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Patent-Antitrust: Patent Dynamics and Field of Use Licensing

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PATENT-ANTITRUST: PATENT DYNAMICS AND FIELD-OF-USE LICENSING

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To shelter field-of-use patent licensing from antitrust attack, courts and patentees have long invoked the doctrine of "inherency." The doctrine is based upon the notion that inherent in the statutory grant of a patent monopoly is the right to exploit that monopoly in whatever fashion the patent holder desires. Much confusion, however, inheres in "inherency." Professors Adelman and Juenger explore the development and validity of inherency and argue that the doctrine should now be rejected as unsound and impractical. They conclude that field-of-use licenses should be judged by their propensity to inhibit commercial or legal challenges to patents and propose a set of rules to dispel the uncertainty currently vexing this area of patent-antitrust.

I

INTRODUCTION

To realize the full value of their statutory monopolies,[1] patentees frequently include field-of-use restrictions in licensing agreements. A field-of-use license restricts a licensee's use of the patent to one or more types of economic activity and thus limits competition with the patentee or other licensees. Such a license—which may be exclusive or nonexclusive—might confine the exploitation of a patented process or of a product patent to one or more specific products, require the licensee to sell patented products to a specific customer or class of customers, or limit the sale of unpatented products made by a patented process to particular customers for limited uses.

The Antitrust Division of the United States Department of Justice, determined to increase its activity in an area of law that had been neglected for many years, recently filed a series of civil actions challenging the validity of field-of-use restrictions and various other licensing practices.[2] The actions were portended and accompanied

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[1] *See* 35 U.S.C. § 154 (1970).

[2] United States v. Ziegler, Civil No. 1255-70 (D.D.C., filed Apr. 24, 1970) (limitation on sale of unpatented products made by patented process); United States v. Westinghouse, Civil No. C70-852-SAW (N.D. Cal., filed Apr. 22, 1970) (international

by speeches and articles of antitrust officials, including former heads of the Division, who expressed the view that the days of benign neglect towards restrictions on competition by patentees should be numbered.[3] Not unexpectedly, the position taken by the Depart-

licensing agreement with territorial restrictions); United States v. Bristol-Meyers Co., Civil No. 822-70 (D.D.C., filed Mar. 19, 1970) (bulk sales restriction); United States v. Fisons Ltd., Civil No. 69 C 1530 (N.D. Ill., filed July 23, 1969), *consent decree entered as to one license*, 1972 Trade Cas. ¶ 73,794 (N.D. Ill. 1972) (exclusive field licenses); United States v. Charles Pfizer & Co., Civil No. 1966-1969 (D.D.C., filed July 15, 1969), Civil No. 4-71-C-403 (D. Minn. Aug. 18, 1971) (renumbered following transfer); United States v. CIBA Corp., Civil No. 791-69 (D.N.J., filed July 9, 1969) (bulk sales restrictions); United States v. CIBA Corp., Civil No. 792-69 (D.N.J., filed July 9, 1969) (bulk sales restriction); United States v. Farbenfabriken Bayer A.G., Civil No. 586-68 (D.D.C., filed Mar. 7, 1969), *consent decree entered*, 1969 Trade Cas. ¶ 72,918 (D.D.C. 1969) (restraints on alienation of patented products); United States v. Glaxo Group Ltd., Civil No. 558-68 (D.D.C., filed Mar. 4, 1968), *judgment for plaintiff*, 328 F. Supp. 709 (D.D.C. 1971) (bulk sales restrictions on purchases of unpatented drug held illegal), *rev'd on other grounds*, 410 U.S. 52 (1973), *discussed in* note 13 *infra*; United States v. Sterling Drug, Inc., Civil No. 175-68 (D.N.J., filed Feb. 23, 1968), *dismissed with prejudice*, (D.N.J. Nov. 9, 1970) (bulk sales restriction); United States v. Syntex Corp., Civil No. 478-68 (D.D.C., filed Feb. 23, 1968), *dismissed as moot without opinion*, (D.D.C., Oct. 15, 1968); United States v. Scott Paper Co., Civil No. 32049, *consent decree entered*, 1969 Trade Cas. ¶ 72,919 (E.D. Mich. 1969) (patent allegedly acquired in violation of Clayton Act § 7); United States v. Wisconsin Alumni Research Foundation, Civil No. 69-C-316, *consent decree entered*, 1970 Trade Cas. ¶ 73,015 (W.D. Wis. 1970) (exclusive license grant-backs).

This onslaught of litigation is directed by the Patent Section of the Antitrust Division, an administrative subdivision reestablished in 1970 for the express purpose of institutionalizing the Division's activities in the patent-antitrust area. For a brief history of the Department's activities in this field, see Address by Marcus A. Hollabaugh, American Patent Law Association Antitrust Workshop, May 2, 1969, in 1969 AM. PAT. L. ASS'N BULL. 266, 266-77.

[3] *See, e.g.*, Address by Richard H. Stern, *The Antitrust Laws and Restrictive Field Provisions in Patent Licenses*, Licensing Executives Society Workshop, Oct. 15, 1970; Address by Richard H. Stern, *The Antitrust Laws and Restrictions: Patent Licensing Provisions*, Patent Office Academy, Apr. 20, 1970; Address by Richard W. McLaren, *The Licensing of Technology Under the United States Antitrust Laws*, Annual Meeting of the Antitrust Section of the American Bar Association, July 14, 1971, in 40 ANTITRUST L.J. 931 (1971) [hereinafter McLaren, *Licensing*]; Address by Richard W. McLaren, *Patent Licenses and Antitrust Considerations*, 13th Annual Conference of the PTC Research Institute of George Washington University, June 5, 1969, in 13 IDEA, Conf. 1969, at 61 [hereinafter McLaren, *Antitrust*]; Address by Richard W. McLaren, *Recent Cases, Current Enforcement Views, and Possible New Antitrust Legislation*, 17th Annual Spring Meeting of the Antitrust Section of the American Bar Association, Mar. 27, 1969, in 38 ANTITRUST L.J. 211 (1969) [hereinafter McLaren, *Recent Cases*]; Address by Richard H. Stern, *Harmonizing Patent Law and Antitrust Law Objectives*, PLI Conference on Current Developments in Patent Licensing, Oct. 7, 1971, in 47 PAT., TRADEMARK & COPYRIGHT J. D-2 (1971) [hereinafter Stern, *Harmonizing*]; Address by Richard H. Stern, *A Future Look at Patent Fraud and Antitrust Laws*, Federal Bar Association Symposium, Sept. 25, 1969, in 52 J. PAT. OFF. SOC'Y 3 (1970) [hereinafter Stern, *Future Look*]; Address by Bruce B. Wilson, *Patent and Know-How License Agreements: Field of Use, Territorial, Price and Quantity Restrictions*, Fourth New England Antitrust Conference, Nov. 6, 1970, in ANTITRUST PRIMER: PATENTS, FRANCHISING, TREBLE DAMAGE SUITS 11 (1970)

ment of Justice met with strong reaction, both from industry and from the patent bar. The concern of these groups is understandable: proprietary and contractual rights, as well as—arguably—the very philosophy of the patent system, are jeopardized. The debate between patent and antitrust champions continues to fill the pages of contemporary legal periodicals.[4]

The interest groups that resist antitrust scrutiny of field-of-use licensing invoke both doctrinal considerations and precedent. According to these groups, field-of-use licensing practices, irrespective of any anticompetitive effects they may have, are immune from antitrust enforcement, because such practices are inherently within the scope of the patent monopoly.[5] The Supreme Court, in *General Talking Pictures Corp. v. Western Electric Co.*,[6] has supported this doctrine of "inherency."[7]

[hereinafter Wilson]; Donnem, *The Antitrust Attack Upon Restrictive Patent Licenses*, 49 MICH. ST. B.J. 36 (1970); Stern, *Antitrust Implications of* Lear v. Adkins, 15 ANTITRUST BULL. 663 (1970); Stern, *The Antitrust Status of Territorial Limitations in International Licensing*, 14 IDEA 580 (1971) [hereinafter Stern, *Territorial Limitations*]; Turner, *Patents, Antitrust and Innovation*, 28 U. PITT. L. REV. 151 (1966) [hereinafter Turner, *Innovation*].

[4] *E.g.*, Address by George E. Frost, *Restrictions on Fields of Use and Territories*, Annual Meeting of the Antitrust Section of the American Bar Association, Aug. 7, 1973, in 42 ANTITRUST L.J. 633 (1973) [hereinafter Frost]; Address by Milton A. Handler, Mid-Winter Stated Meeting of the American Patent Law Association, Jan. 28, 1972, in 1972 AM. PAT. L. ASS'N BULL. 119 [hereinafter Handler]; Adelman & Jaress, *Patent-Antitrust Law: A New Theory*, 17 WAYNE L. REV. 1 (1971); Austern, *Fish Traps, Indians and Patents: The Antitrust Validity of Patent License Restrictions on Sales Price, Field of Use, Quantity, and Territory*, 28 U. PITT. L. REV. 181 (1966); Barton, *Limitations on Territory, Field of Use, Quantity and Price in Know-How Agreements with Foreign Companies*, 28 U. PITT. L. REV. 195 (1966); Baxter, *Legal Restrictions on Exploitation of the Patent Monopoly: An Economic Analysis*, 76 YALE L.J. 267 (1966); Buxbaum, *Restrictions Inherent in the Patent Monopoly: A Comparative Critique*, 113 U. PA. L. REV. 633 (1965); Gibbons, *Field Restrictions in Patent Transactions: Economic Discrimination and Restraint of Competition*, 66 COLUM. L. REV. 423 (1966) [hereinafter Gibbons, *Restrictions*]; Heyman, *Patent Licensing and the Antitrust Laws—A Reappraisal at the Close of the Decade*, 14 ANTITRUST BULL. 537 (1969); Jackson & Jackson, *Use Limitations in Patent Licenses*, 12 IDEA 657 (1968); Kadish, *Patents and Antitrust: Guides and Caveats*, 13 IDEA 83 (1969); Marquis, *Limitations on Patent License Restrictions: Some Observations*, 58 IOWA L. REV. 41 (1972); Miller, *Patent License Restrictions in the Prescription Drug Industry*, 53 VA. L. REV. 1283 (1967); Oppenheim, *The Patent-Antitrust Spectrum of Patent and Know-How License Limitations: Accommodation? Conflict? or Antitrust Supremacy?*, 15 IDEA 1 (1971); Stedman, *Acquisition of Patents and Know-How by Grant, Fraud, Purchase and Grant-Back*, 28 U. PITT. L. REV. 161 (1966); Turner, *The Patent System and Competitive Policy*, 44 N.Y.U.L. REV. 450 (1969) [hereinafter Turner, *Patent System*]; Note, *The Patent-Antitrust Balance: Proposals for Change*, 17 VILL. L. REV. 463 (1972).

[5] *See* Frost, *supra* note 4, at 637-38; Handler, *supra* note 4, at 124; Oppenheim, *supra* note 4, at 7-8.

[6] 304 U.S. 175, *aff'd on rehearing*, 305 U.S. 124 (1938).

[7] *See* text accompanying notes 18-24 *infra*.

The approach of the Department of Justice is less doctrinaire and more amorphous. Essentially, the Department takes the position that field-of-use licenses enjoy no blanket exemption from antitrust laws. Rather, each particular fact situation should be judged by a rule-of-reason standard.[8] The Department has so far declined to enumerate the circumstances under which it would consider field licensing legal. Apparently, it is satisfied to let the courts pick and choose among disparate theories and anticipates that acceptable standards will eventually emerge through an accretion of precedent.

The record of sharply contrasting positions has been amplified by Senate hearings on proposed legislation designed to stop what its proponents feel is an unwarranted attack upon the patent system.[9] These legislative initiatives failed: the so-called Scott Amendments,[10] which would have exempted field licensing from antitrust scrutiny, were never reported out of the Subcommittee on Patents, Trademarks and Copyrights of the Judiciary Committee.[11] Their demise was prompted by the Administration's inability to agree upon a common position to be taken toward the proposals. While the Department of Commerce supported the Scott Amendments, the Department of Justice opposed them. Consequently, the Administration's patent bill did not address itself to the problem of patent-antitrust. Former President Nixon's accompanying message

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[8] *See* McLaren, *Licensing*, *supra* note 3; McLaren, *Antitrust*, *supra* note 3; McLaren, *Recent Cases*, *supra* note 3, at 212; Stern, *Harmonizing*, *supra* note 3, at D4-D6; Stern, *Future Look*, *supra* note 3; Wilson, *supra* note 3, at 15-19; Donnem, *supra* note 3.

[9] *See Hearings on S. 643, S. 1253 and S. 1255 Before the Subcomm. on Patents, Trademarks, and Copyrights of the Senate Comm. on the Judiciary*, 92d Cong., 1st Sess., pts. 1 & 2 (1971) [hereinafter *Hearings*].

[10] Amendment No. 24 to S. 643, 92d Cong., 1st Sess. (1971), in *Hearings*, *supra* note 9, at 175-78.

[11] The Scott Amendments would have added to § 261 of S. 643 the following provision designed expressly to authorize limited licensing:

> An applicant, patentee, or his legal representative may also, at his election, waive or grant, by license or otherwise, the whole or any part of his rights under a patent or patent application and for the whole or any part of the United States, by exclusive or nonexclusive arrangement with a party or parties of his selection.

Hearings, *supra* note 9, at 176. For full measure, an additional paragraph appended to § 271 of S. 643 was to make abundantly clear that limited licensing would be entitled to an antitrust exemption:

> No patent owner shall be guilty of misuse or illegal extension of patent rights because he has entered into, or will enter only into—(1) an arrangement granting some rights under the patent but excluding specific conduct, if the conduct excluded would be actionable under this title. . . .

Hearings, *supra* note 9, at 177.

concludes that there "is no clearly demonstrated need or justification for introduction of any patent licensing proposals at this time."[12]

Thus, the matter is back in the lap of the courts. Most of the actions brought by the Antitrust Division are still pending.[13] The district court decisions, whichever side they may favor, will surely be appealed. Until some standards are established, patentees are left to cope with the uncertainty concerning the status of field licensing practices as best they can. The price of erring is high: those who disregard the bounds of antitrust laws may face government challenge to their patents' validity[14] and severe penalties such as denial of the right to enforce a valid patent[15] or imposition of com-

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[12] 119 CONG. REC. 17,902 (daily ed. Sept. 27, 1973). For a review of various legislative efforts reflecting the opinion of the patent bar, see Lee, *Licenses and Assignments*, 1974 AM. PAT. L. ASS'N BULL. 133.

[13] *See* note 2 *supra*. The only case which has reached the Supreme Court is United States v. Glaxo Group Ltd., 410 U.S. 52 (1973). It involved a cross-licensing arrangement between two English concerns, Imperial Chemical Industries Ltd. (ICI) and Glaxo Group Ltd. (Glaxo). The patents at issue related to griseofulvin, a drug used in the treatment of fungus diseases. Although the drug itself was unpatented, ICI had a patent on griseofulvin in tablet form, and Glaxo had a product patent on microsize griseofulvin—the most effective medicinal form of the drug. The firms licensed each other under an agreement that required the parties to condition sales of the drug on the purchaser's agreeing not to resell it in bulk form. Sales were made, subject to the bulk resale restrictions, to a limited group of third parties in the United States who, in addition, were granted licenses under the patents.

Thus, if the patents were valid, unauthorized purchasers of bulk griseofulvin from the American licensees could infringe the ICI patent. The defendants, however, declined to invoke their patent rights to justify the bulk sales restrictions—a strategy designed to preclude the Government from attacking the validity of the patents. *See* United States v. United States Gypsum Co., 333 U.S. 364, 386-88 (1948). While the district court held the bulk sales restrictions illegal, it refused to permit the Government to challenge patent validity or to order compulsory licensing and sale of bulk griseofulvin. United States v. Glaxo Group Ltd., 328 F. Supp. 709 (D.D.C. 1971).

The Supreme Court, in a 6-3 decision, affirmed the district court's holding that the bulk sales restrictions were illegal. However, the Court reversed the district court's refusal to permit the Government to challenge the validity of the patents and to order the mandatory, nondiscriminatory sales and licensing sought as relief. 410 U.S. 52 (1973). Although stopping short of permitting the Government to base an antitrust claim on the mere assertion that a patent is invalid, the Court's opinion considerably expands the Government's power to challenge patent validity, even when the patent is not relied on as a defense, as well as the courts' power to grant effective relief in antitrust cases. *Id.* at 57-64. *See generally* Day, *Relation of Patent Validity to Antitrust*, 39 ANTITRUST L.J. 801 (1971); Robinson, *Antitrust Developments: 1973*, 74 COLUM. L. REV. 163, 194 (1974), Sutton, *Glaxo: The New Role for the Justice Department*, 55 J. PAT. OFF. SOC'Y 478 (1973).

[14] *See* United States v. Glaxo Group Ltd., 410 U.S. 52, 57-60 (1973).

[15] The courts have used equitable principles to deny protection to a valid patent where the economic power conferred by the patent is used to engage in conduct "contrary to the public interest." Morton Salt Co. v. Suppiger, 314 U.S. 488, 492 (1942); Ansul Co. v. Uniroyal, Inc., 306 F. Supp. 541, 556-59 (S.D.N.Y. 1969), *aff'd*, 448 F.2d 872, 879-81 (2d Cir. 1971), *cert. denied*, 404 U.S. 1018 (1972). The "public

pulsory licensing.[16] Moreover, patentees may find themselves in the unenviable role of defendants in treble damage actions. In view of the severity of these consequences, clarity in the law is manifestly desirable.

This Article will propose a framework for antitrust analysis of field-of-use restrictions which, if adopted, would dispel the confusion engendered by the Justice Department's diffuse approaches.[17] To the extent that the policy considerations outlined are applicable to patent exploitation in general, our suggestions might be fruitfully employed in other areas. At this stage, however, it seems advisable to narrow the scope of discussion to a single area of current controversy—field-of-use licensing restrictions. The inquiry must begin with an examination of the roots and rationale of the inherency doctrine.

II

THE INHERENCY DOCTRINE AS A SHELTER FOR FIELD-OF-USE LICENSING PRACTICES

A. *Inherency and* General Talking Pictures

The case most frequently cited for the proposition that field-of-use licenses are legal per se is *General Talking Pictures Corp. v. Western Electric Co.*[18] General Electric, Western Electric and R.C.A. had pooled certain patents relating to amplifiers. They assigned various commercial-use fields for exclusive exploitation by designated members of the pool, but freely granted licenses to manufacturers of products intended for use in homes. Since amplifiers incorporating the invention could be used interchangeably in all fields, the home-use licenses contained a provision which precluded sales to commercial users and required that a notice of that restriction be placed on each amplifier. One such licensee deliberately sold an amplifier to General Talking Pictures, which was aware of the restriction, for commercial use with motion picture equipment.

The basic issue in the litigation was whether the restriction

interest" is particularly affected when the patent is used in a manner inconsistent with antitrust policy. To the extent that the concept of "public interest" is employed to condemn conduct that conforms to the antitrust laws, the soundness of the doctrine seems questionable. *See generally* Nicoson, *Misuse of the Misuse Doctrine in Infringement Suits*, 9 U.C.L.A.L. REV. 76 (1962).

[16] *See* United States v. Glaxo Group Ltd., 410 U.S. 52, 60-64 (1973), *discussed in* note 13 *supra*.

[17] *See* text accompanying notes 104-23 *infra*.

[18] 304 U.S. 175, *aff'd on rehearing*, 305 U.S. 124 (1938).

could be enforced against General Talking Pictures;[19] the Supreme Court held that it could. However, the Justices also discussed the underlying field-of-use restrictions, which the majority believed to be proper. The language used by the Court has been taken as an indication of approval of the so-called inherency doctrine. The majority opinion in *General Talking Pictures* states:

> Patent owners may grant licenses extending to all uses or limited to [a] use in a defined field. . . . Unquestionably, the owner of a patent may grant licenses to manufacture, use or sell upon conditions not inconsistent with the scope of the monopoly. *Bement* v. *National Harrow Co.*, 186 U.S. 70, 93 [1902]. . . .[20]

On rehearing in *General Talking Pictures*, the majority, relying on history and commercial practice, amplified its position:

> That a restrictive license is legal seems clear. . . . The practice of granting licenses for a restricted use is an old one . . . . So far as appears, its legality has never been questioned. The parties stipulated that
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> > "it is common practice where a patented invention is applicable to different uses, to grant written licenses to manufacture under United States Letters Patents restricted to one or more of the several fields of use permitting the exclusive or non-exclusive use of the invention by the licensee in one field and excluding it in another field."[21]

Nor did the Court feel that the doctrine lacked precedent: both the original opinion and the opinion on rehearing cite *United States v. General Electric Co.*[22] and earlier cases[23] to support the conclusion

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[19] The petition for a writ of certiorari submitted three questions for Supreme Court review. One of them related to the manner in which certain patents were obtained; the remaining two, pertinent to the issue of field licensing, read as follows:

1. Can the owner of a patent, by means thereof, restrict the use made of a device manufactured under the patent, after the device has passed into the hands of a purchaser in the ordinary channels of trade, and full consideration paid therefor?
2. Can a patent owner, merely by a license notice attached to a device made under the patent, and sold in the ordinary channels of trade, place an enforceable restriction on the purchaser thereof as to the use to which the purchaser may put the device?

Id. at 177.

[20] *Id.* at 181.

[21] 305 U.S. at 127.

[22] 272 U.S. 476 (1926). For a discussion of this case, see text accompanying notes 52-63 *infra*.

[23] Bement v. National Harrow Co., 186 U.S. 70 (1902); Mitchell v. Hawley, 83 U.S. (16 Wall.) 544 (1872); Rubber Co. v. Goodyear, 76 U.S. (9 Wall.) 788 (1869).

that field licensing is a lawful exercise of rights within the scope of the patent monopoly.[24]

B. *The Doctrine Stated*

As it has since developed,[25] the inherency doctrine would insulate from antitrust attack any conditions imposed by the patentee so

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[24] Conspicuously lacking in the opinions written for the majority by Justice Butler and, on rehearing, by Justice Brandeis is any discussion of the propriety of the underlying pooling arrangement. An arguably analogous pooling arrangement was struck down as part of a scheme to control prices in contravention of the Sherman Act in United States v. Line Material Co., 333 U.S. 287 (1948). The *General Talking Pictures* agreement contained additional objectionable features. Professor Gibbons points out that Western Electric did not (as the opinions intimated it did) sell separate patented amplifiers to manufacturers of sound reproduction equipment but rather sold the devices only as a component of an unpatented system. Gibbons, *Restrictions*, *supra* note 4, at 448. Thus, a refusal to sell was used to buttress a tie-in. While it has been suggested that tying the sale of a patented component to the purchase of a complete system does not violate the antitrust laws, *see* Turner, *The Validity of Tying Arrangements Under the Antitrust Laws*, 72 HARV. L. REV. 50, 69-70 (1958), there is authority to the contrary. *See* Stearns v. Tinker & Rasor, 252 F.2d 589, 602-04 (9th Cir. 1957); Cardox Corp. v. Armstrong Coalbreak Co., 194 F.2d 376, 382-83 (7th Cir. 1952); Baldwin-Lima-Hamilton Corp. v. Tatnall Measuring Systems Co., 169 F. Supp. 1, 25-31 (E.D. Pa. 1958), *aff'd per curiam*, 268 F.2d 395 (3d Cir. 1959). For a brief history of the electronic patent pool, see L. WOOD, PATENTS AND ANTITRUST LAW 128-44 (1942).

[25] Lower courts, feeling bound by *General Talking Pictures*, have tended to uphold various field restrictions without analysis of their economic effects. *See, e.g.*, Armstrong v. Motorola, Inc., 374 F.2d 764 (7th Cir. 1967); Bela Seating Co. v. Poloron Prods., Inc., 297 F. Supp. 489 (N.D. Ill. 1968), *aff'd*, 438 F.2d 733 (7th Cir. 1971); Barr Rubber Prods. Co. v. Sun Rubber Co., 277 F. Supp. 484 (S.D.N.Y. 1967); Ethyl Corp. v. Hercules Powder Co., 232 F. Supp. 453 (D. Del. 1964).

However, circumstances have at times compelled closer scrutiny and prompted the courts to strike down certain restrictions. Although these cases recognize the danger of blind application of inherency reasoning, they fail to enunciate any unified approach to delimitation of the doctrine. For example, in Baldwin-Lima-Hamilton Corp. v. Tatnall Measuring Systems Co., 169 F. Supp. 1 (E.D. Pa. 1958), *aff'd per curiam*, 268 F.2d 395 (3d Cir. 1959), Baldwin held a patent on a strain gauge which could be attached to a number of different machine parts. The licensees—manufacturers of various types of machinery—were each permitted to produce 10% of their strain gauge requirements; the other 90% had to be purchased from Baldwin. The licensees were allowed to sell the gauge only in conjunction with the machines they produced, thus tying the purchase of the gauge to the purchase of the machinery. The royalties were measured by reference to the sales of the entire product. Since the strain gauge added to the utility of their machinery, the licensees, each exclusive in its field, obtained a substantial competitive advantage. Baldwin, in turn, could reap a portion of the licensees' monopoly profits. The court held this arrangement illegal because Baldwin attempted to restrict the use of the patented product beyond the first sale to the licensees. However, the real vice of the restraint was the creation of a marketing scheme that could be considered unlawful tying if practiced by the patentee. *See* text accompanying notes 41-51 *infra*.

Judicial opinion is split on whether a patentee may restrict the use of patented products sold by it to a specific field to prevent arbitrage transactions. *Compare* United States v. Consolidated Car-Heating Co., 87 U.S.P.Q. 20 (S.D.N.Y. 1950), *with* Chemagro Corp. v. Universal Chem. Co., 244 F. Supp. 486 (E.D. Tex. 1965), long as such conditions merely relax the right to exclude others entirely from the exploitation of the invention.[26] It is premised on the idea that once the law confers a monopoly, a patentee is free to take advantage of it in whatever form or fashion desired.[27]

Neither the exemption from antitrust challenge nor the principle from which it is claimed to be derived, however, finds support in the text of the patent statute. Nor is there any mention of either in the antitrust laws. Essentially, the "principle" amounts to a mere argument which runs like this: since a patentee has a legal monopoly in the patented product or process, he must be permitted to enter into any kind of agreement—whether otherwise in restraint of trade or not—as long as that agreement in effect relaxes rather than broadens or buttresses the patent monopoly.

This reasoning finds a parallel in the argument of manufacturers who claim that, since a vertically integrated concern can fix retail prices, they should also be able to do so through contracts with independent retailers. It is asserted that the mere choice of marketing practices should not imply any lessening of the manufacturer's inherent power to sell at a price of its own determination.[28] In a similar vein, the inherency theory implies that whatever the owner of technology could do through complete integration should be permissible by means of licensing. This view has not been persuasive in

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and Ansul Co. v. Uniroyal, Inc., 306 F. Supp. 541 (S.D.N.Y. 1969), *aff'd on other grounds*, 448 F.2d 872 (2d Cir. 1971), *cert. denied*, 404 U.S. 1018 (1972).

In Prestole Corp. v. Tinnerman Prods., Inc., 271 F.2d 146 (6th Cir. 1959), the licensee was barred from selling the patented product in conjunction with an unpatented feature that had once been the subject of a patent held by the licensor. The court viewed this as an attempt by the patentee to extend the life of the expired patent and invalidated the restraint.

In Vitamin Technologists, Inc. v. Wisconsin Alumni Research Foundation, 146 F.2d 941 (9th Cir. 1944), the patentee granted licenses on a process for the manufacture of Vitamin D to certain dairies. The terms of these licenses precluded the use of the process for manufacturing oleomargarine. The opinion of the court suggests that this scheme amounted to an illegal attempt to suppress the consumption of oleomargarine.

See also United States v. Univis Lens Co., 316 U.S. 241 (1942); Ethyl Gasoline Corp. v. United States, 309 U.S. 436 (1940).

[26] Theoretically, licensing practices encompassed by the scope of the patent grant would include only "limited licenses"—the imposition of field restraints by "condition" rather than by "covenant." *See* note 40 *infra*. Courts may, however, be inclined to apply the inherency doctrine to field restraints of a merely contractual nature. *See, e.g.*, Ethyl Corp. v. Hercules Powder Co., 232 F. Supp. 453 (D. Del. 1964); *cf.* A. & E. Plastik Pak Co. v. Monsanto Co., 396 F.2d 710 (9th Cir. 1968).

[27] *See* Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 519-21 (1917) (Holmes, J., dissenting).

[28] *See, e.g.*, Dr. Miles Medical Co. v. John D. Park & Sons Co., 220 U.S. 373 (1911). The Court said:

> The basis of the argument appears to be that, as the manufacturer may make and sell, or not, as he chooses, he may affix conditions as to the use of the article

antitrust law generally,[29] and it has been increasingly rejected in the area of patent-antitrust.[30]

Nevertheless, the inherency doctrine is still espoused by some judges[31] and serious writers,[32] who may be beguiled by abstract logic, impressed by the need for symmetry in the law or concerned about the danger of eroding patent rights. The contention is that the right of the patentee to exclude others from "making, using or selling"[33] implies the right to choose licensees and to license less than the full patent monopoly.[34] Would it not be illogical to grant the power of total exclusion or to allow the patentee to keep the invention off the market altogether[35] but to withhold the power to

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> or as to the prices at which purchasers may dispose of it. The propriety of the restraint is sought to be derived from the liberty of the producer.

Id. at 404. The same argument would apply to the selection of customers. *See, e.g.*, United States v. Arnold, Schwinn & Co., 388 U.S. 365 (1967). *See generally* FTC v. Sun Oil Co., 371 U.S. 505 (1963); Standard Oil Co. v. United States, 337 U.S. 293 (1949).

[29] *See, e.g.*, Dr. Miles Medical Co. v. John D. Park & Sons Co., 220 U.S. 373, 404 (1911) ("[B]ecause a manufacturer is not bound to make or sell, it does not follow that in the case of sales actually made he may impose on purchasers every sort of restriction.")

[30] *See* note 25 *supra*.

[31] *See, e.g.*, A. & E. Plastik Pak Co. v. Monsanto Co., 396 F.2d 710, 715 (9th Cir. 1968) ("A patent is a legal monopoly and any waiver of the monopoly expands rather than diminishes its availability to the public."); Ethyl Corp. v. Hercules Powder Co., 232 F. Supp. 453, 457 (D. Del. 1964) ("As long as [the patentee] had a valid patent . . . [he] could control the commercial production of the unpatented product by the legitimate manipulation of his patent monopoly.").

[32] *See* authorities cited in note 5 *supra*.

[33] 35 U.S.C. § 154 (1970).

[34] "If the limitation is within the monopoly of the patent grant, it is per se lawful." Oppenheim, *supra* note 4, at 8.

> Field-of-use licensing, by its very nature, *does not* result in the creation of a monopoly beyond that embraced by the patented invention. All that such a practice accomplishes is the licensing of *less than* the entire monopoly conferred by the Patent Office. This is so obvious that it is difficult to apprehend why those challenging field-of-use licensing confuse it with schemes designed to enlarge the monopoly behind its proper scope. . . .

Handler, *supra* note 4, at 124 (emphasis in original).

> This brings us to the second category of patent license cases, namely, limited licenses that merely waive part but not all of the patent right to exclude. As to the licensed conduct, such license permits competition that the patentee could otherwise prevent. As to the conduct not licensed, it is within the patent right to exclude and the failure to license thus does not detract from the competition that can take place. . . .

Frost, *supra* note 4, at 637.

[35] *See, e.g.*, Special Equip. Co. v. Coe, 324 U.S. 370, 378-79 (1945); Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U.S. 405, 422-30 (1908). *But see* Vitamin Technologists, Inc. v. Wisconsin Alumni Research Foundation, 146 F.2d 941 (9th Cir. 1944); Nerney v. New York, N.H. & H.R.R., 83 F.2d 409 (2d Cir. 1936) (emphasizing the equitable and discretionary nature of injunctions in infringement cases); City of Milwaukee v. Activated Sludge, Inc., 69 F.2d 577 (7th Cir.), *cert. denied*, 293 U.S. 576 (1934) (refusal to grant injunction against infringement on the grounds of public health

exclude partially?[36] Does not the bar to competition inhering in a total monopoly entail a higher social cost than a partial exclusion of competition in several discrete subdivisions of that monopoly?[37] Defenders of patent rights shore these cerebral assertions with both patent and antitrust policy arguments. Since the patent system is designed to confer monopolies to stimulate invention, an inventor who has earned a patent might argue that he should be allowed to exploit that reward as he pleases.[38] From the vantage point of antitrust policy, any relaxation of a statutory monopoly can be viewed as necessarily increasing rather than diminishing competition.[39] In part the continued vitality of the inherency doctrine is attributable to a penchant for conceptualistic niceties.[40] Yet even without committing themselves to functional approaches, the courts have hacked inroads into the inherency thicket.

C. *Tying and Price-Fixing Cases*

The idea that a patentee should have unbridled licensing powers antedates *General Talking Pictures*. In a number of early deci-

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and safety). The right to suppress may be more hypothetical than real, given the natural self-interest of patentees. It seems doubtful whether such a right would be recognized by American courts in the case of a truly epochal invention, *e.g.*, a drug that cures cancer. The most recent example of a court's refusal to grant an injunction in a patent case is Foster v. American Mach. & Foundry Co., 492 F.2d 1317 (2d Cir.), *cert. denied*, 419 U.S. 833 (1974). *See* Symposium, 2 AM. PAT. L. ASS'N Q.J. 144 (1974).

[36] *See* Handler, *supra* note 4, at 124.

[37] In field-of-use licensing, no less than in mathematics, the whole cannot be greater than the sum of its parts. . . . Without the license, none of the licensees could practice the invention in any of the fields. . . . Thus, it is not the field-of-use restriction which impedes competition—that stems from the issuance of the patent. Indeed, it is the license which lowers or eliminates the barrier to entry.

Id.

[38] Oppenheim, *supra* note 4, at 5-6.

[39] Viewed from the standpoint of the patent right to exclude, and as a waiver of a part of that right, a price limited license permits competition that otherwise would not occur and therefore attains rather than frustrates the purposes of the antitrust laws. . . .

Frost, *supra* note 4, at 641.

[40] For example, some commentators, reaching the heights of conceptualism, advance the terms "condition" and "covenant" as touchstones for analysis. *See, e.g.*, *id.* at 642. This pair of concepts mirrors the distinction between the conceptual categories of property and contract. Proponents of this refinement would exempt from antitrust challenge all restraints imposed through limited licensing, *i.e.*, the grant of less than the full range of activity protected by the patent, in contrast to restraints premised on contractual undertakings given by licensees. It is difficult to see the economic significance of this distinction. Most field-of-use restraints can be drafted in either form, since conditions and covenants are operatively indistinguishable. It should make no difference whether a licensee receives a grant to exploit one defined field rather than an unrestricted license to work the entire invention upon the promise to refrain from exploiting all other fields. *See* Baxter, *supra* note 4, at 278-79.

sions, licensing freedom was assumed without discussion.[41] This judicial permissiveness was first questioned in a series of cases which dealt with the practice of selling or leasing patented machines on the condition that unpatented supplies be purchased from the patentee. Because these "tying" practices are but another method of fully exploiting the patent monopoly, judicial disapproval of such restrictions undermines the foundation of the inherency doctrine. Threatening the doctrine as they do, however, these tying cases fail to furnish a litmus test for distinguishing objectionable from acceptable licensing.

The sale of competing products to purchasers or lessees bound by tying stipulations was originally considered to be a patent infringement.[42] In *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*,[43] however, a narrow Supreme Court majority held that the owner of a patented machine did not have the right to control his licensee's purchase of unpatented supplies used in conjunction with the machine. Apparently, the Justices sensed that to hold otherwise would sanction practices which Congress had intended to proscribe by Section 3 of the Clayton Act.[44] This trend away from inherency in tying cases culminated in *Mercoid Corp. v. Mid-Continent Investment Co.*,[45] which held that a patentee could not control an unpatented product even if its only commercial use was to serve as a vital part of the patented item.[46]

Whatever criticism may be levelled at these decisions,[47] they indicate that the Supreme Court will not, in all circumstances, be receptive to the argument that a patentee is free to license as he chooses. Thus, they shed doubt on the premise of the inherency doctrine.[48] Demonstrably, a valid distinction cannot be logically

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[41] *See, e.g.*, Mitchell v. Hawley, 83 U.S. (16 Wall.) 544 (1872); Rubber Co. v. Goodyear, 76 U.S. (9 Wall.) 788, 799 (1869).

[42] *See* Henry v. A.B. Dick Co., 224 U.S. 1, 48-49 (1912); Heaton-Peninsular Button-Fastener Co. v. Eureka Specialty Co., 77 F. 288 (6th Cir. 1896).

[43] 243 U.S. 502 (1917).

[44] *See id.* at 517-18. *See also* 15 U.S.C. § 14 (1970). The terms of this provision clearly covered the practice. However, the patent had been issued and the licenses had been granted prior to the statute's enactment. By holding as it did, the Court avoided the retroactivity issue. *See* Powell, *The Nature of a Patent Right*, 17 COLUM. L. REV. 663, 684-85 n.51 (1917).

[45] 320 U.S. 661 (1944). *See also* Mercoid Corp. v. Minneapolis-Honeywell Regulator Co., 320 U.S. 680 (1944). *See generally* Wood, *The Tangle of Mercoid Case Implications*, 13 GEO. WASH. L. REV. 61 (1944).

[46] 320 U.S. at 665.

[47] *See, e.g.*, W. BOWMAN, PATENT AND ANTITRUST LAW 157-82 (1973). The antitrust doctrine of abuse of monopoly—using the leverage a lawful monopoly confers in one market to affect a second market—is reviewed in Hawk, *Attempts to Monopolize—Specific Intent as Antitrust's Ghost in the Machine*, 58 CORNELL L. REV. 1121, 1127-29, 1156-59 (1973).

[48] Powell, *supra* note 44, at 666-68, 675-78, 686.

drawn between various forms of licensing—all of which merely represent the exercise of monopoly power.[49] If one accepts the validity of the inherency reasoning, tying cannot be logically differentiated from other forms of limited licensing, despite the fact that it involves unpatented materials. As the Supreme Court said in *Henry v. A.B. Dick Co.*,[50] one of the early cases that permitted tying:

> [T]here is no difference, in principle, between a sale subject to specific restrictions as to the time, place or purpose of use and restrictions requiring a use only with other things necessary to the use of the patented article purchased from the patentee.[51]

The point is further illustrated by the unconvincing argument the Court used in *United States v. General Electric Co.*[52] to distinguish *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*,[53] the case which overruled *Henry v. A.B. Dick Co.* To justify its conclusion that General Electric should be permitted to control the pricing of patented products made by Westinghouse, its licensee and largest competitor, the Court asserted that

> [t]he price at which a patented article sells is certainly a circumstance having a more direct relation, and is more germane to the rights of the patentee, than the unpatented material with which the patented article may be used. Indeed, as already said, price fixing is usually the essence of that which secures proper reward to the patentee.[54]

In *General Electric*, however, Chief Justice Taft, perhaps sensing that something more than this question-begging distinction was required, coined the "reasonably-within-the-reward" test: restrictions would be allowed when "reasonably adapted to secure pecuniary reward for the patentee's monopoly."[55] Clearly, the rule "does not

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[49] *See* Henry v. A.B. Dick Co., 224 U.S. 1, 35-36 (1912). That tying is logically encompassed by the inherency doctrine is shown by the reliance placed in Bement v. National Harrow Co., 186 U.S. 70, 90 (1902) (price-fixing license), on Heaton-Peninsular Button-Fastener Co. v. Eureka Specialty Co., 77 F. 288 (6th Cir. 1896) (tying license); and in Henry v. A.B. Dick Co., 224 U.S. 1, 29 (1912) (tying license), on *Bement*. Each of these cases employed inherency reasoning to uphold the various restrictions whether they consisted of tying or price-fixing. There is, however, a practical difference between the restrictions in that tying is never advantageous to the licensee, while price-fixing may be.

[50] 224 U.S. 1 (1912).

[51] *Id.* at 35-36.

[52] 272 U.S. 476 (1926).

[53] 243 U.S. 502 (1917).

[54] 272 U.S. at 493.

[55] *Id.* at 490.

provide a working basis for distinguishing a desirable from an undesirable licensing arrangement."[56]

The problems these tests present in practical application are illustrated by the reaction of the lower courts. Initially accepting *General Electric* at face value, they allowed all manner of price-fixing.[57] Subsequently, they narrowed the precedent, arguing that the patentee has inherent power to control only the product or process precisely defined by the patent claims.[58] Certainly restrictions not confined to the narrow control of the patented invention can be calculated to maximize return from the patent monopoly. To say that the patentee is not reasonably entitled to employ such restrictions to secure his rightful reward merely clouds the analysis. In fact, the confusion engendered by "reasonably-within-the-reward" inherency has led, as will be shown, to assertions that perfectly innocuous conduct should be illegal because it is "outside" the patent grant and, conversely, that objectionable practices should be legal per se because they are "within."

When the Antitrust Division launched an all-out attack on *General Electric*, it suffered defeat in *United States v. Line Material*

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[56] Furth, *Price-Restrictive Patent Licenses Under the Sherman Act*, 71 HARV. L. REV. 815, 816 (1958).

[57] *See, e.g.*, Straight Side Basket Corp. v. Webster Basket Co., 82 F.2d 245 (2d Cir. 1936) (price-fixing on unpatented products made by a patented machine permissible); General Electric Co. v. Willey's Carbide Tool Co., 33 F. Supp. 969 (E.D. Mich. 1940) (price-fixing of complete tool incorporating patented tool bit permissible).

[58] Thus it has been held that before the patentee can control a product's price, the licensed patent must cover the very product sold by the licensee. United States v. General Electric Co., 80 F. Supp. 989 (S.D.N.Y. 1948). Such a rule, precluding price control of unpatented articles, leaves the licensee free to cut prices on auxiliary items, thereby granting disguised price cuts to buyers and subjecting the patentee and other licensees to price competition. Also, courts have declined to permit price-fixing with respect to products manufactured under patented processes, even though the patent may confer effective control over production of the product. Cummer-Graham Co. v. Straight Side Basket Corp., 142 F.2d 646 (5th Cir.), *cert. denied*, 323 U.S. 726 (1944); Barber-Colman Co. v. National Tool Co., 136 F.2d 339 (6th Cir. 1943).

Furthermore it has been suggested that *General Electric* does not permit non-manufacturing licensors to impose price controls. *See* United States v. Vehicular Parking Ltd., 54 F. Supp. 828, 838 (D. Del. 1944), *modified on other grounds*, 61 F. Supp. 656 (1945). *But see* Royal Indus. v. St. Regis Paper Co., 420 F.2d 449 (9th Cir. 1969). One circuit has held that *General Electric* does not sanction price-fixing where multiple licenses are granted. Newburgh Moire Co. v. Superior Moire Co., 237 F.2d 283, 292 (3d Cir. 1956); Tinnerman Prods., Inc. v. George K. Garrett Co., 185 F. Supp. 151 (E.D. Pa. 1960), *aff'd*, 292 F.2d 137 (3d Cir.), *cert. denied*, 368 U.S. 833 (1961). *See generally* Furth, *supra* note 56; Gibbons, *Price Fixing in Patent Licenses and the Antitrust Laws*, 51 VA. L. REV. 273 (1965) [hereinafter Gibbons, *Price Fixing*]. None of these limitations on *General Electric* can be rationalized if the patentee's power to control the licensees' marketing activities inheres in the patent grant and is therefore immune to antitrust constraints.

Co.[59] at the hands of an evenly divided Court.[60] In *Line Material* blocking patents were pooled, and the patentees agreed to license all applicants who would sell at the price imposed by the pool. The four Justices who were prepared to overrule *General Electric* argued that price-fixing provisions had, of necessity, anticompetitive effects. They reasoned that such restraints, assuring licensees easy markets and stable profits, suppress incentives to attack patents either by "inventing around" or by challenging patent validity in the courts. The "relaxation" of the monopoly through licensing would, therefore, have greater anticompetitive effects than the retention of the entire monopoly by virtue of the patentee's refusal to license.[61] In contrast, those who would have reaffirmed *General Electric* simply and simplistically reasoned that the public was not harmed by anticompetitive arrangements "within the scope" of the patent monopoly.[62]

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[59] 333 U.S. 287 (1948).

[60] The scope of the attack is reflected in the list of pending cases referred to in Justice Reed's opinion in United States v. Line Material Co., 333 U.S. 287, 301 n.15 (1948). *See also* United States v. United States Gypsum Co., 340 U.S. 76 (1950); United States v. United States Gypsum Co., 333 U.S. 364 (1948); United States v. Masonite Corp., 316 U.S. 265 (1942). The Justice Department's latest attempt to have *General Electric* overruled was made in United States v. Huck Mfg. Co., 382 U.S. 197 (1965), *aff'g* 227 F. Supp. 791 (E.D. Mich. 1964). In the district court the Government had expressly waived any intention to challenge the *General Electric* rule, but it then tried to withdraw that waiver in the Supreme Court. This about-face, which might have seriously prejudiced the defendant, did not sit well with some of the Justices. *See* Clark, *"To Promote the Progress of . . . Useful Arts,"* 43 N.Y.U.L. REV. 88, 99 (1968). But for this peccadillo, *General Electric* might have been laid to rest. *See generally* Gibbons, *Restrictions, supra* note 4, at 456-57 n.93.

[61] Mr. Justice Douglas said:

> The patentee creates by that method a powerful inducement for the abandonment of competition, for the cessation of litigation concerning the validity of patents, for the acceptance of patents no matter how dubious, for the abandonment of research in the development of competing patents. Those who can get stabilized markets, assured margins, and freedom from price cutting will find a price fixing license an attractive alternative to the more arduous methods of maintaining their competitive positions. Competition tends to become impaired not by reason of the public's preference for the patented article but because of the preference of competitors for price fixing and for the increased profits which that method of doing business promises.

333 U.S. at 319 (concurring opinion). *See also* United States v. Masonite Corp., 316 U.S. 265, 280-82 (1942).

[62] The opinion of Justice Burton in *Line Material* may be the most elaborate judicial statement of the "in-out" inherency doctrine. *See* 333 U.S. at 341-53 (Burton, J., dissenting). Justice Reed, who otherwise agreed with Justice Burton, voted for the Government because of the "patent-pooling" aspect of the case, even though a license under both the basic and the improvement patent involved was essential to the manufacture of a commercially viable product. Justice Burton pointed out that this defection was irrational if one assumes the soundness of the inherency doctrine. *Id.* at 353-61. However, Justice Reed's position accords with that taken in other judicial

Thus *General Electric* has never been expressly overruled, even though its holding has been frequently questioned by lower courts.[63] While the case may no longer be of great practical significance, it retains some viability as a precedent supporting the inherency doctrine. Yet the split in *Line Material* not only reveals the weakness of the precedent, it also outlines the grounds on which the Court can be expected to ultimately reject that doctrine.

D. *The Fallacy of Inherency*

The most beguiling aspect of the inherency doctrine—and the underlying rationale for much of Justice Burton's dissent in *Line Material*—is the seemingly irrefutable logic that no harm is done by allowing the recipient of a monopoly to slice it up into as many different pieces as he wishes: society will still have given only one pie. This reasoning sounds convincing; its allure has seriously impeded a common-sense evaluation of patent licensing practices.

The "logic" is flawed. The fallacy of the inherency argument was demonstrated almost 60 years ago by Thomas Reed Powell, who pointed out that the resolution of patent-antitrust problems depends not on inexorable logic but on practical judgment. As he demonstrated, the fly in the syllogistic ointment is the tacit assumption that patent rights are divisible at the patentee's whim, an assumption not supported by the Constitution or the patent statute. On the contrary, it would be entirely rational to hold that patent rights are indivisible by nature: that the patentee's option is either to exclude others entirely or not to exclude them at all.[64] Arguably, such a holding would be well in line with patent policy, at least if one assumes that the power to grant restricted licenses, *i.e.*, divisi-

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opinions which, while paying lip service to *General Electric* and the inherency doctrine, have found some basis, however illogical, for refusing to follow it. *See* note 58 *supra*.

[63] *See* note 58 *supra*.

[64] Though the patentee may exclude others from all uses, it does not follow that when he does not seek to exclude from all, he may exclude from some but not all. Partial exclusion is different from total exclusion because it has different consequences. Speaking mathematically, total exclusion is the sum of all possible partial exclusions, and the whole includes all its parts. But it does not follow that rights with respect to all of the parts collectively are rights with respect to any isolated part. Our problem is not one of mathematics. Because a state may exclude all women from the electorate, it does not follow that it may admit those of one complexion and exclude those of another. Because a state may forbid all persons to peddle without a license, it does not follow that it may . . . forbid those who have not been soldiers or sailors and permit those who have. Because a patent gives the right to exclude others from all uses, it does not necessarily give the right to exclude from some but not all.

Powell, *supra* note 44, at 678 (citations omitted).

bility, is at best a marginal inducement to invention.[65] Eschewing any extremes, one might say that patent rights are divisible only up to the point where fractionalization runs afoul of both patent and antitrust policy.

The adherents of inherency, solely concerned with determining whether a right conferred by licensing is "within" or "outside" the grant, ignore the practical realities of licensing. The justifications they advance are grounded not on patent or antitrust policies but on logical propositions independent of either. These static, casuistic approaches[66] disregard practical considerations of major significance, such as the importance and strength of the patent involved and the respective economic power and interests of licensors and licensees—the very dynamics of the patent system. This omission is inexcusable: licensing techniques should be evaluated with respect to economic realities. They should stand or fall on their own merits, without the specious support of the inherency doctrine. We must therefore consider the impact of field-of-use licensing practices upon the economic goals of the patent system.

III

PATENT POLICY AND FIELD-OF-USE LICENSING

Implicit in all arguments favoring broad antitrust exemptions for licensing practices is the desire to reward a patentee who has, after all, brought forth an invention that might not otherwise have been made.[67] It is of course true that the patent law is designed to stimulate creative activity by granting the patentee a monopoly in the invention. But the fact that the inventor is entitled to the enviable status of a monopolist does not necessarily imply that he should also be entitled to monopoly profits, no matter how obtained.[68]

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[65] *See* Turner, *Patent System*, *supra* note 4, at 459-60.

[66] The most prominent recent article adopting the "in-out" version of inherency is Oppenheim, *supra* note 4. This article suggests that the "reasonably-within-the-reward" test of *General Electric* places "outside the normal and pecuniary reward of the patentee only license restrictions which extend the monopoly grant to control any product, service or other subject matter not within the scope of the patent." *Id.* at 5. The problem is, of course, the lack of appropriate criteria to determine what falls inside and what outside the reward. Simply to assert that price-fixing licenses are "without" and field licenses are "within" sounds like a question-begging proposition designed to salvage as much of the inherency theory as the cases will allow. *See id.* at 15-16. Thus, this "in-out" version of inherency is no more plausible than the attempt to distinguish between covenant and condition. *See* note 40 *supra*.

[67] "An inventor deprives the public of nothing which it enjoyed before his discovery, but gives something of value to the community by adding to the sum of human knowledge." United States v. Line Material Co., 333 U.S. 287, 339 (1948) (Burton, J., dissenting).

[68] Ironically, the Supreme Court first departed from the inherency doctrine to

Viewed as a means to an end, patent incentives should comport with the social policy to which they owe their existence. Licensing practices whose social cost is greater than their social benefit ought not be sanctioned. Thus an optimal reward scheme should, as nearly as possible, effectively stimulate invention, but never compensate the patentee beyond the value of his invention to society.[69] As the concurring opinion in *Line Material* intimates, it is within this framework, not that of a conceptualistic doctrine, that field-of-use licensing should be analyzed.

A. *The Rationale of the Patent System*

The patent system is of course designed to promote inventions and their commercialization by granting monopoly rewards. If one were to assume that no inventions would be developed in its absence, any such rewards would simply be a quid pro quo for successful efforts that demonstrably benefit the public.[70] Any output restrictions imposed in consequence of the monopolies granted would be irrelevant, since but for the system there would be no output.

In truth, however, at least some inventions would be forthcoming even if there were no patent protection.[71] Output restrictions relating to inventions that would have been made without inducement represent a social cost,[72] which should be weighed against the

condemn tying practices which arguably should be permissible, *see* BOWMAN, *supra* note 47, at 53-119, while refusing to repudiate inherency in areas where the adverse effects on competition are considerably more immediate and serious.

[69] Given a finite amount of resources available for use in innovative activity, "effective" stimulation of invention requires that the reward should be "no more than is necessary to attract to [inventive] activity those inputs which, if invested in any other activity, would yield a product of lesser social value." Baxter, *supra* note 4, at 268.

[70] Except, of course, that the statutory monopoly period may be longer than that which would in fact have induced the efforts that brought forth the invention.

[71] Other incentives besides patent protection encourage inventors. Some will invent because they must. Enterprises derive considerable business advantage from a mere headstart in the use or production of the invention. Corporations in concentrated sectors of high demand and few producers may not fear rapid copying by competitors which could not cut into their market share. In addition, trade secret laws may furnish a modicum of protection sufficient to stimulate inventive efforts. *See generally* F. SCHERER, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 384-90 (1970).

[72] *See Panel Discussion*, 56 AM. ECON. REV. 311, 315 (1966) (special issue). The literature concerning the relationship between the patent system and economic welfare is extensive. *See, e.g.*, SCHERER, *supra* note 71, at 379-99; Arrow, *Economic Welfare and the Allocation of Resources for Invention*, in THE RATE AND DIRECTION OF INVENTIVE ACTIVITY: ECONOMIC AND SOCIAL FACTORS 609 (1962); Demsetz, *Information and Efficiency: Another Viewpoint*, 12 J. LAW & ECON. 1 (1969); McGee, *Patent Exploitation: Some Economic and Legal Problems*, 9 J. LAW & ECON. 135 (1966).

benefits provided by the patent system.[73] The law solves this problem in a summary fashion: it reserves its rewards to inventions not obvious to one skilled in the art.[74] While this mechanism may at times award a prize to a random burst of genius, more often it will serve to stimulate sustained and frequently costly efforts. Even if these efforts fail, they may enrich society by engendering novel (though obvious) developments as a by-product of attempts to create a patentable invention. However valuable these obvious inventions may be, it seems rational to deny them patent protection on the assumption that the progress they incorporate would have been made in response to ordinary commercial incentives.[75]

In practice, however, nonobviousness is an inexact standard. Difficulties in applying it[76] create substantial uncertainty in the preliminary screening by the Patent Office and in the subsequent review by the courts in the context of infringement litigation.[77] Far

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[73] It should be noted that the state of the art of quantifying social benefits and detriments permits one to speak only wishfully of truly weighing the one against the other. *See* Turner, *Patent System, supra* note 4, at 453-55. This is not to say that courts should not continue to attempt assessment of the detrimental economic effects of various licensing practices which may clearly contravene social policy.

[74] 35 U.S.C. § 103 (1970) provides:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which such subject matter pertains. . . .

Commenting on this provision, the Supreme Court viewed its function as one of "weeding out those inventions which would not be disclosed or devised but for the inducement of a patent." Graham v. John Deere Co., 383 U.S. 1, 11 (1966). *See generally* Kitch, *Graham v. John Deere Co.: New Standards for Patents*, 1966 SUP. CT. REV. 293.

[75] Ideally, patent protection might be limited to the period necessary to induce the inventor to make and disclose the invention; in reality, the law takes an all-or-nothing approach. It roughly divides inventions into two categories, conferring a statutory monopoly that may be too short or too long on one group of inventors, and none at all on the other. It has been suggested that petty patents should be granted for a third class of inventions. *See* Mott, *The Concept of Small Patent in European Legal Systems and Equivalent Protection Under United States Law*, 49 VA. L. REV. 232 (1963).

[76] For a particularly eloquent comment on the elusiveness of the standards governing patentability, see Harries v. Air King Prods. Co., 183 F.2d 158, 162 (2d Cir. 1950) (L. Hand, C.J.).

[77] It is no secret that a remarkable percentage of patents granted by the Patent Office are found to be invalid once litigated. The Supreme Court has pointed out the "notorious difference between the standards applied by the Patent Office and by the courts." Graham v. John Deere Co., 383 U.S. 1, 18 (1966).

In addition to differing standards, other reasons account for the numerous holdings of invalidity. The investigation of prior art in the context of litigation is usually more extensive than that which can feasibly be made by the Patent Office in an *ex* from being undesirable, such uncertainty is indispensable to the proper functioning of the system. The enhanced possibility of successful litigation, stemming from the inexactness of the nonobviousness standard, and the often lucrative monopoly profits enjoyed by the patentee encourage third-party attacks on patent validity.[78] Such actions by would-be competitors serve as a necessary and desirable countervailing force in the general scheme, minimizing the risk that a patentee will be compensated at society's expense for a weak patent.[79]

Challenges to patents may take other forms as well. The existence of monopoly profits serves as an inducement to competitors to capture a share of the patentee's market by inventing around the patent or by exploiting known alternatives. This type of challenge tests the commercial strength of the patent. If successful, the third parties will be able to compete viably with the patentee—in effect breaking his monopoly—and thereby reduce the social cost of rewarding a commercially weak invention.

Thus, a policy of enforced patent insecurity, similar to that underlying the concurring opinion in *Line Material*, seems eminently sound. The preservation of incentives to third-party challenges, whether they take the form of contesting patent validity, inventing around the patent or exploiting known alternatives, provides an essential counterweight to the high rewards offered by the patent system and minimizes the social cost of granting monopolies for obvious or commercially weak inventions. By the same token, it should not be permissible to evade this policy by the simple expedient of restrictive licensing.

B. *Enforced Patent Insecurity:* Lear v. Adkins

The Supreme Court has not had occasion to reconsider the inherency doctrine in light of these policy considerations. However, *Lear, Inc. v. Adkins*,[80] a case dealing with another aspect of patent-antitrust law, may signal a changed approach to the licensing problem. Before *Lear*, a licensee was precluded, even absent a restraining contractual provision, from challenging the validity of the licensed patent. The doctrine of licensee estoppel was premised on

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parte examination. Counsel's research may also reveal forms of prior art not easily accessible to the Patent Office. *See* Woodward, *A Reconsideration of the Patent System as a Problem of Administrative Law*, 55 HARV. L. REV. 950, 953 (1942).

[78] On the other hand, the cost of patent litigation may deter patent challenges. Blonder-Tongue Laboratories, Inc. v. University of Ill. Foundation, 402 U.S. 313, 334-38 (1971).

[79] *See* Automatic Radio Mfg. Co. v. Hazeltine Research, Inc., 339 U.S. 827, 840 (1950) (Douglas, J., dissenting).

[80] 395 U.S. 653 (1969).

the view that one should not enjoy the benefits of a patent and at the same time be allowed to assert its invalidity.[81] However, the Court, overruling a decision[82] rendered shortly after *Line Material*, held in *Lear* that licensees are free to challenge the validity of a patent, notwithstanding any contractual provisions to the contrary.[83] In abolishing the longstanding licensee estoppel doctrine, the Court wrote the right to claim invalidity into every patent license. Previously, licensees could bargain for this right, but the patentee was entitled to exact a quid pro quo for granting it. The Court explained its action as follows:

> Surely the equities of the licensor do not weigh very heavily when they are balanced against the important public interest in permitting full and free competition in the use of ideas which are in reality a part of the public domain. Licensees may often be the only individuals with enough economic incentive to challenge the patentability of an inventor's discovery. If they are muzzled, the public may continually be required to pay tribute to would-be monopolists without need or justification. We think it plain that the technical requirements of contract doctrine must give way . . . .[84]

This passage suggests that the Court now recognizes a policy of enforced patent insecurity: rules and contractual provisions designed to shelter patents from the three-pronged attack of inventing around, exploiting known alternatives or contesting the monopoly in court are disfavored.[85] What had been suggested by four Justices in

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[81] For reviews of the status of the estoppel doctrine prior to *Lear*, see Kramer, *Estoppel to Deny Validity—A Slender Reed*, 23 N.Y.U. INTRA. L. REV. 237 (1968); Treece, *Licensee Estoppel in Patent and Trademark Cases*, 53 IOWA L. REV. 525 (1967).

[82] Automatic Radio Mfg. Co. v. Hazeltine Research, Inc., 339 U.S. 827 (1950). Justice Douglas's dissent in that case echoes the views he expressed in *Line Material*:

> The licensee protects the public interest in exposing invalid or expired patents and freeing the public of their toll. He should be allowed that privilege. He would be allowed it were the public interest considered the dominant one. Ridding the public of stale or specious patents is one way of serving the end of the progress of science.

Id. at 840.

[83] 395 U.S. at 670. The holding in *Lear* was based on a patent policy aimed at relieving society of the monopoly burden of an obvious invention mistakenly granted a patent. At least one lower court has indicated that specific restraints on patent challenge may violate the antitrust laws as well. *See* Bendix Corp. v. Balax, Inc., 471 F.2d 149, 154-59 (7th Cir. 1972).

[84] 395 U.S. at 670.

[85] *See, e.g.*, Zenith Radio Corp. v. Hazeltine Research, Inc., 395 U.S. 100, 144-45 (1969) (Harlan, J., concurring in part & dissenting in part); *cf.* United States v. Masonite Corp., 316 U.S. 265 (1942); McCullough v. Kammerer Corp., 166 F.2d 759 (9th Cir. 1948); National Lockwasher Co. v. George K. Garrett Co., 137 F.2d 255 (3d Cir. 1943).

Line Material became a unanimous view in *Lear*,[86] and that view was emphatically reiterated in *Blonder-Tongue Laboratories, Inc. v. University of Illinois Foundation.*[87] Considering the unequivocal commitment to enforced patent insecurity expressed in these cases, it would be difficult indeed to imagine that inherency could survive another test in the Supreme Court, if the doctrine is sheltering practices which deter licensee attacks on patents.

C. *Economic Aspects of Licensing*

Lear suggests the following proposition: licensing is an improper alternative for patentees unable or unwilling to exploit fully an invention by their own manufacture or use if the licensing program serves to materially undermine incentives to patent challenges and cannot be otherwise justified.

Because of economic uncertainties such as demand and cost, the patentee is usually unable to negotiate royalties that would fully compensate him for the monopoly profit he foregoes.[88] Even a royalty truly compensatory as of the time of the agreement may not return the full monopoly profit as demand and supply conditions change. Further, few licensees would agree to variable royalties that

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[86] The Justices split three ways in *Lear*, but they differed only as to the trade secret aspects of the case. *See generally* Adelman & Jaress, *Inventions and the Law of Trade Secrets after* Lear v. Adkins, 16 WAYNE L. REV. 77 (1969).

[87] 402 U.S. 313 (1971), *overruling* Triplett v. Lowell, 297 U.S. 638 (1936). *Triplett* held that, because of the requirement of mutuality of estoppel, an adjudication of invalidity was not res judicata in a subsequent action against a second infringer. *Blonder-Tongue* relied in part on current views regarding mutuality, but the decision was premised primarily on the consideration that "the rule of *Triplett* may permit invalid patents to serve almost as effectively as would valid patents as barriers to the entry of new firms—particularly small firms." 402 U.S. at 346-47. In this connection the court referred to

> our consistent view—last presented in *Lear, Inc.* v. *Adkins*—that the holder of a patent should not be insulated from the assertion of defenses and thus allowed to exact royalties for the use of an idea that is not in fact patentable or that is beyond the scope of the patent monopoly granted . . . .

Id. at 349-50.

The increasing judicial concern about the proper functioning of the patent system has also found expression in United States v. Glaxo Group Ltd., 410 U.S. 52 (1973) (broadening the Government's power to challenge patent validity, *see* note 13 *supra*), and Walker Process Equip. Inc. v. Food Mach. & Chem. Corp., 382 U.S. 172 (1965) (acknowledging possibility of treble damage actions for fraud on the Patent Office). *See generally* Adelman & Brooks, *The Integrity of the Administrative Process, Sherman Section 2 and Per Se Rules—Lessons of Fraud on the Patent Office*, 19 WAYNE L. REV. 1 (1972); Comment, 15 B.C. IND. & COM. L. REV. 119, 129-32 (1973). For recent lower court opinions that reflect the same concern, see Atlas Chem. Indus. Inc. v. Moraine Prods., 509 F.2d 1 (6th Cir. 1974); W.L. Gore & Associates v. Carlisle Corp., 381 F. Supp. 680, 704-05 (D. Del. 1974).

[88] Theoretically, optimum rewards can be recouped only if the patentee is able to induce licensee behavior which, in the aggregate, is equivalent to that of a profit-maximizing monopolist. *See* Baxter, *supra* note 4, at 316.

take into account such changing conditions.[89] Accordingly, licensing tends to be a second-best solution for the patentee.[90] Under certain circumstances, however, licensing can confer a valuable fringe benefit—the suppression of potential attacks on the licensed patent.

When a licensee merely receives immunity from infringement suits in return for the payment of royalties and when such royalties fall short of the full measure of inherent monopoly profits, the public will presumably benefit from competition among licensees and the patentee. Furthermore, the patentee's reward is roughly comparable to the value of the invention to society, since the royalties will reflect the commercial value of the patent. But there is no benefit to the public if patentees confer on licensees advantages beyond immunity from suit that may substantially dampen the licensee's competitive instincts and incentives to challenge patent validity. The patentee can accomplish this by using restrictive licensing practices which enable licensees to enjoy monopolistic or oligopolistic exploitation of their fields of use. In return, the licensees are likely to forbear from contesting patent validity, inventing around or employing substitute technology, because success will reintroduce competition into the field. In such a case, reliance on the patent statute is no more than a pretext: royalties are no longer based on the inherent worth of the patent (which may in fact be invalid), but represent a payoff to the patentee for maintaining barriers to entry of competition in the licensed field. Of course society suffers: it is saddled with a monopoly or oligopoly, while the patentee is overcompensated by an arrangement which all too often confers unimpeachable status upon a questionable invention. Such a result is clearly inconsistent with the policies underlying the patent system.[91]

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[89] The suggestion that a patentee might take into account this factor by means of variable royalty agreements, *see id.* at 333-34, is at odds with reality. At least those licensees who must make a substantial initial investment to exploit the patent would be disinclined to enter into arrangements that, in effect, permit the licensor to renegotiate the terms.

[90] *See id.* at 332-33. For a mathematical treatment of the relationship between market characteristics and inventor return, see Jackson, *Market Structure and the Rewards for Patented Inventions*, 17 ANTITRUST BULL. 911 (1972).

[91] In the words of Justice Douglas:

> [W]hat worse enlargement of monopoly is there than the attachment of a patent to an unpatentable article? . . . [W]hat greater public harm than that is there in the patent system?
>
> . . . .
>
> Ridding the public of stale or specious patents is one way of serving the end of the progress of science.

Automatic Radio Mfg. Co. v. Hazeltine Research, Inc., 339 U.S. 827, 839-40 (1950) (dissenting opinion).

The policy of enforced patent insecurity motivated the Court in *Lear* to proscribe outright contractual prohibitions against licensee assertions of patent invalidity and to bury the doctrine of licensee estoppel. One should expect a similar response if patentees use more or less subtle inducements to prevent licensees from questioning a patent's strength or validity. A licensing practice serving to inhibit third-party attacks can in no way be viewed as "inherently" more competitive than refusals to license.[92] On the contrary, in such a situation patent and antitrust policies do not conflict, for "it is as important to the public that competition should not be repressed by worthless patents, as that the patentee of a really valuable invention should be protected in his monopoly."[93]

Thus, the issue is not one of construing patent grants but of evaluating licensing practices in light of economic realities. To the extent that such practices suppress incentives to attack patent validity, invent around the patent or employ available technology, they can hardly be considered a legitimate exercise of patent rights, sheltered from antitrust scrutiny. The patentee is entitled to full monopoly rewards, but to no more, and certainly not to any benefits that might be derived from restraints designed to buttress a vulnerable patent.[94]

IV

General Talking Pictures Revisited: Variations on a Theme

If the foregoing conclusions are correct, they support the holding that the field licenses in *General Talking Pictures* were legal, although the inherency rationale of that case must be rejected. The field licenses there, freely available to all applicants, engendered competition in a market otherwise foreclosed by the patent. Because licenses were granted to all comers and because all of them had to pay royalties, the licensees' incentives to attack the patent were not materially affected by the licensing program.[95] Indeed, not enjoying an artificially maintained oligopoly, they would only stand to gain by patent challenge, since if successful they would no longer have to pay royalties.

It might, however, be argued that field-of-use licensing in and of itself inhibits competition. If such licensing were proscribed en-

[92] *Cf.* Buxbaum, *supra* note 4, at 649, 654-55.

[93] Pope Mfg. Co. v. Gormully, 144 U.S. 224, 234 (1892).

[94] *See generally* Bowman, *supra* note 47.

[95] Apparently, standard terms were offered to all comers. However, it would seem proper to offer differential terms that reasonably reflect differing circumstances. *See*

tirely, it would be impossible for the patentee to retain a monopoly in one field and still derive royalty revenue from the others. Therefore, if the patentee chose to license at all, the public would receive the benefit of free competition in all fields. This argument, however, fails to take into consideration the fact that as long as patentees are permitted to charge differing royalty rates, they can effectively retain an exclusive field by simply charging more than the full profit potential the license offers prospective licensees.[96]

A. *"Club-Licensing"*

The analysis of antitrust implications would change drastically if in *General Talking Pictures* Western Electric had limited the number of licenses in the noncommercial field. Such limitation introduces an element of exclusivity, as it confers membership in an oligopolistic club—an advantage which is apt to dull the licensees' incentive to challenge a patent. A licensor might therefore deliberately select as licensees those who would be most likely to claim patent invalidity, invent around the patent or successfully employ existing technology. Royalties are then likely to be a disguised payoff—a fee for maintaining an oligopoly rather than compensation for the perceived value of an invention.

The formation of oligopolistic clubs cannot be justified on the basis of the patentee's right to maximize royalty income.[97] There is no basis for the view that by limiting the number of licensees, a nonmanufacturing patentee can increase his royalty return when the patent is clearly valid and not easily avoided. Indeed, in the case of royalties based on the intensity of use or total product output, full competition between licensees would serve to maximize royalties. Further, prohibition of selective licensing would not lead to a refusal to license, because then the patentee would lose all royalty income from fields he fails to exploit. Thus it seems that this practice of selective licensing has no social utility, whether reckoned in terms of benefit to society from increased production or in terms of encouraging invention by increasing rewards to patentees.

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generally Adelman, *Recent Developments in Patent Antitrust Law*, 1972 PAT. L. ANN. 67, 68-70.

[96] Commentators usually assert that discriminatory royalty rates should be allowed. *See* Baxter, *supra* note 4, at 339; Gibbons, *Restrictions*, *supra* note 4, at 473-74; Marquis, *supra* note 4, at 65-77; Turner, *Patent System*, *supra* note 4, at 471.

[97] Economic models indicate that there is no necessary connection between the number of licensees and the royalties a patentee can derive. *See* BOWMAN, *supra* note 47, at 64-70. However, nonexclusive multiple licensing has the advantage of permitting a licensor at least partially to correct initial undervaluation of the invention by granting subsequent licenses at higher royalty rates. *See* Bela Seating Co. v. Poloron Prods., Inc., 438 F.2d 733, 738-39 (7th Cir. 1971).

B. *The Patentee Member of an Oligopolistic Club*

The problem becomes more complex if the patentee actively participates in the oligopoly he promoted. The licensor's business interest is often not advanced by licensing all applicants, since, as a practical matter, he probably cannot recoup the profits surrendered to competing licensees. This loss in profits may be materially reduced if only a limited number of licenses are granted. While the licensees would then benefit from the barriers to entry created by limited licensing and would therefore be less likely to attack the patent, a patentee who is not allowed to limit the number of field licenses might choose not to license at all, preferring to extract his own monopoly profits from the field. Naturally, this choice would restore his competitors' eagerness to attack the patent. If the patent is both commercially valuable and legally valid, however, the attacks will fail, and the public will have been deprived of any advantage an oligopoly may have over a monopoly.[98]

Thus, when a patentee is actively participating in an oligopoly preserved by his own licensing practices, a per se rule of illegality would seem inappropriate. Such a rule would necessarily discourage some socially desirable licensing that would otherwise take place. However, the potential effect of this type of "club licensing" on incentives to attack the patent, while difficult to quantify, is sufficiently serious to justify a rule of presumptive illegality. To rebut the presumption, the patentee should be given an opportunity to demonstrate his reasonable belief that licensing all qualified applicants would materially reduce the overall return on the invention. Such a showing would support the conclusion that the patentee would have decided to retain the entire monopoly but for the option of limited licensing.

C. *Exclusivity*

There can be valid economic justifications for field license restrictions assuring the licensee that both the patentee and third parties will not enter the field. Conceivably, absent the protection of exclusivity, a licensee would not be prepared to undertake the development efforts necessary for working the patent in the defined field. It is not unreasonable to assume that subsequent licensees might capitalize on the first licensee's developments without having to bear his costs, thus introducing competition which may preclude

[98] This social detriment will also extend over the period in which the holder of an invalid patent operates as a monopolist before the patent is successfully attacked. Of course, the restoration of competition for the remainder of the patent term may well outweigh the social cost of the time lag.

him from recovering his expenses or realizing an adequate profit. But this justification fails when the nature of a patented product or process requires all entrants to make the same threshold investment as the first licensee. Further, even if exclusivity might be required initially, it may not be needed for the full patent term. A healthy head start on production should amply safeguard the first licensee's interest. Therefore, surrounding circumstances would determine whether royalties could, in part, be considered as payment for an undertaking by the patentee not to grant additional licenses and to stay out of the defined field.

If only one exclusive field license is granted, the potential anticompetitive effect is de minimis. While the licensee may be encouraged to refrain from challenging the patent, any competitors are free to do so and can be expected to be induced by the possibility of a successful outcome. This situation is comparable to that of an unrestricted exclusive license or sale, or, indeed, the retention of a monopoly by the patentee. In contrast, a patentee may grant exclusive licenses in noncompetitive fields at royalties sufficiently attractive to discourage licensees from challenging a vulnerable patent. Through the parcelling out of narrowly defined fields, each licensee can be protected from competition from both the patentee and the other licensees. Thus, incentives to attack the patent can be skillfully diminished.[99] A rule to the effect that multiple exclusive field licensing is presumptively illegal, subject to the patentee's showing that each exclusive license was essential to exploitation of the patent in each field, would seem appropriate.[100]

D. *Bulk Licensing*

In the pharmaceutical industry, restraints of the following type are quite common. *M* holds a patent on a drug. It manufactures and sells this drug only in pill form, refusing to sell the drug in bulk. *M* does, however, grant licenses to a limited number of manufacturers, permitting them to make and use the drug as an ingredient in the pills they manufacture, but prohibiting any sale in bulk form.[101]

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[99] *Cf.* Becton, Dickinson & Co. v. Eisele & Co., 86 F.2d 267 (6th Cir. 1936) (series of exclusive licenses challenged by the Department of Justice); United States v. Allegheny Ludlum Steel Corp., 1948-1949 Trade Cas. ¶ 62,330 (D.N.J. 1948) (consent decree).

[100] In United States v. Fisons Ltd., Civil No. 69C 1530 (N.D. Ill., filed July 23, 1969), the Department of Justice challenged exclusive field licenses. The patentee had granted exclusive licenses of its patented drug (a) for human use and (b) for animal use. *Cf.* Wheeler, *A Reexamination of Antitrust Law and Exclusive Territorial Grants by Patentees*, 119 U. PA. L. REV. 642 (1971).

[101] Restraints practiced by the drug industry are described in detail in Miller, *supra* note 4, at 1284-91, and in Marquis, *supra* note 4, at 71-77.

Such bulk sales restrictions may be calculated to force licensees to follow the licensor's marketing practices, and thus shelter all participants in the scheme from competition.[102]

The anticompetitive effects of these restrictions may take two forms. First, the licensees accorded the privilege of membership in a cartel are protected from competition by the "generic drug houses"—enterprises which convert the bulk they purchase into pills sold under the drug's generic name rather than under a trademark. Such protection creates strong inducements not to break ranks through sales of bulk to outsiders and not to attack the patent itself. Second, the anticompetitive effects are enhanced if only a limited number of manufacturing licenses are granted. This scheme serves to eliminate competition by other major manufacturers as well as by generic drug companies. Thus, it is similar to an oligopolistic "club," and royalty payments may at least in part be attributable to cartel membership dues rather than to the economic value of the underlying patent.

A patentee may resort to limited licensing arrangements of this kind to discourage powerful licensees from attacking a patent or from contesting an interference action to a definitive conclusion. But even if licenses are freely made available, the incentives to attack are diminished because of the great sensitivity to competition from generic drug houses, who would of course not be granted any licenses. However, bulk sales restrictions may be designed simply to retain the patentee's own monopoly as a seller of bulk. The economic effect of this type of restriction is similar to that resulting from the kind of field licensing used in *General Talking Pictures*.[103] Accordingly, before a patentee's licensing program is condemned, he should be permitted to show that the particular bulk sales restriction was adopted to preserve his monopoly in that field rather than to suppress competitive or legal attack.

V

THE ATTITUDE OF THE DEPARTMENT OF JUSTICE

As the foregoing observations indicate, there are ample reasons why the Justice Department should question the propriety of various field licensing practices seemingly exempted from antitrust challenge by *General Talking Pictures*. Regrettably, however, the Department has failed to advance any consistent theories that might

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[102] For an argument that the effect of this practice is similar to that produced by multiple price-fixing licenses granted by a manufacturing patentee, see Miller, *supra* note 4, at 1306-08.

[103] *See id.* at 1307.

guide patentees, licensees and their counsel in structuring licensing programs. On the contrary, instead of clarifying the boundary between proper patent licensing and antitrust violation, the Department has muddled that line with discordant speeches, vacillating stances and badly reasoned complaints.

In a speech given in 1966,[104] Professor Turner, then Assistant Attorney General in charge of the Antitrust Division, expressed the opinion that restrictive licensing provides little if any incentive to invent or innovate. Implicit in this view is the proposition that patent law incentives cannot be invoked to shelter limited licenses from antitrust challenge.[105] Professor Turner did not, however, suggest any tests for determining whether a particular field license was lawful.

In 1969 Judge McLaren, then Assistant Attorney General, delivered a speech in which he propagated what has since been dubbed the "yes-no" test:

> In considering whether to attack a particular licensing provision or practice, we ask ourselves two fundamental questions. First, is the particular provision justifiable as necessary to the patentee's exploitation of his lawful monopoly? Second, are less restrictive alternatives which are more likely to foster competition available to the patentee? Where the answer to the first question is no, and to the second yes, we will consider bringing a case challenging the restriction involved.[106]

Soon thereafter, however, Judge McLaren seemed to retreat from this position and indicated that the Department would not use the "yes-no" test to determine the legality of licenses.[107] Instead, he suggested that a "necessary-and-ancillary" test should apply. Judge McLaren elaborated on this test as follows:

> The rule of reason in this area embraces . . . three principal elements: first, the restriction or limitation must be ancillary of the lawful main purpose of a contract; second, the scope and duration of the limitation must not be substantially greater than necessary to achieve that purpose; third, the limitation must be otherwise reasonable in the circumstances.[108]

Meanwhile Professor Turner's ideas also underwent refinement. In 1969 he wrote that

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[104] Turner, *Innovation*, *supra* note 3, at 153-54.
[105] *Cf.* Otter Tail Power Co. v. United States, 410 U.S. 366, 372-75 (1973).
[106] McLaren, *Patent Licenses*, *supra* note 3, at 63.
[107] McLaren, *Licensing*, *supra* note 3, at 935.
[108] *Id.* at 936.

> [w]henever a patentee issues a license with a field-of-use restriction, he should be obligated to issue a comparable license to any qualified applicant, unless it can be established that exclusivity for a reasonable period of time is necessary to obtain any commercial development and exploitation of the patent in the field of use concerned.[109]

The Department of Justice has never committed itself to any particular rationale for judging restricted licenses. In fact, one of its spokesmen has taken the freewheeling position that manufacturing licenses under product patents must be evaluated on the facts of each case,[110] except that field restraints on use or sale of an unpatented product made by a patented process and restraints on use of a patented product should be illegal per se.[111] Clearly, such standards—if these various pronouncements rise to that level—give no real guidance to those who must chart a course through the shifting currents of patent-antitrust.

The complaints filed in the spate of actions brought by the Justice Department to challenge field-of-use restrictions further evince this lack of a consistent framework for analysis. They are often based on disconsonant and outmoded theories too numerous to catalog here.[112] However, a brief look at two examples should illustrate the Department's refusal to confront the problems of restrictive licensing in a practical or intellectually defensible manner.

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[109] Turner, *Patent System*, *supra* note 4, at 472. According to this rule, bulk sales licensing would be legal per se so long as licenses are freely available. The author, testifying during the hearings on the Scott Amendments, proposed a statutory amendment to this effect. *Hearings*, *supra* note 9, at 317. He had earlier summarized the underlying approach in the form of questions to be asked with respect to all limited licensees:

> (1) Is prohibition of a particular restriction likely to cause patentees not to license, or to license much less widely, in a significant number of cases?
> (2) In what situations is prohibition most likely to have such an effect?
> (3) In those circumstances would the failure to license lead to less desirable results? To more desirable results? What is the relative frequency of the two classes of cases, and are they more or less readily identifiable?

Turner, *Patent System*, *supra* note 4, at 464. Another suggested formula reads as follows:

> [A] patentee is entitled to extract monopoly income by restricting utilization of his invention, notwithstanding that utilization of other goods and services are consequently restricted, provided that in each case he confines the restriction to his invention as narrowly and specifically as the technology of his situation and the practicalities of administration permit. . . .

Baxter, *supra* note 4, at 313. Applying this formula, Professor Baxter reaches the same conclusions with respect to field licenses as does Professor Turner. *Id.* at 345-46.

[110] Wilson, *supra* note 3, at 15-17.

[111] *Id.* at 14; *see Panel Discussion: Licensing: Patents, Trademarks and Know-How*, 42 ANTITRUST L.J. 681, 683-84 (1973) (remarks of Bruce B. Wilson) [hereinafter *Panel Discussion*].

[112] *See* cases cited in note 2 *supra*.

With an obvious disdain for consistency, the Department has seen fit to invoke the inherency doctrine to support the conclusion that field restraints on products made by patented processes are illegal per se. In *United States v. Ziegler*,[113] a patentee had granted one manufacturer licenses to use a patented process and sell the resulting unpatented product, agreeing to license future applicants to make the product for internal consumption only. As a result, the first licensee retained the entire market for the sale of the product. This arrangement did not lessen incentives to attack the patent, since all other licensees presumably smarted under the prohibition against selling.[114] In its complaint, however, the Government—apparently untroubled by the implications of subscribing to the "in-out" inherency doctrine—seemed to assert quite simply that since the unpatented products were "outside" the scope of the patent monopoly,[115] the attempt to impose restraints on sales must be illegal. As noted, such an approach sidesteps practical analysis of the issues.[116] The illegality of a restriction should not depend upon the fortuitous circumstance of its being "outside" the nebula of a patent grant, for this test fails to inquire into the function of the restriction.

The Department has also contended that field-of-use restrictions that are used to separate classes of purchasers as part of a pattern of price discrimination are illegal per se.[117] In *United States v. Farbenfabriken Bayer A.G.*,[118] eventually settled by consent decree, the patentee sold the patented product for use in connection with commercial gardening only. Apparently this restraint was imposed to preclude resale to home gardeners who were charged higher prices for the same product by the patentee.

No suggestion was made that licenses (or sales agreements) were not available to buyers in each class on a nondiscriminatory basis. Accordingly, the field restraint merely served the purpose of preventing arbitrage transactions between customers. Nor was there any indication that the licensor attempted to suppress patent challenge. While price discrimination is an indication of substantial market power and raises serious antitrust questions, the holder of a

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113 Civil No. 1255-70 (D.D.C., filed Apr. 24, 1970).

114 *See, e.g.*, Ethyl Corp. v. Hercules Powder Co., 232 F. Supp. 453 (D. Del. 1964).

115 This position is only implied in the *Ziegler* complaint. However, a spokesman for the Antitrust Division has asserted that it is a per se violation for the owner of a process patent to control and restrict the unpatented products made from the process. Wilson, *supra* note 3, at 14; *Panel Discussion*, *supra* note 111, at 684 (remarks of Bruce B. Wilson).

116 *See* text accompanying notes 64-66 *supra*.

117 *See* addresses cited in notes 109-10 *supra*.

118 Civil No. 586-68, (D.D.C., filed Mar. 7, 1968), *consent decree entered*, 1969 Trade Cas. ¶ 72,918 (D.D.C. 1969).

lawful monopoly arguably should be able to discriminate between classes of purchasers to maximize profits. Under some conditions price discrimination may tend to increase output[119] and thereby mitigate the output-limiting effect of the patent monopoly. Because of this effect on output, it has been asserted that price discrimination by a lawful monopolist such as a patentee ought to be legal.[120] Although considerable dispute exists over this proposition,[121] the Justice Department refused in *Farbenfabriken* to shed any light on the economic controversy surrounding the licensing question. Instead, it relied on the hoary common law doctrine of restraints on alienation to condemn the patentee's restrictions.

Further, other Department complaints attack bulk sales restrictions, a restraint the Department apparently believes to be illegal per se.[122] Such a stance, unsupported by any rational analysis of the economics of licensing, disregards the patentee's possible interest in reserving the bulk market to himself.[123] It is illustrative of the Department's tendency to "lump" restraints rather than to undertake a more directed analysis of their economic impact.

In sum, the foundation laid by the government agencies entrusted with the enforcement of antitrust policies is clearly insufficient to support any structured approach to the field-of-use licensing problem. No economic theories come to mind which would justify the sweeping condemnation of field-of-use restrictions evinced by the actions brought. Certainty and predictability may not be the highest goals for antitrust lawmakers, but government agencies,

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[119] The output effects of a two-level price discrimination system have been demonstrated in a number of articles and texts. *See, e.g.*, BOWMAN, *supra* note 47, at 111-13; Baxter, *supra* note 4, at 369-70. A proponent of stringent antitrust enforcement has argued that restraints imposed purely for purposes of economic discrimination should be legal. Gibbons, *Restrictions*, *supra* note 4, at 432. In asserting the contrary view that such price discrimination is a per se violation of the Sherman Act, the Department relies on United States v. Arnold, Schwinn & Co., 388 U.S. 365 (1967). Donnem, *supra* note 3, at 36-37. *But see* Carter-Wallace, Inc. v. United States, 449 F.2d 1374 (Ct. Cl. 1971); Ansul Co. v. Uniroyal, Inc., 306 F. Supp. 541, 564-65 (S.D.N.Y. 1969), *aff'd on other grounds*, 448 F.2d 872 (2d Cir. 1971), *cert. denied*, 404 U.S. 1018 (1972).

[120] *See generally* BOWMAN, *supra* note 47.

[121] It has been argued that the analysis claiming greater production than that which would otherwise attend a patent monopoly fails to take into account two important effects of price discrimination. First, the increased profits generated will cause additional resources to be expended in the process of monopoly creation, thereby reducing the inputs available for what may be more socially beneficial development. Posner, *Exclusionary Practices and the Antitrust Laws*, 41 U. CHI. L. REV. 506, 510-15 (1974). Second, the costs of administering a price discrimination program detract from the value of any output gain. Williamson, Book Review, 83 YALE L.J. 647 (1974).

[122] *See* cases cited in note 2 *supra*.

[123] *See* text accompanying notes 101-03 *supra*.

particularly when bent on overturning precedent to make new law, should be expected to have some ideas about the rules to be adopted. When important proprietary rights and the validity of countless contracts are at stake, clarity in the law is essential. The following section therefore proposes an integrated set of guidelines for determining the validity of field-of-use licensing practices.

VI

A Suggested Approach

Recent Supreme Court decisions in the patent law field suggest that a patentee should not be permitted to shelter his statutory monopoly from economic or legal attack. Thus, the inherency doctrine suffers not only from flawed logic, but also is at odds with the policy of enforced patent insecurity expressed in *Lear*, and should be rejected by the courts. That theory should no longer be permitted to validate field licensing practices that clearly have potential for suppressing patent challenges.[124] Such licensing does not serve the public interest since it provides advantages beyond the patentee's monopoly reward—the suppression of challenges to potentially weak or obvious patents.

The policy of enforced patent insecurity can be effectuated, and competition restimulated, by adopting a limited number of rules that would classify patent licensing practices for antitrust purposes in accordance with their propensity to suppress patent attack by licensees. Approaching the patent-antitrust interface along these lines would obviate the need to prove "hub-and-spoke" conspiracies[125] on the basis of circumstantial evidence and the need to "lump" restraints into catch-all categories in an attempt to substitute quantitative for qualitative analysis.[126] With this in mind, the following set of rules derived from our prior analysis is offered as a starting point for further discussion.

Rule 1: The retention of a field exploited by the patentee or by an exclusive licensee should be deemed per se legal as long as

[124] Professor Bowman, who recently argued that field licensing should be per se legal, did not address himself to this problem. Bowman, *Misuse of Patents or Misuse of Antitrust Law*, 1974 AM. PAT. L. ASS'N BULL. 735.

[125] A reason frequently advanced for prohibiting restrictive licensing is the ease with which such licensing may be used to disguise cartel behavior. *See generally* Furth, *supra* note 56, at 824-33; Gibbons, *Price Fixing*, *supra* note 58, at 280-83. *See also* P. AREEDA, ANTITRUST ANALYSIS 444 (2d ed. 1974).

[126] *See, e.g.*, Stern, *Territorial Limitations*, *supra* note 3, at 587-88. The aggregation syndrome is exemplified by the opinion of Justice Reed in United States v. Line Material Co., 333 U.S. 287, 305-15 (1948) (the *General Electric* rule held inapplicable because two patentees had combined to license their blocking patents).

licenses are granted to all applicants in any nonexclusively licensed field.

This rule would recognize the legality of field licenses such as those at issue in *General Talking Pictures*. In that case the licensees enjoyed no special advantages that might induce them to refrain from challenging the patent, since the patentee made licenses available to all competitors in the field. It is important to note that this rule is applicable to both product and process patents. For example, if the patent involved in *General Talking Pictures* had covered the process of manufacturing amplifiers, the patentee could have legally barred the licensees from selling amplifiers for commercial use. The proposed rule thus rejects the contention of the Department of Justice that the control of unpatented products made by a patented process is per se illegal since the unpatented products are "outside" the patent grant.[127] The Department's view is of course based upon the inherency doctrine; it should therefore be discarded.

Rule 2: The grant of one exclusive field license in the absence of any additional restraint which would tend further to diminish incentives to attack the licensed patent should be deemed per se legal.

This rule would authorize patentees to grant one exclusive field license. Admittedly, exclusivity is a problem. Where a patent has several possible applications, a patentee might grant actual or potential competitors exclusive rights in each of several fields. By dividing the monopoly in this fashion, a patentee could diminish incentives to attack the patent, especially if he selected the most likely challengers as licensees. On the other hand, exclusivity may be necessary to encourage full exploitation of the invention, particularly when substantial initial investment is required. In view of this economic justification, and because the grant of a single exclusive field license eliminates only one potential challenger, such a license seems no more objectionable than the sale of a patent or the grant of an unrestricted exclusive license.[128]

Rule 3: Field licenses offered to a selected group of potential licensees should be per se illegal, unless the patentee actively exploits the same field or can show definite and detailed plans for doing so.

The application of this rule can be illustrated by assuming that the patentee in *General Talking Pictures* had not licensed all applicants in the noncommercial field, but rather had parcelled the patent out among a limited number of licensees. Each of the licensees would thus have enjoyed the privileged position of membership

[127] *See* text accompanying notes 113-16 *supra*.
[128] *See generally* text accompanying notes 88-94 *supra*.

in an oligopoly. Since this advantage tends to substantially diminish incentives to attack the patent, the rule invalidates licensing practices which sustain oligopolies of which the patentee is not a member.[129]

Rule 4: Field licenses requiring each licensee to follow a marketing practice of the patentee should be per se illegal unless validly employed to preserve the patentee's monopoly in a retained field.

This rule is directed primarily against bulk sales restrictions. There are two possible motivations for a patentee to require licensees to refrain from selling the patented product in bulk form. One is to retain the market for bulk sales. In this case, *Rule 1* would apply. A second and more likely motivation is to shield a questionable patent from attack. If, as is usual, the patentee is not selling in bulk, each of the licensees would enjoy the advantage of having competition limited to sales of the end product. This advantage tends to diminish licensee incentives to challenge the patent.[130] Accordingly, a per se rule would seem appropriate.

Rule 5: The grant of two or more exclusive field licenses should be presumptively illegal.

The practice of granting multiple exclusive field licenses poses an obviously greater threat to the policy of enforced patent insecurity than does the granting of a single exclusive field license, which is per se legal under *Rule 2*. Furthermore, it cannot be assumed that exclusive licenses serve the patentee's business interest because they are more profitable than nonexclusive licenses. Because of their potentially deleterious effect on patent challenges,[131] the patentee should have the burden of showing that multiple exclusive field licenses were necessary to ensure exploitation in all fields.

Rule 6: The grant of nonexclusive field licenses to a selected group of licensees should be presumptively illegal if the patentee actively exploits the defined field or can show definite and detailed plans for doing so.

Unlike the per se illegality appropriate to the situation described in *Rule 3*, presumptive illegality seems to be advisable when the licensor is a member of the oligopoly. The patentee should be able to justify the refusal to license all applicants by showing that such refusal was inspired by a desire to increase profits derived from the defined field rather than to rebuff potential attacks on the patent. Concededly, it may be difficult to make such a showing. It

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[129] *See* text accompanying note 97 *supra*.
[130] *See* text accompanying notes 101-03 *supra*.
[131] *See* text accompanying notes 99-100 *supra*.

appears reasonable, however, to impose this burden on the patentee in view of the serious potential of oligopolies to diminish incentives to challenge the patent.[132]

VII

CONCLUSION

These proposals should not present serious difficulties in practical application. The rules respond to the concerns expressed by the Court over inhibitions to patent challenges and those voiced by the Government over antitrust abuses in patent licensing. At the same time they afford sufficient guidance to enable licensors and licensees to structure their relationships. Those who might argue that their vested rights have been disturbed or that they have been unfairly surprised are easily answered. As Karl Llewellyn once said:

> Careful counselors, when they find a bridge shaky and ready to come down—though no man can foresee precisely when—put no weight on it; they choose another crossing and so run free of upset or disappointment no matter how the point may come to be decided.[133]

Irrespective of the merit of our proposals, the time has come to discard the inherency doctrine: like that of licensee estoppel, it has now "been deprived of life" by the policy of enforced patent insecurity and should therefore be given a "decent public burial."[134] In its stead, proposals such as the above set of rules should be considered. Such rules, sensitive to the dynamics of the patent system, would introduce a sorely needed degree of certainty into the tumult of patent-antitrust.

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[132] *See* text accompanying note 98 *supra*.

[133] K. LLEWELLYN, THE COMMON LAW TRADITION 302-03 (1960). The same point was made quite some time ago with respect to patent licensing practices:

> Clearly the Supreme Court had given no settled interpretation of the patent statute on which anyone could safely rely. Any lawyer with discernment would have advised patentees who sought to restrain trade in unpatented articles that they were taking great risks.

Powell, *supra* note 44, at 685 n.52. Reliance on *General Talking Pictures* in 1975 seems no less foolhardy than reliance on *Henry v. A.B. Dick Co.* was in 1917.

[134] Lear, Inc. v. Adkins, 395 U.S. 653, 667 (1969), *quoting* MacGregor v. Westinghouse Elec. & Mfg. Co., 329 U.S. 402, 416 (1947) (Frankfurter, J., dissenting).

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