THE CONFIDENCE GAME: AN APPROACH TO THE LAW ABOUT TRADE SECRETS

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Innovation has been a glory of American economic and social history. Inventors and inventions fill our folklore and have become hallmarks of our industrial progress.[1] Not all of us are enamored of science and technology, but there is no gainsaying their importance. Americans also place high values on competition among economic enterprises and on the freedom of individuals to increase their own welfare by seeking the most rewarding outlet for their talents.[2]

Innovation, competition, and individual welfare inevitably conflict with each other, however. The area of conflict that is the subject of this Article involves employees of innovative firms who have been entrusted with useful secret information and who want to leave to work for a competitor. This Article concerns the appropriate balance between the legal rights of the first employer, the employee, and of competitors, and the social values sought to be enhanced by the existence of those rights.

The conflict arises when employees of innovative firms are given information the firm believes to be trade secrets—unpatented but useful information about product designs or processes[3]—which the firm wants to keep from competitors. If such employees then leave and seek to work for

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1. *See, e.g.*, J. GIES & F. GIES, THE INGENEOUS YANKEES (1976).

2. *See, e.g.*, Thorelli, THE FEDERAL ANTITRUST POLICY—ORIGINATION OF AN AMERICAN TRADITION 564-68 (1955) (discussing the historical interrelation in the United States between classical economic theory's reliance on competition as the engine of social progress and a philosophy of "economic egalitarianism," which focused on the individual's right to maximize his own welfare). For some illuminating essays on the social benefits and burdens of science and technology since the early 19th century, see CHANGING ATTITUDES TOWARD AMERICAN TECHNOLOGY (T. Hughes ed. 1975).

3. The commonly accepted definition of information that can be protected as a trade secret is that given in *Restatement of Torts* § 757 comment b (1939). The definition includes "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 competitors who do not know or use it." It must be secret; "[m]atters of public knowledge or of general knowledge in an industry cannot be appropriated by one as his secret. . . . Substantially, a trade secret is known only in the particular business in which it is used." *Id.* The information need not be novel; "[i]ts protection is not based on a policy of rewarding or otherwise encouraging the development of secret processes or

a competing firm they are, first, exercising the valued right to change jobs. Further, mobile employees are likely to increase competition by using their skill and training for the benefit of competitors. In doing so, however, they may disclose the first firm's trade secrets, to the direct detriment of that firm and to the indirect harm of all firms which value innovation. If such information can be freely transferred in that manner, firms may have significantly less incentive to innovate, since exclusivity is arguably a necessary or at least significant reward.[4]

There are two basic problems to be faced in any attempt to create an appropriate resolution to the conflict. First, if employees have access to certain information which they can remember there is a danger it may be transmitted. Thus, an employee who doesn't know of an obligation to keep the first firm's secrets, or who is willing to disregard such an obligation may reveal the secrets. The second problem is that of an honest employee who may be aware of his obligation to respect his former employer's trade secrets but may have no satisfactory way to distinguish the information he must not disclose and that which he has a right to use. That problem largely results from the fact that the first firm has no duty to specify the information it considers to be its trade secrets.

There are several possible solutions to this dilemma. One would be to deny legal exclusivity to any information, or at least to any information not patented. Another would be to allow firms to prevent their former employees from even working for competitors by means of restrictive covenants. A third would permit firms a cause of action for disclosure or use of the firm's trade secrets. The remedy for this cause of action could be to enjoin disclosure or use or to collect damages from former employees who have disclosed trade secret information and from competitors who have used such information.

The first possibility came close to prevailing but was rejected by the United States Supreme Court in 1974.[5] The Court's decision left intact the legal status of trade secrets that exists in every state.[6] The second possibility is, with varying restrictions, valid under the law of nearly every state.[7] The third possibility is now available in every state.

Part I of this Article will describe the information practice[8]. It will

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devices. *The protection is merely against breach of faith and reprehensible means of learning another's secret.*" *Id.* (emphasis added).

The UNIFORM TRADE SECRETS ACT (1976) gives a more succinct but consistent definition:

"Trade secret" means information, including a formula, pattern, compilation, program, device, or process that:

(i) derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use, and

(ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

Id. § 1(4), 14 U.L.A. 542 (1980).

4. *See infra*, Part I(B) at pp. 354-59.

5. Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470 (1974). *See infra* notes 25-42 and accompanying text.

6. 416 U.S. at 493.

7. *See infra* Part II(A) at pp. 364-71.

8. *See infra*, Part I(A) at pp. 349-54. The "information practice" is the set of legal rules

analyze the interests of those who participate in the practice and those who benefit from it, and the beneficial and harmful aspects of restricting the availability of information. Part II analyzes restrictive covenants from several perspectives. The Article suggests that such covenants are unnecessary to protect legitimate interests and are inefficient and unfair, and thus should not be enforced. A similar analysis and conclusion is then presented with respect to the current tort-based causes of action. Part III sets out a contract-based proposal that will yield a fairer and more effective resolution of the conflict of interests which arises when trade secrets are protected.

I. The Practice and Problems of Information Exclusivity

A. *Trade Secrets, Patents and "Free" Information*

Some people can use the legal system to preclude others from using certain information. In the United States, there are two sorts of information which are protected by law against free use: information which is patented and information which is given the legal label, "trade secret." If information is neither patented nor a trade secret, it has no legal protection against use by anyone. This section summarizes the nature of and requisites for legal protection under the patent and trade secret systems, and then briefly contrasts protected and unprotected information.

If information is patented the patentee has the right to exclude others from "making, using or selling the invention [which embodies the information] throughout the United States."[9] The principal conditions exacted in return for that monopoly right are that an applicant for a patent describe the invention in specific detail,[10] which becomes publicly available

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and standards which have been applied to the several legal categories of information to determine whether and to what extent persons can keep exclusive control over a particular piece of information. Rawls, *Two Concepts of Rules*, 64 PHIL. REV. 1, 3 n.1 (1955). Rawls continues, "as examples one may think of games and rituals, trials and rituals, trials and parliaments." *Id.*

9. 35 U.S.C. § 154 (Supp. IV 1981). The Constitution grants Congress the power "[t]o promote the Progress of Science and useful Arts, by securing for limited times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries . . . . " U.S. CONST. art. I, § 8, cl. 8. The current statutory requisites for a patent are, first, that the information be patentable subject matter—"any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof." 35 U.S.C. § 101 (1976). Second, such information must be novel, in the sense that it was not "known or used by others in this country, or patented or described in a printed publication in this or a foreign country." *Id.* § 102. Third, the invention must be non-obvious—that is, the differences between the invention and the prior art would not have been obvious "to a person having ordinary skill in the art to which [the] subject matter pertains." *Id.* § 103.

10. 35 U.S.C. §§ 111-14 (1976). Section 112 provides in part:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.
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> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Id. § 112. Drawings and models may also be required. *Id.* §§ 113-14. This requirement of specific description is in sharp contrast to the conditions for legal protection of trade secrets. *See infra* text accompanying notes 135-154.

if a patent is granted,[11] and that the patent be subject to invalidation, ending the monopoly, if successfully challenged in a judicial proceeding.[12] After seventeen years at most, the monopoly ends; thereafter, others may try to share or capture the competitive advantage previously protected by the legal monopoly.[13] During this seventeen year period, anyone sufficiently aggrieved by a patent's existence may challenge its validity under the statute.[14] If the patent is invalidated, the information necessary to use the idea becomes available to the public.[15]

A patent, then is entirely a creation of that body of law which allows and enforces a legal monopoly on certain information for a certain time. In American law, the *quid pro quo* for securing the patent is disclosing the information and risking a decree of invalidity. In contrast, a trade secret in the nonlegal sense simply exists whenever an inventor creates useful information unknown to others and keeps the information secret by pure self-help. No law or legal system is necessary to protect a trade secret.[16]

The law of trade secrets is helpful to an inventor only if someone takes the information, or the inventor tells someone like an employee or licensee. If that happens, the courts of every state offer protection in the form of injunctions against or damages for disclosure or use. The critical issue usually is whether the information deserves to be characterized as a trade secret. Almost every court attempts that determination based on the definition of a trade secret given in section 757 of the *Restatement of*

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11. 35 U.S.C. §§ 111-13 (1976). The contents of the application remain undisclosed unless and until a patent issues. *Id.* § 122. If the administrative agency (the Patent and Trademark Office) determines that the invention meets the statutory criteria, a patent is granted. *Id.* §§ 111-54.

12. For example, if the owner of a patent believes that someone is infringing on the patent monopoly by making, using, or selling the invention in the United States, the owner may bring a civil action for damages and injunction. *Id.* §§ 281, 283-84. Invalidity of the patent, however, is a defense to an infringement action. *Id.* § 282. Even though section 282 provides that patents will be presumed valid, quite often courts hold that they are not. *See infra* notes 71-72 and accompanying text. If a patent is found to be invalid, the invention is no longer entitled to the statutory monopoly. Since the invention has been disclosed to the public, the invention cannot be a trade secret either. *See infra* note 19 and accompanying text.

13. A patent holder's monopoly on the use, manufacture and sale of the invention rarely involves a complete market monopoly. There are almost always other ways in which to make something if a particular process is unavailable, or available only for an exorbitant license fee. Even if the patent covers a particular machine, for example, there are almost always alternative machines which can more or less satisfactorily perform the same function. Even a machine which enjoys dramatic market acceptance usually has competitors (as xerographic photocopying machines did during the time Xerox Corporation had a patent monopoly). When the patent expires, the former patent owner loses only the monopoly, thereafter becoming a general competitor as to the invention. The former patentee may well continue to have some competitive advantage over new sellers if, in its former life as a monopolist, it was able to create sufficient market identification between the invention or product and itself. In such a case, buyers will continue to buy the invention from the former monopolist, despite new availability from others perhaps even at lower prices. The former monopolist may thus retain at least some of its former monopoly profit.

14. United States District Courts have jurisdiction over actions seeking declaratory judgments of invalidity. 28 U.S.C. § 2201 (Supp. V 1981).

15. 7 A. DELLER, DELLER'S WALKER ON PATENTS § 518 (2d ed. 1972) (citing numerous cases for the basic proposition that there is no patent infringement if a patent is invalid).

16. The state might, however, require inventors to seek patents for all inventions or at least for those which are somehow determined to be patentable. The United States government imposes no such requirement, although there has been serious argument in the past that it does by its patent scheme. The argument was rejected by the Supreme Court in Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470 (1974). *See infra* notes 25-33 and accompanying text.

Torts.[17] The most important aspect of a trade secret is that the information is both useful[18] and known only to a relative few.[19] The information user[20] and and some of its employees know, but competitors and the rest of the world generally do not. A trade secret, however, may be discovered by someone else, either as a result of independent research or of "reverse engineering."[21]

Trade secrets, until they become public information, are available for use only to a limited number of persons. To the extent the law directly or indirectly prevents dispersion to others, the legal system assists that exclusivity. In contrast, patented information remains subject to exclusive use for a definite but limited time even if independent discovery or reverse engineering occurs. When information is neither patented nor a trade se-

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17. RESTATEMENT OF TORTS § 757 comment b (1939). Synopses of the *Restatement* definition and of that of the Uniform Trade Secrets Act are given *supra* note 3. The RESTATEMENT (SECOND) OF TORTS (1979) has omitted the chapter on Miscellaneous Trade Practices that included Sections 757-61. *See* RESTATEMENT (SECOND) OF TORTS Division Nine, introductory note (1979).

18. A trade secret is information continuously useful in a business, such as a formula, process, method of operation, or a device. "It differs from other secret information in a business . . . in that it is not simply information as to single or ephemeral events in the conduct of the business, as, for example, the amount or other terms of a secret bid for a contract or the salary of certain employees . . . or the date fixed for the announcement of a new policy or for bringing out a new model or the like." RESTATEMENT OF TORTS § 757 comment b (1939).

19. The general criterion, that "[m]atters of public knowledge or of general knowledge in an industry" are not protectible trade secrets, *id.*, is obviously and inherently indefinite; so much so that the proposal made in this Article is made primarily to ameliorate that uncertainty. The *Restatement* concedes that

> "[a]n exact definition of a trade secret is not possible. Some factors to be considered in determining whether given information is one's trade secret are: (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

Id.

20. Users of information which may constitute trade secrets are almost always economic entities consisting of more than one person—firms. It is crucial to recognize that information is not lost to the firm which uses it just because it is acquired by someone else, or even by the world at large. The firm still has the information; all that is lost is exclusivity. In this very important sense, "taking" trade secret information is not an "appropriation" in the sense of "appropriating" a car or a stock certificate. Although this Article uses the word "misappropriation" to describe the conduct of using or disclosing trade secrets without authorization, such use is a misleading convenience (justifiable because the usage is so prevalent). It is important to recognize, however, that exclusivity is that which is actually lost; the information is thereafter shared. *See* Rahl, *The Right to "Appropriate" Trade Values*, 23 OHIO ST. L.J. 56, 69-73 (1962).

21. If an invention is a physical device such as a machine, a person sufficiently skilled and equipped may take it apart to learn exactly how it is made: the design and precise measurements of its components, the interrelationship of the components, even their physical composition. Such "reverse engineering" may be difficult, but is rarely impossible. Even solid-state electronic integrated circuits with components such as transistors, which may have critical design dimensions measured in microns, may be accurately measured with the use of scanning electron microscopes. It seems safe to say that if someone is interested enough, designs and physical compositions cannot be kept forever secret. A process, however, may be a different matter. Many processes (ranging all the way from making integrated circuits to making souffles) are not apparent from the finished product. If the proud chef of a perfect souffle refuses to say precisely how the ingredients were combined or how long and at what temperature it was baked, even a perfect chemical analysis of the result will not yield the secret. *See* RESTATEMENT OF TORTS § 757 comment b (1939).

cret it falls into the third category of information, that which is unprotected against use.

Public or "free" information is available to everyone with the ability to apprehend and comprehend it. Access is further limited in most instances only by economic capacity.[22] Most public information of commercial utility is readily available, since someone will be interested in disseminating it widely into an economic market to gain an economic reward. The copyright system operates on "public information" by preventing unauthorized copying and dissemination of the physical text or of close equivalents.[23] The copyright system seeks to enhance the economic reward but places no limit on the use of the information.[24] In this sense, it is the precise opposite of the patent system.

There is an inherent conflict between the trade secret and patent schemes for protecting exclusivity. There is also conflict between those schemes and the fact that information not so protected can be shared by all. In 1973 the Court of Appeals for the Sixth Circuit held in *Kewanee Oil Co. v. Bicron Corp.*[25] that a state law cause of action in tort for misappropriation of trade secrets which gives protection to information that is patentable subject matter is preempted by the federal patent law.[26] Although that result differed from decisions of other circuit courts,[27] the Sixth Circuit found an inevitable conflict to exist.[28] The court reasoned that the *quid pro quo* for a patent monopoly is "full disclosure for the benefit of the public of the manner of making and using the invention, and that upon the expiration of the patent the public be left free to use the invention."[29] The whole point of information deliberately held as a trade secret is to prevent disclosure and use for as long as possible, ideally for the entire commercially useful life of the innovation. The court of appeals found the two schemes to be in direct conflict when the information embodied patentable subject matter and when the holder had forfeited its right to seek a patent by putting the information in commercial use for more than a year.[30]

The United States Supreme Court reversed.[31] The Court reasoned

22. There are some exceptions; for example, unpublished information or information distributed only to a select group, such as investment predictions or government secrets.

23. 17 U.S.C. chs. 1-6 (1976 & Supp. V 1981). *See generally* N. BOORSTYN, COPYRIGHT LAW (1981).

24. N. BOORSTYN, *supra* note 23, at § 4.1.

25. 478 F.2d 1074 (6th Cir. 1973), *rev'd*, 416 U.S. 470 (1974).

26. *Id.* at 1086. The plaintiff conceded that the invention could have been the subject of a patent application. *Id.* at 1078.

27. *See* Painton & Co. v. Bourns, Inc., 442 F.2d 216 (2d Cir. 1971); Water Serv., Inc. v. Tesco Chems., Inc., 410 F.2d 163 (5th Cir. 1969); Winston Research Corp. v. Minnesota Mining & Mfg. Co., 350 F.2d 134 (9th Cir. 1965); Servo Corp. of America v. General Elec. Co., 337 F.2d 716 (4th Cir. 1964), *cert. denied*, 383 U.S. 934 (1966).

28. 478 F.2d at 1086.

29. *Id.* at 1083 (quoting Scott Paper Co. v. Marcalus Mfg. Co., 326 U.S. 249, 255 (1945)).

30. *Id.* at 1081. Inventions "in public use . . . in this country, more than one year prior to the date of the application for patent" are ineligible. 35 U.S.C. § 102(b) (1976).

31. Kewanee Oil Co. v. Bicron Corp., 416 U.S. 470 (1974).

> The interest of the public is that the bargain of 17 years of exclusive use in return for disclosure be accepted. 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

that the usual state law cause of action "provides far weaker protection in many respects from the patent law," so there is little reason to fear that inventors would prefer state law protection if the information is patentable.[32] The relative weaknesses the Court cited are that reverse engineering is not forbidden, and that there is a "substantial risk that the secret will be passed on to . . . competitors, by theft or by breach of a confidential relationship, in a manner not easily susceptible of discovery or proof. . . . Where patent law acts as a barrier, trade secret law functions relatively as a sieve."[33]

Scholarly criticism of *Kewanee* centered on the holding that even when patent protection is clearly available, trade secret law is not preempted.[34] Two premises seem to underlie the concern that when firms have a choice between seeking patent protection and keeping information secret they will opt for the latter. First, particularly when process information is involved, trade secrets can be kept for more than seventeen years with the help of protective law, denying the rest of the world the benefit of a patent disclosure.[35] Second, protecting trade secrets stifles employee mobility in a way that patent grants do not. The concern is not just with employee mobility as a means of information diffusion; mobility of individuals is *per se* an independent concern.[36] That patents do not harm that interest is precisely the point of this Article. When everyone knows what

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> 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.

Id. at 489.

32. *Id.* at 489-90.

33. *Id.* at 490. Justice Douglas, in dissent, pointed out that processes, as opposed to the designs of marketed products, might be immune from reverse engineering for more than 17 years, if not virtually forever. *Id.* at 496, 497 n.2 (Douglas, J., dissenting) (quoting Adelman, *Secrecy and Patenting: Some Proposals for Resolving the Conflict*, 1 AM. PAT. L. ASS'N Q.J. 296, 298-99 (1973)). Thus, he argued, two categories of patentable information seem to exist, without any particular justification for differing legal protection. Justice Douglas would not have preempted a state-law action for damages "for breach of a confidential relation" but only "an injunction against use . . . because the patent law states the only monopoly over trade secrets that is enforceable by specific performance; and that monopoly exacts as a price full disclosure." *Id.* at 498-99.

If process information may be kept secret for longer than 17 years, it might be foolish to make public disclosure in exchange for a mere 17-year monopoly. If patentable design information will be susceptible to relatively speedy disclosure through reverse engineering it would be foolish not to seek a patent.

34. *See e.g.*, Stern, *A Reexamination of Preemption of State Trade Secret Law After Kewanee*, 42 GEO. WASH. L. REV. 927 (1974); Note, *Patent Law—No Federal Preemption of State Trade Secret Law*, 1974 WIS. L. REV. 1195.

35. Stern, *supra* note 34, 975-82. Stern was particularly concerned about the use of perpetual injunctions, as opposed to those limited to the time predicted to be required to independently rediscover the invention. *Id.* at 977-82. The patent disclosure may encourage and assist noninfringing improvements during the monopoly period. In any event, when the period expires, competitors can quickly imitate (to the benefit of consumers). In short, the concern is with an additional stifling of the spread of information.

36. *See id.* at 982-86. Stern argued that injunctions may be as broad as restrictive covenants, and thus as destructive of the values attached to employee mobility.

The proposal made herein is an approach to narrowing the subject matter of anti-misappropriation injunctions, thereby focusing their impact on legitimate protection. *See infra* Part III(A), at pp. 382-83.

information is "locked up," there is no reason or incentive to "lock up" employees.

Support for the *Kewanee* result and analysis focuses on the incentives for the sort of interstitial and complementary innovations discussed below[37] which are generated by restrictive covenants and tort law, and further, on the need to protect efficiently the information which firms would in any event try to keep secret.[38] The latter point is that without legal protection against industrial espionage[39] and employee appropriation, firms would reorganize production to keep any one worker from knowing an entire secret, or make unproductive investments in extreme security precautions.[40] A concomitant theme is that legal protection against employee appropriations is necessary to protect commercial morality.[41]

The opposing arguments about incentives and morality are based on fundamentally different conceptions of the practice of allowing exclusive use of information. In one view, which favors the values of competition and employee mobility, information should be as free as possible consistent with a grudging acceptance of the patent system as a spur to socially important innovations. In the other view, the emphasis is on the need for incentives, for lessening the need for costly self-help, and for punishing immoral conduct. Neither conception dismisses the concerns of the other out of hand; the difference is in the perception of the appropriate balance. The proposal made in this Article seeks to achieve a superior accomodation of the opposing interests, thereby obviating the futile effort to decide which set of values is more important.[42]

B. *The Competing Interests when Trade Secrets are Protected*

Before attempting to judge the existing accommodation of the competing interests, those interests should be summarized. That is the purpose of this section. In brief, firms which do or might use trade secret information are interested in acquiring such information and in keeping it exclusive so as to gain a competitive advantage. Employees of such firms, like most employees, are interested in achieving the best possible return for their talents and work. Society is interested in both the level and quality of innovative activity and in the existence of vigorous competition.

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37. *See infra* notes 58-64 and accompanying text.

38. For example, Professor Wydick made the point that no one can *force* a firm to disclose information it wants to keep exclusive. Wydick, *Trade Secrets: Federal Preemption in Light of Goldstein and Kewanee (Part II)*, 56 J. PAT. OFF. SOC'Y. 4, 16-19 (1974).

39. *See* E.I. duPont de Nemours & Co., v. Christopher, 431 F.2d 1012 (5th Cir. 1970), *cert. denied*, 400 U.S. 1024 (1971) (defendant made aerial surveys of plaintiff's plant to discover trade secrets; liability found, even though there was no illegal entry onto the premises).

40. *See* Wydick *supra* note 38, at 23-24.

41. As the Court put it in *Kewanee*, "The maintenance of standards of commercial ethics and the encouragement of invention are the broadly stated policies behind trade secret law. 'The necessity of good faith and honest, fair dealing, is the very life and spirit of the commercial world.' " 410 U.S. at 481-82 (quoting National Tube Co. v. Eastern Tube Co., 3 Ohio C.C. (n.s.) 459, 462 (Cir. Ct. Muskingum Cty. 1902)).

42. See *infra* Part III, at pp. 383-93.

1. *The Interests of Those who Know and Use Trade Secret Information and of Their Employees*

The user of trade secret information has an interest in retention of exclusivity with respect to actual and potential competitors; such exclusivity, however, may not be achieved unless nearly the entire world is excluded.[43] The most significant question about exclusivity is whether it ought to be tolerated by the law at all. Society's principal interest in affording legal protection to trade secrets is to encourage industrial innovation.

a. Trade Secrets and Industrial Innovation

There is a long standing disagreement between those who assert that industrial innovation depends on a restrictive patent system[44] and those who hold that innovation does not require such restrictive measures.[45] Professor Scherer's insight is enlightening. He points out that the benefit of having a patent—preventing imitation by existing or potential competitors—may in many instances be achieved without a patent, depending on the competitive conditions in the industry and the nature of the invention.[46] The crucial question is whether the innovator will be able to gain a reward sufficient to repay the costs of the innovation and to profit from taking the risk of expending the necessary money and effort.[47] If so, that innovator and others will be encouraged to continue to spend and risk. One purpose of the patent and trade secret protective systems is to create conditions in which such rewards will often enough flow to successful innovators.[48] Professor Scherer's insight is that neither the patent grant nor the legal protection against trade secret misappropriation directly rewards the innovator. The gain comes solely from the ability to use the innovation to enhance the innovator's profits from the marketplace.

The critical economic problem for a firm deciding whether or not to incur the expense of attempting to successfully innovate is whether a technically successful innovation will result in sufficient profit. The prospect of profit must be great enough to make the scientific or technological risk worth taking; so too with the risk of market acceptance. The problem is that other firms may wait until those risks have successfully been taken and then, by rapid imitation, make as much profit as the innovator. That

43. The user is interested in exclusivity for the sake of competitive advantage, which the user hopes will be translated into enhanced profit. The translation may come about through exploitation of a product's market advantage resulting from use of the information in manufacture, or through direct sale of the information or of the use of the information. Users are naturally interested in acquiring such information, and retaining exclusivity, as cheaply as possible.

44. *E.g.*, Baxter, *Legal Restrictions on Exploitation of the Patent Monopoly: An Economic Analysis*, 76 YALE L.J. 267 (1966); F. Machlup, An Economic Review of the Patent System, Study No. 15, Subcomm. on Patents, Trademarks and Copyrights of the U.S. Senate Comm. on the Judiciary (1958).

45. *E.g.*, Turner, *The Patent System and Competitive Policy*, 44 N.Y.U.L. REV. 450 (1969).

46. F. SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 382-94 (1970).

47. *Id.* at 384.

48. *Id.* at 382-84.

might destroy the incentive to innovate. Professor Scherer points out that such a result will probably occur only if "pure and perfect competition in the strictest sense prevailed continuously—e.g., if sellers were numerous, products homogeneous, resources highly mobile, entry easy, and knowledge perfect."[49] Those conditions, however, seldom if ever prevail.[50] The crucial question is, therefore, whether imitation actually does eliminate innovative profits too rapidly.[51]

Professor Scherer identifies three phenomena which may allow innovators who do not face "pure, perfect competition" to generate sufficient profit: "natural imitation lags, the advantages of competitive product leadership, and the existence of non-patent barriers to the emergence of a competitive market structure."[52] The ultimate question here is the extent to which legal protection of trade secret information can be equated with patent protection.

Natural imitation lags exist in part because it takes time for imitators to learn of and to decide to imitate a new product or superior process.[53] The length of the lag depends in part on the innovator's pricing policy, and in part on secrecy.[54] Secrecy may involve trade secrets, of course. At the least, secrecy gives the innovator a head start—the ability to reach the market first with a superior product or a product made with a superior process. In this sense, secrecy is not only legitimate but an important part of innovation incentives, particularly if no patent is involved.

The concerns addressed by trade secret law are also involved in another source of imitation lags. Professor Scherer points out that even if potential imitators have the knowledge equivalent to, for example, patent specifications, they may not be able quickly to reduce that knowledge to practice without "know-how which can come only from carrying out one's own R&D effort, receiving generous technical assistance from the innovator, *or hiring away several of the innovator's key engineers.*"[55]

The second reason Professor Scherer thinks innovation will take place in the absence of a patent system is the existence of a product leadership

49. *Id.*

50. For excellent introductions to the concepts of and conditions for "perfect" and less-than-perfect but "workable" competition, see P. AREEDA, ANTITRUST ANALYSIS 7-43 (3d ed. 1981); L. SULLIVAN, ANTITRUST 797-806 app. A (1977).

51. F. SCHERER, *supra* note 46, at 384.

52. *Id.*

53. *Id.* at 385. Professor Scherer reproduces the results of an analysis of imitation lags originally set forth in E. MANSFIELD, INDUSTRIAL RESEARCH AND TECHNOLOGICAL INNOVATION: AN ECONOMIC ANALYSIS 134-35 (1968), which for seven innovations showed a range of one year (packaging beer in tin cans) to twenty years (continuous annealing of tin-plated steel) between first use in the United States and the approximate time when 60% of relevant producers had imitated the innovations.

54. F. SCHERER, *supra* note 46, at 385. Seeking a modest profit will probably prolong the time before successful imitation occurs, although that of course means more time is necessary to make the requisite profit. *Id.* A process innovation which results in lower cost is less likely to be as quickly recognized by competitors as a superior product, if the innovator did not change its price—and if the innovation could otherwise be kept secret.

55. *Id.* (emphasis added). It isn't clear whether Professor Scherer means to equate "know-how" with trade secrets. To the extent they are different, such non-trade secret "know-how" is human capital which those "key engineers" should be free to use as they see fit. A restrictive covenant would prevent that use.

advantage over competitors. Firms gain a competitive edge by being first in the market with a superior product. Even if exact imitations are soon available, the first firm may have created sufficient buyer identification with the product that it can still be sold for a supracompetitive price long enough to achieve a sufficient profit.[56] Conversely, if a firm is not at least occasionally an innovator, its market position eventually may erode. This sort of competition, "to be first or at least not be left behind," [57] seems to exist. Professor Scherer and his colleagues conducted a survey of large corporations in 1956 that suggested such competition was seen as more important in deciding to take the risks of innovation than patent protection.[58] Nonetheless, the prospect of patent protection may, as Professor Scherer puts it, "ignit[e] an innovation rivalry which then becomes self-sustaining." [59] The same point could be made about protectible trade secrets. Innovators, of course, do seek patents and rivals do seek to overcome the perceived advantage by "inventing around" the patent. The legal ability to protect trade secrets probably is similarly stimulating. Indeed, while a patent may often be a monopolistic frosting on an already sufficiently profitable cake, trade secrets may go more directly to the heart of the matter. Litigation to protect a patent against infringement seeks to protect a relatively quantifiable value. By the time such an action may be brought, the patent holder may have already made a sufficient profit or at least be in a position to exploit an existing product differentiation advantage. Litigation to protect a trade secret against misappropriation, on the other hand, is undertaken to protect more ephemeral and less quantifiable interests.

That such litigation is quite common indicates significant concern about losing what is perceived to be a still-necessary competitive advantage. Such concern, of course, may not be warranted; sufficient profit (from a societal viewpoint) may already have been earned, or a product leadership advantage may not be endangered. But particularly during the period in which the innovation is first being put into practice, and before a market leadership position is established, imitation would be harmful. It isn't surprising that many trade secret litigations commence just as an allegedly knowledgeable employee is leaving the plaintiff's employ for a competitor. Plaintiffs naturally seek some form of preventive relief so that alleged trade secrets won't be disclosed to the competitor; that is a much more satisfactory result than seeking damages.

Damages recoverable because of a tortious misappropriation, or a breach of a restrictive covenant (plus disclosure of trade secrets), or of the sort of contract proposed herein are unlikely to be a completely satisfactory remedy for the harm to the firm's competitive position. A successful plaintiff can probably recover either its provable losses or defendant's

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56. *Id.* at 385-86.

57. *Id.* at 386.

58. *Id.* The survey covered 91 corporations, which possessed about 30% of all United States patents held by corporations.

59. *Id.*

profits resulting from use or disclosure.[60] There are, however, difficult issues of proof beyond those ordinarily encountered. First, trade secrets are often just a part of a manufacturing process. Thus, if a defendant competitor grafts trade secret information onto an existing process, how much has it profited from the use of the new information? The answer is likely to be inherently speculative, whether high or low.[61] Second, since the plaintiff usually has not lost the use of the information, but has only involuntarily shared it with a competitor, it is hard to avoid speculation about the monetary effect of that sharing on plaintiff's profits.[62] In any event, preventing use, or even better, disclosure, is the point of having a trade secret. Both restrictive covenants and injunctions seek to prevent such disclosure.[63]

To the extent, then, that imitation lags and market leadership may suffice to spur innovative activity in the absence of a rigid patent monopoly, trade secrets and their legal recognition are important to those conditions. However, Professor Scherer suggests that while the resources devoted to "inventing around" patents—or engaging in reverse engineering or independent development to learn trade secrets—undoubtedly have resulted in valuable additional innovations, it cannot be said that those resources would not have been better used if information were freely available.[64]

The third reason a patent system may not be necessary to spur innovation applies to trade secrets as well. There may be barriers to the "emergence of a competitive market structure" such as scarcity of other resources like capital, raw material or labor, that have nothing to do with the availability of necessary information. If so, new firms may not be able in any event to enter the industry or to compete successfully.[65]

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60. *E.g.*, Timely Products Corp. v. Arron, 523 F.2d 288 (2d Cir. 1975); Clark v. Bunker, 453 F.2d 1006 (9th Cir. 1972). The distinction is between restitution—recovery of the defendant's unjust enrichment from its use of the plaintiff's trade secret—and damages—the profits lost by the plaintiff because of the enhanced competition by the defendant because of the defendant's use of the trade secret. *See generally* Johnson, *Remedies in Trade Secret Litigation*, 72 Nw. U.L. REV. 1004, 1009-25 (1978).

> In a restitutionary context, "profits" refer only to the profits made by the defendant, not the plaintiff's lost profits. This latter measure is more properly damages rather than restitution. If it is available . . . it is available not because of unjust enrichment but is available to "compensate" the plaintiff for his own loss of expectancy. There has been great confusion in the case law between the two aspects of "profit." They are separate and distinct remedies and are available alternatively or together (barring problems of double recovery) because their underlying theories are different.

Id. at 1015-16.

61. *Cf.* Telex Corp. v. I.B.M. Corp., 510 F.2d 894, 930-33 (10th Cir. 1975). Professor Johnson notes that the courts have struggled with several issues in seeking to determine the defendant's ill-gotten profits—those attributable to its use of the plaintiff's trade secret. The plaintiff has the initial burden of showing that the defendant *did* profit; the defendant must then prove what profits are not so attributable. That raises complex and often speculative issues of cost accounting and comparison between sales and costs with and without the use of the trade secret. Johnson, *supra* note 60, at 1016-22.

62. *Cf.* Tri-tron Int'l v. Velto, 525 F.2d 432 (9th Cir. 1975). *See* Johnson, *supra* note 60, at 1022-24.

63. *See generally* Berryhill, *Trade Secret Litigation: Injunctions and Other Equitable Remedies*, 48 U. COLO. L. REV. 189 (1977); Johnson, *Litigation*, *supra* note 60.

64. F. SCHERER, *supra* note 46, at 386-87. Duplication of effort is the primary waste of resources involved.

65. *Id.* at 387. On the general subject of the importance of entry barriers in making indus-

If an industry is characterized by disciplined, oligopolistic pricing, the discipline will probably remain firm enough to allow innovators to make sufficient profit on innovations even if they are quickly imitated. Oligopoly is best for all the oligopolists if they do not engage in price competition.[66] Thus, if an innovator among them is able because of market acceptance to raise its price to recoup development costs, the likely response of the other oligopolistic firms is to follow suit. These firms are likely to raise their prices to the innovator's level, even if by imitating they have been able to produce the same product and could gain market share by charging less since their cost of imitating is less than the innovative firm's development cost. Many industries are oligopolistic.[67] Professor Scherer concludes that

> It is only when the barriers to widespread and rapid imitation are weak, or when the advantages of competitive leadership are modest, or when the profit potential of the innovation is small, or when there is some adverse combination of these, that patent protection becomes an important incremental stimulus.[68]

There have been elaborate economic analyses[69] and theoretical discussions of the importance of patents and other means of rewarding innovation.[70] There have been some empirical studies that, although subject to criticism, indicate that firms innovate for the reasons other than information exclusivity that Professor Scherer found to be important. Some studies indicate that the patent system is a weak reed because courts so often find patents invalid when challenged as a defense to an action for infringement.[71] Those, too, have been criticized.[72] There is no indication, however, that firms don't seek to develop and use information they think may be kept secret. Nor is there anything so far to indicate serious error in the implication from Professor Schrerer's analysis that such secrets assist firms in the competitive struggle, if a firm is competing.

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tries less competitive, *see generally* J. BAIN, BARRIERS TO NEW COMPETITION (1956); J. BAIN, INDUSTRIAL ORGANIZATION ch. 8 (2d ed. 1968).

66. When there are only a few sellers in a market—when oligopoly obtains—and the firms are conscious of that fact, it is in their individual best interest in the long run that prices remain high. Even if a particular firm could lower its price and thus gain a larger market share, any increase in profit would be only temporary if other firms, seeing their shares erode, follow suit. Eventually, the price would be at least closer to the competitive price. The"pie" would be smaller, and all else remaining the same, the respective shares would be the same as before. *See generally* L. SULLIVAN, *supra* note 50, at 331-43.

67. *See id.* at 331-33 and sources cited therein.

68. F. Scherer, *supra* note 46, at 387-88.

69. *See* Baxter, *supra* note 44.

70. *See* Turner, *supra* note 45, at 451-58. The most prominent exponent of the value of the patent system probably is Fritz Machlup, whose study on the economics of the patent system is classic. F. Machlup, *supra* note 44.

71. *E.g.*, Pat. Trademark & Copyright J., (BNA) No. 120, at A-2 (Mar. 22, 1973) (remarks of Sen. Hart) (asserting that 72% of patents litigated in the United States Courts of Appeal are determined to be invalid); Baum, *The Federal Courts and Patent Validity: An Analysis of the Record*, 56 J. PAT. OFF. SOC'Y 758 (1974); Mahon, *Trade Secrets and Patents Compared*, 50 J. PAT. OFF. SOC'Y 536 (1968).

72. *E.g.*, Markey, *The Status of the U.S. Patent System—Sans Myth, Sans Fiction*, 59 J. PAT. OFF. SOC'Y 164 (1977) (survey sample sizes to small); Whale, *Patent Law Revision—A Dark Look at S. 2255*, J. PAT. OFF. SOC'Y 153 (1977) (the major problem is not the overall invalidation rate but that different circuits vary so widely in that respect).

b. Trade Secrets and Employee Training

Firms must disclose trade secret information to at least some of their employees so that the firm can use the information in its enterprise. That fact creates a problem for firms, and demonstrates the competing interests of employees.

Even highly educated and experienced workers require some new training when they first come to work at a new firm or when they are given a different job at the same firm; the objective is, of course, to increase the workers' abilities to produce, the economic function for which they are paid. Training involves investment by a firm of time, perhaps direct educational expenditures, and significantly, of payment to workers while they are undergoing training. The investment is in "human capital,"[73] and is rational because it results in more productive workers, who can increase both the quality and quantity of the firm's output and lower firm costs.[74] The problem is that human capital is found in human beings who may, and probably will, leave the firm, taking their training with them. Firms may thus be reluctant to make the investment to the firm's detriment (not having the most productive workers possible) to the detriment of the employees (loss of the chance to increase productivity, thereby foregoing increased wage potential), and to the ultimate detriment of society (inefficient production of goods and services).

The answer of the human capital theory is to shift to employees the cost of their own "general" training , which is useful to them even if they later work for another firm[75] since such general training increases marginal productivity.[76] Workers must pay indirectly for the training cost by accepting wages lower even than their lesser productivity would call for.[77] Rational workers will accept such lower wages because they know that after training, their wages will increase; the indirect cost is equal to or less than the value of the training.

That equilibrious situation will be thrown out of balance, however, when training includes giving workers trade secret information. Trade secret training squarely meets the definition of "general training."[78] Possession of such information will increase the worker's value to competing firms. A trade secret may, however, have a value potentially many times that of a worker's annual compensation. Further, trade secret training, in contrast to ordinary general training, may be independently valued and

73. The seminal work on human capital is G. BECKER, HUMAN CAPITAL (2d ed. 1975). The first edition was published in 1964.

74. *See generally* G. BECKER, *supra* note 73, at 15-37; Rubin & Shedd, *Human Capital and Covenants Not to Compete*, 10 J. LEGAL STUD. 93 (1981).

75. G. BECKER, *supra* note 73, at 19-20. The other kind of training, in Becker's analysis, is "specific": that which is useful primarily within the training firm. *Id.* at 26-27. Examples include some military training and training in routine procedures peculiar to an individual firm. Training may, of course, be a mixture of the two types.

76. The marginal productivity of labor is the extra output generated by adding one unit of labor, holding all other inputs constant. P. SAMUELSON, ECONOMICS 503 (11th ed. 1980).

77. G. BECKER, *supra* note 73, at 20-21.

78. That is, it is extremely valuable outside the training firm. *See* Rubin & Shedd, *supra* note 74, at 96-97.

sold.[79]

As a result, the training firm is legitimately concerned that its trade secret-trained workers may sell the secret to others. Since the firm cannot make any of its workers pay for the training,[80] it might try to influence workers not to sell the secret by paying a wage higher than justified by marginal productivity. This would not be feasible, however, since the extra payment would have to approximate the market value of the secret, and would have to be paid to each trained worker.

The valuation of the firm's loss—the value of the trade secret information—depends of course on how successful the information is now and may be in the future in terms of lower cost, higher quality, or innovative advantage (which might approach monopoly dimensions). To protect not only the investment, but also the incentive to make the investment, legal protection against unauthorized sales by employees is arguably necessary since the normal protection against appropriation of general training is not available.[81]

The user's employees who are privy to trade secret information are interested in a sort of competitive advantage parallel to that sought by the firm. To the extent such employees may be considered as economic production units, their interest is in commanding a high price for their productivity. Productivity may well be enhanced by trade secret information, giving knowledgeable employees a competitive advantage over other employees.[82]

2. *The Interests of Competitors and of Competition*

Another focus of interests is that of the group of enterprises which compete with the trade secret user. If the trade secret information actually does, or is perceived to,[83] give the user an advantage, competitors will be interested in acquiring it for themselves. The competitive ideal for each of

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79. For example, a worker trained to operate machinery which is used in more than one firm cannot sell such training independent of his own work; therefore, a firm which doesn't use such machinery has no interest in the training. In contrast, training in a trade secret process is of interest and potential value to another firm. Thus, another firm would be willing to pay the trained worker to impart to others his knowledge of the trade secret, which has a value apart from his own operation of the process.

80. Even if the firm could do so, if more than one worker paid the value of the training (the value to the firm of exclusive possession of the information) the firm would be over-compensated.

81. *See* Rubin & Shedd, *supra* note 74, at 96-100.

82. The employer may pay knowledgeable employees higher wages because of their enhanced productivity or of their specialized knowledge. This may be especially true for the employee who helped to acquire information. Such an innovator is a valuable employee, generally rewarded directly for inventions, or indirectly through a higher paying position. The reward may be both for past accomplishment and as an incentive for future innovation. Employees are not only economic production units, however. They are, of course, human beings, and therefore may be interested in a satisfying life in noneconomic terms.

83. Since a real or perceived competitive advantage can, of course, arise wholly or in part independently of trade secret information, a competitor facing a superior quality or lower-cost competing product may have to make an educated guess that trade secret information comprises all or a part of the advantage. Since competitors do not know what "secret" information the trade secret user may be using, they cannot know whether such information is a significant source of the user's advantage.

them is to know and use such information to the exclusion of others.[84]

A competitor desiring such information has several choices available after it has determined the strength of its interest in what appears to be trade secret information in the hands of other firms. The competitor may try to independently derive similar data by means which the law considers to be legitimate.[85] Alternately, it may seek to buy a right to use the secret, or may attempt to appropriate the secret from the user by espionage or bribery, including the sort of "bribery" which might most interest a user's employees: hiring them for some combination of the factors which might make working for the competitor "better." Each method of acquiring secrets has its own risks, including cost, chance of failure and legal and, perhaps, moral consequences. Employee bribery is the method which interests us here.[86]

The social interest advanced by competitors is the interest in the existence and vigor of competition. The specific concern is that resources of skill and information be allocated so that they are used most efficiently to produce goods and services. Just because some information is developed by one firm which has control over its dispersion does not mean that the information will be withdrawn entirely from market forces that will tend to efficiently allocate it; rather, just the opposite is true. Firms often actively market such information in licensing programs.[87]

The more information available, the better competition should function. This standard abstraction, embodied in the definition of a perfectly competitive market, is usually applied to information about demand, sup-

84. The strength of this interest (as each of the competing firms perceives it) thus results from the perceived absolute utility of the information, the number of existing and potential competitors which might acquire such information, the time at which they might do so, the strength of those and other competitors in others competitive respects, and the costs of acquisition and of successful reduction to practice. Another factor is often important to this complex, only partially quantifiable determination: the short life expectancy of some trade secret information. Where new information is being constantly generated, products constantly changing, and markets constantly demanding improvement, information has a tendency to rapidly become dated. In such a case, the "absolute utility" of information must be discounted by this factor.

On the other hand, there are famous examples of trade secrets which have been kept successfully for centuries, like the metallurgical techniques for making cymbals held in one family since 1623, or the formula for Chartreuse liquer, kept by the Carthusian monks for 400 years. *See* Noone, *Trade Secret versus Patent Protection*, RESEARCH MGMT. 22 (May 1978). Most trade secrets are, however, useful for much shorter times. Where an industry is rapidly introducing new and advanced product designs and processes, information must also change. The manufacture of electronic integrated circuits is a dramatic modern example of this sort of extremely rapid evolution. In such an environment, it makes little sense to seek patent protection.

85. That is, by reverse engineering or independent derivation. *See supra* note 21 and accompanying text.

86. A competitor that chooses bribery has an interest very much in common with one who does not, however. Both are interested in not having their present or potential trade secret information appropriated by bribery of their own employees. Enterprises thus have dual interests: they want to share exclusivity which is not currently theirs (through bribery if not too risky) and want to retain whatever exclusivity which they have or may obtain (including discouragement of bribery).

87. There is a worldwide market in licenses to use trade secret as well as patented information. *See generally* THE LAW AND BUSINESS OF LICENSING: LICENSING IN THE 1980'S (R. Goldscheider & T. Arnold eds. 1981); THE LAW AND BUSINESS OF LICENSING (M. Finnegan & R. Goldscheider eds. 1980).

ply, prices and costs.[88] Such information can indeed be trade secrets; there are many cases about customer lists and business data.[89] There is a conflict between the competitive ideal and a real need for firms to keep such information confidential. The conflict also applies to the sort of information of primary concern here, design and especially process information. Such information is the source of product differentiation and lower cost. Perfect competition by definition exists only when all products that perform the same function are virtually identical, so that competition is solely on the basis of price. But a competitor's incentive to make products that perform the same function better, or perform new functions, is enhanced, if not always dependent, on product differentiation.[90] Innovation may also lower costs and thus, in a competitive market, lower price. If a certain useful product exists because information exclusivity was a necessary incentive to innovate, that is better than if the product doesn't exist at all. But consumers are best off when there are several competitors making the product. Photocopying machines are a dramatic example of this point. It is possible that without the incentive of being able to protect and exploit information under patent laws, the Xerox Corporation's process and machines would not have come into being or would not have been improved by Xerox over the life of the patents.[91] Now that the patents have expired, however, there are a large number of competitors competing vigorously on price and on innovations.

Protecting trade secrets might not hinder this type of post-patent competitive flourish. If Xerox had not sought patents, but had relied instead on trade secrets, possibly a combination of reverse engineering, expiration of restrictions against competing employment as to skilled and knowledgeable former Xerox employees, and inevitable breaches of covenants and misappropriation of trade secrets would have generated competition before expiration of the patents. On the other hand, if the innovation is more or less immune to reverse engineering except perhaps at extreme cost (such as is the case with many processes) and if trade secret components can be kept from competitors through restrictive covenants, competing products that would depend on information protected as trade secrets may never appear.

This would not be the end of all competition, nor would a less than ideal competitive situation be entirely the result of protecting trade secrets. Competitors would have their own processes, even if not as good; they are likely to provide stronger competition than if the products themselves are patented.

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88. *See* L. SULLIVAN, *supra* note 50, at 804-06.
89. *See generally* 2 R. CALLMANN, UNFAIR COMPETITION, TRADEMARKS & MONOPOLIES §§ 14.09, 14.31 (4TH ED. 1981).
90. *See infra* notes 56-58 and accompanying text.
91. *See* J. DESSAUER, MY YEARS WITH XEROX (1971).

II. The Accommodation of Interests in Restrictive Covenants and the Tort of Misappropriation

There are two legal devices now available to firms which have unpatented information to protect their interest in exclusivity. The first device to be discussed, a restrictive covenant, is overbroad for several reasons. First, it tends to hinder the spread of information that is not a trade secret, and thus unduly limits the efficient dispersal of skill. Second, restrictive covenants impinge too broadly on the interest of employees in advancing their own welfare by obtaining the most rewarding jobs their individual talents can command. The second protective device which the law makes available is the tort of misappropriation of a trade secret. The defect of the tort cause of action arises from the difficulty of knowing in advance of a judicial determination what information actually is protectible as a trade secret. That uncertainty creates an *in terrorem* effect which, by making knowledgeable employees and firms that want to hire them overly cautious, is detrimental to the spread of useful and unprotectible information and to employee welfare.

A. *Restrictive Covenants*

1. *Operation of Restrictive Covenants*

In the usual restrictive covenant arising from the employment relationship,[92] the worker promises not to work for a competitor for some period of time after leaving the firm, perhaps limited to some geographic area.[93] Once the firm has shown that the purpose of the covenant is to protect its legitimate interest in preventing unauthorized dispersal of trade secrets, the covenant will be enforced if the firm in addition shows merely that the duration and geographic coverage are not unreasonable.[94] The principal remedy for an existing or threatened violation of an enforceable restrictive covenant is an injunction against the competing employment. Courts generally have not attempted to separate general training informa-

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92. Some "restrictive covenants" are promises made by sellers of businesses not to compete in the same market for some period of time. The interest protected is that of the goodwill purchased along with the physical assets of the acquired business. *See generally* RESTATEMENT (SECOND) OF CONTRACT § 188(2)(a) (1981) & comment (f) (1979); 3 R. CALLMANN, *supra* note 89, at § 16.13. The discussion in this Article does not extend to such restrictive covenants.

93. *See generally* Blake, *Employee Agreements Not to Compete*, 73 HARV. L. REV. 625 (1960); Wetzel, *Employment Contracts and Noncompetition Agreements*, 1969 U. ILL. L.F. 61. Most of the decided cases involve restrictions for the stated purpose of preventing former employees from exploiting their knowledge of "secret" customer lists or customer requirements, or more generally, of customer contacts. Blake, *supra*, at 646-67. The discussion in this Article does not include consideration of those restraints.

94. The usual articulation of the process of deciding if a restraint is reasonable, and thus enforceable, is that courts will consider whether it "(1) is no greater than is required for the protection of the employer, (2) does not impose undue hardship on the employee, and (3) is not injurious to the public." Blake, *supra* note 93, at 648-49. *See, e.g.*, American Hot Rod Ass'n v. Carrier, 500 F.2d 1269, 1276-79 (4th Cir. 1974); Southwest Forest Indus., Inc. v. Sharfstein, 482 F.2d 915, 924-25 (7th Cir. 1972). It appears, however, that once it is determined there is a legitimate employer interest in the restraint—certainly including protection of trade secrets—"courts usually find the relevant considerations exhausted; the other branches of the . . . formulation are seldom, as separate considerations, given much attention." Blake, *supra* note 93 at 649-50. *See id.* at 686-87; 2 R. CALLMANN, *supra* note 89, at § 14.04, 3 *id.* at § 16.13.

tion and skills from trade secret information; the whole point of such a covenant is to prevent the appropriation of trade secrets by keeping the employee from working for a competing firm.[95] A restrictive covenant to protect the employer against competing use of trade secret information is thus intentionally overbroad, considering its limited purpose.[96] The loss of the worker's use of the paid-for portion of general training is ameliorated somewhat by the limitation that the restriction be "reasonable" in time and area.[97] Even apart from the usual and inherent problems of defining "reasonableness," the restriction does of course prevent the worker from using his general training for some period of time in some geographic area.

A trade secret used even in a remote geographic area—remote in the sense that the restricting employer does not compete in the market there—may result in the loss of the essential secrecy element, leading to the legitimate subsequent use of the secret by a geographically closer actual competitor. As a result there is no longer a protectible secret.[98] Further, most of the industries likely to generate trade secrets are competitive on a national or at least large regional scale. Thus, any geographic limitation would often be illusory. To be effective, a restriction must "reasonably" cover an area if not nationwide, then at least large enough to require the worker to relocate at a great distance to escape its ambit.[99]

The result is that the limiting parameter is generally time. Unless the trade secret is of such ephemeral duration that it is hardly worth protecting, the time element must be measured in years.[100] A worker is thus prevented from intentionally or inadvertently disclosing trade secret information to competitors, but at a significant cost: neither the worker nor the competitor may use or benefit from the non-trade secret general training for which the worker has already paid.[101]

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95. It may be that the firm does not have to allege even that the purpose is to protect information which is "trade secret" in the legal sense; an interest in "confidential information" may suffice. *E.g.*, Lear Siegler, Inc. v. Ark-Ell Springs, Inc., 404 F. Supp. 1295 (N.D. Miss. 1975), *aff'd*, 569 F.2d 286 (5th Cir. 1978); Structural Dynamics Res. Corp. v. Engineering Mech. Res. Corp., 401 F. Supp. 1102 (E.D. Mich. 1975); A. Hollander & Son, Inc. v. Imperial Fur Blending Corp., 2 N.J. 235, 66 A.2d 319 (1949); *see* Water Serv., Inc. v. Tesco Chems., Inc., 410 F.2d 163 (5th Cir. 1969).

Where protection of alleged trade secrets is asserted to be the purpose of the covenant, the majority rule appears to be that the firm does not need to prove the existence of the trade secrets, although a showing of some element of secrecy or confidentiality seems to be necessary, as discussed above. 1 R. MILGRIM, TRADE SECRETS §§ 3.02[1][d], 3.05[1][a] (1978). The following seems to be an accurate reflection of the general approach: "The validity of the covenant is not predicated on methods or processes secret in fact and revealed to the employee in confidence but rests on the protection afforded an employer against disclosure of business and industrial methods and processes used, records compiled and customer contacts made in the employment." *A. Hollander & Son, Inc.*, 2 N.J. 235, 248, 66 A.2d 319, 325.

96. The intentional overbreadth of restrictive covenants, their most troubling aspect, was recognized—and squarely condoned—in Water Serv., Inc. v. Tesco Chems. Inc., 410 F.2d 163, 171 (5th Cir. 1969): "[S]ince it may be difficult to determine, as a matter of law, what is a trade secret, the covenant not to compete is a pragmatic solution to the problem of protecting confidential information." *See* Blake, *supra* note 93, at 646-51, 668-71.

97. *See supra* note 91.

98. *See* Blake, *supra* note 93, at 679.

99. See the discussion of the "California haven," *infra* notes 115-17 and accompanying text.

100. *See* Blake, *supra* note 93, at 677-78.

101. It should be noted that courts often consider whether an employee subject to a restrictive covenant is completely barred from employment in the general field for which he has been

If this seems intuitively wrong, one answer is that the worker has been bound by contract to such a result. The worker has had a job and the opportunity to acquire general training. Although he "paid" for the general training in terms of reduced wages, he was of course paid some wages. It is true that the worker did earn those wages with his labor, but he also agreed to furnish additional consideration for the wages and training. The worker agreed that if he left the training firm, he would not work for a competitor for some (determined to be) reasonable time. The agreement was made at the time of employment; he knew or should have known to what he was agreeing, and in any event the consideration was demonstrably acceptable, since he did agree to be bound.

It is almost surely true that the agreement is one of adhesion in the sense that the firm is unwilling to bargain not to restrict the worker. All but the most sought after employees have no choice but to agree if they want a job from the particular firm, or, perhaps, with any firm in the industry. The point of the agreement, again, is to cover all employees who are exposed to the firm's trade secrets. This fact alone does not make the restriction voidable, however, nor should it. The adhesion concept must include an element of substantive unfairness, of some overreaching beyond mere disparity in bargaining power.[102]

This is not to say, however, that every no-choice agreement ought to be enforced. The critical, if elusive, dividing line is whether the agreement is unfair enough to warrant social intervention.

2. *The Impact of Restrictive Covenants on Employees, Competitors and Competition*

One approach to deciding whether social intervention is appropriate is to consider the impact of enforcing restrictive covenants on the efficient allocation of society's resources. One of the reasons for enforcing promises

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trained. If so, the restriction may well be found to be unreasonable. *See* Blake, *supra* note 93, at 675-77. The point is, however, that a restraint preventing work in the specific area of prior employment will prevent the employee from using his human capital in its most valuable application.

102. *See, e.g.*, Williams v. Walker-Thomas Furniture Co., 350 F.2d 445, 449 (D.C. Cir. 1965); Leff, *Unconscionability and the Code—The Emperor's New Clause*, 115 U. PA. L. REV. 485 (1967); Schwartz, *A Reexamination of Nonsubstantive Unconscionability*, 63 VA. L. REV. 1053 (1977). Professor Blake delineated the conflict between the relevant (and fundamental) interests as they involve restrictive convenants:

> From the point of view of the employer, postemployment restraints are regarded as perhaps the only effective method of preventing unscrupulous competitors or employees from appropriating valuable trade information and customer relationships for their own benefit. Without the protection afforded by such covenants, it is argued, businessmen could not afford to stimulate research and improvement of business methods to a desirably high level, nor could they achieve the degree of freedom of communication within a company that is necessary for efficient operation.
>
> The opposite view is that postemployment restraints reduce both the economic mobility of employees and their personal freedom to follow their own interests. These restraints also diminish competition by intimidating potential competitors and by slowing down the dissemination of ideas, processes, and methods. They unfairly weaken the individual employee's bargaining position vis-a-vis his employer and, from the social point of view, clog the market's channeling of manpower to employments in which its productivity is greatest.

Blake, *supra* note 93, at 627.

at all is to increase efficient resource allocation.[103]

In a variant of a classic illustration,[104] if a farmer is willing to take $75 in exchange for letting a rancher graze an extra cow on adjacent land, causing crop damage when the cow strays onto the farmer's land, that must mean (assuming rationality and no extraordinary need for cash) that the value of the anticipated crop damage to the farmer is less than $75, and the value of the extra cow to the rancher is more than $75. It also means that the respective values are those set by society in some fashion, here in a market. Others are willing to pay more (to the rancher) for the cow (its meat, milk, hide, etc.) than they are (to the farmer) for the crops the cow ruins. Since society values a cow more than the ruined crops, society is better off after the exchange. That the farmer and rancher are better off, too, is in this view simply a means to the societal end.[105] Even if the autonomy and gains for the farmer and rancher are independently valued and respected as an important end, the classic virtue of the transaction is still that society is ultimately better off because it has more of what it most wants.[106]

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103. *See* R. POSNER, ECONOMIC ANALYSIS OF LAW — (2d ed. 1977). We suppose persons who make voluntary promises to be rational, and therefore, acting in their own best interests. When promises of performances are exchanged, we presume the exchange is beneficial to each promisor. The result of the individual mutual enhancements is an increase in society's welfare. The process and theoretical results summarized are the basis of the current view that law not only does but should reflect the theories of microeconomic analysis. There has been extensive recent writing on this general subject, critical as well as expository. The most significant expositor has been Richard Posner, if for no other reason than the accessibility of his voluminous work to non-economists. He also founded the *Journal of Legal Studies* in 1972; its pages have since been filled with analysis and comment on the subject. Criticism has principally been based on the assumption that microeconomic analysis does not exhaust the normative positions and arguments which ought to be considered by the legal system. *See, e.g.*, Leff, *Law And*, 87 YALE L.J. 989 (1978); Leff, *Economic Analysis of Law: Some Realism About Nominalism*, 60 VA. L. REV. 451 (1974); Michelman, *Norms and Normativity in the Economic Theory of Law*, 62 MINN. L. REV. 1015 (1978); Polinsky, *Economic Analysis as a Potentially Defective Product: A Buyer's Guide to* Posner's Economic Analysis of Law, 87 HARV. L. REV. 1655 (1974).

The following criticisms of restrictive covenants are based on economic efficiency arguments, as are the opposing arguments for enforcing them. There is thus no need here to defend the general use of economic theory as a significant tool for legal analysis. Further, the non-economic normative positions implicit in the arguments made here reflect those of the critics of the use of economic analysis: there is something about fairness to individuals that is not reducible to economic efficiency.

104. Coase, *The Problem of Social Cost*, 3 J.L. & ECON. 1, 2-8 (1960). An extremely useful and readable exposition and analysis of the major theories of efficiency may be found in Coleman, *Efficiency, Exchange and Auction: Philosophic Aspects of the Economic Approach to Law*, 68 CALIF L. REV. 221 (1980), which also uses Coase's rancher-farmer hypothetical as an illustration.

105. *See supra* note 103 and accompanying text.

106. Interestingly, however, to the extent that the exchange between the immediate parties is not the one that best suits both individual interests, society is benefitted less than it could be. Suppose the value to the rancher of the cow is $80, and the value to the farmer of the ruined crops is $70. The best result for the farmer would be to get $79; for the rancher, to pay $71. Even though each would agree to any price in between, the best result for both considered together is to exchange at $75. That is, given equal information about market values, costs and risks, and equal bargaining ability the likely result will be a deal at the mid-point. *See generally* Williamson, *Transaction-Cost Economics: The Governance of Contractual Relations*, 22 J.L. & ECON. 233, 236 (1979)

The social optimum result is the same. If the rancher ends up paying the farmer $79 of his $80 profit, he has less incentive to raise the cow and may not do so. If the rancher's profit estimate is off by more than $1, he will lose money. If he knows of that uncertainty, he will not pay $79. It is important to recognize that such uncertainty does exist, and that it is exacerbated by the fact

Before discussing how the simple farmer-rancher illustration applies in the restrictive covenant context, it is worth emphasizing an important aspect of the illustration—one that was the main point of its creator.[107] The exchange will take place even if the farmer has a legal right to prevent the cow from trespassing and even if that right can be vindicated (in a court and, literally, in the field) at no cost. The farmer will sell the right at a price higher than its worth to him.[108] Similarly, an employee is entitled to resign and to work elsewhere and an employer is entitled to protect its trade secrets from misappropriation. Both entitlements are recognized by society, both are therefore legal entitlements.

The firm may be analogized to the farmer, and the employee to the rancher in the preceding illustration. If restrictive covenants can be enforced, the firm will be able to extract a price close to the value to the employee of having received general training for future employment. Because the firm knows it can extract and enforce a restrictive covenant as part of the consideration for paying wages and providing general training, the employee, by agreeing to an enforceable restrictive covenant, may be paying a great deal of the post-employment value to him of the job. The firm's interests are to protect its trade secret information and to prevent competition generated by former employees. The employee's interest is to protect his ability to use his general training as an employee of another competing firm or as an independent competitor. This interest may or may not harm the firm's interest in the exclusivity of its trade secret information, but will harm (although to an indeterminate extent) the firm's interest in diminishing competition.

The employer's competitors may also be harmed. The employee's general training and personal talents are not available, no matter how much they may be willing to pay. Economic harm results since the employee may have non-trade secret information and training which would be useful to the competitor. The employee might also have provided a valuable infusion not only of trained talent but also of fresh ideas and approaches.

To the extent that trained employees are frozen in established training firms or are forced to leave the industry, smaller firms, particularly those newly entrant in the industry, will be disadvantaged by the need to expend resources on training replacements or new employees needed for expansion. Even though these firms will be able to pay trainees less than trained workers, and even if the loss in productivity is offset by those lower wage costs, such firms will suffer where development time is important. Particularly in industries where technological changes occur frequently, time may be the essence of success or failure.[109]

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that the exchange is centered on costs and market values at some time in the future. The farmer faces similar uncertainties about the cost of the crops, their future market value, and the quantity of ruined crops. The exchange will thus most likely occur at $75. Since it is in society's best interest for it to occur, from society's viewpoint it "should" occur at $75.

107. Coase, *supra* note 104, at 2-8.

108. At least it will most likely take place, probably at $75, given the uncertainties. *See supra* note 106.

109. For example, in the extremely competitive business of manufacturing commercial airlin-

A firm which has helped to train workers, and which has imparted trade secrets to them, nevertheless has a legitimate interest in preventing the loss of those secrets.[110] If the firm uses restrictive covenants as a protective measure, it can protect that information quite well.[111] Since, however, the protection must be inherently overbroad if it is to be any protection at all, employees subject to the covenants, individual competitors, and competition in general pay a price which may be higher than necessary to protect that which is legitimately protectible.[112]

A restrictive covenant is created by two parties, employer and employee. The restriction is not likely to produce maximum efficiency in allocating the resources of these two parties—the employee is certainly worse off than if he had obtained the job without any post-employment restriction. Assuming for the moment that the employer's legitimate interests can be as well served by other means, a restrictive covenant has very little to recommend it as between the two parties. The case is even stronger when the interests of competitors are considered.[113] The impact of restrictive covenants on those interests is that discussed above, in section I(B)(2). By their overbreadth, restrictive covenants decrease competition in several ways that merely having some effective rule protecting trade secret information would not. Just as the overbreadth of restrictive covenants harms employees by preventing them from using their paid-for general training, skill and intelligence to their best advantage, that overbreadth hinders competitors and competition from taking advantage of those resources as factors of production.

Another aspect of the overbreadth is that restrictive covenants tend to retard the dissemination and use of valuable information which is not trade secret information. As noted above, the patent system seeks to narrow the number of inventions which receive that state sanctioned monopoly.[114] We are similarly concerned about the boundaries of information claimed to be trade secrets. In both cases, the concern is to distinguish

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ers, the firm which captures initial sales of a new type of airplane acquires a virtually unbeatable lead. Since several firms are likely to be designing and building prototypes at the same time, and since the involved costs are enormous, the "joke" in the industry is that each new project involves "betting the company." *See* Newhouse, *A Sporty Game, Part I*, NEW YORKER, June 14, 1982, at 48.

110. But see the contrary argument, that trade secrets should not be given legal protection if the information is patentable, *supra* notes 25-33 and accompanying text.

111. *See* 1 R. MILGRIM, *supra* note 95, at § 3.01[1][d].

112. There are other legal methods for dealing with the legitimate interests of firms and employees which may provide sufficient protection for trade secrets at less cost to employee and competitive interests. A tort action for injunctive relief or damages is an obvious candidate. The critical questions about a tort action, and the one proposed herein, are whether the protection is sufficient and whether the accommodation of other interests is less costly to them. The social need for protecting trade secrets is important to a correct judgement about sufficiency; the preceeding sections have explored that need.

113. There is great potential for significant misallocation of the resources of human skill and useful but not legally protected information. We are not terribly concerned about one competitor versus another, however, or even about all competing firms versus each other as such. Each competitor is as likely to take advantage of the overbreadth of restrictive covenants as it is to be disadvantaged. The larger concern in this sense is with the competitive process in the many industrial and commercial groupings in which we would like it to function.

114. 35 U.S.C. §§ 111, 112 (1976); Kane, *Injunctive Relief Under Trade Secret Law: The Fatal Flaw*, 53 J. PAT. OFF. SOC'Y 797, 802 (1971).

information that "deserves" to be protected from free sharing from that which should be freely available. Restrictive covenants make no attempt to delineate protected from unprotected information. Given these concerns, it seems inefficient to enforce restrictive covenants to protect trade secrets—at least if there are other ways in which to protect the legitimate interest in such information.

In California, Montana, North Dakota, Oklahoma and South Dakota, post-employment restrictive covenants are unenforceable as a matter of public policy.[115] California is particularly significant because its firms and employees generate a large amount of trade secret information.[116] Indeed, while California employers cannot enforce restrictive covenants to prevent their employees from working for California competitors, they can hire employees who made restrictive covenants with employers in other states.[117] That California firms do hire employees to engage in trade secret work indicates that restrictive covenants are not necessary to induce firms to create trade secret information. California firms might, however, create more trade secret information if restrictive covenants could be enforced. Indeed, there undoubtedly are effective restrictive covenants in California, in the sense that employees who have signed such covenants may not realize that they are unenforceable, and thus do not compete. Unless all employees who leave behave that way, however, the advantage is minimal.

California firms are, therefore, in general left to the efficacy of general tort law to protect against trade secret misappropriation. California firms thus cannot secure protection from trade secret misappropriation for the bargain price of a restrictive covenant. The firms must instead incur the costs of discovering the existence of misappropriations and seeking judicial redress. Firms operating in California thus cannot directly secure protection from competition that does not involve trade secret misappropriation.

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115. *See* CAL. BUS. & PROF. CODE §§ 16600-02 (West 1964); MONT. CODE ANN. § 28-2-703 (1979); N.D. CENT. CODE § 9-08-06 (1979); OKLA. STAT. tit. 15, §§ 217-219 (1980); S.D. COMP. LAWS ANN. § 53-9-11 (1980). A few other states regulate post-employment restrictive covenants. *See* Kniffin, *Employee Noncompetition Covenants. The Perils of Performing Unique Services*, 10 RUT. CAM. L.J. 25, 34-36 (1978).

116. For example, on the San Francisco Peninsula near San Jose, California, lies the "Silicon Valley," arguably the capital of American high technology. Dozens of firms engage in a highly competitive struggle to design, manufacture and sell the latest in semiconductor integrated circuits, computers and allied hardware and software (programs), and electronic instruments. Japanese firms are also entering the area in strength. See *Tokyo California*, N.Y. Times, Nov. 1, 1981, at F9.

A 20-year study by Professor Albert Bruno of Santa Clara University of over 400 companies found that

> starting a high technology company in Silicon Valley may be as near a sure thing as the free market system can achieve. . . The average manufacturing company stands a 75 percent chance of surviving its first two years in business. By comparison, the Silicon Valley companies in Professor Bruno's study stand a 95 percent chance of surviving their first six years.

Id. Mar. 7, 1982, at F4. The point is that the absence of enforceable restrictive covenants obviously has not inhibited innovative activities in the "Silicon Valley."

117. That is, an effect of the statutory invalidity is a prohibition on the use of California courts to enforce *any* restrictive covenant invalid under the statute, no matter where the covenant may have been entered into, since they violate the state's public policy. Hollingsworth Solderless Term. Co. v. Turley, 622 F.2d 1324 (9th Cir. 1980); Frame v. Merrill Lynch, Pierce, Fenner & Smith, Inc., 20 Cal. App. 3d 668, 97 Cal. Rptr. 811 (1971).

Analysis of the impact on competition of restrictive covenants cannot be left without mentioning the antitrust laws. Section 1 of the Sherman Act makes illegal "[e]very contract . . . in restraint of trade or commerce among the several States, or with foreign nations."[118] This language cannot be taken literally, however, without proscribing virtually every commercial contract involving interstate or foreign commerce. All contracts that impair a seller's ability to sell certain goods or services except to the buyer who contracted to purchase them from him literally restrain trade. Thus, the prohibition of section 1 has been developed into a "rule of reason" by which the anticompetitive purpose, power, and effects of contractual restraints are judged. Such restraints are illegal only if they "unreasonably" impair competition.[119] Several commentators have forcefully argued that the "rule of reason," whose purpose is to protect the federal interest in competition in interstate and foreign commerce, ought to be extended to post-employment restrictive covenants for many of the same reasons discussed in this section.[120] With a few exceptions,[121] federal courts have not yet accepted the proposition that determinations of "reasonableness" of such restraints under state law are not necessarily coextensive with the "reasonableness" relevant under federal antitrust law.[122] Thus, if a restrictive covenant passes muster under common law "reasonableness" criteria, for the moment that is deemed to satisfy the antitrust laws.

The next section examines the efficacy of the cause of action in tort for misappropriation of trade secrets as a protective device and as a means of accommodating the interests involved.

B. *The Tort of Misappropriation of a Trade Secret*

1. *Elements of the Tort*

Courts have usually looked to section 757 of the *Restatement of Torts* for the elements of the tort of misappropriation of trade secrets.[123] The tort articulated in section 757(b) has four elements. First, the plaintiff must prove the defendant used or disclosed information. Second, the information must have been disclosed in confidence. Third, it must be proven that the information was plaintiff's trade secret. Finally, the plaintiff must prove that that the defendant had a certain level of scienter: that he knew or should have known the disclosed information was a trade se-

118. 15 U.S.C. § 1 (1976).

119. *See generally* L. SULLIVAN, *supra* note 50, at §§ 66-68.

120. Goldschmid, *Antitrust's Neglected Stepchild: A Proposal for Dealing With Restrictive Covenants Under Federal Law*, 73 COLUM. L. REV. 1193 (1973); Sullivan, *Revisiting the "Neglected Stepchild": Antitrust Treatment of Post-employment Restraints of Trade*, 1977 U. ILL. L.F. 621.

121. Lektro-Vend Corp. v. Vendo Co., 403 F. Supp. 527 (N.D. Ill. 1975), *aff'd*, 545 F.2d 1050 (7th Cir. 1976), *rev'd on other grounds*, 433 U.S. 623 (1977); Sar Indus., Inc. v. Monogram Indus., Inc., 1976-1 Trade Cas. (CCH) ¶ 60, 816 (C.D. Cal. 1976).

122. Golden v. Kentile Floors, Inc., 512 F.2d 838 (5th Cir. 1975); Bradford v. New York Times Co., 501 F.2d 51 (2d Cir. 1974).

123. One who discloses or uses another's trade secret, without a privilege to do so, is liable to the other if . . . (b) his disclosure or use constitutes a breach of confidence reposed in him by the other in disclosing the secret to him. . . .

RESTATEMENT OF TORTS § 757(b) (1939).

cret. Assuming the information disclosed by the firm to the employee is a trade secret and that he has used or disclosed it, there is liability if that "constitutes a breach of confidence reposed in [him]."[124] Notice of the confidential character of the disclosure must be given before "the confidence" arises, but no particular form or content of notice is necessary. "The question is simply whether in the circumstances [the employee] knows or should know that the information is [the firm's] trade secret and that its disclosure is made in confidence."[125]

2. *The Nature and Extent of the Duty to Respect Trade Secrets*

A great deal of scholarly and judicial energy has been spent searching for an appropriate descriptive legal pigeonhole for trade secret information. One possibility is to label such information property, thus giving an "owner" "property rights" in information that fits some description of trade secrets like the one given in the *Restatement of Torts*.[126] The attraction of conceptualizing trade secret information as a species of property is that one might then, applying familiar rules about the rights of owners of property against the rest of the world, make analogous rules and decisions about the extent of the rights and duties of owners of trade secrets.[127] In many contexts, it may be useful to consider trade secret ownership to be property ownership. That conceptualization makes it easier to deal with transfers like sales and licenses, to use criminal and civil sanctions to protect the information against espionage and theft, and to fit such information into taxation schemes.[128]

The point here, however, is that it makes no real difference what, if any, label is appropriate. The concern in this Article is with the extent of an employee's duty to respect such information.[129]

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124. *Id.*

125. *Id.* comment j.

126. 1 R. MILGRIM, *supra* note 95, at §§ 1.01-1.10; 2 R. CALLMANN, *supra* note 89, at § 14.02.

127. There has been some quarrel, however, with the soundness of this label, to the effect that it is a strange kind of "property" that can be independently but simultaneously owned, and whose owner can irretrievably lose exclusivity by inadvertent disclosure. *See* Stedman, *Trade Secrets*, 23 OHIO ST. L.J. 4, 21 (1962). Information as to which a government has granted a patent is universally considered to be property—during the life of the patent. Thus it is the patent grant, not the information it covers, which actually is the property. Trade secrets, however, do not have such a government grant of exclusivity and protection.

128. *See* 1 R. MILGRIM, *supra* note 95, at §§ 1.02-1.07, 1.10.

129. Even if trade secrets are property, the question still is whether and to what extent an ex-employee must respect it. If the former employee takes no documents with him, he has not misappropriated tangible property. If he finds the same information in use or known in his new employment, the information may be a trade secret of each firm, but is not the "property" of either in the sense of land or a chattel or even a patent, copyright or trademark. The latter are reducibile to the form, This identifiable thing is mine and no one else (but co-owners, if any, or perhaps the state) has the same right to control and transfer it that I do. Felix Cohen's famous simple definition is apt, at least if one recognizes his caveat that "[a]ny definition of property, to be useful must reflect the fact that property merges by imperceptible degrees into government, contract, force and value." Cohen, *Dialogue on Private Property*, 9 RUT. L. REV 357, 374 (1954):

Suppose we say, that is property to which the following label can be attached:
To the world:
Keep off X unless you have my permission, which I may grant or withhold.
Signed: Private citizen
Endorsed: The state.

The nature of a disclosee's duty, if it exists at all or in a particular case, is clear enough in general terms: not to disclose or use trade secret information outside the firm. If unpatented but valuable information not widely known outside the firm is entitled to respect by one to whom it has been voluntarily disclosed, that must be the case because the disclosee has a duty not borne by the world at large. Purchasers, licensees, and other commercial transferees will have made a promise of respect, in exchange for the disclosure and the consent to use. Non-transferees, on the other hand, such as consultants, customers, suppliers, independent contractors, or employees, may not have made a specific promise of respect before disclosure.

If no specific promise has been made, the conditions to the existence and extent of any duty to respect exclusivity must be created by the law. First, non-transferees other than employees can legitimately be said impliedly to have promised respect. If a firm discloses information to a customer, for example, telling the customer that the firm considers the information to be "secret" or "confidential," it is easy to imply a promise of respect from the fact that the customer thereafter accepted the disclosure. Disclosure of this sort, accompanied by an assertion of secrecy, can as easily be said to raise an obligation implied by operation of law as from interpretation of fact. In this context the distinction makes no difference. The disclosure is limited in time and extent and is for a particular and clear mutual purpose.

Further, disclosees such as customers[130] and suppliers also either have or can directly seek sufficient information to be able to avoid inadvertent breach of the duty. A supplier might be told, for example, that the firm wants a certain variation in the formula of a supplied chemical. If there is no assertion of secrecy, either expressed or implied by the custom in the industry, there is no duty not to use or disclose the information.[131] If there is an assertion of secrecy, either its subject is perfectly clear ("this is the variation we want and consider to be our trade secret") or can be made clear. The disclosee has the incentive and the ability to ask for clarity and specificity about relatively particular, isolated bits of information.

Some courts have articulated the basis for an employee's duty of respect in much the same terms.[132] Sometimes express, although broad and

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A trade secret can legitimately be "appropriated" without consent by a reverse engineer or an independent discoverer; such a new "owner" can deliberately or inadvertently disclose the information to the world. In such a case, the first "owner's" right to legal protection against appropriation will vanish.

130. The information disclosed to some customers or potential customers may be discernable from a product sold them. If so, the customer is free to engage in reverse engineering. *E.g.*, Futurecraft Corp. v. Clary Corp., 205 Cal. App. 2d 279, 23 Cal. Rptr. 198 (2d Dist. 1962); Wesley-Jessen, Inc. v. Reynolds, 182 U.S.P.Q. (BNA) 135 (N.D. Ill. 1974); National Rejectors, Inc. v. Trieman, 409 S.W.2d 1 (Mo. 1966).

131. E.g., Monolith Portland Midwest Co. v. Kaiser Alum, & Chem. Corp., 267 F. Supp. 726 (C.D. Cal. 1967); *aff'd in part*, 407 F.2d 288 (9th Cir. 1969) (supplier must be placed on notice of the intended confidentiality of the disclosure); Mycalex Corp. of America v. Pemco Corp., 64 F. Supp. 420 (D. Md. 1946), *aff'd*, 159 F.2d 907 (4th Cir. 1947).

132. *E.g.*, Fairchild Eng. & Airplane Corp. v. Cox, 50 N.Y.S.2d 643 (Sup. Ct. 1944); McCombs v. McClelland, 223 Or. 475, 354 P.2d 311 (1960). *See* 1 R. MILGRIM, *supra* note 95, at § 4.02.

vague, promises of respect are made by employees.[133] Less often, the evidence indicates that even though there was no express promise, one should be implied from the circumstances of assertion of secrecy and acceptance of disclosure.[134]

When disclosures have been made to employees, however, problems arise concerning the existence and, more importantly, the extent of any duty not to use or disclose trade secrets. Courts frequently find that such a duty arises, by operation of law, from the "confidential relationship" between employer and employee, whether or not any promises actually were made or fairly can be implied.[135] This analysis of the relationship follows from the basic point that firms which use information in their operations must disclose the information to employees so that employees can do their jobs. Many courts then conclude that the relationship between employer and employee is of such a kind and degree that there need be no concern about promises or the limits to obligations that parties to exchanges of promises can create in that bargaining process.[136] Courts generally find a duty of respect if the employee is given some sort of notice that information imparted in confidence must be kept secret even after the relationship ends.[137] The following section discusses the employer-employee relationship and the expectations which the relationship can and cannot reasonably be said to create.

3. *The Nature and Extent of the Employer-Employee Relationship*

What happens when a technologist becomes an employee of a firm

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133. See 2 R. MILGRIM, *supra* note 95, at app. C. (suggested forms of employment agreements). In the well-known case of B.F. Goodrich Co. v. Wohlgemuth, 137 U.S.P.Q. (BNA) 389 (Ohio C.P.), *rev'd in part*, 117 Ohio App. 493, 192 N.E.2d 99 (1963), a young engineer signed an employment contract that included his promise

> To keep confidential all information, records and documents of the Company of which I may have knowledge because of my employment with the Company, and, except as required by my employment, not to remove from the property of the Company any record or other document relating to any business of the Company, or make copies thereof; all such records and documents whether made by me or by others being recognized as the property of the Company and not to be used for my own or another's benefit or communicated to another, either before or after termination of my employment with the Company, without the written consent of the Company.

117 Ohio App. at 500, 192 N.E.2d at 105. Mr. Wohlgemuth became the manager of Goodrich's space suit development department. When he left to work for a competitor, International Latex Corporation, he was enjoined from using any Goodrich trade secrets related to space suit design or manufacture in part because of the promise he made. *Id.* The story of Mr. Wohlgemuth's travails was the subject of a lively article by Brooks, *One Free Bite*, THE NEW YORKER, Jan. 11, 1964, at 37.

134. *E.g.*, By-Buk Co. v. Printed Cellophane Tape Co., 163 Cal. App. 2d 157, 329 P.2d 147 (2d Dist. 1958); Fairchild Eng. & Airplane Corp. v. Cox, 50 N.Y.S.2d 643 (Sup. Ct. 1944).

135. *E.g.*, Northern Petrochem. Co. v. Tomlinson, 484 F.2d 1057 (7th Cir. 1973) (disclaiming property basis); Clark v. Bunker, 453 F.2d 1006, 1008 n.2 (9th Cir. 1972); Franke v. Wiltschek, 209 F.2d 493 (2d Cir. 1953) (disclaiming property basis); Sarkes Tarzian, Inc. v. Audio Devices, Inc., 166 F. Supp. 250, 260 (S.D. Cal. 1958), *aff'd mem.*, 283 F.2d 695 (9th Cir. 1960); Chadwick v. Covell, 151 Mass. 190, 23 N.E. 1068 (1890).

136. *E.g.*, Ungar Elec. Tools, Inc. v. Sid Ungar Co., 192 Cal. App. 2d 398, 13 Cal. Rptr. 268 (1961); Allen Mfg. Co. v. Loika, 145 Conn. 509, 144 A.2d 306 (1958); Basic Chems., Inc. v. Benson, 251 N.W.2d 220 (Iowa 1977); Sealectro Corp. v. Tefco Elec., Inc., 32 Misc. 2d 11, 223 N.Y.S.2d 235 (Sup. Ct. 1961); Tlapek v. Chevron Oil Co., 407 F.2d 1129 (8th Cir. 1969). *See generally* 1 R. MILGRIM, *supra* note 95, at § 4.03.

137. 1 R. MILGRIM, *supra* note 95, at § 4.03.

that has or may have trade secrets, works for the firm for a significant period, then leaves and becomes an employee of a competing firm? What are the nature of the exchanges, obligations, planning and expectations, and the communications and assumptions about them that occur during the periods of time before the relationship commences, while it exists, and after it ends?[138] Under current law, the second and third periods are far from distinct in that an important obligation of the employee, to respect trade secrets, continues after the rest of his obligations, and all those of the employer have ended.

Before the employment relationship begins, there is likely to be an interview, which is a mutual if limited negotiation. The potential employee wants a job, perhaps the one which the employer has to offer. The employer wants someone to perform the job, perhaps this potential employee.[139] There is likely to be some explicit pre-commencement planning, in the broad sense that both parties learn significant things about each other and the relationship, enhanced by tacit assumptions. The parties obtain a good deal of information, by definition enough for each to start a significant relationship with the other. However, each party almost certainly does not expect the relationship to last "forever." While the firm may anticipate lasting "forever," the employee will probably resign or be fired and seek a new relationship.[140]

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138. Professor Ian Macneil pioneered an analysis of contract exchanges which distinguishes between exchanges which primarily involve a "[s]imple, monetizable economic exchange" and those that "[i]n addition to [an] economic [exchange, involve] complex personal non-economic satisfactions." Macneil, *Contracts: Adjustment of Long-Term Economic Relations Under Classical, Neoclassical and Relational Contract Law*, 72 Nw. U.L. REV. 854, 902 (1978) (appendix summarizing the differences between "transactional" and "relational" contracts). In the latter type of contract, tacit assumptions are a "[r]ecognized aspect of [the planning of the relationship], without which relations cannot survive." *Id.* at 903. Employment contracts are highly "relational" in Macneil's terms. *See id.* at 902-03. In another article, Macneil points out that in such exchanges little specific planning about how the goals of the contractual relationship are to be accomplished is possible. Macneil, *The Many Futures of Contracts*, 47 S. CAL. L. REV. 691, 758-80 (1974).

139. A partial analogy to courtship is apt: the assumption is that both parties want a long-term exclusive relationship. What the relationship might be like initially and in the future and whether this partner is "right" is not known. As with the goal of (traditional) courtship, marriage, the parties are willing to leave many of the "what" details to the tacit assumptions arising from social norms. An employee is expected to work diligently, loyally, and exclusively for the employer. An employer is expected to provide work facilities and pay money and monetizable benefits. At least partly because the nature and amount of monetary benefits from jobs are in common understanding more explicitly variable than the nature and benefits of marriage, however, the parties will concern themselves about those aspects of the relationship more than do potential marriage partners. The nature of the work, including some sense of its place in the firm's hierarchy, and the amount of monetary benefits are almost surely discussed, or even negotiated, before the relationship starts.

140. It might be argued that mobility is not particularly important to industrial productivity; after all, Japan is the current paradigm of industrial success, and Japanese employees generally are committed to one firm for their careers. The second part of such an argument, however, seems to be in error. In an extensive study of several Japanese industrial firms, Marsh and Mannari found the "lifetime commitment pattern" neither as pervasive nor as causally important to Japanese productivity as popularly believed. They assert "there is now evidence of increasing interfirm mobility among the very group usually identified as the core of the lifetime commitment pattern—older, more educated male employees in large firms." R. MARSH & H. MANNARI, MODERNIZATION AND THE JAPANESE FACTORY 329 (1976). They point out further that, as in the West, the degree of mobility correlates well with the state of the economy. That is, when times are bad, employees stay put; when times are good, employees are more mobile. *Id.* at 330. Finally, they conclude that lifetime commitment has little to do with a firm's performance. It has "less causal

Most often the relationship is more important to the employee than to the firm; the former is ordinarily to become merely one of many potentially replaceable, if not fungible, employees. When the employee is to work with trade secrets, however, his importance in a special sense increases. During the relationship, he will come to know, and perhaps create, information which the firm wants to keep from competitors and the public. The firm will have to repose "confidence" in the employee, to "trust" him not to spread the information outside the firm during and after the relationship. Does the employee know this is so? That is, does the employee's set of expectations about the relationship include the expectation that there will be an obligation of potentially unlimited duration to not reveal or use some information learned during the employment relationship? If so, what is likely to be the nature and content of that expectation?

The employee foregoes freedom of action in the way all workers do. He exchanges time, energy, and talents for money and other benefits. He surely expects to devote his working time, energy, and talents exclusively to the firm. If he has a concurrent job, he expects not to compete with the firm. Those expectations are, in legal contemplation and common understanding in our society, inherent in the relationship.[141] There is no legal requirement that those obligations be explicitly expressed in planning the relationship. The understanding is so common that it would seem ridiculous in most circumstances actually to express it.

That an express exchange limited to "I'll work for you" and "you're hired" should result in such legal obligations seems right to us because we expect it to be that way. It literally "goes without saying." The relationship wouldn't work without the obligations, but that isn't the only reason they exist even if not expressed. We almost always conform to them without urging. We see, if we think about it at all, that the congruence of a legal obligation is mainly to take care of the rare instances when an employee does something like concurrently working for a competitor. If he does so, we are quite certain that he has acted out of greed, or perhaps dire economic necessity, but not out of ignorance that he is doing something that violates an obligation. The obligation not to reveal trade secrets after the relationship ends raises different questions, centered on the extent of the obligation. That is so because the extent is not clear.

4. *Analysis of the Tort: The Problem of Definitional Uncertainty*

The frequent judicial response to the problem "whether in the circumstances [the employee] knows or should know the information is [the firm's] trade secret" is in effect to combine the second and fourth elements described in section 757 of the *Restatement of Torts*.[142] If what later is

impact on performance than do the more universal social organizational variables . . . the employee's status in the company, sex, job satisfaction and knowledge of organizational procedures." *Id.* at 337.

141. *E.g.*, United States v. Drumm, 329 F.2d 109 (1st Cir. 1964); NLRB v. Montgomery Ward & Co., 157 F.2d 486 (8th Cir. 1946).

142. *See supra* text accompanying notes 123-25.

proven to be trade secret information was disclosed during the confidential relationship, it is deemed that the employee knew or should have known that it was a trade secret.[143] It is often very difficult, however, to distinguish information that is a trade secret from information that is not. The prevailing test for making that distinction is concededly one involving difficult judgments about the extent of outside knowledge, and the firm's efforts to develop and safeguard the information.[144]

Whether information is a trade secret depends in part on evaluations which employees often can make. They can see if the firm takes secrecy measures, like marking documents or keeping unauthorized personnel out of sensitive areas. Some employees may also know that access to certain documents is restricted, or that effort and money has been expended to develop particular information. But other relevant factors are more difficult for an employee to discern. The extent of outside knowledge, the ability of others to reverse engineer or independently derive, and the competitive value of the information are unlikely to be clear to an individual employee.

Some employees, of course, do have enough information to be able to form a judgment sufficiently definite to amount to constructive knowledge. If there is evidence that an employee planned a development project, was a consultant, or took copies of documents, a sound inference can be drawn that he knew that the resulting information was not publicly available and was of competitive value.[145] If after employment he sought to sell information or copied an entire process or design, the same inference can be made.[146]

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143. *See* 1 R. MILGRIM, *supra* note 95, at § 4.03.

144. An exact definition of a trade secret is not possible. Some factors to be considered in determining whether given information is one's trade secret are: (1) the extent to which the information is known outside of his business; (2) the extent to which it is known by employees and others involved in his business; (3) the extent of measures taken by him to guard the secrecy of the information; (4) the value of the information to him and to his competitors; (5) the amount of effort or money expended by him in developing the information; (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

Restatement of Torts § 757 comment b (1939).

145. *E.g.*, Winston Research Corp. v. Minnesota Mining & Mfg. Co., 350 F.2d 134 (9th Cir. 1965) (developed design); Hulsenbusch v. Davidson Rubber Co., 344 F.2d 730 (8th Cir. 1965) (consultant for process development project); Colgate-Palmolive Co. v. Carter Products, 230 F.2d 885 (4th Cir. 1956) (employee developed specific process); Structural Dynamics Research Corp. v. Engineering Mechanics Research Corp., 401 F. Supp. 1102 (E.D. Mich. 1975) (employee developed computer programs); Chevron Oil Co. v. Tlapek, 265 F. Supp. 598 (W.D. Ark. 1967), *aff'd in part*, 407 F.2d 1129 (8th Cir. 1969) (employee developed oil discovery theory); Schulenburg v. Signatrol, Inc., 33 Ill. 2d 379, 212 N.E.2d 865 (1965) (employee took drawings and specifications); Analogic Corp. v. Data Translation, Inc., 371 Mass. 643, 358 N.E.2d 804 (1976) (same); Weed Eater, Inc. v. Dowling, 562 S.W.2d 898 (Tex. Civ. App. 1978) (vice-president developed procedures); Thermotics, Inc. v. Bat-Jac Tool Co., Inc., 541 S.W.2d 255 (Tex. Civ. App. 1976) (employee took drawings and specifications).

146. *E.g.*, Cornale v. Stewart Stamping Co., 129 N.Y.S.2d 808 (Sup. Ct. 1954) (employee exactly copied production machine); Fairchild Engine & Airplane Corp. v. Cox. 50 N.Y.S.2d 643 (Sup. Ct. 1944) (employee warned others to keep process secret, then offered to sell it); Cornibert v. Cohn, 169 Misc. 285, 7 N.Y.S.2d 351 (Sup. Ct. 1938) (employee sold process and design information). Even in that case it may not be at all clear what particular aspects of, for example, a new process would later be determined to be trade secret information. *E.g.*, Head Ski Co. v. Kam Ski Co., 158 F. Supp. 919 (D. Md. 1958) (wide range of techniques enjoined); Ungar Elec. Tools, Inc.

If an employee is merely the disclosee of information already in use, however, he may well have no idea about factors like outside knowledge, effort expended or competitive value as to the entire process, much less about its constituent elements. Liability, or even the *in terrorem* effect this uncertainty has, seems wrong given the fact that the judgment is so uncertain. If the employee were told that the firm claimed particular disclosed information as a trade secret, the uncertainty problem would be manageable and its effect ameliorated. But if the firm does no more than disclose a process, for example, and tell the employee that unspecified aspects of the process are trade secrets and are being disclosed in confidence, the employee is in a difficult position.

Part of the rationale for the concept of scienter is to ensure that before liability attaches, the actor was on notice that his actions were wrongful.[147] What justifies the virtual abandonment of notice and scienter when a confidential relationship is involved? The answer given by many courts is the nature of the relationship between employee and employer.[148] An employee is obligated by the employment relationship alone to respect trade secrets even if he does not know what they are. Even if the firm ultimately fails to prove trade secrets exist, an employee ignores at his peril the possibility of a decision that trade secrets do exist.

Nevertheless, when a firm seeks to prevent disclosure or use, or seeks damages, it may well have expended significant resources to develop information and may have told the former employee that broad categories of information were being disclosed in confidence. If the firm can also prove that the information is substantially unknown to outsiders, there is understandable reluctance to allow the employee to disperse it. The problem is that courts frequently grant relief on the broad mass of information "disclosed in confidence."[149] The "confidence" overcomes the difficult determinations about just what is and what is not protectible. The result is a "private patent" as sweeping in effect as a restrictive covenant, a result here of uncertainty rather than of deliberate overbreadth.[150]

In Part III, it is suggested that a contract—a set of exchanged promises—is a superior source of the obligation to respect trade secrets. However, using the employer/employee relationship as a sufficient source

v. Sid Ungar Co., 192 Cal. App. 2d 398, 13 Cal. Rptr. 268 (1961) (vague injunction against use of process); By-Buk Co. v. Printed Cellophane Tape Co., 163 Cal. App. 2d 157, 329 P.2d 147 (1958); Eastern Marble Prods. Corp. v. Roman Marble, Inc., 372 Mass. 835, 364 N.E.2d 799 (1977) (unclear what aspects of process were secret; injunction against using any aspects); Heyden Chem. Corp. v. Burrell & Neidig, Inc., 2 N.J. Super. 467, 64 A.2d 465 (1949); Extrin Foods v. Leighton, 115 N.Y.S.2d 429 (Sup. Ct. 1952); B.F. Goodrich Co. v. Wohlgemuth, 117 Ohio App. 493, 192 N.E.2d 99 (1963).

147. That concept is most often expressed about criminal liability, but is conceptually just as important whenever the actor legimately raises the issue, "I didn't know that what I did was wrong." Apart from any moral consequences of ignoring that plea, it is not conducive to the ability to plan one's conduct to maximize self-interest while avoiding harm to others.

148. *E.g.*, Bull v. Logetronics, Inc., 323 F. Supp. 115 (E.D. Va. 1971); Jerrold-Stephen Co. v. Gustaveson, Inc., 138 F. Supp. 11, 15-16 (W.D. Mo. 1956); Sun Dial Corp. v. Rideout, 29 N.J. Super. 361, 102 A.2d 90, *aff'd*, 16 N.J. 252, 108 A.2d 442 (1954); Lowndes Products, Inc. v. Brower, 259 S.C. 322, 191 S.E.2d 761 (1972); *see also* authorities cited *supra* note 136.

149. *See supra* notes 125-29 & 142-44 and accompanying text.

150. Kane, *supra* note 114 at 804.

of the obligation is not troubling, as long as there is some sort of explicit notice that the employee is receiving information under some obligation. If a firm utterly fails to label product or process information "confidential" or "proprietary" or "trade secret" or by words or conduct to convey that message, an employee probably will be found to be free of obligation.[151] The usual rationale for that result is that the firm did not take sufficient steps to protect secrecy.[152] But another way to look at it is that there is no obligation because there was no notice that one existed.[153]

The mere fact that there has been notice of the existence of an obligation to respect the confidentiality of some information does not, however, justify ignoring the fact that there may be no adequate notice of the specific content of the obligation. Notice that an obligation exists may tell the employee nothing useful about distinguishing trade secrets from other information that may have been labelled trade secret but is not. Some employees will be in a position to make the distinction as well as anyone else can given that there has not yet been a judicial determination. But many employees, even if they are experienced and in a position of responsibility, can legitimately claim substantial ignorance of the distinctions a court would draw.[154]

The resulting uncertainty, like the overbreadth inherent in restrictive covenants, is inefficient. If a former employer obtains an injunction against a former employee working for a competitor, the result may not be as sweeping as if there had been a restrictive covenant.[155] There will have been proof of the trade secret nature of at least some of the information

151. *See, e.g.*, Wilson Certified Foods, Inc. v. Fairbury Food Prods., Inc., 370 F. Supp. 1081 (D. Neb. 1974); Motorola, Inc. v. Fairchild Camera & Instr. Corp., 366 F. Supp. 1173 (D. Ariz. 1973); Shatterproof Glass Corp. v. Guardian Glass Co., 322 F. Supp. 854 (E.D. Mich. 1970), *aff'd* 462 F.2d 1115 (6th Cir. 1972); J.T. Healy & Son, Inc. v. James A. Murphy & Son, Inc., 357 Mass. 728, 260 N.E.2d 723 (1970); National Rejectors, Inc. v. Trieman, 409 S.W.2d 1 (Mo. 1966).

152. *See* J.T. Healy & Son, Inc. v. James A. Murphy & Son, Inc., 357 Mass. 728, 260 N.E.2d 723 (1970). See the discussion of developments in Massachusetts after *Healy*, *infra* note 187.

153. The mere existence of a relationship that can legitimately be called one of "trust and confidence" is not enough to impose an obligation about trade secrets. But if notice is given by words or conduct when the relationship starts or during its course, or if the employee is engaged in innovation, it is fair to say he knows—or even should know—that trade secrets may be disclosed and that there is an obligation of some sort. It is sufficient if there is some statement like that made to Donald Wohlgemuth, *see supra*, note 133, that information is "not to be used for [one's] own or another's benefit or communicated to another, either before or after termination of [one's] employment with the Company."

154. *See infra* note 174. At the other extreme are those employees who are exposed to "confidential" information but who are in no position to effectively disclose it to others. If a technician leaves and takes a similar job, the new employer is unlikely to change its design or process based on his rote memory. (There is no excuse for taking documents that furnish details or, worse, concepts.) The first firm legitimately fears effective disclosure only by those former employees who understand the concepts involved. Those knowledgeable employees are also the ones who, because of their understanding, can disclose and use the details.

155. Courts sometimes try to narrow the terms of injunctions just to preclude use or disclosure of trade secrets, or to prevent use or disclosure only for the period of time deemed necessary for independent discovery. *See, e.g.*, Forest Labs, Inc. v. Pillsbury Co., 452 F.2d 621 (7th Cir. 1971) (discovery time); E.W. Bliss Co. v. Struthers-Dunn, Inc., 408 F.2d 1108 (8th Cir. 1969), *rev'd* 291 F. Supp. 390 (S.D. Iowa 1968) (injunction too broad); Sperry Rand Corp. v. Electronic Concepts, Inc., 325 F. Supp. 1209 (E.D. Va. 1970), *aff'd in part, sub nom.* Sperry Rand Corp. v. A-T-O, Inc. 447 F.2d 1387 (4th Cir. 1971) (discovery time). But courts impressed with the difficulty of distinguishing trade secrets from other information often enjoin use of entire processes. *See, e.g.*, Sperry Rand Corp. v. Rothlein, 241 F. Supp. 549 (D. Conn. 1964); Head Ski Co. v. Kam Ski Co.,

before a permanent injunction is granted. That is a significant improvement over a restrictive covenant, for which no proof of the existence of trade secrets is usually required as a condition of enforceability.[156] An injunction is also superior to a restrictive covenant since there will have been a showing of real danger of use or disclosure and of irreparable injury.[157] An employee who is enjoined from working for a competitor, or an employer enjoined from hiring a particular employee, will have had a chance to try to narrow the effect of the restriction to protect only trade secrets.

Nevertheless, unless the employee knew before he left the first firm what information was a trade secret, or was claimed to be, there is likely to be significant waste of energy. Ignorance and uncertainty on the part of employees and new firms is not conducive to the efficient market transfer of general training and skills to their most valuable use. The prospective parties may have little information about what work the employee can be put to without running a substantial risk of an action for an injunction. If the old firm does not seek an early injunction, information might be disclosed and used. The old firm might then bring an action for damages for the harm allegedly caused by the use of information the firm then proves was a trade secret. In either event, particularly if liability results, the expensive lesson is that hiring people from competitors is dangerous.[158]

The rule stated in section 757(c) of the *Restatement of Torts* is difficult for new employers. Those who hire employees from firms which may have trade secret information will be liable if they use information (if it is proven to be the old firm's trade secret) disclosed by the employee "with notice of the facts that it was a secret and that the [employee's] disclosure of it was . . . a breach of his duty [to the old firm]."[159] On its face this is a reasonable rule for liability. The problem is that such an employer will be liable if it "should have known"[160] the disclosure was a breach of duty, which will be the case if the employee "should have known" the information was a trade secret. The doubling of the loose standard of scienter produces too much uncertainty.

If someone the firm knows is a "trusted employee" of another firm offers to sell it information, there is no good reason to quibble with the rule.[161] The inference raised by a competitor's "trusted employee" selling

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158 F. Supp. 919 (D. Md. 1958); Ungar Electric Tools, Inc. v. Sid Ungar Co., 192 Cal. App. 2d 398, 13 Cal. Rptr. 268 (1961). *See* Kane, *supra* note 114.

156. *See* authorities cited *supra* note 95.

157. *See, e.g.*, Foundry Services, Inc. v. Beneflux Corp., 206 F.2d 214 (2d Cir. 1953); Eldre Components, Inc. v. Kliman, 47 Misc. 2d 463, 262 N.Y.S.2d 732 (Sup. Ct. 1965); McCombs v. McClelland, 223 Or. 475, 354 P.2d 311 (1960).

158. *See* Kane, *supra* note 114; *See* Stern, *supra* note 34, at 975-86.

159. RESTATEMENT OF TORTS § 757(c) (1939). Comment k to section 757 asserts that subsection (c) "applies only to the cases in which the actor has the stated notice when he first learns the secret." *Id.* comment k.

160. *Id.* comment *l*.

161. *Id.* illustration 4 gives an example of a situation in which a firm should have known a disclosure was a breach of confidence. The illustration suggests that someone known to be a "trusted employee" of another firm offers to sell information. If the offeree knows its competitors have trade secret information, and that the offered information is valuable and novel to the offeree, the offeree has sufficient notice to be found liable if the information is a trade secret.

something overwhelms any claim of uncertainty. Suppose, however, the source of the information is a former trusted employee seeking not to sell a process but to get a job. If he then introduces some process steps novel to the firm, the firm might reasonably be required to ask the employee if any of those new steps are the former employer's trade secrets. If the employee admits his former employer made such a claim, the firm is at least put on notice and should assess whether the claims are true, perhaps not an easy task. But if the employee can say no more than that his former employer said it had trade secrets, what should the firm infer from that? The employee might be liable because as a "trusted employee" a court might find he should have known what the trade secrets were, although he was not told. The new firm might be liable if it turns out the process steps were among the former employer's trade secrets, since a court could find it should have known what the employee should have known.[162]

As noted above, the trade secret system or practice does not function the same way as does the patent system.[163] Patented inventions are known in specific detail and are fenced off for seventeen years. A competitor contemplating using information or techniques which seem close to those claimed in a patent has the information to be able to make a legal and factual assessment of the validity of the patent and of whether what the competitor wants to do will infringe. The assessment will not give a certain answer; only a court can do that. But given the information about the patented invention and the judicial precedents available to a patent lawyer the risk is calculable.

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162. It is probably true that if the second firm can convince a court it had no reason to think its new employee had access to the first firm's trade secrets (if there are any) the second firm is not liable. *See* Speedry Chems. & Prods., Inc. v. Carter's Ink Co., 306 F.2d 328 (2d Cir. 1962). At least one court, however, thought the proper procedure was to allow the main suit to go forward, but to allow a cross-claim by the second firm against one of its former supervising employees who allegedly knew of the misappropriation alleged by the plaintiff, an entirely unsatisfactory result. Spiral Step Tool Co. v. Metal Removal Div., Federal Mogal Corp., 183 U.S.P.Q. 420 (N.D. Ill. 1974). A rule of strict liability for innocent use would effectively parallel the strict liability rule of an action for patent infringement: "The intent or motive with which an act of direct infringement is performed is immaterial and there may be an infringement even though the infringer does not work by the patent or even know of its existence." *See* 35 USC § 271(a) (1976); 7 A. DELLER, *supra* note 15, at § 514. Another court asserted that "if an employer . . . is told that an entire operation is secret and should not be divulged, he cannot defend against the revelation of something that actually is secret as a part of such operation" just because he wasn't told just what was secret. Monsanto Chem. Co. v. Miller, 118 U.S.P.Q. 74, 79 (D. Utah 1958). The court did, however, agonize over the second firm's position in the terms meant to be alleviated by the proposal made here, but concluded there would nevertheless be liability:

> I must recognize in the case particularly of a third party who receives information from one who violates a confidence, the problem of particularization or lack of particularity is a grievous one; and that, too, however requires an outlook of reason rather than of mere form.
>
> His good faith, the question of whether he is put upon inquiry, whether he has notice, depends upon those factors; and it may be more difficult in view of generalities to indicate notice. But once it has been determined that there was such notice or such placing upon inquiry as to give rise to a duty, even he is in a very unsatisfactory position from his own standpoint in saying that there should be a bill of particulars from some undefined source, when he hasn't made any inquiry at all from the party who ultimately might be determined to be injured with respect to the matter.

Id.

163. *See supra* notes 9-42 and accompanying text.

A firm faced with the possibility of "infringing" a trade secret, however, has both an easier and a harder choice. The choice is easier because the firm is not fenced off by a seventeen year patent monopoly. The firm can, legitimately, attempt reverse engineering or independent derivation it it wants to imitate the process. When a new employee discloses new information to the firm or introduces new techniques, however, the firm's position is worse than if a patent were involved if it does not know what information or techniques the old firm claims to be trade secrets. The firm cannot compare new information to patent specifications.

Research has not revealed any empirical study of the effect of that uncertainty on the behavior of employees and firms. No doubt, many firms ignore or are ignorant of the dangers. Some firms will learn the lesson the hard way. Other firms will "get away" with using new disclosed information because misappropriations remain undetected. There are, however, a great many reported cases, most of them appellate decisions, involving claimed misappropriation of technological trade secrets. Those cases are the tip of an iceberg of indeterminate size. There must be many more instances where a new firm decides not to run the risk of hiring a particular employee, or any employees from particular competing firms, or where the misuse of trade secrets is never discovered.

There is no easy way out of the dilemma caused by uncertainty about the line between protectible trade secrets and unprotectible information and techniques. Trade secrets are valuable products of innovative activity; there is a legitimate interest in having the law protect them. Trade secrets are not, however, so important to society that the interests of employees, competitors and competition should automatically be relegated to a lower position whenever trade secrets are proved to exist. The current solutions to the dilemma undervalue those other interests. Uncertainty is a significant problem because there is no mechanism to authoritatively determine what is and is not a trade secret prior to a misappropriation litigation. A determination at that point comes too late to allow the interested parties to efficiently plan conduct that might avoid the problem.

5. *The Uniform Trade Secrets Act*

The Uniform Trade Secrets Act, promulgated by the National Conference of Commissioners on Uniform State Laws in 1979,[164] is a useful codification of the critical features of prevailing common law and makes some significant practical improvements.[165] Among other things, the Act concisely defines "trade secret,"[166] "improper means"[167] of trade secret acquisition, and "misappropriation,"[168] provides for injunctions against[169]

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164. UNIF. TRADE SECRETS ACT, 14 U.C.L.A. 537 (1980). It has been adopted in Indiana, IND. CODE ANN. §§ 24-2-3-1 to -8 (West 1982); Kansas, KAN. STAT. ANN. §§ 60-3320 to -3330 (Supp. 1982); Louisiana, LA. REV. STAT. ANN. §§ 51:1431 to :1439 (Supp. 1983); Minnesota, MINN. STAT. ANN. §§ 325C.01 to .08 (West 1981); and Washington, WASH. REV. CODE ANN. §§ 19.108.010 to .940 (Supp. 1983).

165. *See* Klitzke, *The Uniform Trade Secrets Act*, 64 MARQ. L. REV. 277 (1980).

166. UNIF. TRADE SECRETS ACT § 1(4), 14 U.L.A. 541 (1980).

167. *Id.* § 1(1).

168. *Id.* § 1(2).

169. *Id.* § 2, 14 U.L.A. at 544.

and damages for[170] trade secret misappropriation, and requires courts to "preserve the secrecy of an alleged trade secret by reasonable means" in the course of litigation.[171]

The Act does not, however, address the uncertainty problem. The critical definitions, of "improper means" and "misappropriation," do not in terms even require that before someone like an ex-employee or new firm is liable as a misappropriator such defendants know or have reason to know that information disclosed or used is another's trade secret. The Commissioners' Prefatory Note does briefly summarize misappropriation to mean "acquisition of a trade secret by means that should be known to be improper and unauthorized disclosure or use of information *that one should know is the trade secret of another.*"[172] The definition seems to negate strict liability for ignorance, but there is no reason to think the drafters meant to change the existing rules about when one should know information is the trade secret of another.

III. THE PROPOSAL: A TRADE SECRET CONTRACT

A. *An Overview*

Restrictive covenants are too broad and tort law is too uncertain to be the appropriate solution to the problem of balancing the conflicting interests in innovation, individual mobility, and competition. The solution posed here is admittedly only partial and imperfect. The proposal does, however, improve on both restrictive covenants and the tort cause of action by ameliorating the overbreadth of restrictive covenants and the uncertainty of tort law. The proposal is that when a new employee will be working in a part of a firm's business that will expose the employee to trade secrets or the creation of possible trade secrets, there should be an exchange of promises. The employee should promise to respect the firm's claims of trade secrecy during and after employment. The addition to current law is that the firm would be required to promise to tell the employee at the time of termination what information and techniques it claims to be trade secrets.[173] These promises would ordinarily be part of the comprehensive exchange that makes up the contract of employment. If no such promises were made and performed, with certain exceptions discussed below, there would be no legal liability if the employee disclosed, or any subsequent employer used, any information the employee learned.

The employee's promise would be similar to that now commonly extracted. He would acknowledge that he will or may learn information and techniques that the firm considers "confidential" or claims to be its trade secrets. The employee would promise that during and after employment he would neither use nor disclose to others the information and techniques

170. *Id.* § 3, 14 U.L.A. at 546.
171. *Id.* § 5, 14 U.L.A. at 548.
172. *Id.*, 14 U.L.A. at 538 (emphasis added).
173. The requirement is analogous to the more stringent descriptive requirement in a patent application. *See supra* note 10 and accompanying text.

which he does learn and which the firm claims are trade secrets, if and so long as they are and remain trade secrets. The "confidential relationship" would be made explicit, acknowledged, and given the boundaries the law now recognizes.

The firm would in exchange promise to tell the employee what it claims to be trade secrets. The promise would be to inform the employee, when and if he leaves the firm, what the firm's trade secret claims then are. The firm would promise to do so in sufficient detail and with sufficient clarity to distinguish the claimed information or techniques from the mass of information and techniques the employee may have learned during his employment.

The resulting set of promises, given in exchange for each other, would define the obligations of the parties about trade secrets. Relatively clear definition is the improvement over the tort scheme. There should be no rigid formal requirements, however.[174] There should also be room for implication and for applying standards of substantial performance. If, for example, the firm did not make an effort to inform the employee of its claims, but could prove actual knowledge, the obligation would still exist. The proposal's improvement over restrictive covenants is that the resulting contract creates only an obligation not to use or disclose claimed trade secrets. In contrast, restrictive covenants potentially prevent competitive use or disclosure of much more information and seriously hinder individual mobility.

B. *The Employee's Promises*

An employee's obligation is to respect trade secrets. The extent of the obligation is not different whether its source is a confidential relationship or a promise. If there are no trade secrets, or when information that once was trade secret moves into the public domain, there is no obligation of respect. There is thus no legitimate reason to allow the firm to extract a broader promise, as is the case in a restrictive covenant.

If an employee has promised to respect information both obviously public and probably trade secret, a court would face a choice analogous to that currently faced with "unreasonable" restrictive covenants. Some courts refuse to enforce such a covenant at all, while others will excise the "unreasonable" restrictions, or cut them to "reasonable" dimensions, and enforce the modified agreement.[175] If a court refuses to enforce a restrictive covenant because of overreaching, the promisee still has available an action for misappropriation if it suspects that trade secrets are being used or disclosed. In dealing with a trade secret contract a court faces a more difficult choice. If a trade secret contract is deemed overbroad and voided on that ground, any trade secrets that do exist would be unprotectible in a subsequent tort action. On the other hand, a firm that deliberately makes overbroad claims, dampening employee mobility and the spread of useful

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174. This is in contrast to the requirements of a patent application. *See supra* note 10 and accompanying text.

175. *See generally* Blake, *supra* note 93, at 681-84.

unprotectible information perhaps deserves to be shorn of protection. If the firm makes an effort to claim only what it reasonably and in good faith thinks are trade secrets, however, there is no good reason to fail to enforce a promise to respect the information proved to be trade secrets. Because of the inherent uncertainty about what is and is not a trade secret no more than a reasonable effort made in good faith can be demanded as a condition of enforcement of the employee's promise.

In summary, the employee's promise is to respect trade secret information in the same way and to the same extent now imposed by the duty that is said to arise from a confidential relationship. The only difference is that the obligation and its subject are explicitly communicated to the employee.

C. *The Firm's Promise and Performances*

The firm, on the other hand, is required in this proposal to promise and ultimately to perform acts not required by either the tort scheme or with respect to restrictive covenants. The firm must promise to detail its trade secret claims to departing employees. The firm must of course first decide what its claims are; this requires evaluation of the information the firm uses in its business that might be trade secrets. The firm will have to compile a list of specific descriptions and update the list as the firm acquires new information it thinks are trade secrets and as it discovers that older claimed information has become public. Before an employee who has been exposed to claimed information leaves, the firm must perform as promised and disclose its claims.

The firm could compile a list of claims that does not reveal the specific information claimed to be trade secret. It could then give the list to the departing employee to keep. The point is not to refresh the employee's memory of process or design details just at the time the firm would rather he forgot. The employee needs only to know that the firm claims as its trade secret a conceptual approach or something like a time and temperature sequence with which he is then familiar to be able to compare that information to the approaches and sequences he might find being used by a competitor. If the employee is familiar with the details of several process steps, composition of materials, design features and concepts that the firm claims are trade secrets the list of trade secret claims could be in this form:

Disclosure of Trade Secret Claims

> During your employment you have learned, had disclosed to you, or otherwise acquired specific information, some of which [the firm] claims to be trade secrets. In return for your promise, made at the time of your employment and acknowledged herein, not to disclose or use [the firm's] trade secrets outside of your employment by [the firm] so long as they remain trade secrets, [the firm] hereby informs you that it claims the following information now known to you to be its trade secrets:
>
> 1. The time and temperature used in the process step in which [plastic for the helmet shell liner is applied to the helmet

shell].[176]
2. The chemical formula for [the helmet shell liner].
3. The method of [attaching neoprene to the two-way stretch fabric].
4. The design of the [collar by which the helmet is attached to the suit].
5. The concepts that [lead to the specific composition of the helmet shell liner].

[The Firm]

Date ____________ By ____________

It might not always be possible to make claims without giving specific information claimed to be trade secret. For example, the firm might claim that the knowledge that a certain process step should be taken at all, rather than just the details, is a trade secret. In that case, the disclosure document could make an even more general reference:

6. A process step which cannot be more fully described in this document without revealing information the firm claims to be trade secret. That information has, however, been discussed with [the employee] on this date and is specifically included among the claims made herein.

It is critical that the employee have a chance to ask questions and receive authoritative answers about the claims. In a sense, that is the heart of the process of disclosing claims. He must have the opportunity to question precisely what the firm considers to be included when it says that "the method of attaching neoprene to the two-way stretch fabric" is a trade secret. If necessary, the written list could be amended or annotated, still without stating the specific details of that method.[177]

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176. The details used as examples are from B.F. Goodrich Co. v. Wohlgemuth, 137 U.S.P.Q. 389 (Ohio C.P.), *rev'd in part*, 117 Ohio App. 493, 192 N.E.2d 99 (1963). The plaintiff was developing a space suit intended for use in the NASA moon landing. Defendant, who had been the manager of Goodrich's space suit department, left Goodrich to work for International Latex Corporation. International Latex was also developing a moon-landing space suit, and had competed with Goodrich for the NASA contract. Goodrich promptly sought an injunction against Wohlgemuth to prevent him from, *inter alia*, doing any work for anyone else " 'relating to the design, manufacture and/or sale of high-altitude pressure suits, space suits and/or similar protective garments,' " disclosing to anyone else " 'any information or data relating to' " such activities, and from consulting with anyone else " 'with reference to trade secrets, experimental research or development work of plaintiff.' " 117 Ohio App. at 494, 192 N.E.2d at 101 (quoting the complaint).

The evidence Goodrich presented to the trial court sought to prove Goodrich knew trade secret processes for making the hard shell of a space helmet, a visor seal, a sock ending, the inner liner of gloves, for fastening the helmet to the suit, and for applying neoprene to two-way stretch fabric. Brooks, *supra* note 133, at 37, 50. Wohlgemuth's rebuttal evidence included an existing Latex application of neoprene to two-way stretch fabric—a Playtex Golden Girdle—and a Latex space suit and helmet, complete with uncomfortable occupant. *Id.* at 50-51. Goodrich did not claim Wohlgemuth took any Goodrich documents. "Whatever [he] carried away with him of a confidential nature, he carried away in his own mind and memory, combined with the technical skill and experience that he obtained over his years of service with" Goodrich. 137 U.S.P.Q. at 390.

177. This author was involved as counsel for plaintiff, a large electronics firm, in a lengthy trade secret litigation concerning process information for manufacturing sophisticated semiconductor integrated circuits. Defendants, former employees and their new employer, asked the plaintiff to list what the firm claimed to be trade secret about the various process steps. The client did not then have any such list. The trade secret allegations in the complaint were based primarily on the fact that the firm's process yielded superior products at low cost compared to competitors.

7. [The employee] has been given the opportunity to review the foregoing claims and ask [the cognizant manager or managers] questions about precisely what [the firm] means to include in the foregoing claims. [He has not done so] [He has done so, and the answers he received were based on the information in [the firm's] file of trade secret claims and were authorized by the firm].

The employee would then acknowledge his obligation and his receipt of the list of claims in the following form:

Acknowledgment

I acknowledge that during my employment by [the firm] I have learned, had disclosed to me or otherwise acquired specific information about the matters referred to above. I recognize that [the firm] claims that information to be its trade secrets. By telling me of its claims and furnishing me this document it has fulfilled its obligation to do so upon my termination of employment. In return for that disclosure and for furnishing me this information about its trade secret claims, I have promised not to use, or to disclose to anyone outside the employ of [the firm], any of that information so long as it is and remains generally unknown outside of [the firm] unless I find the same or substantially similar information already known or in use outside [the firm] and so documented or subsequently independently discovered without my participation or assistance.

Date __________ ________________

[Employee]

The document does not purport to bind the employee to respect any of the claimed information if he finds the information was not then a trade secret at all, or ceases to be in the future, or if he finds some or all of the information in use or already known to his future employer or employers. The document is just a list of claims, an acknowledgment of the employee's promise to respect them in the significant although limited manner set out, and a clear recitation of the basis of that obligation of respect.

The firm would have a new burden as a condition of effective legal protection of its trade secrets. The burden is not one that is too onerous considering the superior accommodation of interests that would result. Indeed, a firm that licenses its technology to others almost certainly must make just the same sort of evaluation and compilation. The practical literature on the problems of licensing trade secret technology and "know-how" suggests contract provisions consistent with those proposed here.[178]

The client recognized that, except for some conceptual wrinkles its engineers had developed, the basic outline of the process it used was well known in the industry. The remaining trade secrets, the firm believed, were in the specific details and techniques used. The firm undertook a considerable effort, including research in the literature and extensive interviews with those of its employees who had, by trial and error and intelligence and experience, developed these details. The result was a satisfactory list, given in answer to defendants' interrogatories, that distinguished the information the firm believed to be trade secrets from the mass of processing information without stating the details in a way that would have revealed them. That experience, including the realization that the defendants needed to have those distinctions drawn by the plaintiff, was the genesis of this Article.

178. *See* THE LAW AND BUSINESS OF LICENSING: LICENSING IN THE 1980'S, *supra* note 87.

John Vandevoort, then corporate counsel for Texas Instruments, a large electronics manufacturing firm, suggested a similar procedure for a firm which thinks it has trade secrets and wants to protect them.[179]

Others engaged in the intensely practical business of protecting trade secrets in both the employee and licensing contexts give, and presumably follow, similar advice.[180] A federal district court judge found as a fact in a major trade secret case[181] that while Motorola, Inc., the plaintiff, did not have any list or index of what it considered trade secret, "in other similar companies in the same [electronic integrated circuit manufacturing] industry . . . [departing employees were furnished] a list of employer-claimed secrets at the time of employment; during employment as additions or deletions were made; and at termination by requiring a signed document acknowledging specifically identified and claimed trade secrets."[182] In short, there is nothing novel about firms evaluating the information they use, claiming some but not all of it as their trade secrets. It may be more expensive but the individual firm must make a business decision as to whether the added expense is justified.[183]

The court in the *Motorola* case recognized the obvious fact that evaluating information to try to ascertain what might be trade secrets is not

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179. Each division or group or department head must, with his peers, maintain a "register of trade secrets," which will be reviewed and revised periodically. Each trade secret is given descriptive or code names. The register is maintained by the business manager and a central register is maintained by the cognizant legal or patent group of the corporation. It is important that the business managers are involved with the legal and patent groups in the upkeep of this trade secret register.

Vandevoort, *Trade Secrets: Protecting a Very Special "Property,"* 26 BUS. LAW. 681, 686 (1971).

Mr. Vandevoort saw two principal uses for the trade secret register. First, when a firm licenses use of the information, "[w]hat is trade secret must be not only identified but the contract outlining the [licensor-licensee] relationship between the parties must spell out the exceptions." *Id.* at 687. He mentions disclosure of secrets by sale of the involved products or services, secrets which become known generally in industry through no fault of the parties, and information claimed to be trade secret but actually already independently known and so documented before disclosure. *Id.* (The last point is a recognition of the practical difficulty of accurately separating trade secret from public information at any particular time.) Any "register" or list of "trade secrets" thus cannot realistically be more than a list of claims, based on information available to the firm and on the evaluation made by the firm.

Mr. Vandevoort also recommended that a list of employees who have been exposed to the information described in the register be maintained, coded so that management can tell who has been exposed to what information. He suggested that employees be explicitly notified if because of their access disclosures are made to them and that the notification be reissued periodically to remind employees of their responsibility for "maintaining secrecy." *Id.* at 686.

The recommendation that parallels the proposal made here is that there be a termination interview to review trade secret claims to which the department employee had access:

> Any termination, voluntary or otherwise, will require a review of the personnel folder. All supervisors will have a record of what the employee's access to trade secrets has been. He will interview the departing employee, with or without the help of the legal or patent activity and in 99 cases out of 100, the departing employee will sign an "exit interview" document acknowledging access to trade secrets appearing in his file.

Id.

180. *E.g.*, Payne, *Trade Secret Licensing—Definition, Duration and Disposition,* 1 THE LAW AND BUSINESS OF LICENSING: LICENSING IN THE 1980'S *supra* note 87, at 2A-169, 2A-175.

181. Motorola, Inc. v. Fairchild Camera & Instr. Corp., 366 F. Supp. 1173 (D. Ariz. 1973).

182. *Id.* at 1185. This author knows from personal experience that is not universally true in that industry, but the court's point was only that some other similar companies disclosed their claims. *See supra* note 177.

183. See *supra* notes 83-84 and accompanying text for discussion of the judgments firms must make about the value of competitors' trade secrets.

easy. The litigation established, however, that Fairchild, the defendant firm (the new employer of the defendant ex-Motorola employees), undertook such analysis to stay abreast of developments in the industry.[184] Not all industries experience the rapid changes that are the norm in the electronics industry, but a firm, in any industry, that thinks it has trade secrets would be foolish to ignore the relevant state of the art outside its walls. A firm needs to know at a minimum whether the competitive advantage it thinks results from trade secrets has disappeared or is being eroded. In any event, the less an industry is subject to rapid technological change, the easier it is for a firm to gather data on the state of the art and to evaluate its own information in that light. Evaluation of this kind is a common and sensible business practice. Reducing the results to a descriptive list of claimed trade secrets is neither a needless nor an extreme extra step.

The search process is time consuming, potentially continuous, and may require access to published and unpublished data. The evaluation process requires the exercise of technical and perhaps legal judgment. The firm, but not employees, can reasonably be asked to make the effort. Employees have neither access to the relevant data nor either funds or time to make evaluations. No one individual is likely to have the perspective, available to the firm, to make a competent technical judgment. Nor do employees individually or collectively have the practical ability to procure legal advice. Indeed, it would be a breach of the duty not to disclose claimed trade secret information to give the firm's information to anyone outside the firm for evaluation. The employing firm is the only entity capable of making trade secret claims on its behalf that have any correspondence with the reality a court may someday determine. The next section discusses the impact of requiring firms to make and communicate trade secret claims to departing employees.

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184. *Motorola, Inc.* 366 F. Supp. at 1183.

> [Fairchild] regularly . . . purchased and studied all domestic and foreign patents as well as relevant trade literature and competitors' sales and promotional literature and products. The same purchase, study and analysis of competitors' newly marketed products is also a regular and customary practice by all engaged in this highly competitive industry. Because of the rapidly changing technology in this explosive industry it is apparent that such a practice is necessary for survival.

Id.

This is one of the most difficult analytical and practical problems in determining trade secret status. The problem is inherent, compounded by the lack of information about what is being used in other firms in the same or related industries. The courts' difficulties are reflected in the generalities they fall back on. The question is not so difficult when a firm has published the information even if not "publicly." *See* Bimba Mfg. Co. v. Starz Cylinder Co., 119 Ill. App. 2d 251, 256 N.E.2d 357 (1970). But when a process consists of an allegedly unique combination of relatively well-known specifics, for example, confusion arises. *Compare* Sarkes Tarzian, Inc. v. Audio Devices, Inc., 166 F. Supp. 250 (S.D. Cal. 1958) (combination not a trade secret) *with* Ferroline Corp. v. General Aniline & Film Corp., 207 F.2d 912 (7th Cir. 1953) (combination a trade secret). Courts often seem to rely on whether the information could be reverse engineered in the absence of evidence about how widespread knowledge or use may be. *See, e.g.*, Wheelabrator Corp. v. Fogle, 317 F. Supp. 633 (W.D. La. 1970); Kubik, Inc. v. Hull, 56 Mich. App. 335, 224 N.W.2d 80 (1974). Other courts do little but recite that while novelty in the patent law sense is not required, some degree of novelty or uniqueness is required. *See*, e.g., Crown Indus., Inc. v. Kawneer Co., Inc., 335 F. Supp. 749 (N.D. Ill. 1971) (any differences from the prior art would take little, if any, skill or ingenuity to conceive), T.P. Labs., Inc. v. Huge, 261 F. Supp. 349 (E.D. Wis. 1965) (not a trade secret because the invention only utilized the skills of the trade).

D. *The Effect of Disclosing Trade Secret Claims*

At the time an employee leaves the firm, he will have been informed that the firm considers certain information to be the firm's trade secrets. When an employee starts to work at a competing firm, he will find processes and designs in use, and may have to create processes and designs, drawing on public information and on experience. In either case, there will be a conflict between improving or creating the best possible processes and designs and avoiding use of information not legitimately available. Designs and design features that are not covered by patents can be the subject of reverse engineering efforts if the product has been sold. For that reason the conflict with respect to design information is of significantly less concern than the conflict arising when the firm wants to improve or create a process. It may be necessary to duplicate a process to successfully duplicate a reverse engineered design. Process information also may be useful in making a superior or less costly product that has already been designed. The critical tension therefore concerns process information.

If a new employee finds information claimed to be a trade secret by his former employer in use or known in the new firm, he can safely ignore the prior firm's claim, at least in his work for that particular new firm. If, however, he finds a process in place that could be improved by the use of specific information he remembers from his prior experience, the conflict is directly presented. The conflict also exists if he thinks an entire process or major process component he remembers would be a useful addition to the new firm's operation, or if the new firm does not appreciate a concept or principle known to him. If all he knows is that his old employer claims virtually everything he learned in that job to be its trade secrets, the conflict is insoluble except by either saying nothing or disclosing something that, if used, may lead to litigation and liability. If the old firm has in good faith narrowed its claims, however, the conflict is both lessened and appropriately focused.

Suppose, for example, that the employee thinks it would be useful to alter the new firm's existing process by changing a time and temperature sequence to duplicate or closely resemble the sequence he remembers from the old firm. There is probably no point in doing so unless the difference from the new firm's existing sequence is significant. In that case, there would be little question that the new firm would be using information from the old firm and not just evolving its existing process step. If the old firm has made no trade secret claim to the sequence, there would be no barrier to disclosure and use. If a claim has been made, the employee discloses the information at his peril and the peril of the new firm.

When an employee who has worked elsewhere in the industry suggests that something like a process sequence be changed, the new firm is in a position to protect itself. The firm should ask the employee if the change would incorporate any information or technique which the employee's former employer claimed to be a trade secret. The employee can refer to his copy of the list of trade secret claims. If the list does not itself disclose trade secrets, there is no reason not to show it to the new firm.

There may be a problem, however, if there are claims that have not been described because to do so would reveal claimed information. If the employee says the conceptual information he now wants to disclose isn't included in the generalized claim, he may be lying, or may not remember. If the new firm determined that the information wasn't available from public sources (the threshold determination), it could communicate with the old firm, asking if there had been any claims about the sort of process or sequence in question. The old firm might lie, stating a claim it had not made, to the obvious end of trying to prevent its competitor from using non-trade-secret but useful information. There is no clear and easy solution, but if the information seems important enough, the new firm can incur the transaction costs to try to work out the conflict. The firm's first step might be to engage in further evaluation of publicly available information, progressing through getting expert outside opinion, to seeking an arbitration agreement, to bringing an action for declaratory relief.

There may be a more general problem, that firms will deliberately make overbroad claims. While a duty to exercise good faith should be implied, perhaps on pain of having all the claims invalidated, there are more immediate and practicable restraints. The first is that it would be pointless to claim information that competing firms, even if not employees, will know to be public or in general use in the industry. That restraint would negate the impact of extreme claims, but not necessarily those still deliberately overreaching but in a grayer area.

The second restraint is that knowledgeable employees are in a position to influence the firm not to make overbroad claims. The firm must of course rely on its employees to make evaluations and claims. Some of them, certainly including the best informed, most talented and highly placed, will have their own interests in mind as well as the interests of the firm. It is in those employees' interest to see that claims that they may some day have to respect as former employees are not intentionally exaggerated. A party to a conspiracy to make overbroad claims is a dangerous ex-employee. If there is any subsequent litigation against him, it might well result in exposure of the course of conduct. If courts followed those courts that, in the analogous case of deliberately overbroad restrictive covenants, invalidate the entire covenant, all claims might be held unenforceable.

While those restraints on overreaching may be effective enough, there is no gainsaying the evaluation and disclosure process strengthens the claims made and disclosed. They would achieve a dignity closer to that afforded patents as a direct result of the limited disclosure. An evaluation process, even though sanctioned by no one but the firm, would entitle resulting claims to a degree of respect which could not be attained by claims that are first made in the heat of competitive battle, with the courts on the horizon or actually engaged. Once litigation is threatened or commenced the inevitable tendency to allege as much as possible tends to make all claims properly suspect.

There is, too, an important sense in which the act of exchanging meaningful promises itself generates a strong reason to use the judicial machinery to protect trade secrets in the face of conflicting interests of competitors, employees and the competitive process. One of the articulated justifications for consistently tipping the balance of those interests in favor of protection (at least in the case of "real", proven trade secrets) is that doing so enhances and protects "commercial morality." It has long been said to be immoral for an employee, to whom information has been disclosed during a relationship of "trust and confidence," to freely use or disclose the information in "breach" of that trust.[185] It is curious, however, that morality has been relied on where one party, the firm, has nearly all the advantages. After all, the firm disclosed information to its employees for its own purposes. In the current state of the law, the firm then likely at most told the employee that he has a potentially life-long obligation to respect such of the information as the firm can prove, or threaten to prove, are trade secrets. The firm probably has not told the employee what part of the mass of disclosed information the firm in good faith claims to be due that respect. When the firm has not made the effort to distinguish trade secrets from the mass, it is an odd morality that condemns acts taken in ignorance.

The proposal made in this Article calls for an exchange of promises between employer and employee. Each party exchanges a measure of freedom of action for a measure of certainty about their obligations. There is also gain for each in having exchanged promises of the kind that have long seemed morally as well as legally right to enforce. Paying for a promise is not just a legal trick to engage the "doctrine" of consideration. Paying for a promise also gives reassurance that the other party will perform, or at least that there is a strong moral as well as legal compulsion to do so.[186] When a firm has given value for an employee's promise of respect, "commercial morality" is then on the side of insisting on a serious, good faith effort by the employee to perform as promised. The value given, disclosure of trade secret claims, makes it easier to exercise that good faith effort. That is precisely as it should be.

The fact that an exchange has taken place also provides an answer to an objection sometimes raised against disclosing claims. If a firm makes such disclosure, the argument goes, the employee will just have his attention focused on the information the firm considers most valuable.[187] With that additional information, the employee will know just what to misap-

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185. *See supra* notes 41 & 124-25 and accompanying text.

186. C. FRIED, CONTRACT AS PROMISE 7-27 (1981).

187. *See* J.T. Healy & Son, Inc. v. James A. Murphy & Son, Inc., 357 Mass. 728, 736-37, 260 N.E.2d 723, 730 (1970). In that case, the Massachusetts court went to the edge of requiring disclosure of trade secret claims as a condition of a duty of respect. The court later retreated to the position that has inspired this proposal. In *Healy*, the court said "one who claims a trade secret must exercise eternal vigilance. This calls for warnings to all persons to whom the secret has become known and obtaining from each an agreement, preferably in writing, acknowledging its secrecy and promising to respect it." *Id.* at 731. However, the Massachusetts Court did not adhere to its own suggestion. In USM Corp. v. Marson Fastener Corp., 379 Mass. 90, 393 N.E.2d 895 (1979) the court said, "While the nondisclosure agreements did not list the particular information which USM considered secret, such specificity is not required to put employees on notice that

propriate, since competitors probably will pay the most for the real gems that the firm has taken the trouble to distinguish from its costume jewelry. If an employee has a purpose to misappropriate telling him what to steal is rightly to be feared. But it seems reasonable to assume that such an employee—they no doubt exist—would likely have made an effort to distinguish gold from dross in any event. If he goes to work for another firm that, although tempted to join in a misappropriation fears the possible consequences, the fact that the new employee has a list of claims will put the new firm in more danger if it gives in to the temptation. The new firm will not be able to plead ignorance of the first firm's claims. The temptation engendered by the disclosure of claims is thus restrained by the existence of the list. In any event, the problem of possible temptation does not justify creating avoidable ignorance when the avoidance is reasonably inexpensive and promotes a better balance between significant competing interests.

Conclusion

Legal protection of trade secrets, like that afforded by patent grants, restricts the flow of information; an incentive to innovate is created at a price. Unlike patent grants, however, there is no authoritative way in which to determine in advance whether particular information deserves or will receive the more limited protection which the law gives to trade secrets. That fact makes it difficult to appropriately balance the competing interests in innovation and industrial morality on one hand and employee mobility and competition on the other. This difficulty has led firms with trade secrets to seek protection traditionally through restrictive covenants and a tort of misappropriation. These traditional protections, however, tend to be unfair and inefficient. Restrictive covenants are generally overbroad. The cause of action in tort fails to take sufficient account of the difficulty faced by mobile employees and their new employers in determining what information learned in prior employment can or cannot safely be dispersed. This Article proposes another approach to the conflicts raised in trade secret cases. First, restrictive covenants preventing former employees from working for competitors should be eliminated as a means of protecting trade secrets. Second, legal protection of the legitimate interests of innovating firms in trade secret information by prohibition of use or disclosure by former employees should be denied unless, in most cases, the firm notifies the departing employee what information the firm claims to be trade secrets. Employees in return would promise not to use or disclose, outside the firm, claimed trade secret information if, and as long as, it is a trade secret.

their work involves access to trade secrets and confidential information." *Id.* 99, 393 N.E.2d at 901.