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Trade Secret

To understand why the law protects trade secrets,¹ it helps to understand why people keep trade secrets. Consider the the story of Greek fire, a semi-legendary superweapon of the middle ages. Apparently invented sometime in the 7th century, it was a kind of pre-modern napalm. Ancient and medieval chroniclers describe it as a burning liquid with the remarkable property that it couldn't be extinguished with water, making it a truly fearsome weapon against wooden ships. In the words of one 13th-century account:

This was the fashion of the Greek fire: it came on as broad in front as a vinegar cask, and the tail of fire that trailed behind it was as big as a great spear; and it made such a noise as it came, that it sounded like the thunder of heaven. It looked like a dragon flying through the air.

In the 8th century the Byzantines used it to drive off Arab invasions, and they were still using it six centuries later. They recognized that the military edge that it provided was useless if their enemies acquired the secret of making it. Thus, they kept the details closely guarded. Only a few people knew the secret process to prepare it; soldiers who used it in battle didn't know how it was made. So closely and effectively did the Byzantines guard it, in fact, that knowledge of how to make Greek fire disappeared with the Byzantine Empire. The story goes that when the Fourth Crusade sacked Constantinople in 1204, the secret vanished in the chaos. The Empire never recovered, politically or militarily. We still don't know today how Greek fire was made.²

This story illustrates three central lessons about secrets:

- Information gives a competitive advantage.
- That advantage can depend on secrecy.
- But secrecy is costly.

These facts are enough to justify the *practice* of trade secrecy; businesses keep secrets because there are things they don't want competitors to know. But they are not enough by themselves to justify trade secret *law*. At least four justifications rub elbows in the cases and commentary. Two are familiar from the previous chapter, and two are new:

1. The leading trade secret treatises are ROGER M. MILGRIM & ERIC BENSON, *MILGRIM ON TRADE SECRETS* (2021); LOUIS ALTMAN & MALLA POLLACK, *CALLMANN ON UNFAIR COMPETITION, TRADEMARKS, AND MONOPOLIES* (2021); MELVIN F. JAGER, *TRADE SECRETS LAW* (2021).



Greek fire, as depicted in the Madrid Skylitzes, a 12th-century illuminated manuscript

2. It still happens. A material code-named FOGBANK was used in W76 nuclear weapons. FOGBANK's composition was classified. So was its use. And so was the process for making it. In 2000, a program to extend the service life of the existing stock of W76 warheads ran into trouble when it was discovered that the government no longer knew how to make FOGBANK. Most of the records of the manufacturing process had been discarded or destroyed, and most of the people who worked on it had retired.

- **Contracting:** Legal protection for trade secrets, like NDAs and patents, is a mechanism to resolve Arrow's Information Paradox. Trade secret law helps make it possible to negotiate for the disclosure of secret information.
- **Innovation:** Keeping secrets safe gives companies incentives to invest in creating valuable information in the first place.
- **Arms Race:** Unless trade secrets received legal protection, companies would inefficiently overinvest in self-help to protect them, and other companies would inefficiently overinvest in stealing them. (This theory is the one that most squarely confronts the costs of secrecy.)
- **Competition:** Trade secret law deters unethical business practices and encourages companies to compete with each other fairly.

Doctrinally, trade secret law has deep common-law roots as a branch of "unfair competition" law. The older Restatement (First) of Torts reflects this common-law heritage. Over time, it has become more statutory and more federal. The Uniform Trade Secrets Act (UTSA) has been adopted in some form by 47 states, and the modern Restatement (Third) of Unfair Competition generally parallels the UTSA. The federal Economic Espionage Act of 1996 (EEA) criminalized an important subset of trade secret misappropriation, and the 2016 Defend Trade Secrets Act (DTSA) added a federal civil cause of action and an important seizure remedy.

A Subject Matter

Not every secret is a *trade* secret. When one fifth-grader asks another to cross her heart and hope to die before revealing a bit of gossip about a mutual friend, this is not the kind of secret the courts will take an interest in. Trade secret law has traditionally policed this line using an *economic value* requirement. In the words of the Restatement (Third): "A trade secret is any information that can be used in the operation of a business or other enterprise and that is sufficiently valuable ... to afford an actual or potential economic advantage over others."³

There are actually two subtly different things going on in here. One of them is quantitative. The information must be "sufficiently valuable," which suggests that there is some threshold of value: information can be worth more or less, and only information worth more than 400 quatloos (or some other arbitrary value) can qualify as a trade secret. This is a *threshold test*: information needs to clear a minimum level of something (value, creativity, fame, etc.) to be protectable.

The economic-value threshold could in theory serve a significant screening function, keeping the courts out of chump-change disputes. In practice, however, the threshold of value is so low it rarely matters. Quoth the Restatement (Third), "It is sufficient if the secret provides an advantage that is more than trivial."⁴ When a plaintiff believes that a secret has sufficient value to be worth suing over, the courts almost never second-guess that belief.

3. RESTATEMENT (THIRD) OF UNFAIR COMPETITION § 39 (1995).

4. *Id.* § 39 cmt. e.

The other way to look at this test is qualitative. Only information with an “economic” value that “can be used in the operation of a business” counts, which suggests that information with non-economic value (e.g. subjective personal importance) does not. This is a *categorical test*: certain kinds of information are protectable, and certain other kinds are not.

There was a time when the courts took an even narrower view: trade secrets were secret formulas, manufacturing plans, and other information about how to do something physically better. Customer lists, prospective marketing plans, and other information about the business side of the business weren’t proper trade secret subject matter. That time has long since passed, and the Restatement (Third) takes a very broad view: trade secrets can relate either to “technical matters” or to “business operations.”⁵ The UTSA refers broadly to “information, including a formula, pattern, compilation, program, device, method, technique, or process.”⁶

But there still is an outer limit here: information with no nexus to business is not a *trade secret*. The cases here are not many, but they are illuminating. Consider *Religious Technology Center v. Netcom On-Line Communications Services, Inc.* (“*Netcom II*”), in which the Church of Scientology sued Dennis Erlich, a dissident former minister who had posted various of its internal documents on the Internet.⁷ The documents described in detail the highest and most secret doctrines of the Church and its belief system, and had typically been shared only with high-ranking Church officials and the innermost circle of initiates. The Church “considers it sacrilegious for the uninitiated to read its confidential scriptures,” and Scientologists believe that exposure to this material can be dangerous, even fatal, for those who are unprepared. But the *spiritual* value of the Church’s secrets is not necessarily the same as the *economic* value demanded by trade-secret law.

A bad version of the argument that religious secrets are not trade secrets was that the Church of Scientology was not in business to make money. But religious and non-profit corporations, like their for-profit cousins, can do business, even if the accumulation of profits is not their ultimate aim. Just as they can own and use real estate for churches and offices, they can own and use information.

Is this a *competitive* advantage? It is true that organized religions claim to answer to a different standard than marketplace success.⁸ But they do compete with each other for worshippers, and for donations. Like a public-radio station offering a tote bag as an incentive to become a member, Scientology offers initiation into life-changing secret knowledge. That was enough of a competitive value for the court in *Netcom II*.⁹

B Ownership

It is clear, uncontroversial, and unsurprising that the essential requirement for owning a trade secret is *actual secrecy*: the information must

5. *Id.*

6. UNIFORM TRADE SECRETS ACT § 1.4 (1985) [hereinafter UTSA].



The Flag Building in Clearwater, Florida, which serves as Scientology’s “spiritual headquarters”



Dennis Erlich holding a press conference

7. *Religious Tech. Ctr. v. Netcom On-Line Commc’ns Servs., Inc.* (“*Netcom II*”), 923 F. Supp. 1231 (N.D. Cal. 1995).

8. Compare Acts 8:20 (“But Peter said unto him, Thy money perish with thee, because thou hast thought that the gift of God may be purchased with money.”) with *Abrams v. United States*, 250 U.S. 616, 630 (Holmes, J.) (“[T]he best test of truth is the power of the thought to get itself accepted in the competition of the market.”)

9. The OT documents remain **widely available** online.

not be widely known.

“Trade secret” means information . . . 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 . . .¹⁰

10. UTSA, *supra* note 6, § 1(4).

This concept does triple duty. It defines when information is a trade secret at all, it makes priority a non-issue between multiple competitors with the same secret, and it allocates ownership within collaborations.

1 Actual Secrecy

All information is secret in the sense that some people know it and other people don't. And all information is public in the sense that everyone could discover it on their own, given enough time and effort. So the test that information is secret when it is “not . . . generally known to, and not . . . readily ascertainable by proper means by, other persons” asks *how many* people know the purported secret, and *how hard* it would be for the others to discover it.

Consider *Amoco Production Co. v. Laird*. John Clendenning, a geologist at Amoco, recommended that it commission a aerial microwave radar survey of “a 13,000-square-mile area in southern Michigan and northern portions of Ohio and Indiana known as the Trenton Black River formation.”¹¹ at a cost of \$150,000. The surveys indicated the likely presence of oil at two sites, but the estimated yield was beneath Amoco's threshold for commercial viability. A frustrated Clendenning sent a fax of a road map with the sites circled to his former neighbor William Laird, who was an oil entrepreneur. Amoco later decided to go ahead with the project, only to discover that Laird had already leased the sites. Litigation ensued.

11. *Amoco Prod. Co. v. Laird*, 622 N.E.2d 912, 914 (Ind. 1993).

One of Laird's arguments was that the locations of the sites was not protectable as a trade secret because it was “readily ascertainable” by others. After all, anyone could look at (publicly available) U.S. Geological Survey data and commission their own (commonly used) aerial microwave radar survey and learn exactly what Amoco did.

But this argument is wrong, and the court rejected it. Anyone could have paid \$150,000 to carry out a survey, but only Amoco did. Laird was free to commission his own survey, but he was not free to free-ride on Amoco's. The result would have been different if Amoco had published the results of the survey in a scientific journal, or if a microwave survey cost \$15 instead of \$150,000. These differences would have made the location of the oil reserves “readily ascertainable” to people like Laird: competitors in the relevant field.

Note also that to be secret, information must not be known to or ascertainable by *competitors*: “other persons who can obtain economic value from its disclosure or use.” The general public is not able to read microwave radar survey data and know what it means, and most of us are not in a professional position to sink oil wells, either. But we are not

the relevant audience. Amoco's competitors are other oil companies and independents like Laird, the survey gave Amoco a leg up on them, and they are the ones who would have to spend \$150,000 on a survey and who know what to do with the results.

In addition to being a subject-matter case, *Netcom II* offers another look at when information is actually secret. Erlich argued, unsuccessfully, that the documents had already been made public, and so were no longer secret. For one thing, they had been filed as a declaration in another Scientology-dissident case, *Church of Scientology Int'l v. Fishman*, and court filings are generally matters of public record. But while the *Netcom II* court agreed that full public accessibility would destroy trade secrecy, it noted that the *Fishman* court had promptly sealed the filing. If the filings had been widely copied during the period before they were sealed, then that would end their secrecy; but if not, then the fact that they *could have been* copied would not by itself put an end to their trade-secret status. This pragmatic approach is typical of trade-secret law.

2 Priority

Actual secrecy also resolves priority questions by allowing multiple independent parties each to have a trade secret in the same information. There is no requirement that a trade secret be unique; more than one person can have the same information and each has a valid and independent trade secret provided the other requirements are met. Thus, trade secret does not generally raise difficult issues about which of several competing claimants developed the information first. Regardless of the order, both parties have protectable trade secrets in the information. If Laird had commissioned his own microwave survey, he would have had his own independent trade secret in the locations of the oil fields, and Amoco would have had a trade secret too. This logic breaks down only when the information is so "generally known" that it fails to qualify as a trade secret at all.

3 Collaborations

Actual secrecy also helps resolve questions of allocating ownership within collaborations. Two or more people working together can jointly own a trade secret.¹² Companies are a particularly common way to organize information ownership. The general default rule of agency and employment law is that the employer owns any valuable information created by employees in the scope of their employment, even if it results from the "application of the employee's personal knowledge or skill."¹³ This default can be broadened or narrowed by contract. The employer and employee can agree that the employee will own some or all of the information they create on the job.

Some employees use their employer's facilities to develop their own ideas, e.g., coming in after hours to use workshop tools, or running compute-intensive machine-learning models on the employer's computers. If these inventions relate to the employer's business, then the



Syndrome explains trade secrets

12. "Three may keep a secret, if two of them are dead." Benjamin Franklin, *Poor Richard's Almanack*, July 1735

13. RESTATEMENT (THIRD) OF UNFAIR COMPETITION, *supra* note 3, § 42 cmt. e.

employer receives a *shop right*. The employee owns the information, but the employer has an irrevocable, nonexclusive, royalty-free license to use it.

On the other hand, some employers attempt to claim ownership by contract of information created by employees during or even after their term of employment, regardless of whether it was part of their job duties. These provisions are enforceable in theory but can be litigation quagmires in practice. The Restatement (Third) explains:

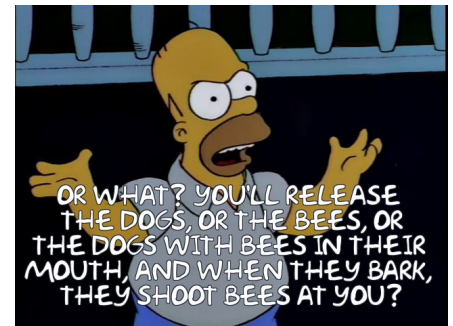
In some situations, however, it may be difficult to prove when a particular invention was conceived. The employee may have an incentive to delay disclosure of the invention until after the employment is terminated in order to avoid the contractual or common law claims of the employer. It may also be difficult to establish whether a post-employment invention was improperly derived from the trade secrets of the former employer. Some employment agreements respond to this uncertainty through provisions granting the former employer ownership of inventions and discoveries relating to the subject matter of the former employment that are developed by the employee even after the termination of the employment. Such agreements can restrict the former employee's ability to exploit the skills and training desired by other employers and may thus restrain competition and limit employee mobility. The courts have therefore subjected such "holdover" agreements to scrutiny analogous to that applied to covenants not to compete. Thus, the agreement may be unenforceable if it extends beyond a reasonable period of time or to inventions or discoveries resulting solely from the general skill and experience of the former employee.¹⁴

14. *Id.* § 42 cmt. g.

C Procedures: Reasonable Efforts

There is no requirement that the owner of a trade secret register it as one with a government agency, or take other formal steps. Instead, the only procedural prerequisite to having a valid trade secret is making *reasonable efforts* to preserve its secrecy. The UTSA provides that to be a trade secret, information must be "the subject of efforts that are reasonable under the circumstances to maintain its secrecy."¹⁵ Such efforts can involve a mixture of physical security like locks and guards, digital security like password policies and firewalls, confidentiality agreements, and compartmentalization of knowledge. Here is a summary of one company's precautions:

RAPCO stores all of its drawings and manufacturing data in its CAD room, which is protected by a special lock, an alarm system, and a motion detector. The number of copies of sensitive information is kept to a minimum; surplus copies are



Reasonable efforts? (*The Simpsons* S5E18, "Burns' Heir")

15. UTSA, *supra* note 6, § 1(4)(i)(i).

shredded. Some information in the plans is coded, and few people know the keys to these codes. Drawings and other manufacturing information contain warnings of RAPCO's intellectual property rights; every employee receives a notice that the information with which he works is confidential. None of RAPCO's subcontractors receives full copies of the schematics; by dividing the work among vendors, RAPCO ensures that none can replicate the product.¹⁶

It is always possible to imagine even stronger efforts. (Indeed, almost by definition, the reasonableness of the owner's efforts will only be at issue in cases where they have failed.) But the test is "reasonable" efforts, not perfect security:

This makes it irrelevant that RAPCO does not require vendors to sign confidentiality agreements; it relies on deeds (the splitting of tasks) rather than promises to maintain confidentiality. Although, as Lange says, engineers and drafters knew where to get the key to the CAD room door, keeping these employees out can't be an ingredient of "reasonable measures to keep the information secret"; then no one could do any work. So too with plans sent to subcontractors, which is why dissemination to suppliers does not undermine a claim of trade secret.¹⁷

Security is costly. Fences and firewalls cost money. They also make it harder for people to do their jobs, by keeping useful information under wraps. What is reasonable under the circumstances reflects a tradeoff between the costs and benefits of increased security.

But this leaves a puzzle. Why require reasonable efforts at all, given that they are costly? Why isn't the test simply efforts sufficient to maintain actual secrecy? A useful list of theories why comes from Judge Richard Posner's opinion in an otherwise-unremarkable trade secret case, *Rockwell Graphic Systems, Inc. v. DEV Industries, Inc.*¹⁸ To summarize:

1. Reasonable efforts are evidence of economic value. Businesses will not bother to make an effort to keep their weekly break-room donut orders secret, because this information is of no meaningful use to competitors.
2. Reasonable efforts are evidence of actual secrecy. The fact that papers are kept under lock and key helps show that they are not widely available.
3. Reasonable efforts are evidence of misappropriation. (This one takes a little more thought to see.) If documents are not normally shared with subcontractors, it is less likely that a rival obtained them innocently from a subcontractor on a job site.
4. Reasonable efforts provide fair notice to potential defendants. If papers are stamped "CONFIDENTIAL," employees who deal

16. *United States v. Lange*, 312 F.3d 263, 266 (7th Cir. 2002).

17. *Id.*

18. *Rockwell Graphic Sys., Inc. v. DEV Indust., Inc.*, 925 F.2d 174 (7th Cir. 1991).

with them know they are dealing with information the company considers proprietary.

5. The reasonable-efforts requirement makes owners take reasonable efforts. Otherwise, they will be tempted to rely on expensive lawsuits when cheap five-dollar padlocks could have prevented the problem in the first place. Trade-secret law helps those who help themselves.

Which of these strike you as persuasive?

D Infringement: Prohibited Conduct

The essence of trade secret misappropriation is to *acquire* a protected secret through *improper means*, or to *use* or *disclose* a secret that was acquired through improper means or by “accident or mistake”.¹⁹

1 Improper Means

The UTSA defines improper means to be “theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means.”²⁰ The Restatement (Third) uses a similar list, but adds the catchall “other means either wrongful in themselves or wrongful under the circumstances of the case.”²¹ These definitions can be roughly divided into two types of wrongful conduct. On the one hand there is *espionage*, which often involves theft, trespass, or computer hacking. On the other hand there is *breach of confidence*, which often involves violating a promise to keep someone else’s secrets. It is tempting to conclude that “improper means” consist of torts (espionage) and breach of contract (breach of confidence), but this equation is a little too pat.

a Espionage

The classic case on espionage is *E.I. du Pont de Nemours & Co. v. Christopher*.²² The DuPont chemical company was building a methanol plant in Beaumont, Texas, when employees noticed a small aircraft circling over the plant. Within hours, their investigation revealed that Rolfe and Gary Christopher were in the plane, taking aerial photographs. DuPont surmised that they had been hired by a competitor, and that their photographs would enable that competitor to infer DuPont’s secret process for making methanol.²³ When the Christophers refused to identify their client, DuPont sued for trade secret misappropriation, and won.

What makes *Christopher* a fun case is that nothing the Christophers did was otherwise criminal or tortious. So far as the record shows, the Christophers’ plane was complying with all Federal Aviation Administration regulations, and trespass law does not prohibit overflights. There is no general law against taking photographs from a place where you have a right to be. So if these were “improper means,” it is trade secret law itself that considers them so.

19. UTSA, *supra* note 6, § 1; RESTATEMENT (THIRD) OF UNFAIR COMPETITION, *supra* note 3, § 40.

20. UTSA, *supra* note 6, § 1(1).

21. RESTATEMENT (THIRD) OF UNFAIR COMPETITION, *supra* note 3, § 43.

22. *E.I. du Pont de Nemours & Co. v. Christopher*, 431 F.2d 1012 (5th Cir. 1970).



Modern view of the Beaumont methanol plant (now owned by OCI)

23. “The appearance of the airplane at such an opportune moment [may have] suggested to DuPont that some kind of inside leak had tipped off the photographers (or their client) to the opportunity.” Edmund Kitch, *The Law and Economics of Rights in Valuable Information*, 9 J. LEGAL STUD. 683 (1980).

One strand of the court's reasoning is economic. "To obtain knowledge of a process without spending the time and money to discover it independently is improper unless the holder voluntarily discloses it or fails to take reasonable precautions to ensure its secrecy."²⁴ This point resonates with the innovation theory of trade secrecy; it emphasizes that trade-secret law prevents competitors from taking unfair shortcuts by free-riding on each others' efforts.

The hard question in *Christopher* is which surveillance techniques are allowed. To answer this question is also to answer the question of which efforts to maintain secrecy are sufficient, which is the flip side of the same coin. DuPont could have prevented the overflight surveillance by putting a temporary shed over the construction site, at enormous expense. Why not require that precaution too? Alternatively, why require DuPont to put up fences? Shouldn't trade-secret law protect it against photographers at ground level, too? The court's reasoning is typical of trade-secret cases:

We do not mean to imply, however, that everything not in plain view is within the protected vale, nor that all information obtained through every extra optical extension is forbidden. Indeed, for our industrial competition to remain healthy there must be breathing room for observing a competing industrialist. A competitor can and must shop his competition for pricing and examine his products for quality, components, and methods of manufacture. Perhaps ordinary fences and roofs must be built to shut out incursive eyes, but we need not require the discoverer of a trade secret to guard against the unanticipated, the undetectable, or the unpreventable methods of espionage now available.²⁵

This is an answer based on the arms-race justification for trade-secret law. Putting up a fence around the site is a cheap and common precaution that protects against industrial spies as well as bored teenage vandals; building a roof over the entire site is wildly expensive compared to the value of the secrets it would protect. But the court's explanation of why it strikes the balance where it does also takes a decidedly non-economic turn:

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

To require DuPont to put a roof over the unfinished plant to guard its secret would impose an enormous expense to prevent nothing more than a school boy's trick. We introduce here no new or radical ethic since our ethos has never given moral sanction to piracy. The marketplace must not

24. *Christopher*, 431 F.2d at 1015–16.

25. *Id.* at 1016.

deviate far from our mores. We should not require a person or corporation to take unreasonable precautions to prevent another from doing that which he ought not do in the first place.²⁶

This too is typical of trade-secret cases. Courts' views of proper commercial morality drive their interpretations of what constitute "improper means."

Cases of accident or mistake are usefully thought of as espionage-adjacent. Stealing deal documents from an airplane seatmate's briefcase is acquisition through improper means, but reading through documents they left behind when they deplaned is acquisition through mistake.

b Breach of Confidence

Turn now to the other prong of improper means, breach of confidence. *Kamin v. Kuh nau* is reasonably representative.²⁷ After a career as a knitting-mill mechanic, Ernest Kamin got into the garbage collection business in 1953. It was a fertile time for garbage-truck innovations, and Kamin soon had ideas about how to use hydraulic cylinders to lift garbage containers to the truck and compress garbage once inside. In 1955, he struck a deal with Richard Kuh nau to use Kuh nau's machine shop to experiment with truck designs and build prototypes.

The experiment was a success. By the summer of 1956, Kamin was taking orders for garbage trucks made to his improved design. Kuh nau set up another company to manufacture the trucks for Kamin. But after the first ten trucks, Kuh nau broke off the relationship in October 1956 and started making trucks on his own with a very similar design. Kamin sued, arguing that Kuh nau had misappropriated Kamin's trade secrets.

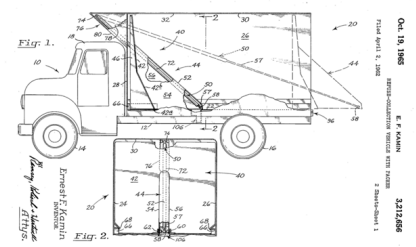
If Kamin and Kuh nau had explicitly contracted for nondisclosure, this would be an easy case. Indeed, there would be no need to invoke trade secret law; as in *Apfel v. Prudential-Bache Securities, Inc.*, contract law would suffice. But, like so many other business partners, they neglected the IP terms in their contracts. If Kuh nau had been Kamin's employee, this would also be an easy case. Employment law imposes a duty of loyalty on employees, and they breach that duty by using the employer's trade secrets for their own benefit.²⁸ But at no point did Kamin have the kind of direct control over the "manner and means" of Kuh nau's work that characterizes an employment relationship.²⁹ "Tenant" and "customer" are better descriptions of his role than "employer"; Kamin rented space from Kuh nau, and then purchased completed trucks from him.

But trade-secret law is willing to imply duties of confidentiality, not just as a matter of fact, but as a matter of law. To quote *Kamin*:

It is not necessary to show that the defendant expressly agreed not to use the plaintiff's information; the agreement may be implied. And the implication may be made not simply as a product of the quest for the intention of the parties but as a legal conclusion recognizing the need for eth-

26. *Id.* at 1016–17.

27. *Kamin v. Kuh nau*, 374 P.2d 912 (Or. 1962).



One of Kamin's garbage-truck designs

28. RESTATEMENT OF EMP. L. § 8.01 (2015).

29. RESTATEMENT OF EMP. L. § 1.01.

ical practices in the commercial world. In the case at bar the relationship between plaintiff and Kuhnau was such that an obligation not to appropriate the plaintiff's improvements could be implied. Kuhnau was paid to assist plaintiff in the development of the latter's idea. It must have been apparent to Kuhnau that plaintiff was attempting to produce a unit which could be marketed. Certainly it would not have been contemplated that as soon as the packer unit was perfected Kuhnau would have the benefit of plaintiff's ideas and the perfection of the unit through painstaking and expensive experimentation. It is to be remembered that the plaintiff's experimentation was being carried on, not on the assumption that he was duplicating an existing machine, but upon the assumption that he was creating a new product.³⁰

30. *Kamin*, 374 P.2d at 152–53.

Another common setting in which breach of confidence is important is failed negotiations. The plaintiff has an idea, and would like the defendant's help in commercializing it, and the situation unspools just as in the idea-submission cases (e.g., *Desny v. Wilder*³¹ or *Apfel*) except that when the plaintiff sues on a trade-secret theory, the courts will often find misappropriation even when there is no explicit NDA. If it is clear to both parties that the disclosure is being made for the purpose of negotiation, trade-secret law will treat the negotiations as a confidential relationship and protect against unauthorized disclosure or use. Just as the espionage prong of improper means builds on tort law but does not feel compelled to track it exactly, so too does the breach-of-confidence prong build on contract law, but without getting tangled up in the niceties of contract doctrine.

31. *Desny v. Wilder*, 46 Cal. 2d 715 (1956).

2 Acquisition, Use, and Disclosure

The three verbs “acquire,” “use,” and “disclose” cover the lifecycle of information: you acquire it, you use it for your own purposes, and then you disclose it to others.

Acquisition itself is to obtain the information. What makes trade secret misappropriation distinctively wrongful is the improper means or unfair circumstances under which this acquisition takes place (as discussed above). If you acquire information properly, you are free to use and disclose it as you wish. Under the Restatement of Torts, only use and disclosure were actionable, and only following a wrongful acquisition. The modern approach is simpler and cleaner. Although acquisition is often harmless by itself, it creates a high enough likelihood of subsequent harm through use or disclosure that it is made actionable. There is no good reason that Du Pont should have to wait for the Christophers to give their photographs to their client before it can sue them.

To *use* a trade secret is to exploit the information for commercial gain. This requires something more than bare possession, and something less than full commercialization. For example, merely possessing misappropriated construction diagrams for a widget smelter is not use,

but following them to build a smelter is, even if the smelter is never operated to make widgets. There is a *commerciality* threshold here: purely personal uses are probably not actionable on their own.

Most cases hold that to possess or use a product *made using* a secret is not to “use” the secret itself. As one court memorably put it:

One who bakes a pie from a recipe certainly engages in the “use” of the latter; but one who eats the pie does not, by virtue of that act alone, make “use” of the recipe in any ordinary sense, and this is true even if the baker is accused of stealing the recipe from a competitor, and the diner knows of that accusation. . . . A coach who employs [a stopwatch] to time a race certainly makes “use” of it, but only a sophist could bring himself to say that coach “uses” trade secrets involved in the manufacture of the watch.³²

32. *Silvaco Data Sys. v. Intel Corp.*, 184 Cal. App. 4th 210, 224 (2010).

To *disclose* a trade secret is to reveal the information to others. Disclosure can be private (the Christophers giving their photographs to their client) or public (Erich posting the Scientology documents on the Internet). There is not a commerciality threshold for disclosure, as there was for use. Erlich had no profit motive for spilling Scientology’s secrets, but the fact that he acted for principled rather than pecuniary reasons was no defense. Note that there are two kinds of harms here. One is that someone else might make unauthorized use of the information (e.g., the Christophers’ client). The other is that the information might become no longer secret at all (e.g., the Scientology documents). Both are protected against, and both are part of the secret owner’s measure of damages.

3 Intent

Generally speaking, liability for trade secret misappropriation requires that the defendant *know or have reason to know* that the information is a trade secret. Did the Christophers, strictly speaking, know that the layout of the methanol plant embodied trade secrets? Perhaps, perhaps not, but they certainly had reason to know, and that was enough.

There is a subtle timing issue here, because sometimes the knowledge that information is a trade secret arrives *after* the information itself. Think of a parts supplier who receives an email with their client’s complete purchase-order database for the last quarter. If the recipient knows or has reason to know of the mistake, then the usual obligations attach. The supplier cannot undercut its competitors’ prices or short their stock on the basis of what it learns. But other mistakes are harder for the recipient to spot.

Out of fairness, the UTSA says that if a recipient makes a “material change of position” before learning of the mistake, they are free of their trade-secret obligations.³³ Parties who have made substantial expenditures in the reasonable belief that the plans underlying their investment are not someone else’s trade secret will not have the rug yanked out

33. UTSA, *supra* note 6, § 1(2)(C).

from under them retroactively. The Restatement (Third) accommodates a similar concern by saying that the recipient takes the information free and clear if “the acquisition was the result of the other’s failure to take reasonable precautions to maintain the secrecy of the information,”³⁴ which sounds in reasonable efforts, rather than intent.

34. RESTATEMENT (THIRD) OF UNFAIR COMPETITION, *supra* note 3, § 40(b)(4).

E Infringement: Similarity

The prohibition on misappropriation through improper means includes an implicit requirement that the information the defendant obtained or used is the *same* information the plaintiff claims as a trade secret. There will be cases in which the defendant discloses or uses information, but it is not derived from the plaintiff’s secrets.

1 Substantial Similarity

Although the issue is rarely framed this way in trade-secret law, the test for similarity is the same as in copyright: *substantial similarity* between the plaintiff’s and defendant’s information. Here is a typical holding from a court dismissing a trade-secret claim on the basis of no substantial similarity:

Quite simply, Big Vision cannot demonstrate that its recyclable banners are substantially similar to DuPont’s. The parties do not dispute that DuPont’s recyclable banner products are not made by either lamination or coextrusion. None of DuPont’s recyclable banner products use the three-layer structures tested at the Trials, the range of CaCO₃ tested at the Trials, or “minimal” amounts of Entira (to the extent it has been defined), since DuPont’s products either use 100% or 0% Entira. Furthermore, DuPont’s recyclable banner products are not printable with solvent ink. Thus, to the extent Big Vision’s trade secret is discernible, DuPont’s products implicate almost none of its elements.³⁵

35. Big Vision Priv., Ltd. v. E.I. Dupont De Nemours & Co., 1 F. Supp. 3d 224, 274 (S.D.N.Y.).

2 Proof of Copying

A recurring issue in IP areas that prohibit copying – as trade secret and copyright do – is proving that the defendant copied its information *from the plaintiff*. It is not trade secret infringement to independently come up with the same idea; indeed, it happens all the time. Unbeknownst to Kamin and Kuhnau, there were already hydraulic-press garbage trucks on the market in other parts of the country. This did not negate Kamin’s trade secret. But if Kuhnau had seen one of those other trucks while on a business trip to Boston, it would not have been misappropriation for him to duplicate that truck – even if the design had coincidentally been close to Kamin’s. Kuhnau infringed because he copied his design *from Kamin’s* in breach of the duty of confidence he owed to Kamin.

Whether the defendant copied from the plaintiff is a factual question: either they did or they didn’t. As such, proving copying is fun-

damentally an evidentiary question. Two kinds of evidence are particularly probative: proof that the defendant had *access* to the plaintiff's information, and proof that the defendant's information is *similar* to the plaintiff's. Access is relevant because it helps to make the theft story more plausible, and hence more likely. Similarity is relevant because it helps make the innocent alternative stories less plausible, and hence less likely.

For an example, consider *Grynberg v. BP, PLC*.³⁶ The plaintiff pitched ARCO on a variety of oil-development projects in Central Asia based on his research. Later, ARCO invested in two pipelines he proposed. He sued, alleging that ARCO had relied on his confidential research in pursuing these projects.

Grynberg had ready evidence of access; he had met with ARCO to discuss these two pipeline routes. But ARCO's counter-story of no copying was also strong. It had well-documented proof that it had planned its investments using a mixture of publicly available resources and "data rooms" in which it compiled (and carefully logged) more detailed research. Grynberg tried to undercut this counter-story by showing that there were such detailed similarities between his proposal and ARCO's pipeline projects that they could only have been copied from him. But the court was unpersuaded:

ARCO did eventually make investments in Tengiz and the Caspian pipeline, which were among the investments that Grynberg had endorsed and relayed information about. However ARCO also declined to pursue other investments Grynberg had advocated, such as the Karachaganak oil field also in the area of mutual interest. Moreover nothing about ARCO's investments bears the markers of the Grynberg information in such a way as to justify inferring the use of that information. It is not as if ARCO built wells at particular locations previously suggested by Grynberg, worked primarily through contacts developed by Grynberg, or tied its investments to Grynberg's numbers in a suspiciously similar way. Rather, an oil company chose to invest in one of the largest oil fields in the world, in a manner different from that envisioned by Grynberg at the time he developed his proposed consortium. That it did so is unsurprising and does not evince the kind of suspicious similarity present in [previous cases].³⁷

This is the opposite of *Big Vision Private, Ltd. v. E.I. Dupont De Nemours & Co.* There, there were insufficient similarities between the plaintiff's products and the defendant's secrets, even though there may have been copying. Here, there were sufficient similarities, but they were the result of coincidence, not copying.

One last note. The kind of similarity needed to prove copying from the plaintiff is different from the kind of similarity needed to establish substantial similarity for misappropriation purposes. The former is ev-

36. *Grynberg v. BP, PLC*, No. 06 Civ. 6494 (RJH) (S.D.N.Y. Mar. 30, 2011).

37. *Id.* at 8.

identitary, the latter is substantive. Similarity to prove copying can be based on unprotected or trivial elements. A drafting error in the plaintiff's schematic diagrams that shows up in the defendant's product may be commercially insignificant but impossible for the defendant to explain away innocently. The drafting error proves copying, but other similarities will be needed to show substantial similarity.

F Secondary Liability

If a vice-president at MatrixCorp receives an email from someone calling themselves Cypher offering to provide details of a computer graphics technology similar to one used by its competitor NeoCorp, can they take the deal? A moment's thought should suggest that the answer depends on how Cypher obtained the information. The general rule is that the obligation not to acquire, use, or disclose a trade secret obtained through improper means follows the secret downstream to subsequent parties as long as they know or have reason to know that the information reached them via an upstream misappropriation.³⁸ An email from a mysterious hacker is likely to put MatrixCorp on notice that the information was obtained by nefarious means.

38. UTSA, *supra* note 6, § 1(2).

G Defenses

The two most significant "defenses" to trade secret infringement are independent rediscovery and reverse engineering. I put "defenses" in quotation marks to emphasize that neither adds anything to the doctrines you have already seen. The defendant who establishes that she independently came up with the same information has actually defeated a crucial element of the plaintiff's case-in-chief: that the defendant stole the information *from the plaintiff*. Reflecting this, the Restatement simply excludes them from its definition of "improper means": "Independent discovery and analysis of publicly available products or information are not improper means of acquisition."³⁹

39. RESTATEMENT (THIRD) OF UNFAIR COMPETITION, *supra* note 3, § 43.

1 Independent Rediscovery

Independent discovery needs little further discussion; it is nearly indistinguishable from ordinary research and development. In this context, "independent" means independently of the misuse of a trade secret. Thus it is allowable "independent" rediscovery to mount your own search for information that your competitor has, which you have learned the existence of through permissible means. For example, if they are selling 99.95% pure widgetium, it is permissible to infer that they have a secret process for purifying widgetium, conduct research, and develop a purification process.

On the other hand, it is not "independent" rediscovery to use improperly obtained secrets to guide your search. If your competitor's VP of engineering offers asks for a \$100,000 bribe to tell you what *not* to try in your widgetium-purifying research, your next call should be to their

head of security or the FBI, not to your own R&D division. True, they are not selling you the secret process itself. But they are still passing along a trade secret in breach of a duty of confidentiality, and there is no way to launder that breach into an “independent” discovery.

2 Reverse Engineering

Reverse engineering is conventionally defined as “starting with the known product and working backward to divine the process which aided in its development or manufacture.”⁴⁰ Courts sometimes add that the “known product” must have been obtained lawfully: it is no defense to argue that you reverse engineered the widget-making-machine you stole from your competitor’s factory.

Why allow reverse engineering? For one thing, it reflects a policy of recognizing personal- property owners’ rights over their things. If you buy it, you can break it down. Reverse engineering also promotes the same values as trade secret law itself. In the words of the Supreme Court, it is “an essential part of innovation” that “often leads to significant advances in technology.”⁴¹

Reverse engineering is a defense to infringement; the possibility of reverse engineering does not necessarily destroy the existence of a trade secret. Consider *United States v. Lange*.⁴² Matthew Lange worked for Replacement Aircraft Parts Co., a/k/a RAPCO. As its name indicates, RAPCO made replacement airplane parts. Lange and others designed RAPCO’s replacement parts by buying original parts, and then reverse engineering them:

Knowing exactly what a brake assembly looks like does not enable RAPCO to make a copy. It must figure out how to make a substitute with the same (or better) technical specifications. Aftermarket manufacturers must experiment with different alloys and compositions until they achieve a process and product that fulfils requirements set by the Federal Aviation Administration for each brake assembly. Completed assemblies must be exhaustively tested to demonstrate, to the FAA’s satisfaction, that all requirements have been met; only then does the FAA certify the part for sale. For brakes this entails 100 destructive tests on prototypes, bringing a spinning 60-ton wheel to a halt at a specified deceleration measured by a dynamometer. Further testing of finished assemblies is required. It takes RAPCO a year or two to design, and obtain approval for, a complex part; the dynamometer testing alone can cost \$75,000. But the process of experimenting and testing can be avoided if the manufacturer demonstrates that its parts are identical (in composition and manufacturing processes) to parts that have already been certified. What Lange, a disgruntled former employee, offered for sale [for \$100,000] was all the information required to obtain certification of several components

40. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 476 (1974).

41. *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 160 (1989).

42. *United States v. Lange*, 312 F.3d 263 (7th Cir. 2002).



RAPCO brake components

as identical to parts for which RAPCO held certification.⁴³

Lange was arrested and charged under the federal EEA, which incorporates essentially the UTSA definition of “trade secret.”⁴⁴

In theory, anyone could do what RAPCO did: take an airplane part and reverse engineer it. Thus, Lange argued, the designs he offered for sale were not actually “secret” in the first place. This argument failed. The key is that RAPCO actually invested the time and money to do the hard work of reverse engineering, and Lange didn’t. Just like a dry-cleaning equipment salesperson who picks up the phone and laboriously builds a list of dry cleaners in a large metropolitan area, or an oil-exploration firm that conducts geological surveys, RAPCO acquired valuable information that others lack. As long as its competitors do not have ready access to that information, it qualifies as a trade secret. Lange was trying to sell them a shortcut to what RAPCO learned through hard work, and it is precisely that shortcut that trade secret law tries to prevent. Others are free to reverse engineer RAPCO’s parts (just as it itself did), but they are not free to bribe Lange for the details.

3 Freedom of Expression

Free-speech concerns also weigh on trade-secret cases. *Netcom II* is a case in point; Scientology was using trade-secret law to silence its critics. But *Netcom II* is also typical of how courts handle such cases: mostly by finding ways internal to trade-secret law to avoid imposing liability on defendants making expressive use. Ehrlich won because the documents might already have been public when he posted them, and Scientology couldn’t prove that they weren’t.

Similarly, in *DVD Copy Control Ass’n Inc. v. Bunner*, Andrew Bunner posted the code for a program, DeCSS, that would let users decrypt DVDs and copy rip them to their computers.⁴⁵ The association that controlled the copy-protection on DVDs sued him for trade-secret misappropriation. The courts held that DeCSS was widely available online, so the horse was already out of the barn, and the plaintiffs had not shown that Bunner was the one who opened the barn door by posting it first.⁴⁶

Cases

Learning Curve Toys, Inc. v. Playwood Toys, Inc.

342 F.3d 714 (7th Cir. 2003)

PlayWood Toys, Inc. obtained a jury verdict against Learning Curve Toys, Inc. and its representatives, Roy Wilson, Harry Abraham and John Lee, for misappropriation of a trade secret in a realistic looking and sounding toy railroad track under the Illinois Trade Secrets Act, 765 ILCS 1065/1 et seq. The jury awarded PlayWood a royalty of “8% for a license that would have been negotiated [absent the misappropriation] to last for the lifetime of the product.” Although there was substantial evidence of misappropriation before the jury, the district court did not enter judgment on the jury’s verdict. Instead, it

43. *Id.* at 265.

44. ECONOMIC ESPIONAGE ACT § 1839 (1996).

45. *DVD Copy Control Ass’n Inc. v. Bunner*, 10 Cal. Rptr. 3d 185 (Cal. Ct. App. 2004).

46. *Id.*

granted judgment as a matter of law in favor of Learning Curve, holding that PlayWood did not have a protectable trade secret in the toy railroad track. PlayWood appealed. For the reasons set forth in the following opinion, we reverse the judgment of the district court and reinstate the jury's verdict.

Background

A. Facts

In 1992, Robert Clausi and his brother-in-law, Scott Moore, began creating prototypes of wooden toys under the name PlayWood Toys, Inc., a Canadian corporation. Clausi was the sole toy designer and Moore was the sole officer and director of PlayWood. Neither Clausi nor Moore had prior experience in the toy industry, but Clausi had "always been a bit of a doodler and designer," and the two men desired to "create high-quality hardwood maple toys for the independent toy market." As a newly formed corporation, PlayWood did not own a facility in which it could produce toys. Instead, it worked in conjunction with Mario Borsato, who owned a wood-working facility. Subject to a written confidentiality agreement with PlayWood, Borsato manufactured prototypes for PlayWood based on Clausi's design specifications.

PlayWood's first attempt to market publicly its toys was at the Toronto Toy Fair on January 31, 1992. PlayWood received favorable reviews from many of the toy retailers in attendance; PlayWood also learned that the best way to get recognition for its toys was to attend the New York Toy Fair ("Toy Fair") the following month. Based on this information, Clausi and Moore secured a position at the Toy Fair in order to display PlayWood's prototypes. It was during this Toy Fair that Clausi and Moore first encountered Learning Curve representatives Roy Wilson, Harry Abraham and John Lee.

On the morning of February 12, 1993, the first day of the Toy Fair, Roy Wilson stopped at PlayWood's booth and engaged Clausi and Moore in conversation. Wilson identified himself as Learning Curve's toy designer and explained that his company had a license from the Britt Allcroft Company to develop Thomas the Tank Engine & Friends™ (hereinafter "Thomas") trains and accessories. Wilson commented that he was impressed with the look and quality of PlayWood's prototypes and raised the possibility of working together under a custom manufacturing contract to produce Learning Curve's line of Thomas products. Clausi and Moore responded that such an arrangement would be of great interest to PlayWood. Later that same day, Harry Abraham, Learning Curve's vice president, and John Lee, Learning Curve's president, also stopped by PlayWood's booth. They too commended on the quality of PlayWood's prototypes and indicated that PlayWood might be a good candidate for a manufacturing contract with Learning Curve.

Clausi and Moore continued to have discussions with Learning Curve's representatives over the remaining days of the Toy Fair, which ended on February 14. During these discussions, Lee indicated that he would like two of his people, Abraham and Wilson, to visit PlayWood in Toronto the day after the Toy Fair ended in order to determine whether the two parties could work out a manufacturing arrangement for some or all of Learning Curve's wooden toys. Clausi, feeling a little overwhelmed by the suggestion, requested that

their visit be postponed a few days so that he could better acquaint himself with Learning Curve's products. The parties ultimately agreed that Abraham and Wilson would visit PlayWood at Borsato's facility on February 18, 1993, four days after the conclusion of the Toy Fair. Clausi spent the next several days after the Toy Fair researching Learning Curve's products and considering how PlayWood could produce Learning Curve's trains and track.

On February 18, 1993, Abraham and Wilson visited PlayWood in Toronto as planned. The meeting began with a tour of Borsato's woodworking facility, where the prototypes on display at the Toy Fair had been made. After the tour, the parties went to the conference room at Borsato's facility. At this point, according to Clausi and Moore, the parties agreed to make their ensuing discussion confidential. Clausi testified:

After we sat down in the board room, Harry [Abraham of Learning Curve] immediately said: "Look, we're going to disclose confidential information to you guys, and we're going to disclose some designs that Roy [Wilson of Learning Curve] has that are pretty confidential. If Brio were to get their hands on them, then we wouldn't like that. And we're going to do it under the basis of a confidential understanding."

And I said: "I also have some things, some ideas on how to produce the track and produce the trains now that I've had a chance to look at them for the last couple of days, and I think they're confidential as well. So if we're both okay with that, we should continue." So we did.

Moore testified to the existence of a similar conversation:

It was at this point that Harry Abraham told us that they were going to disclose some confidential documents, drawings, pricing, margins, and asked us if we would keep that information confidential. . . . I believe it was Robert [Clausi] who said that, you know, absolutely, we would keep it confidential. In fact, we had some ideas that we felt would be confidential we would be disclosing to them, and would they keep it, you know, confidential? Would they reciprocate? And Harry [Abraham] said: "Absolutely." And then we proceeded to go along with the meeting.

Immediately after the parties agreed to keep their discussion confidential, Wilson, at Abraham's direction, showed Clausi and Moore drawings of various Thomas characters and provided information on the projected volume of each of the products. Clausi testified that he considered the documents disclosed by Learning Curve during the meeting confidential because they included information on products not yet released to the public, as well as Learning Curve's projected volumes, costs and profit margins for various products. After viewing Wilson's various drawings, the parties discussed PlayWood's ideas on how to manufacture Learning Curve's trains. Clausi suggested that they might use a CNC machine, which he defined as a computer numerically controlled drill that carves in three dimensions, to create Learning Curve's trains out of a single piece of wood (as opposed to piecing to-

gether separate pieces of wood).

The parties' discussion eventually moved away from train production and focused on track design. Wilson showed Clausi and Moore drawings of Learning Curve's track and provided samples of their current product. At this point, Abraham confided to Clausi and Moore that track had posed "a bit of a problem for Learning Curve." Abraham explained that sales were terrific for Learning Curve's Thomas trains, but that sales were abysmal for its track. Abraham attributed the lack of sales to the fact that Learning Curve's track was virtually identical to that of its competitor, Brio, which had the lion's share of the track market. Because there was "no differentiation" between the two brands of track, Learning Curve's track was not even displayed in many of the toy stores that carried Learning Curve's products. Learning Curve had worked unsuccessfully for several months attempting to differentiate its track from that of Brio.

After detailing the problems with Learning Curve's existing track, Abraham inquired of Clausi whether "there was a way to differentiate" its track from Brio's track. Clausi immediately responded that he "had had a chance to look at the track and get a feel for it over the last few days" and that his "thoughts were that if the track were more realistic and more functional, that kids would enjoy playing with it more and it would give the retailer a reason to carry the product, especially if it looked different than the Brio track." Clausi further explained that, if the track "made noise and looked like real train tracks, that the stores wouldn't have any problem, and the Thomas the Tank line, product line would have its own different track" and could "effectively compete with Brio." *Id.* Abraham and Wilson indicated that they were "intrigued" by Clausi's idea and asked him what he meant by "making noise."

Clausi decided to show Abraham and Wilson exactly what he meant. Clausi took a piece of Learning Curve's existing track from the table, drew some lines across the track (about every three-quarters of an inch), and stated: "We can go ahead and machine grooves right across the upper section ..., which would look like railway tracks, and down below machine little indentations as well so that it would look more like or sound more like real track. You would roll along and bumpity-bumpity as you go along." Clausi then called Borsato into the conference room and asked him to cut grooves into the wood "about a quarter of an inch deep from the top surface." Borsato left the room, complied with Clausi's request, and returned with the cut track three or four minutes later. Clausi ran a train back and forth over the cut piece of track. The track looked more realistic than before, but it did not make noise because the grooves were not deep enough. Accordingly, Clausi instructed Borsato to cut the grooves "just a little bit deeper so that they go through the rails." Borsato complied with Clausi's request once again and returned a few minutes later with the cut piece of track. Clausi proceeded to run a train back and forth over the track. This time the track made a "clickety-clack" sound, but the train did not run smoothly over the track because the grooves were cut "a little bit too deep." Based on the sound produced by the track, Clausi told Abraham and Moore that if PlayWood procured a contract with Learning Curve to produce the track, they could call it "Clickety-Clack Track."

Both Abraham and Wilson indicated that Clausi's concept of cutting grooves into the track to produce a clacking sound was a novel concept. Thereafter, Wilson and Clausi began to discuss how they could improve the idea to make the train run more smoothly on the track, but Abraham interrupted them and stated: "No, focus. You guys have to get the contract for the basic product first, and then we can talk about new products, because ... it takes our licensor a long time to approve new products and new designs."

The meeting ended shortly thereafter without farther discussion about Clausi's concept for the noise-producing track. Before he left, Wilson asked Clausi if he could take the piece of track that Borsato had cut with him while the parties continued their discussions. Clausi gave Wilson the piece of track without hesitation. The piece of track was the only item that Abraham and Wilson took from the meeting. Clausi and Moore did not ask Wilson for a receipt for the cut track, nor did they seek a written confidentiality agreement to protect PlayWood's alleged trade secret. After the meeting, Clausi amended PlayWood's confidentiality agreement with Borsato to ensure that materials discussed during the meeting would remain confidential. Clausi also stamped many of the documents that he received from Learning Curve during the meeting as confidential because they included information on products not yet released to the public. PlayWood never disclosed the contents of Learning Curve's documents to anyone.

During March of 1993, PlayWood and Learning Curve met on three separate occasions to discuss farther the possibility of PlayWood manufacturing Learning Curve's Thomas products. At one of the meetings, and at Learning Curve's request, PlayWood submitted a manufacturing proposal for the Thomas products. Learning Curve rejected PlayWood's proposal. Learning Curve told Clausi that its licensor wanted the Thomas products to be made in the United States.

Thereafter, PlayWood had no contact with Learning Curve until late October of 1993, when Abraham contacted Clausi to discuss another possible manufacturing contract because Learning Curve's secondary supplier was not providing enough product. Again, PlayWood submitted a manufacturing proposal at Learning Curve's request, but it too was rejected. Learning Curve later stated that its new business partner had decided to manufacture the product in China.

Clausi and Moore continued to work on PlayWood's toy concepts. After the 1994 New York Toy Fair, which was not particularly successful for PlayWood, Clausi and Moore began to focus their efforts on refining PlayWood's concept for the noise-producing track. During this time, Clausi and Moore made no attempt to license or sell the concept to other toy companies because they believed that PlayWood still had "an opportunity to get in the door" with Learning Curve if they could perfect the concept and also because they believed that they were bound by a confidentiality agreement.

In December of 1994, while shopping for additional track with which to experiment, Moore discovered that Learning Curve was selling noise-producing track under the name "Clickety-Clack Track." Like the piece of track that Clausi had Borsato cut during PlayWood's February 18, 1993, meeting with Learning Curve, Clickety-Clack Track™ has parallel grooves cut into the

wood, which cause a “clacking” sound as train wheels roll over the grooves. Learning Curve was promoting the new track as

the first significant innovation in track design since the inception of wooden train systems. . . . It is quite simply the newest and most exciting development to come along recently in the wooden train industry, and it’s sure to cause a sensation in the marketplace. . . . It brings that sound and feel of the real thing to a child’s world of make-believe without bells, whistles, electronic sound chips or moving parts.

quoting Moore was “stunned” when he saw the track because he believed that Learning Curve had stolen PlayWood’s concept. He testified: “This was our idea. This is what we’ve been working on even up to that day to go back to [Learning Curve] as an opportunity to get in the door, and there it is on the shelf.” Moore purchased a package of Clickety-Clack Track™ and showed it to Clausi. Clausi testified that he was disappointed when he saw the track because he believed that Learning Curve had taken Play-Wood’s name and design concept “almost exactly as per [their] conversation” on February 18, 1993.

PlayWood promptly wrote a cease and desist letter to Learning Curve. The letter accused Learning Curve of stealing PlayWood’s concept for the noise-producing track that it disclosed to Learning Curve “in confidence in the context of a manufacturing proposal.” Learning Curve responded by seeking a declaratory judgment that it owned the concept.

Previously, on March 16, 1994, Learning Curve had applied for a patent on the noise-producing track. The patent, which was obtained on October 3, 1995, claims the addition of parallel impressions or grooves in the rails, which cause a “clacking” sound to be emitted as train wheels roll over them. The patent identifies Roy Wilson of Learning Curve as the inventor.

Clickety-Clack Track™ provided an enormous boost to Learning Curve’s sales. Learning Curve had \$20 million in track sales by the first quarter of 2000, and \$40 million for combined track and accessory sales.

B. District Court Proceedings

Learning Curve responded to Play-Wood’s cease and desist letter by seeking a declaratory judgment that it owned the concept for noise-producing toy railroad track, as embodied in Clickety-Clack Track™. PlayWood counterclaimed against Learning Curve, as well as its representatives, Roy Wilson, Harry Abraham and John Lee. PlayWood asserted that it owned the concept and that Learning Curve had misappropriated its trade secret. Learning Curve voluntarily dismissed its complaint for declaratory relief, and PlayWood’s claim for trade secret misappropriation proceeded to trial. The jury returned a verdict in favor of PlayWood. The trial court declined to enter judgment on the verdict and instead asked the parties to brief Learning Curve’s Rule 50 motion on the issue of whether PlayWood had a protectable trade secret under the Illinois Trade Secrets Act, 765 ILCS 1065/1 et seq. The district court granted Learning Curve’s motion and entered judgment in its

favor on the ground that PlayWood presented insufficient evidence of a trade secret. Specifically, the court determined that PlayWood did not have a trade secret in its concept for noise-producing toy railroad track under Illinois law because: (1) PlayWood did not demonstrate that its concept was unknown in the industry; (2) PlayWood's concept could have been easily acquired or duplicated through proper means; (3) Play-Wood failed to guard the secrecy of its concept; (4) PlayWood's concept had no economic value; and (5) Play-Wood expended no time, effort or money to develop the concept.

II. Discussion

A. Trade Secret Status

The parties agree that their dispute is governed by the Illinois Trade Secrets Act ("Act"), 765 ILCS 1065/1 et seq. To prevail on a claim for misappropriation of a trade secret under the Act, the plaintiff must demonstrate that the information at issue was a trade secret, that it was misappropriated and that it was used in the defendant's business. The issue currently before us is whether there was legally sufficient evidence for the jury to find that PlayWood had a trade secret in its concept for the noise-producing toy railroad track that it revealed to Learning Curve on February 18, 1993.

The Act defines a trade secret as:

[I]nformation, including but not limited to, technical or non-technical data, a formula, pattern, compilation, program, device, method, technique, drawing, process, financial data, or list of actual or potential customers or suppliers, that:

- (1) is sufficiently secret to derive economic value, actual or potential, from not being generally known to other persons who can obtain economic value from its disclosure or use; and
- (2) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy or confidentiality.

765 ILCS 1065/2(d). Both of the Act's statutory requirements focus fundamentally on the secrecy of the information sought to be protected. . . .

Although the Act explicitly defines a trade secret in terms of these two requirements, Illinois courts frequently refer to six common law factors (which are derived from § 757 of the Restatement (First) of Torts) in determining whether a trade secret exists: (1) the extent to which the information is known outside of the plaintiffs business; (2) the extent to which the information is known by employees and others involved in the plaintiffs business; (3) the extent of measures taken by the plaintiff to guard the secrecy of the information; (4) the value of the information to the plaintiffs business and to its competitors; (5) the amount of time, effort and money expended by the plaintiff in developing the information; and (6) the ease or difficulty with which the information could be properly acquired or duplicated by others.

Contrary to Learning Curve's contention, we do not construe the foregoing factors as a six-part test, in which the absence of evidence on any single

factor necessarily precludes a finding of trade secret protection. Instead, we interpret the common law factors as instructive guidelines for ascertaining whether a trade secret exists under the Act. The language of the Act itself makes no reference to these factors as independent requirements for trade secret status, and Illinois case law imposes no such requirement that each factor weigh in favor of the plaintiff. . . .

PlayWood presented sufficient evidence for the jury reasonably to conclude that the Restatement factors weighed in PlayWood's favor.

1. Extent to which PlayWood's concept for noise-producing toy railroad track was known outside of PlayWood's business

PlayWood presented substantial evidence from which the jury could have determined that PlayWood's concept for noise-producing toy railroad track was not generally known outside of PlayWood's business. It was undisputed at trial that no similar track was on the market until Learning Curve launched Clickety-Clack Track™ in late 1994, more than a year after PlayWood first conceived of the concept. Of course, as Learning Curve correctly points out, merely being the first or only one to use particular information does not in and of itself transform otherwise general knowledge into a trade secret. If it did, the first person to use the information, no matter how ordinary or well known, would be able to appropriate it to his own use under the guise of a trade secret. However, in this case, there was additional evidence from which the jury could have determined that PlayWood's concept was not generally known within the industry.

First, there was substantial testimony that Learning Curve had attempted to differentiate its track from that of its competitors for several months, but that it had been unable to do so successfully.

Furthermore, PlayWood's expert witness, Michael Kennedy, testified that PlayWood's concept, as embodied in Clickety-Clack Track™, was unique and permitted "its seller to differentiate itself from a host of competitors who [were] making a generic product." Kennedy explained that the look, sound and feel of the track made it distinct from other toy railroad track: "[W]hen a child runs a train across this track, he can feel it hitting those little impressions. And when you're talking about young children, having the idea that they can see something that they couldn't see before, feel something that they couldn't feel before, hear something that they couldn't hear before, that is what differentiates this toy from its other competitors."

Finally, PlayWood presented evidence that Learning Curve sought and obtained a patent on the noise-producing track. It goes without saying that the requirements for patent and trade secret protection are not synonymous. Unlike a patentable invention, a trade secret need not be novel or unobvious." 2 Rudolf Callmann, *The Law of Unfair Competition, Trademarks and Monopolies* §14.15, at 14-124 (4th ed. 2003). "The idea need not be complicated; it may be intrinsically simple and nevertheless qualify as a secret, unless it is common knowledge and, therefore, within the public domain." *Forest Labs., Inc. v. Pillsbury Co.*, 452 F.2d 621, 624 (7th Cir. 1971). However, it is commonly understood that "[i]f an invention has sufficient novelty to be entitled to patent protection, it may be said a fortiori to be entitled to protec-

tion as a trade secret.” 1 Roger M. Milgrim, *Milgrim on Trade Secrets* §1.08[1], at 1-353 (2002). In light of this evidence, we cannot accept Learning Curve’s argument that no rational jury could have found that PlayWood’s concept was unknown outside of its business.

2. Extent to which PlayWood’s concept was known to employees and others involved in PlayWood’s business

The district court did not address the extent to which PlayWood’s concept was known to employees and others involved in PlayWood’s business. However, we agree with PlayWood that the evidence was sufficient to establish that its concept for noise-producing track was known only by key individuals in its business.

At the outset, we note briefly that PlayWood was a small business, consisting only of Clausi and Moore. Illinois courts have recognized on several occasions that the expectations for ensuring secrecy are different for small companies than for large companies. Apart from Clausi (PlayWood’s sole toy designer and the person who conceived of the concept for noise-producing track) and Moore (PlayWood’s sole officer and director), the only person who knew about the concept was Borsato, the person who physically produced PlayWood’s prototype at Clausi’s direction. The concept was disclosed to Borsato in order for PlayWood to develop fully its trade secret. See 1 Roger M. Milgrim, *Milgrim on Trade Secrets* §1.04, at 1-173 (2002) (“A trade secret does not lose its character by being confidentially disclosed to agents or servants, without whose assistance it could not be made of any value.”) Moreover, Borsato’s actions were governed by a written confidentiality agreement with PlayWood. Indeed, as an extra precaution, Clausi even amended PlayWood’s confidentiality agreement with Borsato immediately after the February 18, 1993, meeting to ensure that materials discussed during the meeting would remain confidential. From this evidence, the jury reasonably could have determined that this factor also weighed in favor of PlayWood.

3. Measures taken by PlayWood to guard the secrecy of its concept

There also was sufficient evidence for the jury to determine that PlayWood took reasonable precautions to guard the secrecy of its concept. The Act requires the trade secret owner to take actions that are “reasonable under the circumstances to maintain [the] secrecy or confidentiality” of its trade secret; it does not require perfection. 765 ILCS 1065/2(d)(2). Whether the measures taken by a trade secret owner are sufficient to satisfy the Act’s reasonableness standard ordinarily is a question of fact for the jury. Indeed, we previously have recognized that “only in an extreme case can what is a ‘reasonable’ precaution be determined [as a matter of law], because the answer depends on a balancing of costs and benefits that will vary from case to case.” *Rockwell Graphic Sys., Inc. v. DEV Indus., Inc.*, 925 F.2d 174,179 (7th Cir.1991).

Here, the jury was instructed that it must find “by a preponderance of the evidence that PlayWood’s trade secrets were given to Learning Curve as a result of a confidential relationship between the parties.” By returning a verdict in favor of PlayWood, the jury necessarily found that Learning Curve was bound to PlayWood by a pledge of confidentiality. The jury’s determi-

nation is amply supported by the evidence. Both Clausi and Moore testified that they entered into an oral confidentiality agreement with Abraham and Wilson before beginning their discussion on February 18, 1993. In particular, Clausi testified that he told Abraham and Wilson: "I also have some things, some ideas on how to produce the track and produce the trains now that I've had a chance to look at them for the last couple of days, and I think they're confidential as well. So if we're both okay with that, we should continue." In addition to this testimony, the jury heard that Learning Curve had disclosed substantial information to PlayWood during the February 18th meeting, including projected volumes, costs and profit margins for various products, as well as drawings for toys not yet released to the public. The jury could have inferred that Learning Curve would not have disclosed such information in the absence of a confidentiality agreement. Finally, the jury also heard (from several of Learning Curve's former business associates) that Learning Curve routinely entered into oral confidentiality agreements like the one with PlayWood.

PlayWood might have done more to protect its secret. As Learning Curve points out, PlayWood gave its only prototype of the noise-producing track to Wilson without first obtaining a receipt or written confidentiality agreement from Learning Curve -- a decision that proved unwise in hindsight. Nevertheless, we believe that the jury was entitled to conclude that PlayWood's reliance on the oral confidentiality agreement was reasonable under the circumstances of this case. First, it is well established that "[t]he formation of a confidential relationship imposes upon the discloser the duty to maintain the information received in the utmost secrecy" and that "the unprivileged use or disclosure of another's trade secret becomes the basis for an action in tort." *Burlen v. Milton Bradley Co.*, 763 F.2d 461, 463 (1st Cir.1985). Second, both Clausi and Moore testified that they believed PlayWood had a realistic chance to "get in the door" with Learning Curve and to produce the concept as part of Learning Curve's line of Thomas products. Clausi and Moore did not anticipate that Learning Curve would violate the oral confidentiality agreement and utilize PlayWood's concept without permission; rather, they believed in good faith that they "were going to do business one day again with Learning Curve with respect to the design concept." Finally, we believe that, as part of the reasonableness inquiry, the jury could have considered the size and sophistication of the parties, as well as the relevant industry. Both PlayWood and Learning Curve were small toy companies, and PlayWood was the smaller and less experienced of the two. Viewing the evidence in the light most favorable to PlayWood, as we must, we conclude that there was sufficient evidence for the jury to determine that PlayWood took reasonable measures to protect the secrecy of its concept.

4. Value of the concept to PlayWood and to its competitors

There was substantial evidence from which the jury could have determined that PlayWood's concept had value both to PlayWood and to its competitors. It was undisputed at trial that Learning Curve's sales skyrocketed after it began to sell Clickety-Clack Track™. In addition, PlayWood's expert witness, Michael Kennedy, testified that PlayWood's concept for noise-producing

track had tremendous value. Kennedy testified that the “cross-cuts and changes in the [track’s] surface” imparted value to its seller by causing the track to “look different, feel different and sound different than generic track.” Kennedy further testified that, in his opinion, the track would have commanded a premium royalty under a negotiated license agreement because the “invention allows its seller to differentiate itself from a host of competitors who are making a generic product with whom it is competing in a way that is proprietary and exclusive, and it gives [the seller] a significant edge over [its] competition.”

Despite this evidence, the district court concluded that PlayWood’s concept had no economic value. The court’s conclusion was based, in part, on the fact that Play-Wood’s prototype did not work perfectly; as noted by the court, the first set of cuts were too shallow to produce sound and the second set of cuts were too deep to permit the train to roll smoothly across the track. In the district court’s view, even if the concept of cutting grooves into the wooden track in order to produce noise originated with Clausi, the concept lacked value until it was refined, developed and manufactured by Learning Curve.

We cannot accept the district court’s conclusion because it is belied by the evidence. At trial, Kennedy was asked whether, in his opinion, the fact that Play-Wood’s prototype did not work perfectly affected the value of Play-Wood’s concept, and he testified that it did not. Kennedy testified that he would assign the same value to Play-Wood’s concept as it was conceived on February 18, 1993, as he would the finished product that became known as Clickety-Clack Track™ because, at that time, he would have known “that most of the design [had] already been done and that [he] just need[ed] to go a little bit further to make it really lovely.” Kennedy further testified that it was standard practice in the industry for a license to be negotiated based on a prototype (much like the one PlayWood disclosed to Learning Curve) rather than a finished product and that the license generally would cover the prototypical design, as well as any enhancements or improvements of that design. Based on this testimony, we cannot accept the district court’s conclusion that PlayWood’s concept possessed no economic value.

It is irrelevant under Illinois law that PlayWood did not actually use the concept in its business. “[T]he proper criterion is not ‘actual use’ but whether the trade secret is ‘of value’ to the company.” *Syntex Ophthalmias, Inc. v. Tsuetaki*, 701 F.2d 677, 683 (7th Cir.1983). Kennedy’s testimony was more than sufficient to permit the jury to conclude that the concept was “of value” to PlayWood. It is equally irrelevant that PlayWood did not seek to patent its concept. So long as the concept remains a secret, i.e., outside of the public domain, there is no need for patent protection. Professor Milgrim makes this point well: “Since every inventor has the right to keep his invention secret, one who has made a patentable invention has the option to maintain it in secrecy, relying upon protection accorded to a trade secret rather than upon the rights which accrue by a patent grant.” 1 Roger M. Milgrim, *Milgrim on Trade Secrets* §1.08[1], at 1-353 (2002). It was up to PlayWood, not the district court, to determine when and how the concept should have been disclosed to the public.

5. Amount of time, effort and money expended by PlayWood in developing its concept

PlayWood expended very little time and money developing its concept; by Clausi's own account, the cost to PlayWood was less than one dollar and the time spent was less than one-half hour. The district court determined that "[s]uch an insignificant investment is ... insufficient as a matter of Illinois law to establish the status of a 'trade secret.'" We believe that the district court gave too much weight to the time, effort and expense of developing the track.

Although Illinois courts commonly look to the Restatement factors for guidance in determining whether a trade secret exists, as we have noted earlier, the requisite statutory inquiries under Illinois law are (1) whether the information "is sufficiently secret to derive economic value, actual or potential, from not being generally known to other persons who can obtain economic value from its disclosure or use;" and (2) whether the information "is the subject of efforts that are reasonable under the circumstances to maintain its secrecy or confidentiality." 765 ILCS 1065/2(d). A significant expenditure of time and/or money in the production of information may provide evidence of value, which is relevant to the first inquiry above. However, we do not understand Illinois law to require such an expenditure in all cases.

As pointed out by the district court, several Illinois cases have emphasized the importance of developmental costs. However, notably, none of those cases concerned the sort of innovative and creative concept that we have in this case. Indeed, several of the cases in Illinois that emphasize developmental costs concern compilations of data, such as customer lists. In that context, it makes sense to require the expenditure of significant time and money because there is nothing original or creative about the alleged trade secret. Given enough time and money, we presume that the plaintiffs competitors could compile a similar list.

Here, by contrast, we are dealing with a new toy design that has been promoted as "the first significant innovation in track design since the inception of wooden train systems." Toy designers, like many artistic individuals, have intuitive flashes of creativity. Often, that intuitive flash is, in reality, the product of earlier thought and practice in an artistic craft. We fail to see how the value of PlayWood's concept would differ in any respect had Clausi spent several months and several thousand dollars creating the noise-producing track. Accordingly, we conclude that PlayWood's lack of proof on this factor does not preclude the existence of a trade secret.

6. Ease or difficulty with which PlayWood's concept could have been properly acquired or duplicated by others

Finally, we also believe that there was sufficient evidence for the jury to determine that PlayWood's concept could not have been easily acquired or duplicated through proper means. PlayWood's expert witness, Michael Kennedy, testified: "This is a fairly simple product if you look at it. But the truth is that because it delivers feeling and sound as well as appearance, it isn't so simple as it first appears. It's a little more elegant, actually, than you might think."

In addition to Kennedy’s testimony, the jury heard that Learning Curve had spent months attempting to differentiate its track from Brio’s before Clausi disclosed PlayWood’s concept of noise-producing track. From this evidence, the jury could have inferred that, if PlayWood’s concept really was obvious, Learning Curve would have thought of it earlier.

Despite this evidence, the district court concluded that PlayWood’s concept was not a trade secret because it could have been easily duplicated, stating that “[h]ad PlayWood succeeded in producing and marketing [the] notched track, the appearance of the track product itself would have fully revealed the concept PlayWood now claims as a secret.” Of course, the district court was correct in one sense; PlayWood’s own expert recognized that, in the absence of patent or copyright protection, the track could have been reverse engineered just by looking at it. However, the district court failed to appreciate the fact that PlayWood’s concept was not publicly available. As Professor Milgrim states: “A potent distinction exists between a trade secret which will be disclosed if and when the product in which it is embodied is placed on sale, and a ‘trade secret’ embodied in a product which has been placed on sale, which product admits of discovery of the ‘secret’ upon inspection, analysis, or reverse engineering.” 1 Roger M. Milgrim, *Milgrim on Trade Secrets* §1.05[4], at 1-228 (2002). “Until disclosed by sale the trade secret should be entitled to protection.” *Id.*; see also 2 Rudolf Callmann, *The Law of Unfair Competition, Trademarks and Monopolies* §14.15, at 14-123 (4th ed. 2003) (“The fact that a secret is easy to duplicate after it becomes known does not militate against its being a trade secret prior to that time.”). Reverse engineering can defeat a trade secret claim, but only if the product could have been properly acquired by others, as is the case when the product is publicly sold. Here, PlayWood disclosed its concept to Learning Curve (and Learning Curve alone) in the context of a confidential relationship; Learning Curve had no legal authority to reverse engineer the prototype that it received in confidence. Accordingly, we must conclude that the jury was entitled to determine that PlayWood’s concept could not easily have been acquired or duplicated through proper means. . . .

Conclusion

For the foregoing reasons, the judgment of the district court is reversed, and the jury’s verdict is reinstated.

Problems

Flaming Moe’s Problem

Moe Szyslak is the owner of Moe’s Tavern, where the specialty drink is a “Flaming Moe.” Moe mixes the drinks in a back room, then sets them on fire in front of customers.

1. Representatives from Topsy McStagger’s Good-Time Drinking and Eating Emporium meet with Moe to discuss licensing the recipe. As part of the negotiations, Moe tells them how it’s made. Topsy’s breaks off talks and starts selling its own version. *What result?*



Moe Szyslak preparing a Flaming Moe

2. A Topsy's employee orders a Flaming Moe, pours it into a thermos, and uses a gas chromatograph to analyze its chemical composition. By so doing, he learns that the secret ingredient is cough syrup. *What result?*
3. A Topsy's employee goes to Moe's Tavern and bribes a bartender to tell her the formula. *What result?*
4. Same facts as before, except that anyone who tastes the drink can recognize that it's cough syrup. The Topsy's employee still bribes the bartender to tell them. *What result?*

Christopher Redux Problem

It is the present day and your client is a major petrochemical company. It wants to learn as much as possible about a competitor's methanol plant, which is about to start construction. The client has proposed (a) flying a plane over the construction site, as in *Christopher*; (b) flying a five-pound drone 300 feet in the air above a public road adjacent to the site; and (c) buying commercially available satellite photos of the site. What is your advice?

Locksmiths

You represent the Chicago Lock Company, whose "Ace" series of locks is used in vending machines, burglar alarms, and other high-security settings. Ace locks use an unusual cylindrical key that requires specialized equipment to cut. Each lock has a serial number printed on it; the company uses a secret formula to translate the configuration of tumblers inside the lock into a serial number. The company's policy is that it will sell replacement keys only to the registered owner of a lock with a given serial number. All Ace locks and keys are stamped "Do Not Duplicate."

For years, locksmiths have known how to analyze Ace locks. After a few minutes poking at the lock with their tools, they can write down the configuration of pins and tumblers inside the lock. They can then go back to their toolkits and grind a replacement key, which will open the lock. If the locksmiths keep the configuration information on file, they can grind replacement keys in the future without needing to go back to the lock and analyze it again. Individual locksmiths have, for years, kept such files for their local customers.

Recently, Morris and Victor Fanberg, two locksmiths, published a book entitled "AA Advanced Locksmith's Tubular Lock Codes." They asked locksmiths around the country to send them lists of Ace lock serial numbers and the corresponding tumbler configurations. Based on that information, they were able to program a computer to reconstruct Chicago's secret formula. The book contains a table that shows how to turn an Ace serial number into a key configuration, which any locksmith with the proper equipment could then use to cut a key opening the lock with that serial number.

Because the serial numbers on Ace locks are frequently printed on the outside, Chicago is concerned that the publication of this book will

undermine the security of Ace locks. It has asked you whether it can and should sue the Fanbergs for damages and to halt publication of the book, and whether it should make any changes to its procedures in the future. What is your advice?

Sports Secrets Problem

In 2007, the New England Patriots football team videotaped the hand signals used by coaches for the New York Jets to send instructions to players on the field. Anyone in the stadium with a clear line of sight is able to see the signals. The National Football League's rules allow for such videotaping, but only from specific areas not including the areas the Patriots taped from (which had better views).

1. You work for the NFL Commissioner's office. Should you recommend that the Patriots or any of their players or employees be subjected to disciplinary action?
2. You work for the New York Jets. Should you sue the Patriots or any of their players or employees for trade secret misappropriation?
3. You are an Assistant United States Attorney. Should you seek an indictment of the Patriots or any of their players or employees for violating the Economic Espionage Act?

In 2011, the Houston Astros baseball team hired Jeff Luhnow as their new general manager. Previously, Luhnow had been an executive with the St. Louis Cardinals. While with the Cardinals, Luhnow and others build an extensive database with detailed statistical information about players and reports on prospective hires. When Luhnow moved to the Astros, several Cardinals employees went with him. Other Cardinals employees suspected that Luhnow might have helped design a similar database for the Astros. They guessed that he and the other ex-Cardinal employees might have used the same passwords for the new Astros system, a guess that turned out to be correct. The Cardinals employees logged into the Astros system using these passwords and examined some of the information in it.

1. You work for the Commissioner of Baseball's office. Should you recommend that the Cardinals or any of their employees be subjected to disciplinary action?
2. You work for the Houston Astros. Should you sue the Patriots or any of their employees for trade secret misappropriation?
3. You are an Assistant United States Attorney. Should you seek an indictment of the Cardinals or any of their players or employees for violating the Economic Espionage Act?