Marquette University Law School
Marquette Law Scholarly Commons

Faculty Publications | Faculty Scholarship

1-1-1981

The Use of Tying Requirements in Patent Licensing

Ramon A. Klitzke
Marquette University Law School, ramon.klitzke@marquette.edu

Follow this and additional works at: http://scholarship.law.marquette.edu/facpub

Part of the Law Commons

Publication Information
Ramon A. Klitzke, The Use of Tying Requirements in Patent Licensing, 9 APLA Q.J. 333 (1981)
Copyright, 1982, Ramon A. Klitzke

Repository Citation
Klitzke, Ramon A., "The Use of Tying Requirements in Patent Licensing" (1981). *Faculty Publications.* Paper 539.
http://scholarship.law.marquette.edu/facpub/539

This Article is brought to you for free and open access by the Faculty Scholarship at Marquette Law Scholarly Commons. It has been accepted for inclusion in Faculty Publications by an authorized administrator of Marquette Law Scholarly Commons. For more information, please contact megan.obrien@marquette.edu.

TYING

THE USE OF TYING REQUIREMENTS IN PATENT LICENSING

BY RAMON A. KLITZKE*

Tying is the sale or license of an item (the tying item) upon the condition that another item (the tied item) be purchased. When the tying item possesses sufficient economic power, "to appreciably restrain free competition in the market for the tied product,"[1] the antitrust laws are violated. The requisite power is presumed when the tying product is patented or copyrighted.[2] To tie a product or service to a patent therefore violates the antitrust laws.

The major patent tying cases will be examined in this article. The features of tying arrangements that are either violations of the antitrust statutes or patent misuse will be sketched. General rules relating to obvious tying arrangements will be discussed, as well as the principles to be applied to less obvious tying arrangements. Some basic economic policy considerations will be suggested and an attempt will be made to trace the contemporary development of patent tying cases.

I. The Use of the Patent in Enforcing Tying Restraints

A. The Basic Business Transactions Involving Tying

Tying a secondary product to a patented product in an arms-length sale requires a demand for the patented product of sufficient strength to attract buyers to the combination. The combined sale allows the seller to avoid direct competition in the market for the tied item.

Tying can also be used in patent licenses. The temptation to tie products or services to the licensing of a patent may be irresistable if the demand for the license is extraordinary. Patent licenses are taken by businessmen who have pecuniary interests in making, using or selling the patented invention. It is easier to convince a licensee to accept tied products or services than it is to convince a mere buyer, who acquires only the right to use the patented

Copyright, 1982, Ramon A. Klitzke

* B.S., J.D., LL.M., Professor of Law, Marquette University Law School. Member of the New York, Texas and Wisconsin Bars. Admitted to practice, U.S. Patent Office.

1. *Northern Pacific Railway Co. v. U.S.*, 356 U.S. 1, 6 (1958).

2. *International Salt Co. v. U.S.*, 332 U.S. 392 (1947); *U.S. v. Paramount Pictures, Inc.*, 334 U.S. 131 (1948).

HeinOnline -- 9 APLA Q. J. 333 1981

invention. Tying may appear justifiable to the licensor as a legitimate extension of the patent monopoly. However, tying services or products to patent licenses frequently violates the antitrust laws or is patent misuse.

Finally, tying may appear in leases of patented machines. Service requirements or raw material supplies may be tied to the leases. The lessor may use tying to measure the intensity of use of the machine and may assume that the extra competitive advantage to be attained under the lease is a logical appendage to the patent monopoly. However, tying clauses in leases have violated the antitrust laws.[3]

B. The Effect of Tying on Competition in the Market

Obviously, tying is unnecessary if the independent demand for the tied product is sufficient by itself to market the quantity the seller produces. Tying is resorted to because the seller's market power in the tied product is inadequate. The seller is either unwilling or is unable to compete with other sellers of the tied product on an equal footing. By attaching the tied product to a patented product, which may be so unique as to enjoy a relatively inelastic demand,[4] the seller avoids the usual competitive forces that attend normal markets. The monopoly power of the patent is thus perverted for use in a parallel market. Because the grant of a patent monopoly is a special privilege that is an exception to the anti-monopoly laws, courts limit the effect of the monopoly to that intended by the statutory grant and do not permit undue extension.[5]

Each seller in a competitive market, regardless of size, controls some degree of market power.[6] When market power reaches the proportions of monopoly power, the possibility of antitrust violation arises, depending upon how the monopoly power is wielded. However, the antitrust laws may apply even if the tying product has market power that does not achieve monopoly status and, in fact, may even fall far short of dominance.[7] The monopoly power inherent in a patented tying product is of such quality and quantity

3. *International Salt Co. v. U.S.*, 332 U.S. 392 (1947).
4. An inelastic demand means that there will be relatively little effect on the quantity of a product purchased when the price of that product is changed. Because there may not be a good substitute for a patented product, and therefore little cross-elasticity of demand with products of other competitors, a patented product may have substantial monopoly power in its relevant market and the normal decrease in demand may not occur when price is increased.
5. *Mercoid Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661, 665-666 (1944).
6. Market power is the capacity to compete other than as a "perfectly competitive" firm would. In "perfect competition," the quantity of products bought by any buyer or sold by any seller is so small relative to the total quantity of products in the market that no one buyer or seller can possibly affect the market price. "Perfect competition" is a fictitious condition which is not found in the modern world.
7. *Fortner Enterprises, Inc. v. U.S. Steel Corp.*, 394 U.S. 495, 503 (1969).

HeinOnline -- 9 APLA Q. J. 334 1981

that the tying qualifies for *per se* treatment[8] under Section 1 of the Sherman Act.[9] This monopoly power binding the tying and tied products together violates the antitrust laws because the anticompetitive restraints imposed upon the buyer are, under the law, unreasonable. Other sellers of the tied product are not given fair opportunity to compete.

The degree of market power in the patented product determines the success with which the seller can sell the combination of tying and tied products. Not all patented products reach the same heights of marketable attractiveness. Where substitute products serve as well, the patented product does not have the same inelasticity of demand as when the invention constitutes a major technological advance.[10] A given patent may possess a high degree of market power, but a wide range of power is possible in a given market. The restraint on competition occasioned by the tying varies directly with the market strength of the patented product. Moreover, the very process of combining the tied product with the patented product changes the market power of the patented product. If the tied product is of sufficient quality to be favorably distinguished from competitive products, it will amplify the attractiveness of the patented tying product and serve to further increase the demand for it. This can also occur when the seller ties a superior service to the licensing of a patented product or machine. Conversely, the tied product may be so undesirable that the demand for the tying product is substantially reduced.

C. Various Types of Tying Arrangements

Explicit tying arrangements are easily recognized as violative of the antitrust laws. When the International Business Machine Corporation tied its own punch cards to the leasing of its patented sorting machines, the Supreme Court had little difficulty in finding that the clauses in the lease violated Section 3 of the Clayton Act.[11] A similar result would obtain if, instead of leasing the machines, IBM had licensed the patents and tied the cards to the license.

Explicit tying requirements in sales transactions are equally as destructive of competition as they are in leases and licenses. The sale of a patented product or machine does not allow the seller to restrict the buyer to the use of the sellers' unpatented products or services.[12] Explicit tying arrangements are

8. *Per se* treatment under Section 1 of the Sherman Act means that, if the arrangement is tying, it cannot be justified by any business reasons or benefits to competition. See *Northern Pacific Railway Co. v. U.S.*, 356 U.S. 1, 5 (1958). "Where the sale of an unpatented product is tied to a patented article, that is *per se* violation since it is a bald effort to enlarge the monopoly of the patent beyond its terms." *White Motor Co. v. U.S.*, 372 U.S. 253, 259 (1963).
9. *International Salt Co. v. U.S.*, 332 U.S. 392 (1947).
10. See *Northern Pacific Railway Co. v. U.S.*, 356 U.S. 1, 10 n. 8 (1947).
11. 38 Stat. 730 (1941), as amended, 15 U.S.C.A. §§12-27 (1980); *IBM v. U.S.*, 298 U.S. 131 (1936).
12. *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917).

infrequently found because the law is clear in this regard. The anticompetitive restraints resulting from such practices are no longer seriously questioned.

Some tying arrangements are more difficult to recognize and analyze. Ingenious businessmen have fashioned countless ways to hide tying arrangements in apparently innocuous transactions. For example, an unpatented product can be sold with a patented article as an inseparable package. Patented electronic equipment can be sold with detachable auxiliary attachments fully attached and packaged together with the patented equipment. The price for the package appears to be fair because of the convenience of buying the auxiliary equipment along with the patented equipment. If, however, there is active independent competition in the sale of the auxiliary equipment, the seller may find his package sale to be in violation of the antitrust laws.

The offer of "free" products or services can also disguise an illegal tying arrangement. Where there is active competition in the repair or servicing of patented machines, to tie free maintenance service to the sale or lease of the machine may violate the antitrust laws.[13] Similarly, it constitutes tying to offer a "free" product with the sale of another product when the cost of the "free" product must of necessity be included in the cost of the product sold.[14]

D. The Antitrust Tools Applied to Tying Arrangements

Section 3 of the Clayton Act[15] prohibits the sale of commodities on the condition or understanding that the buyer does not use or deal in the goods of a competitor of the seller. The statutory language expressly includes leases in its prohibitions. The statute does not apply unless the tying results in a substantial lessening of competition or tendency to create a monopoly. To require a buyer to purchase a tied article in order to obtain the tying article amounts to a condition that the buyer not deal in the goods of the seller's competitor.[16] Section 3 of the Clayton Act is limited to transactions in which both the tying and tied products are "goods, wares, merchandise, machinery, supplies or other commodities." If either the tying or tied item is a service, Section 3 is inapplicable.[17] Moreover, Section 3 does not apply

13. See, for example, *U.S. v. United Shoe Machinery Corp.*, 110 F. Supp. 295, 325, 344 (D. Mass. 1953), aff'd per curiam, 347 U.S. 521 (1954).
14. See *Cantor v. Detroit Edison Co.*, 428 U.S. 579 (1976).
15. 15 U.S.C.A. §14 (1980).
16. *United Shoe Machinery Corp. v. U.S.*, 258 U.S. 451, 457 (1922). Selling a patented product with the condition that the buyer (a distributor) deals only in the patentee's products, violates Section 3 and is also patent misuse. *Preformed Line Products Co. v. Fanner Mfg. Co.*, 328 F. 2d 265, 140 U.S.P.Q. 500 (6th Cir. 1964).
17. *U.S. v. Jerrold Electronics Corp.*, 187 F. Supp. 545 (E.D. Pa. 1960), aff'd per curiam, 365 U.S. 567 (1961).

HeinOnline -- 9 APLA Q. J. 336 1981

if the tying or tied item is a patent license because a license is not a commodity.

Section 1 of the Sherman Act[18] is also used to attack tying arrangements, whether or not Section 3 of the Clayton Act is applicable.[19] Section 1 outlaws contracts and combinations that unreasonably restrict trade.[20] Tying arrangements are unreasonable restraints of trade and, in fact, have been held to be *per se* violations of Section 1.[21] This means that tying arrangements, like price-fixing agreements between competing sellers, have such a "pernicious effect on competition and lack of any redeeming virtue," that they are "conclusively presumed to be unreasonable and therefore illegal without elaborate inquiry as to the precise harm caused or the business excuse for their use."[22] The standards applied under Section 1 are similar to those applied under Section 3 of the Clayton Act.[23] But Section 1, unlike Section 3, applies to tying provisions in patent licenses.[24]

Because Section 3 of the Clayton Act and Section 1 of the Sherman Act appear to cover all illegal tying, the broad proscriptions of Section 2 of the Sherman Act are seldom needed. Section 2 prohibits monopolization, as well as attempts and conspiracies to monopolize.[25] Whereas Section 1 was intended to forbid all means of monopolizing or unduly restraining trade, Section 2 seeks to prohibit the end result desired by Section 1, even if the business conduct leading to monopolization is not within Section 1.[26] Tying practices can be part of a course of anticompetitive conduct that violates Section 2.[27] However, Section 3 of Clayton Act and Section 1 of the Sherman Act are sufficiently all-inclusive to make the application of Section 2 to tying practices unnecessary in most instances.

Anticompetitive tying can also be attacked under the broad, equitable doctrine of patent misuse. Other antitrust laws are unnecessary when the patent misuse doctrine is applicable. Where a patent owner is guilty of patent misuse, he cannot enforce patent infringement suits. Patent misuse includes conduct that may not violate the Sherman or Clayton Acts. In *Morton Salt Co. v. G.S. Suppiger Co.*,[28] the Supreme Court held that relief against alleged infringement must be denied, "at least until it has been made to

18. 26 Stat. 209 (1890), as amended, 15 U.S.C.A. §1 (1980).
19. *Northern Pacific Railway Co. v. U.S.*, 356 U.S. 1 (1958).
20. *Standard Oil of N.J. v. U.S.*, 221 U.S. 1 (1911).
21. *Northern Pacific Railway Co. v. U.S.*, 356 U.S. 1 (1958).
22. 256 U.S. 5 (1958).
23. *U.S. v. Loew's*, 371 U.S. 38 (1962).
24. See, *e.g.*, *Rex Chainbelt Inc. v. Harco Products*, 512 F. 2d 993, 1003; 185 U.S.P.Q. 10, 16 (9th Cir. 1975).
25. 15 U.S.C.A. §2 (1980).
26. *Standard Oil of N.J. v. U.S.*, 221 U.S. 1, 61 (1911).
27. *U.S. v. United Shoe Machinery Corp.*, 110 F. Supp. 295 (D. Mass. 1953), aff'd per curiam, 347 U.S. 521 (1954).
28. 314 U.S. 488 (1942).

appear that the improper practice has dissipated."[29] The patent misuse doctrine is useful in innumerable situations where the patent owner's anticompetitive conduct does not clearly lie within the antitrust framework.

II. Tying as a Violation of the Antitrust Laws

The antitrust laws are violated when the monopoly power of a patented tying product is used as leverage in the market of the tied product. Of course, tying can enhance the market power of the market power of the patented tying product also,[30] even when the tied product competes with the tying product.[31] But it is the extension of monopoly power of the patent into another market that is of greatest moment in antitrust enforcement.

Many different products have been tied to patented products or processes in the reported cases: motion pictures to patented projectors,[32] dry ice to ice cream transportation packages,[33] an emulsion product to a patented process,[34] furnace stoker elements to a patented combination,[35] salt tablets to dispensing machines,[36] and material supplies to shoemaking machines.[37] Not only does such tying violate the antitrust laws, but it is also patent misuse.[38] The Supreme Court has termed tying an "unauthorized extension of the (patent) monopoly,"[39] in which the patentee ignores "the limitation inherent in the patent grant."[40]

A. The Initial Development of the Law of Tying

The genesis of patent tying law[41] emerged from the infant motion picture industry at the turn of the century. A patent on a new film-feeding mechanism in "project-kinetoscopes" was the subject of an infringement suit that reached the Supreme Court in *Motion Picture Patents v. Universal Film Mfg. Co.*[42] The patent owner was able to limit purchasers of the patented projectors to exhibition of only designated films because the patented machines were the only ones that operated successfully. The Court held that the restriction was invalid and could not be enforced against purchasers of the machines. It was an attempt to create a monopoly in a commodity

29. 314 U.S. 493.
30. See 3 Areeda & Turner, "Antitrust Law," 259-260 (1978).
31. See *Times-Picayune Publ. Co. v. U.S.*, 354 U.S. 594 (1953).
32. *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502 (1917).
33. *Carbice Corp. v. American Patents Development Corp.*, 283 U.S. 27 (1931).
34. *Leitch Mfg. Co. v. Barber Co.*, 302 U.S. 458 (1938).
35. *Mercoid Corp. v. Mid-Continent Inv. Co.*, 320 U.S. 661 (1944).
36. *Morton Salt Co. v. G.S. Suppiger Co.*, 314 U.S. 488 (1942).
37. *United Shoe Machinery Corp. v. U.S.*, 258 U.S. 451 (1922).
38. *Leitch Mfg. Co. v. Barber Co.*, 302 U.S. 458 (1938).
39. 302 U.S. at 463.
40. *Id.*
41. See the excellent discussion in Bowman, *Patent and Antitrust Law*, 163-182 (1973).
42. 243 U.S. 402 (1917).

wholly outside of the patent.[43] The restriction was imposed through a so-called "License Agreement" between the patent owner and the manufacturer of the machines, but the patentee attempted to impose the restriction on all users of the projectors by means of a warning plate on the machines. The Court's rule applied to restrictive sales of the machines and the case is therefore not a direct precedent for restrictive licensing arrangements that involve no purchases of the patented article.[44] The purchase of a patented machine carries with it an implied license to use the machine, but the proceeds of the sale constitute the complete return to which the patent owner is entitled. Once the patent owner parts with the title to the machine, there can be no further restriction on the materials to be used with the machine.

Suppose that the patent owner leases the machine instead of selling it. In *United Shoe Machinery Corp. v. U.S.*,[45] the defendant leased patented shoe machinery with several restrictions, one of which was a requirement that the lessees purchase supplies exclusively from the defendant. In holding the restrictions to be violations of Section 3 of the Clayton Act, the Court conceded that the patent grant gave the patentee the right to make lawful licenses and agreements. But the patent did "not protect the making of contracts in restraint of trade, or those which tend to monopolize trade or commerce in violation of the Sherman Act . . . . The same principle applies to the Clayton Act."[46] The lessees were offered alternative leases free of the objectionable conditions complained of, but the alternative leases were available only upon a substantial initial payment of cash. The restrictive leases permitted royalty payments over the lives of the leases and were therefore much more attractive. The Court held that the restrictive leases would violate the Act regardless of the availability of the alternative leases.[47] Section 3 of the Clayton Act applies, even where the buyer or lessee is not entirely foreclosed from competing suppliers.[48]

The *United Shoe Corp.* also required lessees to perform all manufacturing operations on United Shoe machines and to take certain additional machinery from United Shoe. The use of these clauses was also enjoined.[49]

43. 243 U.S. at 518.
44. Moreover, the Court's reasoning is clouded by its untoward sympathy for the fledgling movie industry:

> "A restriction which would give to the plaintiff such potential power for evil over an industry which must be recognized as an important element in the amusement life of this nation, under the conclusions we have stated in this opinion, is plainly void, because wholly without scope and purpose of our patent laws, and becuase, if sustained, it would be gravely injurious to that public interest, which we have seen is more a favorite of the law than is the promotion of private fortunes." 243 U.S. at 519.

45. 258 U.S. 451 (1922).
46. 258 U.S. 463-464.
47. 258 U.S. 464.
48. *Thomson Mfg. Co. v. F.T.C.*, 150 F. 2d 952 (1st Cir. 1945), *cert. den.*, 326 U.S. 776 (1945) 1 *Signode Steel Strapping Co. v. F.T.C.*, 132 F. 2d 48 (4th Cir. 1942).
49. 258 U.S. 456.

HeinOnline -- 9 APLA Q. J. 339 1981

While the leases did not explicity prohibit lessees from using machinery of United Shoe's competitors, the Court held that the practical effect of the restrictions brought the leases within the language of Section 3 of the Clayton Act.[50]

United Shoe argued that the lease restrictions were ancillary to the patent rights in the machinery and protected the just compensation intended under the patent laws. But the Court emphasized that the Clayton Act specifically applied to goods and machinery, "whether patented or unpatented." This phrase was added to the Act, "with the express purpose of preventing rights granted by letters patent from securing immunity from the inhibitions of the act."[51] United Shoe argued that the Clayton Act was an unconstitutional limitation on patent rights and deprived patentees of property without due process of law. The Court countered that the Act merely made unreasonable restraints illegal and did not limit the legitimate patent rights intended under the Patent Act.[52]

In *Motion Picture Patents* and *United Shoe,* the Supreme Court laid the foundation for further analysis of the complicated licensing and marketing schemes that evolved following the great technological adances of the 1940's and 1950's.[53] During that period, invention patenting was a cornerstone of the aggressive consumer marketing and advertising structures erected by national firms. As patent development and acquisition increased, different ways were discovered to leverage the patent monopoly into markets for unpatented products and related services. The cases handed down in the last three or four decades reflect this flurry of competitive ingenuity and provide an intricate pattern of rules and rule exceptions.[54]

B. The Principal Rules in Patent Tying Cases

1. Tying Unpatented Supplies to Patent Licenses

A patent license grants at least one of the three basic rights that the patentee acquires under Section 271(a) of the Patent Code.[55] The licensee may receive (1) the right to make, (2) to use or (3) to sell the patented invention without infringing the patent grant. Licenses usually grant more than one of these rights. License restrictions can be more easily analyzed by examining the effects on each of the rights individually.

50. 258 U.S. 457
51. 258 U.S. 460.
52. 258 U.S. 463-464.
53. See, *e.g.*, the excellent discussion in Berle & DeCamp, "Inventions and their Management," 3rd ed., pp. 665-670 (International Textbook Co., Scranton, Pa. 1951).
54. Many of the major cases involving patents and tying are discussed in Nordhaus, "Patent-Antitrust Law," 3rd ed., §§62-78 (Jural Publ. Co., Chicago, 1981).
55. 35 U.S.C. §271(a) (1976 and Supp. III 1979).

HeinOnline -- 9 APLA Q. J. 340 1981

First, licensing the right to make the patented invention is usually not granted without an attendant right to use or sell it, unless the invention is made for the use of the patentee only. The right to make the invention, *i.e.*, the right to reproduce the article or composition of matter, is of little value unless the printed patent specification adequately discloses the relationship between the elements of the invention and, in some instances, the steps the inventor took to produce those relationships (*e.g.*, the process for producing a chemical compound). The Patent Code requires the specification to contain a written description in such full, clear, concise and exact terms as to enable any person skilled in the art to which the invention pertains to make and use it.[56] Notwithstanding this explicit mandate, reproduction of the invention often requires knowledge of additional "know-how." This know-how is frequently licensed separately because it is comprised of trade secrets that have independent value.

Once the licensee acquires all of the technology necessary to successfully reproduce the invention, the next step is the acquisition of the raw materials or necessary parts. If the licensor limits the licensee as to the source of the supplies, an antitrust issue arises. It is the anticompetitive effect in the market for the tied supplies that results in an antitrust violation and the violation is usually treated as *per se* illegal.

In *Mercoid Corp. v. Mid-Continent Investment Co.*,[57] the owner of a combination patent attempted to limit the installation and use of the invention to licensees who purchased an unpatented element from the plaintiff or its licensees. The Court held that this constituted patent misuse and the patentee was precluded from enforcing an action for contributory infringement.[58]

Patent licensors have attempted various means of enforcing supply requirements and most of these constitute patent misuse. For example, warranty agreements containing such restrictions have been held to be misuse.[59] Reasons given for such restrictions vary, but a common argument is the need for licensor control of the quality of the result intended by the invention. The licenses must specify the supplies so that the licensees achieve the result obtained by the licensor. It is feared that supplies obtained outside of the control of the licensor will be inferior and the resulting product will not reach the standard promised in the specification of the patent. The simple judicial response is that the licensor can maintain quality control by

56. 35 U.S.C. §112 (1976 and Supp. III 1979).
57. 320 U.S. 661 (1944).
58. 320 U.S. at 668-669.
59. *F.C. Russell Co. v. Comfort Equipment Corp.*, 194 F. 2d 592, 93 U.S.P.Q. 119, (7th Cir. 1952); *F.C. Russell Co. v. Consumer Insulation Co.*, 119 F. Supp. 119, 107 U.S.P.Q. 131 (D. N.J. 1954), aff'd 226 F. 2d 373 (3rd Cir. 1955); see also, *Kelly v. G.M.*, 425 F. Supp. 13 (E.D. Pa. 1976).

HeinOnline -- 9 APLA Q. J. 341 1981

setting minimum specifications for the supplies, and allowing the licensee to buy them from any particular supplier.[60]

The second right which may be licensed is the right to use the invention. If patented raw materials are tied to the use of the invention, it is a violation of Section 3 of the Clayton Act and is also patent misuse. In *Morton Salt v. G.S. Suppiger,*[61] licensees of patented salt tablet depositing machines were limited to tablets sold by the licensor. In an action for patent infringement, the defense of patent misuse was upheld. It did not matter that the alleged infringer suffered no direct harm by reason of tying.[62] A similar result obtains where the owner of a process patent ties unpatented materials to a license for the use of the process.[63]

When the patented invention is sold by the patentee, or one duly licensed by the patentee, a license to use it is implied, regardless of any explicit understanding.[64] To require a buyer to purchase unpatented products or services from the patentee is patent misuse and is also a violation of Section 3 of the Clayton Act. A restriction requiring the buyer to take unpatented items from the patentee cannot be enforced.[65]

Finally, the right to sell the invention may be licensed, with or without the other two patent rights. Tying unpatented products or services to the right to sell is patent misuse[66] and is a violation of Section 3 of the Clayton Act.[67] The licensor, having chosen to receive a return from allowing another to sell the invention, can claim no ancillary right to tie unpatented items to the license. The reasons that disallow such tying are similar to those applicable to licenses to make or use the invention.

2. Leasing Arrangements with Tying Clauses

There appears to be little difference in the applicable tying rule, whether the tying is through a patent license or a lease of the patented invention. In fact, the leasing arrangement should be subject to stricter scrutiny because licensing restrictions are permissible as rights ancillary to the patent monopoly.[68]

60. *International Salt Co. v. U.S.*, 332 U.S. 392, 398 (1947).
61. 314 U.S. 488 (1942).
62. 314 U.S. 494.
63. *B.B. Chemical Co. v. Ellis*, 314 U.S. 495 (1942). Full requirement contracts are sometimes tied to process patent licenses and are illegal, *U.S. v. Linde Air Products Co.*, 83 F. Supp. 978, 83 U.S.P.Q. 335 (N.D. Ill. 1949).
64. *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 516 (1917).
65. 243 U.S. at 518.
66. *Morton Salt Co. v. G.S. Suppiger*, 314 U.S. 488 (1947).
67. *International Salt Co. v. U.S.*, 332 U.S. 392 (1947).
68. For example, grant-back provisions which require the licensee to convey improvement patents back to the licensor, are not illegal. *Transparent-Wrap Mach. Corp. v. Stokes & Smith Co.*, 329 U.S. 637 (1947).

HeinOnline -- 9 APLA Q. J. 342 1981

Leasing restrictions must be enforced through contract and property law and are restraints of trade clearly outside of the protection of the patent statutes.

The basic rule originated in *United Shoe Machinery v. U.S.*,[69] which has already been discussed.[70] In *United Shoe* the lessor supplied more than 95 per cent of the shoe machinery in the United States,[71] and the case is thus not the best precedent where the lessor does not possess such monopoly power. However, subsequent cases have held that inordinate market control need not be found if a patent is the source of the market power. The inherent market power in the patent covering the leased item is sufficient to constitute the tying as violative of the antitrust laws.[72]

Even if tying unpatented supplies to a lease does not result in a monopoly of the tied products, the lessor will still be guilty of unlawful tying.[73] Where the lessor has a dominant position in the relevant market of which the patented invention is a part, then any restrictive provisions in leasing arrangements may readily result in violations of Section 1 and 2 of the Sherman Act.[74]

A principal case involving tying provisions in leases of patented machines is *International Salt Co. v. U.S.*[75] Lessees were required to use only International's salt products, but were allowed to buy salt on the open market if any competitor of International offered salt of equal grade at a lower price. The availability of an alternative supply did not prove persuasive to the Court. It held that the leases violated both Section 1 of the Sherman Act and Section 3 of the Clayton Act.

3. Other Types of Tying Requirements in Leases and Licenses

A restriction on maintenance service for a patented machine can be tied to either a patent license or a lease of the invention. A common justification for such a provision is the need for expert maintenance to ensure continued effective operation. The implication is that the know-how needed to maintain the machine resides in the expert personnel of the patent owner, but not elsewhere. Although the know-how needed to maintain the patented machine is sometimes licensed separately, the patentee can retain this know-how as a trade secret and then tie maintenance service to the license or the lease.

69. 258 U.S. 451 (1922).
70. See note 45, *supra*, and accompanying text.
71. 258 U.S. at 455.
72. See *U.S. v. Loew's, Inc.*, 371 U.S. 38, 45 (1962).
73. *U.S. v. United Shoe Machinery Corp.*, 110 F. Supp. 295, 335 (D. Mass. 1953), aff'd per curiam, 347 U.S. 521 (1954).
74. *U.S. v. United Shoe Machinery Corp.*, *op. cit. supra*, note 73.
75. 332 U.S. 392 (1947).

Service requirements were tied to leases of shoe machinery in *U.S. v. United Shoe Machinery Corp.*[76] Although the written leases imposed the expense of maintenance on the lessees, and did not explicitly require maintenance services to be obtained from the lessor, the lessor provided the services without extra cost, charging only for the parts that were required. This caused a shortage of large scale repair companies independent of the lessor.[77] This was a significant factor in the court's decision to find a violation of Section 2 of the Sherman Act. To offer a "free" service or product only to buyers of a product that has significant market power may constitute illegal tying if the buyers must take both items.[78] There is no substantive distinction between such a transaction and the package sale or the package license that offers no practical alternative to the prospective buyer.

Other types of tying requirements have been found to violate the antitrust laws where the effect was to lessen competition in the tied product. In *United Shoe Machinery Corp. v. U.S.*,[79] unpatented supplies were tied to shoe machinery leases. A number of other provisions in the leases were also condemned by the Court, including restricting the use of the leased machinery to shoes previously processed only on the lessor's machines. The lessor also required that any necessary additional machinery be taken from the lessor. While such requirements are not within the language of Section 3 of the Clayton Act, which requires that the tying and tied items be goods or commodities, the Court did not hesitate to enjoin the use of these clauses.[80]

4. Tying Arrangements as Patent Misuse

Patent misuse is the extension of the leverage of the patent monopoly beyond the scope permitted by the Constitution and the patent statutes.[81] Where the patent owner has been guilty of misuse, no infringement action may be brought until the misuse has ceased and the consequences of the misuse have been dissipated.[82] The doctrine of patent misuse encompasses conduct that may also constitute a violation of Sections 1 and 2 of the Sherman Act and Section 3 of the Clayton Act, but the doctrine is not limited to such violations.[83] The proof of violation of the antitrust statutes necessitates a showing that the accused conduct substantially lessens competition

76. *Op. cit. supra,* note 73.
77. 110 F. Supp. at 325.
78. Cf. *F.T.C. v. Brown Shoe Co.*, 384 U.S. 316 (1966).
79. 258 U.S. 451 (1922).
80. 258 U.S. at 456.
81. See, generally, A.B.A. Section of Antitrust Law, "Antitrust Developments—1955-1968" 183 (1968).
82. *Morton Salt v. Suppiger,* 314 U.S. 488, 493 (1942).
83. *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 140 (1969).

HeinOnline -- 9 APLA Q. J. 344 1981

or tends to create a monopoly. This is unnecessary to a showing of patent misuse.[84]

The patent misuse doctrine is grounded upon equitable principles. It applies where patent infringement is involved. It has little application in situations unrelated to any possibility of patent infringement. The action for patent infringement is based upon the patent statutes,[85] but, becaue it is of equitable origin, relief is denied if the patent owner has "unclean hands." To allow relief where there has been patent misuse is contrary to the public interest in confining the patentee to the boundaries of the patent monopoly.[86] A legal monopoly, granted as an exception to the general public policy against monopolies, must be carefully circumscribed.

In the *Motion Picture Patents* and *United Shoe Machinery* cases, the Supreme Court formulated the basic principles of the limitation of the patent grant. Founded upon these cases, the doctrine of patent misuse, or patent abuse as it was first called,[87] developed into an important defense in patent infringement cases involving tying. In *Carbice Corporation of America v. American Patent Development Corporation,*[88] the patentee sought to enjoin contributory infringement by the defendant producer of dry ice that was to be used in the plaintiff's patented ice cream transportation boxes (of the type used by street vendors). The plaintiff sold dry ice with the express condition that it be used only in the plaintiff's patented containers. Conversely, the patented containers were to be used only with the patented dry ice of the plaintiff. Thus, only the dry ice customers of the plaintiff had licenses to use the patented containers. The licenses to use were implied when the containers were purchased. No royalties were to be paid.

The Court held that tying the unpatented dry ice to the implied licenses to use the containers constituted patent abuse and this was a complete defense to a contributory infringement suit. The limited monopoly to make, use and vend the invention could not be "expanded by limitations as to materials and supplies necessary to the operation of it."[89] Although the *Carbice* case suggested that relief for infringement was denied because of the attempt to employ the patent to secure a limited monopoly of the unpatented supplies,[90] the rule was not so limited thereafter. In subsequent cases, tying was held to be patent misuse even if no monopolization was attempted, as

84. *Berlenbach v. Anderson & Thompson Ski Co.,* 329 F. 2d 782, 141 U.S.P.Q. 84 (9th Cir. 1964); *Baldwin-Lima-Hamilton Co. v. Tatnall,* 268 F. 2d 395, 121 U.S.P.Q. 363 (3rd Cir. 1959).
85. 35 U.S.C. §§271-272 (1976 and Supp. III 1979).
86. *Morton Salt v. Suppiger,* 314 U.S. 488, 492-493 (1942).
87. *Carbice Corp. v. American Patents Development Corp.,* 283 U.S. 27, 31 n. 1 (1931).
88. 283 U.S. 27 (1931).
89. 283 U.S. at 31.
90. 283 U.S. at 33-34.

HeinOnline -- 9 APLA Q. J. 345 1981

long as a significant amount of commerce in the tied product was affected by the tying. Furthermore, the *Carbice* rule was applied to suits for direct infringement as well as suits for contributory infringement.[91]

Having settled the question of tying an unpatented product to the use of a patented device, the Supreme Court was next faced with attempted tying to a patented process. It was thought that *Carbice* might be distinguished because there could be no implied license to use a patented process through the sale of any raw material to be used in the process. This was not, to be the result espoused by the Court. In *Leitch Manufacturing Co. v. Barber Company,*[92] the Barber Company owned a process patent for retarding evaporation during curing of concrete roads. The process utilized a commonly used bituminous emulsion that the Barber Company sold in competition with the defendant Leitch Manufacturing Company. Although Barber granted no written licenses to practice the invention, road-builders were not permitted to use the process unless the staple, unpatented emulsion was purchased from Barber. Road-builders who bought the emulsion from anyone else, such as Leitch, had no permission to use the process. This was similar to the implied license in the *Carbice* case.

In *Leitch Manufacturing,* the Court held that the *Carbice* case was indistinguishable and the restriction prevented Barber from suing Leitch for contributory infringement. The Court stated the rule broadly: "(E)very use of a patent as a means of obtaining a limited monopoly of unpatented material is prohibited."[93] Thus, whether the patent covered a device or a process, to condition the use or sale of the invention upon the exclusive supply of unpatented material from the patentee constituted a restriction which prevented the patentee from recovering for infringement. The Second Circuit extended the *Leitch* rule to the tying of a product specifically designed for use in a patented process, even though it was not a staple article of commerce suitable for non-infringing use.[94]

The leading case holding that a patent owner cannot condition a license upon the purchase of unpatented supplies from the licensor is *Morton Salt Co. v. G.S. Suppiger.*[95] The patentee licensed its patented salt tablet dispensing machines with a requirement that only salt tablets sold by the patentee could be used. In an action against an infringer, the Court denied relief because of the misuse. It did not matter that the infringer did not compete with the patentee in the sale of the tablets. The Court said:

91. *American Lethicin Co. v. Warfield Co.,* 105 F. 2d 207, 42 U.S.P.Q. 180 (7th Cir. 1939).
92. 302 U.S. 458 (1938).
93. 302 U.S. at 463.
94. *Philad Co. v. Lechler Labs,* 107 F. 2d 747 (2nd Cir. 1939).
95. 314 U.S. 488 (1942).

> "It is the adverse effect upon the public interest of a successful infringement suit in conjunction with the patentee's course of conduct which disqualifies him to maintain the suit, regardless of whether the particular defendant has suffered from the misuse of the patent."[96]

In a companion case to *Morton Salt,* the Court extended the misuse rule to the owner of a method patent who authorized manufacturers to use it only with materials supplied by the licensor.[97]

With the *Morton Salt* case, the Supreme Court had decided cases involving unpatented materials and supplies tied to patented devices and to patented processes. The next case considered a patent covering a combination of elements where the purchase of one of the elements was tied to a license to construct the combination. In *Mercoid Corp. v. Mid-Continent Investment Co.,*[98] the patented combination controlled coal-fired heating furnaces. It comprised a room thermostat, a stoker limit switch and a thermostatic hot air fan switch. None of the individual elements was patented. The owner of the patent, in advertising its unpatented stoker switches, stated that the right to use the patented system was granted only when its switches were purchased from it and used in the system. The Court held that this constituted patent misuse, even though the stoker switch was the "heart of the invention."[99] The opinion was clear in its warning:

> "When the patentee ties something else to his invention, he acts only by virtue of his right as the owner of the property to make contracts concerning it and not otherwise. He then is subject to all the limitations upon that right which the general law imposes upon such contracts. The contract is not saved by anything in the patent laws because it relates to the invention."[100]

When implied licenses are granted only to buyers who purchase unpatented elements for use in practicing the invention, some courts find it significant that no licenses are ever offered to nonbuyers.[101] Implied licenses are sometimes granted by "can label" licenses that authorize the purchaser of a nonpatented product to use it in practicing the patent. Some courts hold that, if this is the only way a license can be obtained, this is tying and a misuse of the patent.[102]

96. 314 U.S. at 444.
97. *B.B. Chemical Co. v. Ellis,* 314 U.S. 495 (1942).
98. 320 U.S. 661 (1944).
99. 320 U.S. at 667.
100. 320 U.S. at 666.
101. *Lincoln Electric Co. v. Linde Air Products Co.,* 171 F. 2d 223, 80 U.S.P.Q. 59 (6th Cir. 1948).
102. *Rex Chainbelt, Inc. v. Harco Products, Inc.,* 512 F. 2d 993, 185 U.S.P.Q. 10 (9th Cir. 1975).

HeinOnline -- 9 APLA Q. J. 347 1981

The Supreme Court has recently resolved an important question left unanswered after the *Mercoid* decision. In *Dawson Chemical Co. v. Rohm & Haas Co.,*[103] the owner of a method patent sold an unpatented nonstaple chemical that constituted a material part of the patent. The right to practice the patent was licensed only to buyers of the chemical who purchased from the patentee. Competing sellers of the chemical were refused licenses, and, when they persisted in selling the chemical, they were sued for contributory infringement. The Court held that the patentee's conduct did not constitute patent misuse because the chemical had no substantial noninfringing use. Section 271(d) of the Patent Act[104] therefore allowed the patentee to limit the patent to its own customers. In the view of the Court:

> "(B)y enacting §§271(c) and (d), Congress granted to patent holders a statutory right to control nonstaple goods that are capable only of infringing use in a patented invention, and that are essential to that invention's advance over prior art."[105]

Four justices dissented. The dissenting opinions argued that this was a classic case of patent misuse because the patentee was extending the patent monopoly to unpatented materials.[106] In none of the opinions is there an adequate discussion of the patentee's conduct as a tying device, although the conduct clearly was such. The case is limited to tying an item that has no use other than as a material part of a patented process, but the case does open a tying door that had been closed.

To be patent misuse, it must appear that it is the use of the patent to which the unpatented product is tied, and not to something else. Some business arrangements involve trademarks and franchises, as well as patent licenses, and the patent license may not be the tying culprit at all.[107] Also, in package licensing it is possible that certain royalty arrangements appear to be tying when they may be only convenient methods of measuring the intensity of use of the patent license.[108] Finally, if the buyer desiring an unpatented item is required to take a patent license to obtain the patented item, this is not misuse of the patent.[109]

Once misuse is found, the patent is unenforceable until the consequences of the misuse are purged. The patentee must show that it has fully abandoned

103. 448 U.S. 176 (1980).
104. 35 U.S.C. §271(d) (1976 and Supp. III 1979).
105. 448 U.S. at 213.
106. 448 U.S. at 230, 240.
107. See *Kolene Corp. v. Motor City Metal Treating, Inc.,* 440 F. 2d 77 (6th Cir. 1971).
108. See, *e.g., Clayton Manufacturing Co. v. Cline,* 427 F. Supp. 78, 203 U.S.P.Q. 398 (C.D. Cal. 1976). (Expired patents were not tying items.)
109. *St. Regis Paper Co. v. Bemis Co., Inc.,* 403 F. Supp. 776, 188 U.S.P.Q. 107 (S.D. Ill. 1975).

its illegal practices and that the consequences of that practice have been fully dissipated.[110] These issues are questions of fact,[111] and the determination of whether there has been an effective purge is within the discretion of the trial court.[112]

III. Conclusion

Tying clauses seldom escape the ambit of the antitrust laws when the tying item is patented, whether the tying is through a patent license or a lease. This is true whether the right to make, to use or to sell the patented invention is licensed, or whether any combination of the three rights is licensed.

There are many excellent business reasons for using tying clauses in licenses or leases. They are of no avail to the litigant because most tying is *per se* illegal under the antitrust laws, and it constitutes patent misuse besides. When the tied product is functionally related to the tying product, the licensor's total market position is strengthened by increasing his share of the market for the tied product. It is an unjustifiable extension of the patent monopoly to use it for leverage in the market for the tied product. While a patentee should be permitted to enforce license provisions that insure a fair return on the patented invention, that return must be gained in the market for the invention, and not in another product market.

Numerous tying arrangements and many kinds of tied items have been involved in patent tying cases. Services are sometimes tied to licenses or leases, particularly maintenance services. Tying is illegal under Section 1 of the Sherman Act, but not all such arrangements are classified as *per se* violations. Furthermore, they do not survive attack under Section 2 of the Sherman Act if monopoly power is a goal of the patentee. Section 3 of the Clayton has also been an important tool in attacking tying arrangements.

It is clearly the monopoly power of the patent grant that is the primary factor in finding most tying provisions to be illegal. While not all issued patents have the same degree of monopoly power and, in fact, some patents are quite narrow in scope, the courts have not generally distinguished between patents on the basis of the strength of the patent claims. The law of tying requires that the tying item have sufficient market power in order for a tying violation to be found, and the elasticity of the demand for the patented item should be considered. Products sold by competitors of the patentee, if

110. *B.B. Chemical Co. v. Ellis,* 314 U.S. 495, 498 (1942).
111. *U.S. Gypsum Co. v. National Gypsum Co.,* 352 U.S. 457, 465 (1957).
112. *U.S. v. U.S. Gypsum Co.,* 340 U.S. 76, 89 (1951); *International Salt Co. v. U.S.,* 332 U.S. 392, 400-401 (1947).

properly includible in the relevant market, should be duly considered in measuring the market power of the patented item. It would seem that a finer analysis is needed than that now afforded by the courts.