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TINKERING WITH THE INVENTION STANDARD: NO SOLUTION TO PROBLEMS OF PATENT QUALITY

Mary Helen Sears*

Professor Harold Marquis of Emory University published an article at page 67 of this Volume, in which he proposed a dual patent system and other changes in patent legislation. The following article has been written in response to that proposal.

Like the proverbial bad penny, the suggestion to permit the patenting of trivia under United States law periodically reappears, notwithstanding its failure to meet with either legislative or judicial favor throughout the nearly two hundred years since the adoption of the Constitution. While there are many reasons for these periodic reappearances, a major factor is sustained administrative apathy toward enforcement of the patent law to deny patents on trivia. The continued dissemination by the Patent Office of unjustified and unjustifiable patents—monopolies in the truest sense—is unfortunately welcomed by significant segments of the business community and the bar, who perceive an opportunity to profit from wholesale proliferation of monopolies and accordingly seek to legitimatize trivial patents. The object of this Article is to refute the suggestion that such action could be compatible with the constitutional strictures on the patent system and to otherwise demonstrate the unacceptability of the proposals.

I. THE DISSONANCE BETWEEN THE PATENT OFFICE AND THE COURTS AS TO PATENTABILITY OF TRIVIA

In section 103 of the Patent Act of 1952, Congress provided:

A patent may not be obtained . . . 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 said subject matter pertains.1

Declaring this provision to be a constitutional exercise of the limited congressional power to legislate in the patent field, the

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Supreme Court in *Graham v. John Deere Co.*\(^2\) complained of the "notorious difference"\(^3\) between the patentability standards applied by the Patent Office in the issuance of patents and those utilized by the courts in the adjudication of patent validity. The Court admonished the Patent Commissioner "to strictly adhere to [section 103 of] the 1952 Act as interpreted here."\(^4\) In so doing, the Court reiterated the substance of its own pronouncements interdicting the patenting of trivia, which, as the opinion noted,\(^5\) extend back to its 1850 decision in *Hotchkiss v. Greenwood.*\(^6\) The Court reaffirmed its judgment that the Constitution mandates the *Hotchkiss* prohibition on the grant of the patent monopoly as a reward for the development of trivial improvements.\(^7\) Such improvements, though "new" and "useful," add nothing to the sum of human knowledge; they are achieved through the exercise of ordinary skill in the utilization and adaptation of existing knowledge.\(^8\) These new but obvious variations on, or combinations of, what is basically old do not "promote the progress of science and useful arts,"\(^9\) as required by the Con-

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3. Id. at 18.
4. Id.
5. Id. at 10-17.
8. Several examples of the trivial advances or improvements that the Court has held insufficient to support a valid patent suffice to illustrate what is not, never has been, and should not be capable of supporting a valid patent:

   (a) the clay doorknob at issue in *Hotchkiss* itself, which, though "better and cheaper" than an antecedent wooden doorknob of identical design, required only mechanical skill to devise;

   (b) the cordless cigarette lighter in *Cuno*, which depended on the combination of an old heating unit and an old thermostatically controlled circuit breaker, a combination that was an obvious exercise of ordinary mechanical skill;

   (c) the bottomless three-sided tray in *A&P* that was designed to pull groceries along a counter, a device manifestly requiring only a pedestrian level of mechanical skill to create;

   (d) the child's feeding dish in *Crest Specialty v. Trager*, 341 U.S. 912 (1951), having on its rim a figure of a pig appearing to be fed, which was intended to coax a child into eating, a device held unpatentable in a one-line, per curiam decision.
PATENT QUALITY STANDARDS

constititution. Hence such trivia do not satisfy the constitutional standard.

The constitutional standard for patentable invention, as the Graham Court correctly recognized, "has remained invariable" in the Supreme Court.\(^{10}\) The application of this standard commenced only months after the adoption of the Constitution itself, with the administration of the Patent Act of 1790\(^{11}\) by a three-member board, on which Thomas Jefferson served.\(^{12}\) The Patent Office, established by the Patent Act of 1836,\(^{13}\) has paid reasonably consistent lip service to this constitutional standard,\(^{14}\) but, at least in recent times, has failed to observe or apply it, lapsing instead into the use of a criterion approaching mere novelty as the basis for determining whether a patent shall issue.\(^{15}\) Available

\(^{10}\) 383 U.S. at 19. This is not to say that individual judges in the lower federal courts and Justices in the Supreme Court itself have not departed from the standard at times, nor is it suggested that members of the judiciary, unlike other members of the human race, are immune from making mistakes. Rather, as the Graham Court recognized, the legal standard for patentable invention has remained unvarying in Supreme Court pronouncements from Hotchkiss to the present—a not at all remarkable phenomenon since the standard rests on a solid constitutional foundation. See Irons & Sears, The Constitutional Standard of Invention—The Touchstone for Patent Reform, 1973 Utah L. Rev. 653.

\(^{11}\) Ch. 7, 1 Stat. 109.

\(^{12}\) The relationship of the rules evolved by the patent board between 1790 and 1793, see note 17 infra and text accompanying note 44 infra, to the constitutional standard of invention was expressly recognized in Graham. 383 U.S. at 10-11.

\(^{13}\) Ch. 357, 5 Stat. 117.

\(^{14}\) The actual decisions of Patent Office tribunals in refusing patent applications are presently secret; thus scholarly efforts to examine the premises on which they have rested are frustrated. In particular, Irons v. Schuyler, 465 F.2d 608, 613 (D.C. Cir. 1972), reveals that some 175 bound volumes of such decisions covering the years 1853 to 1954, plus countless unbound decisions since 1954, have been thus concealed from the public.

When Patent Office performance is measured by the quality of issued patents, it is apparent that at least some examiners used a patentability criterion approaching mere novelty even in the early years of the Patent Office—otherwise the patent under scrutiny in Hotchkiss, for example, would never have been issued. See Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp., 340 U.S. 147, 155-58 (1950) (Douglas, J., concurring).

\(^{15}\) Both admirers and critics of the Patent Office standard agree that this is so. As stated in Marquis, Improving the Quality Control for Patents, 59 Minn. L. Rev. 67, 104 (1974) [hereinafter cited as Marquis], "[S]ympathy for inventors, the ex parte nature of the examination process, and a heavy work load have caused the Patent Office to apply a standard of invention approaching mere novelty" (emphasis added).

This conclusion is also reached—not only by reason of the ex parte nature of the examination process but also by reason of factors not mentioned by Marquis—in Sears, One Litigation Lawyer's View of Ex Parte
statistics show that about 75 to 80 percent of all patent applications currently filed in the United States mature into patents—a manifest impossibility if the sophisticated level of present skill and knowledge in technological arts were realistically considered by the Patent Office in evaluating patentability.17

Not surprisingly, the Patent Office, applying a mere novelty criterion, issues ever increasing numbers of patents on trivial ad-

16. The most recent statistics were published in the Patent, Trademark and Copyright Journal (a Bureau of National Affairs publication) on September 13, 1973, and cover the year 1971. Similarly, the Washington Star, Mar. 10, 1975, § A, at 1, col. 1, reported that “last year” the Patent Office received 108,979 applications and granted 78,898 patents. In contrast, the Bureau of National Affairs statistics showed that in 1971 West Germany issued patents on only about one-third of the applications it received, while in Japan the rate of issuance was about 40 percent.

17. For example, the weekly Official Gazette of the Patent Office for February 11, 1975, reported issuance on that day of patents on such items as a combination pen and pencil, an automobile window shade, a reclining chair, a mobile doghouse styled as a “pet trailer,” a long handled “weed-puller,” a potato masher, several forms of paper or plastic bags, a toilet paper roll holder, a book strap, a collar stay, a dress form, several forms of aerosol spray caps and spray dispensers, several forms of bottle caps, several forms of display cartons, and several types of convertible furniture. The simple nature of these items makes it difficult to believe that the ingenuity expended in their creation could have exceeded that required for the application of ordinary skill to common knowledge in the mechanical field.

The difficulty increases if one ponders Jefferson’s account of the 1790 patent board’s “general rules” for “drawing a line between the things which are worth to the public, the embarrassment of an exclusive patent and those which are not”:

One of these was, that a machine of which we were possessed, might be applied by every man to any use of which it is susceptible, and that this right ought not to be taken from him and given to a monopolist, because the first perhaps had occasion so to apply it. Thus a screw for crushing plaster might be employed for crushing corn-cobs. And a chain-pump for raising water might be used for raising wheat: this being merely a change of application. Another rule was that a change of material should not give title to a patent. As the making a plough-share of cast rather than of wrought iron; a comb of iron instead of horn or of ivory, or the connecting buckets by a band of leather rather than of hemp or iron. A third was that a mere change of form should give no right to a patent, as a high-quartered shoe instead of a low one; a round hat instead of a three-square; or a square bucket instead of a round one. But for this rule, all the changes of fashion in dress would have been under the tax of patentees.


In short, the Patent Office currently grants patents which Jefferson and the first patent board would have flatly refused as not meeting the constitutional standard if viewed against the present state of art and science.
vances that do not meet the constitutional standard for patentable invention. While only about one percent of all the patents which the Patent Office grants are of sufficient commercial interest to come to the attention of the courts, well over one-

18. The reply brief in Calmar, Inc. v. Cook Chem. Co., decided with Graham, 383 U.S. at 26-37, focused sharply on "the practice of the Patent Office in patenting trivial modifications, if they are narrowly stated," Reply Brief for Petitioner at 8, and emphasized in a footnote that "it is impossible to understand why a patent of the sort involved here ever issued without some general view of the manifest proclivity of the Patent Office for issuing patents on any trivial device or trivial modification of a device on which there is not the most direct of anticipations." Id. n.6. This "general view" was provided in the same footnote:

The Patent Office seems to view its performance in terms of the number of patents it can turn out. Commissioner of Patents Edward J. Brenner recently indicated with pride that "the percentage of applications allowed in Fiscal 1965 was approximately 68%, as compared with 63% for the preceding year."

Evidently there are production goals or norms or some other sort of stakhanovite system in the Patent Office respecting the production of patents, for the Commissioner said further: "I am pleased to note that our overall average for indicating allowable claims and allowable subject matter in first actions is nearly 50% of the first actions, which is our overall goal in this respect. A large number of our Groups are now meeting their particular goals of indicating allowable claims or subject matter in first actions at a level equivalent to 75% of the ultimate allowance level for their particular group. It is hoped that the other Groups will also be able to meet their particular goals in this regard in the near future."

We do not wish to create the impression that there are no limits in the Office on the issuance of patents. The Commissioner's speech definitely indicates one limitation. "We also anticipate that we will issue approximately 67,000 patents in Fiscal 1966, which represents the approximate limit of the Government Printing Office to print patents." (Address before Patent, Trademark and Copyright Section, ABA, Miami, August 7, 1965, Dep't of Commerce Release, pp. 3, 7).

Id.

The latest statistics, see note 16 supra, show that the capacity of the Government Printing Office for printing patents has increased in the nine years since the Graham-Calmar decision, but that very little else has changed.

19. Knowledgeable industry representatives from Zenith Corporation and Avco Corporation, testifying before Congress in 1973, agreed that the remaining 99 percent of issued patents are not even used, with the result that the question of their validity is academic and unlikely to be raised. See Hearings on S. 1321 Before the Subcomm. on Patents, Trademarks and Copyrights of the Senate Comm. on the Judiciary, 93d Cong., 1st Sess. 142, 155-56 (1973).

The counterargument that only questionable patents are litigated, see, e.g., id. at 580, can be given little credence, notwithstanding the lack of published evidence on either side. Candid, informal discussion of the subject with top-level corporate patent counsel and with lawyers who specialize in patent litigation invariably leads to agreement with the testimony of the Zenith and Avco representatives. Many patent lawyers,
half and probably closer to three-fourths of the patents that are litigated are held to be invalid. There is general agreement that remedial action is needed to bring about closer concurrence between administrative and judicial precedent and to root out unpatentable subject matter at the Patent Office level. Considerable disagreement exists, however, as to the type of remedial action that should be undertaken. Disagreement exists even as to whether the Patent Office should be required to conform to the Constitution, the statute, and Supreme Court precedent, or whether the latter should be altered to conform to the novelty standard of the Patent Office.

II. SUGGESTIONS FOR LEGITIMATIZING TRIVIAL PATENTS

The organized patent bar began at least as early as the

however, appear reluctant to speak out for publication, perhaps because of an unexpressed fear that a higher Patent Office standard of invention would inevitably lead to fewer patents, then to fewer patent applications, and hence to less need for their own services.

20. Statistics for the years 1968 through 1972, presented by the Patent Office in connection with the 1973 hearings on S. 1321, represent, somewhat optimistically, that the proportion of litigated patents held invalid during the stated period was on the order of 50 percent. Id. at 196-98. Statistics covering a larger sampling period, which are believed to have been more objectively compiled, are reported in I. Kayton, The Crisis of Law in Patents, pt. I, at 5 and app. 2, at 13-14 (1970). The latter statistics reveal that the proportion of invalid patents among those litigated during a slightly earlier but overlapping time period was on the order of 72 percent.

Statistics covering only Supreme Court adjudications for the period 1876 to 1954 appear in G. Frost, Subcomm. on Patents, Trademarks and Copyrights of the Senate Comm. on the Judiciary, 84th Cong., 2d Sess., The Patent System and the Modern Economy, Study No. 2, at 59 (Comm. Print. 1957). These statistics reveal that the Court has consistently ruled against the patentability standard utilized by the Patent Office, with well in excess of 60 percent of the patents reaching it throughout the period being declared invalid.

21. See Marquis, supra note 15; Sears, supra note 15. See also Hearings, supra note 19, wherein persons of widely divergent viewpoints representing patent bar groups, industry, the Patent Office, and other government agencies, as well as private practitioners, professors, and patent examiners speaking individually, all agreed that changes were needed, but sharply disagreed as to what their substance should be.

22. The Supreme Court noted in Graham that "[t]o await litigation is—for all practical purposes—to debilitate the patent system." 383 U.S. at 18. The debilitation process, unfortunately, has been proceeding for as long as the Patent Office has disdained to follow the constitutional standard of patentable invention and hence may now be so far advanced that the system is beyond resuscitation. Before concluding that this is the case, however, it seems reasonable that efforts should be made to restore the system to full vigor.

23. As used herein, "organized patent bar" refers to the American
1940's to lobby for a statutory standard of patentable invention conforming to the standard approaching mere novelty used by the Patent Office. Having failed in 1952 to secure from Congress an affirmation of this diluted standard, this organized bar endeavored in *Graham v. John Deere Co.* to convince the Supreme Court to recant its previous pronouncements and to decree that the 1952 statute had lowered the standard of patentable invention. When this attempt, too, failed and the Court adhered forcefully to its earlier pronouncements, the organized patent

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25. The Court in *Graham* actually decided three cases: *Graham v. John Deere Co., Calmar, Inc. v. Cook Chem. Co.,* and *Colgate Palmolive Co. v. Cook Chem. Co.* These three cases, as well as United States v. Adams, 383 U.S. 39 (1966), were concurrently briefed and argued in the Supreme Court and were disposed of in decisions rendered on the same day. Efforts by the organized patent bar to convince the Court that section 103 should be construed as a mandate to lower the standard of invention were embodied in five amicus briefs filed in the names of the American Bar Association, the Illinois State Bar Association, the New York Patent Law Association, the Patent, Trademark and Copyright Section of the State Bar of Texas, and E. Ernest Goldstein, then a professor of law at the University of Texas.

26. Not only did the *Graham* Court squarely disavow the contention that the standard of invention had been lowered, but the Court reemphasized three years later that the standard is unvarying and of constitutional origin. *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.,* 396 U.S. 57 (1969).
bar again turned to lobbying in the Congress—an effort it has now pursued for at least nine years, during which "patent reform" legislation has been under consideration.27

One approach to legitimatizing the Patent Office grant of monopolies for trivial advances has been the suggestion that section 103 be rewritten to expressly permit many types of trivial patents that are invalid under existing court decisions.28 This approach has not found favor in Congress and, although by no means abandoned, seems to have been sidetracked in favor of less heavy-handed methods of reaching essentially the same result.

An approach favored by some of the organized patent bar is the establishment of a "dual" or two-tiered patent system, in which two classes of patents would be available.29 One type of patent, sometimes called a "petty patent," would issue for a shortened term on concededly trivial subject matter in implementation of a standard of invention deliberately set at the level of mere novelty, while a second type of patent of longer term would issue only if a more stringent patentability standard were satisfied.

The dual patent system has been proposed in many variants.30 A recent proposal by Professor Harold Marquis of Emory


28. A representative proposed modification of the statute retains the essence of the present statute, see text accompanying note 1 supra, but includes added provisions:

Patentability shall not be negatived . . . because the invention has simplicity or is the last step in an evolutionary development, nor because it is not revolutionary, basic, scientific, or technical in character. Claims for a new combination or assemblage of known mechanical or other elements shall be subjected to the same standard of patentability as is applied to claims for other types of subject matter.


29. The proponents of these measures are not necessarily different groups. The Patent, Trademark and Copyright Section of the American Bar Association favors both the amendment to section 103 set forth in note 28 supra, see Hearings, supra note 19, at 572, and the dual system. See note 30 infra and accompanying text.

30. See, e.g., Mott, The Concept of Small Patent in European Legal Systems and Equivalent Protection under United States Law, 49 VA. L. REV. 232 (1963). See also SECTION OF PATENT, TRADEMARK AND COPY-
University contemplates a two-tiered patent system in which "improvement patents," of short-term duration such as five years, would be granted on alleged inventions which meet "the present [Patent Office] nonobviousness standard"—the standard "approaching mere novelty" interdicted in Graham—while "basic patents" could be obtained for a seventeen-year term only on alleged inventions representing "a significant technical advance" and exhibiting the "ordinary inventive skill of the scientist engaged in research." "Improvement patents" would be limited in each instance to a "single embodiment," but "basic patents" would not. Marquis would permit simultaneous application for both a "basic" and an "improvement" patent on the same subject matter and would allow conversion of either type of application to the other type at any time, even after issuance of a patent. Marquis further proposes what amounts to a continuing post-issuance Patent Office examination of both "basic" and "improvement" patent claims, in which claims could be amended or cancelled or entire patents revoked. A major feature of the proposal is that the ex parte secret procedural mechanisms that now characterize all proceedings in the Patent Office except interferences would be continued and even extended. Right Law, American Bar Association, 1974 Summary of Proceedings 68-70, 110-12 (Resolution 54, adopted by a 52-50 vote at the August 1974 meeting).

32. Id. at 73. See also id. at 68, 69, 71.
33. Id. at 72.
34. Id. at 74.
35. Id. at 77. This part of the proposal is similar to the ABA Section's Resolution 54, see note 30 supra, except that the ABA resolution does not contemplate post-issuance conversion and is careful to specify that a petty patent would be infringed only by an item substantially identical to the claimed subject matter. The resolution would thus preclude invocation of the equitable doctrine of equivalents, see, e.g., Graver Tank & Mfg. Co. v. Linde Air Prods. Co., 339 U.S. 605 (1950), by which the scope of constitutionally valid patents is construed to embrace constructive as well as literal infringements, to expand the petty patent monopoly. The ABA resolution would avoid the practical problems of indeterminate claim scope that would attend post-issuance conversion and reexamination proceedings. The Marquis proposal, on the other hand, pays considerable attention to the possible problems of discrepancies in "basic" and "improvement" patent terms, but virtually ignores the more troublesome effects of kaleidoscopic claim scope changes. See text accompanying notes 113-15 infra.
37. Indeed, Marquis seems to view the ex parte secret procedure as sacrosanct, since he deems it an insurmountable obstacle to requiring
Like other proposals for dual patent systems, the Marquis proposal is a stratagem by which proponents of the indiscriminate award of economic monopolies for the advancement of business and commercial interests hope to induce Congress, under the guise of the appealing “patent” label, to ignore the Constitution as interpreted by the Supreme Court. Acceptance of the proposal would invert the order of priorities which is the essence of a free society by subordinating the individual rights of all the members of the community to the privileges of a relatively few intrepreneurs. There is no evidence of any correlation between the creativity that the patent system was constitutionally designed to reward and the “research” and “investment” in research that the Marquis proposal seeks to stimulate.38 There is not even any evidence, much less a guarantee, that the Marquis proposal would, or could, stimulate either “research” or “investment” in research. It seems far more likely that its effect, if any, would be to encourage the generation of yet more trivia and the filing of greater numbers of applications for patents on trivia. In addition, there is every indication that acceptance of the Marquis proposal would lead to vastly increased confusion in the law and would multiply the burdens on the already overburdened Patent Office.

III. THE UNVARYING MINIMUM STANDARD OF PATENTABLE INVENTION REQUIRED BY THE CONSTITUTION

It is axiomatic that Congress is authorized by the Constitution to promulgate a patent system only to “promote the progress of science and useful arts.”39 The first Congress, which enacted

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39. The Congress shall have Power ... To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.
the Patent Act of 1790, contained a significant complement of constitutional framers as well as contemporaries thoroughly familiar with the limited nature of the power imparted by the patent clause.\textsuperscript{40} That Congress correctly perceived that "progress," or advancement of "science and useful arts," could not be achieved by indiscriminately rewarding everything "new" with a patent monopoly.\textsuperscript{41} Hence the Congress provided that a patent could be awarded \emph{only} if the alleged invention were also "sufficiently useful and important."\textsuperscript{42} The Act required the patent board established thereunder to determine objectively whether each patent application defined an invention that was not only new and useful, but sufficiently useful and important to "promote" science and useful arts.\textsuperscript{43} Thomas Jefferson, one of the members of that board, preserved in his writings detailed information regarding the specific criteria that the board utilized in making these determinations.\textsuperscript{44} These criteria disqualified: (1) aggregations of old elements into new objects where each element performed its old role; (2) objects "new" only in that they were

\footnotesize{U.S. Const., art. I, § 8, cl. 8. Proponents of patents on trivia have argued with some vigor that this clause was intended as a "balanced sentence," in which "Science" meant "knowledge" and was germane only to the copyright power concurrently conferred upon Congress, while the patent power was applicable to grants in the "useful Arts"—including "gadgets" and trivia. On that premise, arguments have been advanced that the present Patent Office standard of patentability approaching mere novelty can be constitutionally justified. See, e.g., Brief for ABA as Amicus Curiae, Graham v. John Deere Co., 383 U.S. 1 (1966); Lutz, The Constitution v. The Supreme Court—Re: Patents for Inventions, 13 U. Penn. L. Rev. 449, 452 (1952).

The cornerstone of the argument—that science meant "knowledge" at the time the Constitution was adopted and hence had nothing to do with patents—is perhaps best refuted by section 3 of the Patent Act of 1793. That Act required every patent applicant to supply a written description of his alleged invention and of the manner of using it in such complete terms as "to . . . enable any person skilled in the art or science, of which it is a branch, or with which it is most nearly connected, to make, . . . and use the same." Act of February 21, 1793, ch. 11, § 3, 1 Stat. 321 (emphasis added). In Shaw v. Cooper, 32 U.S. (7 Pet.) 292, 320 (1833), the Supreme Court recognized the patent laws to be directed to "the range of discoveries in the mechanic arts, in science, and in all things which promote the public convenience . . . ." (emphasis added). Consonantly, the Act of July 4, 1836, ch. 357, § 6, 5 Stat. 117, incorporated the quoted portion of the 1793 Act.

40. The clause "is both a grant of power and a limitation." Graham v. John Deere Co., 383 U.S. 1, 5 (1966).
41. Cf., e.g., note 17 supra.
42. Act of April 11, 1790, ch. 7, § 1, 1 Stat. 109.
43. Id.
44. See Graham v. John Deere Co., 383 U.S. 1, 7-11 (1966), and authorities cited therein.}
of changed design, form, shape, material, or the like; and (3) applications of old objects, including machinery, to new uses. In each case, as is readily apparent, these insufficiently important items were available through the mere application of ordinary skill in the adaptation of what was already known. The test of Hotchkiss v. Greenwood, supacodified in section 103, is simply a generic restatement of these criteria.

The patent act in effect from 1793 to 1836 replaced the "sufficiently useful and important" standard with the more explicit mandate "that simply changing the form or the proportions of any machine, or composition of matter, in any degree, shall not be deemed a discovery," thus incorporating a standard for patentable invention which the patent board had implemented during its tenure. The 1793 act, however, aborted. Its failure was attributed primarily to the absence in its provisions of any requirement for pre-issuance examination of patent applications. The automatic registration of patents which proceeded under this act between 1793 and 1836 greatly facilitated fraudulent activities by unscrupulous copyists and resulted in a virtual plague of monopolies akin to that which had victimized Elizabethan England and eventually had prompted the 1624 enactment of the Statute of Monopolies. According to the Senate report accompanying the Act of July 4, 1836:

45. [U]nless more ingenuity and skill . . . were required . . . than were possessed by an ordinary mechanic acquainted with the business, there was an absence of that degree of skill and ingenuity which constitute essential elements of every invention. In other words, the improvement is the work of the skillful mechanic, not that of the inventor.

52 U.S. (11 How.) at 267.


48. See note 44 supra and accompanying text.

49. One of the more pronounced abuses of English monarchical monopoly power occurred during the reign of Elizabeth I, when grants of monopoly power over old commodities, such as salt and playing cards, were rampant. These grants were made for the benefit of a few favorites of the Crown, in direct derogation of rights of the community at large. In The Vague Concept of "Invention" as Replaced by § 103 of the 1952 Patent Act, 8 IDEA 136 (1964), Judge Giles S. Rich, a leading proponent of the grant of United States patents on trivia, readily conceded that these Elizabethan monopolies on "old" products were "bad." As Jefferson recognized in the early 1790's when the Constitution was still new—and as Congress and the Supreme Court have consistently decreed—monopolies are equally odious when they cover products which, though technically "new," differ so little from what is old as to have been readily within the purview of those of ordinary skill in the pertinent art or science.
The present law waits till infringements and frauds are consummated—nay, it even aids them; and then it offers an inadequate remedy for the injury, by giving an action for damages. It ought, rather, by refusing to grant interfering patents, to render prosecutions unnecessary. Instead of sanctioning the wrong by granting the privilege to commit it, it should arrest injury and injustice at the threshold, and put an end to litigation before it begins.50

The generally unsatisfactory experience under the 1793 act was undoubtedly a factor in the abandonment of its explicit Jeffersonian standard for patentable invention. The 1836 act restated the "sufficiently useful and important" criterion first expressed in 1790.51 The relationship between this statutory requirement for sufficient usefulness and importance and the "requirement for invention" which first surfaced in the Supreme Court’s decision in Hotchkiss was clearly set out in Reckendorfer v. Faber.52 The Court rejected the argument of the patentee’s counsel "that the decision of the commissioner, as to the extent of the utility or importance of the improvement, shall be conclusive upon that point"53 and took the occasion to emphasize that "extent of the utility or importance" was the very point decided in Hotchkiss and in an unbroken line of subsequent cases.54 Equating "no importance" to "no invention," the Court stated:

The argument . . . that proof that there is no invention or discovery at all, or that the invention has no importance, cannot be made [by the defendant in an infringement action], is quite unsound. Proof that there is no invention or discovery strikes at the root of the whole claim. The patent is based on an affirmative fact, of which this is the direct negative. It needed no statute to aid or justify this defense. It is provable when it exists under any general denial, like the fact of not guilty . . . in cases where guilt . . . is first to be established.55

With the codification of the Hotchkiss test itself in section 103 of the 1952 Patent Act,56 Congress omitted the statutory re-

52. 92 U.S. 347 (1875).
53. Id. at 351.
54. Id. at 352-54. See Smith v. Nichols, 88 U.S. (21 Wall.) 112 (1875); Rubber-Tip Pencil Co. v. Howard, 87 U.S. (20 Wall.) 498 (1874); Hailes v. Van Wormer, 87 U.S. (20 Wall.) 353 (1874); Hicks v. Kelsey, 85 U.S. (18 Wall.) 670 (1874); Stimpson v. Woodman, 77 U.S. (10 Wall.) 117 (1870). Seymour v. Osborne, 78 U.S. (11 Wall.) 516 (1871), was specifically said to be "no exception," 92 U.S. at 354, though apparently urged by the patentee to support a different rule.
55. 92 U.S. at 354 (emphasis added).
56. While the Hotchkiss decision did not use the word "obvious"
quirement that patents could be granted only for "sufficiently useful and important" subject matter "as unnecessary, the requirements for patentability being stated in sections 101, 102 and 103." 57 As the Graham Court recognized, "the revision was not intended by Congress to change the general level of patentable invention," 58 which—as the Court had several times held 59—is governed by "the standard expressed in the Constitution." 60 This constitutional standard necessarily nullifies any legislation designed to "authorize the issuance of patents whose effects are to remove existent knowledge from the public domain, or to restrict free access to materials already available." 61 Hence, it disqualifies any legislation that would implement the "improvement patent" tier of the Marquis dual system.

IV. THE INVALID PREMISES OF THE DUAL PATENT PROPOSAL

A. THE PREMISE THAT THE STANDARD OF PATENTABILITY SHOULD BE CHANGED FOR "BASIC" PATENTS

Professor Marquis argues that the second tier of his proposed dual patent system "may be more consonant with the patent clause of the Constitution than the present system" in promoting technological progress, because it would require an inventive level on a par with that of the "scientist engaged in research." 62 It is not clear in context whether "present system" refers to the present Patent Office system utilizing a criterion approaching mere novelty or to the present constitutional standard of invention applied by the courts. If the former is meant, then the Marquis second tier, "basic" patents would require more than novelty and hence would more closely approach the constitutional standard. How nearly they would do so is unclear, and in any event no reason can be discerned for promulgating a new patentability

to describe new subject matter insufficiently important to promote progress, many pre-1952 cases, citing and following Hotchkiss or progeny of Hotchkiss, did so. See, e.g., Saranac Automatic Mach. Corp. v. Wirebounds Patent Co., 282 U.S. 704, 711 (1931); Concrete Appliances Co. v. Gomery, 269 U.S. 177, 184-85 (1925); Pearce v. Mulford, 102 U.S. 112, 118 (1880).

58. 383 U.S. at 17.
59. See cases cited in note 7 supra.
60. 383 U.S. at 6. For a more detailed discussion of this standard, see Irons & Sears, supra note 10.
61. 383 U.S. at 6.
standard when the constitutional standard applied by the courts has worked for almost two centuries. If the constitutional standard is what is meant, however (and the implication is that the "ordinary scientist engaged in research" is a cut or two above the "ordinary mechanic"), then it is necessary to examine the present constitutional standard as applied by the courts to see whether the one now proposed by Marquis is higher or would better promote progress.

The *Graham* Court concluded that the present constitutional standard does promote progress in the constitutional sense because of the very dynamism implicit in the ever enlarging scope of public knowledge and the constantly rising level of ordinary skill. Observing that "[t]echnology... has advanced... with remarkable rapidity in the last 50 years [and] the ambit of applicable art in given fields of science has widened by disciplines unheard of a half century ago," the Court admonished would-be inventors (and their financial backers) to show "an awareness of these changed conditions." The Court specifically cautioned that "[h]e who seeks to build a better mousetrap today has a long path to tread before reaching the Patent Office." This admonition essentially reiterated the warning in the concurring opinion of Justices Douglas and Black in *Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.*, calling for an end to the proliferation by the Patent Office of "incredible," "flimsy," and "spurious" patents on "gadgets that obviously have... no place in the constitutional scheme of advancing scientific knowledge." The specific instances of "gadgets" cited are remarkably similar to the trivia on which the Patent Office is still granting patents, relentlessly applying its own "mere novelty" criterion.

As the Court has consistently recognized, strict application of the ordinary skill test of patentability ensures a high standard of invention. The Court noted in *Atlantic Works v. Brady*:

The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head-workmen and engineers is generally adequate to devise,

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63. 383 U.S. at 19.
64. *Id.*
65. *Id.*
67. *Id.* at 158.
68. *Id.* at 156.
69. *Id.* at 156-58.
70. See notes 15 and 17 *supra.*
71. 107 U.S. 192 (1883).
and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention, somewhat above ordinary mechanical or engineering skill, is distinctly shown, is unjust in principle and injurious in its consequences. 72

"Ordinary head-workmen and engineers" must, of course, be considered as representative of the whole class of artisans of ordinary skill, including ordinary research scientists. Because this is so, the "ordinary scientist engaged in research" is simply a worker "having ordinary skill in the art" within the meaning of section 103.

It is accordingly difficult to see how the Marquis "basic patent" proposal could raise the present invention standard or better promote progress. Indeed, it seems likely that "basic patents" would reflect an invention requirement lower than the present constitutional standard. Marquis suggests that "basic" inventions be evaluated, not by resort to the "basic factual inquiries" defined in Graham, 73 but on the basis of "opinion testimony of scientists." 74 Thus, the objective test of section 103 would be replaced by the subjective judgment of the applicant's peers.

It is not clearly stated, but it also seems likely that Marquis is aiming at a static invention standard for both tiers of patents, whereby the dynamism that has kept the constitutional standard of invention viable for almost two centuries of unprecedented technological progress would no longer automatically adjust to higher levels of knowledge and skill. Certainly the lower tier invention standard for "improvement patents" granted on merely novel subject matter would be static and would permit the monopolization of endless trifling variations upon known subject matter. The suggestion that "the opinion testimony of scientists . . . perhaps would serve to increase the predictability of decli-

72. Id. at 199-200. Atlantic Works was specifically reaffirmed by the Supreme Court in Cuno Eng'r Corp. v. Automatic Devices Corp., 314 U.S. 84, 92 (1941). It was quoted with approval in the concurring opinion of Justices Douglas and Black in Great Atl. & Pac. Tea Co. v. Supermarket Equip. Corp., 340 U.S. 147, 155 (1950), an opinion that was in turn adopted by the Court in Graham v. John Deere Co., 383 U.S. 1, 6 (1966), and in Anderson's-Black Rock, Inc. v. Pavement Salvage Co., 396 U.S. 57, 61 (1969).

73. 383 U.S. at 17.

74. Marquis, supra note 15, at 72.
sion”75 as to basic patents hints that some ceiling is contemplated for the present increasingly demanding constitutional standard embodied in section 103 and that this is the reason for switching from the “ordinary mechanic” of the case law to the ordinary research scientist of the Marquis proposal. So interpreted, the “basic patent” standard envisioned by Marquis is lower than the present constitutional standard and thus is squarely interdicted by the Constitution.

B. THE PREMISE THAT A PURPOSE OF THE PATENT CLAUSE IS TO PROMOTE INVESTMENT, MARKETING, OR COMMERCE

The argument that “[t]he basic aim of the patent system is to encourage inventing by making it more profitable”76 is superficially appealing to many who seemingly are unaware that such an aim has no basis in the Constitution. The constitutional patent clause authorizes a reward to inventors but says nothing at all about financial backers, commercial developers, assignees, investors, or any other type of “money man.” While the Constitution does not preclude the profit that may accrue to these third parties as a result of, or as an incident to, the reward given to a bona fide inventor for a true invention satisfying the constitutional standard, it decidedly does not authorize Congress to plan patent legislation for the benefit of these businessmen. Upon careful reading of the controlling Supreme Court precedents, no other conclusion is possible.

In 1829, in *Pennock v. Dialogue,*77 the Supreme Court first stressed the cornerstone premise that the Constitution authorizes patents for a primary public purpose to which even the inventor’s reward is subordinate. The Court has never deviated from, and has continued to emphasize,78 this dominant public interest as

75. *Id.* (emphasis added).
76. *Id.* at 79. This argument rests very heavily on the doubtful premise that because other countries authorize patents for merely novel advances, the United States should do likewise. *See id.* at 69-70. Many European patent systems, including that of England from which the American system is partially derived, utilize commercial success—generally measured by sales—as a primary test of inventive merit. Thus it is argued that the American patent system is historically and logically under an obligation to operate in the same way. This contention, along with the primary *English* precedent, was exhaustively discussed and squarely repudiated in *McClain v. Ortmayer,* 141 U.S. 419 (1891), a case cited with approval in *Graham.* 383 U.S. at 12.
77. 27 U.S. (2 Pet.) 1, 19 (1829).
78. In addition to cases discussed in the text, see, for example, *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 530-31 (1972);
the cornerstone of patent policy. As it stated in Motion Picture Patents Co. v. Universal Film Manufacturing Co.,70 "the primary purpose of our patent laws is not the creation of private fortunes for the owners of patents . . . ."80

In Wilson v. Rousseau,81 the Court again stressed that purely financial interests evoked no sympathy under the patent clause:

Congress had not at all in view protection to assignees [of patents] . . . . [T]heir condition on account of dealing in the subject of the invention, whether successful or otherwise, was not in the mind of that body, nor can any good reason be given why it should have been.

They had purchased portions of the interest in the invention, and dealt with the patent rights as a matter of business and speculation; and stood in no different relation to the government or the public than other citizens engaged in the common affairs of life.82

In other words, as recognized by Robinson in the introduction to his 1890 treatise on patents, the underlying theme of the Constitution and all patent laws enacted under it "has been to encourage original invention. The introduction of those inventions into use [and hence necessarily the profitability thereof] was wisely left to the incentive of business enterprise."83

Echoing the Court, Congress has perceived in the words of the clause conferring its patent power "that the good of society was the only thing provided for, or intended to be provided for."84

This primary public interest is itself a factor in making certain that the high minimum standard of patentability mandated by the Constitution is not diluted. As the Court noted in Mahn v. Harwood:85

In cases of patents for inventions, a valid defense . . . often arises where the question is, whether the thing patented amounts


79. 243 U.S. 502 (1917).
80. Id. at 511.
81. 45 U.S. (4 How.) 646 (1846).
82. Id. at 678 (emphasis added).
83. W. ROBINSON, THE LAW OF PATENTS FOR USEFUL INVENTIONS 11.4-5 (1890).
84. H.R. REP. No. 1494, 52d Cong., 1st Sess. 3 (1894). See also H.R. REP. No. 2222, 60th Cong., 2d Sess. 6-7 (1909).
85. 112 U.S. 354 (1884).
to a patentable invention. . . .

. . . And it is no doubt a general rule that where the Commissioner has exceeded his authority in granting . . . a patent, such fact furnishes a good defense to a suit brought for its infringement. There are stronger reasons for this defense against patents for inventions, which directly affect the citizen, than exist in the case of patents for land, which directly affect the government, and only indirectly the citizen.86

With striking similarity, a 1945 decision referred to the paramount interest of the public "in seeing that patent monopolies spring from backgrounds free from fraud or other inequitable conduct and that such monopolies are kept within their legitimate scope."87

The evils of proliferating patents on trivia and thereby inverting the constitutional order of priorities so as to put investors, entrepreneurs, and other businessmen—in the Court's words, "speculative schemers"—in a favored position relative to the rights of the community were aptly described in the 1883 decision in Atlantic Works v. Brady:88

The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures. Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patented monopolies, which enable them to lay a heavy tax upon the industry of the country, without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities of lawsuits and vexatious accountings for profits made in good faith.89

86. Id. at 358-59 (emphasis added). The direct effect upon the citizen must be viewed in context with the recognition in Greene v. McElroy, 360 U.S. 474, 492 (1959) and Allgeyer v. Louisiana, 165 U.S. 578, 588-90 (1897), of the right of every citizen to pursue an ordinary calling, unhampered by interfering monopolies that might impede enjoyment of that right. This recognition in Greene and Allgeyer derives from a concurring opinion in Butchers Union Co. v. Crescent City Co., 111 U.S. 746, 762 (1884), by Justice Bradley, the author of the Mahn decision.
88. 107 U.S. 192 (1883).
89. Id. at 200. This was another opinion authored by Justice Bradley. See note 86 supra.
In short, the suggestion to encourage "invention" of trivia by holding out patents as the *guaranteed return* to the investor who finances the underlying "research" is without foundation in Constitution, statute, and judicial precedent. In the same vein, the attempt to relate the *guarantee* of patent availability on every merely novel item to such marketplace considerations as "headstart" advantages and developments and production costs\(^9\) is invalid. These commercial considerations are of no concern under the patent clause.

The attempted correlation between marketplace considerations, including commercial success, and the "sufficiently useful and important" criterion of pre-1952 statutory law was repeatedly rejected by the Supreme Court. In *Hotchkiss v. Greenwood* itself, the patentee and the dissenting Justice unsuccessfully espoused the view that the doorknob covered by the patent in suit should be sustained as patentable because it was "better and cheaper" than antecedent doorknobs, despite the insignificance of the differences.\(^9\) A similar argument in *Reckendorfer v. Faber*\(^9\) was again unsuccessful. In *Cuno Engineering Corp. v. Automatic Devices Corp.*,\(^9\) the patentee argued that the *Hotchkiss* interdiction of patents on advances within the purview of those of ordinary skill in the pertinent art was wrong and should be overruled. The Court unanimously disagreed. In *Graham*, the Court put marketplace considerations, including commercial success, in proper perspective by explaining that they were "secondary"\(^9\) and "may have relevancy"\(^9\) in some instances, but never when the "invention . . . rests upon exceedingly small and quite nontechnical mechanical differences in a device which was old in the art."\(^9\) In *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*,\(^9\) the Court, quoting *A&P*, again emphasized that such factors as commercial success, "without invention will not make patentability."\(^9\)

Obviously, if marketplace considerations cannot save a challenged patent from invalidity, they cannot afford a foundation for planning new patent legislation with the purpose of legitima-

\(^9\) 52 U.S. (11 How.) at 254, 268.
\(^9\) 314 U.S. 84, 92 (1941).
\(^9\) 383 U.S. at 17.
\(^9\) Id. at 18.
\(^9\) Id. at 36.
\(^9\) 92 U.S. 347, 352 (1876).
\(^9\) Id. at 61, quoting 340 U.S. at 153.
tizing the grant of patents on alleged inventions that exhibit mere novelty. Still further evidence that the patent clause is not concerned with or directed toward the promotion of commerce and industry, but only with the promotion of technological advance—in other words, “progress”—can be found in the Supreme Court decisions repudiating the assertion that patentees have a duty to commercialize their inventions and holding that even deliberate refusal to market a patented invention in no way compromises the right to recover for infringement of a patent that satisfies the constitutional standard. In short, arguments that the Constitution recognizes a purpose of fostering a relationship between the limited patent monopoly and the actual marketing of patented inventions run counter to Supreme Court precedent and hence are invalid arguments on which to posit new patent legislation.

C. THE PREMISE THAT THE PATENT SYSTEM AS CURRENTLY ADMINISTERED STIMULATES RESEARCH

Even if a dual patent system, such as that advocated by Professor Marquis, could constitutionally be implemented, it would still be necessary to inquire whether the system could reasonably be expected to serve its declared purpose of stimulating research. Any discussion of what stimulates “research” must, of course, proceed from an understanding of what is meant by the term. The “research” conducted by those of ordinary skill in an effort to cut costs, improve old products, commercialize true inventions once made, or otherwise serve the business community first and the public second is not dependent on the existence of the patent system but must be pursued in striving for profits. It necessarily follows that the incidence of this form of “research” responds more readily to marketplace considerations than to changes in the patent system. This was confirmed in 1940 by Charles Kettering, then vice-president in charge of research of General Motors Corporation, testifying before the Temporary National Economic Committee. The testimony reflects Kettering’s view that even in the absence of patent laws General Motors would probably be required, by the sheer pressure of competition in the automobile industry, to operate its

100. See Marquis, supra note 15, at 71.
industrial laboratories.101

In a similar vein, the Wall Street Journal for February 6, 1975, reports that the current economic recession will not adversely affect—and in many cases will significantly stimulate—spending for research and development. The Journal quotes a spokesman for Corning Glass Works, who stated that "[h]istorically we have conscientiously spent more on research and development when times are bad than when times are good."102

Even research of a more basic nature, calculated to achieve creative breakthroughs—true inventions which meet the constitutional patentability standard but which usually are at least one step removed from market-readiness when achieved—is not necessarily dependent on the availability of patents and certainly not on the availability of patents for trivia. Thus, in a September 1973 survey, conducted for the National Science Foundation103 to obtain information from corporations about the public policy changes that might encourage them to finance larger increments of this high-risk research,104 the corporate interviewees suggested that investment in fundamental research might best be stimulated by specially negotiated depreciation allowances, special income tax reduction provisions, or legitimatization of the sharing of major developmental costs among several companies. No interviewee suggested that any change in patent policy would be a factor in stimulating such research investments, though several expressed concern over the continued proliferation of invalid patents, including trivial, nuisance patents.

Professor Marquis does not cite evidence to support the contrary assumption that more patents on trivia would encourage more productive research. He does not refute the conclusion reached by the Supreme Court in 1892, from which it has never deviated, that it is "important to the public that competition

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102. Wall Street Journal, Feb. 6, 1975, at 1, col. 5.
103. ARTHUR D. LITTLE, INC. & INDUSTRIAL RESEARCH, INC., BARRIERS TO INNOVATION IN INDUSTRY—OPPORTUNITIES FOR PUBLIC POLICY CHANGES (1973).
104. Such research is considered "high-risk" because it might not ever directly yield a marketable product or might do so only rarely, whereas developmental and applied research routinely conducted on old products usually results quickly in marketable variations and improvements, albeit of a largely trivial and hence constitutionally unpatentable nature.
should not be repressed by worthless patents." He simply echoes current organized patent bar opinion that greater availability of patents on greater numbers of trivial items, coupled with certainty that they could be enforced, would somehow increase funds available for fundamental research and ensure that the expenditure of those funds would produce the creative results that would advance technology—"promote the progress of science and useful arts." Logic suggests that freer availability of patents on trivia will encourage spending on "research" by those of ordinary skill, directed to the development of further trivia, but nothing else. At the very least, unless and until convincing evidence—not just patent lawyer opinion—is adduced to show a meaningful relationship between the availability of patent protection for trivia and the availability of financing to support creative research, all arguments calculated to influence liberalized patent legislation as a spur to research investment should be disregarded.

From the constitutional point of view, moreover, even if the postulated relationship could be established by solid economic evidence, there would remain the difficulty that the congressional prerogative in the promulgation of patent legislation is strictly limited to measures that will directly "promote the progress of science and useful arts." It does not extend to measures that might do so, if the research undertaken produces a true breakthrough. The patent system is permitted to hold out hope of reward only to the few who actually promote progress by their technological success; it cannot constitutionally guarantee a reward to all those who try to promote progress by undertaking research. It remains doubtful that research investment trends are properly considered in designing new patent legislation.

The incentives to investment which the corporate interviewees in the National Science Foundation study suggested—depreciation allowances, income tax credits and deductions, and provisions permitting industry-wide sharing of certain research costs—could be promulgated as an exercise of congressional commerce and tax powers and ought accordingly to be studied with care. These measures, however, are independent of patents and should be kept so. If the patent laws are to harmonize with their sole constitutional purpose, measures must be devised by which the patent grant is unique, is awarded sparingly on advances that truly enhance human knowledge, and, once awarded,

affords protection that offers its recipients a hope of substantial financial gain. Continued availability of patents as routine governmental rewards for the performance of pedestrian tasks denigrates the patent grant and makes its monopoly power a tool of the very "speculative schemers" criticized by the Supreme Court in *Atlantic Works.*

V. PRACTICAL DRAWBACKS OF A DUAL PATENT SYSTEM

Putting aside constitutional and other legal obstacles, a dual patent system would raise many practical difficulties. Among these difficulties would be the aggravated workload of the Patent Office, the difficulty in assessing the scope of patents, and the wide variation in patentability standards fostered by the use of opinion testimony.

Although an objective of the Marquis proposal is to reduce the admittedly heavy workload of the Patent Office, adoption of the proposal would aggravate—not alleviate—that workload. The filing of patent applications on trivia could reasonably be expected to mushroom if such patents were legitimatized. In view of the patent invalidity statistics under present practice, it can hardly be expected that improvement would result, even under a lowered patentability standard, if the workload were thus made heavier.

106. See text accompanying note 89 *supra.*

107. See *Marquis, supra* note 15, at 68, 104.


In testimony given in 1973 by the general patent counsel of Avco Corporation, invalid patents and the applications on trivia which spawn them were analogized to weeds which inhibit growth of a lawn. He concluded, "we need to dedicate ourselves to the objective of putting the best ideas on the table, getting them into the Patent Office, and discouraging the chaff, discouraging the weeds, and doing the right amount of pruning." *See Hearings on S. 1321 Before the Subcomm. on Patents, Trademarks and Copyrights of the Senate Comm. on the Judiciary, 93d Cong., 1st Sess. 138-39 (1973).*

109. See note 20 *supra* and accompanying text.

Nor is it realistic to suggest, as Marquis does, that by limiting "improvement patents" to a single embodiment, the dual system "should reduce the search and examination load." The Marquis proposal would impose numerous new duties upon the Patent Office examining staff. These duties would continue throughout the post-issuance period and, when coupled with the increased filings encouraged by the system, would further increase the burden on the Patent Office.

Moreover, the Marquis proposal would engender confusion and uncertainty as to the status of issued patents. Lawyers attempting to advise clients as to validity and scope of either a "basic" or an "improvement" patent would be faced with a virtually impossible task because of the ease of interconversion, which, whenever effected, would change the standard of patentable invention required to sustain the patent and hence make necessary a complete reevaluation of its validity. This uncertainty as to validity, which is not a problem among lawyers today, would not be mitigated by the measure limiting the term of the interconvertibility to the five-year "improvement patent" term. Since patent claims could be amended to overcome defects at any stage of the life of the patent, lawyers could never be sure of their scope and hence could not effectively and confidently advise...
clients on how to avoid infringement. The very function of patent claims—to apprise the public of what is monopolized during the life of the patent and of what is freely available for public enjoyment after its expiration would be compromised or even destroyed by this constant opportunity to shift the scope of a claim.

Finally, the use of "opinion testimony of scientists" as the basis for evaluating the technical importance of an alleged invention and for gauging the "ordinary inventive skill of the scientist engaged in research" would substitute mere opinion for solid evidence—the "basic factual inquiries" which are the touchstone for making the legal determination currently enunciated in section 103. Furthermore, scientists, being of searching and skeptical mind, tend to espouse widely divergent opinions, with the result that vast diversity would occur among the evaluations required to determine the issue of patentability. This would raise serious questions of fairness and due process, both between different "basic patent" applicants and vis-à-vis the rights of the community.

VI. CONCLUSION

Succinctly stated, a patent system in which one tier or track of patents is granted on subject matter that is merely novel cannot be justified either constitutionally or practically. The present statutory standard of patentable invention, which is judicially enforced with notable consistency, is constitutional. And, because it is directly responsive to the constantly rising level of ordinary skill in the arts and sciences, this standard is as flexible as the Constitution itself. All indications are that the real need is for the development of procedures that will permit and encourage the Patent Office to discharge its single responsibility of issuing only valid patents by conforming strictly to this constitutional standard.

117. Id.
119. Marquis acknowledges that "it is more likely that there will be too many proposed definitions than too few," Marquis, supra note 15, at 73, but he fails to take note of the equal likelihood of wide variation.