A Reexamination of Preemption of State Trade Secret Law After Kewanee

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CONTENTS

Introduction .................................................................................................................. 928

Background of the Kewanee Case ........................................................................... 932

The Diversity of Trade Secret Law .......................................................................... 937

Interference by State Trade Secret Laws with the Operation of the Federal Patent System .............................................................................................................. 942

The Different Policies and Objectives of the Federal and State Systems .......... 942

The Federal System .................................................................................................... 942

The State Trade Secrecy System .............................................................................. 944

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THE FOLLOWING AUTHORITY IS CITED AS INDICATED BELOW:
Introduction

Until the last five or ten years, the issue of federal preemption of state intellectual property law had scarcely been recognized. Following

the companion decisions in Sears, Roebuck & Co. v. Stiffel Co.\(^2\) and Compco Corp. v. Day-Brite Lighting, Inc.\(^3\) and the subsequent decision in Lear, Inc. v. Adkins,\(^4\) however, the question of the permissible extent of state regulation of commercial exploitation of industrial ideas emerged as such a major issue that one commentator could collect some 30 law review articles on the subject.\(^5\) Unfortunately, these analyses suffered from a common defect. They were too often simplistic, usually concluding either that the field is totally preempted or that it is left totally unpreempted. Moreover, they were fragmentary: none of them articulated an integrated rationale or set of rationales in terms of which the conflicting policies and the body of antecedent decisions of the Supreme Court could be harmonized.

The recent decision of the Supreme Court in Kewanee Oil Co. v.
Bicron Corp.\textsuperscript{6} might have furnished the occasion for the Court to present a synthesis of the decisional law, and a rationale or set of rationales for distinguishing between permissible and impermissible fields of state action. There was an apparent conflict among courts of appeals over whether state protection of industrial trade secrets was federally preempted, and the Court in \textit{Kewanee} granted certiorari to resolve the conflict.\textsuperscript{7} But the Court's treatment of the question, and its analytic methods, did not exploit the opportunity given it. Instead, it ignored many of the critical issues (notably, the issue on which \textit{Stiffel, Compco, and Lear} turned), dealt with others by making factual assumptions contrary to experience and the record before it, and did not even mention the doctrines that courts of appeals had evolved to adjust and compromise the competing claims of state and federal policies in the field.

This article concerns the extent, if any, to which state trade secret law (particularly injunctive relief against former employees, the specific issue in the \textit{Kewanee} case) should be deemed federally preempted because, first, it interferes with accomplishment of the full purposes and objectives of the federal patent system or, second, it interferes with the complementary national policy as to competition. Together, the federal patent system and the interlocking national policy of free competition form an integrated federal scheme intended to promote the progress of science and useful arts; to allocate economic resources in a way to achieve maximum material progress; and to foster and maintain various economic, social, political, and intellectual institutions. State law has a very important role, however, in our system of federalism, as long as it does not unduly interfere with the accomplishment of dominant national policies. These competing policy claims must be resolved and accommodated if the law in the field is to be rationalized.

Stated most briefly, the author's thesis is that the resolution of the preemption question raised in \textit{Kewanee} calls for the complementary use of a balancing of interests and rules of thumb (\textit{i.e.}, automatic, absolute, or "per se" rules, such as those, for example, outlawing price-fixing agreements, racially restrictive covenants in deeds, perpetuities, contracts to change one's religion, prior restraints on speech, or coerced confessions). For certain aspects of trade secret law, it is necessary to balance the probable impacts of a decision for or against preemption, in terms of the particular circumstances of the case; the preemption decision should properly involve a trade-off among values. For other aspects of trade secret law, however, a detailed analysis of the circumstances is superfluous once certain facts or key policy indicators are present. A pluralistic, rather than monistic, theory is needed because of the large diversity of subject

\textsuperscript{6} 416 U.S. —, 94 S. Ct. 1879 (1974), \textit{rev'd} 478 F.2d 1074 (6th Cir. 1973). The district court opinion is not reported, but is printed in the record appendix before the Supreme Court. \textit{District Ct. Op.}

\textsuperscript{7} 94 S. Ct. at 1881-82.
Preemption of State Trade Secret Law
THE GEORGE WASHINGTON LAW REVIEW

matter. Although at either end of a continuum of possible cases, state law is clearly preempted or clearly not preempted, in the middle ground there are too many interests and policies at issue, so that no single meaningful preemption rule can be posited. Kewanee is such a case. In it, as in many cases involving the interface between state and federal concerns, a number of legal factors should have been balanced. These factors point to preemption of some applications of state law, but no preemption for others. The opinion of the Court does not attempt such an analysis, however, and ignores or brushes aside the difficult questions a reasoned determination of which it owed its audience.

The resolution advanced in this article for the trade secret preemption question focuses mainly on the scope of relief. As a preliminary matter, state trade secret laws should be preempted when they are applied to true inventions for which patent protection under federal law would be available, because the availability of state protection is likely to divert a significant number of inventions away from the federal system, thereby impairing full accomplishment of federal policies and objectives. For strictly pragmatic (i.e., tactical) reasons, however, preemption under this theory is seldom likely to be urged in litigation. As for unpatentable technology, a distinction should be made between things unpatentable because they are not novel and those unpatentable because they are obvious even though novel. The former is no “secret,” under a proper (but not universal) view of trade secret law, and its protection by state law should be preempted because federal law places such things in the public domain. The latter involves the real preemption problem, requiring a difficult balancing of conflicting interests and values. That balancing is with what this article is primarily concerned.

The author’s position is that state trade secret law protection of obvious (in the patent law sense) technology is permissible (i.e., not preempted) if and only if the relief granted is not too close to patent-like relief. Perpetual injunctions (or the damages equivalent thereof) should be preempted; this corresponds to what now seems to be the prevailing (although not universal) approach of the courts toward trade secret relief. Injunctions should end upon any divestitive publication of the technology (because the idea no longer is a “secret,” and instead is in the public domain); they should end, also, within the time it would take for independent redevelopment or reverse-engineering of the secret. Otherwise, the operation of state law will interfere with federal policy concerning the proper balance between free competition and governmental interference with it, as well as with federal policies about the free interchange of ideas and its effect on technological progress. Moreover, the common law rules
concerning employee covenants not to compete (the doctrine of necessary and ancillary restraints) suggests the same rationale. Finally, this approach—to a large extent already in operation in the lower courts under a different name—is quite workable.

Background of the Kewanee Case

Kewanee Oil Corporation brought a diversity action in federal district court against six former employees and Bicron Corporation, a corporation they had formed, for damages and injunctive relief in respect to the employees' use of secret processes discovered by Kewanee's predecessor—processes for making industrial crystals.\(^8\) Kewanee alleged that it is a leader in the field of making such crystals,\(^9\) by reason of the secret technology it developed. Kewanee is the only firm that has been able to make the particularly large diameter crystals to which the secrets relate.

The district court found that, although the ex-employees had not yet used or disclosed the secrets, there was imminent danger that they would begin commercially exploiting the secrets in competition with Kewanee,\(^10\) contrary to their “confidential relationship . . . and duty of loyalty and fidelity to their employer.”\(^11\) Some of the defendants had entered into agreements with Kewanee not to use its “inventions or discoveries or its secret or confidential information, knowledge or data,”\(^12\) and all the individual defendants had agreed not to disclose petitioner's secrets.\(^13\) But the district court placed no stress on these facts. Instead, it relied on the principle of Ohio law creating an implied agreement or obligation by employees not to use their former employer's trade secrets.\(^14\)

The district court awarded no damages,\(^15\) but permanently enjoined the employees from using the secrets,\(^16\) unless the secrets subse-

8. The synthetic crystals (sodium iodide thallium activated scintillation crystals) are used in radiation detectors employed for geophysical surveys of uranium and oil, clinical measurement of radioisotopes, and space exploration. District Ct. Op. 53. They were discovered and patented many years ago, and the patent has long since expired.

9. Record, App. at 12, Kewanee Oil Co. v. Bicron Corp., 94 S. Ct. 1879 (1974). Kewanee is the largest firm in the field; it has only three competitors in the United States. Id. at 54.

10. Id. at 89.

11. Id. at 87.

12. Id. at 69, 70, 73.

13. Id. at 67, 69-73.

14. Id. at 87-88. The district court did not decide the case on the basis of express contracts, perhaps because of the argument made at trial that there was no consideration for certain of the secrecy promises. Cf. id. at 38. Although the findings and conclusions of the district court did not decide the question, it would seem that this is the reason for the court's use of a tort or quasi-contract rationale in place of one based on express contract.

15. The district court did not explain why it did not award the damages Kewanee sought. See id. at 27. It would appear that its reason was that Kewanee did not show any actual commercial use of the secrets, as contrasted with imminent danger of such use. See id. at 89. No appeal was taken from the denial of damages.

16. Id. at 89-90.
quently became generally known as a result of Kewanee's choice to release them or by other lawful means. 17

On cross appeals, the court of appeals reversed the judgment, solely on the basis of preemption under the doctrine developed in Stiffel and Lear, that state unfair competition law must not be used to block access to technology in the public domain under federal patent law principles. 18 In so ruling the court stressed that Kewanee chose not to apply to the government for a patent (or patents) on the processes. Instead, it decided to exploit them secretly for commercial purposes, which it did for longer than the one-year grace period during which the patent statute permits an inventor to make up his mind whether or not to file a patent application. 19 Moreover, Kewanee admittedly decided against applying for a patent because it considered the limited 17-year statutory patent monopoly, as compared with the possibility of perpetual trade secret protection, to be an insufficient reward to induce it to disclose and, at the end of the term of the monopoly, dedicate the processes to the public. 20

The court of appeals considered Kewanee privileged not to seek a patent, in the sense that no one had any legal right to prevent Kewanee from making such a choice, and free instead to try to maintain the processes as trade secrets, if it could. The court concluded, however, that the legal consequence of Kewanee's choosing secret commercial use was that it could not secure injunctive relief from the courts when its decision to keep the processes secret did not prove as

17. The injunction provided that the defendants were not to be restrained by this injunction from using any trade secret of plaintiff after it has been released to the public by plaintiff, such as by the issuance of a patent, or has otherwise become generally available to the public, or other members of the industry, or is obtained by defendants from sources having the legal right to convey such information. 478 F.2d at 1084-87.


19. The record discloses, Record at 1265-67, Kewanee Oil Co. v. Bicron Corp., 478 F.2d 1074 (6th Cir. 1973), that in the case of one of petitioner's methods, District Ct. Op. 59, it had applied for a patent and the Patent Office advised petitioner that the patent would be granted, but petitioner decided instead to "abandon" the application, thereby keeping the disclosure in the application from being made public. See 37 C.F.R. § 1.14(b) (1973); Sears v. Gottschalk, 357 F. Supp. 1327, 1330 (E.D. Va. 1973), 502 F.2d 122 (4th Cir. 1974), petition for rehearing filed, Sept. 10, 1974. The district court held, however, that this "secret" was not protectible, because Kewanee had failed to maintain secrecy. See Brief for Petitioner at 35 n.11, Kewanee Oil Co. v. Bicron Corp., 94 S. Ct. 1879 (1974). In another instance, Kewanee's Product Group Manager recommended that it secure a patent on a method of preparing and encapsulating crystals, see Record, App. at 6, Kewanee Oil Co. v. Bicron Corp., 94 S. Ct. 1879 (1974); District Ct. Op. 60, 70, and filed a patent disclosure with petitioner's legal department, but petitioner decided against applying for a patent and in favor of keeping the process a trade secret, Record at 1207-08, 1262-64, 1265-66, Kewanee Oil Co. v. Bicron Corp., 478 F.2d 1074 (6th Cir. 1973). This secret was included in the injunction granted. See District Ct. Op. at 83, 93.

20. 478 F.2d at 1078.
successful as anticipated because of the ability of disaffected employees to carry the secrets away with them in their minds. In reaching this conclusion of want of equity, the court of appeals stressed two policies and purposes of the patent laws: (1) a year of commercial use and sale works a forfeiture of the right to secure a patent, so that state trade secrecy protection would be available here although federal patent protection would be denied; and (2) state trade secrecy protection may be perpetual, but the patent laws have "the objective of obtaining public disclosure after a limited period of time." In sum, trade secret laws must not be used as a substitute for the federal patent system. The court therefore refused to authorize a permanent injunction against the former employees' use of the secret processes, and ordered dismissal of the complaint.

The Supreme Court, in an opinion by Chief Justice Burger, reversed the judgment of the court of appeals, in Kewanee, and reinstated the judgment of the district court. The Court ruled that states may exercise regulatory power over "intellectual property relating to invention" so long as in so regulating they do not "conflict with the operation of the laws in this area passed by Congress." To determine whether there was such conflict, the Court examined the purpose of the patent laws and that of state trade secret laws. The Court seems to have considered the purpose of the patent laws to be, primarily, to afford a limited monopoly as "an incentive for inventors" to risk the costs of invention or to furnish a "reward for inventions." In return for the patent monopoly, the inventor is not only encouraged to invent, the Court noted, but he is required to disclose his invention, so that the public may use it and the progress of science and useful arts will be promoted. The Court defined a second policy of the patent laws: that state action must not remove ideas from the public domain. The policies behind state trade secret law, the Court said, are the "maintenance of standards of commercial ethics and the encouragement of invention." As to the first, the Court posited that "... good faith and honest, fair dealing is the very life and spirit of the commercial world." As to the second, the Court stated that state trade secret protection subsidized and thus promoted research, development, and "increased economic efficiency within large companies" by dispersing within them the responsibility for industrial creativity.

The Court examined the interaction of these objectives of the two systems to determine whether there was impermissible interference. For ideas or things outside the patent statute, such as a cus-

Preemption of State Trade Secret Law

WE GEORGE WASHINGTON LAW

tomer list, or method of doing business, no one would apply for a pat-
ent, in any event. Thus, abolition of trade secret protection could
not promote increased disclosure of such ideas.28

For novel, useful inventions entitled to a patent, the Court again
saw no need for preemption. First, the policy of encouraging inven-
tion "is not disturbed by the existence of another form of incentive
to invention."29 Moreover, there is no impairment of the policy that
"matter once in the public domain must remain in the public do-
main," for "[b]y definition, a trade secret has not been placed in the
public domain."30

The Court found it more difficult, however, to reconcile the disclo-
sure objective of the patent system with the operation of state trade
secret law. It began by separating the problem into three compo-
nents: Whether state protection should be preempted for those trade
secrets believed by their proprietors to be, respectively, unpatentable,
of dubious patentability, and patentable.31 As for unpatentable se-
crets, abolition of trade secret law protection would not increase dis-
closure, because the patent system would be unavailable (assuming
that the belief of unpatentability was correct). On the other hand,
continued existence of the availability of trade secrecy protection
would benefit society by stimulating "valuable, if not quite patent-
able" technological developments.32 An adverse social effect of aboli-
tion of trade secret remedies against disaffected employees33 would
be an increase in industry's use of costly means of self-help—such as
security precautions, or higher "salaries and fringe benefits" to em-
ployees to insure their loyalty.34 Another adverse effect would be
to discourage trade secret licensing, because licensees could with im-
punity refuse to pay the royalties they owed; the result would be that
the public would suffer "detrimental misallocation of resources and
economic waste" because it would be deprived of the dissemination
of technology resulting from such licensing.35 Finally, the Court en-
visioned more widespread burglary, wiretapping, and bribery as con-

28. Id. at 1887.
29. Id.
30. Id.
31. Id. In using these categories the Court adopted the approach of Painton
32. 94 S. Ct. at 1888.
33. The term the Court used in Kewanee was not "disaffected," but "faith-
less." See id. One might normally think that "faithless" is a term reserved
for describing spouses or lovers, not employees, but use of "faithless" is an
established part of the mythology of trade secret law. Curiously, logical
symmetry has never led to the development of a concept of the "faithless"
employer, who fails to promote or give a raise to the hitherto faithful
employee, or who even fires or lays him off, but who nonetheless expects
the support of the courts in compelling fidelity.
34. Id.
35. Id. at 1888-89.
sequences of a preemption decision.\textsuperscript{38}

As for technology of dubious patentability, the Court was sure that "the potential rewards of patent protection are so far superior" to those of trade secret law that proprietors of such technology will in most cases seek patents. Abolition of trade secret protection might encourage some of those firms at the indifference point between the two systems to apply for a patent. Of these, some would be denied a patent, with no impact on disclosure. Others would gain an invalid patent, because of "the difference between the standards used by the Patent Office and the courts to determine patentability."\textsuperscript{37}

Since the issuance by the Patent Office of invalid patents is a serious threat to the public interest, and because greater numbers of invalid patents "would likely issue if trade secret law were abolished," the Court found that encouraging those with technology of doubtful patentability to apply for patents would result in possible harm to society that would outweigh the possible added disclosure benefits.\textsuperscript{38}

Finally, the Court turned to clearly patentable inventions, or those believed by their inventors to be patentable. Here, the Court stated that "the federal interest in disclosure is at its peak."\textsuperscript{39} The Court nonetheless concluded (and this seems to be the keystone of its opinion):  

If a State, through a system of protection, were to cause a substantial risk that holders of patentable inventions would not seek patents, but rather would rely on the state protection, we would be compelled to hold that such a system could not constitutionally continue to exist. In the case of trade secret law no reasonable risk of deterrence from patent application by those who can reasonably expect to be granted patents exists.\textsuperscript{40}

No reasonable risk exists, the Court said, because trade secret law provides far weaker protection, and presumably far less benefit to the inventor, than patent law. Patents last 17 years; trade secrets last until they are independently rediscovered, reverse-engineered, or purloined by use of unprovable means. "[P]atent law acts as a barrier, [but] trade secret law . . . a sieve."\textsuperscript{41} Accordingly, the Court concluded, the risk is remote that the owner of an invention believed patentable will prefer the trade secret route.\textsuperscript{42}

The Court considered, but dismissed, the possibility of partial or

\textsuperscript{36} Id. at 1889. This would not only lead to increased expenditures for security countermeasures, but the quality of life in this country would deteriorate—there would be an "inevitable cost to the basic decency of society," because "a most [sic] fundamental human right, that of privacy, is threatened" when the law condones or makes profitable the intercorporate use of industrial espionage. \textit{Id.}

\textsuperscript{37} Id.

\textsuperscript{38} Id. at 1889-90.

\textsuperscript{39} Id. at 1890.

\textsuperscript{40} Id.

\textsuperscript{41} Id.

\textsuperscript{42} Id. Even if this did happen on rare occasions, the invention surely would soon be reinvented by others independently; this is established by the "ripeness of time concept" developed from study of repeated independent multiple discoveries of major scientific theories.
limited preemption. Although it conceded that trade secret law produced no "positive effects" in the area of patentable inventions, the Court said that partial preemption was inappropriate, because there was no real conflict with the federal policy favoring disclosure of such inventions. Moreover, there would be serious administrative problems in imposing on state courts the responsibility of determining whether the technology in issue was indeed a true invention under the standards of federal patent law.

The Diversity of Trade Secret Law

Trade secret law in this country is largely a nineteenth century outgrowth of "unfair competition" doctrine. In simplest terms, it provides legal machinery by which the discoverer (or his employer or other successor in interest) of a patentable or unpatentable technological idea, or nontechnological idea or means of doing business, may secure relief against a person who seeks to exploit the idea commercially despite a contractual or other legal duty not to do so. The legal theory upon which relief is granted varies from state to state: It may be property, express or implied contract, tort, constructive

43. Id. at 1891. Apparently, the Court lost sight of its previously expressed concerns for the ideals of "honest, fair dealing" and "the basic decency of society."

44. Id. The other two opinions were brief. Mr. Justice Marshall concurred in the result. He had no doubt that the availability of trade secret protection produced a substantial disincentive to entrance into the patent system, thus depriving society of the benefits of the disclosures which it is the policy of the patent system to encourage. Nevertheless, Congress' long acquiescence in the existence of state trade secret laws convinced him that there was no congressional design to preempt the field. Id. at 1892. Mr. Justice Douglas dissented (joined by Justice Brennan) on the ground that in the patent laws Congress had decided that free competition should prevail except when a patent rightfully exists. In the latter case, the right to exclude any others is limited to 17 years—as contrasted with the perpetual injunction granted in favor of Kewanee. The dissenters had no objection to allowance of damages relief, which was not involved here, but they objected to the injunction, on the ground that the federal patent law provides the only monopoly properly enforceable by an order not to use technology in dispute. Id. at 1892-95.

45. In Kewanee the Court said trade secret law was imported into the United States in an 1868 Massachusetts decision, Peabody v. Norfolk, 98 Mass. 452 (1868). It appears that the development of trade secret law in England does not significantly predate Kewanee. For a general historical discussion of the roots of trade secret law, see Orenbruch, Trade Secrets and the Patent Laws, 52 J. PAT. OFF. SOC’Y 638 (1970).

46. E.g., Pearson v. Dodd, 410 F.2d 701, 707-08 (D.C. Cir.) (dictum), cert. denied, 395 U.S. 947 (1969); Speedry Chem. Prods., Inc. v. Carter's Ink Co., 309 F.2d 328, 330 (2d Cir. 1962). See text accompanying notes 174-77 infra, for a discussion suggesting that the "property" approach to trade secret law tends to lead to results conflicting with federal policy.


48. E.g., Trice v. Comstock, 121 F. 620, 623 (8th Cir. 1903); Plant Industries, Inc. v. Coleman, 287 F. Supp. 636, 644 (C.D. Cal. 1968). The district court in
trust, or unjust enrichment. Moreover, the definition of a trade secret or the range of things deemed legally protectable e o nomine trade secrecy law also varies widely. For example, combinations of elements that can readily be devised by a skilled mechanic upon demand may or may not be deemed capable of being the subject of a legally protectable trade secret. The subject matter of an expired patent may or may not be protectable under trade secret law. The court may extend protection to the product made by the trade secret holder, whether or not the secret is used to make the product, or the court may just protect against use of the secret in making such products. The form of relief granted—quantum of damages, type of injunction, ancillary remedies—also varies from state to state. In sum, the law of trade secrets cannot properly be viewed as a single, well-defined body of doctrines. Like the rest of unfair competition law, which includes a broad spectrum of practices, trade secret law is a congeries including diverse legal principles and theories applied to a considerable range of conduct. There is no "trade secret law": there are trade secret laws.

The potential range of persons against whom relief may be had is also considerable. It may be viewed as a spectrum which is definable in terms of the relation that exists between such a person and the holder of the trade secret. Only one portion of this spectrum is

Kewanee said that Ohio law creates "an implied agreement on the part of the employee" not to disclose trade secrets to a competitor of the employer. Dist. Ct. Op. at 88. Such so-called agreements are "quasi-contracts." See 3 A. CORBIN, CONTRACTS § 562 (1950); 1 S. WILLISTON, CONTRACTS §§ 3-3A (3d ed. 1957).

49. E.g., Bruce v. Bohanon, 436 F.2d 733 (10th Cir. 1970), cert. denied, 403 U.S. 918 (1971); Smith v. Dravo Corp., 203 F.2d 369, 373 (7th Cir. 1953) (breach of confidence is tort); RESTATEMENT OF TORTS § 757 (1938).


54. Frankel v. Wilschek, 209 F.2d 493 (2d Cir. 1953).


58. Injunctive relief and damages are discussed in the text accompanying notes 215-48 infra. The availability of such relief, and its extent, necessarily vary from jurisdiction to jurisdiction, as that discussion indicates.

59. The spectrum includes such practices as the "palmimg off" of one's goods as those of another, by using another's trade name (said, in Stiffel, not to be preempted), the "misappropriation" of the design of goods in disregard of the expenditures of time and money by the first comer (preempted in Stiffel), and misrepresentation as to the nature or quality of one's own or another's goods. Cf. Federal Trade Commission Act § 5, 15 U.S.C. § 45 (1970).
occupied, however, by what is presently known as trade secret law. At one end of the spectrum are persons who independently rediscover the secret, and have no voluntary relationship with the trade secret holder. Immediately adjacent on the spectrum are persons who reverse-engineer the secret, by working backwards to it from the trade secret holder's product once it has been sold on the open market. Neither category is subject to any duty or liability under conventional trade secret law, as it has developed to the present. Nonetheless, the gravitational field of the Kewanee decision may exert a significant pull in this sector, as resourceful counsel seek to invoke Kewanee as justification for staking out a claim in favor of their clients and against "infringers" of the clients' "rights" of prior utilization and appropriation of technology. The next group along the spectrum includes licensees or subcontractors to whom the claimant disclosed the secret, subject to a contract expressly or impliedly limiting the disclosee's use or subjecting the use to a condition (such as royalty payments). Next are present or former employees who are subject to an express or implied contract of nondisclosure and no subsequent use. Partners and fiduciaries of the trade secret holder have an even higher obligation, implied by law, with respect to the secret. Perhaps last are a type of trespasser—those who "steal" the secret by means of burglary, espionage, or the like. The policy considerations that apply to different segments of this spectrum vary significantly with the relational interests at stake. The reliance of the courts on duties implied or imposed by law rather than by express consent varies similarly.

Since the issue of trade secret preemption was first discussed by the Supreme Court,60 arguments have been made either that federal law totally preempts state trade secret law or else that no tension or conflict exists between the two systems, and thus, that there is no preemption. The diversity of trade secret laws makes it clear, however, that such solutions are too simplistic.

On the one hand, because the definition of what is a "trade secret" varies so widely, that a particular state denominates a given legal doctrine as "trade secret law" does not guarantee that that doctrine avoids impermissible (according to Lear and Kewanee) protection of things "in reality a part of the public domain," a kind of protection directly contrary to federal policy.61 For example, there is a considerable body of state law supporting protection, in the name of trade secrecy law, of what is fully disclosed in expired patents and publications that are not very widely known. Although the writer is aware

60. See Lear, 395 U.S. at 674-75, 676-77 (partial dissent of Justice Black); id. at 678-82 (concurring opinion of Mr. Justice White).
61. Lear, 395 U.S. at 656.
of no such law yet, there may well soon be efforts to prevent the “misappropriation” of trade secrets by those who reverse-engineer their competitors’ products that are said to embody trade secrets. The author believes that invocation of *Kewanee* to insulate such a cause of action from challenge under the *Stiffel* doctrine will be unsuccessful. The proper rule of law in any such case should be this: If the state action had the effect of blocking the public off from processes or products that are in general circulation or in the public domain, or of according protection tantamount to that of a patent, the state law would be preempted irrespective of the label or legal characterization it used. As the Supreme Court stated in *Stiffel*: “Just as a State cannot encroach upon the federal patent laws directly, it cannot, under some other law, such as that forbidding unfair competition, give protection of a kind that clashes with the objectives of the federal patent laws.” Under *Stiffel*, state law approaching too close to the equivalent of a patent system is invalid—regardless of the label it is given. One boundary of the preemption question, then, is that at least some aspects of state trade secret law are preempted.

Preemption cannot be so total, however, that no state protection of trade secrets is ever permissible. State trade secret law cannot be preempted by the patent clause or statute when state law protects things, such as customer lists or methods of doing business, that cannot constitutionally be the subject of patent legislation, because they are not within the strictly technological concept of “inventions” or “discoveries.” This is so, of course, unless that state law clashes or interferes in some way with the objectives of the patent system. Such a clash seems unlikely for such things as customer lists or methods of conducting business. The other boundary of preemp-

62. In *Kewanee* the Court noted that the present concept of trade secret protection does not operate “against discovery by fair and honest means, such as independent invention, accidental disclosure, or by so-called reverse engineering.” 94 S. Ct. at 1883.

63. See *American Gage & Mfg. Co. v. Maasdam*, 245 F.2d 62 (6th Cir. 1957) (Stewart, J.), reversing the district court’s enforcement (ex nomen unjust enrichment) of a trade secret license on the subject matter of various expired patents, because the device was “in the public domain.”

64. 376 U.S. at 231.

65. The normal rules concerning preemption do not call for state law to give way in an area beyond the reach of the federal law on which preemption is sought to be based. But cf. *Guss v. Utah Labor Relations Bd.*, 353 U.S. 1 (1956) (preemption of state law in area in which Congress had power to act, and had delegated authority to NLRB, but NLRB for administrative reasons declined to exercise its power). Thus, in *Stiffel*, the Court expressly exempted from preemption state action directed at preventing the deception of buyers by copying, which has nothing to do with the patent laws. At the same time, however, it carefully limited permissible state relief to a requirement of fair warning, to preclude interference with the national policy as to competition. See 376 U.S. at 232-33. For a discussion of the fair warning doctrine, see *Stern & Hoffman, Public Injury and the Public Interest: Secondary Meaning in the Law of Unfair Competition*, 110 U. PA. L. Rev. 935, 960-66 (1962).

66. See, e.g., The *Trade-Mark Cases*, 100 U.S. 82 (1879), in which the Court ruled that Congress could not constitutionally base a trademark statute on the patent clause (as distinguished from other sources of congressional power such as the commerce clause). As used in the Constitution, “useful arts” is synonymous with “technology.” See *Application of Waldbaum*, 457 F.2d 997, 1003 (C.C.P.A. 1972).

tion, then, is that preemption of what we know as state trade secret law cannot be complete.

Between these extremes, precise boundary delineation is extraordinarily difficult. No single legal or policy consideration can be used universally to distinguish cases of preemption from cases of nonpreemption, for the result must depend upon the particular interests or policies at stake. A difficult case, like *Kewanee*, will necessarily require weighing several different legal or policy considerations; changing the weight assigned to any one of them may change the outcome as to preemption. Moreover, as the author believes would have been proper in *Kewanee*, state relief may be preempted as to some aspects of the case (i.e., certain trade secrets) but unpreempted as to others. Finally, the difficulty of the *Kewanee* case, and trade secret preemption generally, is heightened because it involves both state interests that are not paramount and a degree of interference with federal objectives that is short of critical. This rules out invocation of two of the simplest rules as to preemption, which are nearly absolute and thus easy to administer once it is decided that one or the other fits the case. One is applied in cases involving paramount or overriding state interests, in which event there is virtually automatic nonpreemption; the other applies when there is irreconcilable conflict between the requirements of state and federal law in which event there is automatic preemption. Once such per se rules do not come into play, a more subtle balancing process is necessarily called for.

If the Patent Office is correct and the court wrong, so that such methods of transacting business are unpatentable, quare whether an area for potential clash in policies exists. Such cases may test the validity of the propositions asserted in the text at notes 127-33, and force a more refined analysis.

67. A number of preemption cases have turned on the nature of the state interest at stake. In labor cases, state laws directed against violent or other very socially disruptive conduct were held not preempted despite federal legislation in the field, because the compelling state interest in the maintenance of domestic peace is not readily overridden. *San Diego Bldg. Trades Council v. Garmon*, 359 U.S. 236, 247-48 (1959). Nonlabor cases recognize other areas of preeminent state interest, besides violence or socially disruptive conduct, such as the state's interest in the health and safety of its citizens. See *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440, 445 (1960) (air pollution); *Southern Pac. Co. v. Arizona*, 325 U.S. 761, 766 (1945) (health or safety) (dictum); cf. *Plumley v. Massachusetts*, 155 U.S. 461, 472 (1894) (fraud and deception in sale of food).


69. The states do not seem to have preeminent interest in having employees...
Interference by State Trade Secret Laws with the Operation of the Federal Patent System

The Different Policies and Objectives of the Federal and State Systems

The Federal System. The federal patent system is an island of constitutionally authorized monopoly surrounded by a national policy of free competition. The complementary policies of the two systems comprise an integral, total national economic policy governing the greater part of our economy. Our national policy, derived not merely from the antitrust statutes but from a considerably more pervasive body of statutory and case law, is free competition, which allows the forces of the marketplace rather than self- or government-appointed regulators to allocate our economic resources. Its premise is that unimpeded operation of market forces will bring about the greatest material progress and at the same time preserve and promote our political and social institutions. A major exception to this policy, but one designed to promote the same end of material progress, is the federal patent system. To promote the progress of science and useful arts, the patent system offers inventors the incentive of a limited competitive advantage over others as a reward for disclosing inventions. The patent system substitutes a 17-year monopoly for obey trade secret preservation agreements or duties, at least not in the same sense that states have such an interest in preventing violence or protecting public health and safety. See Northern Petrochemical Co. v. Tomlinson, 484 F.2d 1057, 1060 (7th Cir. 1973). Other preemption considerations thus need not be overridden in deference to the state interest involved in protection of trade secrets. See Garmon, 359 U.S. 225.

Among the other factors which have been considered in cases involving such intermediate state interests are the comprehensiveness of the federal regulatory statute and the correlative need of the subject matter for uniformity of regulation. Goldstein v. California, 412 U.S. 546 (1973); City of Burbank v. Lockheed Air Terminal, 411 U.S. 624, 633 (1973); Florida Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132 (1963); Northern States Power Co. v. Minnesota, 447 F.2d 1143, 1152-54 (8th Cir. 1971), aff'd mem., 405 U.S. 1035 (1972). Another principle in such a balancing process is that state regulation of conduct peripheral, rather than central, to the main concern of the federal scheme is relatively less subject to federal preemption. See Garmon, 359 U.S. at 243-44; International Ass'n of Machinists v. Gonzales, 356 U.S. 617 (1958).


73. An alternative view of the purpose of the patent system may be taken, in which promotion of useful arts or of "science and useful arts" is considered somewhat of an end in itself, rather than merely a means toward the end of material progress. (The latter is, of course, a subsidiary end, or a means toward other ends; these include social well-being or an Epicurean eudaimonia of sorts.) In support of this alternative view it has been urged that the founders or Congress could have based a patent system on the commerce clause, if
free competition, if the inventor can comply with the patent statute's strict requirements of novelty, invention, and utility, and is willing to comply with the statute's requirement of full disclosure.

This complementary approach to competition, monopoly, innovation, and material progress has long characterized our law. The Supreme Court has consistently recognized this dual policy. Thus, in Goldstein v. California, the Court stated that the standards of the federal patent laws "indicated not only which articles . . . Congress wished to protect, but which configurations it wished to remain free." In enacting the patent scheme Congress "balanced the need to encourage innovation and originality" against society's "need to insure competition in the sale of identical or substantially identical products," striking the balance at the inventive level defined by the patent statute. This explanation of federal policy, in Goldstein, merely places an explanatory gloss on Stiffel and Lear—the principle is one to which the entire Court has adhered without dissent in the three cases. Curiously, the Kewanee opinion does not even consider

all they had desired to do was promote competition in the long run or promote materialistic progress; that they did not use that route, it is argued, suggests that they had in mind the purpose of promoting technological progress, wholly apart from the consequences of such progress.

This concept of the patent clause is anachronistic and erroneous. First, it rests on too modern a view of the commerce clause, one developed only in the last 40 years. The commerce clause was not available to the founders as a substitute for the patent clause. Second, the notion of technological advance as an end in itself is a 19th century notion, at the earliest, that would not have occurred to the 18th century founders. Finally, the validity of the theory of technological progress as an end in itself is, at best, doubtful. The author believes that it is a pernicious and destructive notion—for reasons beyond the scope of this article. In any event, the theory is surely not a sound footing on which to base the preemption vel non of trade secret law.

74. 35 U.S.C. § 102(a) (1970) prohibits the grant of a patent on subject matter that was known or used by others before the date on which the applicant asserts that he made the discovery. Thus, magazine articles or previous patents that describe the subject matter, and were published before the alleged date of invention, will prevent issuance of a patent. Other provisions of § 102 bar patentability if the subject matter was on sale for more than a year before the application date, if the applicant abandoned it, if he derived it from another person, or if another person who did not abandon it invented it before him.

75. 35 U.S.C. § 103 (1970) prohibits the grant of a patent on subject matter which only differs from the prior art in such a way that it would have been obvious, at the time the invention was made, to a person having ordinary skill in the art.

76. 35 U.S.C. §§ 101, 112 (1970) require that an invention be useful and that its utility be known and disclosed. This means that the utility contemplated must be presently available rather than speculative. See Brenner v. Manson, 383 U.S. 519, 528 (1966).

77. 35 U.S.C. § 112 (1970) requires the inventor to disclose the invention in a way that will give the public knowledge of how to practice it, and it also requires him to define its metes and bounds with precision.

78. The Statute of Monopolies, 21 Jac. I, c. 3 (1623), for example, prohibited monopolies but permitted an exception for new and useful innovations. Stiffel, 376 U.S. at 229 & n.8.


80. Id. at 569.

81. Dissenting opinions in these cases all involved other issues on which there was disagreement.
the question of the impact of trade secrecy protection, particularly as to ideas\textsuperscript{82} below federal patentability standards, on national competition policy.

**The State Trade Secrecy System.** The various state trade secret laws are like the patent system in their means of operation—they, too, confer a competitive advantage on one who develops commercially valuable information—but the legal theory or nature of the interest they protect is different, as are the policies and objectives of the two systems. Although the patent laws create a special type of federal property right, the trade secret laws merely protect a relational interest between the parties.\textsuperscript{83} The dominant policy of the patent laws is to promote disclosure of technological advances. To the extent that decisions have articulated any policies to justify the existence of trade secret laws, the first and primary policy has been the implementation of judge-made principles of commercial morality, and the second has been to reward and encourage technological advances. Both these policies were recognized in the *Kewanee* case. The district court decided to grant relief to Kewanee in order to "enforce . . . high standards of fairness or commercial morality to protect the owner of information obtained through the ingenuity and effort of its employees, and its expenditures of time and money,"\textsuperscript{84} while the Supreme Court was concerned with "[t]he maintenance of standards of commercial ethics and the encouragement of invention" by means of trade secrecy law.

**Interference and Preemption.** That the two systems are similar or different in objectives or policies is not determinative, in itself,\textsuperscript{85} but the differences in legal theory, objectives, and policies may lead in some circumstances to significant interference by the state system with the accomplishment of the federal objectives and policies. If such interference occurs, state law must give way under the supremacy clause, regardless of the state's purpose. The Supreme Court has so held in a long line of cases using this formula, most recently in *Perez v. Campbell*.\textsuperscript{86} The *Perez* case concerned the federal bankruptcy law (based on a constitutional grant of legislative power) pursuant to which a bankrupt debtor is given a new start after his discharge in bankruptcy, "unhampered by the pressure and discour-

\textsuperscript{82} The word "ideas" is used throughout this article loosely as a shorthand expression for technology embodying such ideas. Generally, an idea is never protectible—only specific embodiments of the idea are protectible. *See generally* Gottschalk v. Benson, 409 U.S. 63, 67 (1972); Baker v. Selden, 101 U.S. 99 (1879) (bookkeeping method not protected by copyright).


\textsuperscript{84} *District Ct. Op.* 90.


\textsuperscript{86} 402 U.S. 637, 649-50 (1971). The leading case for this proposition is probably Hines v. Davidowitz, 312 U.S. 52, 57 (1941).
agreement of preexisting debt."\(^{87}\) In *Perez*, the state law operated to take away the bankrupt's driving license unless he paid pre-bankruptcy automobile negligence debts. The Supreme Court ruled that the state law was preempted, because it interfered with full accomplishment of the federal objective of giving the discharged debtor a fresh start freed from his former debts.

There appear to be two significant ways in which state trade secrecy law may interfere with accomplishment of the full purposes and objectives of federal law. The first relates to the specific operation of the patent system, considered only in terms of its positive requirements, and without reference to the surrounding policies of free competition considered in *Stiffel, Lear*, and their antecedents. This kind of interference is the only one considered at any length by the *Kewanee* Court: Does the federal regulatory scheme so occupy the field that concurrent operation of a state scheme will detract from or interfere with the full accomplishment of direct federal regulatory objectives? That is, federal law is aimed at making \(x\) happen, but state law significantly decreases the likelihood that \(x\) will happen. This is properly an area of substantially "per se" analysis, for once the facts fit in the mold, where all the judgment occurs, the analysis is over.

The second kind of possible trade secrecy interference with federal law relates to the fact that the patent system does not apply to all technological advances; the statute expressly prohibits or by omission precludes a federal grant of any patent monopoly over some types of subject matter. Until *Kewanee*, at least, it was thought that by its inaction or omission in the field of patents, Congress indicated a desire to let free competition reign. The free competition policies considered in *Stiffel* and *Lear* complement in scope the federal laws allowing the grant of patents. Interference can occur if a state confers a competitive advantage in an area set aside by Congress for free competition, so that the state disturbs the economic balance Congress set. This aspect of preemption is governed by the principles reflected in the decisions that attempt to balance the various federal and state interests at stake, such as *San Diego Building Trades Council v. Garmon*\(^{88}\) and *International Association of Machinists v. Gonzales*,\(^{89}\) which largely preempted state labor law in the field of conduct arguably protected or prohibited by federal labor law, but left room for state action in areas of paramount state concern and areas of only peripheral concern to the policies of federal law. This is not a per se analysis. Characterization only begins the analysis, rather than concluding it, for

\(^{87}\) 402 U.S. at 649.
\(^{89}\) 356 U.S. 617 (1958).
it is the signal for weighing and balancing the various interests. The remainder of this part of the article deals only with the first form of interference ("classic" and per se preemption); the second form ("balancing" preemption) is discussed in the next part.

Preemption Based on Diversion of Inventions Away from the Patent System

Interference with the Federal Reward-for-Disclosure Program. In the case of discoveries that would qualify for patent protection under the patent laws, the Kewanee Court assumed that trade secret protection did not compete to any significant degree with the federal patent system. The Court stated that if the availability of state protection caused any substantial risk that inventors would be diverted away from the patent system, then "we would be compelled to hold that such a system could not constitutionally continue to exist." The Court's factual assumption that state trade secret law protection will not encourage nonuse of the federal patent system thus is critical to its analysis. If the assumption is erroneous, then the reasoning of the Court is flawed beyond repair.

The assumption is neither supported by the record before the Court nor by other empirical data outside the record. The record before the Court in Kewanee was anecdotal and did not contain pertinent general industry data. Nonetheless, contrary to the assumptions of the Court, the anecdotal record data indicated that Kewanee had decided, at least in several instances, not to seek patent protection and to elect trade secrecy instead, because the latter would offer the possibility of perpetual sole possession of the technology rather than merely a 17-year monopoly.

It might seem important to develop general industry data, but the available literature does not contain it. The only such data that presently exists is that in recent years a number of commentators (primarily, members of the patent bar) have noted that there is severe competition between the patent and trade secrecy systems, some of them suggesting that, as Kewanee decided, the trade secret route is likely to be the more advantageous choice for business. They have pointed to such factors as the comparative cheapness of trade se-

90. The word "significant" is used, in general, to mean "non-trivial" or "not insubstantial."
91. 94 S. Ct. at 1890.
92. Id.
93. See note 20 supra. The Kewanee opinion does not mention this record data. A concession on the point was made by Kewanee's counsel below, and relied upon heavily by the court of appeals in its opinion.
94. See note 20 supra and accompanying text.
crecy over patents, the high fatality rate of litigated patents, and the possibility of matching the longevity of such fabled secrets as the Coca-Cola formula and the technique for making cymbals. The conclusion drawn from the writer's personal and unscientific poll of patent lawyer colleagues is that trade secret protection is the more advantageous choice for secrets that are not readily reverse-engineered, or in fields where the technology will become obsolete in a few years because of a generally rapid rate of scientific advance. An example of this would be methods of making semiconductor components, such as transistors and their successors. As for reverse-engineerable discoveries, in a relatively crowded field of art in which independent rediscovery is likely, and when the useful life of the discovery (in terms of turnover of technology) significantly exceeds the lead time or head start automatically gained by the first discoverer, the patent system may well be more attractive, although this is by no means certain. An example of this would be electronic circuitry, or electrical systems put together out of standardized commercial components. This poll is not offered as a basis for making the assumption that failure to preempt trade secrecy would lead to a wholesale flight from the patent system, which would presumably be followed by the demise of that system from complete atrophy. It is not necessary to go so far, and the kind of data proffered here could not possibly justify that conclusion. Rather, it suggests the impropriety of the Court's assumption which was used to decide the Kewanee case. If any assumption had to be made, then it should have been that there is a substantial risk of diversion of inventions from the patent application procedure to the secrecy system.

Given the resources available to it, the Court probably could not have ascertained such facts, and was obliged to make an assumption. Preemption cases rarely, if ever, come to the Court accompanied by "Brandeis briefs" from the parties. Even if they did, the value of such adversary-supplied data for general policymaking purposes would be suspect. In the final analysis, constitutional facts are derived by the courts from the political, economic, and ideological experience of the decision makers, rather than from the record or "Brandeis briefs" before them.

96. But see Address by Roger Milgrim, FBA-BNA Briefing Conference, reported in No. 182 BNA PAT., TRADE, COPYRIGHT J. at A-9 (June 13, 1974), commenting on the Court's Kewanee decision ("These bright prospects for the future of trade secrets might possibly cause a flight from the patent system.")

97. This appears proper, or at least unavoidable. Thus, there was no record support in Lear for such statements as:

Licensees may often be the only individuals with enough economic incentive to challenge . . . patentability. If they are muzzled, the public may continually be required to pay tribute to would-be monop-
Reliance on the *Kewanee* record, or a remand for further inquiry into the motives of Kewanee in using secrecy, would have been a more conventional way to decide the issue—but it too would have shortcomings. Should the preemption issue for all industry turn on the concessions of Kewanee’s counsel before the court of appeals, or on Kewanee’s particular motivation? And if preemption *vel non* is henceforth to turn in every case on the reason the particular claimant elected secrecy, there will never again be a case easily resolvable on a similar concession; instead, there will be a morass of self-serving explanations to deal with each time, and cases would have to be decided in the future on the basis of unreliable subjective data. A refinement of this approach would be to use more objective data—to ascertain whether the projected state or federal net reward or “payoff” for the secret was the greater. This comparison could be made on the basis of such objective factors as comparative cost of securing protection, projected duration of sole use of the technology, its useful life, and the relative breadth of economic power which could be realized under either scheme. The preemption rule would then be applied only when there was risk of diversion of the invention from the patent system because a reasonable man would gravitate to the state system. This approach is unduly complicated, and the complication is not repaid by a corresponding improvement in the realization of policies. It is reasonable to proceed on the basis that election of trade secrecy, in the case of the holder of a patentable product or process, is the result of a rational judgment that doing so will yield a greater net payoff. Actual diversion of the invention into the secrecy system is sufficient evidence that there was enough risk of diversion away from the patent system to warrant invocation of the preemption doctrine. Taking evidence on whether there was a substantial risk of diversion is superfluous and wasteful. An assumption had to be made, but the Court chose the clearly less plausible alternative. In addition, as will be developed below, the possible cost of error is far greater if the Court’s assumption is adopted, for the loss to the patent system can harm the public far more than it would suffer from a possibly unnecessary curtailment of secrecy protection.

As the Court indicated in *Kewanee*, the cost to the public when technological discoveries are not placed into the patent system, because the proprietor of the invention believes that trade secrecy will

olists without . . . justification. We think it plain that the technical requirements of contract doctrine must give way before the demands of the public interest in the typical situation involving the negotiation of a license after a patent has issued. 395 U.S. at 670-71 (emphasis added). How could there be record evidence of this? Moreover, even if it were presented to the Court and relied upon, no added credibility for the decision would be gained. Cf. Brown v. Board of Education, 347 U.S. 483, 494 n.11 (1954). Trying to adduce economy-wide evidence on diversion of inventions because of the trade secrecy alternative, for the purpose of deciding the preemption issue, would seem to involve the same difficulties found in collecting and evaluating surveys on police behavior before and after Mapp v. Ohio, 367 U.S. 643 (1961), for the purpose of determining whether the exclusionary rule is appropriate. See generally Oaks, Studying the Exclusionary Rule in Search and Seizure, 37 U. Chi. L. Rev. 665 (1970).
be commercially more advantageous, is that the discovery is not promptly and generally disclosed. Each time an inventor decides to forego the patent system, the public loses his disclosure and its immediate stimulus to the development of technology. It is recognized that "[t]he free flow of both basic and applied scientific knowledge is absolutely essential to the most rapid rate of progress and maximum utilization of our scientific resources." The *raison d’être* of the patent system is to foster such disclosure—"to bring forth new knowledge."

Although the free use of the new idea is limited for 17 years, society still derives so many benefits from the disclosure in the patent that Congress has established and maintained the system in effect for nearly two centuries. First, even during the 17-year period of the patent, the free flow of knowledge is promoted to the end of exploitation of the invention for noncommercial scientific purposes, and also as a stimulus to others to develop improvements or to "invent around" the patent. Second, the requirements of the patent law that the patent contain a description of the invention, a disclosure of how to make and use it "in such full, clear, concise, and exact terms as to enable any person skilled in the art" to practice the invention, and a specification of "the best mode contemplated by the inventor of carrying out his invention" insure that the public's eventual use of the invention will be sufficiently informed to permit the full scientific exploitation of the patented advance in technology. These are the basic objectives of the patent system. To the extent that reliance on trade secrecy chokes off the spread of knowledge as to new inventions, therefore, the promotion of scientific progress and progress in the useful arts is prevented, contrary to federal patent policy. This is the cost of error in assuming that trade secrecy will not divert inventions from the patent system.

The *Kewanee* Court suggested that even if the diversion of inventions occurs, the federal patent policy of promoting disclosure of

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98. Frost, supra note 95, at 68.
104. If the first discoverer of an invention elects to practice it commercially in secret, instead of applying for a patent, the "abandoned" invention of the first person will not preclude a second discoverer from securing a patent. See
new technology will not in the long run suffer appreciably because others are free to reinvent the subject matter and then secure a patent. The Court postulated that the “ripeness of time concept of invention” insures that others will soon reinvent any discovery of new technology, citing Watson’s apprehension that Pauling would overtake him in discovering the double helix structure of DNA. Apparently, the Court is unaware of Fermat’s last theorem, which has never been rediscovered, or the lost arts of the ancients. There is no guarantee that anyone will reinvent any patentable secret within a reasonable time, since making a patentable invention requires, by definition, skill substantially above the ordinary level in the art. Indeed, the independent multiple discovery of a product or process by several different scientists, on which the Court relies, is recognized in the case law as one of the indicia of obviousness or lack of true invention. In any event, there so often have been instances of long felt but unsolved needs and a continuing failure of others to conceive the invention and reduce it to practice, that the wait for reinvention may be very lengthy. Finally, there is little reason for the Court’s assurance that a second inventor of the new technology would rather apply for a patent than elect secrecy; if that happens, there will not be the disclosure the Court promises.

On the other hand, there would be only a negligible cost to the public in erroneously preempting application of state trade secrecy law to true, patentable inventions, on the basis of the “incorrect” assumption that a significant amount of diversion of such inventions may otherwise occur. If the Kewanee Court were right in thinking that the proprietor of a true invention will virtually never choose trade secrecy over a patent, virtually no applications of trade secret law will ever be preempted on this ground. In that case, no significant harm to the policies achieved by trade secret law will occur.

There is a further twist to the alternative assumptions that the Court considered: whether there was a significant risk of diversion of inventions from the patent system to the secrecy system. Even though the proper conclusion is that there was, a further relevant question is whether a change in the degree of availability of state protection would have an impact on the amount of diversion of inventions from the patent system. One alternative to industry’s acquiescing in being led or “dragooned” into the federal patent system is, as the Kewanee Court suggested in another context, for it to

105. 94 S. Ct. at 1890; see Painton & Co. v. Bourns, Inc., 442 F.2d 216, 226 (2d Cir. 1971).
106. 94 S. Ct. at 1890.
110. See text accompanying note 34 supra.
build higher fences around the secret and to pay higher salaries to purchase the employee affection or loyalty that the law will not compel. A second alternative is for industry to follow present practices, take its chances on secrecy, and hope for the best. It would seem most sensible to assume that some firms will follow one course, and others another, with the result that some firms will be led into the patent system and others will not. Consequently, a change in the degree of availability of state protection should have some impact, however quantitatively indefinite it may be, on the degree of diversion of inventions from the patent system. Adoption of such a preemption policy cannot be 100 percent effective, though, in stemming diversion of inventions from the patent system. The risk to management of a possible future preemption holding could play only a limited role in corporate decision making, because other factors are also important.\textsuperscript{111}

The Court assumed correctly, it is believed, that substantial diversion of inventions from the patent system would, per se preempt trade secrecy law. It may be argued, however, that preemption is not required, even though diversion occurs and is controllable by use of preemption, because federal patent policy is really indifferent to whether inventors choose to reject the possible rewards of the federal system in return for making the prescribed public disclosure.\textsuperscript{112} Language which some have interpreted to this effect may be found in \textit{United States v. Dubilier Condenser Corp.},\textsuperscript{113} in which the Court observed, in passing, that an inventor “may keep his invention secret and reap its fruits indefinitely.”\textsuperscript{114} But that statement is simply a truism. There is no practical way (ruling out use of truth serum or the rack) for the government to compel inventors to disclose their thoughts or to file patent applications. Similarly, there is no practical way for it to try to prevent inventors or their assignees from commercially using inventions in secret. \textit{Dubilier} hardly signifies approval of the trade secret alternative; it is no more than an acknowledgment of the inevitable.\textsuperscript{115}

\textsuperscript{111} See text accompanying notes 94-96 supra.


\textsuperscript{114} Id. at 186. See also Becher v. Contoure Labs., Inc., 279 U.S. 388, 391-92 (1929); Doctor Miles Medical Co. v. John D. Park & Sons Co., 220 U.S. 373, 402 (1911).

\textsuperscript{115} The suggestion has been made that the Court’s recognition in these cases that an inventor “may keep his invention secret” is not merely a reference to the inventor’s liberty to keep silence or privilege of freedom from governmental compulsion to disclose secrets, but an assertion that he has a legally enforceable “right” to do so. It has thus been argued that these decisions, and
Moreover, Congress must, at the very least, have hoped that inventors would utilize the patent system and thereby disclose their inventions. Enactment of the patent statute would seem inconsistent with legislative indifference or neutrality to the success of the statutory scheme. As the Kewanee Court said, "The interest of the public is that the bargain of 17 years of exclusive use in return for disclosure be accepted."116 This view is confirmed by the many Supreme Court decisions emphasizing that the primary objective of the patent system is not to benefit inventors, but to benefit the public by promoting the progress of science and useful arts.117 Moreover, the disfavor of the courts toward inventors who seek to practice their inventions in secret and then belatedly apply for a patent monopoly rests on that policy and is a further indication of a federal policy considerably short of neutrality toward the secret practitioner.118 Federal policy is neither indifferent nor neutral to having another system encourage nondisclosure of inventions that would otherwise come within the patent system's scheme for disclosure and protection of inventions. If there is significant diversion, a conclusion of preemption may not be avoided on the theory that federal policy is tolerant of competition from the state law secrecy system.

Need for Uniformity of Regulation. The need for national uniformity of regulation was a major consideration in leading the Stiffel Court to find that the patent system preempted use of state unfair competition law to prevent product copying.119 Curiously, the Kewanee

the subsequent codification of the patent laws in 1952, establish that trade secrets are legally enforceable rights that are not preempted by the patent system. See Milgrim, note 112 supra; Brief for Petitioner at 48, note 112 supra.

This contention confuses a legal right and a liberty or a privilege of freedom from governmental interference, which is all that Dubilier and the other such cases discuss. Confirmation of a legal right to secure assistance from the courts to prevent others from taking such ideas is not even considered in Dubilier. To be sure, the states, like the federal government, may create such legally enforceable rights in ideas "according to the will and convenience of . . . society," see Graham v. John Deere Co., 383 U.S. 1, 8 n.2 (1966), but they must do so consistently with other requirements of law (including the supremacy clause). Such rights do not flow from the logic of cases recognizing the privilege not to seek a patent; they are not supported by a natural rights theory, see id. at 8-9; Deepsouth Packing Co. v. Laitram Corp., 406 U.S. 518, 525-26 (1972), and they are not absolute.

116. 94 S. Ct. at 1890.

117. See, e.g., Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 510-11 (1917). "Since Pennock v. Dialogue, 27 U.S. (2 Pet.) 1, was decided in 1829 this court has consistently held that the primary purpose of our patent laws is not the creation of private fortunes for the owners of patents but is 'to promote the progress of science and useful arts' . . . ." Id. See also Graham v. John Deere Co., 383 U.S. 1, 9 (1966); Mercoid Corp. v. Mid-Continent Inv. Co., 320 U.S. 661, 665 (1944) (collecting cases).

118. Thus, in one such case, Kendall v. Winsor, 62 U.S. (21 How.) 322 (1858), the Supreme Court declared that the primary object of the patent system was to benefit the public at large, rather than to enrich the inventor. It followed, the Court said, that the inventor who—with the view of applying it indefinitely and exclusively for his own profit, who holds his invention from the public, comes not within the policy or objects of the Constitution or acts of Congress. He does not promote, and, if aided in his design, would impede, the progress of science and the useful arts. And with a very bad grace could he appeal for favor or protection to that society which, if he had not injured, he certainly had neither benefited nor intended to benefit.

Id. at 328.

119. 376 U.S. at 230-31. See also City of Burbank v. Lockheed Air Terminal,
opinion does not deal with uniformity or "occupation of the field"—generally, one of the principal tests of preemption.120 It has consistently been recognized that the separate states cannot effectively regulate protection and promotion of invention and that the subject admits of only one uniform system or plan of regulation.121 Uniformity is a second reason, although perhaps less urgent than the policy of disclosure, for stopping diversion of inventions to the state systems of regulation.

To be sure, the Court held in Goldstein that uniformity was not required in the regulation of sound recordings, which are protected by a state under common law copyright, a matter expressly left outside the federal copyright law. The reason was that these were matters "of purely local importance and not worthy of national attention or protection."122 But no suggestion has yet been made that industrial technology or the industries using it are of purely local concern. To the contrary, by enacting the patent statute Congress has already determined that they are "worthy of national attention [and] protection." National uniformity is necessary for the effective protection of inventions and also for the effective protection of interstate commerce and interstate industrial enterprises from the burdens of non-uniform local regulation of inventions. State regulation of utilization of unpatented but inventive technology impairs the uniformity of regulation of inventions at which federal law aims, and this furnishes another substantial reason to preempt such state regulation.

But uniformity is not an end in itself. Absent an express legislative declaration of intent to occupy the field fully in order to assure uniformity of regulation, the need (if any) for uniformity is deduced or implied by the courts from the general scope of the statute and the apparent factual needs of the subject matter.123 The preceding discussion refers to two different reasons for uniformity: effective protection of inventions, and effective protection of business against a checkerboard of conflicting regulation. The majority opinion in Goldstein seems at one point to assume that the only reason that there is any need for uniformity in this field is to avoid the burden to inventors and authors of having to file separate patent and copyright applications in each state.124 The dissent by Justice Douglas in Goldstein appears to challenge this view, suggesting that competitive policy is


120. The Court simply stated that States "may hold diverse viewpoints in protecting intellectual property relating to invention" and regulate discoveries so long as the state action does not conflict with the patent law. 94 S. Ct. at 1885.

121. The Federalist No. 43 (J. Madison); see Stiffel, 376 U.S. at 228.

122. 412 U.S. at 558.

123. See cases cited at note 119 supra.

124. See 412 U.S. at 556.
the end served by a doctrine of preemption that is uniformity-dictated.\textsuperscript{125} Stiffel takes a similar view of the preemptive need for uniformity, resting it on promotion of invention "while at the same time preserving free competition."\textsuperscript{126} The proper, or at least principal, basis for requiring uniformity would thus seem to be the national competitive policy discussed at length in the next part of this article.

\textit{The Scope of a Rationale for Preemption Based on Interference With the Operation of the Patent System}

\textit{Patentability.} A preemption doctrine designed to deal with the risk of diversion of inventions away from the federal disclosure program should not unnecessarily sweep up technology or ideas outside the scope of the federal program. An improvement that does not qualify for federal patent protection cannot be said to have been "diverted" or attracted away from the federal program into the state system. The proper limit of the present rationale, therefore, excludes ideas or improvements that are not "discoveries" or "inventions," as those concepts are used in the patent clause of the Constitution.\textsuperscript{127} Non-technical advances in human knowledge are not within the scope of the patent clause, and cannot be patented. Such advances as William Empson's discovery of the importance of ambiguity, Gerard Manley Hopkins' discovery of the sprung rhythm, and Bach's tempering of the chromatic scale, are not subject to patent preemption under a diversion theory. The same principle applies to customer lists, stock market quotations, and ways of transacting business.

The patent statute does not exhaust Congress' power under the patent clause, in terms of subject matter. The patent code defines various categories of statutory subject matter—machines, articles of manufacture, compositions, and processes for making or using them.\textsuperscript{128} Everything outside these categories is unpatentable nonstatutory subject matter.\textsuperscript{129} Such things as laws of nature or mathematical principles—e.g., the Pythagorean Theorem, the binomial theorem, the Laplace Transform, the general theory of relativity, or an algorithm for converting decimal numbers into binary numbers—seemingly could

\begin{itemize}
  \item \textsuperscript{125} See id. at 574. Justice Douglas suggests that free access to products on the market is a consumer interest. The dissent also quotes the dissenting opinion of Judge Learned Hand in Capitol Records, Inc. v. Mercury Records Corp., 221 F.2d 657, 667 (2d Cir. 1955), to the effect that without uniform national regulation no state could effectively prevent importation of infringing goods from other states that deny similar protection. 412 U.S. at 575.
  \item \textsuperscript{126} Stiffel, 376 U.S. at 230-31.
  \item \textsuperscript{127} U.S. Const. art. I, § 8, cl. 8: "The Congress shall have Power . . . To promote the Progress of Science and Useful Arts, by securing for limited Times to Inventors the exclusive Right to their respective . . . Discoveries . . . ."
  \item \textsuperscript{129} See, e.g., Greenewalt v. Stanley Co. of America, 54 F.2d 195 (3d Cir. 1931); Guthrie v. Curlett, 10 F.2d 725 (2d Cir. 1926); cf. Gottschalk v. Benson, 409 U.S. 63, 72 (1972). In some instances, Congress has not merely omitted particular kinds of things from the patent code, but has expressly prohibited the grant of patents on them, as in the case of atomic bombs. See 42 U.S.C. § 2181 (1970).
be protected under the patent laws as "discoveries" if Congress had
desired to do so, and if they were in a sufficiently concrete or tangi-
ble form to be "useful" in the constitutional sense. It could thus be
argued that state protection of discoveries that are nonstatutory sub-
ject matter should not be preempted, because they could not have
been patented and thus could not have been diverted away from the
patent system. It is true that this is the limit of the diversion ra-
tionale. But the argument is wrong for another reason: The states
may not grant exclusionary protection over subject matter that Con-
gress left outside the patent statute, because failure by Congress
to provide patent protection of such matter is to be taken to reflect
a judgment that free competition is to prevail in the field.\textsuperscript{130} Such a
judgment implies per se preemption of state protection. Congress did
not authorize patents to be granted on such discoveries as theorems,
algorithms, and natural laws because it believed that the progress of
science and the useful arts will be better promoted if the entire public
is permitted to use such discoveries freely, for they are the basic cur-
rency or mental tools of scientific and technological development.\textsuperscript{131}
Trade secret protection of such things would be about as harmful to
the federal policy of free access to basic tools of science as the grant
of patents on them would be. A conclusion of per se preemption
would thus seem necessary in order to accomplish federal policy.\textsuperscript{132}

As a practical matter, trade secrets involved in litigation seldom
involve discoveries that are nonstatutory subject matter; they can

\textsuperscript{130} In Goldstein v. California, 412 U.S. 546, 569-70 (1973), the Court said
that federal patent standards indicate not only which articles "Congress
wished to protect, but which configurations it wished to remain free," and that
state protection would "disturb the careful balance which Congress had

\textsuperscript{131} See Gottschalk v. Benson, 409 U.S. 63, 67 (1972). The interaction be-
tween Benson and the recent decision in Application of Johnston, 502 F.2d 765
(C.C.P.A. 1974), suggests a possible further caveat to the preceding discussion
of "nondiscoveries." Johnston involved a method of bookkeeping that was
claimed as an apparatus. But as Judge Rich perceptively observed in his dis-
senting opinion, id. at 773, the apparatus claims were of the "means" type and
thus simply a draftsman's artifice for turning a Benson-type computer pro-
gram or algorithm claim into machine system form. The symmetry between
the Benson and Johnston claims thus suggests a probable symmetry in policy
between tools of science and methods of doing business; if free access to the
former is a compelling social necessity, so too is free access to the latter for
reasons of competitive policy closely akin to those underlying society's desire
to promote the progress of useful arts. Cf. note 73 supra and accompanying
text. Consequently, state protection of exclusionary claims to business meth-
ods may clash with federal policy (not directly, however, with patent policy).
This approach is rested on the premise that Judge Rich is right and the
majority wrong. On the other hand, the majority opinion is suggestive, at
least, that the technology/business method dichotomy is not as solid as this
author has implied. Methods of transacting business by use of computers
seem to challenge the validity of the traditional distinctions in the field. Cf.

\textsuperscript{132} The same conclusion would follow, a fortiori, for atomic bombs or
other subject matter on which Congress expressly prohibited patents.
generally be divided into "nondiscoveries" (e.g., customer lists, business methods) and statutory subject matter (e.g., machines, processes). According to the preceding analysis, under the diversion rationale the former are not preempted but the latter are, if they also have met the other standards of patentability, notably, that they were novel and unobvious at the time appropriate to the secret holder's making the choice between applying for a patent and attempting to maintain the discovery as a secret.

The Garmon Limit of Preemption. Preemption based on the conflict between secrecy and disclosure is also limited when conduct concerning patentable trade secrets involves a paramount or preeminent state interest. In San Diego Building Trades Council v. Garmon, the Court said that its rule preempting state regulation of labor practices arguably subject to federal regulation would be relaxed in the case of "conduct marked by violence and imminent threats to the public order" because of the "compelling state interest...in the maintenance of domestic peace," unless Congress unmistakably manifested its intention to preempt state action against such conduct.

In a case of burglary of a factory or perhaps theft of blueprints to obtain patentable secret information the state would thus be free to punish the burglary or perhaps theft, as such, just as it would punish any other such offense. Conduct of this type is at least potentially violent and is generally deemed highly disruptive—thereby satisfying the Supreme Court's standards for nonpreemption in an area of federal activity. Moreover, the existence of state remedies can hardly furnish anyone a significant incentive to eschew the patent system, so that there would be only a peripheral or slight impact on federal policies if state law were permitted to operate concurrently in this respect. A general state law against all burglary would therefore not be preempted merely because the object of the burglary in a particular case was a set of secret blueprints or chemical formulations.

It is difficult to define the limits of the exception for state laws that express a paramount state interest. The only apposite touch—

135. Id. at 247. The statement is dictum, for the Court enunciated the rule to distinguish a prior line of non-preemption cases as having been rested on violent conduct. See id. at 248 n.6. In Garmon, there was "no such compelling state interest," id. at 248, so state action was held preempted. Dictum or not, Garmon is the landmark decision in the field, as Mr. Justice Harlan predicted in explaining his refusal to join the majority. Id. at 250 (concurring opinion).
136. Moreover, a duplication of the blueprints could violate the proprietor's common law copyright in them, if state law recognized such a right. Under Goldstein, 412 U.S. 546 (1973), it would seem that relief under this theory is not preempted—unless this extension of Goldstein trenches on the policies of Stiffel, 376 U.S. 225 (1964).
137. Cases such as United States v. Greenwald, 479 F.2d 320 (6th Cir. 1973), cert. denied, 414 U.S. 854 (1973), involving federal prosecutions under 18 U.S.C. § 2314 (1970) for interstate transportation of stolen "goods, wares, or merchandise" embodying trade secrets, are inapposite here because they could not raise a preemption question. One federal statute cannot preempt another under
stone, that of Garmon, is the risk of violent or potentially violent conduct. Burglary fits within Garmon because burglars are apt to shoot citizens who apprehend them in the act, and vice versa. “Theft,” without more specific definition, means too many different things. A thief who commits armed robbery or other acts vi et armis clearly engages in conduct within the Garmon rule. An employee who walks off with a blueprint or who fails to return one of which he is a bailee does not engage in such conduct. Further down the continuum is the employee, or even unscrupulous industrial espionage agent posing as a telephone repairman, who walks about the plant taking pictures with his cigarette lighter camera; or someone with a pair of binoculars in a building next door, or someone who takes photographs from an airplane or satellite. The employee who takes ideas, in his mind, and then uses the ideas despite an actual or implied agreement not to do so, is even further down the continuum.

There is a continuum of conduct along which the occasion for invoking the state’s paramount interest in prevention of violence progressively decreases to zero and the potential impact of state action on federal policy progressively increases, the latter impact possibly varying with the type of remedy the state employs. At a certain point either one of these factors would terminate applicability of the Garmon rationale for non-preemption. The border line may be inexact, but invocation of pejorative language like “theft” is not helpful in
defining the scope of the Garmon exception and may tend to obscure the difficulty of the question.\textsuperscript{141}

Despite such difficulties, the disclosure rationale for preemption (and any other to be discussed below) is surely limited to conduct falling short of burglary or the like. A preemption ruling in \textit{Kewanee} would not have compelled the Court to set burglars and wiretappers loose upon the business community.

\textit{The Strategy of Preemption.} The better view, contrary to the Court's conclusion in \textit{Kewanee}, is that state protection of trade secrets embodying truly patentable inventions should be preempted because the availability of such protection is an attractive alternative to, and thus interferes with, the disclosure policy of the federal system. Suppose, however, that the Court had decided that preemption was appropriate, in accordance with the analysis presented above. Would the prescription follow that the defendant in trade secret litigation should urge at trial that the subject matter sought to be protected was patentable as an invention? The answer is negative, simply because this is not a rational way for a trade secret defendant to try his case. The least promising approach to winning such a case would be to urge the court or jury\textsuperscript{142} to find that the plaintiff made such a significant or valuable technological advance that it met the exacting standards of the federal patent system, and thus to vindicate federal disclosure policy the tribunal is required to penalize the plaintiff's inventive-ness by preempting his remedy against his "faithless" ex-employee (or licensee or whatever else the defendant is). We may say, at the classroom or law journal level, that preemption is not a penalty, but rather a judicial tool that is used to effectuate federal policy regardless of the merits or equities of specific parties in specific lawsuits. But even if the tribunal defers to that principle, it has methods to find that the facts do not invoke it—because judicial statesmanship is usually subordinate to the court-perceived or court-imagined equi-ties. The policy served by the disclosure-policy preemption doctrine (to which the \textit{Kewanee} Court paid lip service, while adopting factual assumptions that made it inapposite to the circumstances of the case) is abstract, impersonal, and benefits the general public in a very diffuse way; but the result of a verdict for the trade secret "owner" against the thief or faithless employee who purloins the plaintiff's "property" is very concrete, personal, and non-diffuse in impact. This inevitably leads to the spread of what Professor Brown, survey-ing long-term trends in unfair competition law, aptly referred to as the heresy of the "persistent urge to create some general protection against copiers."\textsuperscript{143} Such heresy is always rife, and pillars of orthodoxy (such as Judge Learned Hand or Justice Hugo Black) few.

\textsuperscript{142} The author will put aside the question of whether the issue is one of fact, law, or mixed fact and law.
\textsuperscript{143} Brown, \textit{Product Simulation: A Right or a Wrong?}, 64 COLUM. L. REV. 1216, 1227 (1964).
That means that he who would litigate a trade secret case must reckon with the heretics. The high road of public policy and preemption will likely lead to disaster, at the very least at the trial level, for the defendant.

Accordingly, the tactic of deprecating the alleged secret, by claiming that it is actually a matter of prior knowledge and in the public domain, would normally be a more prudent approach. As a practical matter, urging preemption on the diversion theory is unsound trial strategy and not likely to occur. In this regard *Kewanee* was a freak case which will not recur, the product not of defending trial counsel’s frontal attack on trade secrecy’s erosion of patent policy, but of an appellate court’s seizing upon a candid and chance concession of plaintiff’s counsel during appellate oral argument.

The Problem Focused. The *Kewanee* Court’s treatment of preemption on the basis of the disclosure rationale is irretrievably flawed. Accepting the Court’s essentially sound legal premise of a per se preemption if and only if there is a substantial risk of diversion, but rejecting its irrational factual assumptions as to likelihood of diversion and the “ripeness of time,” should lead one to reach a conclusion diametrically opposite to the Court’s. But that result, however logical, leads nowhere, because trade secret preemption cases probably cannot effectively be litigated that way. Thus, the Court could have followed through on its legal premise and developed a valid preemption theory which would not be utilized in its own context to any significant extent.

The utility of the preceding analysis is merely to clear the debris of *Kewanee* and return us to ground zero, and incidentally to develop some of the concepts necessary for a proper analysis of the trade secrecy preemption problem. The real problem with the *Kewanee* opinion is not so much that it mishandled the disclosure policy preemption rationale that it addressed, but that it failed to analyze the problem in terms of the proper federal policy. In its preoccupation with disclosure, the direct policy of the patent system, it ignored the surrounding national policies as to free competition that complement

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144. Presumably, then, in *Kewanee* one would seek to remand for findings on whether the subject matter of each secret was a diverted invention or else merely a subpatentable advance that never qualified for the 17-year federal monopoly.

144a. The only apparent utility of the doctrine would be to permit summary judgment for the defendant if the plaintiff were so unwise as to assert or admit the patentability of the trade secret. Otherwise, there would be a tacit conspiracy between plaintiff and defendant to treat the secret as unpatentable, since it would fit neither party’s strategy to argue for patentability. As a tactical matter, this would seem to be of relatively little importance to plaintiffs, since patentability of a trade secret is not an element of the cause of action, and a plaintiff can readily argue that the idea was secret and valuable without having to go so far as to assert its patentability as well.
the patent system, the policies considered determinative in Stiffel and Lear, and to which this article now turns.

Preemption of State Protection of Unpatentable Technology Under the National Competition Policy

Certiorari was granted in Kewanee to resolve the question whether state trade secret protection is preempted "by operation of the federal patent law." That was the only question the Court addressed, and its view of the question comprehended only whether trade secret law interfered with these three perceived policy facets of the patent statute: "encouraging invention," "that matter once in the public domain must remain in the public domain," and that new and inventive technology be disclosed to the public. The Court considered general competitive policies only tangentially, and never approached the question of whether state trade secret laws interfered with federal policy as to competition. It is unclear whether the omission is properly attributable to the posture of the case (particularly the framing of the question presented), the exigencies of securing a majority position, the desire of some members of the majority to leave the question open for another day, or simple oversight. In any event, the omission contrasts sharply with the emphasis in Stiffel, Lear, and Goldstein on the complementary interplay of patents and competition.

In Stiffel, the Court held that state unfair competition law protection was preempted on the ground that no state may "give a patent on an article which lacked the level of invention required for federal patents," because "[a]n unpatentable article . . . is in the public domain and may be made and sold by whoever chooses to do so." Allowing the state "to prevent the copying of an article which represents too slight an advance to be patented would be to permit the State to block off from the public something which federal law has said belongs to the public." To forbid such copying, the Court said in the companion Compco decision, would interfere with the constitutional and statutory policy "of allowing free access to copy whatever the federal patent . . . law leaves in the public domain." The Goldstein case is a proper summary of Stiffel and Compco. The standards set in the patent laws indicate which technology should be protected, and Congress' silence as to the rest indicates that competition in those areas should not be disturbed by state or federal law to prevent copying.

145. 94 S. Ct. at 1882-83.
146. Id. at 1885-86, 1891-92.
147. See id. at 1886.
148. 376 U.S. at 231.
149. Id. at 231-32.
150. Id. at 237.
151. See text accompanying note 80 supra.
To apply the Stiffel rule to trade secrets requires an extrapolation of its apparently sweeping language beyond the specific facts of that case, because the copying involved there (and in Compco) was simply of a "subpatentable" product which was sold on the open market. The copying in Stiffel was said to involve "unfair competition," but was not a violation of a trade secret agreement or duty. Such an extrapolation can properly be based on either a concept of arrogation of the "public domain" or a concept of public need for the free flow of technological information. These concepts are closely related, but distinct. Each relates to the general national policy regarding competition considered in Lear and Stiffel.

The National Policy Against Allowing Exclusionary Rights in Old Ideas

The Kewanee decision refers several times to a policy of the federal patent system that whatever is in the public domain must not be removed from it by state action, but the Court never explains the source or basis of the policy. It has long been a policy of the patent system that no federal monopoly grant should be allowed on advances already known. The purpose of the patent system is to bring forth the disclosure of new knowledge, for old ideas are not "worth to the public the embarrassment of an exclusive patent" monopoly of 17 years. Section 102 of the present patent code, like its predecessors and like the Statute of Monopolies, prohibits the granting of patent monopolies on existing knowledge. If others publicly use or sell the advance prior to the time the would-be patentee allegedly discovered or invented the advance, if they previously describe it in a publication or patent, or if they previously know of it, then section 102(a) bars the granting of a patent to the applicant. Another rationale for section 102(a) is to treat it as setting forth a rule for presuming derivation of the idea by the true inventor. The applicant is thus presumed to know the entire body of prior art, for it is already in the public domain.

Except for reference to the Statute of Monopolies, the only policy indicated so far in this discussion has been the purely internal one: that it is not worth it to the federal government to dispense a federal grant in return for an old idea. If there were nothing more at stake, it would be sufficient to let the matter rest there. Some state trade

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152. A subpatentable product is one which does not meet the standards of 35 U.S.C. §§ 102-03 (1970), as the author will use the term here.
153. 94 S. Ct. at 1885-86, 1881.
155. Id. at 9 (quoting Thomas Jefferson); 94 S. Ct. at 1890.
secret law, however, has followed a different policy. According to the Restatement of Torts, a trade secret “may be a device or process which is clearly anticipated in the prior art.” Thus a trade secret injunction may be granted against practicing the subject matter of a little-known expired patent or magazine article. A number of older cases support this view. Other cases, however, decline to treat as a secret that which is clearly and fully disclosed in the prior art, and refuse injunctions against the practice of such disclosures, because they are in the public domain. Generally, such cases treat the matter as one of the definition of “secrecy” under the unspecified general law, rather than as a preemption problem. Thus, the Kewanee Court stated: “By definition a trade secret has not been placed in the public domain.” It also observed that “some novelty will be required if merely because that which does not possess novelty is usually known; secrecy, in the context of trade secrets, thus implies at least minimal novelty.”

The Kewanee Court assumed a consensus definition of “secret.” By ignoring the conflict in authority over the proper definition of the term, it did not face the corresponding conflict over the scope of protectible ideas. Perhaps it intended to overrule, by implication from the quoted phrases, the line of cases following the Restatement’s generous notion of secrecy. But the states are free to define secrecy however they choose, unless an interference with federal policy can be shown. Moreover, if the definition of “secrecy” involves a federal policy, the definition of the term is a matter of federal law and a more precise conception is in order.

As the Kewanee decision states, there is a federal policy that “matter once in the public domain must remain in the public domain.” The policy is not simply internal to the administration of the patent system, but has much wider sweep. In Graham v. John Deere Co., and a few years earlier in Stiffel, the Court traced the relationship of our patent clause and patent statute to the Statute of Monopolies. The common law cases and black letter law reflect a common reaction to the excesses of the state, notably the Tudor monarchs, in granting monopolies by letters patent over products or arts (i.e., processes) previously usable by all. The result of such monopoly grants was inflation of prices to the detriment of the general public and the exclusion

158. § 757, comment b at 6 (1938).
159. See, e.g., Franke v. Wiltchek, 209 F.2d 493 (2d Cir. 1953).
160. E.g., American Gage & Mfg. Co. v. Maasdam, 245 F.2d 62 (6th Cir. 1957). To be sure, it may be argued that bringing an expired patent or some other prior art to another’s attention confers a valuable benefit on him. A contract to pay for such assistance may well be valid, therefore, since it is like a contract to pay someone to go to a library and prepare a report on the prior art in a field. Yet, that does not justify an injunction; the only proper remedy, as the dissenting opinion of Judge Frank points out in the Wiltchek case, 209 F.2d at 500, is to award damages for the value of the lesson taught.
161. 94 S. Ct. at 1887.
162. Id. at 1883-94.
163. Id. at 1887.
164. 383 U.S. 1.
165. 376 U.S. at 229.
of tradesmen from practicing their livelihoods.\textsuperscript{166} The legal reaction to these excesses was to forbid monopoly grants on old products or arts, while allowing them on new ones. For this reason, in \textit{Graham} and other cases, the patent clause has been construed as a limitation on, as well as a grant of, federal power.\textsuperscript{167} Although the full limit of federal power under the patent clause has not been defined by the cases,\textsuperscript{168} the national competition policy marks the limit of the statutory patent system, because Congress has traced a reasonably clear border in adjusting the balance between the two. As the Court indicated in \textit{Goldstein}, the patent law reflects Congress' balance between monopoly and competition—and we should therefore look to it in order to adjust the limiting definition of "secret" with the federal definition of "public domain."

The clearest conflict between federal policy and the Restatement’s expansive notion of secrecy occurs in the case of an expired patent. An unbroken line of Supreme Court authority prohibits the use of state law to create exclusionary rights over the teachings of expired patents, whether under trademark, unfair competition, or contract theories.\textsuperscript{169} \textit{Scott Paper Co. v. Marcalus Manufacturing Co.},\textsuperscript{170} one of the pre-\textit{Lear} cases whittling down the doctrine of licensee estoppel, illustrates the doctrine. An accused patent infringer was bound by contract not to assert the invalidity of the allegedly infringed patent. He therefore sought to limit the interpretation of the patent’s claims to a virtually zero scope, by adducing prior art—an expired patent—in the light of which the claims must be so read. His defense against the claim of infringement was that he was merely practicing the teaching of the expired patent, which the existing patent could not lawfully be deemed to cover, irrespective of whether that meant that the latter covered substantially nothing. Despite the violence this did to the manifest intent of the contract or of the contracting parties, the Court agreed with the defense because of an overriding federal policy, the public’s right to enjoy free competition in the exploitation of the subject matter of expired patents.\textsuperscript{171} The policy expressed in \textit{Marcalus}

\begin{thebibliography}{99}
\bibitem{167} 383 U.S. at 5. See also Anderson’s Black Rock, Inc. v. Pavement Salvage Co., 396 U.S. 57, 61 (1969); Stifel, 376 U.S. at 229-30.
\bibitem{168} But see \textit{The Trade-Mark Cases}, 100 U.S. 82 (1878).
\bibitem{169} See note 1 supra.
\bibitem{170} 326 U.S. 249 (1945).
\bibitem{171} The nature and extent of the legal consequences of the expiration of a patent are federal questions, the answers to which are to be derived from the patent laws and the policies which they adopt.
\end{thebibliography}
as to expired patents applies with equal force to old magazine articles and other ideas that have once been set free. Certainly Lear makes it abundantly clear that the result reached in *Marcalus* in no way turns on the fact that a patent monopoly was once allowed on the idea, but turns rather on a policy favoring full competitive usage of ideas once they have been set loose, regardless of whether the idea was once patented, and subject only to the requirement that there not be a valid patent on the idea. This concept corresponds to that of divestitive publication applied in copyright law\(^\text{172}\) and nontechnological trade secret law (nonscientific ideas).\(^\text{173}\) The analogy of divestitive publication is helpful, also, in putting content into the public domain concept that *Stiffel*, *Lear*, *Goldstein*, and *Kewanee* left without precise definition. State protection of technology that has been divestitively published or otherwise disclosed in prior art, in the sense of section 102 of the patent code—e.g., books, magazine articles, patents, products on the market—should be preempted because such technology is, in a real sense, “in the public domain.” This sense has two bases, one immediately related to competition in the sale of particular types of goods and services, the other related to scientific and technological progress in a more general way.

Just as federal law commands free competition in the sale to the public of identical or substantially identical products (according to *Goldstein* and *Stiffel*), so, too, does federal law command free competition in the use of expired patents, old magazine articles, and other knowledge that has once been disseminated to the public. The undertone of this is that ideas, once they are set free by divestitive publication, cannot be captured and become the property of anyone,\(^\text{174}\) for a property right of that type is “at odds with the inherent

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\(^\text{172}\) Publication automatically “dedicates” to the public the rights of an author unless he complies with the federal statute. “[T]he publication of a copyrightable ‘work’ puts that ‘work’ into the public domain except so far as it may be protected by copyright. That has been unquestioned law since 1774...” *National Comics Publ., Inc. v. Fawcett Publ., Inc.*, 191 F.2d 594, 598 (2d Cir. 1951) (L. Hand, J.).

\(^\text{173}\) See *Irizarry y Puente v. President and Fellows of Harvard College*, 248 F.2d 799 (1st Cir. 1957). In that case the court denied relief against the alleged purloining of a trade secret idea by the Dean of the Harvard Law School, because “there was nothing novel or original in the idea,” and therefore it accorded plaintiff “no proprietary rights.” The court also held, alternatively, that “[t]he unconditional public disclosure of an idea... makes it the property of all and operates to deprive the originator of any further proprietary rights in it.” *Id.* at 802. The plaintiff had written Dean Griswold, a noted tax scholar, proposing collaboration on a new type of tax service and disclosing a proposed format. After inconclusive further correspondence the Dean advised plaintiff that he did not “care to pursue the matter further,” and plaintiff independently published the service. Subsequently, the Harvard Law School allegedly published a competitive work appropriating the plaintiff’s ideas. The court held that the prior publication of plaintiff’s service was sufficient to divest and dedicate his property right, if any, in the idea.

\(^\text{174}\) See *Lear*, 385 U.S. at 665-66, 668, 670, 674. See also *Graham*, 383 U.S. at
free nature of disclosed ideas."\textsuperscript{175} Nor can a state, consistent with the supremacy clause, grant injunctions against the use of these ideas simply by calling such use a misappropriation.\textsuperscript{176} Such state action would seem to be per se preempted, for, as the Court said in Goldstein, "a conflict would develop if a State attempted to protect that which Congress intended to be free from restraint."\textsuperscript{177}

A further reason for such preemption, perhaps closer in concept to the narrower policy of promoting progress in science and useful arts than to the broader and more ultimate competitive policy considered in Goldstein, is the public need for free interchange of ideas in technology, even those subpatentable advances below that exercise of creative thought which is deserving of a patent monopoly. This policy was recognized in such cases as Atlantic Works v. Brady,\textsuperscript{178} in which the Supreme Court explained that technological progress necessarily consists of a series of minute steps, the accretion of the work of countless individual mechanics who appreciate and then build upon the work of their predecessors, so that "[e]ach step forward prepares the way for the next."\textsuperscript{179} and each successive generation of technology has a higher level of "ordinary skill in the art."\textsuperscript{180} Laying the "heavy hand of tribute" by granting patents on such small steps forward is prohibited because it would interfere with technological progress,\textsuperscript{181} and presumably with competitive policy as well. Surely, then, choking off or significantly lessening the flow of subpatentable information by a regime of state-supported secrecy would be all the more harmful and objectionable to our national policy governing free commercial exploitation of unpatented technology.

Such state remedies are particularly improper in the case of so-called secrets anticipated in prior art, for even Congress is barred by the Constitution from granting such protection.\textsuperscript{182} Since the states

\begin{itemize}
\item \textsuperscript{8} n.2 (quoting Thomas Jefferson's letter to McPherson, concerning the transmission of, and property rights over, ideas). The same principle is well-recognized in the field of non-technological ideas. See note 173 supra.
\item \textsuperscript{175} Graham, 383 U.S. at 9; see id. at 8 n.2.
\item \textsuperscript{176} See Stiffel, 376 U.S. at 231. See also note 171 supra. Lear makes it abundantly clear that the result reached in Marcalus, 326 U.S. at 255-57, in no way turns on the fact that a patent monopoly was once allowed on the idea, but turns rather on a policy favoring full competitive usage of ideas once they have been set loose, regardless of whether the idea was once patented and subject only to the requirement that there not presently exist a valid patent on the idea.
\item \textsuperscript{177} 412 U.S. at 559.
\item \textsuperscript{178} 107 U.S. 192 (1882).
\item \textsuperscript{179} Id. at 199-200.
\item \textsuperscript{181} See Cuno Eng'r Corp. v. Automatic Devices Corp., 314 U.S. 84, 92 (1941).
\item \textsuperscript{182} "Congress may not authorize the issuance of patents whose effects are to remove existing knowledge from the public domain or to restrict free access to materials already available." Anderson's Black Rock, Inc. v. Pavement Sal-
surely have no greater power than Congress—if anything, Stiffel indicates that they have less—it follows that state trade secret law may not be used to enjoin the practice of technology that has once been publicly disseminated. In sum, the proper definition of “secret,” under federal law, and the national policy as to competition merge in forbidding state trade secret injunctions against the use of divestively published technology.183

Preemption of State Protection of Novel But Obvious Technology

Technology that is fully, or almost fully, disclosed by prior publication is subpatentable, even though it is within the categories of statutory subject matter (machines, processes, etc.), because section 102 of the patent code prohibits the grant of a patent on such non-novel ideas. Technology may also be subpatentable, even though novel and within the statutory categories, because devising it would be obvious to a person skilled in the field of art to which it relates. Such technology may not be described in any single item of prior art, in the same or substantially the same form as that in which the claimant of trade secret rights used it, so that it falls under section 102. Nonetheless, it may be unpatentable because it is a combination of several


Preemption under this rationale is similar to that found in cases such as Franklin Nat'l Bank v. New York, 347 U.S. 373 (1954) (use of title authorized by federal law); Amalgamated Ass'n of Motor Coach Employees, Div. 998 v. Wisconsin Employment Relations Bd., 340 U.S. 383 (1951) (conduct protected by National Labor Relations Act § 7, as amended by Labor Management Relations Act of 1947). If anything, the case for preemption is stronger here, because in the two preceding cases state law was preempted when it sought to prohibit or regulate conduct protected by a federal statute which Congress is free to alter if it wishes. But the Constitution forbids Congress to pass federal legislation contrary to that which Congress enacted, since the statute merely recodifies or confirms the public's right of “free access to materials already available.”

183. The concept of divestitive publication is useful also in dispelling the idea, accepted by the court of appeals, that secret commercial use of a trade secret for one year not only works a forfeiture of the right to apply for a patent, assuming that the secret is patentable, but also works a forfeiture of all right to any protection, whether or not the secret is patentable. The preceding discussions of old ideas, secrecy, and the public domain was based on those portions of § 102 dealing with overt public acts—publication describing the secret sale of a product, examination of which reveals the secret, and other conduct akin to divestitive publication in copyright law. See 35 U.S.C. §§ 102(a), (b) (another aspect of § 102 bars a patent to one who commercially exploits an invention rather than discloses it to the public). It was suggested above that there are sound policy reasons for prohibiting protection of divestively published ideas, whether or not the ideas are patentable. No corresponding policy is evidenced in the case of unpublished, unpatentable ideas that have been secretly exploited. A patent is prohibited in such cases because an applicant who has engaged in a period of secret commercial use (during which he enjoyed sole use of the invention) and then applies for a 17-year monopoly has done little or nothing to promote the progress of science and useful arts, and thus deserves no monopoly at the public's expense. See text accompanying notes 19–24 supra. It does not follow, at least not without more of an explanation that such secret users of subpatentable technology deserves no relief in a trade secret case. This distinction is consistent with the rule as to the effect of A’s secret commercial use on B’s application for a patent. Although there is some conflict in authority on the point, the better view seems to be that secret commercial use is a statutory bar against the user but not
different items of prior art, or a novel but slight and un inventive step beyond one or more items in the prior art. To merit a 17-year patent monopoly, a technological advance must not only be novel but it must be inventive, or unobvious. This further test is imposed by section 103 of the patent code. The competition preemption rationale must also be tested against secret technology that is subpatentable only because it does not rise to the inventive level set by section 103. The Kewanee opinion never considered the possibility that state protection of such technology could be preempted, because the technology does not come within the only preemption rationale the Court developed—that based on impairment of disclosure policy of the patent system.

**Inapplicability of Public Domain Arrogation Theory.** The preemption theory based on the concept of arrogation of the public domain seems inapplicable in the case of novel but obvious technology. It may be argued that such obvious technology should be considered to be as much in the public domain as the teaching of an expired patent or other item of prior art. To be sure, there may be difficulty in seeking to use the concept of public domain as an empirical datum instead of a legal conclusion. Nevertheless, in the context of usurping or ar}

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184. As the phrase “in the public domain” has generally been used in the cases, it is much less an empirical datum than simply the reflection of an ultimate legal conclusion. That legal conclusion depends, in any given case, on the tribunal's analysis of the policies of patent law, anti-monopoly law, the common law as to noncompetition covenants, and even more general notions as to personal mobility and freedom, or the sanctity of promises. Thus, when the Court said, in Stiffel, that “[a]n unpatentable article, like an article on which the patent has expired, is in the public domain and may be made and sold by whoever [sic] chooses to do so,” 376 U.S. at 231 (emphasis added), it stated an ultimate conclusion about the legal protection it deemed available for all such products, rather than a factual observation about whether particular products had been observed to be in the public domain. Clearly, the same is true of Mr. Justice Frankfurter's statement that “[a] machine that is not patentable because it is not novel is just as much part of the public domain as a machine on which the patent has expired.” Marcalus, 326 U.S. at 263 (dissenting opinion). See also Aro Mfg. Co. v. Convertible Top Co., 377 U.S. 476, 522 (1964) (Black, J., dissenting) (“When articles are not patentable and therefore are in the public domain ... to grant them a legally protected monopoly offends the constitutional plan of a competitive economy free from patent monopolies except where there are patentable 'Discoveries.'”).

Similarly, the Lear concept of “full and free use by the public” is more of a legal conclusion of the use to which the public is entitled than a factual observation, for the public's “use” of technology is necessarily indirect—the technology is used not by consumers, but by manufacturers or tradesmen who ultimately sell products embodying the technology. In the Lear and Stiffel cases, those who asserted the right of the public to full and free competition did so as surrogates for the public. See also Marcalus, 326 U.S. at 255-56.
rogating a portion of the public domain, as that concept has been used here, it seems that a proper distinction can be made between: (1) that which is available for the public to take, already in the same or substantially the same form as that in which it is to be utilized (i.e., subject matter not novel in the section 102 sense);185 and (2) that which is available for the public to take and utilize only after combining several items in the first category, or after noninventively adapting one or more items in that category for the intended use (i.e., subject matter that is obvious under section 103).186 The interference that state protection causes with the public's free use of prior art is certainly less clear in the second case than in the first case, at least if the state protection afforded is carefully limited. For example, the “ripeness of time” concept of the Kewanee opinion is a much more reasonable assumption here, because the technology is by hypothesis obvious, so that independent redevelopment of the idea is almost a certainty.

Economic Balance and Idea Interchange Theories. State trade secret protection of obvious technology, although it does not arrogate a portion of the public domain, nonetheless may disturb the economic balance Congress struck between competition and monopoly or it may hinder the free flow of unpatented technology (interchange of ideas) which is the basis of general technological progress. An important difference between the public domain concept and the concepts of economic balance and interchange of ideas is that the former is, at least arguably, an absolute concept (particularly when the “under-tone” previously discussed takes command), a per se category, while the latter necessarily contemplates measuring the degree of interference—a matter of more or less, to be balanced out. The thesis developed here is that, for obvious technology, a preemption analysis that proceeds by balancing interests will lead to a theory of preemption and nonpreemption that reconciles and harmonizes the doctrines of Stiffel, Brady, and Goldstein.

In Stiffel, the Supreme Court stated that national policy forbids any “State to block off from the public something which federal law


186. The distinction between invalidity under § 102 and under § 103 is a fine one—one of degree, Application of Bass, 474 F.2d 1276, 1285, 1289 (C.C.P.A. 1973)—but it is one made by the patent statute, and it significantly affects the outcome of patent litigation, because § 102 references (i.e., prior art that is evidence of lack of novelty under § 102) cannot be overcome by evidence of inventive merit while § 103 references (i.e., prior art that is evidence of obviousness or want of invention) can. Cf. Old Town Ribbon & Carbon Co. v. Columbia Ribbon & Carbon Mfg. Co., 159 F.2d 379, 382 (2d Cir. 1947); Application of Hack, 245 F.2d 246, 248 (C.C.P.A. 1957). This §§ 102-03 distinction reflects a patent policy as to a difference in degree of communication to the public; information about practicing the alleged invention that can become a difference in kind. In the present context, as well, that difference may properly distinguish that which is “in” the public domain from that which is not sufficiently “in” the public domain to come under the umbrella of the national competition policy (including free commerce in ideas).
has said belongs to the public." 187 Brady can properly be understood to articulate a policy that even subpatentable mechanical advances "belong to the public" and should be freely communicated and used as building blocks for further technological progress. Moreover, it is clear that state action in support of, or that encourages, nondisclosure of such advances interferes to some degree with the economic balance contemplated by Goldstein and with the free interchange of advances contemplated by Brady. Nonetheless, to interfere to some degree (a balancing of interests notion) is not necessarily equivalent to "block off from the public" (a direct conflict or per se notion). Whether the interference created by trade secret protection indeed blocks off advances from the public is the question that must be resolved. If the interference does not significantly impair the accomplishment of federal objectives (that is, if it is not an undue restraint), state law may be a mere impediment or inconvenience, as in Goldstein, rather than a true obstacle, as in Stiffel and Lear. The question of preemption would thus seem to turn on the degree of interference and on a balance of possible state interests against the amount of impediment to federal policy. 188

State Interests in Protecting Secrecy. A number of interests may be advanced in support of allowing state trade secret protection to operate. It may be argued that states should be permitted to protect investments made to create even subpatentable technology, to preserve or increase the incentive for technological development. The claim is that the federal patent system is an insufficient incentive for research and development, and therefore needs to be supplemented. The Kewanee Court accepted the validity of this assumption: "Trade secret law encourages the development and exploitation of those items of lesser or different invention than might be accorded protection under the patent laws, but which items still have an important part to play in the technological and scientific advancement of the Nation." 189 Not only is there no empirical support for this assertion, 190

187. 376 U.S. at 232.
188. That balancing process would be unnecessary if (1) the state interest is so strong that it overrides the federal interest, e.g., per se non-preemption as in the labor violence cases, (2) the interests on the side of permitting state action are negligible, or (3) the state and federal interests are not vastly disparate in magnitude, and the state scheme significantly hinders accomplishment of federal objectives, e.g., "classic" preemption as in pervasive federal economic regulatory schemes. The adverse effect that trade secret injunctions have on federal policy can be limited by tailoring the scope of relief, so that the trade secret claimant does not receive protection sufficiently approaching that available under the patent laws either to divert patentable inventions away from the patent system or else to interfere unduly with free competition. Assuming, here, that such tailoring is feasible, alternative (3) can be eliminated.
189. 94 S. Ct. at 1892.
190. There is no empirical basis for the assertion that a lower standard than that provided by §§ 102-03 of the patent code would call forth more rapid
but it makes an assumption contrary to that underlying the congressional patent scheme—that the standards of the patent laws reflect the optimum level to call forth technology.\textsuperscript{191}

It is also urged that, without the protection unpatented advances enjoy by means of trade secret law, expensive self-help measures would become necessary, the cost of which might be passed on to the public.\textsuperscript{192} This seems less a legal argument than an appeal for a public subsidy to lessen the cost of self-help.\textsuperscript{193} Moreover, even if the cost of providing self-help is economically wasteful, there is no basis for assuming that such cost would exceed the cost to society of the alternative of permitting impediments to competition to be imposed by state trade secret law.\textsuperscript{194}

Those opposing preemption also argue a need for "increasingly higher standards of business and commercial morality,"\textsuperscript{195} to maintain "standards of commercial ethics . . . good faith and honest, fair dealing."\textsuperscript{196} The Kewanee Court was concerned with "the basic decency of society" and the "most fundamental human right, that of privacy," which is threatened when industrial enterprises spy on one another to gain trade secrets from their holders.\textsuperscript{197} It may even be suggested, in this vein, that improvement of commercial morality and encouraging present and former employees to be "faithful" to their employers is as preeminent a state interest as that of the preven-

\textsuperscript{191} See Winston Research Corp. v. Minnesota Mining & Mfg. Co., 350 F.2d 134, 138 (9th Cir. 1965) (Stiffel "precludes judicial recognition" of such arguments).

\textsuperscript{192} See also Florida Avocado Growers v. Paul, 373 U.S. 132, 167 (1963) (White, J., dissenting) ("Any additional state regulation to 'supplement' federal regulation would pro tanto supplant it.").


\textsuperscript{194} Wydick, supra note 193, at 25, asserts that preemption of trade secret law would lead to misallocation of economic resources from useful production of goods to wasteful protection of secrets. There appears to be no factual support for this view. First, it cannot be assumed that 100 out of 100 trade secret holders will buy fences or the like if trade secret law is wholly or partially preempted. Perhaps, 55 will buy fences, 2 will go to the patent system, and 43 will simply take their chances; there is surely no usable empirical data on this. Second, it cannot be assumed that cost of the 55 fences will not be offset or outweighed by the value to society of the 2 contributions to the patent system plus the competitive value of diffusing the innovations of the other 43 firms. They may or may not; there is no sensible way to pick the numbers or to weigh the values of the alternatives. The support for the waste argument is so conjectural and nebulous as to compel its rejection.

\textsuperscript{195} See DISTRICT Ct. OP. at 90.

\textsuperscript{196} Kewanee, 94 S. Ct. at 1886.

\textsuperscript{197} Id. at 1889.
tion of violence, considered in Garmon. These arguments are unsupportable.

The argument for business morality was made by the lower court in Compco, the pre-Lear basis for licensee estoppel, and was urged as a justification for price fixing in United States v. Socony-Vacuum Oil Co. The argument that imposing judge-made principles of business morality is a critical social need has until now been repeatedly rejected by the Supreme Court as insufficient in itself to justify a limitation on the national policy of free competition. The Court has consistently demanded a more detailed justification for legal doctrines or rules in this area. The state's interest may be le-
gitimate, in the sense that the police power will support some state action, but it is hardly so preeminent as to justify significant interference with the accomplishment of federal policies. As for the Kewanee Court's concern to protect corporate civil rights, it surely engaged in misplaced personification—corporations do not have "most fundamental human right[s]," like that of privacy. The Court's concern with the possible adverse effect of a preemption decision on the quality of life would be better reserved for other areas of civil rights. Moreover, in cases of true commercial immorality, such as a burglary, ordinary criminal law sanctions are available to prevent socially disruptive conduct.

Degree of Impact. The argument may also be made that any impediment to competition is limited, because the class of potential defendants is small. It may be said that state courts grant trade secret relief against only a limited segment of the public directly related to the plaintiff—a short portion of the total spectrum of potential defendants—faithless employees, licensees, fiduciaries, and trespassers, but not independent third parties. In patent infringement cases, by way of contrast, injunctions and damages may be had against any member of the public, however innocent and unrelated to the patentee they may be. For this reason some may argue that trade secret

201. In the first place, the right to privacy is not the right to be free of burglary, theft, or wiretapping, as such. If it is anything, it is a right to be free of unjustifiable infliction of mental pain and distress occasioned by defendant's conduct. The conduct may be public disclosure of private facts, compare Melvin v. Reid, 112 Cal. App. 285, 287 P. 91 (1931) (movie relating reformed prostitute's previous life) with Time, Inc. v. Hill, 385 U.S. 347 (1967) (magazine article describing experience of a family held hostage) and Sidis v. F-R Publ. Corp., 113 F.2d 806 (2d Cir.), cert. denied, 311 U.S. 711 (1940) (magazine article describing mathematical prodigy's attempts to disguise his identity); uncomplimentary misstatements in a publication, e.g., Peay v. Curtis Publ. Co., 78 F. Supp. 305 (D.D.C. 1948); unauthorized commercial use of plaintiff's name or picture, e.g., Roberson v. Rochester Folding Box Co., 171 N.Y. 538, 64 N.E. 442 (1902) ("flour sack" case, 4-3 against recovery); or even harassment or undue intrusion, e.g., Pinkerton Nat'l Detective Agency v. Stevens, 108 Ga. App. 159, 122 S.E.2d 119 (1963); Barber v. Time, Inc., 348 Mo. 1199, 159 S.W.2d 291 (1942). Since the gravamen of the tort of invasion of privacy is injury to the sensibilities of the plaintiff as a result of unwanted publicity, appropriation of a trade secret is not an occasion for invoking the tort. Moreover, without showing that the reputation of the organization is harmed by the publicity, no invasion of privacy action may be brought. Girl Scouts of America v. Personality Posters Mfg. Co., 304 F. Supp. 1228 (S.D.N.Y. 1969) (pregnant Girl Scout, "Be Prepared" poster); Vassar College v. Loose-Wiles Biscuit Co., 197 F. 982 (W.D. Mo. 1912) (chocolate candy portrayed as "Vassar College Chocolates"). Corporations have no sensibilities and thus no right to privacy. Maysville Transit Co. v. Ort, 296 Ky. 524, 177 S.W.2d 369 (1944). See also T. ARNOLD, THE FOLKLORE OF CAPITALISM 185 (1937): One of the essential and central notions which give our industrial feudalism logical symmetry is the personification of great industrial corporations as persons endowed with the rights and prerogatives of a free individual is as essential to the acceptance of corporate rule in temporal affairs as was the ideal of the divine right of kings in an earlier day. . . . [O]ur judicial institutions have been particularly concerned with its celebration. Courts, under the mantle of the Constitution, have made a living thing out of this fiction. Men have come to believe that their own future liberties and dignity are tied up in the freedom of great industrial organizations from restraint.

202. See text accompanying note 136 supra.

Preemption of State Trade Secret Law

THE GEORGE WASHINGTON LAW REVIEW

relief is not fully "the equivalent of a patent monopoly,"204 and therefore not objectionably significant in economic impact. But state action need not be the full equivalent of a patent monopoly to interfere with "the accomplishment and execution of the full purposes and objectives of Congress"205 in setting up the patent system. A significant interference, by a 40 percent, 80 percent, or other fractional "equivalent of a patent monopoly," can lead to preemption so long as there is a substantial adverse impact on the accomplishment of federal policy objectives. In that case, it is wholly immaterial that the effect could be even more significant if state injunctions were allowed against a still wider range of potential defendants.

A further insight as to possible competitive impact is given by Lear. The distinction between relief against all the world, on the one hand, and relief against only the class of persons as to whom the trade secret claimant has a relational or other legal interest, on the other hand, may be illusory if those potentially subject to relief are the persons likely to be of principal competitive significance to the public as potential entrants into the market.206 The same type of "limited class" argument was made for the doctrine of licensee estoppel dealt with in Lear. There, it was asserted that the whole public was not estopped from competing with the patentee by infringing his patent and challenging its validity if sued; rather, the only ones estopped were those who promised the patentee not to challenge validity. The Court rejected that argument, because the estopped licensee was often the most likely new competition available, and the overwhelming ma-

v. Convertible Top Replacement Co., 377 U.S. 476 (1964) (to be liable, contributory infringer must know that combination for which component was designed was both patented and infringing).

204. Stiffel, 376 U.S. at 233.

205. This is the Perez-Hines test. See note 212 infra and accompanying text.

206. The adverse competitive impact which trade secret injunctions against former employees may have on the market is illustrated by the record in the Kewanee case. In addition to Kewanee and the company formed, perhaps abortively, by the defendants, there are three United States companies in the field; outside the United States, there are three or four more firms. DISTRICT CT. Op. 54. Of all these firms, only Kewanee markets the large-diameter crystals in issue in the litigation. Id. The elimination of a potential competitor from that concentrated an industry would surely raise a serious antitrust question if it were achieved by merger or combination. In cases of this type, it is inevitable that the effect of the trade secret injunction will be to impede or eliminate the competition of the former employee (whose corporation is one of the most likely new entrants) against the established firm in the industry by which he had been employed. If nothing else, the impediment to securing financing from banks which results from the existence of an injunction against a new firm will impair its ability to enter the market.

The Kewanee Court suggested that trade secrecy may be procompetitive in that it can foster or permit the subsidization of Schumpeterian competition. See 94 S. Ct. at 1886-88. But it is extremely doubtful that the value of the increment to such competition that trade secret law brings forth, over and above the amount of it already brought forth by the patent system and other existing social and economic devices, exceeds the cost to society of impeding the mobility of employees and their ability to inject new competition through new entry.
The consuming public at large is the beneficiary of competition only to the extent that rival tradesmen benefit from unrestricted exploitation of technological advances. That state trade secret relief operates against less than all the world does not make it competitively irrelevant, because, like estopped licensees, disaffected employees may be those most likely to go into competition with the plaintiff.

Federalism. Although the various foregoing interests asserted to favor nonpreemption seem too insubstantial to tip the balance against the national policy of free competition, there remains a more basic interest in federalism which may well do so. State law should not be disturbed unless it significantly interferes with federal policy. In the case of patentable secrets, there is interference (by reason of diversion) with the federal scheme in the very core area marked out for federal protection; in the case of fully disclosed secrets there is almost as direct a conflict with federal policy defining the public domain; but here, in the case of obvious secrets, it may be said that the conflict with federal policy is less direct or less absolute. A trade-off between the interest in federalism and that in the free flow of ideas reflected in the Brady decision, may justifiably lead to the conclusion that, so long as the operation of state law is kept within reasonable bounds, trade secret law should not be deemed preempted as to technical advances that are not known in the prior art (divestitively published), but which are too slight to qualify for patent protection.

The Extent of the Remedy

The issue never mentioned in the Kewanee decision, and barely referred to in any of the briefs—the nature of the remedy afforded by state law—should be one of the principal tests, if not the paramount one, in determining whether state trade secret relief is preempted because it interferes with the federal patent system or stands as an

207. See Lear, 395 U.S. at 670.
208. Accord, Scott Paper Co. v. Marcalus Mfg. Co., 326 U.S. 249, 255-56 (1945) (“If a manufacturer or user could restrict himself, by express contract, or by any action which would give rise to an ‘estoppel,’ from using the invention of an expired patent, he would deprive himself and the consuming public of the advantage to be derived from his free use of the disclosures.”) (emphasis added).
210. A further weight to be cast in the balance is that a large volume of business expectation is based on the premise that trade secrecy arrangements are valid. As to this interest, however, another option may exist—prospective application of the rule. See Phoenix v. Kolodziejski, 399 U.S. 204, 213-14 (1970); Cipriano v. City of Houma, 395 U.S. 701, 706 (1969). In Lear, the Court refused to make its ruling prospective because, in the circumstances, the decision would not “undermine any legitimate business relationships” and because so ruling would prejudice the public’s interest in competition. 395 U.S. at 674 n.19. In the instant case, the balance would seem to tip the other way, at least insofar as subpatentable secrets are concerned.
211. See note 178 supra.
obstacle to the accomplishment of its full purposes and objectives.\textsuperscript{212} Appropriate limitations on relief are necessary to insure that operation of state trade secret law remains merely an inconvenience or impediment\textsuperscript{213} to the federal scheme, rather than an obstacle to the full accomplishment of federal goals. Moreover, even if the preemption analysis previously advanced in terms of such patent law categories as novelty and obviousness were not adopted, proper limitations on relief would still be needed to prevent state law from too closely approximating the functional "equivalent of a patent monopoly."\textsuperscript{214} This central issue has been considered with great care in the trade secrecy decisions of the lower courts in recent years. That it was never addressed in what will necessarily, by default, become the landmark decision is regrettable.

\textbf{Perpetual vs. Limited Injunctions}

The critical distinction to be made in remedies, for preemption purposes, is between a perpetual injunction, on the one hand, and, on the other hand, an injunction for a period limited by: (1) "headstart" time, the time required to rediscover the secret independently,\textsuperscript{215} and (2) the time during which the secret does not actually become known. It has been argued that the critical distinction for relief, which separates permissible state action from a state grant of the functional "equivalent of a patent monopoly," is between damages and injunctions\textsuperscript{216}—any injunctions, even those for a short term.\textsuperscript{217} While such a distinction has at times been thought pertinent, its importance is overemphasized. Damage awards may interfere with federal policies virtually as much as injunctions,\textsuperscript{218} and narrow and brief

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\item \textsuperscript{212} See Perez v. Campbell, 402 U.S. 637, 649-50 (1971); Hines v. Davidowitz, 312 U.S. 52, 67 (1941).
\item \textsuperscript{213} See Goldstein, 412 U.S. at 555.
\item \textsuperscript{214} Stiffel, 376 U.S. at 233.
\item \textsuperscript{215} The concept of headstart is discussed in the separate opinion of Justice White in Lear, 395 U.S. at 682 n.2. Headstart and independent rediscovery are complementary notions. The length of a headstart is limited by the time independent rediscovery takes. Reverse-engineering time—the time it would take to determine how a product was made, once that product is on the open market—is a well-recognized form of measuring independent rediscovery time. See, e.g., Hampton v. Blair Mfg. Co., 374 F.2d 969 (8th Cir.), cert. denied, 389 U.S. 829 (1967).
\item \textsuperscript{216} This position was urged by Judge Frank in his dissenting opinion in Franke v. Wiltschek, 209 F.2d 493, 500, 502-04 (2d Cir. 1953). See also International News Serv. v. Associated Press, 248 U.S. 215, 266 (1918) (Brandels, J., dissenting). There is a suggestion to this effect in Justice Douglas’ dissent in Kewanee. 94 S. Ct. at 1994.
\item \textsuperscript{217} Cf. Cheney Bros. v. Doris Silk Corp., 35 F.2d 279, 279-80 (2d Cir.) (L. Hand, J.), cert. denied, 281 U.S. 728 (1929) (unfair competition injunctions).
\item \textsuperscript{218} See New York Times Co. v. Sullivan, 376 U.S. 254 (1964). In Compco, moreover, the Court declined to rule that monetary relief was unpreempted while injunctive relief was preempted. See also Brief of the United States as Amicus Curiae at 7, 34-37, Compco Corp. v. Day-Brite Lighting, Inc., 376 U.S. 234 (1964) (so suggesting). Instead, the Court ruled that either form of
injunctions may be relatively harmless. The proper line of demar-
cation does not depend on whether law or equity is invoked—it de-
PENDS on the impact of state relief on the relevant federal policies.

The theory on which trade secret relief is granted may affect the
scope of the injunction granted. By the same token, the legal theory
and the relief granted reflect the nature of the interest that the court
considers the trade secret holder to have in the secret. Generally, the
plaintiff in any trade secret case does not complain that he is deprived
of the ability to use the trade secret. He complains only that the de-
fendant is also using it. Simply stated, plaintiff asserts a legal right
to exclude certain others. When a state grants any permanent in-
junction (and all the more so, a permanent and perpetual one) against
a defendant's making, using, or selling the secret product or process,
the state comes very close to granting patent protection for the se-
cret. As the state remedy comes closer to duplicating the exclu-
sionary remedy of the patent system, there is progressively more sig-
nificant interference between the two schemes, preventing full ac-
complishment of the objectives of the patent laws and the objectives
of the complementary national competition policy. The near identity
of rights conferred by federal and state law led the Court in Stiffel
to hold state law preempted: "The judgment . . . gave Stiffel the
equivalent of a patent monopoly on its unpatented lamp." This

relief would improperly discourage federally protected copying. 376 U.S. at
237.

219. See generally Boys Market, Inc. v. Retail Clerks Union, Local 770, 398

220. In patent misuse cases (i.e., examples of a patentee's misuse of the eco-
nomic leverage of his patent to expand his base of power into adjacent fields,
such as by conditioning a license under the patent on the licensee's purchasing
unpatented supplies from the patentee), the Supreme Court has refused to con-
fine the doctrine to injunction cases, see, e.g., Motion Picture Patents Co. v.
Universal Film Mfg. Co., 243 U.S. 502 (1917), but has applied it to suits by
the guilty patentee for monetary relief, as well, see Morton Salt Co. v. G.S.

(1942).

The monetary relief equivalent of a perpetual injunction is an accounting
for all profits made, or damages for all lost sales. Damages measured by the
value of the effort necessary independently to rediscover the secret, or the
value of the headstart the possessor of the secret would have enjoyed, are the
equivalent of a limited injunction.

222. See Rahl, The Right to "Appropriate" Trade Values, 23 Ohio St. L.J.
56, 70 (1962).

223. Such relief is that which is available under the patent code. See 35
U.S.C. §§ 154 & 283 (1970). Thus, the Douglas dissent in Kewanee asserts that
"an injunction . . . does service for the protection accorded valid patents and
is therefore preempted." 94 S. Ct. at 1894.

224. A similar impermissible result follows when the damages are set at—
(1) the profits made by the defendant when he uses the secret in conjunction
with his own capital, skill, and effort, or (2) the sales diverted thereby from
the claimant. Such relief erroneously treats the secret as a permanent prop-
erty interest of the claimant, analogous to an infringed patent, rather than
(properly) treating the conduct with an interference with prospective advan-
tageous business relationships or a similar relational tort. See E.I. duPont de-
Nemours Powder Co. v. Masland, 244 U.S. 100, 102 (1917); Monolith Portland
1969); Blak, Employee Agreements Not to Compete, 73 Harvard L. Rev. 625, 669
(1960); Stedman, Trade Secrets, 23 Ohio St. L.J. 4, 21-22 (1962). See also In-
ternational News Serv. v. Associated Press, 248 U.S. 215, 250-51 (1918) (Bran-
deis, J., dissenting).

225. 376 U.S. at 233.
was a proper conclusion, because such state action has two adverse consequences—first, disturbing the economic balance set by Congress in the patent statute, and, second, diverting inventions from the federal system.

The recent trend of trade secrecy decisions has been to deny perpetual injunctions and to limit the duration of relief to the actual or projected period of continued secrecy of the trade secret. The injunction granted by the district court in Kewanee was limited in duration to the actual period of secrecy, which may be terminated by independent discovery and publication, or by any other disclosure that occurs by lawful means. The projected period of secrecy is measured by determining how long it would have taken to have independently rediscovered the technology—perhaps by means such as reverse-engineering—once goods embodying that technology were available.

Prior to Stiffel and Lear, one line of cases held that injunctive protection could continue in perpetuity, regardless of any subsequent termination of secrecy. In the leading case of this type, Shellmar Products Co. v. Allen-McQualley Co., the court held that an injunction against the use of a trade secret by one who had obtained it through a breach of confidence should be perpetual and survive the publication of the secret, on the theory that "by its inequitable conduct appellant has precluded itself from enjoying the rights of the general public." The Supreme

During this same period, an opposing line of cases evolved, holding that any permanent injunction against the use of a trade secret should terminate if the secret became known to the public (i.e., suffered divestitive publication). The leading such case, Conmar Products Corp. v. Universal Slide Fastener Co., expressly rejected the Shellmar rule and "the theory that it is a proper penalty for the original wrong to deny the wrongdoer resort to the patent." The Supreme

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226. See notes 15-17 supra and accompanying text.
227. 87 F.2d 104 (7th Cir. 1936), cert. denied, 301 U.S. 695 (1937).
228. Id. at 108. The publication involved in Shellmar occurred in the printed text of a patent, but other cases have applied the Shellmar rule where no patent was involved. Space Aero Prods. Co. v. R.E. Darling Co., 238 Md. 93, 123, 208 A.2d 74, 90, cert. denied, 382 U.S. 843 (1965); see Minnesota Mining & Mfg. Co. v. Technical Tape Corp., 23 Misc. 2d 671, 192 N.Y.S.2d 102 (Sup. Ct. 1959), aff'd mem., 15 App. Div. 2d 960, 226 N.Y.S.2d 1021 (1962).
229. 172 F.2d 150 (2d Cir. 1949) (L. Hand, C.J.).
230. Id. at 155-56. The suggestion may be made, perhaps both as to damages and injunctions, that different rules necessarily apply to a wrongdoer or "outlaw"—what the defendant could have done is one thing, but, because he did not do it and instead wrongfully appropriated the secret, he forfeited his right to be put in the position of a non-wrongdoer. See Franke v. Wiltschek, 209 F.2d 493, 495 (2d Cir. 1953). This approach seems not only to ignore the economic policies and interests of the general public in competition (and also, perhaps, in general advancement of knowledge) given preeminence in the Stiffel and Lear decisions, but to misunderstand the remedial or compensatory function of this aspect of the law and to confuse equity and the law governing
Court’s decisions in Stiffel and Lear appear to have settled this long-standing conflict of authority by eclipsing the Shellmar line of cases. The Court redirected the judicial focus from a mere adjustment of the relative equities between the disputing parties toward the interest of the public in having free competition in the manufacture and sale of goods not protected by a valid patent.

The eclipse of Shellmar does not, however, put all the questions raised by Stiffel to rest: Even Conmar-type injunctions can conflict with patent law policies. Once a product embodying or made by means of a trade secret is placed on the market, competitors are free to reverse-engineer or attempt to duplicate the secret, and the secret may thus become generally known, terminating the availability of injunctions, under Conmar. In other instances, however, competitors may fail to duplicate the product or dissipate the secret, even though it would seem practicable to do so. For example, there may be no competitors in the field, except the plaintiff and the defendant; other competitors may, because of product differentiation, prefer to sell the product that they have already promoted, rather than duplicate and sell plaintiff’s product; other competitors may simply choose secrecy, rather than publication, after a successful effort to duplicate the products; or other competitors may take licenses from the plaintiff and thus preclude themselves from ever dissipating secrecy. In these cases even Conmar injunctions may actually be perpetual although apparently limited in duration.

In reaction to these shortcomings of a narrow interpretation of the Conmar principle, courts have limited injunctions to the projected, as well as actual, duration of secrecy. Hence, the better or prevailing view, as expressed in such decisions as Northern Petrochemical Co. v. Tomlinson, now seems to be “that period of time for which a wrongdoer is to be restrained from the use of a trade secret is [limited] . . . to the period which would have been necessary to develop the secret by independent means.” The Northern Petrochemical court held that it would not allow the punitive remedy of a longer injunction, because “only in exceptional cases does the law of tort au-

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commercial wrongs with the criminal law and its deterrent or punitive functions. See id. at 503-04 (Frank, J., dissenting).

231. See Forest Laboratories, Inc. v. Pillsbury Co., 452 F.2d 621, 624 n.4 (7th Cir. 1971); Adelman & Jaress, Inventions and the Law of Trade Secrets After Lear v. Adkins, 10 Wayne L. Rev. 77, 87 (1969). The injunction Kewanee requested was of the Shellmar type, District Ct. Op. 23, although that which the district court granted followed the Conmar rule. Id. at 94.

232. In Compco, the concurring opinion of Justice Harlan suggested that a wrongdoer (specifically, one who had palmed his goods off as those of another) should be subject to a restriction against further copying. 376 U.S. at 239. The majority opinion, however, refused to permit such relief, “regardless of the copier’s motives.” Id. at 238.


234. Moreover, despite Conmar’s rejection of the penalty approach taken by the Shellmar line of cases, a narrow interpretation of the Conmar rule may operate punitively, as well, for it can prevent the defendant from doing as the rest of the world is free to do, without there being any reason to stop him from doing so but his previous wrong.

235. 484 F.2d 1057 (7th Cir. 1973).

236. Id. at 1059.
thorize a remedy which more than compensates a plaintiff for his loss. As [is] manifest, the theft of a trade secret is not such an exceptional case. The court of appeals found further support for its position in the competitive policy that the copyist should not be "put out of business for all time, everywhere."

Although this broader view of the Conmar principle was suggested prior to Stiffel, post-Stiffel cases such as Northern Petrochemical are more emphatic in refusing permanent injunctions against the copying of unpatented products that are on the open market, despite that the copyist originally gained his knowledge by breach of a trade secret agreement. Thus, in Hampton v. Blair Manufacturing Co., the district court permanently enjoined a former employee from duplicating or copying farm implements of his ex-employer, but the Eighth Circuit vacated the injunction as too broad: "The reasoning of Sears and Day-Brite and the holdings therein compels the holding here that Hampton cannot be permanently enjoined from duplicating or copying [these] unpatented implements."

Although the employee's conduct in appropriating blueprints was deemed "indefensible," the court of appeals held that the proper equitable relief was merely to limit his production of the implements "for the period that would have been required to reproduce such items without the aid of the [employer's] plans."

237. Id. at 1060.
238. Contrary to the plaintiff's assertion we believe commercial morality is preserved by preventing one from wrongfully using secret information for a period of time no longer than that required to discover or reproduce that information by lawful means. Where that period can be ascertained, the defendant should be put out of business only for that length of time and, thus, be prevented from obtaining any advantage by the wrongful use of trade secrets.

239. See Franke v. Willschek, 209 F.2d 493, 502-03, 507 (2d Cir. 1953) (Frank, J., dissenting).
240. 374 F.2d 969 (8th Cir.), cert. denied, 389 U.S. 829 (1967).
241. Id. at 973.
242. Id. The court of appeals noted that the wrongful acts occurred in 1963, and the injunction was entered in 1966. It was clear that a mechanic of ordinary skill could have duplicated the farm implements on the basis of those on the market, without use of the ex-employer's blueprints, well within three years and thus long before 1966. The court therefore found that the injunction should be vacated at once. Id.
The apparent difference in legal theory between the injunction granted by the district court and reinstated without discussion by the Supreme Court in Kewanee (perpetual unless the secrecy evaporates by reason of subsequent publication) and the type of injunction required by the Eighth Circuit in Hampton or the Seventh Circuit in Northern Petrochemical (limited by headstart, independent rediscovery time) rests on the nature of the claimant's legal interest that the court recognizes and protects. In Kewanee, the district court recognized the substantial equivalent of a property right in the idea, and the right was deemed to disappear, if ever, only when the property evaporates by the operation of natural forces. This is nearly the equivalent of a patent property right. The other theory values the idea largely in terms of the cost of duplicating it (in headstart time or in money); thus the theory deals with the idea in relational interest terms without patent property overtones.

The Hampton-Northern Petrochemical rule is a sound standard for relief that may be granted without need for preemption, because it avoids the potential for diverting inventions from the patent system and the undue interference with competition, and commerce in ideas, that are likely to flow from treating the interest of the originator of an idea as too nearly a patent-like property right in the idea itself. Any injunction should therefore be limited to the headstart interest, as measured by the projected time for independent rediscovery. Moreover, Conmar and similar cases are sound in refusing to enjoin copying once divestitive publication occurs. Published things are simply not secrets; when the secrecy evaporates, so does the protectible interest. More important, without secrecy there seems no justification for departure from the national policy of free competition, including encouragement of free interchange of technological ideas. This synthesis of Hampton-Northern Petrochemical and Conmar combines the best aspects of the different rules.


243. The Supreme Court has recognized that Congress may create a property right in ideas by means of appropriate legislation, see Graham, 383 U.S. at 5-6, 8 n.2, and Congress has done so. Subject to the other provisions of law governing all property, patents "have the attributes of personal property." 35 U.S.C. § 261 (1970). Aside from statute, there is no natural or inherent property right in secret or nonsecret ideas. Graham, 383 U.S. at 8-9; Stiffel, 376 U.S. at 227 n.5, 229; Wheaton v. Peters, 33 U.S. (8 Pet.) 591, 658 (1834); see Deensouth Packing Co. v. Laitram Corp., 406 U.S. 518, 525-26 (1972).

244. For an example of application of the Hampton principle to monetary relief under the Conmar doctrine, see Schreyer v. Casco Prods. Corp., 190 F.2d 921 (2d Cir. 1951), cert. denied, 342 U.S. 913 (1952) (no injunction allowed, because of publication in patent; accounting for profits ordered in respect of headstart, in marketing, because of preissuance use of patented idea; patent held invalid for lack of invention).

245. Compare the preemption analysis, text accompanying notes 154-60, 183-85 supra, based on § 102 as a limit on the definition of "secret." 246. So combining the rules also permits an approach consistent with the policies of 35 U.S.C. §§ 102-03 (1970). Conmar carries out the policy of §§ 102(a)-(b), by placing in the public domain technology which that provision of the patent law places in the public domain. Hampton and Northern Petrochemical carry out the policy of § 103, by placing technology in the public do-
It might be urged that the proper rule would be to let the injunction run for whichever of the two periods is longer, rather than shorter. But it seems clear that such a combination would merge the most undesirable aspects of each rule and come unacceptably close to permitting patent or more-than-patent protection of trade secrets. First, the protection might be perpetual, and thus in excess of the seventeen years allowed even in the case of a patent. Second, the protection might unjustifiably extend to non-secret ideas in general circulation—ideas that Lear teaches should be dedicated to the use of the public.

It has been argued that the Hampton-Northern Petrochemical rule discriminates in favor of secrets which would take very long periods of time to rediscover independently, whether by reverse-engineering or otherwise. Such secrets might thus succeed in gaining perpetual protection, while others are anomalously confined by this rule to limited terms of protection. There are several responses to this. First, if the alternative to anomaly is allowing perpetual protection for everything, the alternative may be a cure worse than the disease. Second, it is not clear that such discrimination is objectionable in any sense other than that it offends logical symmetry. If such symmetry is not needed, it should not be advanced as a reason for doing harm to recognizable federal policies. Finally, if there is indeed any anomaly resulting from the operation of such rules limiting injunctive relief in trade secret cases, the most logical solution would be to preempt all remedies which run longer than an arbitrary period that is substantially short of the patent term of 17 years.247

In sum, the duration of injunctive relief is particularly significant for distinguishing state law that interferes with the federal patent system, by too closely duplicating the protections the latter offers patentees and at the same time withdrawing the right of the general pub-

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247. A similar proposal is made in Note, The Trade Secret Quagmire—A Proposed Federal Solution, 50 MEnN. L. Rev. 1049, 1063 (1966). Legislation is suggested that would limit protection to the earliest occurring of the following: "publication by the owner or an independent discoverer; . . . the period of time it would have taken to reverse-engineer and market . . . or five years." See also Wheaton v. Peters, 33 U.S. (8 Pet.) 591, 661 (1834) (dictum: inventor does not have "a perpetual right, at common law, to sell the thing invented").

The Court has on occasion formulated an arbitrary standard that is approximate in terms of finely-tuned policymaking, but that facilitates enforcement and administration of the law because of the relative ease of its application. The per se rules in antitrust law are examples of this. See Northern Pac. Ry. v. United States, 356 U.S. 1, 5 (1958); cf. United States v. Philadelphia Nat'l Bank, 374 U.S. 321, 363-66 (1963) (30% rule in merger cases). See also Linn v. United Plant Guard Workers, 383 U.S. 53, 64-65 (1966) (adoption of N.Y. Times standards for labor dispute libels, "by analogy, rather than under constitutional compulsion . . . to effectuate the statutory design with respect to pre-emption"); Baldwin v. New York, 399 U.S. 66 (1970) (weighing advantages of jury trial to defendant against administrative inconvenience to state, and concluding that balance at which scale tips is six-months imprisonment).
lic to competition, from state law that has only peripheral impact on federal concerns. Application of the Conmar and Northern-Petrochemical rules avoids state relief that unduly interferes with federal policies, and so permits state law to operate without serious public cost and therefore remain unpreempted. Finally, a further absolute time limitation may be necessary to avoid permitting protection that approaches or exceeds in duration that provided under the patent laws.

This analysis may properly be used to resolve the trade secrecy preemption question, even if one disagrees partially or wholly with the earlier suggestions that the nature of the subject matter of the secret (in terms of patent law categories such as those of sections 102 and 103) should govern preemption. Thus, if one concluded that no state protection of unpatentable technology should be preempted per se, application of the proposed rules governing duration of injunctions would be necessary for such unpatentable technology to prevent the states from allowing too nearly the equivalent of a patent monopoly. Indeed, even if one went further and rejected the per se preemption theory based on diversion of inventions from the patent system and the need for uniform regulation, and concluded that there should not be total preemption even as to true inventions, nevertheless, the balancing of interests rules as to duration of injunctions would still be necessary to prevent too close an equivalency of trade secret protection and the patent system (and thus a disturbance of the congressional balance between partial monopoly and free competition).

**Employee Mobility and Covenants Against Competition**

That injunctions against use of trade secrets be limited in duration—the doctrine of the Conmar, Hampton, and Northern-Petrochemical cases—finds further support in the field of employee restrictions from the policy favoring free mobility of employees, reflected in a large body of case law concerning covenants not to compete. Employment contract provisions relating to trade secrets, and the effect of implied agreements or duties concerning them, such as that imposed by the district court in Kewanee, are the functional equivalents of covenants not to compete. Conceptually, an alternative approach to analysis of the trade secret preemption question may therefore be made in terms of the general law relating to these covenants. Such an analysis complements the preceding discussion of the duration of injunctive relief as a critical preemption factor.

Viewed in terms of the law governing covenants not to compete, employee trade secret agreements and injunctions enforcing them are often of questionable validity. Such agreements often are at

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248. This policy was specifically considered by the Kewanee district court, see District Ct. Op. 89-90, but was not mentioned by the court of appeals.

249. See text accompanying notes 10-17 supra.
least potentially equivalent to perpetual covenants not to compete with a former employer, anywhere in the country or, perhaps, anywhere in the world.\textsuperscript{250} Moreover, such agreements are usually very indefinite as to product scope, because they are written to operate prospectively, when the products to be covered may as yet be undiscovered. By the same token, trade secret injunctions enforcing such agreements are often correspondingly broad.\textsuperscript{251} Since \textit{Mitchel v. Reynolds},\textsuperscript{252} a covenant not to compete has been enforceable only if: its scope and duration was not substantially greater than necessary to carry out the main purpose of a lawful agreement to which the covenant was ancillary,\textsuperscript{253} and it was otherwise reasonable in the circumstances, both by not offending any other positive rule of law or legal policy and by not limiting competition substantially.\textsuperscript{254} A perpetual and geographically unlimited covenant not to compete is universally deemed unenforceable as unduly restrictive.\textsuperscript{255}

The policy favoring free mobility of employees and the doctrine of necessary and ancillary restraints are recognized by the courts in deciding whether to enforce employee covenants not to compete or trade secret agreements.\textsuperscript{256} The employee has a recognized personal interest in transferring his talents to a better paying job or one which is otherwise more to his liking,\textsuperscript{257} and society has an interest in such mobility as well. If this freedom is limited by an onerous or vague secrecy contract (perhaps a contract of adhesion),\textsuperscript{258} or because courts impose on the employee a corresponding legal duty, his economic bargaining position with his present employer is weakened; moreover, the employee or his potential new employers may be deterred by the

\textsuperscript{250} See, e.g., \textit{District Ct. Op. at 67, 69, 70, 72, 73.}\
\textsuperscript{251} The adverse effect of broad and indefinite trade secret injunctions on employee mobility and competition is discussed in \textit{E.W. Bliss Co. v. Struthers-Dunn, Inc.}, 408 F.2d 1108 (8th Cir. 1969).\
\textsuperscript{252} \textit{1 P. Wms. 181, 24 Eng. Rep. 347 (K.B. 1711).}\
\textsuperscript{253} \textit{United States v. Addyston Pipe & Steel Co.}, 85 F. 271, 279-80 (6th Cir. 1898), aff'd, 175 U.S. 211 (1899). At common law, covenants not to compete were originally unlawful per se, because of the risk that they would deprive the covenantor of his means of earning his livelihood, and because they could harm the public by depriving it of the covenantor's services and at the same time give the covenantee monopoly power over the business. See id. at 279-80; \textit{Dyer's Case, Y.B. 2 Hen. V., f. 5, pl. 26 (1414).}\
\textsuperscript{254} See \textit{United States v. Columbia Pictures Corp.}, 189 F. Supp. 153, 178 (S.D.N.Y. 1960); \textit{Briggs v. Butler}, 140 Ohio St. 499, 45 N.E.2d 757 (1942).\
\textsuperscript{255} See, e.g., \textit{Compton v. Metal Prods., Inc.}, 453 F.2d 38, 45 (4th Cir. 1971), cert. denied, 406 U.S. 968 (1972).\
\textsuperscript{256} See generally \textit{Wilson v. Clarke}, 470 F.2d 1218, 1221-22 (1st Cir. 1972); \textit{Blake, Employee Agreements Not to Compete}, 73 Harv. L. Rev. 625, 674-81, 686-87 (1960).\
\textsuperscript{257} See \textit{Greene v. McElroy}, 360 U.S. 474, 492 (1959) (collecting authorities). This interest would seem akin to that protected by the thirteenth amendment and the fundamental personal "right to travel." See \textit{Dunn v. Blumstein}, 405 U.S. 330, 338 (1972) (collecting cases); \textit{United States v. Guest}, 383 U.S. 745, 758 (1966).\
risk of costly litigation with past employers. Finally, the allocation of economic resources in our society—including technical or scientific skills—may be distorted because of impaired employee mobility.

The courts have observed that secrecy and covenants not to compete may impose on the employee a “substantial burden of diminished employment mobility.”259 Even when the covenant is limited in its operation to alleged trade secrets, such contracts “can have a chilling effect on negotiations with a prospective employer, who may wish to avoid even the threat of litigation.”260 Consequently, the courts have been concerned lest the legal protection of trade secrets become “a sword to be used by employers to retain employees by the threat of rendering them substantially unemployable in the field of their experience should they decide to resign.”261 Recognition of the impact of such burdens on the employee has led many courts to refuse to sever unduly broad post-employment restraints, or to refuse even to pare them down to an enforceable scope by use of the judicial “blue pencil,” so that the agreements were left wholly unenforceable.262 To be sure, the burdens on the employee must be balanced against the financial interests of the employer. The courts have expressly recognized that it is their responsibility to weigh these factors and balance the competing interests.263 Thus, in the much-cited decision of Wexler v. Greenberg, the court said that the “problem [was one] of accommodating competing policies in our law”; it concluded, however, that

[w]ere we to measure the sentiment of the law by the weight of both English and American decisions in order to determine whether it favors protecting a businessman from certain forms of competition or protecting an individual in his unrestricted pursuit of a livelihood, the balance would heavily favor the latter.264

260. Id.
262. See, e.g., Rector-Phillips-Morse, Inc. v. Vroman, 253 Ark. 750, 489 S.W.2d 1 (1973). In that case, because a 3-year restriction was unjustified, the court declined to grant even the 6-month injunction that the plaintiff sought; the court believed that to do so would encourage employers to overreach, for the result of blue-pencilling would be that “even though the restriction is unreasonably far-reaching the employer has nothing to lose.” See also Blake, supra note 256, at 682-83:

Courts and writers have engaged in hot debate over whether severance should ever be applied to an employee restraint. The argument against doing so is persuasive. For every covenant that finds its way to court, there are thousands which exercise an in terrorem effect on employees who respect their contractual obligations and on competitors who fear legal complications if they employ a covenantor, or who are anxious to maintain gentlemanly relations with their competitors. Thus, the mobility of untold numbers of employees is restricted by the intimidation of restrictions whose severity no court would sanction. If severance is generally applied, employers can fashion truly ominous covenants with confidence that they will be pared down and enforced when the facts of a particular case are not unreasonable.

264. 399 Pa. at 570-72, 160 A.2d at 494-95.
There is still another dimension of this analysis—the interest of the public in the mobility of scientists and engineers. This is not the general public interest in the free flow of ideas, discussed earlier; rather, it is the narrower interest of society in skilled employees as one of the factors of production and a national economic resource. In an industry where the mobility of many skilled technicians is impaired by trade secrecy agreements (or equivalent court-imposed duties), the effect may be to create serious barriers to the entry of new competition,265 as surely as would tying up sources of supply or outlets to the market.266

Accordingly, one may properly analyze the enforceability of employee trade secrecy contracts, and the grant of an injunction of similar scope, in terms of the common law rule as to covenants not to compete. That doctrine would seem to be as much a part of the national competition policy complementing our patent system267 as are the other aspects of that policy recognized in Stiffel and Goldstein.268 The conclusions reached through such an analysis would depend on the view taken of the employer's interest to be protected. That is, whether the restraint is "necessary" to protect the employer's interest depends on the court's view of the proper definition and scope of that interest.269 If the preceding preemption analysis is accepted, clearly the same conclusions would be reached here as were reached in the previous sections of this paper. As in Lear, two lines of authority would converge to reach the same result: one based on overall competition and patent policy, a Goldstein-Lear-Stiffel synthesis; the other on a more specific antitrust (or common law contract) policy, the doctrine of necessary and ancillary restraints.270 As to divestitively published and thus nonsecret technology, the employer lacks a legally protectible interest, and thus no injunction is proper. As to truly patentable technology (assuming that the defendant had the temerity to urge this theory), the employer's interest would be deemed not a legitimate and legally protectible one, because protection of the integrity of the patent system requires that his interest be subordinated to that of the public in disclosure of inventions—and thus again, no injunction would be proper. As to novel but noninventive (i.e., obvious) technology, the legitimate interest of the emp-

268. See text accompanying notes 70-82 supra.
269. See, e.g., Wilson v. Clarke, 470 F.2d 1218, 1221-22 (1st Cir. 1972).
ployer in preventing ex-employees from competing with him by use of the technology is his headstart, the time it would take to develop the technology from accessible information, so that Conmar, Hampton, and Northern Petrochemical would indicate the permissible duration of the injunction.

Moreover, even if one did not accept an analysis based on the patentability of the subject matter in terms of sections 102 and 103, the doubtful validity of long covenants not to compete relates closely to the Hampton-Northern Petrochemical and Conmar policies against similarly long injunctions. That would suggest, therefore, that one must adopt some outer time limit for injunctions, regardless of the patentability of the trade secrets involved. Indeed, the doubtful validity of long covenants not to compete furnishes considerable additional support for imposing absolute limitations against long trade secret injunctions.

Feasibility of the Proposed Rules

Inner logic is not the only test for proposed rules of law. Difficulty in administering a doctrine will lead to its demise; a more certain rule will often supplant one more complicated and expensive to administer. The Kewanee Court considered and promptly rejected the idea of one form of partial preemption, that no protection should be allowed on true inventions "which the holder should have patented, and which would have been, thereby, disclosed." It did so for two reasons. First, it was confident that inventors will always opt for the patent system if it is available (or soon lose the secret because of the "ripeness of time" concept). Second, such a rule "could well create serious problems for state courts in the administration of trade secret law." The problems would occur because "state courts would be obliged to distinguish between what a reasonable inventor would and would not correctly consider to be clearly patentable," despite such courts' inexpertness as to patent matters. The Court conceded that Lear already requires state courts to decide patent validity in suits to recover royalties due under licenses of patents that the licensee claims are invalid. No suggestion was made that this responsibility imposed insuperable burdens. The Court reasoned, however, that the administrative burden in trade secret cases would become "almost impossible." First, the alleged invention would not have been given expert screening and analysis by the Patent Office. Second, the inquiry would not only be whether the alleged invention

273. 94 S. Ct. at 1891.
274. Id.
Preemption of State Trade Secret Law

THE GEORGE WASHINGTON LAW REVIEW

was, in fact, a true, patentable invention (rather than merely a sub-patentable advance), but also, subjectively, whether the mind of a "reasonable inventor," would decide that the idea was patentable. To these two problems the Court might have added that a trade secret is not defined precisely by attorney-drafted claims, as is a patent, so that it is never too clear just what constitutes the secret. These considerations do not, however, weigh heavily against adoption of the preemption rules advanced in this article.

The Court's strictures were directed against the use of the diversion-of-inventions rationale. Assuming that defendants would actually want to litigate on the basis of diversion, the problem does not appear vastly greater than that posed by Lear, despite the Court's assertion to the contrary. That the Patent Office has decided the patentability of the subject of the trade secret is hardly essential; patent lawyers and agents are perfectly able in the course of advising their clients whether or not to apply for a patent to give validity opinions on technological developments, and the courts have no hesitation in substituting their judgments on patentability for that of the Patent Office. The lack of descriptive patent claims might make the problem more difficult, but certainly not impossibly so. The ordinary discovery processes under the Federal Rules of Civil Procedure are capable of giving at least as lucid a description of the subject matter of the secret technology as the language of the patent draftsman.

As for the proposed subjective inquiry, its utility is questionable. What the reasonable inventor considers to be "clearly patentable" (if that concept has any field of application) is not a rational standard for determining diversion. At least in the first instance the standard

275. Id. In this connection, the Court alluded to the difficulty courts may find in determining patentability. Some critics of the present patent system have asserted that patent validity (particularly, obviousness) are too unpredictable to furnish a rational basis for decision-making. See I. Kayton, The Crisis of Law in Patents, passim (1970); Milgrim, Sears to Lear to Painton: Of Whales and Other Matters, supra note 112, at 31-32. The author believes it more accurate to assert merely that the breadth of protection that can be obtained or enforced is uncertain, particularly when the claims go beyond the precise boundaries of the inventor's own device, but those skilled in the field usually will appreciate whether some amount of patent protection on the device can be secured. Generally speaking, some patent claims are usually likely to be allowed, see Fortas, The Patent System in Distress, 14 IDEA 571, 578 (Fall 1970); cf. Gentzel v. Manning, 230 F.2d 341, 345 (2d Cir.), cert. denied, 332 U.S. 840 (1956), and the real question is how close to the frontiers of the prior art will the Patent Office permit the applicant to stake out his claims. The unpredictability of this is not so great, it is submitted, as to preclude rational decisions by inventors or industry.


277. See Kewanee, 94 S. Ct. at 1889 & n.17.

278. Indeed, some have suggested that the art of claim drafting involves obscuring rather than illuminating the patented subject matter. See, e.g., Brenner v. Manson, 383 U.S. 519, 534 (1966).
should be whether, objectively, the advance was patentable. As Perez
made clear in a related context, the intent to affect federal objectives
is hardly of any significance at all compared to that of the actual ef-
fect on federal objectives. To be sure, in a borderline case the tri-
bunal may be justified in finding no preemption on the diversion
rationale, if the trade secret holder persuades it that no patent was
sought because of a good faith, rational belief that the secret was
unpatentable, because such decisions would have only a peripheral
impact on federal policy. But that is certainly the limit of permissible
inquiry into the inventor's state of mind; it should not constitute a
regular or routine threshold inquiry in trade secret cases.

Finally, the concern for the naive state courts trapped in the valid-
ity thicket may be overdrawn. A survey of the reported trade secret
decisions in the United States Patent Quarterly for the past two
years shows that about 57 percent were decided by federal courts
(which already have regular jurisdiction over patent cases), and
about 43 percent were decided by state courts (with one state, New
York, accounting for about a quarter of these. In short, in the
diversion context, where difficulty of administration could be at its
worst, the specter is exaggerated.

In the remaining and far more important field of application of the
proposed rules, the administration problem is even less significant.
First, the divestitive publication inquiry, advanced as a test for pre-
emption under the public domain and competitive impact theory is al-
ready part of the threshold inquiry in any trade secret case into
whether there was a "secret." Thus this inquiry adds little or noth-
ing to the case. If divestitive publication is not shown, under the rule
proposed earlier, the critical preemption inquiry concerns the extent
of the remedy. The court should limit any injunction to such time
until divestitive publication occurs (involving no administrative prob-
lem at all for the court), and headstart time. The latter involves a
factual prediction in which those courts using the Hampton-North-
ern Petrochemical rule have already long been engaged without suf-
fering undue administrative malaise. Moreover, it is the kind of in-
quiry that the Restatement of Torts suggested was already in use
as long ago as 1938. Finally, many of the potential causes of admin-
istrative difficulty envisioned by the Kewanee Court, such as the ab-
sence of Patent Office analysis, and the subjective state of the reason-
able inventor's mind, are completely irrelevant to determining
whether divestitive publication occurred or the length of the head-
start.

279. See text accompanying notes 85-88 supra.
280. In the last eight bound volumes of U.S.P.Q., vols. 172-79 (1972-73),
there were 74 cases indexed under trade secrets, 24 of which were decided by
federal courts and 18 by state courts. New York had 4 cases; California, Con-
necticut, Delaware, and Massachusetts each had 2; six other states had one
each.
281. See text accompanying notes 46-61 supra. See also P. Goldstein, Copy-
282. See text accompanying notes 158-62 supra.
Conclusion

The preemption of state trade secret laws can be analyzed most rational-ly in terms of direct patent law policies in the case of patentable technological advances (novel, unobvious, statutory subject matter). Such state protection should be substantially preempted, because of the risk of diversion of inventions from the federal system. In the case of unpatentable technological advances (statutory subject mat-ter that is not novel or is novel but obvious), preemption should be analyzed in terms of circumferential patent law policies (those of free competition, in a broad sense of that term) relating to the free inter-change of ideas and Congress’ economic balance between competition and monopoly power. Such state protection should be substantially preempted for non-novel ideas; state protection of novel but obvious ideas should be permitted, however, when it is limited by the value of headstart and the absence of publication. This protection is commensurate with the trade secret holder’s legitimate interest in the subject matter of the secret, and therefore also satisfies the standards of the doctrine of necessary and ancillary restraints.

The foregoing is the author’s preferred analysis. The difficulty of the subject matter, however, suggests a critical and skeptical view of the certainty of any legal analysis. Accordingly, it may be worth considering other options within the foregoing larger analysis. Some analytic refinements may be discarded in order to develop a ra-tionale with fewer premises that may be more readily accepted. First, all subpatentable technology could be treated alike, without regard to whether it is unpatentable because it lacks novelty or is obvious. In this event, one would probably choose the preemption of both on the basis of the scope of relief, as proposed above for obvious advances. One could consider the obvious as hardly different from the non-secret, and substantially preempt all state relief for either, but on balance this approach would seem to create more difficulty than the system will absorb. It is not a plausible option. A second option elim-inates the distinction between patentable inventions and unpatent-able advances. Hence, the nature of the subject matter sought to be protected becomes immaterial to preemption, and the only relevant factor is whether the state remedy is excessive. All preemption de-terminations are therefore made by balancing the extent of relief against its impact on the circumferential policies of the patent system. This does not necessarily mean that the balancing is done on a case-by-case basis. As under the prior theories, the decision should be made by means of a rule of thumb that considers headstart and publication as the factors limiting permissible relief.
These options sacrifice precision for simplicity. The author believes that to be a mistake. They emphasize, however, the centrality to this analysis of the scope of relief. That, the issue never raised or considered in *Kewanee*, must be the focus of any future effort to resolve the trade secrecy preemption problem.