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A Coherent View of Patent Exhaustion: A Standard Based on Patentable Distinctiveness

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A COHERENT VIEW OF PATENT EXHAUSTION:
A STANDARD BASED ON PATENTABLE DISTINCTIVENESS

John W. Osborne†

ABSTRACT

Notwithstanding the increased frequency of assertion of the patent exhaustion defense in recent years, there is no clearly perceived standard for its application. The Supreme Court’s 1942 Univis Lens decision, the controlling authority on patent exhaustion, mandated that the authorized disposition of an article embodying the essential features of a patent claim exhausts the patentee’s exclusive right in that claim. Sixty-two years later, Univis Lens is still misinterpreted. However, a coherent reading of the essential features dictate of Univis Lens and subsequent caselaw compels the conclusion that, in the context of patent exhaustion, essential features are patentably distinctive features. This conclusion provides an analytical framework for determining whether the doctrine should apply in a given factual situation and also resolves the apparent conflicts between the patent exhaustion and related doctrines.

† Partner, Morgan & Finnegan, L.L.P., New York. The views expressed herein are those of the author alone and do not necessarily reflect the views of Morgan & Finnegan, L.L.P. or its clients. Copyright © 2004, John W. Osborne, All Rights Reserved.
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I. INTRODUCTION

The patent exhaustion doctrine, otherwise known as the first sale doctrine, has undergone a resurgence over the past decade as an affirmative defense in patent licensing and litigation. This resurgence has been driven by the interdependent development of the computer technology industry where, typically, numerous manufacturers are involved in the ultimate production or assembly of computer-based devices. This multiple-sourcing structure and the cross-licenses common among the major computer component suppliers have led system integrators to now routinely assert that combination, method and system patents are exhausted by the licensed sale of components used in a system, combination, or in practicing a method. However, the decisions to date have not provided clear guidance as to the circumstances under which patent exhaustion occurs. As a result, patentees and would-be licensees/infringers must contend with strained interpretations of seemingly conflicting caselaw.

The general statement of the patent exhaustion doctrine is deceptively simple. It is clear under the exhaustion doctrine that a patentee’s exclusive right as manifested in a patent claim ends at the first sale of patented goods. However, application of this seemingly straightforward doctrine has not been simple, straightforward or consistent. Nonetheless, the available caselaw, although confusing and seemingly conflicting, contains a consistent theme: the exclusive right in a patent claim is exhausted when an article embodying the "essential features" of the claim is transferred in an authorized and unrestricted manner. Close analysis of the caselaw, including controlling authority of the Supreme Court, shows that patentable distinctiveness, vis-à-vis the article sold and the subject matter claimed, is properly at issue in a patent exhaustion analysis.

Under applicable precedent, therefore, it is not possible to determine whether an article embodies a claimed invention, i.e., contains the essential features, and thus whether the exhaustion doctrine should apply, without first performing a claim construction analysis as well as an examination of the prosecution history and the pertinent prior art. At first glance, the requirement of an essential features analysis may thus appear onerous. However, all patent infringement cases hinge on a determination of what is actually encompassed by a claim. There is no apparent reason why an exhaustion analysis should be any less rigorous, particularly since

exhaustion applies to the authorized sale of an article embodying a claimed invention. Unfortunately, some courts have invoked the patent exhaustion doctrine to decide the extent of patent rights without performing a thorough patent analysis. A clear enunciation of the essential features standard by the Federal Circuit would mandate that district courts perform a rigorous analysis of claim scope as part of a patent exhaustion analysis and would thus eliminate much of the inconsistency in application of the doctrine.

This article puts forth a coherent view of the law on patent exhaustion, based on the essential features standard and grounded firmly in Supreme Court precedent, with the objective of providing an analytical procedure under which any set of facts can be analyzed to make consistent predictions as to whether the doctrine of patent exhaustion should apply.

II. SCOPE OF THE PATENT EXHAUSTION DOCTRINE

The doctrine of patent exhaustion traces its roots to Supreme Court precedent from the mid-1800s, and it was fully explicated in 1942 in the seminal Univis Lens decision. The doctrine saw little interest after Univis Lens until the 1990s, when it came to be viewed as a viable affirmative defense in situations where there was an authorized sale of a component of a patented combination.

A. Supreme Court Precedent

The doctrine of patent exhaustion provides that an authorized sale of a patented article exhausts the patent monopoly as to that article insofar as the article embodies the invention and thus precludes any further royalty or restriction on the article.

[W]hen the patentee, or the person having his rights, sells a machine or instrument whose sole value is in its use, he receives the consideration for its use and he parts with the right to restrict that use. . . . That is to say, the patentee or his assignee having in the act of sale received all the royalty or consideration which he claims for the use of his invention in that particular machine or instrument, it is open to the use of the purchaser without further restriction. . . .

2. Id.
In general, for the doctrine to apply, the authorized sale of the article must be made in the United States.4

The Supreme Court firmly established the patent exhaustion doctrine in its *Univis Lens* decision:

The declared purpose of the patent law is to promote the progress of science and the useful arts by granting to the inventor a limited monopoly, the exercise of which will enable him to secure the financial rewards for his invention. Constitution of the United States, Art. I, § 8, Cl. 8; 35 U.S.C.A. §§ 31, 40. The full extent of the monopoly is the patentee’s “exclusive right to make, use, and vend the invention or discovery.” The patentee may surrender his monopoly in whole by the sale of his patent or in part by the sale of an article embodying the invention. His monopoly remains so long as he retains the ownership of the patented article. But sale of it exhausts the monopoly in that article and the patentee may not thereafter, by virtue of his patent, control the use or disposition of the article.5

The United States government had brought suit against the Univis Company under the Sherman Act asserting that Univis’ patent licensing and sales scheme was in violation of the provisions of the Sherman Act, which make unlawful any contract, combination or conspiracy in restraint of trade or commerce among the states.6 Although ostensibly an antitrust case, the resolution of *Univis Lens* was based on principles of patent exhaustion.

The disputed activity in *Univis Lens* involved the manufacture and sale of lens blanks, embodying the essential features of patents directed to a finished lens and related manufacturing methods. As a factual matter, such blanks were without utility until ground and polished into the finished lens claimed in the patents.7 Univis, the patent holder, had three classes of licensees—wholesalers, finishing

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4. Boesch v. Graff, 133 U.S. 697, 701–03 (1890); *accord* Jazz Photo v. ITC, 264 F.3d 1094, 1105 (Fed. Cir. 2001) (“United States patent rights are not exhausted by products of foreign provenance. To invoke the protection of the first sale doctrine, the authorized first sale must have occurred under the United States patent.”); Fuji Photo Film Co. Ltd., v. Jazz Photo Corp., 249 F. Supp. 2d 434, 450 (D.N.J. 2003) (sale must be “in the United States” to invoke patent exhaustion doctrine); but see Kabushiki Kaisha Hattori Seiko v. Refac Tech. Dev. Corp., 690 F. Supp. 1339, 1342 (S.D.N.Y. 1988) (license grant may have extraterritorial effect and result in exhaustion where license to sell abroad extends to products coming “within the scope” of U.S. patents).
5. *Univis Lens*, 316 U.S. at 250 (emphasis added).
7. *Id.* at 249.
The issue for the Court was whether the Univis Company could impose conditions, i.e., fix resale prices, on the downstream licensees after articles embodying the essential features of the patent claims had been sold by other licensees.

The Supreme Court resolved the matter by applying the exhaustion doctrine to the sale from licensees of the partially completed article (lens blank) encompassing the essential features of the eight patents-in-suit. Thus, although attempts have been made, and are still made today, to characterize Univis Lens as an antitrust or implied license decision, the fundamental holding was based entirely on the patent exhaustion doctrine.

The Court clearly established in Univis Lens that the doctrine of patent exhaustion extends to the sale of a partially complete patented article, provided that the article encompasses the essential features of the claimed invention:

where one has sold an uncompleted article which, because it embodies essential features of his patented invention, is within the protection of his patent, and has destined the article to be finished by the purchaser in conformity to the patent, he has sold his invention so far as it is or may be embodied in a particular article.

The Court determined that the articles at issue included the essential features of the patents, and thus, were not capable of any noninfringing use:

each blank, as appellees insist, embodies essential features of the patented device and is without utility until it is ground and polished as the finished lens of the patent. [U]pon familiar principles the authorized sale of an article which is capable of use only in practicing the patent is a relinquishment of the patent monopoly with respect to the article sold.

The Court also noted in Univis Lens that the sale of lens blanks by an unlicensed manufacturer to an unlicensed finisher for completion into a finished product would constitute contributory infringement. Furthermore, the Supreme Court noted that, "where the sale of the blank is by the patentee or his licensee . . . to a finisher,

8. Id. 244.
9. Id. 249.
10. Id. 250–51 (emphasis added).
11. Id. 249.
12. 316 U.S. at 249.
the only use to which it could be put and the only object of the sale is to enable the latter to grind and polish it for use as a lens by the prospective wearer." Thus, the Supreme Court found that the unfinished lens included the essential features of the claimed invention. Accordingly, the Univis Company was held to have exhausted its patent rights with regard to the finishers, and therefore was precluded from controlling subsequent sales. The Court stated "the patentee cannot control the resale price of patented articles which he has sold, either by resort to an infringement suit, or...by stipulating for price maintenance by his vendees." Hence, the Supreme Court concluded that the degree of "completion" of the article was irrelevant:

Whether the licensee sells the patented article in its completed form or sells it before completion for the purpose of enabling the buyer to finish and sell it, he has equally parted with the article, and made it the vehicle for transferring to the buyer...that article. To that extent, he has parted with his patent monopoly in either case, and has received in the purchase price every benefit of that monopoly which the patent law secures to him.

The analysis put forth by the Supreme Court in Univis Lens related to the scope of the patent monopoly in contrast to contractual analysis which underlies the related, but different, doctrine of implied license. An understanding of the different doctrinal bases of the exhaustion and implied license doctrines, as discussed below, is necessary to form a clear understanding of the Supreme Court directive in Univis Lens. Further, such an understanding of Univis Lens clarifies the misapprehension which has caused confusion between the two doctrines.

As the Supreme Court's most recent and thorough treatment of the issue, Univis Lens is the controlling authority on patent exhaustion. The Univis Lens case arose in the context of price fixing,
but its holding is clearly not limited to those circumstances. Neither
the Supreme Court nor the Federal Circuit has ever expressly
disavowed or sought to limit the exhaustion holding of Univis Lens. 18
To the contrary, a long line of cases cites to Univis Lens for its
holding and statements regarding patent exhaustion. 19

B. Decisions Following the Essential Features Dictate of Univis Lens

Two district courts have explicitly followed Univis Lens to find
exhaustion of combination claims under an essential features analysis.

1. Cyrix v. Intel

In Cyrix v. Intel, a case involving a “foundry” type
manufacturing arrangement, the District Court for the Eastern District
of Texas, on facts similar to those of Univis Lens, came to a
conclusion of patent exhaustion by applying the principles enunciated
by the Supreme Court in Univis Lens. 20 Cyrix v. Intel echoed Univis Lens when it held that “[t]he patent exhaustion doctrine is so strong
that it applies even to an incomplete product that has no substantial
use other than to be further manufactured into a completed patented
and allegedly infringing article.” 21

In Cyrix v. Intel, the disputed activity involved the manufacture
and sale of microprocessors. The district court noted that “Cyrix’s
microprocessors cannot be used for any commercially viable purpose
without necessarily forming the combination covered by—and

18. As explained in a recent opinion from the Northern District of California in response
to an argument that Univis Lens was an implied license decision:

In Met-Coil, the Federal Circuit did not distinguish Univis Lens, nor did it
criticize the district court’s reliance on Univis Lens, nor did it indicate that Univis Lens
had been refined or modified by subsequent cases. Therefore, there is no
binding authority requiring this Court to treat Univis Lens as an implied license
case. As noted above, the case does not lend itself to such a reading. Rather,
consistent with the Supreme Court’s holding in Univis Lens, the patent
exhaustion doctrine applies to the sale of unpatented items that have no other
function but as components in a finished, patented device.

LG Elecs., Inc. v. Asustek Computer, Inc., 65 U.S.P.Q.2d 1589, 1598 (N.D. Cal. 2002), reaaff’d,

19. See, e.g., id.; Cyrix Corp. v. Intel Corp. 846 F. Supp. 522, 540 (E.D. Tex 1994), aff’d
without op., 42 F.3d 1411 (Fed. Cir. 1994); Cyrix Corp. v. Intel Corp., 803 F. Supp. 1200, 1214
(E.D. Tex. 1992), appeal dismissed without op., 9 F.3d 978 (Fed. Cir. 1993); Wilbur-Ellis Co. v.

42 F.3d 1411 (Fed. Cir. 1994).

21. Id.
without necessarily infringing—claims 2 and 6 of the '338 Patent.”

The court held that the microprocessors had to be combined with external memory to be useful. Intel, the patent owner, had entered into a broad cross-license agreement with Texas Instruments that involved patents covering the subject microprocessors. Texas Instruments made microprocessors at the request of Cyrix and subsequently sold them to Cyrix. When combined with external memory, the microprocessors sold to Cyrix would infringe Intel’s patent. Cyrix sought a declaratory judgment of non-infringement against Intel based on license defenses and patent exhaustion. Intel sought judgment against Cyrix for infringement in a separate suit, and the cases were consolidated. Texas Instruments intervened on behalf of Cyrix based on license defenses and patent exhaustion.

In making its determination, the district court likened the circumstances to those in *Univis Lens*:

Cyrix’s microprocessors...need to be combined with external memory to be used. Cyrix’s microprocessors thus are like the lens blanks in *Univis* which, although completed lens blanks, had no use other than to be ground into finished lenses in accordance with patents owned by the Lens Company. The Supreme Court’s rationale in *Univis*, in support of its holding that patent owners rights in the lens blanks were exhausted, is thus fully applicable here with respect to Cyrix’s microprocessors.23

Thus the district court held that “[b]ecause all claim 1 microprocessors must be combined with external memory to be useful, a claim (such as claim 2) describing a device consisting of a claim 1 microprocessor and external memory would be exhausted by the sale of the claim 1 microprocessor. . . . [s]o the patentee cannot escape exhaustion . . . .”24 The court concluded that:

Intel is barred . . . from asserting [the claims] against Cyrix or Cyrix’s customers. . . . Since Cyrix’s claim 1 microprocessors cannot be used without infringing claims 2 and 6 of the '338 Patent, there are no commercially viable noninfringing uses for the microprocessors. Intel’s rights in claim 1, 2 and 6 have been exhausted.”25

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22. *Id.* at 541.
23. *Id.* at 540 (citations omitted).
24. *Id.* at 538.
25. *Id.* at 541.
The district court in *Cyrix v. Intel* found the component and combination claims to be coextensive because they all included the essential features of the invention as claimed elements:

The Intel 80286 microprocessor had on-chip segmentation circuitry and required external memory to be operable. The advance of the '338 Patent over the memory management system used on the 80286 microprocessor was the addition of on-chip paging circuitry and the ability to choose between the prior art segmentation alone and the combination of segmentation plus paging are essential features of claims 1 [component], 2 [combination], and 6 [combination] of the '338 Patent.

After performing a claim construction analysis as well as a review of the prosecution history to determine the scope of the invention recited by the claims, the court found that the claimed microprocessor component embodied essential features of a memory management system, which included on-chip paging circuitry and the capability to switch between segmentation alone or segmentation in combination with paging. The court determined that nothing in the memory itself added anything of patentable significance to the invention embodied in the microprocessor. Relying on *Univis Lens*, the court characterized the aspects stated as distinguishing over prior art as essential features. This view of *Univis Lens* was the most

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27. Intel argued unsuccessfully that the combination claims were directed to patentably distinct features in the external memory. The court disposed of Intel's contention by concluding that "Intel's interpretation of claims 2 and 6, however, is not credible. It is inconsistent with the manner in which Intel is interpreting claim 1 now, and the way in which Intel has interpreted claims 2 and 6 in the past." The court's conclusion was based on positions Intel had taken during prosecution and in licensing negotiations. 846 F. Supp. at 531.
28. The district court further stated regarding Intel's contention:

Intel's assertion that claims 2 and 6 require the step of actually storing page table entries and segment descriptors in external memory and until that process is performed, the limitations of claims 2 and 6 are not met, is wrong as a matter of law. Intel is trying to read into device claims 2 and 6 a method of operating the device. This is improper because it is mixing two different classes of invention—a product and a process—in the same claim. . . . Even if Intel's interpretation of claims 2 and 6 were the correct one, the invention of claim 1 that Intel asserts is embodied within Cyrix's microprocessors still would have no use unless the microprocessors were combined with external memory holding page table entries and segment descriptors.

846 F. Supp. at 537 (alteration in original).
29. Id. at 538 ("Where, as here, the rights in a claim for a combination are exhausted by the sale of a component of the combination [claim 1 microprocessor], the patentee cannot escape exhaustion by specifying that the combined component [external memory] be performing a specific function when that function is an inherent capability of that component.").
30. Id. at 534.
illuminating interpretation of the Supreme Court decision since it was issued in 1942. Under this interpretation of *Univis Lens*, essential features are patentably distinct features. The focus on patentable distinctiveness offered a decisive resolution to the quandary over how and where to draw the line in an exhaustion analysis. The district court's decision in *Cyrix v. Intel* was affirmed without opinion by the Federal Circuit.  

2. *LGE* Decisions

Two recent decisions in an action in the Northern District of California involving LG Electronics as plaintiff against numerous defendants ("*LGE decisions"*) followed *Univis Lens* and *Cyrix v. Intel* to conclude that apparatus claims were exhausted due to the licensed sale of components embodying the essential features of the apparatus claims. The circumstances present in the *LGE* decisions were similar to those found both in *Univis Lens* and *Cyrix v. Intel*. The lens blanks in *Univis Lens* had no noninfringing use other than to be finished and then sold; in *Cyrix v. Intel*, the microprocessors had no "commercially viable" noninfringing use other than to be coupled to external memory. In *LGE*, microprocessors and chipsets were made by Intel under license and purchased by Asustek and other system manufacturers. The only use for the licensed microprocessors and chipsets was in a computer system covered by the asserted patent claims. Both *Univis Lens* and *Cyrix v. Intel* involved a patentee licensing to third parties to make and sell a product which included essential features of a patent claim. The *LGE* court interpreted *Univis Lens* and *Cyrix v. Intel* to preclude a patentee from collecting an additional royalty from any buyer of the partially completed product for the right to assemble a combination which required essential features purchased in the component:

> [T]he holding and reasoning of *Cyrix* is persuasive authority for the proposition that the sale or license of an essential element of a patented device may exhaust the patentee's statutory right to exclude others from making, selling or using that device.  

32. As discussed below, the second *LGE* decision held method claims not exhausted. See infra note 130 and accompanying text.
LGE argues that the patent exhaustion doctrine applies only to the sale of a patented device and, because the Intel microprocessor does not, on its own, embody any of the claims of the five patents at issue here, LGE's rights under those patents are not exhausted. LGE contends that Univis Lens does not stand for a contrary position because Univis Lens did not deal with the patent exhaustion doctrine at all. Rather, Univis Lens applied the related but distinct doctrine of implied license . . . However, the Univis Court relied heavily on precedent articulating the patent exhaustion doctrine.\(^3\)

Consistent with Univis Lens and Cyrix, the district court determined that the components made by Intel under license from LGE had no use other than to be used in an allegedly infringing manner. LGE contended that using the Intel microprocessors and chipsets as replacement parts was a substantial noninfringing use of the product. However, the district court concluded that such use was not reasonable as required by caselaw.\(^36\) A finding that the microprocessors and chipsets had noninfringing uses would have bolstered a defense against patent exhaustion because the Supreme Court held in Univis Lens that an article including essential features of a patent claim has no noninfringing uses.\(^37\) But, as discussed below,\(^38\) pursuant to the interpretation of Univis Lens presented here, a finding that an article has no noninfringing uses does not necessarily result in a conclusion of exhaustion if the article sold does not contain the essential features of the invention, i.e., if the article sold is patentably distinct from the patent claim.

3. The Patent Exhaustion Doctrine Applies To Components Which Embody The Essential Features Of A Patented Combination

In LGE, LGE's argument that a patent is exhausted only when a licensee sells a product which embodies all of the elements of at least one claim in a patent was properly rejected. LGE argued that an
"incomplete" or "partially complete" product cannot give rise to the patent exhaustion doctrine:

LGE contends that pursuant to . . . footnote [1] in Glass Equipment, the patent exhaustion doctrine does not apply to "unpatented elements" of a patent in suit. The Intel microprocessors and chipsets, moreover, merely embody some elements of the broader patents in suit. Consequently, the patent exhaustion doctrine is inapplicable here.

However, the key fact in both Bandag and Glass Equipment was not whether the device utilized by the defendant was patented or not. More important was the fact that the plaintiffs in both cases alleged infringement of a method patent, and not infringement of an apparatus patent.39

LGE's argument was doomed to fail. The Supreme Court in Univis Lens had firmly established that an incomplete or partially completed article which embodied the essential features of the patent gave rise to the exhaustion doctrine.40 For example, the district court in Cyrix v. Intel, citing Univis Lens, explained that "the patent exhaustion doctrine is so strong that it applies even to an incomplete product that has no substantial use other than to be manufactured into a completed patent and allegedly infringing article."41

The Federal Circuit has also acknowledged that an incomplete or partially completed article can give rise to the exhaustion doctrine.42 In Anton/Bauer, the Federal Circuit quoted the language from Univis Lens regarding essential features43 to support its conclusion that exhaustion had occurred due to the sale of a component of a claimed combination.44 The Federal Circuit thus could have taken the opportunity in Anton/Bauer to expressly acknowledge that the

40. See 316 U.S. at 251.
41. 846 F. Supp. at 540.
42. Anton/Bauer, Inc. v. PAG, Ltd., 329 F.3d 1343, 1351 (Fed. Cir. 2003). Specifically, the Federal Circuit explained:

[i]The sale of the unpatented female plate by Anton/Bauer is a complete transfer of the ownership of the plate. In effect, the sale extinguishes Anton/Bauer's right to control the use of the plate, because the plate can only be used in the patented combination and the combination must be completed by the purchaser.

Id.

43. 329 F.3d at 1351 ("...uncompleted article which, because it embodies essential features of his patented invention... ").
44. Id. ("Anton/Bauer places on the market one component of a patented combination that has no other use than to complete the patent combination with a second unpatented component.").
patentable distinctiveness of the combination claim was embodied in the component sold. This would have immensely aided subsequent exhaustion analyses in patent infringement cases. However, the Federal Circuit did not make such an express acknowledgement in Anton/Bauer, but instead added to the confusion between the doctrines of patent exhaustion and implied license.

In Univis Lens itself, the initial lens blanks (the sale of which exhausted the patent rights) did not embody all of the elements of at least one claim of the patents at issue. But, the Supreme Court found the patent exhaustion doctrine applicable anyway. If the Supreme Court had not applied the patent exhaustion doctrine to the lens blanks on the basis that the lens blanks did not embody each element of at least one claim in the patents at issue, the Univis Company could have collected multiple royalties from each licensee in the lens finishing chain. Thus, the Supreme Court concluded that:

\[ \text{whether the licensee sells the patented article in its completed form or sells it before completion for the purpose of enabling the buyer to finish and sell it, he has equally parted with the article, and made it the vehicle for transferring to the buyer ownership of the invention with respect to that article. To that extent, he has parted with his patent monopoly in either case, and has received in the purchase price every benefit of that monopoly which the patent law secures in him.}^{45} \]

Even with the abundance of precedent establishing that the authorized sale of a component can exhaust a system or combination claim, litigants and commentators continue to argue to the contrary.\(^{46}\) Such arguments are inappropriate in light of the "essential features" analysis dictated by Univis Lens and its progeny. There is simply no credible basis for the proposition that a patent claim must be completely embodied in the article sold for exhaustion to occur.

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45. Univis Lens, 316 U.S. at 252.

\[ \text{LGE argues that the patent exhaustion doctrine applies only to the sale of a patented device and, because the Intel microprocessor does not, on its own, embody any of the claims of the five patents at issue here, LGE's rights under those patents are not exhausted. \ldots \text{[P]atent exhaustion doctrine also applies to the sale of non-patented devices which have no use other than as components in a device that practices the patent.} \]

Id.; see also, Amber L. Hatfield, Patent Exhaustion, Implied License, and Have-Made Rights: Gold Mines or Mine Fields?, 2000 COMP. L. REV. & TECH. J. 1, 6. ("The patent exhaustion doctrine also does not apply if the patentee or licensee sells only a component of a patented system, because, again, the patent claim at issue does not cover the products as sold.").
Univis Lens requires only that the article contain all of the essential features of the claim.

III. LIMITATIONS ON THE PATENT EXHAUSTION DOCTRINE

In addition to the requirements that a sale be authorized and the article sold embody the invention, the sale must also be "unconditional" to invoke the patent exhaustion doctrine. The degree to which conditions may be placed on the sale of patented articles has been hotly debated and litigated in recent years. As discussed below, the conclusion to be drawn from the Federal Circuit's pronouncements on the subject is that a patentee may withhold rights granted under the patent laws, but may not impose any limitations on the sale of an article which are outside the bounds of the rights granted under the patent laws.

A. The Patent Exhaustion Doctrine Does Not Negate a Lawful Express Restriction

The key determinant as to whether a patent is exhausted is whether the patent owner has sold the patented good outright or whether lawful restrictions have been placed on the sale.\textsuperscript{47} However, to effectively preclude operation of the exhaustion doctrine, conditions involving the sale of an article embodying a patented invention must be clear, explicit, and otherwise lawful.

The rationale for the patent exhaustion doctrine is that purchasers of patented goods who lack knowledge of any restrictions should be free to use the goods in an unlimited manner:

[The policy which best seems to justify the exhaustion principle is that since the exclusive patent right is a limited exception . . . the exercise of this right should be cut off after the first sale of the patented goods because the sale provides adequate financial reward to stimulate invention and, without the termination of the right, the patentee could independently control the goods indefinitely, thereby giving him absolute control over the product market and leaving subsequent purchasers, who might be subject to a patent infringement action, in a position of great uncertainty.]

\textsuperscript{47} Mitchell v. Hawley, 83 U.S. 544, 548 (1872) (exhaustion occurs where the sale of the patented article "is absolute and without any conditions"); accord Monsanto Co. v. Scruggs, 249 F. Supp. 2d 746, 753 (N.D. Miss. 2001) ("The exhaustion doctrine only applies where the sale or license of the patented invention is an unconditional one."); Braun Medical, Inc. v. Abbott Labs, Inc., 124 F.3d 1419, 1426 (Fed. Cir. 1997) ("[A]n unconditional sale of a patented device exhausts the patentee's right to control the purchaser's use of the device thereafter.").
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The principle originated from the need to define the interest that a purchaser receives when purchasing patented goods, it being found that there are no accompanying implied restrictions... 48

However, a patent owner has broad discretion within the confines of the antitrust laws and the patent misuse doctrine to expressily restrict a patent license agreement. For example, the trial court in General Talking Pictures, an often-cited case dealing with license restrictions, held that royalties due for practice of combination patents were unaffected by any notion of patent exhaustion where components were sold under a restricted license which was known by the purchaser to preclude unauthorized practice of combination patents:

[T]he mere fact of sale by the licensee, American Transformer Company, to the defendant did not deprive the plaintiffs of their rights to exclude the defendant from the fields of operation and distribution of the patented device which the plaintiffs have reserved, according to the terms of the license granted to the American Transformer Company, to the defendant's actual knowledge. 49

In response to an “exhaustion” argument, the trial court in General Talking Pictures held that the authorized sale of separately patented tubes did not permit the purchaser, who was aware of a use restriction, to use the tubes in a manner inconsistent with the relevant license. 50, 51 General Talking Pictures, which was affirmed by the

50. 16 F. Supp. at 300.
51. General Talking Pictures is still good law as it was cited with approval in Aro Mfg. Co., Inc. v. Convertible Top Replacement Co., 377 U.S. 476, 483 (1964) (“it has often and clearly been held that unauthorized use, without more, constitutes infringement”). More recently, the Federal Circuit has also relied on General Talking Pictures as authority for a patentee's right to impose a license restriction respecting the terms of sale of a patented article:

[T]he district court held that no restriction whatsoever could be imposed under the patent law, whether or not the restriction was enforceable under some other law, and whether or not this was a first sale to a purchaser with notice. This ruling is incorrect, for if Mallinckrodt's restriction was a valid condition of the sale, then in accordance with General Talking Pictures it was not excluded from enforcement under the patent law.

Mallinckrodt, Inc. v. Medipart, Inc., 976 F.2d 700, 701 (Fed. Cir. 1992) (citations omitted); see also Munters Corp. v. Burgess Indus. Inc., 535 F.2d 210 (2d Cir. 1976) (patentee successfully relied on General Talking Pictures to obtain reversal of grant of preliminary injunction to purchaser claiming right to use putatively licensed material).
Supreme Court, makes clear that the doctrine of patent exhaustion applies only to *implied* restrictions on purchased goods.\(^{52,53}\)

It is beyond question that an agreement respecting patent rights is a contract and must therefore be construed so as to give effect to the intent of the parties.\(^{54}\) Thus, as the Federal Circuit made clear in its *Mallinckrodt* decision, an express restriction precludes exhaustion of the withheld right, assuming there is no antitrust violation or patent misuse, if the parties so intended:

Unless the condition violates some other law or policy (in the patent field, notably the misuse or antitrust law, e.g., *United States v. Univis Lens Co.*), private parties retain the freedom to contract concerning conditions of sale. As we have discussed, the district court cited the price-fixing and tying cases as reflecting what the court deemed to be the correct policy, viz., that no condition can be placed on the sale of patented goods, for any reason. However, this is not a price-fixing or tying case, and the per se antitrust and misuse violations found in the *Bauer* trilogy and *Motion Pictures Patents* are not here present. The appropriate criterion is whether Mallinckrodt's restriction is reasonably within the patent grant, or whether the patentee has ventured beyond the patent grant and into behavior having an anticompetitive effect not justifiable under the rule of reason.\(^{55}\)

Thus, a lawful *express* restriction cannot be negated by the doctrine of patent exhaustion. This is true because an unconditional sale, required for patent exhaustion, cannot exist where there is a lawful express restriction. The Federal Circuit recently reaffirmed this doctrine in the *Braun Medical* case:

> [A]n unconditional sale of a patented device exhausts the patentee's right to control the purchaser's use of the device

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52. *See Western Elec.*, 16 F. Supp. at 300; accord *Adams v. Burke*, 84 U.S. 453, 456-57 (1873) (purchasers of goods from manufacturing licensee were not subject to any implied restrictions on use of goods even though licensee itself was subject to express territorial restrictions); see also *Birdwell*, supra at 48 ("A close examination of the fundamental Adams decision reveals that it was directed only to implied restrictions on purchased goods."); *Mallinckrodt*, 976 F.2d at 701 (actual notice of a "single use only" restriction was not disputed).

53. Express restrictions in patent licenses are analogous to restrictive covenants in real property law—which are enforceable against a subsequent purchaser of restricted property if the purchaser had constructive notice of the restriction. E.g., *Gordon v. Village of Lawrence*, 443 N.Y.S.2d 415 (App. Div. 2nd Dept. 1981), *aff'd*, 453 N.Y.S.2d 683 (Court of Appeals, 1982).


55. *Mallinckrodt*, 976 F.2d at 708 (citation omitted); see also *Birdwell*, supra note 48, at 214 ("[E]xpress restrictions on purchased goods are enforceable under patent law, except for certain restrictions found to be in restraint of trade.").
thereafter. The theory behind this rule is that in such a transaction, the patentee has bargained for, and received, an amount equal to the full value of the goods. This exhaustion doctrine, however, does not apply to an expressly conditional sale or license. In such a transaction, it is more reasonable to infer that the parties negotiated a price that reflects only the value of the "use" rights conferred by the patentee. As a result, express conditions accompanying the sale or license of a patented product are generally upheld. Such express conditions, however, are contractual in nature and are subject to antitrust, patent, contract, and any other applicable law, as well as equitable considerations such as patent misuse. Accordingly, conditions that violate some law or equitable consideration are unenforceable. On the other hand, violation of valid conditions entitles the patentee to a remedy for either patent infringement or breach of contract.\footnote{56}

The Federal Circuit also held in Hewlett-Packard \textit{v.} Repeat-O-Type that, to be enforceable against the purchaser, a restriction or condition must be explicit. The court stated "[a] non-contractual intention is simply the seller's hope or wish, rather than an enforceable restriction."\footnote{57} In Hewlett-Packard, the patentee argued that its instruction manual's admonishment to "discard old print cartridges immediately" created an enforceable condition on the sale which prevented the cartridges from being reused. The Federal Circuit held that this language did not create a conditional sale, and that the cartridges were sold unconditionally.\footnote{58}

As discussed above, the Federal Circuit made clear in Braun Medical that restrictions must be express to be enforceable. Some courts, for example the Northern District of Iowa in the Pioneer Hi-Bred case, have found restrictions enforceable even though they did not view the restrictions as express:

[W]here, as here, the "limited label license" expressly grants only some of the rights identified in [35 U.S.C.] § 154, it follows that

\footnote{56. \textit{Braun Medical, Inc. v. Abbott Labs., Inc.}, 124 F.3d 1419, 1426 (Fed. Cir. 1997) (citations omitted), where the district court relied on, inter alia, \textit{Braun Medical}, to conclude:

In short, the circumstances of the sale indicate: (1) purchasers, including end-users, are on notice of the single-use condition; (2) purchasers have an opportunity to reject the condition; and (3) the Prebate is offered at a special price that reflects an exchange for a single-use condition. Based on these circumstances, the Court concludes that Lexmark has not exhausted its rights.

The Prebate is a conditional sale and the single-use condition is enforceable.


58. \textit{id.} at 1455.
the only reasonably possible meaning of the language is that all other rights are reserved...Ottawa's contention that patent rights must be expressly reserved or they are waived stands on its head the principle that the patentee's right under the patent is the right to exclude.59

The district court in Pioneer Hi-Bred unnecessarily grappled with the express versus implied issue. All that Mallinckrodt and Braun Medical required is that use restrictions be express, not that a reservation of rights be express. On the facts of Pioneer Hi-Bred, the use restrictions were express, even though the reservation of rights was not.60

B. Sales Can be Restricted but Exhaustion Cannot be Disclaimed

Pursuant to Mallinckrodt, an express restriction is enforceable under the patent law absent evidence of an antitrust violation or patent misuse, i.e., if such restriction is reasonably within the patent grant. Thus, a contractual exclusion of rights to combination or apparatus claims, which are not embodied in the article sold, would not appear to be a violation of antitrust law. The same is true for patent claims which are separate and distinct from claims covering the article sold. Regarding misuse, it is clear that an exclusion of rights to combination claims is not a prohibited extension of the patent monopoly to unpatented items—such restrictions are recognized as enforceable, and thus cannot be misuse.61 Moreover, it is not misuse to exercise control over the sale of a nonstaple article useful only in making a patented combination.62, 63 It is therefore reasonably within the rights conferred by the patent grant to collect royalties for the sale of a contributorily infringing component so long as the total royalty recovered is based on an amount that does not exceed the full value of

60. Id. at 1039 (restriction expressly limited use of seed to production of forage or grain for feeding or processing).
61. See, e.g., General Electric Co. v. Continental Lamp Works, Inc., 280 F. 846, 851-52 (2d Cir. 1922); Radio Corp. of Am. v. Andrea, 90 F.2d 612, 613-14 (2d Cir. 1937); see also cases cited infra notes 95-97 and accompanying text.
63. Mercoid Corp. v. Minneapolis Honeywell Corp., 320 U.S. 680, 684 (1944), held that it was misuse for the patent owner to license others to sell the nonstaple element of a combination for use in the patented invention. This holding was legislatively overruled by 35 U.S.C. §271(d)(2) which states that granting a release from contributory infringement of a combination patent is not misuse.
the patented combination. Excluding rights to a combination claim where the component and combination are patentably separate and distinct is also not misuse.

Thus, computer system manufacturers do not obtain a right in combination claims merely by purchase of a "licensed" component. There is no grant of any right in a combination claim under such circumstances if the purchaser was aware of restrictions on the purchased item which required additional royalties to be paid for practice of the combination claim, i.e., where a full royalty for practice of the combination claim has not been received. Such restrictions will, pursuant to the General Talking Pictures line of cases, defeat any argument that authorized sales of components can exhaust combination claims for which royalties have never accrued.

Notably, Mallinckrodt involved the legality of a single use restriction. Whether the sale of a component exhausted a combination or method claim was not at issue. There was no attempt to prevent the purchaser from using the article for its intended purpose; nor was there any attempt in Mallinckrodt to unlawfully extend the patent monopoly. The Mallinckrodt case and its ilk can be harmonized with the Univis Lens line of cases once it is understood that the royalty received by the patentee in Mallinckrodt was bargained for based on a single use of the patented article. If the article in Mallinckrodt had been an incomplete component embodying essential features of a claimed combination or method without any other reasonable use, the exhaustion doctrine would have applied under Univis Lens.

In Mallinckrodt, the asserted claim covered the device sold. There was no misuse because there was no to attempt to broaden the

65. See Lifescan, Inc. v. Polymer Tech. Int'l Corp., 35 U.S.P.Q.2d 1225, 1238 (W.D. Wash. 1995) ("The court notes that in [Rohm & Haas v.] Dawson the patentee was permitted to limit competition in the sale of an unpatented staple item, whereas here the strip itself is patented, thus making this an even stronger case in favor of a finding of no misuse.") (emphasis in original); see also Windsurfing Int'l, Inc. v. AMF, Inc., 782 F.2d 995, 1001-02 (Fed. Cir. 1986) (misuse occurs where a restrictive license broadens the scope of the patent beyond what is covered by the claims and is anti-competitive), cert. denied, 477 U.S. 905 (1986).
66. But see James B. Kobak, Jr., Contracting Around Exhaustion: Some Thoughts About the CAFC's Mallinckrodt Decision, 75 J. Pat & Trademark Off. Soc'y 550, 554 (1993) (criticizing Mallinckrodt decision as turning implied license, exhaustion and antitrust into a "confusing melange").
scope of the claim beyond the claim’s actual coverage. The only issue was whether a use restriction was allowable. The use right is one of the rights granted to a patentee, thus it was not misuse to impose a restriction on the use of the article sold. The restriction on use in Mallinckrodt was not an attempt to expand the scope of a patent claim to cover something not patented, which clearly is not within the rights conferred in the patent grant. Nor would an exclusion of the right to practice a combination claim directed to patentably distinct subject matter be misuse because the patentee is entitled to a separate royalty for the combination claim. However, an exclusion of the right to complete a combination not involving patentably distinct subject matter would constitute impermissible broadening of patent scope, and thus, misuse.

Notwithstanding the above analysis, pursuant to the Supreme Court’s decision in Masonite, a patentee would be ill-advised to assert that exhaustion of a combination claim has been effectively disclaimed where a full royalty for the combination has been recovered via the sale of a component of the combination.

When the patented product “passes to the hands of the purchaser, it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the act of Congress.” In applying that rule this Court has quite consistently refused to allow the form into which the parties chose to cast the transaction to govern. The test has been whether or not there has been such a disposition of the article that it may fairly be said that the patentee has received his reward for the use of the article.

However, the rule of Masonite should not affect a patentee’s ability to exclude rights in patent claims for which a fair royalty has not been recovered. More precisely, even though “true” exhaustion cannot be disclaimed, i.e., where an authorized sale of an article embodying the claimed invention has occurred, an exclusion of rights to combination claims is effective if there is no unlawful extension of the patent monopoly. Thus, the authorized sale of a component

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68. Windsurfing, 782 F.2d at 1001–02; see id. (discussing the concept of patent misuse).
69. Mallinckrodt, 976 F.2d at 701–03.
70. Id. at 701, 709; Braun Medical, Inc. v. Abbott Labs., Inc., 124 F.3d 1419, 1426 (Fed. Cir. 1997).
72. J. Cohen & M. Lemley, Patent Scope and Innovation in the Software Industry, 89 CALIF. L. REV. 1, 33 (2001) (“Because the exhaustion doctrine is based in patent policy, however, and not the patentee’s intent, it is harder to avoid by contract.”); see also Hewlett-
would not exhaust a combination claim unless a full royalty for the combination was recovered via the sale of the component. Consistent with *Univis Lens* and its progeny, where the component embodies the invention of the combination, exhaustion should be conclusively established, notwithstanding any attempted disclaimer.

It was clear from the licensing arrangement in *Univis Lens* that the patentee received all the royalty it sought or expected via the sale of the component. The Supreme Court observed that "[t]he rewards of the corporate appellees for the exploitation of the patents and the patented lenses are derived wholly from the sales by the Lens Company of the blanks . . ." However, the Court explicitly refused to hold that further royalties could not have been recovered.

In the present case the entire consideration and compensation for both [lens blank and finishing process] is the purchase price paid by the finishing licensee to the Lens Company. *We have no question here of what other stipulations, for royalties or otherwise, might have been exacted as a part of the entire transaction, which do not seek to control the disposition of the patented article after the sale.*

Thus, the patentee in *Univis Lens* seemingly could have included in its license agreements provision for payment of additional royalties for both the lens blank and practice of the finishing process without running afoul of the Supreme Court’s prohibition of post-sale control, so long as a double royalty was not collected. Interpreted broadly, this statement appears to create tension with the main theme of *Univis Lens*, i.e., that a sale of a component embodying the essential features of a patent exhausts that patent. However, the statement is better interpreted as meaning only that a higher royalty could have been charged or that restrictions reasonably within the patent grant could have been imposed.

Subsequent decisions interpreting *Univis Lens* have recognized that sale of a component embodying the essential features of an invention exhausts all claims to that invention notwithstanding any

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Packard Co. v. Repeat-O-Type Stencil Mfg. Corp., 123 F.3d 1445, 1453 (Fed. Cir. 1997) ("The question is not whether the patentee at the time of sale intended to limit a purchaser's right to modify the product . . . Each case turns on its facts, but a seller's intent, unless embodied in an enforceable contract, does not create a limitation on the right of a purchaser to use, sell or modify a patented product."). *cert. denied*, 523 U.S. 1022 (1998).

73. 316 U.S. at 245.

74. *Id.* at 249–50 (emphasis added).
attempted disclaimer. For instance, in *Cyrix v. Intel*,\(^75\) attempted disclaimers were ineffective to negate exhaustion. As discussed above, the component and combination claims were found to be coextensive, and thus the patentee, which stipulated to exhaustion of the component claim, was deemed to have received its full reward for the patent by virtue of the authorized sale of the component.

Moreover, as pointed out in *LGE*, merely because conditions may be placed on the sale of an article embodying an invention does not mean that a patentee can do so unilaterally:

> [T]he mere fact that LGE is entitled to impose conditions on the sale of the essential components of its patented products does not mean that it actually did so here. To the contrary, Defendant's purchase of microprocessors and chipsets from Intel was in no way conditioned on their agreement not to combine the Intel microprocessors and chipsets with other non-Intel parts and then sell the resultant products. Nor does the fact that Intel informed its customers that its license with LGE "does not extend, expressly or by implication, to any product that [they] may make by combining an Intel product with any non-Intel product" render conditional the sales from Intel to Defendants.\(^76\)

Thus, for a restriction to negate exhaustion, it must be clear that the purchaser fully understood the restriction and acquiesced. The facts of *LGE* were such that no reasonable purchaser would have acquiesced; to do so would have left the purchaser with microprocessors having no real use.\(^77\)

With the increased assertion of the patent exhaustion doctrine in recent years, it is likely that licensors have begun including more limitations, restrictions and attempted disclaimers in their license agreements hoping to avoid exhaustion. Under the essential features standard of *Univis Lens*, these attempts will fail if they constitute an attempt to impermissibly broaden the scope of the patent grant. The *Mallinckrodt* decision is consistent with this conclusion.

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\(^77\) Note that the "meeting of the minds" aspect of a restriction on patented goods is separate and apart from whether the restriction is within the scope of the patent grant.
C. Exhaustion Does Not Extend to Reconstruction of a Patented Entity

The purchaser of a patented article has the same rights as any purchaser of personal property, "including the right to use it, repair it, modify it, discard it, or resell it, subject only to overriding conditions of the sale."78 However, the rights of ownership do not include the right to construct an essentially new article on the template of the original, for the right to make the article remains with the patentee.79

The Supreme Court firmly established the principle of permissible repair in its *Aro v. Convertible Top* decision:

The decisions of this Court require the conclusion that reconstruction of a patented entity, comprised of unpatented elements, is limited to such a true reconstruction of the entity as to "in fact make a new article," after the entity, viewed as a whole, has become spent. In order to call the monopoly, conferred by the patent grant, into play for a second time, it must, indeed, be a second creation of the patented entity... Mere replacement of individual unpatented parts, one at a time, whether of the same part repeatedly or different parts successively, is no more than the lawful right of the owner to repair his property.80

Repair is "the disassembly and cleaning of patented articles accompanied by replacement of unpatented parts that had become worn or spent, in order to preserve the utility for which the article was originally intended."81 Reconstruction requires extensive reworking of the article such that there is a re-creation of the patented entity.82

The Federal Circuit has recognized and acknowledged that the repair/reconstruction doctrine stems from the doctrine of patent exhaustion:

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79. *Id.*
81. See *Jazz Photo*, 264 F.3d at 1103-04; *Wilbur-Ellis Co. v. Kuther*, 377 U.S. 422 (1964) (extensive refurbishment of fish-canning machines was repair because useful life of machine was extended); *General Elec. Co. v. United States*, 572 F.2d 745 (Cl. Ct. 1978) (large scale overhauling of gun mounts was repair because assembly-line method was simply more efficient way to refurbish individual mounts); *Dana Corp. v. Am. Precision Co.*, 827 F.2d 755 (Fed. Cir. 1987) (repair of used clutches was contemplated by the patentee); *Everpure, Inc. v. Cuno, Inc.*, 875 F.2d 300 (Fed. Cir. 1989) (replacement of entire cartridge containing spent filter was permissible repair), *cert. denied*, 493 U.S. 853 (1989).
82. *Jazz Photo*, 264 F.3d at 1104-05.
Underlying the repair/reconstruction dichotomy is the principle of exhaustion of the patent right. The unrestricted sale of a patented article, by or with the authority of the patentee, “exhausts” the patentee’s right to control further sale and use of that article by enforcing the patent under which it was first sold. . . . Thus when a patented device has been lawfully sold in the United States, subsequent purchasers inherit the same immunity under the doctrine of patent exhaustion. However, the prohibition that the product may not be the vehicle for a “second creation of the patented entity” continues to apply, for such re-creation exceeds the rights that accompanied the initial sale.83

Thus, consistent with the Aro v. Convertible Top line of cases, exhaustion only applies to the actual article sold, rather than an article reconstructed after the original entity is deemed spent when viewed as a whole.84

IV. DOUBLE ROYALTIES: THE SINE QUA NON OF PATENT EXHAUSTION

Pursuant to Univis Lens and its progeny, combination patents are not exhausted unless and until a full royalty is recovered for practice of such patents. There can be a legitimate assertion of exhaustion only under such conditions. Precluding a double recovery for practice of a patent claim will thus obviate the applicability of the patent exhaustion doctrine.

A. The Doctrine of Patent Exhaustion Does Not Preclude Collection of Separate Royalties for Practice of Separate and Distinct Patent Claims

Neither Univis Lens, Cyrix v. Intel nor any other case the author is aware of, applies the doctrine of patent exhaustion to prevent a patentee from collecting royalties for practice of separate and distinct component and combination claims. To the contrary, numerous cases recognize a patentee’s right to separate royalties for separate and

83. Id. at 1105.
84. Aro Mfg. Co. v. Convertible Top Replacement Co., 365 U.S. 336 (1961) (replacement of worn fabric top was permissible repair of patented combination of fabric convertible top and associated metal support structure); Sandvik Aktiebolag v. E.J. Co., 121 F.3d 669 (Fed. Cir. 1997) (reconstruction where patented drill bit was recreated by construction of an entirely new cutting tip after existing tip could no longer be resharpened and reused, i.e., repaired), cert. denied, 523 U.S. 1040 (1998); Lummus Indus., Inc. v. D.M. & E. Corp., 862 F.2d 267 (Fed. Cir. 1988) (reconstruction where cutter wheels were material part of patented invention).
distinct claims, even if the component has no substantial use other than in a patented combination.

1. *Univis Lens* Does Not Prohibit Separate Royalties
   For Separate And Distinct Patent Claims

The Supreme Court did not hold in *Univis Lens*\(^\text{85}\) that the patentee could not contractually require the secondary licensee to pay additional royalties. There was no attempt by the patentee to collect "additional royalties" from a secondary licensee. As the Court observed, "[t]he rewards of the corporate appellees for the exploitation of the patents and the patented lenses are derived wholly from the sales by the Lens Company of the blanks . . . ."\(^\text{86}\) Moreover, the Court explicitly refused to hold that further royalties could not have been recovered from the lens finisher:

> In the present case the entire consideration and compensation for both [lens blank and finishing process] is the purchase price paid by the finishing licensee to the Lens Company. *We have no question here of what other stipulations, for royalties or otherwise, might have been exacted as a part of the entire transaction, which do not seek to control the disposition of the patented article after the sale.*\(^\text{87}\)

The patentee in *Univis Lens* could seemingly have included in its license agreements provision for payment of royalties for both the lens blank and practice of the finishing process without running afoul of the Supreme Court's prohibition of post-sale control if the arrangement was part of the entire transaction and no double royalty was recovered.

Moreover, *Univis Lens* did not involve patentably distinct component, combination or method claims.

The record gives no account of the prior art and does not provide us with other material to which, if available, resort might appropriately be had in determining the nature of the alleged invention and the validity and scope of the patent claims founded upon it. In any event, we find it unnecessary, in the circumstances of this case, to decide whether, as the court below held, the patent claims can rightly be said to include the finishing of the blanks.

\(^{85}\) 316 U.S. 241 (1942).

\(^{86}\) *Id.* at 245.

\(^{87}\) *Id.* at 249–50 (emphasis added).
As appellees concede, the invention of only a single lens patent is utilized in making each blank and finishing it as a lens.\(^{88}\)

The lens company's concession obviated the necessity of determining the scope of the claims, and thus whether the component, combination, and method claims were patentably distinct. Without such a concession, it is clear the Court could not have made its "essential features" determination without an examination of the prior art and determination of claim scope.

2. *Cyrix v. Intel* Did Not Involve Separate And Distinct Component And Combination Claims

In *Cyrix v. Intel*, as discussed above,\(^{89}\) the district court found the claims to be coextensive because they included the essential features of the invention as claimed elements.\(^{90}\) The court found that memory management features embodied in a microprocessor component claim were also essential features of a combination claim directed to the microprocessor with external memory.\(^{91}\) The patentee was thus not entitled to a separate royalty for practice of the combination claim in addition to a royalty on the component.\(^{92}\) The *Cyrix v. Intel* decision thus turned on claim construction based on a review of the prosecution history and prior art; it says nothing about the ability of a patentee to collect royalties for practice of separate and distinct patent claims.

The *Cyrix v. Intel* decision has been misconstrued to mean that every article transferred in an authorized and unconditional manner is thereafter free to be "used" in its "intended" manner.\(^{93}\) However, it is clear from the *Stukenborg* line of cases discussed below, if an apparatus or method patent claim is patentably distinct from a separate claim covering the article sold, there is no exhaustion of the apparatus or method claim, even if there is no use for the article

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88. *Id.* at 248.
89. *See supra* notes 20–31 and accompanying text.
90. 846 F. Supp. at 534 ("[T]he combination of segmentation plus paging are essential features of claims 1 [component], 2 [combination], and 6 [combination] of the '338 Patent.")(emphasis added).
91. *Id.*
92. *See id.* at 539–40.
93. *E.g.*, Robert W. Morris, "Another Pound of Flesh": Is There A Conflict Between The Patent Exhaustion Doctrine and Licensing Agreements?, 47 RUTGERS L. REV. 1557, 1595 (1995) ("Despite Intel's stipulation to the contrary, the court held that Cyrix's computer chips infringed Intel's claim 1, but found that the chips had no use unless they were combined with external memory as described by Intel's claims 2 and 6.").
except to be used in the infringing combination or method. If the combination claims in *Cyrix v. Intel* had been directed to subject matter patentably distinct from the microprocessor, for example a particular type of memory function whose essential features were not incorporated in the microprocessor, no one could reasonably argue that the memory claims were exhausted. The *Cyrix v. Intel* decision can thus be understood as allowing the combination of the microprocessor with generic memory capable of performing the inherent functions recited in the microprocessor claim, but not extending to separately patented inventions directed to the memory itself.

3. There Is No Authority For The Proposition That A Separate And Distinct System Or Combination Claim Is Exhausted By The Authorized Sale Of A Component

In view of the abundance of authority holding that separate and distinct claims are independently enforceable, the district court in *Cyrix v. Intel* would have been compelled to come to a different conclusion if the component and combination claims had been patentably distinct:

Each claim of a patent gives to the patentee an exclusive right. The mere fact that a person has an implied license to use a device that is covered by one set of claims does not give the person an implied license to use the device in combination with other devices in which the combination is covered by another set of claims.

In fact, the Federal Circuit held in *Tieleman v. Stork* that separate and distinct component and combination patent rights are independently enforceable, even if the component is a nonstaple article which has no substantial use other than in the patented combination:

The permissible repair principle does not apply, however, to the manufacture, use, or sale of a separately patented replacement part. Here, the probe is separately covered by claims 1–3, and the

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94. 846 F. Supp. at 538.
95. Stukenborg v. United States, 372 F.2d 498, 504 (Ct. Cl. 1967); accord Priebe & Sons Co. v. Hunt, 188 F.2d 880, 885 (8th Cir. 1951) ("The patent grants conferred upon the patentee the right to a monopoly [sic] on each claim with the right to exact compensation in respect thereto."); cert. dismissed, 342 U.S. 801 (1951); Hunt v. Armour & Co., 185 F.2d 722, 729 (7th Cir. 1951). ("Defendant argues that the sale of a patented article exhausts the monopoly in that article. . . . Apparently it is defendant's view that by purchasing fingers, which are covered by one group of claims in the patent, it automatically also obtained a license under the separate group of machine claims. However, each claim of a patent constitutes a separate grant of monopoly.").
district court found that Stork's sale of probes directly infringed these claims. ... [T]he injunction is not overly broad to the extent that it enjoins Stork from making, using, or selling replacement probes that would infringe any of claims 1–3 of the '050 patent.96

In addition to the Federal Circuit’s statement in Tieleman v. Stork and the appellate decisions cited above, numerous earlier district court cases have recognized the independent enforceability of a claim covering a component or article which has no use other than to practice a separate and distinct combination or method claim. For example, in Warner, the court held that:

To supply patented parts of a patented combination without authority from the patentee to purchasers of the combination is a direct infringement of the claims of the patent on the part and a contributory infringement of the claims of the patent on the combination, assuming that the requirements of 35 U.S.C. § 271(e) are otherwise met [e.g., nonstaple article]... The very fact that the patentee of a patented combination bothers to secure a patent upon a component part of that combination negates any inference that in selling the combination he contemplates or intends licensing such purchaser to replace the patented part from any source other than himself.97

Separately, in United Nickel, the court noted:

The fact that they purchased from authorized agents this solution which enables them to nickel plate, does not, inferentially or otherwise, authorize them to use it in nickel plating without obtaining a license to use the invention covered by the other claims. They must also get a license to use the inventions covered by the other claims, or they cannot use this without being liable as infringers. Each claim is, in effect, a separate and distinct patent; and the right to use one patent does not carry with it the right to use the others without a further license... The selling of the solution does not authorize, inferentially or otherwise, the use of it for the purpose of nickel plating, whatever else it may be used for [other uses irrelevant], without also procuring a license to nickel

96. Tieleman Food Equip., B.V. v. Stork Gamco, Inc., 56 F.3d 1373, 1375 (Fed. Cir. 1995) (citation omitted) (upholding injunction against sale of separately patented replacement parts even though patentee’s rights in combination claims had been exhausted), withdrawn from bound volume, 62 F.3d 1430 (Fed. Cir. 1995) (the Federal Circuit panel apparently felt there was nothing precedential about its opinion, i.e., that it was consistent with established precedent, which is precisely the point).

plate under the first and fourth claims, which are separate inventions.98

Separate royalties are thus recoverable under the patent law for separate and distinct component and combination claims, no matter what other use the component may or may not have. Neither Univis Lens nor its progeny, including Cyrix v. Intel and LGE, hold or imply the opposite. Any royalty recovered for a separately patented component must be presumed, based on the cases cited above, to be payment for practice of the component claim and not for practice of a separate and distinct combination claim. A showing that the component and combination claims are indeed not patentably distinct would be required to overcome the presumption and thus indicate that the exhaustion doctrine should apply.

B. Under Univis Lens, a Combination Claim is Exhausted by the Sale of a Component if the Component Embodies Essential Features of the Claimed Invention

Both Univis Lens and Cyrix v. Intel are typically cited for the proposition that a patentee is precluded from collecting a second royalty for practice of a patent claim directed to a combination if a royalty has been paid on any component which is used in the combination. However, neither these cases nor any others of which the author is aware, support such a general proposition. The instances of exhaustion found in both Univis Lens and Cyrix v. Intel were the result of the authorized sale of components embodying the invention of combination claims rather than just any component used in the combination. In both cases, the component was patentably indistinct from the claimed combination, or, in the case of Univis Lens, patentably indistinct from a claimed process or combination.

In Univis Lens, the lens blank embodied essential features of a lens, to which the patent was quintessentially directed.99 In Cyrix v. Intel, the microprocessor embodied essential features of a memory management system which included on-chip paging circuitry and the capability to switch between segmentation alone or segmentation in combination with paging. As discussed above, the addition of memory was not an essential feature because it was not used to

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distinguish over the prior art. Thus, Univis Lens and Cyrix v. Intel stand for the proposition that the licensed sale of a component embodying the patentably distinct features of a claimed process or combination exhausts the patent monopoly with regard to such patent. A broader reading of the cases is neither warranted nor necessary to a proper understanding or application of the exhaustion doctrine.

But, if the component is covered by a separate and distinct patent claim, there is no exhaustion under Univis Lens because, by definition, the component and combination claims do not share the same essential features. A combination or process claim can only be exhausted by virtue of the purchase of a component if the features of the pertinent claim distinguishing it over the prior art are embodied in the component, i.e., the component is not patentably distinct from the combination or process.

Thus, if the essential features of a combination patent are not completely embodied in a component purchased from a licensed supplier, the combination patent cannot be exhausted by that sale. If the essential features of a patented combination or method are completely embodied in the licensed component, there is exhaustion of the combination or method patent because the claims are not separate and distinct.

C. Precluding Recovery of Double Royalties Precludes the Applicability of the Patent Exhaustion Doctrine

If there is no attempt to collect double royalties or otherwise engage in prohibited post-sale control, the issue of patent exhaustion never legitimately arises. If a patentee merely collects separate royalties for practice of separate and distinct patent claims, there is no collection of double royalties. As discussed above, the collection of a royalty for a patented component does not exhaust a separate and distinct combination claim. Moreover, recovery of a royalty for practice of a combination claim is not double recovery where the purchased component, whether or not the component is patented, does not embody all of the essential features of the combination claim.

However, if a component embodies all of the essential features of a combination claim, the authorized sale of such component exhausts the combination claim, whether or not the component is patented.
patented. Thus, to avoid the possibility of exhaustion, no attempt should be made to collect a royalty for practice of a combination claim if the purchaser bought the component from a licensed source and the component embodies all of the essential features of the combination claim. Adhering to this rule will preclude the assertion of any legitimate patent exhaustion argument pursuant to the principles of Univis Lens.

V. ESSENTIAL FEATURES ARE PATENTABLY DISTINCTIVE FEATURES

In Univis Lens, the lens blank embodied essential features of a lens, which was the subject of at least one of the asserted patents. As discussed in detail above, the district court in Cyrix v. Intel, relying on Univis Lens, found the component and combination claims to be coextensive because they all included the essential features of the invention as elements. The claimed microprocessor component embodied essential features of a memory management system which included on-chip paging circuitry and the capability to switch between segmentation alone or segmentation in combination with paging. The court in Cyrix v. Intel characterized as essential features what was stated as distinguishing over prior art, i.e., patentably distinct features. The patentably distinct features were inherently embodied in the microprocessor. The addition of memory was not an essential feature because it was not used to distinguish over the prior art.

Thus, an essential feature is necessarily a patentably distinct feature. This standard has long been well known to patent practitioners:

It is settled law that a party might be entitled to a patent for a combination [because of the cooperation of the elements contained

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102. 316 U.S. at 249.
103. See supra notes 20–31 and accompanying text.
104. 846 F. Supp. at 534. Specifically, the court noted that: [t]he Intel 80286 microprocessor had on-chip segmentation circuitry and required external memory to be operable. The advance of the '338 Patent over the memory management system used on the 80286 microprocessor was the addition of on-chip paging circuitry . . . and the ability to choose between the prior art segmentation alone and the combination of segmentation plus paging are essential features of claims 1 [component], 2 [combination], and 6 [combination] of the '338 Patent.
105. Id.
106. Id. at 538.
107. Id. at 534.
therein], and at the same time be entitled to a separate patent for one of the elements of the combination. In such a case, the question to be determined is whether two or more different inventive concepts are involved. If the claims are so related that the separately claimed element constitutes the essential distinguishing feature of the combination as claimed, different concepts are not involved, the inventions are not distinct, and double patenting will be found. Conversely, where the element does not constitute the sole distinguishing novelty in the combination the inventions are distinct and double patenting will not be found.\textsuperscript{108}

It is important to realize that the above-cited law, primarily from the Court of Customs and Patent Appeals ("CCPA"), the predecessor of the Federal Circuit, reflects the common usage of the terminology "essential features" at the time of the Supreme Court's \textit{Univis Lens} decision. For example, \textit{In re Coleman}, a CCPA case from 1951, stated with respect to essential features "[i]f the claims are so related that the separately claimed element constitutes the essential distinguishing feature of the combination as claimed, different concepts are not involved, the inventions are not distinct, and double patenting will be found."\textsuperscript{109} \textit{In re Coleman} in turn relied on \textit{Palmer Tire v. Lozier}, a Sixth Circuit decision from 1898, which was replete with essential features language and even touched on the notion of noninfringing use:

One cannot extract an \textit{essential element} of his claimed invention from a former patent, without which the former patent would not have been granted, and make it the subject of a subsequent patent. ...[I]f the second patent is for a \textit{distinct and separate invention}, or to put the matter another way, has not been made integral with another invention already patented, so as to be \textit{fairly necessary to its use}, it should be sustained...[T]he essential

\textsuperscript{108} \textit{In re Homeman, 92 U.S.P.Q. 316, 319 (CCPA 1952)} (alterations in original) (emphasis added) (citations omitted); see also \textit{In re Carlton, 77 F.2d 363, 365 (CCPA 1935)} ("[T]he mere fact that appellant included in his patented combination the element or composition of matter here involved, does not preclude him from receiving a patent for the composition of matter defined by the appealed claims."); \textit{In re Ferenci, 83 F.2d 279, 283 (CCPA 1936)} ("Under some circumstances an element may be patentable per se, if new, and also form a part of a patentable combination with other elements, whether this element is new or old, and yet the two inventions may be distinct and not entitled to protection in the same patent."); \textit{In re Hadsel, 173 F.2d 1010 (CCPA 1949)}; \textit{Palmer Tire Co. v. Lozier, 90 F. 732, 744 (6th Cir. 1898)} ("One cannot extract an essential element of his invention from a former patent, without which the former patent would not have been granted, and make it the subject of a subsequent patent"); \textit{In re Hawkins, 57 F.2d 367 (CCPA 1932)}; \textit{In re Creveling, 46 App. D.C. 536 (D.C. Cir. 1917)}.\textsuperscript{109} \textit{In re Coleman, 189 F.2d 976, 979 (CCPA 1951)} (emphasis added).
feature of the invention was the devising of the new fabric...and making it a constituent part of his "bicycle and other tubing." Indeed, the tubing would not have been patentable at all without it, for it would have been nothing more...than had already been patented.\textsuperscript{110}

Thus, the contemporaneous caselaw regarding the standard for patentable distinctiveness from the era preceding the \textit{Univis Lens} decision informs the meaning intended by the Supreme Court when it used the "essential features" terminology. A careful reading of this caselaw as well as the \textit{Univis Lens} decision itself makes abundantly clear that the term essential features was intended by the Supreme Court to mean patentably distinct features.

A "reasonable noninfringing uses" analysis is also relevant, pursuant to \textit{Univis Lens}, to determining the essential features of a patent claim, and thus, whether the claim is exhausted. As stated in \textit{Univis Lens} and subsequent caselaw, an article embodying the invention cannot be used without practicing the invention. Thus, a component which includes the essential features is, for all intents and purposes, the invention itself, and collection of a single royalty for that component is all that is allowed by law. That is, a component which includes the essential features of an invention clearly cannot be used without practicing the invention, i.e., has no reasonable noninfringing uses.

Notwithstanding these conclusions, caution should be exercised when conducting a noninfringing uses inquiry as part of an exhaustion analysis. As discussed above, if claims are patentably distinct from the article sold, there is no exhaustion even if there are no reasonable noninfringing uses.\textsuperscript{111} This circumstance has made the exhaustion analysis seem unnecessarily amorphous. However, a focus on patentable distinctiveness consistent with \textit{Univis Lens} would avoid the confusion evident in much of the prior caselaw and commentary on exhaustion.

Making a determination as to the patentably distinctive features, and thus the essential features of a patent claim as part of an exhaustion analysis, requires at least some level of claim construction as well as an examination of the prosecution history and prior art.

\textsuperscript{110} Palmer Tire Co. v. Lozier, 90 F. 732, 739–44 (6th Cir. 1898) (emphasis added).

However, this is no more onerous than the claim construction already required under *Markman v. Westview Instruments*\(^ {112} \) in every patent case. All patent infringement cases hinge on a determination of what is actually encompassed by a claim. There is no legitimate reason for an exhaustion analysis to be any less rigorous, particularly since exhaustion applies to the authorized sale of an article embodying a claimed invention. There is no way to determine whether an article embodies a claimed invention without determining what the claimed invention is. Unfortunately, some courts have glossed over the necessity of a rigorous analysis of claim scope and have instead viewed the exhaustion doctrine as a sort of shorthand way to decide the extent of patent rights without performing a thorough patent analysis. The *LGE* court's conclusion, as discussed below in Section VI.D, that method claims, per se, cannot be exhausted is one such example.

An essential features analysis cannot be at odds with a *Mallinckrodt*\(^ {113} \) determination as to lawful restrictions on the sale of an article. However, there is no inherent conflict between *Univis Lens* and *Mallinckrodt*. If a patent claim is not embodied in an article sold, exhaustion is not an issue and a *Mallinckrodt* type analysis is inapposite. If a patent claim is embodied in an article sold, a *Mallinckrodt* analysis would conclude that it is not reasonably within the patent grant to collect double royalties on the same claimed invention, but may be acceptable to otherwise place a restriction on the sale, e.g., limiting to single use. In no event however, would a *Mallinckrodt* analysis result in the allowance of two separate royalties for practice of the same patent claim.

VI. THE PATENT EXHAUSTION DOCTRINE SHOULD APPLY TO A METHOD OR PROCESS CLAIM IF THE ARTICLE SOLD EMBODIES THE ESSENTIAL FEATURES OF THE CLAIM

There is no legitimate basis for distinguishing between apparatus and method claims in the context of patent exhaustion. Such a distinction is at odds with Supreme Court precedent, other legal

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113. *Mallinckrodt*, Inc. v. *Medipart*, Inc., 976 F.2d 700, 701 (Fed. Cir. 1992) (citation omitted) ("Unless the condition violates some other law or policy in the patent field, notably the misuse or antitrust law, private parties retain the freedom to contract concerning conditions of sale.").
doctrines, the statutory contributory infringement standard, and it conflicts with established patent prosecution practice.

A. The Federal Circuit's Statements Regarding Inapplicability of the Exhaustion Doctrine to Method Claims were Unnecessary

The Federal Circuit, citing Univis Lens and Masonite, stated in Bandag that a method claim, per se, cannot be exhausted:

The doctrine that the first sale by a patentee of an article embodying his invention exhausts his patent rights in that article, [citations omitted], is inapplicable here, because the claims of the Carver patent are directed to a "method of retreading" and cannot read on the equipment Bolser used in its cold process recapping. Other than the citations to Univis Lens and Masonite, no basis was provided for the statement in Bandag nor was any analysis put forth.

The Federal Circuit repeated its Bandag statement, again with no supporting analysis, in Glass Equipment. While the ultimate holdings of Bandag and Glass Equipment appear to be correct on the facts of those cases, the general statement regarding patent exhaustion is highly problematic. More importantly, as discussed below, the Federal Circuit's reliance on Univis Lens for the proposition that method claims cannot be exhausted was improper because a method claim was in fact held exhausted by the Supreme Court in Univis Lens.

In Bandag, the claimed method was directed to removing trapped air bubbles during a tire retreading operation. The tire retreading equipment involved was not separately patented and was


115. The Federal Circuit stated:

This case does not involve the so-called "first sale" doctrine, as was argued to, and thus discussed by, the district court. The first sale doctrine stands for the proposition that, absent unusual circumstances, courts infer that a patent owner has given up the right to exclude concerning a patented article that the owner sells. Here, where the articles sold were corner keys, which are not themselves patented (they are merely embodiments of an unpatented element of the '195 patent claims), and the license issue concerns GED's right to exclude concerning the method patent, not the apparatus patent, the first sale doctrine is inapplicable to the analysis of the facts.
not covered by the patent at issue.\textsuperscript{116} However, the Federal Circuit, in reversing the district court's holding of implied license,\textsuperscript{117} found that the equipment had noninfringing uses,\textsuperscript{118} which, under an essential features analysis, is tantamount to a finding that the claimed invention is not embodied in the article sold. The Federal Circuit determined that the apparatus could be used in a noninfringing manner, and thus, there was no finding that the essential features of the claimed method were included in the machine sold.\textsuperscript{119} The exhaustion decision in \textit{Bandag} might have been based on the fact that there were noninfringing uses for the equipment without the broad assertion that the patent exhaustion doctrine is inapplicable to method claims. The Federal Circuit ultimately held in \textit{Bandag} that no implied license was conferred both because the equipment had reasonable noninfringing uses and because the circumstances surrounding the sale did not indicate that a license should be implied.\textsuperscript{120} The only rigorous analysis in \textit{Bandag} thus involved implied license and not exhaustion.

In \textit{Glass Equipment}, the claimed method was directed to constructing spacer frame assemblies using a linear extruding machine. The spacer frame assembly apparatus was separately patented. The assertion of implied license was based on the purchase of folding, locking corner keys that were elements of the apparatus patent. The Federal Circuit, in reversing the district court's holding of implied license,\textsuperscript{121} held that no implied license was conferred because the corner keys had reasonable noninfringing uses other than in the claimed method.\textsuperscript{122} In fact, the purchased corner keys had been

\begin{itemize}
\item \textsuperscript{116} The court explicitly pointed out that the patent in question was not directed to equipment for performing the claimed method. \textit{Bandag}, 750 F.2d at 922.
\item \textsuperscript{117} The district court disposition involved the implied license doctrine even though it discussed "first sale." Thus, there were no issues on appeal directed to patent exhaustion.
\item \textsuperscript{118} The issue was whether the tire retreading equipment was specifically designed to practice the patented retreading method and thus whether there was an implied license to practice the method. The patent assignee, Bandag, presented evidence of potential noninfringing uses including reselling the retreading equipment, modifying the equipment so that it could be used as replacement parts and refraining from using the equipment until the patent expired (eighteen months). \textit{Bandag}, 750 F.2d at 922–23, 925.
\item \textsuperscript{119} \textit{Id.} at 924.
\item \textsuperscript{120} \textit{Id.} at 924–26.
\item \textsuperscript{121} Like \textit{Bandag}, the district court disposition in \textit{Glass Equipment} involved the implied license doctrine. Thus, there were no issues on appeal implicating the patent exhaustion doctrine.
\item \textsuperscript{122} \textit{Glass Equip. Dev. Inc. v. Besten, Inc.}, 174 F.3d 1337, 1342 n.1 (Fed. Cir. 1999).
\end{itemize}
used in a noninfringing manner. As in Bandag, there was no rigorous exhaustion analysis in Glass Equipment, just a broad statement that the first sale doctrine was inapplicable to method claims.

It is clear that the Federal Circuit's statements regarding the patent exhaustion doctrine in Bandag and Glass Equipment exalted form over substance, and were not necessary to the proper resolutions of those cases. In both cases, the article sold had reasonable noninfringing uses and thus could not have embodied the essential features of the claimed methods. An analysis based on Univis Lens would have reached the correct conclusion on exhaustion in both cases without relying on a distinction between apparatus and method claims.

B. The Supreme Court Held Method Claims Exhausted in Univis Lens

The general statement in Bandag and Glass Equipment as to the inapplicability of the patent exhaustion doctrine to method claims is at odds with Univis Lens. In Univis Lens, the sale of a lens blank exhausted claims to a finishing process in at least one of the patents at issue. One of the patents held exhausted, U.S. Patent No. 1,879,769 to Silverman, was directed to a method for eliminating prismatic imbalance and contained no apparatus claims.

The Supreme Court drew no distinction between apparatus and method claims in Univis Lens and explicitly referred to exhaustion of the claimed finishing "procedure." The Court held that the "[s]ale of a lens blank by the patentee or by his licensee is thus in itself both a complete transfer of ownership of the blank, which is within the protection of the patent law, and a license to practice the final stage of the patent procedure." Any statements or holdings to the effect that the patent exhaustion doctrine is inapplicable to method claims, including the statements in the Federal Circuit's Bandag and Glass Equipment decisions, are thus at odds with the Supreme Court's holding in Univis Lens.

123. Id. at 1340 ("Simonton, a manufacturer of insulated glass windows, bought folding, locking corner keys from Allmetal for a period of time before 1988 and used the keys to make spacer frames by a method that did not infringe the '582 method patent.").
125. At least one other court has held method claims exhausted: Because PSC paid a royalty for the license of the patent rights under the '297 or '186 patents, Symbol's rights under those patents were extinguished, and Symbol forfeited its right to collect any additional royalties on any product that practiced
C. A Distinction Between Apparatus and Method Claims is Inconsistent with the Statutory Contributory Infringement Standard

The Supreme Court’s statements in Univis Lens regarding contributory infringement buttress the view expressed herein that exhaustion should apply to method claims if the article sold embodies the essential features of the method claims. The Supreme Court assumed in Univis Lens that “sale of the blanks by an unlicensed manufacturer to an unlicensed finisher for their completion would constitute contributory infringement.”126 The Court thus recognized that the “no substantial noninfringing uses” requirement of the statutory contributory infringement standard127 must be consistent with, if not the same as, the noninfringing uses analysis associated with exhaustion. Importantly, under the explicit language of the statute, a method claim can be contributorily infringed by the sale of a component useful only in practicing the claimed method.128 There is no restriction to combination or system claims in the context of contributory infringement. Thus, to maintain consistency pursuant to Univis Lens between the exhaustion and contributory infringement standards, there can be no exclusion of method claims from the exhaustion doctrine.

It has been opined that recent caselaw dealing with exhaustion adversely affects the contributory infringement standard:

Where patent exhaustion applies, the standard for determining whether an implied license arose is necessary use. . . .

any claim under the '297 or '186 patents and used a PSC scan engine. Its attempts to collect royalties from two parties for the same product violates the exhaustion doctrine . . . .

PSC, Inc. v. Symbol Technologies, Inc., 26 F. Supp. 2d 505, 510 (W.D.N.Y. 1998) (emphasis added). In PSC v. Symbol, one of the patents at issue, the '186 patent, contained method claims. The Court drew no distinction between method and apparatus claims and held all claims exhausted. Moreover, as discussed infra, the Federal Circuit has held that the doctrine of permissible repair is based on exhaustion and applies to process or method claims.

126. 316 U.S. at 249.
127. 35 U.S.C. § 271(c):
Whoever offers to sell or sells within the United States or imports into the United States a component of a patented machine, manufacture, composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer.

128. Id.
By instructing future courts that an implied license [exhaustion] arises unless every component in a patented combination passes a "no noninfringing use" test, the Universal Electronics opinion eviscerates congressional intent to protect patent owners from contributory infringement.... This case forces the patent owner to make two inconsistent arguments: (1) the product has no substantial noninfringing use for purposes of proving contributory infringement; and (2) the product has noninfringing uses for purposes of proving that the patent owner did not grant the purchaser an implied license.129

This concern is not well founded, however, in light of the essential features dictate of Univis Lens as discussed above. If patent claims are patentably distinct from the article sold, there is no exhaustion under an essential features analysis even if there are no reasonable noninfringing uses for the article. Focusing on the essential features, i.e., the patentably distinct features, avoids the erroneous conclusion that exhaustion occurs simply if there are no noninfringing uses and thus avoids the perceived conflict with the contributory infringement standard.

D. The District Court in LGE Followed the Statements of Bandag and Glass Equipment to Erroneously Conclude that Method Claims were not Exhausted

In LGE v. Asustek, the District Court for the Northern District of California concluded that method claims, per se, could not be exhausted and thus summarily disposed of an exhaustion contention without analyzing the patent claims themselves. The district court blindly followed the general statement of Bandag and Glass Equipment to hold that method claims were not exhausted even though it had held apparatus claims directed to the same subject matter were exhausted.130


130. The court stated:
LGE argues that the patent exhaustion doctrine does not preclude it from alleging infringement of its method claims. In this, LGE is correct, as the Court stated in its August 20 Order. August 20 Order at 18–20 (noting that Bandag, Inc. v. Al Bolser's Tire Stores, Inc., 750 F.2d 903 (Fed. Cir. 1984) and Glass Equip. Dev., Inc. v. Besten, Inc., 174 F.3d 1337 (Fed. Cir. 1999) hold that the sale of a device cannot exhaust the patentee's rights under a separate patent teaching a method of accomplishing a specific function).
The *LGE* court relied on the essential features dictate of *Univis Lens* to properly conclude that apparatus claims were exhausted. However, there was no factual or legal basis for differentiating between apparatus and method claims based simply on claim format. Comparison of the analogous apparatus and method claims in the patents at issue in *LGE* shows that many, if not all, were directed to virtually identical subject matter; the only real difference being the claim format. The court did not bother to examine the claims to determine whether there was any patentable difference, i.e., whether the essential features of the invention were included in both apparatus and method claims. The court’s oversight is particularly troublesome considering that some of the apparatus claims were drafted in “means” language, i.e., prescribing a particular function, and were virtually identical to their method counterparts.

For example, LGE’s Lagoy U. S. Patent No. 4,918,645 was directed to a “computer bus having page mode memory access.” Independent claim 1, an apparatus claim held exhausted by the district court, recited three “means” elements—(1) means for detecting a request for initiating an access to a memory, (2) means for asserting a plurality of memory address control signals, and (3) means for detecting a completion of the access to the memory. Independent claim 12, a method claim held not exhausted by the district court, recited virtually identical steps of (1) detecting a request from a requesting agent for initiating an access to said memory . . . (2) asserting a plurality of memory address control signals . . . and (3) detecting a logic state of an end of access system bus control signal that indicates a completion of the access to the memory. Both claims further recited that memory address control signals were asserted by asserting the row address indicative of a page of data and thereafter asserting and denying a plurality of times the column address strobe signal in conjunction with a plurality of column addresses for performing a page mode type of memory access. The common distinction relied on during prosecution for patentability over all prior art references was the “page mode type of access over a system bus from a requesting agent to a replying agent.”

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131. For example, in response to an obviousness rejection of claims 1 and 12, the applicant’s attorney responded:

[It can be seen that there is no disclosure in these three references that would make obvious under 35 USC 103 a page mode type of access over a system bus from a requesting agent to a replying agent. As a result, independent Claims 1...
method claims both included the "page mode type of memory access" limitation. However, the district court held the apparatus claim exhausted but the method claim not exhausted even though the claims were admittedly directed to the same subject matter.

The LGE court failed to properly apply Univis Lens to the facts before it and as a result reached the wrong conclusion regarding exhaustion of the method claims. If the court had focused on the holding of Univis Lens, and not the erroneous statements from Bandag and Glass Equipment, the mistake could have been avoided.

E. The Repair/Reconstruction Doctrine is at Odds with the Federal Circuit's Statements in the Bandag and Glass Equipment Cases

As discussed above, the Federal Circuit has recognized that the doctrine of permissible repair is based on the doctrine of patent exhaustion. The Federal Circuit went on to state in Jazz Photo:

*The defense of repair is applicable to process claims, as well as to apparatus claims, when the patented process was used in the United States and the patent right has been exhausted for the articles produced thereby. Thus, when the same process was used, the patent right for that process was exhausted upon the LFFP's first sale in the United States.*

In Hewlett Packard v. Repeat-O-Type, the Federal Circuit also held that patent exhaustion applies to method claims. This case also involved application of the permissible repair doctrine. Thus, since the Federal Circuit has recognized that the defense of repair is applicable to process (method) claims and that the repair/reconstruction doctrine is based on exhaustion, it was the height of inconsistency for the Federal Circuit to state in Bandag and

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and 12 are believed to patentably distinguish over this combination of references and to thus be allowable over these references.

Prosecution of app. Ser. No. 07/098,449; U.S. Pat. No. 4,918,645; Response To Office Action; July 19, 1989; p. 18. The applicant thus explicitly recognized that there was no patentable distinction between apparatus claim 1 and method claim 12.

132. *See supra* notes 83–84 and accompanying text.

133. Jazz Photo Corp. v. U.S. Int'l Trade Comm., Inc., 264 F.3d 1094, 1105 (Fed. Cir. 2001) ("[U]nderlying the repair/reconstruction dichotomy is the principle of exhaustion of the patent right.").

134. *Id.* at 1108–09 (emphasis added) (citations omitted).

Glass Equipment that the exhaustion doctrine does not apply to method claims.

There is no discernible reason for excluding method claims from the exhaustion doctrine where the sale of an article embodying the claimed invention is involved, but holding the doctrine applicable to method claims where repair/reconstruction is at issue. Yet the Federal Circuit has done just that. Whether the line was drawn knowingly or unknowingly does not matter. The distinction cannot properly exist under the Supreme Court's exhaustion rationale as stated in Univis Lens. A distinction is not warranted on any basis. A strict reliance on the essential features dictate of Univis Lens as advocated here would unify and make consistent the application of the classical exhaustion doctrine (resale of an article embodying the claimed invention), the repair/reconstruction doctrine, the statutory standard for contributory infringement, and as discussed below, the implied license doctrine.

F. Writing a Claim in Method Format Does Not Create Patentable Distinctiveness

It is customary and accepted in patent prosecution practice to draft claims in apparatus and method formats. Doing so, however, does not generally impart patentable distinctiveness to one claim form vis-à-vis another claim form. Following the essential features dictate of Univis Lens in performing an analysis to determine the patentable distinctiveness of a claim, one cannot rationally include any consideration of the choice of claim drafting form.


136. E.g. Remington Arms Co., Inc. v. Funasaw Co., Ltd., 201 U.S.P.Q. 217, 222 (N.D. Ill. 1978) ("[T]he method of making the saws is of no patentable significance... no method limitations were added to the claims to secure allowance thereof. The file histories do not establish that alleged method recitals of the claims were imposed by the Patent Office for purposes of allowance.").

137. The law regarding patentable distinctiveness between compounds and their methods of use is analogous. E.g., Geneva Pharm. Inc. v. Glaxo Smith Kline PLC, 349 F.3d 1373, 1386 (Fed. Cir. 2003) ("The '720 patent claims nothing more than Fleming's disclosed utility as a method of using the Fleming compound. Thus, the claims of the Fleming and '720 patents are not patentably distinct."). The law regarding products and their methods of manufacture is likewise analogous.

[S]ince the product in each of the appealed claims is defined essentially in terms of the method by which it is made, the fact that the claims of the patent and the application are, technically, in different statutory classes, is not in itself, enough to avoid a rejection on the ground of double patenting.

In re Freeman, 166 F.2d 178 (CCPA 1948).
patentable distinctiveness between apparatus and method (process) claims:

Where the claims of an application define the same essential characteristics of a single disclosed embodiment of an invention, restriction therebetween should never be required. This is because the claims are but different definitions of the same disclosed subject matter, varying in breadth or scope of definition.\(^{138}\)

Where the two inventions are process and apparatus, and the apparatus cannot be used to practice the process or any part thereof, they are independent.\(^{139}\)

Process and apparatus for its practice can be shown to be distinct inventions, if either or both of the following can be shown: (A) that the process as claimed can be practiced by another materially different apparatus or by hand; or (B) that the apparatus as claimed can be used to practice another and materially different process.\(^{140}\)

Thus, the standard for patentable distinctiveness between apparatus and method claims is that one can be practiced independent of the other. Since this is the standard for allowance of method and apparatus claims in the same application, it stands to reason that an exhaustion analysis based on patentable distinctiveness should be conducted with the same standard.

Applying the PTO standard to LGE’s Lagoy patent,\(^{141}\) for example, results in a conclusion of exhaustion of the method claims, i.e., the claimed apparatus cannot be used to practice a materially different process and the claimed process cannot be practiced by a materially different apparatus. This is necessarily consistent with the outcome of an analysis based on a comparison of essential features because both analyses turn on the presence or absence of the same patentably distinct\(^{142}\) subject matter in the two types of claims.

VII. THERE IS NO INHERENT CONFLICT BETWEEN THE IMPLIED LICENSE AND EXHAUSTION DOCTRINES

The standard for the grant of an implied license is: (1) the article sold must not have any reasonable noninfringing uses and (2) "the
circumstances must plainly indicate that the grant of a license should be inferred.  

With regard to the first requirement, no license can be implied where "the equipment involved has other noninfringing uses, even if only as replacement parts." The second requirement is met if the patentee's actions lead the alleged infringer to believe that it has a license to use the invention and, in reliance on those actions, the alleged infringer practices the patent. Implied license is a contract-based theory, and can thus be limited or disclaimed where it is clear that the parties so intended. As the Federal Circuit observed in Stickle v. Hublein:

the relatively few [cases] where implied licenses have been found rely on the doctrine of equitable estoppel...

One common thread in cases in which equitable estoppel applies is that the actor committed himself to act, and indeed acted, as a direct consequence of another's conduct. Thus, an implied license cannot arise out of the unilateral expectations or even reasonable hopes of one party. One must have been led to take action by the conduct of the other party.

As discussed above, a proper exhaustion analysis based on Univis Lens involves an essential features analysis. Under such an analysis, an article which embodies the essential features, i.e., the patentably distinctive features, of a patent claim necessarily has no noninfringing uses. But the converse is not true, i.e., the authorized sale of an article which has no use other than to practice a patent claim does not necessarily embody the essential features of the claim, and thus does not necessarily result in patent exhaustion. Specifically, where the article sold is covered by a claim which is patentably distinct from another claim, the other claim is not exhausted. Unlike the implied license doctrine, the exhaustion doctrine is based on patent policy, which grants exclusive rights to patentees, but also limits those rights. Exhaustion is a limitation

144. Bandag, 750 F.2d at 924 (quoting Lawther v. Hamilton, 124 U.S. 1, 11 (1888)).
146. E.g., Jazz Photo v. ITC, 264 F.3d 1094, 1107-08 (Fed. Cir. 2001).
148. See supra notes 4-46 and accompanying text.
149. As explained in an article by Cohen and Lemley:
which ends patent rights insofar as they are embodied in the authorized disposition of an article.\textsuperscript{150}

The doctrine of implied license often results in much the same conclusion as exhaustion, i.e., buying an article includes the implied right to use and resell the article. However, "...while patent exhaustion stems from inherent limits on the grant of the patent right, implied license is a doctrine of quasi-contract, and depends on the beliefs and expectations of the parties to the sales transaction."\textsuperscript{151}

The apparent similarity in the exhaustion and implied license standards with respect to a focus on "noninfringing uses" has created a great deal of confusion in the caselaw and among commentators. Also, the "circumstances of the sale" inquiry in an implied license analysis has been confused with the "lawful restriction" inquiry

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Exhaustion represents one such limit on a patentee's right to control his/her invention: that control ceases with respect to a particular product once she has sold that product. In the words of the Supreme Court, "when the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the [patent laws]." It is not the patent right itself that is exhausted, of course. The patentee retains the rights to prevent anyone else, including the buyer, from making, using, or selling additional copies of the patented item. But once the patentee has sold a particular product, its control over that particular product ends, and the general legal antipathy toward restraints on alienation takes over.


\textsuperscript{150} E.g., Adams v. Burke, 84 U.S. 453, 456 (1873); United States v. Univis Lens Co., Inc. 316 U.S. 241, 250 (1942).

\textsuperscript{151} Cohen & Lemley, 89 CALIF. L. REV. at 31–32 ("Both doctrines have traditionally drawn a distinction between using and reselling a particular copy of a patented product, which is permissible, and making a new copy of a patented product, which is not."). The distinction between the two doctrines was discussed in the first \textit{LGE} decision:

The patent exhaustion doctrine.... is derived from the statutory grant of exclusivity to the patentee.... The implied license doctrine, on the other hand, derives not from statute, but from principles of equity.... [T]he patent exhaustion doctrine applies when a patentee has, in essence, sold its statutory right to exclusivity through the unrestricted sale or license of the patent. A patentee who has not abandoned its statutory right to exclude others from the use of its patent may nevertheless, through conduct that induces reliance, grant to particular parties an implied license to practice the patent. Although similar in effect, the doctrines require distinct analysis. To determine if a patent was exhausted, the court must assess whether the terms of the patentee's sale remove the invention from the protection of the patent law. The determination of whether an implied license exists, however, is necessarily more fact specific. The court must determine whether the patentee's acts lead the accused infringer to believe it had acquired the right to practice the patented invention.

pertinent to an exhaustion analysis. But the differences between the two doctrines are not merely tautological; they go to the very foundations of the doctrines.

The confusion between patent exhaustion and implied license can be entirely eliminated by focusing on the essential features of a patent claim when performing an exhaustion analysis. The confusion developed because of a straying of the caselaw from the doctrinal foundation of Univis Lens. The discussion of noninfringing uses in Univis Lens itself was somewhat ambiguous and may be the origin of the confusion. As a result, many courts and commentators purporting to apply Univis Lens have assumed that noninfringing use must mean the same thing in both contexts. They are correct, but only up to a point. The meaning is the same but noninfringing use is the incorrect standard for an exhaustion analysis under Univis Lens. The central focus of Univis Lens was on whether there had been a sale of an article embodying the invention. The noninfringing uses discussion in Univis Lens was an explanation of the result of the essential features analysis, not a separate requirement or basis for finding exhaustion. The presence or absence of acceptable noninfringing uses is not dispositive of the exhaustion issue under the correct interpretation of Univis Lens as discussed above.

Adherence to the essential features dictate of Univis Lens and its progeny and the "circumstances of the sale" dictate of the Met-Coil line of implied license cases makes apparent the following:

(1) If an article embodies essential features of a patent claim, the authorized sale of the article exhausts that claim.

152. See Cohen & Lemley, 89 Calif. L. Rev. at 31 ("Indeed courts have frequently conflated the two doctrines."); see also Mark D. Janis, A Tale of the Apocryphal Axe: Repair, Reconstruction, and the Implied License in Intellectual Property Law, 58 Md. L. Rev. 423, 495 (1999) (cataloguing instances of confusion between exhaustion and implied license); see also, e.g., LifeScan, Inc. v. Polymer Technology Int'l Corp., 35 U.S.P.Q.2d 1225, 1231 (W.D. Wash. 1995) (analyzing Univis Lens under the implied license doctrine); Michael J. Swope, Recent Developments in Patent Law: Implied License—An Emerging Threat to Contributory Infringement Protection, 68 Temple L. Rev. 281, 286 (1995) ("Under patent exhaustion theory, the purchaser of a product acquires an implied license to patent claims that cover the product and may also acquire an implied license to incident patent claims.") (espousing a tortured three-part analysis in an attempt to rationalize the purported exhaustion and implied license cases); Anton/Bauer, Inc. v. PAG, Ltd., 329 F.3d 1343, 1350 (Fed. Cir. 2003) ("The Court's statements in Univis demonstrate how closely related the exhaustion doctrine is to the grant of an implied license. Indeed, they suggest that an implied license stems from the exhaustion of a patent right."); Arizona Cartridge, 68 U.S.P.Q.2d at 1792 ("To determine whether a patent holder exhausted its rights with an unconditional sale or retained them with a conditional one (which some courts define as a license), a court looks to the circumstances of the sale.") (quoting Anton/Bauer).

153. 316 U.S. at 249–51.
Whether the claim is to an apparatus or method should not matter, nor should the circumstances of the sale make any difference.\textsuperscript{154}

(2) An implied license may also result from the sale of an article embodying essential features of a patent claim if the circumstances of the sale indicate that a license was granted.

(3) An implied license may result from the sale of an article \textit{not} embodying essential features of a patent claim if the article has no reasonable noninfringing use and the circumstances of the sale indicate that a license was granted.

A noninfringing uses inquiry is pertinent to both implied license and exhaustion. However, patentably distinctive features frame the exhaustion analysis, whereas implied license is fundamentally a contract-based doctrine which also requires examination of the circumstances of the sale. An article having the essential features of a patent claim has no reasonable use other than to practice the patent claim. Exhaustion applies in this situation, and an implied license may also apply. However, an article having no reasonable noninfringing use does not necessarily embody the essential features of the claim, i.e., if the asserted claim is patentably distinct from the article sold. An implied license may apply in this situation, but exhaustion does not.

\textbf{VIII. CONCLUSION}

The confusion regarding patent exhaustion as manifested in often-conflicting Federal Circuit and district court decisions can be eliminated by adopting an analytical procedure strictly following the Supreme Court's \textit{Univis Lens} decision. \textit{Univis Lens} and its progeny make clear that the sale of an article embodying the essential features of a patent claim results in the exhaustion of that claim. This conclusion applies equally to any type of patent claim, i.e., component, apparatus, composition, system, combination, method, or process claims. Identifying the essential features of a patent claim, i.e., the patentably distinct features, clarifies the exhaustion analysis,

\textsuperscript{154} As discussed above, pursuant to \textit{Mallinckrodt}, the sale of a patented article can be restricted but this does not mean that exhaustion of combination or method claims can be disclaimed if such an attempted disclaimer goes beyond the scope of the patent grant. \textit{See supra} notes 61–77 and accompanying text.
results in predictability, and eliminates the confusion between the doctrines of exhaustion and implied license.

Adherence to the essential features dictate of *Univis Lens* in this manner would not result in unfettered application of the patent exhaustion doctrine, however. If there is no attempt to collect double royalty recoveries or engage in prohibited post-sale control, the issue of patent exhaustion never legitimately arises. Under *Univis Lens*, if a patentee merely collects separate royalties for practice of separate and distinct patent claims, there is no collection of double royalties.

Pursuant to *Univis Lens*, recovery of a royalty for practice of a combination claim is not double recovery where the purchased component, whether or not the component is patented, does not embody all of the essential features of the combination claim. Implied license may apply in this situation, but exhaustion does not. However, if a component embodies all of the essential features of a combination claim, under *Univis Lens* the authorized sale of such component exhausts the combination claim, whether or not the component is patented. Thus, where a purchaser obtains a component from a licensed source and the component embodies all of the essential features of a combination claim, the exhaustion doctrine applies if there is an attempt to collect a royalty for practice of the combination claim.

The relevance of noninfringing uses to both implied license and exhaustion has led to a great deal of confusion in the application of both doctrines and has made exhaustion seem particularly amorphous. This confusion is eliminated if it is understood that patentably distinctive features frame the exhaustion analysis under *Univis Lens*, whereas implied license is a contract-based doctrine which also requires examination of the circumstances of the sale. Thus, under the interpretation of *Univis Lens* put forth here, a noninfringing uses inquiry may produce different results for exhaustion and implied license analyses on the same set of facts. If the allegedly infringed claims are patentably distinct from the article sold, there is no exhaustion, even if there are no reasonable noninfringing uses. A focus on essential features, i.e., patentable distinctiveness, consistent with *Univis Lens*, would avoid the confusion evident in much of the prior caselaw and commentary on exhaustion.

In summary, based on a careful reading of *Univis Lens* and its progeny, an article having essential features of a patent claim has no reasonable use other than to practice the patent claim, and exhaustion therefore applies in this situation. Depending on the circumstances, the implied license doctrine may also apply. However, an article
having no reasonable noninfringing use does not necessarily embody the essential features of the claim, i.e., if the asserted claim is patentably distinct from the article sold there is no exhaustion of the claim under a *Univis Lens* essential features analysis. The implied license doctrine may apply in this situation, but exhaustion does not.

The analytical procedure set forth herein based on the holding of *Univis Lens* can be applied to any set of facts and will result in consistent predictions regarding applicability of the patent exhaustion doctrine. A clear statement by the Federal Circuit of adherence to the essential features standard of *Univis Lens* would go far in eliminating the inconsistency in application of the patent exhaustion doctrine. A subsidiary, but important, additional benefit would be to eliminate the apparent inconsistencies between the patent exhaustion doctrine, the implied license doctrine, the repair/reconstruction doctrine, and the statutory contributory infringement standard. These inconsistencies result largely from varying applications of the common "noninfringing uses" test in the different contexts, and would be wholly resolved by adherence to the essential features standard.