 F.2d 920, 923, 142 USPQ 164, 167 (CCPA, 1964) (holding: § 102 (e) art [copending application]; dictum: § 102 (a) & (b) art).

<sup>155</sup> Judge Jackson (retired judge, C.C.P.A.) in *Hazeltine Research Inc. v. Ladd*, 226 F. Supp 459, 140 USPQ 444 (D.D.C. 1964) (§ 102(e) art [copending application]), *aff'd per curiam*, 340 F.2d 786, 143 USPQ 337 (D.C. Cir. 1964), *cert. granted* 380 U.S. 960 (April 5, 1965) (No. 919); *Dix-Seal Corp. v. New Haven Trap Rock Co.*, 236 F. Supp. 914, 920, 144 USPQ 57, 63 (D. Conn. 1964) (*semble*) (§ 102 (b) art [publication and prior use more than one year before filing date]).

<sup>156</sup> *Hazeltine Research v. Ladd*, cited note 155 *supra*; *Johnson & Johnson v. Kendall Co.*, 327 F.2d 391, 140 USPQ 289 (7th Cir. 1964) (*semble*), *cert. denied*, 377 U.S. 934 (1964) (§ 102(b) art [public use more than one year before filing date]).

<sup>157</sup> *Ex parte Wilson*, 144 USPQ 131 (P.O. Bd. of App. 1965) (§ 102 (a), (b) and (c) art). (This decision came after the Court of Customs & Patent Appeals had, at least in dictum, reversed itself.)

<sup>158</sup> *Hazeltine Research v. Ladd*, cited note 155 *supra*.

no difference between the claimed invention and a single reference, and that §103 concerns all cases where there is a non-obvious difference between the claimed invention and either a single reference or a combination of references. However such an assumption would be incorrect because previous decisional law required from anticipatory art only a degree of identity, not absolute identity. The federal courts (but not the Court of Customs & Patent Appeals) have followed their previous decisions and have said that there was no congressional intent to have this phrase of §103 read back into §102 so as to change previous anticipatory art criteria; they have held that a claimed invention does not meet §102 (b)'s criteria of "new"-ness unless there is an *unobvious* difference between it and the single reference.<sup>159</sup> The issue is of course moot if it is accepted that the "prior art" of §103 includes all references which satisfy the anticipatory art criteria of §102.

The "prior art" of §103 is an "objective" construction of references, and is not limited to what the inventor actually knew to be old.<sup>160</sup>

Taken as a whole, §103 sets forth a verbal formula for a "standard of invention." It is clear that in §103

... the test of *Hotchkiss v. Greenwood* was written into the statutes ...<sup>161</sup>

as the "standard of invention" (meaning the verbal formula constituting the legal doctrine), and it has generally been so held.<sup>162</sup> What has been disputed

<sup>159</sup> *Bros. Inc. v. Browning Mfg. Co.*, 317 F.2d 413, 416-17, 137 USPQ 624, 626-27 (8th Cir. 1963) (publications printed more than one year prior to filing date), *cert. denied*, 375 U.S. 825 (1963); *Dix-Seal Corp. v. New Haven Trap Rock Co.*, 236 F.Supp. 914, 920-22, 144 USPQ 57, 63-64 (printed publication), *id.* at 916-20, 144 USPQ at 60-63 (public use more than one year prior to filing date) (D. Conn. 1964), citing *Bros. Inc. v. Browning Mfg. Co. supra* (printed publication), many lower court cases (public use), old Supreme Court cases (public use), and 1 WALKER, PATENTS § 87 (Deller's ed. 1937) (public use). 1 *id.* at § 50 supports this view for publications printed more than one year prior to filing date. See also note 165 and accompanying text *infra* (1952 Patent Act only intended to codify previous decisional law).

<sup>160</sup> Compare Rule 7 of the Patent Office of the Confederate States of America (based on the May 21, 1861 Act of the Confederate Congress):

Even although the applicant has in good faith made the invention, a patent therefor will not be granted him, if the whole or any part of what he claims as new had before been patented, or described in any printed publication in this or any foreign country; or he has abandoned his invention, or if, with his consent and allowance, it has been for more than two years in public use or on sale.

(Emphasis added.) CONFEDERATE STATES OF AMERICA, RULES AND DIRECTIONS FOR PROCEEDING IN THE CONFEDERATE STATES PATENT OFFICE 5 (1861). *Cf.* note 144 *supra*.

<sup>161</sup> Senator Joseph C. O'Mahoney [at that time Chairman of the Patent, Trademark & Copyright Subcommittee of the Committee on the Judiciary, U.S. Senate], "Foreword" to EDWARDS, *supra* note 109, at III; U.S. PATENT OFFICE (GEORGE ROEMING), *supra* note 8, text at 1 n.3.

... [It] is merely a paraphrase of language which had been used in innumerable court decisions prior to the act, including *Pearce v. Mulford*.

Reynolds [at that time Chief Technical Advisor, CCPA; presently Assistant Commissioner, U.S. Patent Office], *The Standard of Invention in the Patent Office*, DYNAMICS at 2.

<sup>162</sup> See the quotations from 1952-1957 court decisions collected in EDWARDS, *supra* note 109, at 17-22.

is whether or not Congress "intended" to have the courts require "a little less," to meet the "standard of invention" [the verbal formula], than it had been requiring (*i.e.*, whether or not Congress intended to lower the courts' "standard of invention"). On this latter point judicial opinion is divided,<sup>163</sup> and the literature is voluminous.<sup>164</sup> The difficulty in determining congressional intent with respect to possible changes in previous decisional law is compounded by the fact that the *Congressional Record* was altered so as not to show that Congress, which unanimously passed the 1952 Patent Act, was led to think that it was only codifying existing decisions.<sup>165</sup>

<sup>163</sup> The cases cited *ibid.* are grouped according to whether they infer that the amount of unobviousness required to meet the "standard of invention" (1) is unchanged, or (2) has been changed, or whether they express no definitive assertion pro or con. *Id.* at 23-24. In Chin, *The Statutory Standard of Invention*, 3 THE PATENT, TRADEMARK, AND COPYRIGHT JOURNAL OF RESEARCH AND EDUCATION 317, 321-23 (1959), the score is given as six circuits (1st, 3rd, 5th, 7th, 8th & 9th) saying that Congress did not intend to change what was required to meet the "standard of invention," and five circuits (2nd, 4th, 6th, 10th, & D.C.) saying that Congress intended that a little less be required. However: the 10th Circuit case cited by Chin is more properly classified (as done by EDWARDS, *supra* note 109, at 24) as a case where the court expressed no definitive assertion pro or con; the existence of the earlier cases in the 4th, 6th and D.C. Circuits cited by Chin, which say the opposite, does not show that these circuits have "swung over to the minority," but merely shows that different panels in a circuit can say different things, as well as do different things while saying the same thing; and since in the second 2nd Circuit case cited by Chin the patent was held *invalid*, there is no reason for assuming *a priori* that what the 2nd Circuit is doing is the same as what it is saying. More relevant that what is being said by the courts—perhaps—is what they are *doing*, as measured by the changes since 1952, within each circuit, in the proportion of adjudicated patents held valid and infringed, invalid, or not infringed. Comparisons of the circuits for the years 1948-55, 1956-57, and 1948-57 are given by Dann in DYNAMICS at 57-58 (aggregate statistics appear *id.* at 55); year by year comparisons for 1949-58 appear in SUBCOMMITTEE ON PATENTS, TRADEMARKS & COPYRIGHTS OF THE COMMITTEE ON THE JUDICIARY, AN ANALYSIS OF PATENT LITIGATION STATISTICS, 24-25 (1961). The interpretation of such statistics, as well as the relationship of what courts say and what courts do in patent cases, is beyond the scope of this paper.

<sup>164</sup> A "selected" bibliography of signed articles and unsigned notes and comments (through 1957) is given in EDWARDS, *supra* note 109, at 25-29. Additional articles are cited in Chin, *supra* note 163, at 325 n.49, 328 n.64 (bibliographical footnote).

<sup>165</sup> Key features of the legislative history of the Act while on the floor of the Senate are set out in EDWARDS, *supra* note 109, at 15-17, and more clearly explained in Chin, *supra* note 163, at 325. Senator Wiley, in presenting the bill for consideration, stated [98 CONG. REC. 9097 (1952)]:

The bill simply constitutes a restatement of the patent laws of the United States. Later, when Senator McCarran took up the bill, the following exchange occurred [98 CONG. REC. 9323 (1952)]:

*Mr. Saltonstall.* Mr. President, will the Senator from Nevada tell us the purpose of the bill?

*Mr. McCarran.* The bill would *codify* the patent laws of the United States. It is under the able guidance of the Senator from Wisconsin, Mr. Wiley.

*Mr. Saltonstall.* I am not a patent lawyer, but I know patents are a very technical subject. Does the bill change the law in any way or only codify the present patent laws?

*Mr. McCarran.* It codifies the present patent laws.

(Emphasis added.) EDWARDS does not make clear that the Senate passed the bill *immediately* after this exchange—the statement qualifying Senator McCarran's answer which was *later* added to the *Congressional Record* ("... there have been some changes in the law. . .") was *never read on the floor of the Senate*. The Senate understood that it was not changing previous decisional law.



The Supreme Court has not yet directly passed on the issue of whether "Congress intended" §103 to lower the courts' "standard of invention" or whether only a codification was intended. However, an analogous issue was decided in the 1st *Aro* Case.<sup>166</sup> This case concerned a patented combination of (1) a fabric auto top and (2) a mechanism for putting up the top. The question "of law" to be decided was whether replacing a worn out fabric top constituted "repair" of the combination or "reconstruction" (a "making") of the combination; if the latter, the supplier of new fabric tops (who was sued) could be liable as a contributory infringer, since the individual car owners he was supplying and servicing (who were not sued) would be direct infringers. The majority opinion<sup>167</sup> held that "§271 (a) of the new patent code, which defines 'infringement', left intact the entire body of case law on direct infringement," citing the Reviser's Note on §271 (a) ("declaratory only") and P. J. Frederico's "Commentary on the Patent Act" [35 U.S.C.A.1, 51 (1954)].<sup>168</sup> The majority opinion then reviewed previous Supreme Court cases (including the *Mercoid* Cases<sup>169</sup>) and decided which definition of "reconstruction" the previous case law had established (choosing the narrowest definition). The opinions of Justice Brennan<sup>170</sup> and Justice Harlan<sup>171</sup> agreed that §271 (a) is only a codification, but relied on legislative history as determining what the case law which was codified was. Justice Black concurred with the majority opinion, but wrote a separate opinion specifically answering the opinions of Justice Brennan and Justice Harlan. (e.g., Justice Harlan points out that §271 was passed without objection,<sup>172</sup> to which Justice Black replies by citing the exchange between Senators Saltonstall and McCarran [set forth note 144 *supra*].<sup>173</sup>) Justice Black would read the 1952 Patent Act in view of the "contemporaneously passed" Small Business Act of 1953 (15 U.S.C. §§631-651).<sup>174</sup>

Separate from the question of whether Congress "intended" for §103 to lower the courts' "standard of invention" is the question of whether it could even if it wished to. There is substantial authority in the lower federal courts that the "standard of invention" is a matter of constitutional interpretation

<sup>166</sup> *Aro Mfg. Co. v. Convertible Top Replacement Co. (I)*, cert. granted [U.S. Dept. of Justice (Antitrust Division) as *amicus curiae*], 362 U.S. 902 (1960), motion "of The American Patent Law Association for leave to file a brief as *amicus curiae*" denied, 364 U.S. 806 (1960), case decided 365 U.S. 336, 128 USPQ 354 (1961). The case came up again on the status of the repair of unlicensed combinations—see note 94 *supra*.

<sup>167</sup> *Per* Justice Whittaker, with Justices Douglas, Black, Clark and Warren, C. J.

<sup>168</sup> 365 U.S. at 341-42, 128 USPQ at 357.

<sup>169</sup> Cited *supra* note 95.

<sup>170</sup> Concurring in the result but dissenting as to doctrine.

<sup>171</sup> With whom Justices Frankfurter and Stewart joined, dissenting.

<sup>172</sup> 365 U.S. at 378 n.7, 128 USPQ at 372 n.7.

<sup>173</sup> *Id.* at 347 n.2, 128 USPQ at 360 n.2.

<sup>174</sup> *Id.* at 359, 128 USPQ at 364.

(interpretation of the terms “inventor,” “discoveries[inventions]” and “promote . . . progress,” which appear in the Constitution’s grant of power to Congress), and if §103

. . . is an effort as has been suggested, to reduce the standard of invention as recognized by the Supreme Court, then that effort must fail for the reason that the Supreme Court is the final authority on the constitutional standard of patentability.<sup>175</sup>

This view appears in both old and recent Supreme Court cases, and may already amount to a holding.<sup>176</sup>

<sup>175</sup> *Seismograph Service Corp. v. Offshore Raydist*, 135 F. Supp. 342, 350-51, 107 USPQ 104, 110 (E.D. La. 1953).

There have been no direct holdings of unconstitutionality since most courts have interpreted the statute so as to avoid considering the constitutional problem, saying, *e.g.*:

. . . Nor is it likely that constitutional problems will arise so long as the expected interpretations of the statute come within the boundaries of long standing judicial declarations of the content of patentability.

*R. M. Palmer Co. v. Luden's Inc.*, 236 F.2d 496, 499, 111 USPQ 1, 4 (3rd Cir. 1956).

Some courts, while allowing Congress some freedom of action in this area, set the test of *Hotchkiss v. Greenwood* as a constitutional minimum below which the “standard of invention” could not be set, and so interpret the statute, saying:

. . . Congress . . . did not and could not . . . abandon the distinction between mere mechanical skill and “inventive genius” for that concept is inherent in the constitutional purpose. . . .

*Blish, Mize & Sillman Hdwe. Co. v. Time Saver Tools*, 236 F.2d 913, 915, 111 USPQ 6, 8 (10th Cir. 1956), *cert. denied*, 352 U.S. 1004 (1957). *Accord*: *John Deere Co. v. Graham*, 333 F.2d 529, 535, 142 USPQ 243, 248 (8th Cir. 1964), *cert. granted*, 379 U.S. 956 (1965) (No. 580).

<sup>176</sup> Challenges to various sections of the 1952 Patent on the Grounds of unconstitutionality are not frivolous. The Constitution’s Patent Clause [Art. 1, § 8, cl. 8] has recently been applied so as to invalidate grants of state patents (by means of judicial decisions based on notions of “unfair competition”)—see note 108 *supra*. It had been interpreted eighty years ago to require a subjective test of invention in addition to the objective “standard of invention”—see note 144 *supra*. And in the recent 2nd *Aro* Case (cited and discussed note 94 *supra*) the constitutionality of § 271 (c) (which makes certain sellings of unpatented parts contributory infringement) was barely upheld even after it was narrowly construed and limited; Justice Black’s dissenting opinion (for 4 Justices) viewed the giving of patent protection to unpatented products, under any label (including “contributory infringement”), as unconstitutional, since they are not “discoveries [inventions]” as the Patent Clause requires [377 U.S. at 522, 141 USPQ at 699-700]; Justice Brennan (for 5 Justices) said that the majority had no doubts about the constitutionality of § 271 (c) “as so construed and applied, within the limitations set forth in the succeeding portions of th[e] opinion” [(Emphasis added.) *id.* at 492 n.10, 141 USPQ at 688 n.10]; the “construction” included a requirement of *scienter* and the “limitations” included a measure of damages which is limited to damages arising from the prolongation of the original infringing use and cannot include profits lost from not supplying replacement unpatented components—see note 94 *supra*.

When the Supreme Court in *Hotchkiss v. Greenwood* first set out the “standard of invention” (see text at notes 121-23 *supra*), it did not specify whether it was interpreting the statute or the Constitution. Nor did it specify in *Pearce v. Mulford*, 102 U.S. 112, 118 (1880), where it reformulated the verbal formula so as to require that:

. . . it must be the product of some exercise of the inventive faculties, and it must involve something more than what is obvious to one skilled in the art to which it relates.

However in *Thompson v. Boisselier*, 114 U.S. 1, 11 11. 7-8, 20-24 (1884), the Court specifically declares that it is interpreting both the statute and the Constitution, saying that the Patent Clause requires that the:

Since the Supreme Court has recently decided to break its 15 year silence on questions of patent validity, and has taken three cases concerning the "standard of invention,"<sup>177</sup> it may soon pass on the issues of whether Congress "intended" §103 to lower the "standard of invention" and whether it could constitutionally do so.

#### ADDENDUM

In a strikingly unusual decision, the C.C.P.A. has just held in *In re Foster*, 343 F.2d 980, 145 USPQ 166 (CCPA, Aug. 3, 1965), that: (1) § 102 requires *unobvious* differences between claimed inventions and anticipatory art [343 F.2d at 988, 989, 145 USPQ at 173, 174] (see text at note 159 *supra*), (2) the test of unobviousness applies to combinations of any references which satisfy the requirements for anticipatory art [343 F.2d at 988, 145 USPQ at 173] (see text at note 151 *supra*), this having been the intent of Congress [343 F.2d at 990, 145 USPQ at 175] (see text at note 152 *supra*), and *In re Palmquest* is explicitly overruled [343 F.2d at 989, 145 USPQ at 174] (see text at note 152 *supra* [§ 102(b) art]), and (3) the phrase "at the time the invention was made" was included in §103 "for the sole purpose of precluding the use of hindsight in deciding whether an invention is obvious" [343 F.2d at 990, 145 USPQ at 174] (see text following note 150 *supra*).

#### APPENDIX

Detailed analysis of the legal issues concerning "new-ness" (novelty), "usefulness" (utility), and "invention" appears in many texts.

An excellent text, reflecting the work of the American legal realists, is STRINGHAM, *OUTLINE OF PATENT LAW* (Pacot Publ., Madison, Wisc., 1937). A work focusing on the use of tactics is R. S. HOAR, *PATENT TACTICS AND THE LAW* (3rd ed.) (Ronald Press, New York, 1950).

Extensive "black-letter" treatment of these issues can be found in the standard treatises on patents, such as WALKER, *PATENTS* [Deller's ed. (4 Vol.) (Baker, Voorhis & Co., New York, 1937), with 1964 SUPPLEMENT], AMDUR, *PATENT LAW AND PRACTICE* (Clark Boardman, New York, 1935), and RIVISE AND CAESAR, *PATENTABILITY*

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. . . beneficiary must be an inventor and he must have made a discovery [invention]. . . Thus the concurring opinion of Justice Black in the 1st Aro Case [365 U.S. at 361-61, 128 USPQ at 365], the concurring opinion of Justice Douglas (with whom Justice Black joined) in the A&P Case [340 U.S. at 154-58, 87 USPQ at 306-07], and the federal court cases cited note 175 *supra*, which express the view that the "standard of invention" is a matter of constitutional interpretation, are all built on a long standing foundation. In *Sears, Roebuck Co. v. Stiffel Co.*, 376 U.S. 225, 232 1.8, 140 USPQ 524, 528 1.51 (1964), Justice Black, speaking for the Court without dissent on this point, speaks of orders of novelty which do not meet federal constitutional standards.

<sup>177</sup> *Graham v. John Deere Co.*, No. 580, U.S. Sup. Ct., *granting cert.*, 379 U. S. 956 (1965), *reviewing* 333 F.2d 529, 142 USPQ 243 (8th Cir. 1964); *Calmar Inc. v. Cook Chemical Co.*, Nos. 778 & 810, U.S. Sup. Ct., *granting cert.*, 380 U.S. 949 (1965), *reviewing* 336 F.2d 110, 142 USPQ 412 (8th Cir. 1964); and *U. S. v. Adams*, No. 906, U.S. Sup. Ct., *granting cert.*, 380 U.S. 949 (1965), *reviewing* 330 F.2d 622, 141 USPQ 361 (Ct. Cl. 1964).

AND VALIDITY (Michie Co., Charlottesville, 1936). More superficial "black-letter treatments" of these issues can be found in H. A. TOULMIN, HANDBOOK OF PATENTS, 2nd ed. (Anderson, Cincinnati, 1954), and AMDUR, PATENT FUNDAMENTALS (Chemical Publ. Co., New York, 1941). There is also, unfortunately, much literature directed to the "amateur inventor" which is so extremely superficial as to constitute a dangerous trap for the innocent and the unwary; see, e.g., Lucy Brett Andrew [who was "in charge of the Information Center in the Hall of Inventions at the 1939 World's Fair"], *Practical Patent Procedure* (4th ed.) [Pamphlet] (Bruhn Bros., Jamaica, N. Y., 1958).

For texts approaching these issues from the point of view of prosecuting applications before the Patent Office, see the standard "black-letter" work in its field (for Patent Office personnel as well as patent attorneys), MCCRADY, PATENT OFFICE PRACTICE (4th ed.) (Margit Publ., Pasadena, 1959).

"The first edition of 387 pages was published in 1928 and was based on lectures given by Lloyd H. Sutton, at George Washington University, who also lectured on substantive patent law. The second edition in 1946 had 466 pages. The third edition in 1950 had 604 pages and acknowledges the collaboration of Emerson Stringham who declined to be designated as joint author. The first systematic work on Patent Office practice was published by Emerson Stringham in 1924 entitled, *Examining Patent Applications*, and three sets of Supplemental Sheets were issued by 1929. This work was based on 10 lectures given by Emerson Stringham in 1924 for patent examiners who at that time were required to pass examinations relating to practice in the Patent Office to qualify for promotions. In 1930 Emerson Stringham issued a revised edition entitled, *Patent Soliciting and Examining*. A new edition was published in 1934 and a supplement in 1940. The only prior guide to Patent Office Practice was E. S. Glascock, *Manual of Patent Office Practice*, published by the Patent Office Society in 1920. It consisted of 67 pages, mostly texts of Commissioner Orders and Notices. This manual went through nine editions by 1947 as revised by C. L. Wolcott and contained 367 pages.

"During 1917 and 1918 when the Patent Office Society was founded by patent examiners, lectures were given by patent examiners on patent law and practice. These lectures were published in pamphlet form. Since 1918 the Patent Office Society has published each month the *Journal of the Patent Office Society*, now in its 42nd volume, which constitutes a unique source of important articles relating to Patent Office practice. In 1949 the Patent Office for the first time published a loose-leaf *Manual of Patent Office Examining Procedure* and a second edition in 1953 which is kept up to date by supplemental sheets. This Manual contains detailed instructions to Examiners covering various questions which may arise during prosecution in the Patent Office. Another pioneer work was published by Charles W. Rivise, *The Preparation and Prosecution of Patent Applications*. It is still very useful."

Rossman, Book Review, 43 JOURNAL OF THE PATENT OFFICE SOCIETY 165, 166 n.1 (1961).

Texts more superficial than McCrady's are AMDUR, PATENT OFFICE RULES AND PRACTICE (Seidman and Horwitz rev. ed.) (Mathew Bender, Albany, & Clark Boardman, New York, 1962) and FISHBURNE, THE PATENT APPLICATION (2nd ed.) (Byrne &

Co., Washington, 1947) [illustrations are given (from patented files) of unappealed Examiners' decisions].

For a recent discussion of these issues, which begins where most of the texts leave off, see *DYNAMICS OF THE PATENT SYSTEM: DISCUSSIONS OF TEN CRITICAL AREAS OF CONTEMPORARY PATENT LAW* (transcript of delivered papers and floor discussions from ten patent law seminars held at the Villanova University School of Law, 1957) (Ball ed., Central Book Co., New York, 1960) [cited as *DYNAMICS* throughout the text].