THEFT OF TRADE SECRETS: THE NEED FOR A STATUTORY SOLUTION

International industrial conversion to consumer production after World War II was accompanied by rapid advances in industrial technology. The great expenditures on research and development by American industry begun then have since burgeoned, giving birth to an ironically circular problem: the need to remain technologically competitive has made industrial theft an attractive alternative to expending funds for research; and research has produced an ever more sophisticated array of technical devices to facilitate theft.\(^1\) Moreover, with the introduction of the computer, the ease of misappropriation combined with the potentially enormous value of a compact body of information has added immensely to the incentives for industrial espionage.\(^2\) Both the rewards from industrial espionage and the means to engage therein have thus reached an unprecedented level.

Meanwhile, the body of state and federal law that has traditionally coped with the problem languishes in a deepening maze of conflict and confusion. The English common law of trade secrets early found its way to America,\(^3\) but any hopes that it would evolve into a unified body died when *Erie Railroad v. Tompkins*\(^4\) relegated protection of trade secrets to the common or statutory law of the several states.\(^5\) On the other hand, the exclusive federal patent system, the constitutionally established means for protecting inventions,\(^6\) has become less available due to the rising standard of patentability imposed by the courts. In 1941 the Supreme Court ruled that a "new device, however useful it may be, must reveal the flash of creative genius, not merely the skill of the calling."\(^7\) Later cases, while repudiating the "flash of creative

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\(^6\) U.S. Const. art. I, §8, cl. 8.

\(^7\) Cuno Eng'r Corp. v. Automatic Devices Corp., 314 U.S. 84, 91 (1941); see Rich, *Test of "Unobviousness" v. Concept of "Invention,"* in *NURTURING NEW IDEAS: LEGAL RIGHTS AND ECONOMIC ROLES* 349 (L. Harris ed. 1969).
THEFT OF TRADE SECRETS

genius" test, fortified the test of "non-obviousness." In addition, patent protection, even when granted, has continued to shrink in scope.9

More and more disputes are coming within the scope of the various state laws. The research and development efforts that followed the war have been multiplied by an increasing fulfillment of Schumpeter's "destruction by innovation": though more funds are expended on research, new processes become obsolete much faster. Many of these processes are sufficiently novel to be highly profitable, yet are unpatentable. Even when they are, the lag between patent application and grant has been estimated to average three years.10 Further, since in only about thirty percent of infringement suits litigated to conclusion have the patents in question been held valid and infringed upon,11 it is no surprise that industry has turned increasingly to whatever protection it can find under trade secret law.

Not only has this confused body of state law been overworked, it has been threatened—or so many have perceived—with obliteration. The Supreme Court's decisions in Sears, Roebuck & Co. v. Stiffel Co.,12 Compco Corp. v. Day-Brite Lighting, Inc.,13 and Lear, Inc. v. Adkins14 have been responsible for these fears.15 Sears and Compco dealt not with industrial espionage, or even trade secret licensing, but with a state unfair competition law interpreted to prohibit the copying of manufactured objects unprotected by federal patent law. The Court's decision in Sears, however, was not narrowly delivered:

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.16

Prior to these words, the peaceful coexistence of trade secret protection, derived from the common law, and the patent scheme, derived from the

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9 See, e.g., Mercoid Corp. v. Mid-Continent Inv. Co., 320 U.S. 661 (1944) (holding unpatentable a mechanical component of a patented system).


15 See text accompanying notes 74-82 infra.
16 376 U.S. at 231.
Constitution, had been accepted for almost a century. The Sears opinion seemed to suggest a conflict between the two, and raised a broad issue touching even clear cases of theft: Can the states provide any protection for unpatented or unpatentable ideas without interfering with the balance between the federal patent and antitrust policies?

In response to that suggestion, the lower courts soon distinguished between ideas in the public domain and those still secret. Within the bounds of that distinction trade secrets have been protected, by temporary injunctions, if obtained through breach of a confidential relationship or other “improper means,” but not if obtained by independent research or by “reverse engineering” of a marketed product. Sears and Compco were thus easily distinguished because they involved the design of a product already within the public domain; indeed, it was by no means clear that the Court had intended to reach undisclosed trade secrets.

The problem did not die, however. Lear, a 1969 decision, resurrected the threat of federal preemption of state trade secret law, largely because of Justice Black’s especially sweeping concurring and dissenting opinion. This threat, too, appears to have been rationalized away by the most recent lower court opinion, but not without some difficulty, as will appear below.

Under technological and economic pressures, industry continues to rely on trade secret protection despite the doubtful and confused status

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18 Id. 919 & n.54.
19 Of the 57 cases citing the relevant aspect of Sears or Compco between 1964 and 1969, 24 distinguished the two; 28 followed them on similar facts (product imitation); and only 5 cases extended their principle to other circumstances. Except for contrary dictum in Winston Research Corp. v. Minnesota Mining & Mfg. Co., 350 F.2d 134, 138 (9th Cir. 1965), both state and federal courts continued to protect trade secrets after Sears. Handler, Antitrust: 1969, 55 CORNELL L. Rev. 161, 189-90 n.178 (1970).
20 395 U.S. at 677:
One who makes a discovery may, of course, keep it secret if he wishes, but private arrangements under which self-styled “inventors” do not keep their discoveries secret, but rather disclose them, in return for contractual payments, run counter to the plan of our patent laws, which tightly regulate the kind of inventions that may be protected and the manner in which they may be protected. The national policy expressed in the patent laws, favoring free competition and narrowly limiting monopoly, cannot be frustrated by private agreements among individuals, with or without the approval of the State.

of both common law and statutory remedies. Clear, uniform trade
secret protection is urgently needed, and it can be achieved only when
the continuing uncertainty of the preemption problem is laid to rest.
The most appropriate resolution would be the enactment of federal
legislation to settle both the preemption problem and the need for pro-
tection. This Comment will first examine the doctrinal problems
plaguing state trade secret protection. Secondly, it will trace these
theories in a recent industrial espionage case, in which the Court of
Appeals for the Fifth Circuit, in attempting to strike out in a new
direction, has both made the poverty of the old theories apparent and
exposed the formlessness of the newer ones. Thirdly, the latest resolu-
tion of the federal preemption problem, made by the Second Circuit in
Painton & Co. v. Bourns, Inc.,21 will be discussed in the context of the
economic necessities dictating that the law solve that problem by
acknowledging that there is a need for reliable trade secret protection.
The final section will discuss the need for, and the problems in, drawing
federal legislation.

I. INTERNAL CONFUSIONS OF TRADE SECRET LAW: THE CONCEPTS
OF PROPERTY AND SPECIAL RELATIONSHIP

Generally a trade secret is any information of commercial value,
not protected by patent, and not generally known or accessible. Accord-
ing to the venerable Restatement of Torts, a trade secret:

may consist of any formula, pattern, device or compilation
of information which is used in one's business, and which
gives him an opportunity to obtain an advantage over com-
petitors who do not know or use it.22

The subject matter constituting a trade secret has not been otherwise
restricted; it need not even be evidenced by some form of physical
matter.23 A trade secret may draw on a known process or known
ingredients.24 Items as disparate as customer lists, formulas, chemicals,
manufacturing processes,25 and, lately, computer programs, have been
considered worthy of trade secret protection.26

The common law has evolved three basic elements of a cause of
action protecting trade secrets: (1) proof of the existence of an idea
not generally known and treated by the owner as a secret; (2) improper

21 442 F.2d 216 (2d Cir. 1971).
22 IV RESTATEMENT OF TORTS § 757, comment b at 5 (1939).
23 See 2 R. CALLMANN, THE LAW OF UNFAIR COMPETITION, TRADEMARKS, AND
MONOPOLIES § 51.1, at 352 (3d ed. 1968).
24 Stone v. Goss, 65 N.J. Eq. 756, 760-61, 55 A. 736, 737 (1903) (method of
mixing known ingredients protected as trade secret).
26 See Bender, supra note 17, at 956.
disclosure or use; and (3) proof of loss, either present or future.\textsuperscript{27} The third element is not troublesome: the measure of damages is loss of competitive advantage, not loss of investment in research and development.\textsuperscript{28}

The first and second elements are troublesome. In the first, confusion has abounded regarding what sort of thing is to be protected.\textsuperscript{29} Although it may be expressed or manifested in physical matter that can be misappropriated, a trade secret is by its nature an intangible thing. As for the second element, it has been unclear what conduct is proscribed with regard to a trade secret. While remedies are available, neither leading authorities nor most cases have delineated with any certainty just what sort of improper "disclosure" or "use" the remedies are directed against. Misappropriation is itself divisible into two parts; that is, an industrial concern seeking to misappropriate secrets of a competitor can either attempt to subvert the latter's employees to whom the secret has been voluntarily disclosed or engage someone not privy to the secret to obtain it by whatever improper means are most effective. Subversion of employees has received the bulk of attention in both the literature and the courts.\textsuperscript{30} Modern industrial espionage has been in large part neglected. Both merit treatment.

The lapse in the common law development may ultimately trace back to Justice Holmes and to an unforeseen consequence of the otherwise admirable judicial tendency to achieve an equitable result by the most economical means. In one of the early leading cases in the area, Holmes delivered a statement that has become as famous in its quotation as unfortunate in its consequences:

\begin{quote}
The word property as applied to trade-marks and trade secrets is an unanalyzed expression of certain secondary consequences of the primary fact that the law makes some rudimentary requirements of good faith.\textsuperscript{31}
\end{quote}

The case was a suit to enjoin an employee from setting up his own business based on the secret process of his employer. With the potential damage clear and with the more immediate grounds of breach of confidence available, Holmes felt no need to consider the additional claim that \textit{property} had been wrongfully appropriated. In his words:

\begin{quote}
\textsuperscript{27} 52 IOWA L. REV. 63, 66-68 & nn.20, 30, 34 (1966).
\textsuperscript{28} Id. 68.
\textsuperscript{29} This first element includes proof of secrecy or reasonable attempts by the owner to protect that which is called a trade secret. See E.I. duPont deNemours & Co. v. Christopher, 431 F.2d 1012 (5th Cir. 1970), cert. denied, 400 U.S. 1024 (1971), discussed at text accompanying notes 47-59 infra; National Rejectors, Inc. v. Trieman, 409 S.W.2d 1 (Mo. 1966). Intent to maintain secrecy will be disregarded, however, if secrecy is not justified or if the secret is undeserving of equitable protection, as when secrecy is contrary to the public interest. See National Fertilizer Ass'n v. Bradley, 301 U.S. 178 (1937) (state regulation required labeling of components of a fertilizer mixture).
\textsuperscript{30} See note 34 infra.
\textsuperscript{31} E.I. du Pont de Nemours Powder Co. v. Masland, 244 U.S. 100, 102 (1917).
\end{quote}
The property may be denied but the confidence cannot be. Therefore the starting point for the present matter is not property or due process of law, but that the defendant stood in confidential relations with the plaintiffs . . . .

In accord with Holmes's analysis, the great majority of American legal scholars and courts have whenever possible deemphasized the question of plaintiff's property interests and the plaintiff's rights "against the world" with respect to a trade secret. Most of the cases have in fact involved employees and breach of confidential relationship, not theft. The courts have preferred to rely on the established legal theories of quasi-contract, unjust enrichment, and fiduciary relationships.

Initially, when trade secrets were more likely to be inventions or manufacturing processes, reliance on the property rights of a plaintiff might have been a good way to protect trade secrets. But advancing technology and increasingly complex business structures in the early part of this century brought new complications. The courts began protecting a variety of trade secrets that were not unpatented inventions but rather were merely confidential information of no general marketable value, although nevertheless valuable to a competitor. Such facts, valuable because of the exclusivity of their possession, required no element of novelty or invention. A customer list and an advertising scheme, for example, have been protected. The traditional concept of property could not support protection of such information.

The life of the property doctrine, to the extent there has been a doctrine at all, has been troublesome, and commentators are divided on the question of its viability. Courts and commentators have been...

32 Id.
33 See R. Callmann, supra note 23, § 53.4(b); 52 Iowa L. Rev. 63, 68-69 (1966).
34 In the treatises, the exhaustive list of cases dries up when the discussion reaches industrial espionage without subversion of employees or trespass, and the text at that point usually degenerates, for want of material, into a simple description of the offense and its current prevalence. See R. Callmann, supra note 23, § 56, at 468 & n.99; R. Milgrim, Trade Secrets § 5.05 (1971).
35 See R. Milgrim, supra note 34, § 4.02.
37 See Trice v. Comstock, 121 F. 620 (8th Cir. 1903). From the very start of trade secret protection in America, Peabody v. Norfolk, 98 Mass. 452 (1868), courts took such approaches. Of course, until relatively recently, technology was generally inadequate to facilitate trade secret theft without subversion or trespass.
38 Secret information was early held of measurable worth in stock valuation, In re Brandreth's Estate, 28 Misc. 468, 59 N.Y.S. 1092 (Sur. Ct. 1899) (secret recipes), and capable of forming the corpus of a trust, Green v. Folgham, 1 Sim. & Stu. 398 (Ch. 1823).
39 See R. Callmann, supra note 23, § 52.2; R. Ellis, Trade Secrets 118 (1953).
41 Compare R. Milgrim, supra note 34, § 1.01 (yes); R. Callmann, supra note 23, § 52 (uncommitted); R. Ellis, supra note 39, at 12 (not essential inquiry); Stedman, Trade Secrets, 23 Ohio L.J. 4, 21 (1962) (no).
caught in the toils of the troublesome question: Are trade secrets property? While commentators have reached no consensus, the courts, unable to afford the scholarly luxury of indecision, have "settled" the problem by recourse to the clearer doctrines that have presented themselves in the majority of cases.

A resolution of the conflicts and ambiguities in the property doctrine, while necessary and long overdue, will not alone provide a complete solution to the problems of the industrial concerns seeking a legal remedy for misappropriation by espionage. Even if the recognition of a property interest in industrial secrets establishes the right to protection of physical possession, it does not necessarily safeguard the owner from the depredations of those who learn his trade secret without asporting his "property." In the infamous Italian drug thefts, for example, the owners were able to prosecute for larceny of the drug cultures and of the copied formulas, but according to Judge Friendly would have been helpless in seeking criminal sanctions if the formulas had instead been memorized. In levying the National Stolen Property Act against the drug pirates, Judge Friendly adopted a better approach to this problem than previous courts:

In such a case, when the physical form of the stolen goods is secondary in every respect to the matter recorded in them, the transformation of the information in the stolen papers into a tangible object never possessed by the original owner should be deemed immaterial.

The focus on the nature of the offense rather than on the physical property misappropriated is an indispensable assertion of substance over form. But Judge Friendly's approach does not go far enough. The only way the law can effectively combat the methods of the modern industrial spy is to focus entirely on the conduct of the defendant, thus going beyond rejection of traditional property concepts to the complete elimination of any asportation requirement.

The accommodation of doctrine to reality necessary to strike at the substance of the offense has been sorely lacking in the common law with its tradition of specific torts. Though the writ system has long been

45 It might be argued that doctrinal flexibility has come more readily to the criminal law, despite the maxim compelling strict construction of criminal statutes. See, e.g., id.; United States v. Lester, 282 F.2d 750 (3d Cir. 1960), cert. denied, 364 U.S. 937 (1961); United States v. Seagraves, 263 F.2d 876 (3d Cir. 1959) ("goods" worth $5000 or more construed to include secret maps). A common law criminal prosecution for trade secret theft, however, is unlikely to succeed because of the requirement of permanent deprivation of possession of tangibles under common law larceny. O.W. Holmes, THE COMMON LAW 70-73 (1881).
extinct, and unfair competition has itself gradually become a tort, until recently it appears that no reported decision had upheld a private right of action for misappropriation by industrial espionage accompanied by neither trespass nor conversion of goods. Such a case has now arisen and both its facts and its holding suggest that the law of trade secrets is about to enter a new phase in which those theories will necessarily be replaced by a more accurate portrayal of the interests at stake. Remarkably, over thirty years ago this eventuality was explicitly recognized by the authors of the Restatement of Torts, and based on their foresight the Fifth Circuit has found its way, albeit through a dark hall, to the correct result. As will be seen below, even with the Restatement, only the vaguest outlines now exist to guide decisionmaking in this new area, and the time is ripe for legislation that will provide both certainty and national uniformity to a vital part of our economy.

II. DuPont v. Christopher and Its Implications

On March 19, 1969, the Christophers, Rolfe and Gary, photographers, took to the air and busily practiced their trade over the new addition to the duPont plant in Beaumont, Texas. Still under construction, the addition, when completed, would manufacture methanol by a secret—and unpatented—process. The company had developed the process after extensive research and naturally enough took special pains to preserve the competitive edge it expected to gain. Because some of the buildings were unfinished, however, parts of the process were exposed to view from overhead.

DuPont was understandably concerned about its aerial visitors and immediately investigated. By that afternoon the company had learned the identity of the Christophers and the object of their mission:

The lapse in the common law has prompted an increasing number of states to enact criminal statutes proscribing trade secret theft. See note 5 supra. But criminal statutes may short-sightedly fail to reach certain espionage situations. Some states prohibit only copying of secret material, e.g., CAL. PENAL CODE § 499c(b)(3) (West 1970); N.Y. PENAL LAW § 165.07 (McKinney 1967); PA. STAT. ANN. tit. 18, § 4899.2(b)(2) (Supp. 1971). Another group of provisions prohibits theft by those who "unlawfully obtain access" to secret material, e.g., CAL. PENAL CODE § 499c(b)(3) (West 1970); PA. STAT. ANN. tit. 18, § 4899.2(b)(1) (1) (Supp. 1971); and New York's larceny statute prohibits "wrongfully" taking or obtaining secret scientific material, N.Y. PENAL LAW § 155.05(1) (McKinney 1967). The cited provision of the California Penal Code requires both elements in combination. The problem with these provisions is that use of the undefined words "unlawfully" or "wrongfully" leaves open the question whether a theft involving neither breach of confidence nor physical trespass is proscribed. It is unclear whether the defendants in the Christopher case, discussed at text accompanying notes 47-59 infra, could be found guilty under these 3 statutes. For discussions of the problems with existing state trade secret statutes, see Comment, Industrial Espionage: Piracy of Secret Scientific and Technical Information, 14 U.C.L.A. L. Rev. 911, 927-34 (1967); 52 IOWA L. Rev. 63, 74-77 (1966).

obtaining sixteen photographs of the plant. DuPont contacted the two and asked them to reveal the name of the person or corporation requesting the photographs. The Christophers declined. Later they delivered the fruits of their labor to their client.

Subsequently, DuPont filed a diversity suit in federal district court, charging the Christophers with wrongfully obtaining photographs revealing the company's trade secrets and selling them to an undisclosed third party. The complaint recited the research involved in the process, its competitive value, the special precautions taken to protect it, and the value of the photographs in deducing the secret. DuPont sought damages and an injunction. The Christophers moved for dismissal for failure to state a claim, while DuPont moved for an order compelling disclosure of the identity of its competitor. DuPont won both contests. On the Christophers' interlocutory appeal from the trial judge's refusal to dismiss, the Fifth Circuit affirmed, and the Supreme Court denied certiorari and rehearing. The final outcome of the case can scarcely be said to hang in the balance.

The Fifth Circuit's decision is especially illuminating in both the treatment of the asserted defense and the court's piercing of the veil of form to affirm the substance of the wrong, but it also points to the difficulties inherent in judicial resolution of the doctrinal problems discussed earlier. The Christophers argued that they had committed no actionable wrong either in taking the photographs or in transmitting them to their client: they had conducted all of their activities in public airspace, breached no confidence, engaged in neither fraudulent nor illegal conduct, indeed, violated no government aviation standard. In sum, the Christophers argued that misappropriation of trade secrets cannot be actionable absent trespass, breach of a confidential relationship, or violation of an explicit legal prohibition.

The court of appeals rejected these contentions. Though the Texas precedents had dealt only with breach of confidence, trespass, or other traditionally illegal conduct, the Texas Supreme Court had adopted section 757 of the Restatement of Torts, which provides as grounds for recovery, in addition to (1) breach of confidence, actionable against both the individual who breaches and a recipient having notice of the breach, and (2) receipt with notice that disclosure was caused by mistake, a third, more flexible, ground: discovery by "improper means." The court of appeals accordingly stated:

48 Such a contention is not so far-fetched as it sounds: it is the inevitable culmination of the judicial avoidance of property doctrine in dealing with trade secret theft.
49 Hyde Corp. v. Huffines, 158 Tex. 566, 314 S.W.2d 763 (1958).
50 IV Restatement of Torts § 757 (1939):

One who discloses or uses another's trade secret, without a privilege to do so, is liable to the other if
We . . . find meaning in subsection (a) and think that the Texas Supreme Court clearly indicated by its adoption that there is a cause of action for the discovery of a trade secret by any "improper means." 51

This standard was innovative when adopted by the Restatement in 1939, because it broke from the mold of property and special relationship distinctions. The Reporter of the Preliminary Draft of this provision had attempted to catalogue those means that were then improper under the case law, citing "fraudulent representations, theft from the person or from premises and trespass to the person or to land or chattels," 52 and "disclosure in breach of contract or confidential relation." 53 In final form, however, section 757 used only the term "improper means" to cover all but the last of these items—and, indeed, included a general disclaimer indicating both a lack of confidence in the feasibility of a list and a sense of the sophisticated techniques to be dealt with:

But means may be improper under this rule even though they do not cause any other harm than that to the interest in the trade secret. Examples of such means are fraudulent misrepresentations to induce disclosure, tapping of telephone wires, eavesdropping or other espionage. A complete catalogue of improper means is not possible. In general they are means which fall below the generally accepted standards of commercial morality and reasonable conduct.54

In adopting the Restatement, the Fifth Circuit made an explicit ruling: aerial photography is an improper means of obtaining a trade secret.55 Had the court stopped there, superficial examination might suggest the case was simple and the foresight of the authors of the Restatement admirable.

But a new realm of difficulty emerges, evidenced by the court's apparent feeling that it had to further explain:

One may use his competitor's secret process if he discovers the process by reverse engineering applied to the finished product; one may use a competitor's process if he discovers it by his own independent research; but one may not avoid these labors by taking the process from the discoverer without

(a) he discovered the secret by improper means, or
(b) his disclosure or use constitutes a breach of confidence reposed in him by the other . . . .

51 431 F.2d at 1015 (emphasis added).
52 RESTATEMENT OF TORTS § 2, comment a at 5 (Preliminary Draft No. 6, 1938) (Harry Shulman, Reporter).
53 Id. § 3, comment a at 7.
54 IV RESTATEMENT OF TORTS § 757, comment f at 10-11 (1939).
55 431 F.2d at 1015.
his permission at a time when he is taking reasonable precautions to maintain its secrecy.\textsuperscript{56}

The court was probably correct in attempting to set out those actions it saw as permissible. Quite clearly, if the standard is now “improper means,” generally defined in the Restatement’s comments as “means which fall below the generally accepted standards of commercial morality and reasonable conduct,”\textsuperscript{57} we have even less than the feel provided by the words “reasonable man” so common in tort law. A means is “improper” because a court decides just that.\textsuperscript{58} And qualified only, if at all, by the inclusion of “other espionage” in the comments to section 757, that is precisely where the Restatement leaves it—without definition.

Thus one must grant that the Restatement has provided one admirable service: it has opened the door previously hinged on the property concept and bolted with the special-relationship rules. The question now to be faced is whether at this time in history, in light of the multiplication of trade secrets and expansion of sophisticated industry on a nationwide scale, recited at the beginning of this Comment, we can afford the costs inherent in leaving the contours of trade secret law to the leisurely development of the common law of the states. Guidance is needed.

The judgments whether to utilize common or statutory law, and whether that law should be promulgated at the state or federal level, are ones that, absent questions of federalism, involve a weighing of costs. It is submitted that the choice in the area of trade secret protection should favor uniformity of legal standards and interpretations, and clarity and specificity in the particular rules of conduct to be imposed.

The problem is too great and too immediate to wait for state courts to evolve standards and to risk nonuniformity.\textsuperscript{59} If legislation is not invoked in the trade secret area, the courts will, at best, have to begin from scratch. At worst, they may fail to avail themselves of the opening provided by the Restatement. And if the legislation is not

\textsuperscript{56}Id.

\textsuperscript{57} IV Restatement of Torts § 757, comment f at 11 (1939).

\textsuperscript{58} “Generally accepted standards of commercial morality” provides little if any guidance. In fact, the Fifth Circuit went on to suggest that the only standard possible is one imposed by the courts independent of commercial morality:

In taking this position we realize that industrial espionage of the sort here perpetrated has become a popular sport in some segments of our industrial community. However, our devotion to free wheeling industrial competition must not force us into accepting the law of the jungle as the standard of morality expected in our commercial relations.

431 F.2d at 1016 (emphasis added). And, even more directly, “The market place must not deviate from our mores.” Id. at 1017. The search for standards of commercial morality within the business community is not likely to be much more fruitful than the court perceived. For some varying views on the commercial morality of industrial espionage, see Furash, Problems in Review—Industrial Espionage, 37 Harvard Business Rev., Nov.-Dec. 1959, at 6.

\textsuperscript{59} The value of stolen trade secrets has been estimated at $2 billion per year, N.Y. Times, Mar. 16, 1965, § 1, at 53, col. 6, and the losses through electronic devices alone, $150 million, Vandevoort, supra note 5, at 692.
federal, we will lose both the inherent uniformity of statutory rules and the impetus toward uniformity of construction arising from the workings of a unitary federal judicial system and the requirements imposed on the state judiciary by the supremacy clause.

The questions whether the federal government can, and should, provide such legislation remain. When we turn to those problems, however, the case for federal legislation becomes even clearer, because the federal failure to exercise such a power sooner has not merely allowed confusion to pervade the area; it has actually been a cause of some of that confusion.

III. THE FEDERAL PREEMPTION PROBLEM

The Christopher decision, it can be seen, is not a comprehensive solution to the trade secret problem. Common law civil remedies are likely to prove inadequate both in providing a uniformly effective remedy for the improper procurement of trade secrets and in successfully deterring those who would engage in that practice. The inherent jurisdictional limitations of state law in this area present a severe disadvantage. Additionally, the federal preemption problem has not been convincingly laid to rest. If federal preemption extends beyond Sears and Compco—as Lear at least threatens—even the type of protection offered by Christopher may be unconstitutional. This section will discuss the magnitude of the preemption threat to state trade secret protection, and the next will proceed to the question of the desirability and need for federal legislation. In discussing federal preemption, it will be necessary to analyze the social and economic desirability of trade secret protection within the context of the policy underlying the patent scheme and federal antitrust law.

The preliminary federal preemption question is whether the constitutional grant of the patent power to Congress is an absolute bar to state action in the field. Some language in Justice Black's majority opinion in Sears suggests that the reason the patent power was allocated to the national government by the founding fathers was a need for nationwide uniformity to ensure effective patent protection. This basis for federal power, expounded in one of Madison's issues of The Federalist, stands in contrast to a second reason for granting power to the national government: the need for a uniform, nationwide policy to preserve the integrity of the union, in matters in which varying state law would rend it. Examples of the latter function are regulation of foreign commerce, the issuance of currency, and the war power, which are all within the federal legislative power under article I, section

60 U.S. Const. art. I, § 8, cl. 8.
61 376 U.S. at 228.
62 The Federalist No. 43 (J. Madison), cited in 376 U.S. at 228.
63 U.S. Const. art. I, § 8, cl. 3.
64 Id. cl. 5.
65 Id. cl. 11.
8, and in which it has always been agreed that the federal power is exclusive. Certain other article I, section 8 powers, most notably the power to regulate interstate commerce,66 are recognized as removing from state authority an enclave of exclusive federal power,67 whose size may vary somewhat with the extent to which Congress has chosen to exercise that power.68 The patent clause, in the absence of any special reason for concluding that federal power is exclusive, should be viewed in the same manner as the interstate commerce clause. Judicial language that questions state laws regulating the dissemination of inventions 69 typically assumes the existence of a residuum of state power in the face of the patent clause,70 but questions the validity of the specific manner of exercise of that power, under the supremacy clause.71

The question, then, should be the extent to which state legislatures can protect unpatented or unpatentable ideas without running afoul of the national patent scheme and therefore the supremacy clause. It is settled that state law is limited not only by the bounds of the acts of Congress but also by general federal policy as formulated by those statutes.72 The Supreme Court's language in Sears, Compco, and Lear, as will be shown, did not resolve the issue of the breadth of federal policy.

To the extent that it casts into doubt the consistency with public policy of protecting licenses of unpatentable ideas, Lear necessarily threatens the entire concept of legally protectible value in an industrial secret—even an undisclosed one. In terms of federal patent policy, there is no distinction between protecting contractual disclosure to a second party for the purpose of increasing production of goods manufactured through use of the secret, and protecting against breach of confidence or espionage. To deny all protection, however, would be to say that there is no value the law will protect in what is concededly a valuable trade secret.

The generalizations in Sears, Compco, and Lear, seen by the patent bar as disastrous were, however, no more than justifiable comments on the cases then before the Court and should not be taken, as Justice Black himself took them,73 as statements declaring the preemption of trade secret laws. Trade secret laws are much different from the unfair competition laws invalidated in Sears and Compco, and raise issues different from those treated in Lear.

66 Id. cl. 3.
70 E.g., id.: "When state law touches upon the area of these federal [patent and copyright] statutes, it is 'familiar doctrine' that the federal policy 'may not be set at naught, or its benefits denied' by the state law."
71 U.S. Const. art. VI, cl. 2.
73 See text accompanying notes 79-81 infra.
In *Lear*, an inventor of an improved gyroscope had licensed a manufacturer to use his invention. Royalties were to cease when and if the United States Patent Office refused to patent the invention. Lear ceased payments in the belief the patent would not be granted, but was wrong. When the inventor sued for royalties for the periods both before and after the grant of the patent, Lear defended by attacking the patent on the ground it had been procured by fraud. The state court held that, regardless of the patent's validity, the royalties were recoverable under state law. The case did not, however, call for a decision on whether a state could, consistent with federal patent policy, extend protection to unpatented trade secrets. The Court expressly left unanswered the question whether licenses of unpatented ideas are enforceable. Lear merely decided that a state cannot enforce a patent royalty agreement if the licensee can prove the patent invalid. The Court based this holding on a theory of frustration of overriding federal patent policy, and concluded that requiring licensees to continue paying royalties while the licensee is litigating patent validity would discourage patent challenges by licensees, those with the strongest motive to challenge a patent. Upholding an obligation to pay was also viewed as encouraging dilatory litigation tactics by the patentee, which would both further diminish the licensee's incentive to litigate and postpone the day when the "invention" would, given a successful challenge, fully and freely enter the public domain. The Court also observed that the disincentive to litigate would bear most heavily in fields in which scientific progress and concomitant technological obsolescence is most rapid: protracted litigation could absorb more time than the life of the invention, rendering litigation valueless.

Justice Black, however, took a much broader view of federal patent policy. Citing his earlier opinions in *Sears* and *Compco*, he partially dissented in *Lear*, concluding that a state may not enforce a contract that licensed a secret during the period a patent application covering that secret was pending if the discovery was later held unpatentable. Justice Black's conclusion embodied a finding that the supremacy clause in combination with federal patent law would void any protection by a state of a contract for the use of a new discovery not protected by a patent, whether or not a patent application is filed, and his conclusion might be read so broadly as to preclude any state protection—even that of the type afforded in the *Christopher* case. His reading of the specific

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74 395 U.S. at 674-75.
75 Id. at 674. The chief holding of the case was that "licensee estoppel" was contrary to patent policy: patent licensees were to be free to challenge the validity of their licensors' patents.
76 Id. at 673-74.
77 See id.
78 Id.
79 Id. at 676.
80 Id. at 676-77.
holdings in *Sears* and *Compco*, however, as well as his policy analysis, is from from compelling.\(^8\)

The conflict with federal patent policy in *Sears* and *Compco* was clear in a way not manifest if limited protection of trade secrets is afforded through enforcement of royalty agreements when no patent has been granted (whether applied for or not) or through recognition of a cause for action for improper procurement of such secrets. The unfair competition law invalidated by the Supreme Court in these two cases was interpreted to prohibit the copying of unpatented manufactured objects.\(^8\)

In other words, the state granted a virtual monopoly—broad protection closely paralleling that of federal patent law—over the production of certain products not meeting federal standards of patentability. With this sort of protection, free and open competition was subverted and federal policy contravened.

This obvious conflict is absent in the *Lear* factual situation prior to the patent application, as it is absent in the *Christopher* factual situation: protection is limited and does not resemble monopoly. In *Lear* no one other than the licensee would be restrained since others, who could learn the secret by reverse engineering, could employ it in any way they desired. In *Christopher* the restraint was upon procurement by "improper" means. Neither involves any time limits or absolute prohibitions.

So long as secrecy is maintained, the owner does enjoy a monopoly—but it is scarcely absolute. It can be extinguished by legitimate independent discovery or reverse engineering by others. Even if protection continues after limited disclosure by means of enforceable contractual licensing agreements such as the ones invalidated in *Lear*, the results need not be heinously monopolistic.\(^8\) Section 2 of the Sherman Act \(^8\) would rarely prohibit the limited competitive advantage obtained by a small firm that seeks merely to recoup its development costs by licensing an invention to others better able to market it.\(^8\) Such advantages, far from lessening competition as do the patent and trade secret pools of corporate giants,\(^8\) actually increase competition by allowing small firms to survive in a market dominated by

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\(^8\) Justice Black complained that *Sears* and *Compco* "directly" decided that a state cannot enforce licenses of ideas on which patent applications were pending and that were later held unpatentable. *Id.*

\(^8\) See *Sears, Roebuck & Co. v. Stiffel Co.*, 376 U.S. 225, 226 (1964). The Court seemed to feel that Illinois law also required a showing that the copied article was "palmed off" as the product of the original manufacturer, an evil the states can legitimately prohibit, but declined to reconsider the Seventh Circuit's broader interpretation of the law.


\(^8\) See Professor Schwartz's dissent to *REPORT OF THE ATTORNEY GENERAL'S NAT'L COMM. TO STUDY THE ANTITRUST LAWS*, in 1 ANTITRUST BULL. 37, 61 (1955).
large ones. Deprivation of protection may mean destruction of the profitability of basic research in addition to the elimination of small firms that might engage in it with a view to licensing. The repression of research incentives should be viewed with even more alarm in an age when much research is already lost to obsolescence and to patent restraint. Moreover, the effective prevention of disclosure, by refusing to enforce contractual obligations entered into in return for disclosure, is the greatest restraint possible. In looking at the monopoly issue and antitrust implications one should keep in mind that all contracts, including trade secret licenses, strictly speaking, are restraints of trade, but that not all restraints of trade violate the Sherman Act. The Act remains available to invalidate those trade secret licenses with monopolistic tendencies.\(^8\)

Under the traditional view, the patent system strikes a balance between the ideal of unrestricted public access to all worthwhile inventions and the need for a strong incentive to inventive activity, by offering a government-protected monopoly to sufficiently worthwhile innovations. Trade secret protection has been increasingly sought by modern industry because of accelerated technological progress, heavy investment in research and development, and the need to maintain a competitive advantage before obsolescence or legitimate discovery by others. The present inadequacies of the patent system—frequently unreachable standards of patentability, severe delays before the final grant, and insufficient protection against subsequent infringers who challenge the patent—have contributed to the search.\(^8\) This section has endeavored so far to show that prior Supreme Court decisions should not be read to indicate that state trade secret protection is preempted by the federal patent scheme. The remainder of this section will assess the compatibility of trade secret law and the patent scheme in terms of the two interests the patent system seeks to balance.\(^9\)

The principal reason for protecting industrial secrets against theft is the incentive to innovation: a firm will expend considerable sums in search of better products and processes only in anticipation of market profits. It needs the competitive edge derived from its innovation to recoup its investment in research. It is the head start, or additional lead time, secured by secrecy that gives the developer that competitive

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\(^8\)Invalidation of contracts not void under the antitrust laws raises the issue of an unconstitutional impairment of contract. Also, since invalidation of a trade secret or know-how license places the subject matter in the public domain, that action is arguably a fifth amendment violation in that it amounts to taking private property for public use without just compensation. See Clinic on Unfair Trade Practices, supra note 83.

\(^8\)See text accompanying notes 6-11 supra.

edge and affords opportunity for the recoupment of research investment costs that copying competitors do not have to incur. This encouragement of research and scientific progress is basic to the patent system; the patent system affords all this protection and more. But much that is worthwhile is unpatentable, and the law should not by denying all protection to unpatentable ideas contribute to the obliteration of incentives. The social advantage to the public of trade secret protection is an increased number of useful discoveries, especially by smaller firms unable to apply their own discoveries by production and too small to absorb the crushing loss of industrial theft. Competition will increase and economic efficiency will be encouraged by the development of competitive substitutes for any given commodity or process. Also, the price of a new product in high-development industries should be lower when it reaches the market, because its cost will not be inflated by the added expense of both unproductive defensive measures against espionage and a reserve for losses to industrial spies.

One argument against protecting industrial secrets is the desirability of public disclosure of all scientific advances, another assumption underlying the patent system. The disclosure required by the patent laws places a new invention in the public domain where it functions as a base from which further advances can spring. Persons other than the inventor can utilize the scientific knowledge incorporated in the invention in their own research and development. Wasteful duplication of research can be avoided, lowering the market price of comparable items. Thus courts will be reluctant to find patent infringement when through nonuse of a patent a firm has sought to suppress technical information regarding a new advance to maintain demand for the products it now manufactures. But where unpatentable ideas are concerned the choice may well be between some wasteful research under a system of limited trade secret protection and insufficient research resulting from unprofitability where no protection is provided.

Do the short-term public benefits secured by immediate disclosure through undeterred espionage or refusal to enforce contractual agreements outweigh the long-term gains afforded by legal protections that encourage research? Given the costly research efforts now common in a large number of industries and the increased vulnerability of such efforts to modern methods of industrial espionage, a denial of legal sanctions and remedies opens the door to large-scale theft. If trade secret royalty agreements are not enforced, the inventor or originator of the idea will surely not disclose it to anyone, and theft or espionage will be the only method of obtaining the secrets. Any

91 See U.S. Const. art. I, § 8, cl. 8.
policy favoring across-the-board disclosure will be defeated except to
the extent that theft and espionage propagate the secret information.
Free competition in this sense becomes unbridled and may well lead to
an escalating ground war of electronic espionage maneuvers punctuated
by photo-reconnaissance sorties from the air. Except when the secret
is a process as in Christopher, even with protection of the secret, the
product of the secret will enter the public domain, where it will be sub-
ject to discovery by others through reverse engineering. Thus, trade
secret protection cannot perpetuate secrecy except in limited circum-
stances, and, like the patent system, will ensure disclosure, but in a
different way. In the Christopher-type situation, the ramifications of
nonprotection—rapidly escalating industrial espionage raising product
costs and disrupting business—are sufficiently undesirable to outweigh
any benefits in disclosure. Since dissemination through espionage and
theft is not a part of the patent scheme, protection against it cannot be
preempted by the federal law.

Evaluating Justice Black's concerns, then, state trade secret pro-
tection and federal patent and antitrust policies seem fair bedfellows.
Similar objectives are furthered, without any significant incom-
patibilities.

The Court of Appeals for the Second Circuit in Painton & Co. v.
Bourns, Inc., has advanced some of the arguments proffered by this
Comment, taking a broad view of the permissibility of state protection
of trade secrets. The dispute revolved around Painton's right to con-
tinue using information supplied by Bourns after the expiration of the
agreement between them. Painton sought a declaratory judgment of
its continued right to use the information. The district court upheld
that right as to unpatented items on the theory that state protection of
Bourns' unpatented discoveries would discourage patent applications
and thereby undermine a federal policy. Reversing the lower court,
the court of appeals distinguished Sears and Compco:

The Illinois law of unfair competition invalidated in Sears
and Compco did confer a monopoly against copying an article
otherwise in the public domain, a monopoly good against non-contractors just as a patent or copyright would have
been. . . . An agreement licensing a trade secret is an alto-
gether different matter. It binds no one except the licensee;
all others are free, as the licensee previously was, to attempt
by fair means to figure out what the secret is and, if they
succeed, to practice it.

Writing for the court, Judge Friendly reasoned that leaving trade
secrets completely unprotected would foster hoarding by the originator
and therefore either an economic monopoly or complete disuse. Judge

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93 442 F.2d 216 (1971).
95 442 F.2d at 223.
Friendly also countered the argument that the policy underlying federal patent law would be undermined by state protection of trade secrets. Dividing trade secrets into three categories—(1) those believed by the owner to be patentable, (2) those known to be unpatentable, and (3) those whose patentability is dubious—he found little substance to the discouragement argument. Patent protection is still significantly broader than any sanctionable state protection of trade secrets. An inventor confident of his discovery's patentability would hardly trade the complete monopoly of a patent for protection only against a licensee's refusal to pay royalties or against any other person's procuring the secret by improper means. This added protection would also serve as an incentive for the inventor unsure of patentability to apply for a patent. Even if applications in this category would be stimulated by denying protection, the value of this tendency is dubious because disclosure to those willing to pay for the secret—patented or not—will be unnecessarily postponed. And when the inventor is certain of his idea's unpatentability, he would not apply under any circumstances: the discouragement argument fails again. Finally, Judge Friendly pointed out that neither Lear nor federal patent policy requires that all ideas be placed in the public domain and be dedicated to the public good: the only requirement is that all ideas already in general circulation, but not protected by a valid patent, be devoted to the public good. Limited trade secret protection would not contravene this requirement.

Painton is a commendable development in the law and would shield state protection of trade secrets from federal preemption. Neither the Supreme Court nor other circuits, however, have now accepted its rationale. But even if Painton is accepted, problems remain. Not only is the protection offered under the Christopher decision, even if soundly constitutional, questionable in other jurisdictions, but the trade secret protection doctrines in other states are confusing and ambiguous. Uniform protection against the most advanced methods of trade secret depredation is patently lacking. Without this basic protection, the Painton advancement in the application of federal preemption concepts to trade secret law is meaningless and could become moribund. Those attempts that have been made at state legislation have been shortsighted and insufficient. Although states should extend the type of protection offered in Christopher, and a Painton-type analysis would shield any such state measures until federal legislation decisively settles the preemption issue, federal legislation should be an immediate goal.

IV. FEDERAL LEGISLATION

If economic imperatives will ensure disclosure of trade secrets when desirable, one tenet of traditional theory remains to be disposed of: that all inventions worthy of public protection can receive it through the patent system. This tenet, just as the others, is far from ironclad.

See note 5 supra & accompanying text; note 45 supra & accompanying text.
The extremely high requirements for patentability have recently come under attack, as has their administration by the courts. Such criticisms attack not the patent system itself, but rather the absence of uniform and realistic standards of patentability protecting a sufficient range of worthwhile innovations.

One authority has categorized the range of subject matter that an industrialist would wish to protect by trade secret law as follows:

1. patentable inventions,
2. inventions short of the statutory standard of novelty and invention,
3. technology associated with product (e.g. plans, specifications),
4. non-technological, internal business organization, and operating methods, and
5. general methods of doing business, advertising campaigns, market research studies, lists of customers, and supplies.

Courts and legislatures have failed to recognize the importance of distinguishing these five categories and deciding what protection each merits. The first category, patentable inventions, is already accounted for, and the Patent Office treats these as trade secrets while an application is pending. The second category, unpatentable inventions, includes the major portion of industrial trade secrets and should be treated as property and protected by federal law, both civil and criminal. The third category, product technology, encompasses the broad range of industrial know-how that has assumed increasing importance, especially in the area of international trade. Technology and know-how licenses bring into the United States over $1 billion in foreign exchange each year. Perhaps federal laws could facilitate the

97 See, e.g., Arnold & Goldstein, supra note 20, at 1256-59.
98 Rich, supra note 7.
99 See Arnold & Goldstein, supra note 20, at 1256.
100 The number of innovations that are truly breakthroughs of such stature as to negate all arguments of obviousness that some court is likely to buy is de minimis. For example, the inventions often thought of as the most important of the last century are the electric light, the telephone, the electromagnetic motor, the air brake, and barbed wire. All five were such minor modifications of prior art and were so suggested by the prior art that a majority of today's courts would clearly find they lacked the requisite unobviousness to be patentable.
103 See generally Behrman, Licensing Abroad Under Patents, Trademarks and Know-How by U.S. Companies, in NURTURING NEW IDEAS: LEGAL RIGHTS AND ECONOMIC ROLES, supra note 7, at 412.
104 See Painton & Co. v. Bourns, Inc., 442 F.2d 216, 226 n.7 (2d Cir. 1971); Arnold & Goldstein, supra note 20, at 1252.
international agreements on which these licenses depend. Germany, Austria, Norway, Denmark, Sweden, Italy, France, Belgium, and the Netherlands protect industrial know-how under various provisions of unfair competition law. In an era of expanding international trade, protection of know-how agreements is necessary and desirable. Ideas covered by the fourth and fifth categories, non-technical operating methods and general methods of doing business, have competitive value, but they are neither scientific nor technological. They cannot serve as springboards for further useful research. Because of the vastly wider scope of their circulation throughout the firm, they are already quasi-public knowledge and thus not a target for large-scale theft. Accordingly protection is not imperative. It appears, then, that the only categories whose protection must be provided for are unpatented industrial inventions and industrial know-how.

Federal legislation should provide both civil and criminal remedies. A civil injunction will have meaning against a trade secret thief only if he is engaged as well in an otherwise legitimate business at a fixed location (like the Christophers). The mobile industrial spy, assuming one can effect service of process, will receive the injunction with as much amusement as a safecracker who is told he must henceforth desist from plying his trade. Even if damages are awarded, the ultimate buyer of the secret might not be found, and the mobile industrial spy is likely to be judgment-proof. And if either the thief or the firm that hired him is foreign, personal jurisdiction will be difficult to obtain.

Several years ago when the elusive Dr. Aries fled to Europe with his stolen drug formulas, American authorities were at first frustrated in their attempts to bring him back for trial. France and Switzerland, nations punishing theft of trade secrets, refused extradition because the theft in itself was not a federal crime in the United States. At a time of expanding international trade, industrial agreements, and communications, federal criminal legislation will facilitate both extradition of international thieves and prosecution by foreign tribunals that claim jurisdiction only if the offense is criminal under American federal law.

Criminal prosecution would likely be levied only in cases of considerable importance in which the evidence of guilt is clear. The lower standard of proof required in a civil action, as well as the ability to initiate the action independent of prosecutorial discretion, would induce civil prosecution in most instances. Civil remedies should prove effective against "established" thieves, and criminal remedies would aid in halting the activities of the more mobile variety. But uniform civil protection after disclosure, while necessary, is insufficient. Given the


technical means of espionage now available, only a matching criminal statute can provide sufficient deterrence and enforcement against the mobile spy whom the civil law could not otherwise reach.

One commentator has advanced arguments in favor of such a statute sufficiently compelling to bear extended quotation:

1. Small business is most vulnerable. Patents are often overlooked and insufficient to protect a small entrepreneur from an unscrupulous employee. The small businessman usually lacks the funds to pursue his civil remedies against a theft.

2. Civil discovery procedure is inadequate to investigate and seize the evidence necessary to establish guilt. A criminal statute throws up safeguards and this may seem anomalous at first, but the significance that a crime has been committed or alleged will deter many a lawyer from dilatory tactics. Given the intent to take anything or harm anyone, without excuse or justification, plus an overt act directed at carrying out that intent, a crime is complete—even though no property is actually taken or damaged. Thus, the property aspect of a criminal trade secret law is only a secondary consideration—just as it would be with any other criminal law.

3. Objective standards are automatically created. A body of solid case law would serve and buttress the civil arena.

4. As a natural corollary, criminal law protection would protect the free alienation of trade secrets since the State recognizes value, and anything of value can be bought and sold.

5. This approach avoids the ultimate destructive force which bears on any civil case law, i.e., funded interests which are willing to finance new companies, the consideration [for] subrosa morality [being] stock options.\(^{108}\)

The first and fifth of these arguments immediately emphasize the most salutary aspects of a criminal law in this area: small firms on the verge of entering a market have the benefit of protection enforced by the state, while large competitors willing to risk a damage judgment in suborning theft are deterred by the graver threat of imprisonment.

The third and fourth arguments demonstrate the essentially complementary relationship possible between the civil and criminal laws, while the second is a workable attempt at defining the material elements of the offense. If, in addition, the standards for protectible trade secrets were the same as in the civil law, the proposed criminal law could work effectively in terms of both property and conduct—by pro-

\(^{108}\) Vandevoort, supra note 5, at 690-91.
scribing both the piracy of a definite category of secrets and the act of espionage itself.\textsuperscript{109}

Several problems of proof inherent in the piracy of trade secrets remain to be solved. Though an airplane circling a new factory presents sufficient grounds for suspicion, certain methods of electronic espionage are nearly undetectable.\textsuperscript{116} In such cases the owner will have no culprit against whom he can set the criminal statute and his only remedy might be under civil law once the beneficiary of the theft turns his spoils to profit on the open market. A defense of independent invention or discovery by reverse engineering might be hard to challenge in such a situation.

Pirates sued under the civil law have been known to demur on the ground that the alleged trade secret is no secret at all, but is really in the public domain.\textsuperscript{111} Disproof of this position can be touchy when it necessitates the plaintiff's revealing his secret knowledge in detail to shows its advantage over publicly known advances in the art. An adversarial in camera hearing would only keep the secret from the world, while the immediate concern is revelation to the other party. An ex parte hearing, however, precludes cross-examination, which is particularly valuable in a technical field in which the judge may lack expertise, and indispensable under criminal procedural standards.\textsuperscript{112}

Federal legislation in the trade secret area should reerect a licensee estoppel principle. Elimination of licensee estoppel for patent licensees may well serve the public interest. Licensees, who are in the best position and have the greatest incentive to challenge the validity of a patent, are now allowed to subject dubious patents to the scrutiny of the courts and thus rid the economy of spurious patents and the monopolistic power they confer.\textsuperscript{113} The holder of a valid patent, on the other hand, can still protect himself by suing for accrued royalties and terminating the license.\textsuperscript{114} Allowing trade secret licensees to challenge the protectibility of the licensed information, however, is far different from the patent situation. A patent grant confers total monopoly for seventeen years.\textsuperscript{115} Only truly unique and worthwhile inventions should get such strong government protection. But protecting trade secrets against misappropriation is much weaker than granting patents; a trade secret is drastically limited by vulnerability to independent discovery and reverse engineering. Trade secret agreements and know-how licenses are made between parties knowing enough about the technological field to gauge the risk of legitimate discovery. And the

\textsuperscript{109} Such provisions would also eliminate the tangibility problem encountered in the federal Stolen Property Act and many comparable state statutes. \textit{Compare}, e.g., statutes cited notes 5, 45 \textit{supra}.
\textsuperscript{111} See Netolicky, \textit{supra} note 1, at 218.
\textsuperscript{114} Handler, \textit{supra} note 19, at 187.
bargain struck in an arm's-length negotiation will reflect this risk. If licensee estoppel cannot be invoked to prevent a licensee from repudiating his bargain, the licensor can find little solace in merely suing for accrued royalties. An agreement to pay royalties for a real trade secret may be unenforceable, and lack of estoppel might encourage closing sessions at which the licensee signs the agreement with one hand and before the ink is dry pulls a complaint for invalidity from behind his back with the other. If the secret is held invalid, the licensee will have obtained voluntary disclosure of a secret considered valuable by the owner and by the licensee, but not by the court. The licensee's own purchase of the license should estop his arguing that the information is already in the public domain and worthless. Otherwise the owner of a real trade secret can gain nothing by revoking the license, for repudiation by the licensee has made the contract into nothing more than the voluntary disclosure, without consideration, of a valuable trade secret that has now become utterly worthless to its rightful owner.

Federal legislation will not be easy to draw. This Comment has suggested that nontechnical operating methods should not be protected from the probing of others. The problems incurred in the administration of the minimum standards of novelty and unobviousness will probably be encountered again in trade secret legislation. Nevertheless, the federal legislation should be as specific as possible in distinguishing between nontechnical operating methods and general ways of doing business, neither of which deserves protection, and the remaining spectrum of possible industrial secrets, which the legislation should protect.

CONCLUSION

The technological developments that spurred industrial recovery after the second world war have given rise to enormous investments for research and development in a continuing search for better products to satisfy expanding world markets. These investments in technological progress, coupled with ever more rapid obsolescence, have led to an increased reliance on trade secrets and know-how licensing on a national and international scale, and a corresponding rise in industrial espionage. The present patchwork of confused common law doctrines and state criminal statutes is inadequate to protect the first and prevent the second.

Sears and Lear demonstrate that the unresolved conflicts in trade secret doctrine, as well as the external problems of accommodation with the patent scheme and national goals of free competition, cannot be easily settled by the courts. DuPont v. Christopher is a step in the right direction, but only federal statutes can ensure the uniformity and deterrence needed in the law of trade secrets. This problem area seems a fitting subject for Congressional hearings and legislation.

116 This was the question left open by the Supreme Court in Lear. See 395 U.S. at 674-75.
117 Text following note 105 supra.