Department of Justice

PATENT LICENSING: A FRESH LOOK AT ANTITRUST PRINCIPLES IN A CHANGING ECONOMIC ENVIRONMENT

Remarks by

J. Paul McGrath
Assistant Attorney General
Antitrust Division

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These are changing economic times -- times that present important challenges both to the United States government and to its people. One of the major economic changes, and one that has received considerable media attention, is increased foreign competition, not only in overseas markets but in domestic markets as well. The onset of this serious competition makes it all the more important that our laws do not unreasonably restrict the ability of United States firms to compete. Today I would like to discuss one aspect of the law that, I believe, has unnecessarily hampered the competitiveness of our industry -- the hostile manner in which the government and the courts have evaluated patent licenses under the United States antitrust laws. I will briefly discuss the importance of technological development to our economy, then explain the important economic benefits that can result from patent licensing, the past problems with government and judicial decision-making in the area, and finally the proper analysis of patent licenses under the antitrust laws.

It is difficult to overstate the importance of technological advance to this country's economic welfare. Technological advance has a direct and positive effect on the competitiveness of American industry, on the productivity of American labor, and on the well-being of American workers and

consumers. It has been estimated that over the last 80 years, technological progress has accounted for almost one-half of the growth in per capita real income. More generally, companies that invest heavily in the research and development of new technologies have about three times the growth rate, twice the productivity rate, one-sixth the price increases, and nine times the employment growth as companies with relatively low investments in such R&D. In addition, development of new technology can significantly improve our balance of trade. Since the 1960s our balance of trade in technology-intensive products has been far more favorable than the trade balance for other products. Advances in technology are therefore a key element in finding a solution to some of the most vexing problems of the last decade: unemployment, inflation, declining real income, and a deteriorating balance of trade.

While the United States has been, and no doubt continues to be, the leader in the creation and development of new technologies, we have witnessed in the last 10 to 20 years increasingly intense competition in this area. During the decade of the 1970s, the rate of growth of this country's investment in R&D (excluding national defense) as a percentage of GNP declined, at the same time that the trends in R&D investment of other important economic rivals such as Japan and Germany steadily rose. Japan and Germany now invest a larger percentage of their GNP in non-defense R&D than the United States.

If United States industry is to grow and prosper and to compete effectively with the industries of other countries, we must reverse this trend. Our economy must encourage greater investment in R&D. To achieve this, we must provide adequate economic incentives for the creation and development of new technologies.

Inherent in the innovation process are obstacles that -- unless overcome -- tend to sap the willingness of industry to invest in R&D. First, R&D, which can be tremendously expensive, is extremely risky. Even if R&D actually results in an invention or innovation -- and that is by no means a sure thing -- there is no guarantee of commercial success. Only the Patent Office and God know how many patent owners who believe they have invented the proverbial "better mousetrap" are sitting alone, waiting for the world to beat a path to their door. Even those inventions and innovations that do reach the marketplace are most often only marginally profitable.

The risk associated with R&D is exacerbated by the fact that it can be very difficult for the creators of new technologies, even very valuable ones, to earn a profit from the benefits their technology provides the economy. This is due to the fact that it can be difficult to prevent others from copying technological information. If I let someone borrow my better mousetrap, he can use it -- and I can't -- until it is returned. However, if I lend someone the plans describing the

technology required to make the better mousetrap, he can continue to use that technology to make his own mousetraps or to instruct others how to make the mousetrap even after the plans have been returned. Without the legal right to prevent the unauthorized dissemination of information, it might be very difficult for me to find anyone who would pay me for my new mousetrap technology -- why pay when you can get it free!

To encourage the development of new technologies in the face of these obstacles, we provide inventors with exclusive, though limited, rights to the technology they create. While the exclusive rights are provided by a whole range of intellectual property laws, the most important exclusive rights are those provided by the patent laws. In effect, a patent is the brass ring for which inventors compete. The first one to invent a new technology -- that is to grab the ring -- gets the right to exclude others from using the technology for 17 years. If others wish to use the technology, they must meet the terms set by the patent owner. In this way, the patent owner earns a reward for his or her R&D investment that approximates the value that society places on the technology.

Although this reward may make some inventors very rich, tremendous success is rare. Nonetheless, the few successes serve as the incentive for countless other inventions and innovations that, while individually only marginally profitable, are collectively essential to a strong, vibrant economy.

Obviously, then, if our economy is to provide adequate incentives for private sector R&D, the owners of technologies must be allowed to earn a profit with no less vigor than the owners of tangible property. Similarly, to ensure the maximum benefit from technology, the law should encourage, not discourage, the extensive and rapid dissemination of technology. To accomplish these objectives, it is often neccessary for patent owners to license their technology. And it is in the area of licensing that the antitrust laws most seriously affect the patent laws.

The freedom to license is important in numerous ways. First, carefully conceived licensing schemes often provide patent owners with the best means to maximize the reward provided by their patent. An example of such a licensing practice is the "tie-in." A tie-in provision essentially conditions the license of a patent -- or the sale of a product or service that embodies the technology -- upon the licensee's agreement to purchase some other related good or service from the patent owner. Tie-ins sometimes can restrict competition; however, they often have salutary competitive effects, increasing both the profits from, and the availability of patents.

Let me describe two examples of the economic benefits of a tie-in. Potential licensees might be unwilling to obtain a license for a technology if they are uncertain as to the

technology's utility. If, on the other hand, an owner can license his or her patent at a low price and make a profit on the sales of some item used in conjunction with the invention, the owner and licensee could share the risk that the invention might prove to be useless. If the invention is very useful, the licensee will require a large number of the related items, and the owner will receive a large reward. If, however, the licensee is unable to use the invention, the licensee will require very few of the related items and will have to pay very little.

Similarly, a tie-in can allow the owner of technology to meter differences in demand among various licensees and to obtain higher payments from licensees who value the technology more and lower payments from licensees who value the technology less. The ability to engage in such metering will increase the patent owner's reward and thus the incentives to invest in R&D in the first place. In addition, it can also increase the invention's dissemination by enabling a potential licensee, who is unwilling to pay the single price the patentee would charge if there were no metering, to gain access to the invention.

Licensing also can be economically beneficial by permitting the patent owner to bring products embodying a patent to the marketplace in the quickest, most efficient manner possible. Often the patent owner will not be in a very good position to develop a patent on its own. For example, the inventor of a

new technology may not have adequate manufacturing facilities or an effective distribution system in place. In such cases, through licensing the patent owner can combine his or her skills with the superior production or marketing skills of others. By permitting patent owners to obtain efficiencies in manufacturing, production and distribution, licensing can be the key to ultimate competitiveness of a patented product in the marketplace. Indeed, the cost savings from licensing can mean the difference between success and failure.

To ensure the efficient development of a patent, it is often necessary to restrict the licensee's use of the patent. Though there are many such potentially procompetitive restrictions, today I will describe only one--the field-of-use restraint. A field-of-use restraint is used when a patent has applictions in more than one technological area, such as the transistor which proved to have uses in fields ranging from the simple pocket radio to the most complex computer. A field-of-use restraint limits a particular licensee to practicing the invention in a particular field or fields. In this sense, a field-of-use restraint can be viewed as preventing competition because it has the effect of prohibiting various licensees from competing with each other when practicing the patented invention. In fact, however, these restraints can be dramatically procompetitive.

It is rare that the inventor of a technology that has potential uses in many fields is in a position to take advantage of each use with maximum efficiency. Competition is best served if the patent owner licenses the firm (or firms) that can develop the patent most efficiently for each potential use. Once the "raw" technology is in the hands of these licensees, they often must invest substantial time, effort and money in R&D and other activities before the technology is transformed into a commercially attractive product or service. Thus, the licensees must invest in "mini-innovations" if the technology is to realize its potential in any given field of use.

If the licensee faces the possibility that other licensees will be in a position to copy its mini-innovations and thereby to compete in its area of expertise, the licensee may not have the incentive to invest in developing these mini-innovations in the first place. The exclusive field-of-use license can be used to ensure that the licensee has the proper incentive. By granting the exclusive right to use the technology in a particular field, the patent owner induces the desired investment in further innovation that is necessary to exploit all the potential uses of the technology.

Tie-ins and field-of-use restrictions are only two of a myriad of licensing practices. In general, these practices can improve competition by increasing the legitimate reward to

inventors and by permitting patented inventions to reach the marketplace at the earliest time and at the lowest possible cost.

The availability of a broad range of patent licensing practices also ensures that other firms will have access to new technology. To the extent that the law restricts the range of licensing options, patent owners may be less willing to enlist other firms to aid in the commmercialization of their technology. Very often the enlisted firms are small businesses. Without licensing, these small businesses may be foreclosed from new markets. With licensing, these firms not only benefit immediately but also in the longer term are exposed to technologies that may stimulate them to create and develop other technologies.

In short, then, if United States firms are going to be in a position to compete effectively in the marketplace, they must be free to license their patents. American firms should not be hamstrung by antiquated antitrust doctrines that unreasonably restrict their ability to secure efficiences through patent licensing. Unfortunately, however, there is a history of court decisions and government pronouncements that tend to discourage such desirable patent licensing.

The hostility to patent licensing contained in these decisions and pronouncements seems to have its roots in a conclusion that the patent grant of exclusive rights is in

inherent conflict with a competitive market system. The grant to patent owners of the right to exclude others from practicing an invention has been viewed as a monopoly, in obvious friction with the antitrust laws which discourage formation of monopolies. These notions find considerable support in Supreme Court decisions. The Court has depicted the patent system as inherently in conflict with antitrust goals and has labeled the patent grant as a "monopoly,"1/ the limits of which are to be "narrowly and strictly confined,"2/ so as to avoid the "evils of expansion" of the patent monopoly by private contracts.3/ Following this lead, in examining the lawfulness of a patent license under the antitrust laws, one lower court recently stated that "[the patent grant] is in inevitable tension with the general hostility against monopoly expressed in the patent laws . . . . Therefore courts normally construe patent rights narrowly in deference to the public interest in competition."4/ The Antitrust Division of the Department

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1/ See, e.g., United States v. Line Material, Inc., 333 U.S. 287 (1988); Mercoid Corp. v. Mid-Continent Co., 320 U.S. 661 (1944); Ethyl Corp. v. United States, 309 U.S. 436 (1940); Carbice Corp. v. American Patent Co. v. Universal Film Mfg. Co., 243 U.S. 502 (1917).

2/ Mercoid Corp. v. Mid-Continent Co., 320 U.S. at 665.

3/ Id.

4/ United States v. Studiengesellschaft Kohle, m.b.H., 670 F. 2d 1122, 1127 (D.C. Cir. 1981).

of Justice took a similarly anti-patent stance in the early 1970s -- which it has since repudiated -- when it enunciated its now infamous rule, known to most of you as the "nine no-nos" of patent licensing.5/

More recent decisions of the Supreme Court involving the issue of the patentability of inventions demonstrate an increased sensitivity to the economic benefits flowing from the patent grant.6/ However, to date the Court has not done much to clean up the confusion in the area of licensing. In fact, the Court seems to have taken a step backwards in its decision last week in the Hyde case.7/ The facts of the case involved a tying arrangement. No patents were involved, but the majority opinion went out of its way to describe in dictum the way tying rules should apply when patents are involved. I would like

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5/ Remarks of Bruce Wilson, Department of Justice Luncheon Speech, "Law on Licensing Practices: Myth or Reality?" (January 21, 1975). The Antitrust Division repudiated that approach, see, e.g., Remarks of Abbott B. Lipsky, before the American Bar Association Antitrust Section "Current Antitrust Division Views on Patent Licensing Practices" (November 5-6, 1981); Remarks of Roger B. Andewelt before the Houston Patent Law Association "Basic Principles to Apply at the Patent-Antitrust Interface" (December 3, 1981).

6/ See e.g., Diamond v. Chakrabarty, 447 U.S. 303 (1980); Dawson Chemical Co. v. Rohm & Haas Co., 448 U.S. 176, reh'g denied, 448 U.S. 917 (1980), on remand, 557 F. Supp. 739 (S.D. Tex. 1983).

7/ Jefferson Parish Hospital District No. 2 v. Hyde, No. 82-1031, -- U.S. -- (March 27, 1984).

to read to you one paragraph of the opinion that embodies some of the misconceptions about patents and patent licensing that have led to an overly restrictive antitrust doctrine in this area. The Court stated:8/

> [I]f the government has granted the seller a patent or similar monopoly over the product, it is fair to presume that the inability to buy the product elsewhere gives the seller market power. Any effort to enlarge the scope of the patent monopoly by using the market power it confers to restrain competition in the market for the second product will undermine competition on the merits in that second market. Thus, the sale or lease of a patented item on condition that the buyer make all his purchases of a separate tied product from the patentee is unlawful.

This discussion is troublesome in two ways. The first is the notion that "it is fair to presume that" market power necessarily flows from a patent grant. This presumption reflects the traditional, though ill-conceived, notion that the patent laws create "monopolies" that are inherently in conflict with the competition policy underlying the antitrust laws. The truth is, however, that the exclusive rights to patents rarely give their owners anything approaching a monopoly. Patented items almost always compete vigorously with products that are not covered by the patent. As I noted above, it is not unusual that a patent is so insignificant that its owner is unable to earn any profit at all.

8/ Slip Op. at 13 (citation omitted).

However, even when a patent turns a profit -- in economic terms, earns "rents," -- that does not necessarily indicate that the patent produces market power about which the antitrust laws should be concerned. In the real world, as opposed to the economists' world of theory and mathematical models, rents are being earned all the time, even where there is vigorous competition. For example, because some competitors in a market are more efficient than others, the more efficient will earn larger profits than their rivals. These profits should no more be condemned than the rents earned by the owner of a process patent that discloses a method of producing an existing product at a substantial cost savings.

Furthermore, by holding out the promise of a financial reward, the patent system encourages the creation of inventions that otherwise would not occur or would not occur as quickly. The patent grant thus promotes competition even when it creates monopoly or market power because it brings new choices and lower prices to consumers.

The important point that is lost in the Hyde dictum is that it is no more proper to presume that patents create market power than to presume that all property, tangible or intangible, creates market power. Whether or not a patent produces any market power is a factual question

that can only be resolved by the same detailed economic analysis that would be required to determine whether any other asset produced market power.

The second troubling notion in the majority opinion is that it seems to rely on the suggestion in certain earlier Supreme Court decisions that licensing arrangements that in any way affect products outside the scope of the patent are inherently suspect under the antitrust laws. This simply is not true.

A patent is merely one of many inputs that may be involved in bringing a particular product to the marketplace. As I mentioned before in my discussion of tying, sometimes the most efficient way for a patent owner to bring the technology to the marketplace is to market it in a manner that affects other necessary, but unpatented inputs. The search for such efficiencies should not be condemned simply because commerce outside the patent claims is effected.

Moreover, a focus on whether the license affects commerce outside the scope of the patent ignores the economic reasoning of GTE Sylvania.9/ Because the

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9/ Continental T.V. Inc. v. GTE Sylvania Inc., 433 U.S. 36 (1977).

technology embodied in a patent should be viewed as an input in the manufacture of a product, a patent license generally constitutes a vertical arrangement -- that is, an arrangement between different links in the production chain. In GTE Sylvania, the Supreme Court stressed that in the context of vertical arrangements restrictions on one party's competitive conduct often will be procompetitive. The Court therefore required that a factual analysis of the competitive effects of all vertical restrictions, except resale price maintenance, be undertaken before those restrictions are condemned under the antitrust laws. Thus, the notion that patent license restrictions should be condemned merely because they affect commerce outside the scope of the patent raises form over economic substance and ignores the important teaching of GTE Sylvania.

This brings us to what may be the main reason you invited me to address you today -- to explain how I believe patent licenses should be evaluated under the antitrust laws. Put in the simplest terms, patent licenses, including those that restrict a licensee's competitive conduct or affect products outside the scope of the patent, should not be viewed as inherently suspect or per se unlawful under the antitrust laws. Patent licenses should be subjected to antitrust scrutiny that is no harsher than that employed for a transaction involving any other type of asset. The lawfulness

of patent licenses should be based on a factual economic analysis, and licenses should be deemed unlawful only when their overall effect is anticompetitive. Toward this end, the President has proposed legislation, titles III and IV of the National Productivity and Innovation Act, that would ensure that intellectual property licenses are not condemned under the antitrust laws or under the misuse doctrine without appropriate consideration of their procompetitive benefits.

How should the analysis of licensing restrictions proceed? The first step in any antitrust analysis is to define the market affected by the license -- in antitrust terms, the relevant market. We do this by a fairly complex process described in detail in our Merger Guidelines.10/ In essence the outcome of this process is to define relevant markets to include not only the individual technologies or products covered by the patents but also available and potentially available substitutes for these technologies or products. These substitutes are a part of the analysis because they serve as a potential block on anticompetitive conduct. If a licensing practice would otherwise have the effect of raising the prices of the underlying technologies or products, the

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10/ U.S. Department of Justice Merger Guidelines (Antitrust Division June 14, 1982), reprinted in Antitrust & Trade Regulation Rep. (BNA) No. 1069, at S-3 (June 17, 1982).

availability of substitutes would mean that potential licensees and consumers could turn to other technologies or products and thus make the price increase unprofitable.

Because there are substitutes for most patents, the relevant market will typically be broader than the scope of the patent itself. This general approach to defining a relevant market was employed by the Supreme Court in the Walker Process case.11/ There the Court recognized that to determine whether an alleged fraudulent procurement of a patent amounted to an antitrust violation, it was necessary to define the relevant market to include substitutes. The Supreme Court explained: "Without a definition of that [relevant] market there is no way to measure [the patentee's] . . . ability to lessen or destroy competition."12/ This lesson is equally true when patent licensing rather than patent fraud is involved.

Once the relevant markets are defined, the competitive effects of the patent license in those markets must be analyzed. A key part of this analysis will be a determination whether the patent owner or its licensees alone or in combination have power in the market. As I noted previously, the fact that a technology is patented does not mean that the patent owner necessarily has market power.

11/Walker Process Equipment Inc. v. Food Machinery & Chemical Corp., 382 U.S. 172 (1965).

12/Id. at 177.

If the analysis leads to the conclusion that no market power exists, the patent license generally should not raise antitrust concerns. Of course, there are exceptions -- for example, when the license is a cover for a horizontal agreement to fix prices or when the licensing practice is prevalent throughout the industry and those practices collectively have the effect of raising prices or precluding existing or potential competition.

If the patent and its licensees in combination do have market power, then the analysis should proceed by carefully evaluating the actual or potential effect of the license on competition in the relevant market. One must begin by determining whether the license has any anticompetitive effect. If no anticompetitive effect can be established, the restriction should not be condemned.

Moreover, if the restriction has no effect other than to restrict commerce in the patented technology or products, the practice generally should not be condemned. The patent grant permits the patent owner to exclude everyone from practicing the patented invention. If the patent owner chooses to license the patent, he or she should not be prevented from earning the maximum reward by exercising this right to exclude in the most efficient manner possible. After all, to the extent the antitrust laws discourage a particular licensing practice, the patent owner may be forced to engage in some less desirable

alternative, such as refusing to license the patent altogether. Not only would this decrease the efficiency with which the patent is exploited but also would reduce the expected overall return to R&D.

The main focus of the inquiry should be whether the licensing practice has an adverse competitive effect on products or technologies that actually or potentially compete with the patent. For example, a licensing scheme may be used to increase the barriers to entry into a market. Also, prevalent licensing may have the effect of suppressing competing technologies and thereby limiting competition and limiting the choices available to consumers. In short, there must be a fact intensive inquiry to determine whether the licensing practice has had an anticompetitive effect in some properly defined market.

Even if a restriction in a patent license results in some anticompetitive effect, this does not mean that the restriction is necessarily unlawful. If the challenged restriction is reasonably necessary to achieve some demonstrable procompetitive benefits, then these benefits must be balanced against the anticompetitive effects. Of course, if the particular restriction is not reasonably required to obtain the benefits, then balancing is not necessary -- the restriction is illegal.

To sum up, this country is heading into a critical phase in its history, in which it will have to battle successfully in order to avoid being knocked out of market after market -- both here and abroad -- by foreign competitors. We know we can't hide from competition; we shouldn't erect barriers to keep imports out of our markets. The best choice we have is to meet foreign competition head-on, and to do that successfully we have to free American business from artificial restraints. No single factor will be more important in our race against foreign competitors than our development and application of new technology. That is one area where we can't afford the luxury of old-fashioned ideas, and we in the Department of Justice intend to see that antitrust policy is as modern as the technology it seeks to foster.