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THE VALIDITY OF GRANT-BACK AGREEMENTS UNDER THE ANTITRUST LAWS

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The "grant-back" covenant is one of the basic tools of patent licensing by which the licensor of a patent insures his access to the developing technology of his invention. In its most general form, the covenant reserves to the licensor some rights in the patents on improvements invented by his licensee.1 Besides successfully preserving the licensor's access to technology, the grant-back agreement has been used as one of a number of weapons to regiment an industry and to gain control of all the technology.2 Despite the danger of restraint of trade in the use of this device, the courts have done little to develop the law of grant-backs since 1947, when one such agreement was upheld by the Supreme Court in Transparent-Wrap Mach. Corp. v. Stokes & Smith Co.3 The courts have been content to reiterate that a grant-back is not unlawful except as part of a monopolistic scheme.4 As recently as 1957, it was said, apropos of the law of grant-backs, that, "in the shifting sands of anti-trust law, one area has during the past ten years shown a refreshing degree of stability."5

Into this sylvan calm it appears that the Antitrust Division of the Justice Department intends to introduce a discordant note. It was recently reported that Donald Turner, chief of the division, is interested in testing anew the validity of grant-back agreements under the antitrust laws.6 This announcement points up the fact that the apparent stability of the law in this area is only superficial; there is, at best, an uneasy truce be-

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1. Member of the New York Bar.


4. Cases cited notes 33 & 34 infra.


between the Transparent-Wrap case and other Supreme Court cases concerning patents and the antitrust laws.

The reservation of a grant-back in a patent license continues to raise a fundamental question of the relation between patent and antitrust law: whether the licensor has, by his license, extended the scope of his monopoly beyond that lawfully conferred by his patent and has created thereby an unreasonable restraint of trade. This question, as Mr. Turner has indicated by his efforts to reopen inquiry into the problem, has never been answered by the courts in a way that is convincing under other precedents defining the relations between patent and antitrust law. The present discussion will examine the legal, and some economic, considerations affecting grant-back agreements, in an effort to determine when they may violate the antitrust laws.

I. The Transwrap Case

In the case of Transparent Wrap Mach. Corp. v. Stokes & Smith Co.,7 known affectionately to patentees as the Transwrap case, the Supreme Court upheld a grant-back agreement of the strongest variety, in effect an assignment-back, under which the licensee agreed to give the licensor an option to patent future inventions “suitable for use”8 in connection with the parent invention. In light of other decisions on the relation between patent and antitrust law, this at first seems a surprising result. The term of any patent for an improvement will inevitably extend beyond the statutory period of the parent patent, and, even during that period, the improvement patent may extend the control of the licensor into a wider field than he could control solely by his own patent. Initially, it would appear that the requirement of a grant-back extends the monopoly of the parent patent beyond the grant of the original letters, and, therefore, that it should be unlawful by analogy to the patent-tying cases.9

In those cases, to be sure, the monopoly was extended by requiring the purchaser of one product to take a second product. In the case of a grant-back agreement, of course, the licensee is not required to purchase a second product. But, as pointed out in the recent case of Brulotte v. Thys Co.,10 the vice of a tying arrangement is more general than the exclusion of competition in the tied product; a tying arrangement extends the monopoly power of the patentee beyond the confines of the monopoly granted in the original patent.11 In Brulotte, the Thys Company sold

8. Id. at 639.
11. 379 U.S. at 33.
hop-picking machines, upon which it had a patent, for a flat sum to be paid in the form of royalties based upon the amount of hops harvested by the machine. The purchaser was barred from assigning its contract or from moving the machines out of the county. None of these provisions was limited to the statutory term of the patent, and the Supreme Court held them unlawful insofar as they extended that term: "[W]hatever the legal device employed...a projection of the patent monopoly after the patent expires is not enforceable."12

One of the essential elements of monopoly is the power to exclude competitors; the Brulotte case seems to say that whenever that power to exclude is extended beyond the original patent, either by tying-in another product, or stretching out the royalty payments for the patented product, the antitrust laws may be violated.

This doctrine obviously creates serious difficulties for the legality of grant-back clauses in patent licenses. The problem, lurking in the background of the patent-tying cases, has been brought into the open by the Brulotte decision. The grant-back clause has a tendency to enhance the original licensor's power to exclude, either because the patent for the improvement extends in time beyond the term of the original patent, or because it extends in scope beyond the original invention into a new market. The grant-back covenant might be viewed either as a contract in restraint of trade in violation of Section 1 of the Sherman Act,13 or as monopolization by the licensor in violation of Section 2.14

An assignment-back, of course, gives a greater power to exclude than a mere license-back, because an assignment gives the original licensor all rights over the improvements, whereas under a license the rights must be shared with others. But even in the case of a license-back, the original licensor retains some power to exclude; it is only diluted, not destroyed, by his sharing it with others. The licensor still has the power to exclude all those who are not licensees, and, if he extends the exclusionary power of his patent monopoly, he at least affects all those who are not licensees.

In considering the assignment-back in the Transwrap case, the Second Circuit at first accepted the analogy to the tying cases,15 even without benefit of the gloss subsequently supplied in the Brulotte case. In an action by the licensee for a declaratory judgment on the contract, the circuit court, in an opinion by Judge Learned Hand, found the grant-back clause unlawful per se:

The last Zwoyer [Transwrap] patent will expire in 1953, and the eleven improve-

ment patents will expire between 1956 and 1959, so that there will be a period of from three to six years during which, although the plaintiff will be free to make, use, or vend the original "Transwrap Packing Machine," the defendant will be able to compel the plaintiff to buy from it alone any improved "Transwrap Packing Machine." Thus the plaintiff will be required to buy from the defendant articles which, although patented, are not covered by the Zwoyer patents. . . . The owner of all property, by withholding it upon any other terms, may, if he can, force others to buy from him; land is the best example and every parcel of land is a monopoly. But it is precisely in this that a patent is not like other property; the patentee may not use it to force others to buy of him things outside its four corners. 16

Yet the Supreme Court reversed, holding that the grant-back clause was not illegal per se. The Court remanded the case to the circuit court to determine whether there were facts upon the record which proved a violation of the antitrust laws in fact, if not per se, and the Second Circuit, again by Judge Learned Hand, held that no such violation was proven. 17

To understand how the Supreme Court and the Second Circuit could have reached these results, we must consider the facts and the reasoning of the decisions in some detail. The Transparent-Wrap Machine Corporation was the owner of three closely related patents covering a machine to make, fill, and seal a connected series of small transparent envelopes. Stokes & Smith Company was in the business of manufacturing machinery to make similar packages and to fill them with powders.

Transwrap granted Stokes & Smith an exclusive license upon the patents for the United States, Canada, and Mexico, together with a trademark and know-how. In effect, Transwrap leased the business to Stokes & Smith in return for royalties. The first Second Circuit decision summarized the renewal provisions:

The contract was to last for ten years unless terminated as provided; but the plaintiff had an option to renew it for successive periods of five years, "until the expiration of the Patents above referred to and the expiration of any further Patents that may be granted to or acquired by the Licensor or Licensee, covering improvements in Transwrap Packaging Machines or inventions used, or capable of use by the Licensee in the manufacture thereof." 18

In article twelve of the license agreement, Stokes & Smith agreed to give an option to patent any improvements on the Transwrap machine which might be discovered by Stokes & Smith. 19 It appears that the parties

16. Ibid.
18. 156 F.2d at 199.
19. The Supreme Court had quoted the relevant portions of the agreement: "If the Licensee shall discover or invent an improvement which is applicable to the Transwrap Packaging Machine and suitable for use in connection therewith and applicable to the making and closing of the package, but not to the filling nor to the contents of the package, it shall
operated under this agreement for six years, until Transwrap discovered that Stokes & Smith had obtained some fourteen (later reduced to eleven) patents claimed to be covered by article twelve. They were to expire between three and six years after the last Transwrap patent. Transwrap elected to terminate the license contract for this alleged breach, and Stokes & Smith brought its declaratory judgment action to establish that the offending article was invalid. Transwrap counterclaimed for an assignment of the patents pursuant to the license agreement. The facts presented at the trial in the district court did not define the issues under the antitrust laws with much clarity, apparently because Stokes & Smith was determined only to establish that the grant-back clause was invalid as a matter of law. The sole witness upon the issue of the nature and scope of the improvements appeared for Transwrap, testifying that the eleven patents indeed covered "improvements" within the meaning of article twelve. There was no proof from Stokes & Smith concerning the scope of the eleven new patents, neither as to whether they were applicable to other machines in addition to the Transwrap machine, nor as to whether any such machines would be "important competitors" with the Transwrap machine. The court was forced to view the new patents as improvements within the scope of the Transwrap patent, and to determine only the validity of the contract. Upon this proof, the district court dismissed the complaint and directed Stokes & Smith to assign the patents. As discussed above, the Second Circuit reversed, relying on the tying cases to hold, as a matter of law, that the grant-back clause was unlawful on its face.

The Supreme Court reversed this decision, recognizing that a grant-back agreement might be used as part of a scheme to create an unlawful monopoly where there was proof of an intent to violate or of an actual violation of the antitrust laws. But, since Stokes & Smith had put in no

submit the same to the Licensor, which may, at its option, apply for Letters Patent covering the same. In the event of the failure of the Licensor so to apply for Letters Patent covering such additional improvements, inventions or patentable ideas, the Licensee may apply for the same. In the event that such additional Letters Patent are applied for and are granted to the Licensee, they shall be deemed covered by the terms of this License Agreement and may be used by the Licensee hereunder without any further consideration, license fee or royalty as above provided. In the event that any such additional improvements are patented by the Licensee for use in connection with Transwrap Packaging Machines, (after the refusal or failure of the Licensor to apply for Patents thereon), the Licensor may, nevertheless, have the use but not the exclusive use of the same outside of the several territories covered by this License Agreement. The expenses of obtaining any such Patents shall be paid by the party applying therefor." 329 U.S. at 639 n.1.

20. 161 F.2d at 567.
21. Ibid.
22. See text accompanying note 16 supra.
23. 329 U.S. at 646.
such proof, the Court refused to accept the analogy to the tying cases to find the clause unlawful per se. In part, at least, this decision rested upon the proposition that, in the tying cases cited to the court, an unpatented product had been tied to a patented one; whereas

one who uses one patent to acquire another is not extending his patent monopoly to articles governed by the general law and as respects which neither monopolies nor restraints of trade are sanctioned. He is indeed using one legalized monopoly to acquire another legalized monopoly.\(^\text{24}\)

The basis for this reasoning is seriously undermined, if not destroyed, by certain cases of coercive block-booking and package-licensing, in which it has been held unlawful to condition the license of one legal monopoly upon the acceptance of a license for another legal monopoly.\(^\text{25}\)

In short, the Court’s opinion seemed to assume that the essential evil of a tying agreement is that it conditions the sale of a patented article upon the sale of an unpatented one, when, in fact, the basic defect in such an agreement is a more general one. The Court failed to answer the more basic question implied by the tying cases: whether the power to exclude conferred by a grant-back is so much greater than the power given in the original patent as to render the grant-back agreement unlawful.

Although the chief argument of the Supreme Court does not entirely support its decision, subsidiary arguments of the Supreme Court and the court of appeals on remand are more convincing. In reply to the argument that the improvement patents would extend beyond the period of the original patent, the Supreme Court suggested,\(^\text{26}\) and Judge Hand emphasized,\(^\text{27}\) that the market power of Transwrap would not be increased by the grant-back. Judge Hand’s decision, perhaps the most important in the field of patent grant-backs, is worth quoting at length:

We shall . . . confine ourselves to whether the contract itself shows that the defendant was engaged in a violation of the Anti-Trust Acts. In support of this plaintiff argues that, when the defendant fortified the monopoly of its own patents by acquiring the plaintiff’s patents, it secured a “double monopoly,” which was an unlawful restraint of trade, even though taken by itself the acquisition of those patents was lawful. The

\(^{24}\) Id. at 644.

\(^{25}\) E.g., United States v. Paramount Pictures, Inc., 334 U.S. 131, 157-58 (1948); Ethyl Gasoline Corp. v. United States, 309 U.S. 436, 459 (1940); Technograph Printed Circuits, Ltd. v. Bendix Aviation Corp., 218 F. Supp. 1, 49 (D. Md. 1963), aff’d per curiam sub nom. Technograph Printed Circuits, Ltd. v. Bendix Corp., 327 F.2d 497 (4th Cir.), cert. denied, 379 U.S. 826 (1964). The theory of these cases is that each legal monopoly must succeed or fail in the market on its own merits; it may not justify tying its fortunes to a more powerful monopoly simply upon the ground that both monopolies are lawful. Similarly, it is doubtful that a patentee can show that it is lawful for him to demand control over future patents simply by saying that both his own and the future patents are lawful monopolies. He must show, in addition, that he is not improperly extending his original monopoly power.

\(^{26}\) 329 U.S. at 646.

\(^{27}\) 161 F.2d at 567.
period, to which any such restraint is necessarily limited, is that during which both
the Zwoyer patents and the plaintiff's patents will be in existence; for we must
obviously disregard any period after the expiration of the Zwoyer patents, during which
the plaintiff's patents may remain in force. In that period the defendant's control will
be precisely the same as the plaintiff's would have been, had it not assigned. During
what we may, however, call the joint period it is true that the defendant will have a
monopoly, not only of the Zwoyer machine itself, but of any improvements upon
it covered by the plaintiff's patents: verbally, that is a "double monopoly"; actually
that phrase adds nothing to the defendant's control over production. No one will be
able to use, make or vend the Zwoyer machine without its consent, and no one can
use, make or vend an improvement without using, making or vending the machine
improved. The defendant's control over the industry will be no greater by virtue of the
improvement patents; all it will gain during the joint period is a freedom to add the
improvements to the Zwoyer machine, which it would not otherwise have had, for its
license from the plaintiff terminated with the contract.

Moreover [sic], even though the plaintiff had proved that there were machines which
some of its own patents cover, but which the defendant's patents do not, the record
would not be sufficient to raise any question of the Anti-Trust Acts. That would have
shown that during the joint period, the defendant would have extended its control
over the industry; but extension, merely as such, would not be enough. It would
remain possible that, while the Zwoyer patents were in existence, any putative
machines which they did not cover, and which the plaintiff's patents did cover, would
not be important competitors with the Zwoyer machine itself; and it is hornbook law
that not every restraint of competition is "unreasonable" and that only "unreasonable"
restraints are unlawful. All this the plaintiff should have developed at the trial, if we
were to pass upon it; upon the record as it comes to us, no restraint of trade appears
—to say nothing of any "unlawful" restraint.28

It should be clear from Judge Hand's words and the facts of the Trans-
wrap case that his statement is true only if two conditions are met:
(a) there is only one licensee; and (b) the scope of the "improvements"
does not extend substantially beyond the confines of the original patent.

If there is only one licensee, as in Transwrap, the licensor will take all
the improvement patents that the licensee has, and when the original
patent expires, the licensor will have only the market power that the li-
 licensee would otherwise have had. The case is strengthened when (again,
this was true in Transwrap) the patentee has not himself been using the
patent and making improvements. Where there is more than one licensee,
however, the licensor will tend to amass the market power of more than
one patentee.

Similarly, if there is only one licensee, but his "improvements" are
applicable to processes or products competitive with the original process
or product, the grant-back clause will tend to expand the market power
of the original grantor. In Transwrap, however, Stokes & Smith had
proved nothing about the scope and market power of its patents, and
Judge Hand was compelled to take the word of Transwrap as to the
scope of the improvements.

28. Id. at 567. (Emphasis added.)
In reply to the argument that the grant-back clause would discourage invention by the licensee, the Supreme Court pointed out that Stokes & Smith had the power to renew the license until all the patents expired, without the payment of additional royalties. Stokes & Smith thus had full access to the technology of the business, its own as well as that of Transwrap.

These considerations suggest that the Transwrap decision was justified only upon very narrow grounds. The courts felt that Transwrap should be able to lease out its business without fear of being deprived of technological advances. It was permitted to take back those technological advances, because Stokes & Smith was an exclusive licensee with which it was not competing. The contract was treated as an exception to the rules condemning extensions of the patent monopoly, because Transwrap's market power, even when extended by the improvements, could be no greater than its licensee's had been. Transwrap had extended its monopoly, but the extension was not harmful. It follows that the consequences for the grant-back agreement under the antitrust laws may be different when any of the governing facts in Transwrap is not present, i.e., (a) when there is more than one licensee; (b) when the licensor competes with his licensee or licensees; (c) when the scope of the improvement is outside the scope of the parent patent; (d) when the circumstances of the license tend to discourage invention by the licensee. We are not, of course, privileged to conclude out of hand that the grant-back will be invalid per se if any of these conditions exist, because we do not yet know whether, in the absence of the special circumstances of the Transwrap case, a grant-back is equivalent to a tie-in or any other unlawful extension of the patent monopoly.

The law would be blessedly simple if we could conclude that all grant-backs are unlawful which do not fall within the rather extraordinary facts of Transwrap. It appears that we are forced to conclude, however, that a grant-back agreement is not equivalent to either a tying agreement or to an extension of the royalty payments beyond the term of the parent patent. Two distinguishing marks of the grant-back agreement may be adduced at this point:

(a) The inventor of the parent patent has an interest in preserving his access to technological improvements in the field. By requiring his licensees to afford him that access, he does not create the same restraint of trade that he would create by requiring them to take a product beyond the scope or the term of the original patent. This legitimate interest in

29. 329 U.S. at 646. The Supreme Court did not consider the problem created by the fact that Stokes & Smith would be locked into the market with Transwrap indefinitely if the former wished to continue to use its own technology. This problem is considered at pp. 587-88 infra.
new developments has been recognized in the law concerning the obligations of an employee to turn inventions over to his employer. It is not an unreasonable restraint of trade, for example, for an employee to be required to turn over to his employer all inventions made during, and even after, employment, if the requirement is limited in time and scope of invention. Although this rule is not strictly part of the antitrust laws, it has not been destroyed by those laws. It suggests that it is not an unreasonable restraint for an inventor to preserve his access to improvements.

(b) By forbidding the patentee to require his licensees to give him access to technology, we may actually discourage licensing, at least where the patentee is using the patent himself. The purpose of the legal monopoly, as the Supreme Court has pointed out, is not to reward the inventor, but to encourage the use of his inventions; it would be against patent law policy to restrain his impulse in that direction. Every extension of the patent monopoly in a license, of course, encourages its wider use, and this includes such unlawful extensions as tying agreements. To forbid those restraints, however, does not actively discourage licensing by threatening the patentee with a loss of knowledge of the technology, while to forbid all grant-backs apparently would have such an effect.

A grant-back agreement and a tying agreement are not equivalent, then, because a grant-back protects legitimate interests that a tying agreement does not. Nevertheless, the distinction breaks down whenever the grant-back is drawn in such a way as to extend the control of the licensor beyond his interest in access to technology. Such grant-back agreements tend to run afoul of the doctrine in the Brulotte case condemning extensions of the monopoly beyond the confines of the patent grant.

While the grant-back clause in patent licenses is not unlawful per se, its lawful use outside the facts of Transwrap appears to be restricted to the protection of the licensor's access to the technology of his invention.

II. THE LAWFUL SCOPE OF GRANT-BACK AGREEMENTS

Subsequent decisions in the lower courts have done little to illuminate the limitations upon the use of grant-back clauses stated or implied in the Transwrap decisions. The courts have been content, for the most part, to repeat that a grant-back agreement is not per se unlawful, even

32. See text accompanying note 11 supra.
in the case of several licensees, at least where improvements are available to others through non-exclusive licenses. In accordance with the closing dictum of the Supreme Court in Transwrap, grant-back agreements have sometimes been held to be objectionable as part of a monopolistic scheme, though not unlawful in themselves. Since the cases do little more than reaffirm the holding of the Transwrap decisions, we are obliged to penetrate the surface of the cases, and examine the effects under the antitrust laws of each of the situations excluded by the courts from consideration in that case. We will briefly recapitulate each of those situations before considering them at greater length:

(a) More than one licensee. In this case the licensor may, through his grant-back agreement, amass more market power than any one licensee would have alone.

(b) Competing licensor. The licensor who competes with his licensees may invent improvements which, when combined with those of the licensee, will extend the market power beyond that of the licensor or licensee alone.

(c) Improvement beyond the scope of the original patent. If the licensor obtains such an improvement through his grant-back agreement, he automatically extends the power of his original monopoly.

(d) Tendency to discourage invention. It is clear, at least, that, if the licensee were discouraged by any license-back agreement, a serious problem would be raised for the legality of the agreement.

It appears that these four classes will cover most of the situations outside the special case of an exclusive licensee covered in the Transwrap case. If the licensee is not exclusive, he must either be in competition with his licensor or with other licensees, and, in any of the situations, including that of an exclusive licensee, improvements may extend beyond the scope of the original patent. By examining each of these cases, we may learn something of the real effects of grant-back agreements and understand the scope of the Transwrap case.


35. 329 U.S. at 646-48 (dictum).

A. The Problem of Multiple Licensees

In answer to the objection that any improvements granted back to the licensor in the Transwrap case would necessarily extend the period of the monopoly past the original statutory period, the Supreme Court and the Second Circuit indicated that Transwrap would have had no more of a monopoly after the original period than Stokes & Smith would have had if it had retained its improvements. This justification, of course, fails if there is more than one licensee. The parent patent tends to become a "funnel" for improvements from all licensees, the aggregate of the improvements may be a larger monopoly than the one patentee could amass alone, and the monopoly will certainly extend beyond the period of the original patent.

The theory of the Transwrap case was that, if Transwrap were to drop Stokes & Smith for its breach of contract, take all the improvements, and begin to manufacture the packaging machine, Transwrap would be doing exactly the same work that Stokes & Smith had done. On the other hand, if a patentee with a large number of licensees terminates its contract with each of them, taking all the improvements from each, and begins to manufacture under all the patents, it cannot be predicted with certainty that the manufacturer will be doing the same work that any of the licensees, or the original licensor alone, would have done. The question is whether this potential extension can be justified as a protection of the licensor's legitimate interest in access to improvements. As indicated above, an agreement for a license-back will have a less monopolistic effect than the requirement of an assignment-back. It also seems apparent that the interest of the inventor in simple access to improvements will be protected by an agreement for a non-exclusive license-back on improvements by the licensee. Accordingly, when the original license on the parent patent is non-exclusive, it

37. See 329 U.S. at 646.
38. 161 F.2d at 567.
41. While the policy of the patent law is to refrain from actively discouraging the licensing of patents, it does not seem that the limiting of the holder of the original patent to a license, rather than to an assignment, would have such a discouraging effect.
appears that a requirement for the licensee to assign outright his patents upon improvements or to refrain from licensing third parties upon them should be unlawful per se. Since the original licensor has an alternative which will protect his legitimate interest, with less monopolistic effect than the assignment-back, he should be compelled to adopt that alternative, on pain of being found to have a monopolistic purpose. Research does not reveal that the courts have squarely taken this position, but it is submitted here that this is the only result that is consistent with the Brulotte case. Outside the scope of the Transwrap case, where the assignment-back was not a restraint of trade because it was attendant upon an exclusive license, the licensor must protect his interest in the access to technology without expanding his monopoly.

This per se rule for cases where the licensor of a non-exclusive license demands an assignment-back does not put an end to the matter, however. It leaves open the question of whether the non-exclusive license-back agreement may not itself be unlawful under certain circumstances. To be sure, the requirement to give back such a non-exclusive license on improvements does have a restraining tendency, at least after the expiration of the original patent. Except in the case where the improvements are cumulative, the licensees may not have a great inclination to license one another, and the owner of the original patent may be the only one who has access to all the improvements. This effect of the parent patent on the improvements may not be felt until the original patent has expired, because improvements, if they really are within the scope of the original patent, will generally not be useful except in connection with it. After the original patent expires, however, the original patentee may be revealed as the only competitor in the field with access to all the improvements.

Although the requirement of a non-exclusive license-back does have a tendency towards “funneling,” it is not unlawful per se in light of the cases which approve the use of non-exclusive license-back agreements. Furthermore, such a rule would be inconsistent with the existing law concerning the cross-licensing of patents. The patentees of complementary inventions are entitled to create cross-licenses, so that the public may have the benefit of the combined invention, and there appears to be no requirement that the period of the license must be coterminous with the patent which first expires. Although the owner of the patent which ends first has technically “extended” his monopoly by the bargain, the law approves the extension, perhaps because the only practical alter-

42. Cf. Turner, supra note 9, at 60-61.
43. See cases cited note 40 supra.
native, in the case of complementary patents, would be to deprive him of the use of both inventions after his own had expired. Unless the cross-license creates undue monopoly control of a market in the hands of the patentees, then, the law approves the bargain by which each patentee agrees to give up monopoly control of his patent, in return for access to the other patent for its full term.

An improvement, if it really is within the scope of the original invention, seems to be a complementary invention. It would be illogical to deny the same privilege to the licensor before the complementary invention is created as would be available afterward. It will no doubt be pointed out that, when the inventions come into being prior to the license, the patentees make their cross-licenses in full knowledge of what they bargained for, free to get such terms as they can, whereas the licensor who enters into a grant-back agreement controls the patents before the inventions are discovered. This appears to be a false distinction in the case of improvements, however, because they are generally not so powerful that they can be used independently of the parent invention. Even if the improvements were not invented under a license on the parent invention, they would eventually have to be cross-licensed with the parent invention. The licensor, furthermore, is at a distinct disadvantage in obtaining improvements from his licensees if he does not have a license-back agreement. If improvements are invented by someone who is not a licensee, he must cross-license the improvement in order to use the principal patent, but a licensee already has the right to use the principal patent, and he will feel little compulsion to give back his improvements. A licensor must have the power to get the improvements from his licensees before they are invented, or he may not be able to get them at all.

Finally, it is unlikely that a serious restraint will result from the reservation to the licensor of a non-exclusive license in the improvements. Most improvements, far from being funneled to the original licensor, will probably be disseminated by cross-licenses among all the licensees who have improvements with which to trade. The original licensor, if he did not have the power to take a license-back, would be the only one excluded from the use of the improvements at the expiration of the original patent. In short, there appears to be no device less restrictive than the non-exclusive license-back which will insure the legitimate interests of the original licensor. In cases where this non-exclusive license creates a serious problem of monopolization in the hands of the original patentee, the non-exclusive license may be subject to attack under the

antitrust laws, just as a cross-licensing arrangement may be, but it will not be unlawful per se.46

From our study of the cases where non-exclusive licenses are given by the original patentee, we can reach the following conclusions concerning the validity of grant-back covenants: (a) An assignment-back agreement is unlawful per se; (b) A non-exclusive license-back agreement is not unlawful, unless it has the purpose or effect of monopolization.47 These rules appear to be the only ones, consistent with the Brulotte case and the existing antitrust law for grant-backs and cross-licenses,48 which will protect the interest of the inventor in continued access to the developing technology of the invention.49

B. The Problem of the Competing Licensor

In the Transwrap case, the licensor took back no more of a monopoly than the licensee would have had, partly because the licensor was not using the parent patent and was not likely to develop any improvements.50 The terms of the grant-back were justified there because Stokes & Smith was an exclusive licensee, who had taken the use of the Transwrap patents away from their inventor; but, in most cases where the original license is not exclusive, the failure of the licensor to manufacture under its own patent will tend to a contrary result. It will make the motives of the licensor in requiring a grant-back suspect, because he may no longer have the reason for retaining access to the technology that a competing licensor would have. When the licensor competes with his licensee, this problem is solved; but other problems are created. We shall consider each of these cases in turn.

1. Non-competing Licensor and Multiple Licensees

We have seen that, in the case where there is more than one licensee, the interests of the licensor will be adequately protected by a license-back on a non-exclusive basis.51 If the licensor is not competing with his licensees, e.g., the licensor is simply a patent-holding company which

46. The distinction drawn here between non-exclusive license-backs and assignment-backs is made on the assumption that the license-back is not drawn so restrictively as to constitute an assignment in disguise. In United States v. General Elec. Co., 82 F. Supp. 753 (D.N.J. 1949) (lamps), certain licensees gave back to General Electric a "non-exclusive" license, but General Electric had the sole power to sub-license others. A license-back clause for one of a number of licensees should leave the power to license others in the hands of the inventor.

47. The conditions under which such a monopolistic purpose or effect may arise will be considered in more detail at pp. 589-91 infra.

48. See cases cited note 44 supra and accompanying text.

49. See cases cited note 34 supra.

50. 161 F.2d at 567.

51. See cases cited notes 33 & 34 supra and accompanying text.
has acquired the patent, then the justifications, even for this license-back agreement, are weakened. The patent-holder appears to have little interest in retaining access to the technology. Despite this, it cannot be said that it is unlawful per se for a non-competing licensor to demand a license-back, for two reasons: (a) Even a patent-holder who is not using his patent does in fact have some interest in technological developments for purposes of sale or assignment of the patent. If he should want to sell his patent to someone who will use it as a competitor in the market, it would be awkward if he could not convey at least some rights in the improvements. The purchaser would otherwise get only the bare patent, none of the improvements, and nothing with which to bargain for them. (b) In most cases, the licensor will be likely to enter into competition at some time during the term of the patent. As a practical matter, it is rarely possible to predict that the licensor will never use his patent at any time during or after the license. If he should use it, he would, of course, need the improvements.

In short, a rule making it per se unlawful for a non-competing licensor to demand any sort of a grant-back would probably be undesirable. The most that can be said is that the reservation of a grant-back clause from multiple licensees by a non-competing licensor will be strong evidence of an intent to control the market through grant-back agreements.

2. CompetingLicensor

Where the licensor is competing with its licensees, even a single licensee, there is a certain likelihood that the licensor will invent its own improvements, thus creating a "double monopoly" after the period of the parent patent has run. This appears to be a special case of the problem presented by multiple licensees, and it should be answered in the same way. An assignment-back should be unlawful per se, but a license-back should not be invalid, except where a monopolistic intent or effect is shown.

C. Scope of the Grant-Back

In the Transwrap case, the plaintiff licensee, in its declaratory judgment action, failed to offer any proof as to the scope of the improvements, and, on remand, Judge Hand felt constrained to find that there was no

52. See pp. 576-77 supra.
53. In the Transwrap case itself, for example, the licensor had been manufacturing the Transwrap machine before the license was granted, and was bound to resume manufacturing or to license another person if the license were terminated. 156 F.2d at 193.
55. See pp. 589-91 infra.
unreasonable restraint of trade in the grant-back clause.\textsuperscript{56} Naturally, this argument fails if the scope of the “improvement,” in fact, extends substantially beyond the scope of the original patent.

An invention may be said to be beyond or outside the scope of another in the sense that it is useful in connection with either a competitive or a non-competitive product or process.\textsuperscript{57} A requirement to grant-back improvements which includes either of these types of “extraordinary improvements,” as they shall be termed, presents a danger of restraint of trade. It gives the original patentee excessive power over his competitors, or else extends the monopoly granted in the original patent into a new field. Power over extraordinary improvements does more than simply preserve the access of the original patentee to the technology of his invention, and, thus, such power may run afoul of the antitrust laws.

Nevertheless, it is difficult to see how a simple per se rule can be constructed which will outlaw every grant-back clause which may include extraordinary improvements, since it cannot be foreseen what inventions will be made. Some contract clauses are so broadly drawn that they may include extraordinary improvements, if any are invented, but it does not follow that all such clauses are bad per se. The requirement of an assignment-back of all improvements “suitable for use”\textsuperscript{58} in connection with the Transwrap machine appears to have been such a clause; yet, the Second Circuit held the clause valid because there was in fact no showing that extraordinary improvements had been invented.\textsuperscript{59} This holding is somewhat difficult to justify. The clause could have been drawn more narrowly, to exclude patents and uses of patents outside the scope of the original patent. The fact that it was not so drawn certainly raised an implication that the clause was drawn for an unlawful purpose.\textsuperscript{60} However, when faced with the fact that the clause was not shown to have extended the power of the grantor, the courts apparently were adverse to striking down the clause. The decision may perhaps be rationalized upon the ground that the phrase “suitable for use” was narrowly construed so as to include only simple improvements, at least for purposes of a declaratory judgment action, where the clause was not shown to have been used for an unlawful purpose.\textsuperscript{61}

\textsuperscript{56} 161 F.2d at 567.
\textsuperscript{58} 329 U.S. at 639 n.1.
\textsuperscript{59} See 161 F.2d at 567-68.
\textsuperscript{60} In Brief for Respondent, pp. 4-5, Transparent-Wrap Mach. Co. v. Stokes & Smith Co., 329 U.S. 637 (1947), it was argued that the phrase “suitable for use” was too broad to cover improvements alone.
\textsuperscript{61} Cf. Universal Winding Co. v. Clarke, 108 F. Supp. 329, 332-33 (D. Conn. 1952). It should be noted in this connection that some grant-back clauses are drawn so broadly that
This, then, is a rather narrow holding, but it seems justified if the broadly drawn clause would not have the effect of hampering invention by the licensee. There are two reasons why it should not have such a restrictive effect: (a) If the invention by the licensee is a genuine extraordinary improvement, then the clause should be construed so as not to include it, and the licensee should be able to rely upon such a construction. (b) Since simple improvements will be created in the course of the ordinary development of the art, their invention will not be hampered by the clause, whether the clause is narrowly drawn or not.\textsuperscript{62}

While the holding with regard to the scope of the assignment-back in the Transwrap case may be justified, it offers little comfort to patent licensors. The assignment-back contract is not invalid on its face, but it should be invalid as applied to any extraordinary improvements. When there is a grant-back clause which may be applied to extraordinary improvements, and it is so applied, the antitrust laws are violated. This rule, furthermore, should be applicable to license-backs as well as assignment-backs. If the licensee is compelled to give back even a mere license for extraordinary improvements under the terms of the contract, the original patentee is extending the power of his original patent, and a violation may arise. It would appear much safer for patent licensors to exclude uses outside the field of the original patent from the terms of the grant-back agreement.

It has been suggested that the validity of the grant-back agreement ought to be determined, in part, by the scope of the monopoly granted in the original patent. In the decision of the district court in \textit{United States v. E. I. duPont de Nemours & Co. (Cellophane)},\textsuperscript{63} the grant-back clause in the license of the Du Pont cellophane patents was upheld, partly upon the ground that the patents were so broad and original that the improvements would not enhance the market power of Du Pont.\textsuperscript{64} This seems to be a misleading approach. The mere fact that a patent has dominant power does not mean that a grant-back clause is valid. If anything, such power tends to increase the funneling effect of the original patent,\textsuperscript{65} though the funneling may be masked by the power of the dominant patent until after that patent has expired. The district court in the Cellophane case may have been thinking about the effect of the grant-back only during the term of the dominant cellophane patents, but the doctrine enunciated

\textsuperscript{62} They are not construed narrowly. Cf. \textit{United States v. National Lead Co.}, 332 U.S. 319 (1947); \textit{Guth v. Minnesota Mining & Mfg. Co.}, 72 F.2d 385 (7th Cir. 1934).

\textsuperscript{63} Authorities cited note 70 infra.

\textsuperscript{64} 118 F. Supp. at 224-25.

\textsuperscript{65} The funneling effect of the patent was minimized in the Cellophane case because there was only one licensee. 351 U.S. at 383.
there created some confusion and conflict in the law. A few courts had declared grant-back clauses running to the licensors of powerful patents to be unlawful, thinking primarily of the funneling effect of the grant-back agreement.\textsuperscript{66} This doctrine appears to conflict with the \textit{Cellophane} case, which emphasized the market power of the original patent as a justification for the agreement.

In the end, the hard question of whether the improvements in fact extend beyond the scope of the original patent cannot be avoided by pretending to examine the scope of the original patent alone. The existence of a powerful and original parent patent does not rule out the possibility of a clearly extraordinary improvement, and the power of the parent patent makes the extraordinary improvement in the hands of the licensor of that patent all the more dangerous. This does not mean, of course, that there are no market situations which tend to show an intent to monopolize on the part of the licensor. If the licensor possesses a narrow patent, or combination of patents, but draws a grant-back agreement which may cover extraordinary improvements, it is very likely that the improvements will extend beyond the scope of the original patent, and the clause will be used as a device for monopolization.

Finally, the strength or weakness of the original patent may be of assistance in construing the grant-back clause. If the patent has great market power, then a grant-back clause which describes a wide area of technology within which improvements are to be licensed back may be construed to cover only the field of the original patent. If the original patent is narrow, then the grant-back clause may be so broadly drawn that it unmistakably refers to inventions outside the original patent, and the clause will be bad on its face.\textsuperscript{67}

D. Discouraging Invention by the Licensee

In the \textit{Transwrap} decision, the Supreme Court noted that Stokes & Smith would not be discouraged from inventing improvements because it could always obtain access to the new inventions by taking up its option to renew the license from \textit{Transwrap}.\textsuperscript{68} This support for the grant-back clause would fail if the contract did not afford the licensee-inventor access to his invention; that is, if the contract were for a simple assignment-back without a license reserved for the inventor.

It is questionable whether any licensor would ever be foolhardy enough to try such a device. If any did, it would clearly be a restraint of trade


\textsuperscript{67} See note 61 supra and accompanying text.

\textsuperscript{68} See note 29 supra and accompanying text.
because it would go far beyond simply protecting the access of the licensor to the technology of his invention. It would deprive the licensee of the access to the technology of his invention. It is very doubtful, however, that this, or any other grant-back clause properly limited to ordinary improvements, would make much difference in the rate of the invention of improvements. In the light of present-day thinking, the chief rationale for the patent monopoly is not so much that it encourages invention, since the flow of scientific inquiry would not be stemmed by the denial of a monopoly, but rather that it encourages investment in, and dissemination of, scientific discoveries. It has been pointed out that a statute to encourage investment may be needed for genuinely "originative inventions" involving quite new products, because they require the expenditure of much time and money before they achieve efficient production. On the other hand, "intensive inventions," particularly improved processes of fabricating old products, are believed to need less encouragement for investment, since they will be produced by competition and the natural course of inquiry in the pursuit of existing processes. It would seem that improvements are, by definition, "intensive inventions," and the grant-back agreement, like the patent itself, can do very little to change the rate of their invention. In any case, the requirement that the licensor of the parent patent afford the inventor of the improvement some access to his invention will destroy any possible dampening effect of the grant-back upon invention. This requirement is chiefly rooted in the rule limiting the licensor of the parent patent to his original monopoly plus access to improvements, rather than in the policy of encouraging invention.

In pointing out that Stokes & Smith was free to renew its licensing arrangement with Transwrap and, thus, to retain access to the improvements, the Supreme Court passed over a most important question without any discussion. That question was whether it was lawful for Transwrap to require Stokes & Smith to remain locked in a contractual

69. The cases which permit an employer to acquire the inventions of an employee are not contrary. See cases cited note 30 supra. An employer may acquire inventions discovered after the employment terminates only under an agreement strictly limited in time and scope of invention. These limits may be expanded somewhat when the contract permits the employee to retain an interest in the invention. Cf. Ogden v. General Printing Ink Corp., 37 F. Supp. 572, 577 (D. Md. 1941); Dry Ice Corp. of America v. Josephson, 43 F.2d 403, 416 (E.D.N.Y. 1930).


71. See Staff of Subcommittee on Patents, Trademarks, and Copyrights, Senate Comm. on the Judiciary, op. cit. supra note 70, at 36.

72. Ibid.
relationship indefinitely, in order to obtain access to its own inventions. It is particularly serious in the light of the Brulotte case, which declared it unlawful for the licensor to require royalty payments beyond the period of the original grant. Similarly, in the contract in the Transwrap case, it appears that Stokes & Smith was obligated to pay royalties, even on the inventions which it had assigned to Transwrap, in the event it should elect to exercise the option to continue the contract.  

There is a fair distinction between the Transwrap and Brulotte cases. In the former, the royalties after the expiration of the Transwrap patents were to be paid on lawful patent rights in improvements, while, in Brulotte, the royalties were to be paid on no lawful monopoly at all. In Transwrap, the court simply made the judgment that it was no worse for Stokes & Smith to pay royalties to Transwrap than it was for Transwrap to pay royalties to Stokes & Smith;  whereas someone was going to have to pay to use those improvement patents after the original patents had expired. In Brulotte, without the provision in the license continuing the royalties beyond the patent period, no one would have had to pay royalties at all. 

While this does distinguish the two cases, it does not really answer the question whether it was fair for Stokes & Smith to be obliged to bear with Transwrap indefinitely in order to obtain access to the technology of the machine. The key to this question must lie in the fact that Transwrap itself was entitled to that access, and therefore Stokes & Smith was going to be obliged to remain with Transwrap, either as a licensee or as a licensor of the improvements. The fact that it was Stokes & Smith, rather than Transwrap, who was paying the royalties is a distinct issue, justified by the special circumstances of the case. One way or the other, they were going to be obliged to work with each other as long as there were patentable improvements which they both wanted to use. 

We may then reach the following conclusions concerning the problem of discouraging inventions by grant-back agreements: (a) It is unlikely that the rate of invention of improvements is much influenced by grant-back agreements. (b) Any lingering tendency to discourage the invention of improvements by the licensee should be removed by permitting the licensee to have access to his invention. (c) It is not unlawful for the licensor and licensee to be bound together by the grant-back agreement, because the parties will inevitably be linked together in some fashion under any licensing arrangement.

73. See 156 F.2d at 199.
74. See id. at 202.
75. Cf. text accompanying note 30 supra.
III. PROOF OF MONOPOLISTIC INTENT OR EFFECT

It would be a mistake to assume that every problem of monopolization in connection with grant-back agreements will be resolved simply by reference to one of the five cases we have discussed above. There are licensing devices which will create a danger of monopolization in connection with any sort of grant-back, whether an assignment-back or a license-back, and will be equally objectionable no matter how many licenses are involved. The Supreme Court reminded us of this in the Transwrap case, by indicating that a grant-back agreement, while not unlawful per se, might be used for purposes of monopolization.\[^7\] We have further concluded above that an agreement for a non-exclusive license-back, while not unlawful per se, may be used for purposes of monopolization.\[^7\] Typical cases in which such a monopolistic purpose may be proven should now be considered.

A. Objective Proof of Intent

When the licensor of the original patent admits, through documentary evidence or other means, his intent to monopolize a market through grant-back agreements, the antitrust laws will, of course, be violated. It appears that proof of such intent was considered in the case of United States v. General Elec. Co. (Lamps).\[^78\]

B. Restrictive Practices

If the licensor of the parent patent agrees with his licensees to fix prices under the improvement patent, after the expiration of the parent patent, the contract will be clearly in restraint of trade. In the case of United States v. Line Material Co.,\[^79\] it was held that an agreement to interchange patents which contains such restrictions was an unlawful contract in restraint of trade. The rule ought to be the same in the case of grant-backs as in the case of other patent interchanges. Apart from considerations of authority, it is clear that the right to fix prices or restrict markets under the improvement patent extends beyond the original licensor's legitimate interest in preserving his access to the technology of his invention.\[^59\]

C. Group Licenses of Patents

Patents are sometimes licensed in groups, by a single contract with a grant-back clause. This arrangement in itself presents no difficulties be-

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\[^76\] 329 U.S. at 646-47.
\[^77\] See text accompanying notes 47 & 55 supra.
\[^79\] 333 U.S. 287 (1948).
cause the group of patents often covers a single integrated product or process. The Transwrap case itself presented this situation; there were three patents, which together covered the Transwrap machine.\textsuperscript{81} When the patents are weak or poorly integrated, however, the grant-back clause in the group license may easily become the instrument for amassing licenses and, thus, perpetuating a monopoly. This device, or a variation of it, perhaps appears more frequently than any other in situations where grant-backs have been held to constitute or contribute to a restraint of trade.\textsuperscript{82} The danger signals certainly should be: (a) a group-license for patents which are not complementary; (b) a grant-back clause covering all the patents generally, and permitting any improvements to be used in connection with all the licensed patents.

Similar problems are presented by the case of a "pool" or cross-license among patentees, when all the cross-licensed patents are licensed together to third parties, with a grant-back reserved to the original patentees. If the pool is lawful, that is, if the pooled patents are complementary, so that no patentee can get the full benefit of his invention without the others, then it appears that the patentees should be able to obtain access to the advances in the field by obtaining grant-backs on the integrated invention from licensees of the pooled patents.\textsuperscript{83} Conversely, if the pooled patents are not complementary, it is probable that the patent pool is being used as a means to control the market. The entire arrangement, including the grant-backs, will run afoul of the antitrust laws.\textsuperscript{84}

\textbf{D. Market-Dominant Patent}

A much more difficult problem is presented by the case of a patent which is so original that it creates or dominates a market. Such patents are relatively rare, the best known example perhaps being the original electric light patents.\textsuperscript{85} The question is whether the patentee of such a powerful invention should have the privilege of preserving his market power beyond the term of his patent by demanding grant-backs of improvements from his licensee or licensees. It appears that this problem cannot be resolved until after the original patent has expired, because, if the grant-back agreement is limited to simple improvements, its effect on the market cannot be determined before that time.

In the Transwrap situation, where there is an exclusive licensee, it should make no difference how powerful the original patent is, because the market power of the licensor will not exceed that of his licensee. If the licensor of the original patent remains dominant after the expiration

\textsuperscript{81} 156 F.2d at 198.
\textsuperscript{82} See cases cited note 2 supra.
\textsuperscript{83} See cases cited note 44 supra and accompanying text.
of his original patent, it will be only because the licensee would have been dominant if the licensor were not.80

The facts of Transwrap, however, will probably occur only rarely in connection with a market-dominant patent. In most cases, the owner of such a patent will be competing in the use of the patent or will grant a number of licenses on the patent; and in such situations any arrangement more restrictive than a non-exclusive license-back may be expected to run afoul of the antitrust laws.87 When the original patent is unusually powerful, even the non-exclusive license-back may become unlawful. If it appears that the funneling effect of the original patent has been very serious, so that members of the industry other than the original licensor do not have access to improvements, the use of license-back agreements should be considered a device for monopolization. The licensor of the original patent may be divested of some or all of his licenses obtained as a result of the license-back agreements. If it appears that the improvements are not generally licensed throughout the industry because of agreements between the original licensor and his licensees which restrict the licensing of improvements, an open licensing system for the whole industry might be the best solution.88 As indicated above, if the original licensor has only a non-exclusive license-back, it will be the unusual case in which important improvements are not disseminated to all licensees, in the absence of collusion or coercion by the original licensor.89 Accordingly, divestiture and open licensing will be used rarely, if at all, against patentees who have not engaged in restrictive practices. If they should ever be so used, it seems to be in the best interests of preventing continued monopoly control of a market.

This review of the cases in which monopolization may be found as a matter of fact is not exhaustive; no doubt, ingenious licensors will find others. The point is that they are condemned across the board, in connection with almost any sort of grant-back agreement, when they tend to show a monopolistic intent. An assignment-back agreement with an exclusive licensee, approved under the conditions of the Transwrap case, may be an instrument of monopolization when documentary proof of intent is produced, and an agreement for a non-exclusive license-back may similarly become a device for monopolization, when it is part of an agreement to license a group of non-complementary patents.

IV. CONCLUSION

The courts were correct in finding that no unreasonable restraint of trade was proven by the plaintiff-licensee in the Transwrap case. That

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86. 161 F.2d at 567.
87. See text accompanying note 40 supra.
89. See text accompanying note 46 supra.
case does not, however, confer any general sanction on grant-back clauses in patent licenses. The principal purposes of the grant-back covenant are to protect the right of the licensor to have access to the developing technology of his invention, and to avoid discouraging licensing through the fear of losing that access. The grant-back clause upheld in Transwrap was too broad to be justified by these purposes alone; it had to be defended upon the ground that it could not increase the licensor's monopoly, because it was part of an exclusive license agreement. Different rules of law, therefore, should be applicable to grant-back clauses in cases where the facts vary significantly from the circumstances of the Transwrap case. These rules may be summarized as follows: (a) In cases where the licensee is not an exclusive licensee, that is, where the licensor is in competition or one or more other licensees are in competition in the use of the invention, the licensor should be limited to a license-back of a non-exclusive license in improvements. (b) In cases where the licensor is not using his patent, the use of grant-backs will create a presumption that they are being used for an unlawful purpose, but the presumption may be rebutted. (c) The grant-back clause should be construed narrowly, so as to include only simple improvements, and not inventions or uses applicable to other products or processes. If such inventions or uses have been given back or demanded under the clause, the grant-back should be voidable under the antitrust laws. (d) It is not unlawful for the term of the license to the original patentee on the improvement to extend beyond the term of the parent patent. It would be illogical for the original patentee to be the only one excluded from the use of the original invention, while the licensees controlled the market through their improvements, after the expiration of the original patent. If, however, through restrictive practices or the power of his original patents, or both, the original patentee still has control of the market after the expiration of his patent, he may be divested of his licenses, or open licensing may be required.

In addition to these cases, which appear to resolve the basic problems of policy in grant-back agreements, there are, of course, cases in which a monopolistic intent or effect may be proven by documentary evidence, by restrictive practices, or by the exceptional market power of the original patent.

In summary, it is perhaps unfortunate that the problem of the grant-back under the antitrust laws was first presented in the Transwrap case. The protection accorded to the device in future cases should be narrower than it was in that case. The lawful interests of the licensor can be adequately covered in most cases by a non-exclusive license-back, and, therefore, an assignment-back is only rarely justifiable.