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INTEL CORP. v. ULSI SYSTEM TECHNOLOGY, INC.: PATENT EXHAUSTION AND POST-SALE RESTRICTIONS ON THE USE OF A COMPONENT MADE UNDER LICENSE

William L. Martin, Jr.[a1]

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***6** *Does a license to manufacture a component carry an implied limitation on the use of the component by third party transferees in absence of express language granting sublicense rights to other claims in the same patent? Does it depend on*

whether there was a "sale" or not?

I. Introduction

Attorneys and executives concerned with intellectual property licensing and litigation will be fascinated by the recent decision of the Court of Appeals for the Federal Circuit (hereinafter "CAFC"), *Intel Corp. v. ULSI System Technology, Inc.*[1] Its treatment of the doctrine of patent exhaustion has far reaching implications for a broad range of technologies in which systems are assembled out of sophisticated components. Additional appreciation of these implications can be obtained by a concurrent review of a recent district court case having close factual similarities: *Cyrix Corporation v. Intel Corp. v. SGS-Thomson.*[2] Both cases pitted Intel against the customers of semiconductor foundries, where those foundries enjoyed full patent licenses from Intel. In the first case, the foundry was Hewlett Packard.[3] In the second case, the foundry was the former Mostek plant, now owned by SGS-Thomson.[4]

Familiarity with the recent CAFC decision will be of particular value to those whose clients manufacture complex systems out of numerous sophisticated components. These practitioners will recognize that it is often the case that numerous separately patented components must be combined in order to create a functioning system. In such cases, it is common for the systems manufacturer (unless it is highly vertically integrated) to obtain components from various vendors. Due to the highly troubled and unpredictable state of patent rights, it is often difficult to get indemnity agreements from vendors that cover the use of the vendor's part in the environment for which it was designed. This problem is particularly complicated when, as originally asserted in the subject case, a sophisticated integrated circuit chip legally manufactured in a licensed foundry cannot be used without a separate license between subsequent transferees and the patent owner.[5] For example, the licensor may assert that infringing parts which are custom manufactured under "make, use or sell" license rights by the parts manufacturer cannot be sold or used without a separate license between the system manufacturer and the licensor. The separate license is demanded for patent rights under the very same patents licensed to the parts manufacturer from whom the part was obtained.

II. Stipulated Facts Apparently Before the CAFC in the Instant Case

These appear to be the facts before the CAFC in the instant case:
(1) HP (hereinafter "Licensed Foundry") has a broad and unrestricted cross license (hereinafter "Cross License") with Intel (hereinafter "Licensor") that allows full freedom of design.[6]

***7** (2) The Licensed Foundry has rights to manufacture certain components and systems that employ such components under that Cross License.[7]

(3) ULSI (hereinafter "Third Party") submitted to the same Licensed Foundry a design for a advanced processor chip (hereinafter "Advanced Component") apparently intended for use in a computer system like that described in the disclosure of the Intel '338 patent, which is apparently also a patent typically licensed by Intel in this and other contemporaneous cross licenses.[8]

(4) The Advanced Component manufactured according to the design submitted to the Licensed Foundry by the Third Party would infringe one or more claims of one or more patents licensed to the Licensed Foundry by the Licensor, among which is a patent literally covering the advanced features of the Advanced Component in which the advanced features were disclosed in an embodiment designed for use in an advanced system.[9]

A fifth effect seems implied as some sort of commercial reality, although it is not expressly recited as a fact:
(5) Use of the Advanced Component only in a primitive mode equivalent to an obsolete system would be of no value to either Third Party or subsequent transferees.[10]

III. Summary of Analysis

A. Proposition One (Rejected by the CAFC in Intel v. ULSI)[11]

Be it resolved that, under the facts recited, the law requires the third party customer of the Licensed Foundry to obtain a separate license from the Licensor in order to exercise dominion over a part that is custom manufactured for the third party

by the Licensed Foundry under the Licensor's patents. In other words, the Intel/HP cross license must be interpreted so that HP, admittedly a licensed foundry for the custom part, is only entitled to make such parts for its own use, and that any customer who obtains parts from the foundry must pay an additional (and much higher?) royalty.

***B. Proposition Two (Accepted by the CAFC in* Intel v. ULSI)**[12]
On the contrary, it was proper to interpret the Intel/HP cross license agreement so that HP, an admittedly licensed foundry, may manufacture for and transfer its licensed component to its own customers without a restriction on the use or sale of the component by the customer of the foundry.

It may be obvious to some that the establishment of Proposition No. 2 above would be of little value unless the following corollary were also valid:

***8 C. Corollary to Proposition Two**[13]
The customer (or subsequent transferee) of the Licensed Foundry can at least use infringing circuits of the component for the purpose for which those circuits were designed, even if by employing the licensed component, the customer creates a combination covered by a more narrow claim contained in the same patent.[14]

D. Initial Inquiries

Query: Does the License agreement on its face plainly contradict either interpretation?

Answer: No.

Query: Does the common law of contracts as applied to the license agreement plainly contradict either interpretation?

Answer: Common law of contract appears to support Proposition No. 2.

Query: Do the specific holdings (non dicta) of precedents from courts that have dealt with infringement defenses plainly contradict either interpretation?

Answer: Precedent can be cited to support both propositions.

The correctness of Proposition Two must be tested against authorities that are arranged into the following categories:
(1) Authorities that govern contract interpretation.

(2) Authorities that govern the issue of patent exhaustion.

(3) Authorities that govern the issue of sublicensing.

***9 IV. Argument and Authorities**

A. Authorities that Govern Contract Interpretation.

There has long been high authority for the view that the valid sale of a patented machine takes the machine out of the limits of the patent monopoly under the laws of the United States and into the control of the laws of the several states of the United States applicable to private individual property.[15] As a license passes no interest in the monopoly, it has been described as a mere waiver of the right to sue by the patentee.[16] However, other authority contends that rights to make and sell are interests in a monopoly, while use rights to purchased machines are not.[17]

Thirty-three years ago, the Federal Courts of Texas were the battleground in a number of patent license lawsuits involving the famous Bryan oil field tool patent. In the course of managing those disputes, the Texas U.S. District Courts and the 5th Circuit developed considerable expertise in the interpretation of patent license agreements. It was uniformly held in those decisions that "the question here is one of contract, not patent law as such."[18] In holding that the usual principles of contract law governed the interpretation of patent licenses, these courts relied upon *Storm v. United States.*[19]

In *Camco*[20] there is an extensive list of Texas contract law authorities that the 5th Circuit consulted in the course of interpreting a patent license agreement. However, in *Camco,* the 5th Circuit boiled all of the Texas authorities down to one main principle: the patent license must be construed as a whole with the object of coming to a "reasonable, practical interpretation *unless the terms prevent it*" (emphasis added).[21] Accordingly, it seems clear that a common sense view of the patent license must be taken, unless there is express language to the contrary set forth in the agreement.[22]

If Proposition No. 1 cannot be called "reasonable and practical," in the absence of express terms in the contract mandating the validity of Proposition No 1, it appears clear that Proposition No. 2 would be accepted in a Texas court applying Texas contract law to a patent license agreement.

***10** In fact, as the *Otis* case demonstrates, Proposition No. 2 is preferred, at least under the common law of Texas and many other states of the United States.[23] In *Otis,* the patent covered the combination of a bypass mandrel and a retrievable gas lift valve.[24] The licensee had manufactured the mandrels under a valid license from Bryan, and then sold the mandrels to a third party. The plaintiff asserted that the third party did not have the right to resell the mandrels. The trial court agreed with the patent owner, and the 5th Circuit reversed.[25] The relevant terms of the contract were summarized by the court as follows: "The contract was, as it states, for a non-exclusive, non-assignable license. It expressly provided that the license was 'non-transferable in whole or in part except . . . to the legal successors of Camco' and Camco was 'expressly prohibited from granting sub-licenses under the license' therein granted."[26]

The patent owner's argument is summarized by the court as follows:

> Bryan responds that since the license to Camco forbids Camco to grant a sub-license or assign it in any way, Camco may not sell to others with the expectation that they in turn will resell the mandrels. When it does so, Camco is operating beyond the license and is itself an infringer. (citations omitted). Moreover, U.S. Industries (the third party purchaser from Camco) is charged with knowledge of Bryan's patent (assumed valid and infringed for the purposes of this discussion). Consequently, unless U.S. Industries acquired some right by Camco's license, its acts in the sale of the mandrel -- whether with or without valves installed -- constitutes direct infringement. Further, the sale of valves having no substantial commercial suitability other than in the mandrels with the intention they may be used in Camco mandrels constitutes contributory infringement.[27]

Further elaborating on the patent owner's argument, the court set forth the following:
And yet, despite the unqualified power conveyed to Camco to *sell,* Bryan insists that this grant was "intended to apply only in such instances" that the sales of bypass mandrels without gas lift valves "were to [a] persons licensed to manufacture and sell the patented combination or to [b] persons who intended to fit Camco valves to the mandrels to complete the combination."[28]

Based on the license as summarized and the patent owner's contentions as summarized, the 5th Circuit held that the mandrels had become free items of commerce and were no longer the subjects of patent protection.[29] Prior to reaching this conclusion, the court framed the issue as follows:

> If it is finally determined that the licensee and his purchasers may deal with the Camco mandrels as items of free trade, it is not the allowance of a sub-license or an assignment prohibited by the settlement license contract. What it is is a determination that fairly construed, the contract grants such immunity.[30]

In deciding that the contract ought to be construed to make it of practical utility, the court considered the result of the patent owner's contention. "The result would be that Camco paying valuable consideration for the right to sell would have no buyers to whom to sell."[31] In summarizing its rationale, the court said:

> ***11** To effectually utilize and exploit the commercial value of the license and obtain anything, Camco reasonably had to have the right to sell not only the completed combination, but to sell either separately or as a whole the components of it. The parties could, of course, have prescribed an arrangement having those *unrealistic attributes,* but the words used are far from that here, and *we decline to read into them any such artificiality.*[32]

In effect, the court is saying here that no implied restriction on subsequent sale or use will be read into the license agreement. The question of implied license is not addressed as such. The result is a significant shift in the burden of persuasion.

This shift in the burden of persuasion is not unique to the Texas oil tool cases. In 1892, the U.S. Supreme Court stated that when machines were made under license, "once lawfully made and sold, there was no restriction on their *use* to be implied for the benefit of patentee or his assignees or licensees."[33] Such ancient authorities are concerned with implied restrictions on use, rather than sale. However, the principle seems applicable regardless of this difference. Instead of looking for an implied license permitting use or sale, the courts require the patentee to establish an implied license restricting use or sale.[34]

In view of the contention that the *Camco* license prevented the sale of mandrels by the licensee to any but those licensed to the patented combination, the issues present in *Otis,* as set forth immediately above, are strikingly similar to the issues involved in the various facets of the *Intel* litigation that is the subject of this note. Let the reader judge for herself whether or not Intel's contentions can properly be restated as follows:
(1) that a chip foundry licensed to make chips under the broad claim of a patent cannot be an authorized source for chips designed by an unlicensed transferee who intends to resell to unlicensed systems makers, and

(2) that even if such a foundry is an authorized source, uses for chips from such source are limited to such things as replacement parts for systems separately licensed under the narrower combination claims of the same patent or for hobbled operation in a primitive mode.[35]

It is with this background that we approach a discussion of the recent decision of the CAFC that forms the main purpose for this article.

B. Authorities that Govern the Issue of Patent Exhaustion.

In reaching the *ULSI* holding last June, the CAFC ignored available state law relating to contract interpretation. Instead of determining either that the cross-license could not be construed to include an implied restriction on third party sale or use, or that the license should be construed to include an implied license running to the benefit of the transferee from the licensed foundry, the Court chose to base its holding on the doctrine of exhaustion.[36] In doing so, the CAFC left the corollary to Proposition No. 2, discussed above, in doubt.

***12** One wonders how valuable the right to resell the chip will be if subsequent transferees are not free to combine the chip with off-the-shelf components in useful ways. It is not clear that the doctrine of patent exhaustion will resolve the practical aspects of the underlying dispute in this and related cases.[37]

The CAFC made it clear that the "sub-license" requirement argument against ULSI's rightful resale of the chip would not hold water.[38] In this respect, the result was similar to that obtained in the *Otis* case discussed above. Also, the CAFC dealt with the license as a contract, the interpretation of which "is a question of law which [they] review de novo."[39] The specific holding was recited as follows:
[W]e hold that the 'C87 coprocessors were insulated from Intel's claim of infringement because they were sold to ULSI by HP, which was authorized to do so under its licensing agreement with Intel. Accordingly, we conclude that Intel cannot establish a likelihood of success on the issue of infringement.[40]

The Oregon Federal district court had reached a contrary result, rejecting ULSI's argument "because it determined that the licensing agreement did not grant HP the 'power to sublicense' the '629 patent."[41] In reversing the grant of a preliminary injunction by the Oregon district court, the CAFC stated:
The district court's finding on the likelihood of success is clearly erroneous because it was based on a legal error concerning the application of the first sale doctrine. As to the other preliminary injunction factors, the district court ***13** presumed irreparable harm because it found that Intel had made a clear showing that the '629 patent was valid and infringed. Because that presumption was based on a clearly erroneous finding on the likelihood of success, it too was clearly erroneous. We discern no clear error in the district court's determination that the balance of hardships tipped in ULSI's favor and that the public interest favored neither party. In view of the totality of these factors, as weighed by the district court, we conclude that the district court abused its discretion in granting Intel's motion for preliminary injunction.[42]

The issue was very sharply defined as whether the agreement "involved the sale of chips, not merely the sale of fabrication services."[43] There followed a complex discussion of the following sub-issues.

1. Did the Source of the Design Used by the Licensed Foundry (Hewlett Packard) Influence the Determination as to Sale of Chips or Sale of Services?--

The CAFC answered this question in the negative, saying:
Intel confuses the issue of design origin with the issue of sale. Who designed the chip and whether it embodies inventions other than Intel's have no bearing on the controlling issue whether the 'C87 coprocessors were sold by HP to ULSI and thus extinguished Intel's patent rights relating to those products.[44]

2. Who Owned Non-Patented Intellectual Property Rights in the Chips Supplied to ULSI by the Licensed Foundry?--

The CAFC answered this question by saying that: "ULSI, rather than HP, might have owned any existing intellectual property rights to the chips was a matter between ULSI and HP, and did not concern Intel."[45]

3. Were Rights to Make Sales Restricted in the License Agreement?--

The CAFC answered this question negatively, saying that Intel made a deal with HP permitting HP to make unrestricted sales and cannot now renege on that grant to avoid its consequences.[46]

14** ***4. Was Sale of the Chips a "De Facto Sublicense" Prohibited by the Agreement?--

Rejecting this argument, the CAFC held as follows: "HP did not empower ULSI to make Intelpatented chips or to use or sell any such chips except those lawfully sold to it by HP; these would have been the incidents of a sublicense."[47]

***5. Did the License Only Permit the Licensed Foundry to Sell Products Carrying the Foundry's Trademarks as in the* "Atmel" *Case?*[48]--**

In the "Atmel" case, Intel had successfully argued that Sanyo was not permitted to sell EPROMs to Atmel for resale as Atmel branded products, because the licensing agreement only authorized Sanyo to sell Sanyo branded products and that Atmel could not rely on the license as a defense to infringement.[49] The CAFC distinguished "Atmel" over the case at bar on the grounds that the Intel/HP license "contains no restriction on HP's right to sell or serve as a foundry."[50]

The authorities controlling the doctrine of patent exhaustion are not in conflict with Proposition No. 2, while Proposition No. 1 is contradicted by those same authorities.

C. Authorities that Govern the Issue of Sublicensing

Proposition No. 2 will now be tested against the theory advanced by the dissent in the *ULSI* case. Stripped to its essence, this theory is that the maker's license agreement has nothing to do with the legal status of the article in the hands of the transferee of the goods. The issue is simply whether or not the purchaser may defend against a charge of infringement by claiming to be a "purchaser of the patented device in the ordinary course in the marketplace."[51] No authorities are cited by the dissent for this ***15** "ordinary course in the marketplace" formulation. However, based on this formulation and on the conclusory comment that "the product was always C's [ULSI's]," the dissent would have held that there was no "first sale."[52]

The dissent views the "ordinary course of the marketplace" as beginning with ULSI's transfer of the chip to ULSI customers.[53] No facts are argued and no authorities cited for this conclusion.[54] Evidently, it is deemed to be self-evident by the dissent. Arguments dealing with the ownership of the intellectual property content of the articles manufactured are neither recognized or resolved.

In *Millinger,* the authority relied upon by the majority, it is established that the licensee stands in the shoes of the patentee, that any transfer by the licensee is the same as a transfer by the patentee, and that, in either case, when the patented machine rightfully passes to the purchaser, "the machine is no longer within the limits of the monopoly."[55] If the licensee stands in the shoes of the patentee, then the transferee of the article made by the licensee is legally the beneficiary of a direct transfer from the patentee. Who would argue that the transferee who ordered and received delivery on a custom design from Intel would be

barred from using the design by an Intel patent, assuming an unrestricted transfer was made? The issue really is whether or not transfer rights under the license were restricted so that the grantor could not convey good title to the chattel and does not depend upon the exact form of the transfer in the abstract.[56]

It is not required that the burden be on the possessor of an infringing product to prove that he did not in any way influence the design of the product obtained from the licensed maker, nor to prove that express terms of the maker's license with patentee authorize the maker to transfer articles to a third party in his class. The test is whether or not the license was expressly restricted in a manner that prevented the maker from conveying good title. No implied restriction on use or resale will be inferred.

The dissent tries to avoid this result by an analogy to the real property law principle that "an owner of property may be estopped from claiming an interest in property which, through a voluntary act of the owner, has found its way from the owner's transferee into the hands of a third party."[57] However, application of this principle to the transfer of possessory interests in machines has the effect of forcing the owner of a chattel to affirmatively prove a "voluntary act" on the part of the patentee.

***16** The granting of an unrestricted license is the test.[58] There is no need for an additional "voluntary act" test. A better real estate analogy would be that of an easement. If an access easement allows ingress and egress to land that would not otherwise be accessible from a public road, in the absence of express restrictions in the grant, it would seem to be common sense that guests of the grantee would be permitted to use the easement. The test is whether the easement was restricted or not. The same principle applies here.[59]

However, the dissent argues that the right to "sublicense" means the power to authorize third parties to separately design and manufacture (or have manufactured) products incorporating the patented invention.[60] To the dissent, it is self evident that ULSI separately designed and "had manufactured" the product incorporating the patented invention. The fact that the product was manufactured by a licensee is irrelevant. So, claims the dissent, ULSI must be given a sublicense if it is not to be liable as an infringer.[61]

The problem with this argument is that it assumes that the source of the design is relevant to the issue of first sale. There is absolutely no authority advanced for this assumption. The majority insists that source of the design is irrelevant.[62] The design is relevant only in so far as it proves infringement. If the article were not a physical embodiment of the patented invention, there would never have been a dispute in the first place.[63]

The dissent's basis for claiming that source of the design is somehow relevant is assertedly that "the substance of the transaction at issue should control whether it is 'sublicensing,' and the terms of the license as intended by the parties should determine whether such 'sublicensing' is permitted."[64] To substitute "intent of the parties" and "substance of the transaction" is a two-edged sword.[65]

The only evidence of intent at the time the contract was signed was that the parties intended full freedom of design and did not intend to grant sublicenses (which are not involved anyway, according to the majority). The substance of the transaction at issue is that HP wants to exercise its license to provide custom infringing chips as a licensed foundry and cannot do so if subsequent sale or use of those chips is banned. Since "intent" and "substance" are so subjective, the four corners of the contract arguably are ***17** the limits of the analysis. Was it an unrestricted license or not? It is certainly not good contract law to go about molding a contract like a "nose of wax" based upon *post hoc* assumptions about "intent" and "substance."

In efforts to pull evidence of "substance of the transaction" out of the documents in evidence, the dissent seizes upon the indemnity clause in the agreement between HP and ULSI and opines that surely HP would not have asked ULSI to indemnify it unless it was worried that Intel might sue HP for patent infringement.[66] Yet, the dissent agrees that HP has a perfect defense against an infringement suit by Intel.[67] In view of this, it would be more sensible to assume that HP wanted protection against suits by third parties based upon some improvement patent covering in combination both the embodiment of the patented Intel invention and some additional element.

Still looking for evidence of the "substance of the transaction," the dissent finds evidence of "non-recurring expenses" and concludes that "the overall context of the contract demonstrates that the sale was of *services,* measured per chip, rather than the sale of any technology (be it Intel's or ULSI's), as embodied in each chip."[68] The dissent, evidently, did not consider the possibility that HP technology relating to ULSI design rules might have been embodied in the chip. In addition, the dissent does not deal with the relevance of this issue in view of the rule that a licensee with an unrestricted license stands in the shoes of the patentee. If Intel had done this custom fabrication, the recipient of the chip would have had good title to it, free of the patent monopoly. The fact that Intel now regrets the unrestricted license is not relevant.

The dissent is really attempting to imply a restriction on use and resale into the original agreement between Intel and HP. The dissent rudely refers to the "patent exhaustion" and "first sale" defenses as "simply lawyer argument by ULSI trying to capitalize on the existence of an agreement between other parties (Intel and HP) in which ULSI had no part."[69] By the same standard of politeness, the rationale of the dissent typifies illogic dressed up to pass for logic. Conclusory statements based upon unfounded and irrelevant assumptions are stacked one on top of another to create the illusion of a well crafted dissent.

The dissent is not authority against Proposition No. 2, and the dissent does not base its argument on any authorities that contradict Proposition No. 2. Even if the *ULSI* dissent is right about the controlling nature of the "substance of the transaction," that standard is just as likely to work for Proposition No. 2, as against it.[70]

***18 V. Conclusion**

There are many abuses inherent in the U.S. patent system.[71] There is much potential for abuse in the exercise of the unlimited opportunity to stack "environmental limitations" on top of limitations that actually define the invention. It is the existence and increasing exploitation of these opportunities for abuse that will eventually force patent harmonization with the intellectual property laws uniformly recognized in the other industrialized nations of the world.

It is the use of common environmental limitations to create an endless variety of "system claims" that is really at the heart of the disputes discussed herein. It is not clear that the page tables and segment descriptors of the Intel '338 patent are more than mere environmental limitations to the narrower claims. In any event, these elements may be required in order to enjoy "commercially practicable non-infringing uses" for the invention defined in the broad claim. Who is going to invest the money required for the purchase of an advanced processor, if it can only be used in a primitive mode equivalent to obsolete processors?

It will be fascinating to follow the manner in which the *ULSI* decision is applied to cases like the one now pending in Sherman. If a subsequent transferee from a licensed source cannot enjoy the advanced use for which the licensed item was designed, the holding in *ULSI* case will have little commercial significance. Inability to use the part in the environment described in the dependent claims would severely constrain the use of the part. This is particularly true if the alternative uses for a state-of-the-art part are restricted to the very mode of operation over which the patented invention improved. If a patent license gives rights to anything, it should at least convey the right to practice the patented improvement over the prior art.

Footnotes

a1 M.S. University of Texas at Dallas, J.D. University of Texas, PTO licensed (1977), currently Intellectual Property Counsel, Dell Computer Corp.

1 995 F.2d 1566, 27 U.S.P.Q.2d (BNA) 1136 (Fed. Cir. 1993).

2 803 F. Supp. 1200 (E.D. Tex. 1992). In this case, SGS-Thomson was found to enjoy the full benefit of the Intel/Mostek cross license. SGS-Thomson fabricated a chip for Cyrix that allegedly infringed U.S. Pat. No. Re 33,629 ("the '629 patent"), a reissue of "Numeric Data Processor," United States Patent No. 4,338,675, issued to Intel in July 1982.

3 *ULSI,* 995 F.2d 1566, 27 U.S.P.Q.2d (BNA) 1136.

4 *Cyrix,* 803 F. Supp. 1200.

5 *ULSI,* 995 F.2d at 1567, 27 U.S.P.Q.2d (BNA) at 1137.

6 *Id.*

[7] *Id.*

[8] *Id.*

[9] *ULSI,* 995 F.2d at 1567-68, 27 U.S.P.Q.2d (BNA) at 1137.

[10] *ULSI,* 995 F.2d at 1568, 27 U.S.P.Q.2d (BNA) at 1137.

[11] *ULSI,* 995 F.2d at 1570, 27 U.S.P.Q.2d (BNA) at 1139.

[12] *ULSI,* 995 F.2d at 1568-69, 27 U.S.P.Q.2d (BNA) at 1138.

[13] Cross motions for summary judgment on this point were denied in currently pending litigation in the Eastern District of Texas styled Cyrix Corp. & Texas Instruments, Inc. v. Intel Corp., Civil Action No. 4:92CV52, Order, dated April 27, 1993. In rejecting the motion of Cyrix, Judge Brown concluded that "material factual disputes exist" over the following points:
(1) whether Claim 1 memory-management circuitry within the ST/Cyrix microprocessor cannot be used for any substantial purpose unless it is combined with external memory holding page tables and segment descriptors, and
(2) whether said circuitry cannot be used for its intended purpose unless it is combined with external memory holding page tables and segment descriptors.
However, the court also made the following significant observation: "If there are no commercially viable non-infringing uses for the claim 1 microprocessors, then the doctrine of patent exhaustion would preclude Intel from extracting a second monopoly profit through its process patent." *Id.* (citing United States v. Univis Lens Co., 316 U.S. 241 (1942)).

[14] Arguably, patented electronic circuits capable of other uses would be an exception to this corollary. The definition of "other uses" can become strained. For example, one would hope that one requires a legitimate "other" use of a brand new Jaguar to be more significant than the following: jack up one drive wheel and use the hub and engine combination as a winch means for uprooting small bushes. To use an advanced ultra-fast processor as an peripheral controller would make as much sense.

[15] Chaffee v. Boston Belting Co., 63 U.S. (22 How.) 217, 223 (1860); Bloomer v. Millinger, 68 U.S. (1 Wall.) 340, 351 (1864); Birdsell v. Shaliol, 112 U.S. 485, 487 (1884); Wade v. Metcalf 129 U.S. 202, 205 (1889).

[16] De Forest Radio Tel. & Tel. Co. v. United States, 273 U.S. 236 (1927).

[17] Bloomer v. McQuewan, 55 U.S. (14 How.) 539 (1853); Bloomer v. Millinger, 68 U.S. (1 Wall.) 340, 351 (1864); Mitchell v. Hawley, 83 U.S. (16 Wall.) 544 (1873).

[18] United States Indus., Inc. v. Otis Eng'g Corp., 277 F.2d 282, 291 (5th Cir. 1960); *see also* United States Indus., Inc. v. Camco, Inc., 277 F.2d 292, 294 (5th Cir. 1960); Bryan v. Sid W. Richardson, Inc., 254 F.2d 191 (5th Cir. 1958).

[19] 243 F.2d 708, 710-11 (5th Cir. 1957); *see also* Victory Bottle Capping Mach. Co. v. O. & J. Mach. Co., 280 F. 753, 758 (1st Cir. 1922) (stating "[i]t is a maxim of the common law that one, granting a thing, impliedly grants that without which the thing expressly granted would be useless to the grantee. This maxim is as applicable to grants of patent rights as to other species of property.") (citation omitted).

[20] *Camco,* 277 F.2d at 295-97, n. 14, 16.

[21] *Id.* at 297. *Compare* Freeport Sulphur Co. v. American Sulphur Royalty Co., 6 S.W.2d 1039, 1041-42 (Tex. 1928) (finding an implied covenant for diligent operation):
Implied covenants can only be justified upon the ground of legal necessity. Such a necessity may arise out of the terms of the contract or out of the substance thereof. One absolutely necessary to the operation of the contract and the effectuation of its purpose is necessarily implied whether inferable from any particular words or not. It is not enough to say it is necessary to make the contract fair, or that it ought to have contained a stipulation which is not found in it, or that, without such covenant, it would be improvident or unwise or would operate unjustly; for men have the right to make such contracts. Accordingly, courts hesitate to read into contracts anything by way of implication, and never do it except upon grounds of obvious necessity. *Id.* at 1042 (quoting Grass v. Big Creek Dev. Co., 84 S.E. 750 (W. Va. 1915)).

[22] W.T. Waggoner Estate v. Sigler Oil Co., 19 S.W.2d 27, 30 (Tex. 1929).

[23] *See* 17A C.J.S. *Contracts,* § 328, p. 288, note 43 (1963), cases cited.

[24] U.S. Patent No. 2,275,345 (March 3, 1942).

[25] United States Indus., Inc. v. Otis Eng'g Corp., 277 F.2d 282, 291 (5th Cir. 1960).

[26] *Id.* at 290.

[27] *Id.* at 290-91.

[28] *Id.* at 291-92 (emphasis in original).

[29] *Id.* at 290.

[30] *Id.* at 291. The "immunity" language is echoed in Cold Metal Process v. Republic Steel Corp., 233 F.2d 828, 846 (6th Cir. 1956): "[W]here the owner of a patent grants to a licensee the right to use a patented machine, the grant carries with it by implication a license under any other patent of the licensor which would be infringed by operation under the grant." Like *Otis, Cold Metal* was part of a progeny of cases spawned by the licensing of related patents. The validity of the basic license had been examined in three separate opinions of the 3rd Circuit prior to this decision.

[31] *Otis,* 277 F.2d at 291.

[32] *Id.* at 292 (emphasis added).

[33] Hobbie v. Jennison, 149 U.S. 355, 362 (1892). *See also* Adams v. Burke, 84 U.S. (17 Wall.) 453, 457 (1873) (stating "we hold that in the class of machines or implements we have described, when they are once lawfully made and sold, there is no restriction on their *use* to be implied for the benefit of the patentee or his assignees or licensees.") (emphasis in original).

[34] *ULSI,* 995 F.2d at 1569, 27 U.S.P.Q.2d (BNA) 1136.

[35] Presumably, many alternative uses were proposed. However, Judge Brown, on page 5 of his Court Order of April 27, 1993, *see supra* note 13, stated: "The summary judgment evidence before the Court is insufficient for the Court to

conclude that there are commercially practicable non-infringing uses for the claim 1 microprocessors."

[36] *ULSI,* 995 F.2d at 1568-69, 27 U.S.P.Q.2d (BNA) at 1337-38 (relying on *Millinger,* 68 U.S. (1 Wall.) at 350-51, and *Univis Lens,* 316 U.S. at 252, 53 U.S.P.Q. (BNA) at 408). A secondary authority that the CAFC relied on was Unidisco, Inc. v. Schattner, 824 F.2d 965, 968, 3 U.S.P.Q.2d (BNA) 1439, 1441 (Fed. Cir. 1987), *cert. denied,* 484 U.S. 1042 (1988).

[37] *See generally* Cyrix Corp. v. Intel Corp., 803 F. Supp. 1200 (E.D. Tex. 1992). In the Eastern District of Texas, there is currently pending a case styled Cyrix Corp. and Texas Instruments, Inc. v. Intel Corp., Civil Action Number 4:92CV52. Cross motions for summary judgment were argued and rejected as to the infringement of United States Patent 4,972,338 ("the '338 patent"). This patent involves an "improvement to a microprocessor system which includes a microprocessor and a data memory." The allegedly infringing product is a microprocessor/memory combination (as opposed to co-processors) made for Cyrix by the SGS-Thomson foundry. Judge Brown indicated that a fact issue existed as to whether the specific circuitry of the Cyrix processor corresponding to the limitations of claim one of the '338 patent would have a substantial use that did not infringe dependent claims two and six of the '338 patent. Among other seemingly less substantial uses, Intel contends that the processor can be used to replace the main CPU in systems manufactured under a separate Intel license. *See also,* Lisa Nadile, *Intel Flexes Legal Muscles to Block Cyrix,* COMPUTER SHOPPER, May 1993 at 172, wherein it is stated:

In 1990, Intel received a patent governing how x86 processors generate memory pages and page tables when using external memory and multitasking software, such as Microsoft's Windows and IBM's OS/2. In November 1992, Intel levied a $15 licensing fee per computer on all companies using what Intel calls "imitators" of its 386 chips. The fee is $25 for those 486-based systems up to speeds of 33 MHz. Cyrix subsequently termed the licensing program "extortion" and has filed for a summary judgment requesting the court find that Intel has no right to impose this fee on Cyrix customers. Cyrix has also filed a preliminary injunction to prevent Intel from suing Cyrix customers for non-payment of this charge. "Our foundry, SGS-Thomson Microelectronics, Inc., [Carrollton, Texas], has a broad cross-licensing agreement applying to any and all Intel patents, so we are exempt from this program," said Cyrix spokesperson Jodi Shelton. . . . In an official statement, the chip maker accuses Intel of engaging "in unfair and deceptive tactics when asking Cyrix's existing and potential customers to pay a licensing fee for the use of Cyrix microprocessors in combination with external memory, even though Intel concedes that Cyrix microprocessors are licensed products." Cyrix says Intel's licensing program is an attempt to force Cyrix customers to buy Intel's products. More importantly, Cyrix claims Intel is systematically harassing its biggest customers, threatening to constrain chip suppliers if they buy from Cyrix. Not so, says Intel, which has consistently denied these charges, stating that all licensing agreements are being made with current customers and that, as the current dominant force in CPU sales, it doesn't have to intimidate anyone. "The licensing program merely protects our intellectual property," according to Intel spokeswoman Nancy Pressel. *Id.*

[38] *ULSI,* 995 F.2d at 1570, 27 U.S.P.Q.2d (BNA) at 1139.

[39] *ULSI,* 995 F.2d at 1569, 27 U.S.P.Q.2d (BNA) at 1138.

[40] *ULSI,* 995 F.2d at 1570-71, 27 U.S.P.Q.2d (BNA) at 1140.

[41] *ULSI,* 995 F.2d at 1569, 27 U.S.P.Q.2d (BNA) at 1138. An opposite result was reached in *Cyrix,* 803 F. Supp. 1200, 1214 (E.D. Tex. 1992) (citing United States v. Masonite Corp., 316 U.S. 265, 276 (1942) (stating that "this Court has quite frequently 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.")).

[42] *ULSI,* 995 F.2d at 1571, 27 U.S.P.Q.2d (BNA) at 1140.

[43] *ULSI,* 995 F.2d at 1569, 27 U.S.P.Q.2d (BNA) at 1138.

[44] *ULSI,* 995 F.2d at 1569, 27 U.S.P.Q.2d (BNA) at 1138-39. A similar result was reached in *Cyrix:* "It is irrelevant to the application of the patent exhaustion doctrine that an article was designed by another party. The issue -- as plainly stated in *Univis Lens,* its progenitors, and progeny -- is whether the article is a physical embodiment of the patented invention." 803 F. Supp. at 1214.

[45] *Id.* The intellectual property in a chip could arguably include the "design rules" and processes of the foundry along with the designs of the foundry customer. In dealing with the argument that the transfer of the coprocessor chip embodying the Cyrix designs was part of a "bailment" relationship in which Cyrix's designs were simply returned to Cyrix by SGS-Thomson, the Eastern District of Texas refused to be drawn into a dispute over the technical definition of the term "sale": "Thus, by operation of law and contract, any disposition of a Licensed Product by licensee under the Intel-Mostek Agreement -- by sale or otherwise -- exhausts Intel's patent rights with respect to that article." *Cyrix,* 803 F. Supp. at 1214-15 (stating that "[i]n distinguishing bailments from sales, the test is whether the identical thing is returned, in the same or in some altered form. If another thing of equal value is returned, the transaction is a sale.").

[46] *Id.* Justice Clifford, the same justice who wrote the *Millinger* decision relied upon by the majority in the CAFC, was also the author of Mitchell v. Hawley, 83 U.S. (16 Wall.) 544 (1872). In the latter decision, Justice Clifford declared that a third party vendee that had purchased a licensed product became an infringer by continued use of that product after the period of time specified in the vendor's license for authorized sales. *Mitchell,* 83 U.S. (16 Wall.) at 550.

[47] *ULSI,* 995 F.2d at 1570, 27 U.S.P.Q.2d (BNA) at 1139. The CAFC relied upon its previous decision in Lisle Corp. v. Edwards, 777 F.2d 693, 227 U.S.P.Q. (BNA) 894 (Fed. Cir. 1985), in which it had found a similar argument to be "without merit and specious." *ULSI,* 995 F.2d at 1574, 27 U.S.P.Q.2d (BNA) at 1143. That case dealt with a "powered windshield track cutter" manufactured by Lisle for Snap-On under license from Edwards. *Lisle,* 777 F.2d at 694, 227 U.S.P.Q. (BNA) at 894-95. Edwards contended that Lisle's manufacturing the tool with Snap-On's labeling constituted a prohibited manufacturing sublicense by Lisle. This would make Snap-On a de facto infringing manufacturer, making tools manufactured for Snap-On by Lisle fall outside of the license. *Lisle,* 777 F.2d at 695, 227 U.S.P.Q. (BNA) at 895. The holding was that resale did not create a sublicense, and Edwards was permanently enjoined from asserting infringement against Lisle or Snap-On. *Id.*

[48] Intel Corp. v. United States Int'l Trade Comm'n, 946 F.2d 821, 826, 20 U.S.P.Q.2d (BNA) 1161 (Fed. Cir. 1991) (the "Atmel case") (stating that "[i] f the Intel/Sanyo agreement permits Sanyo to act as a foundry for another company for products covered by the Intel patents, the purchaser of *those licensed products* from Sanyo would be free to use and/or resell *the products.* Such further use and sale is beyond the reach of the patent statutes.") (emphasis added); *See Univis Lens,* 316 U.S. at 250-52 (holding that the first vending of any article puts the article beyond the reach of the patent).

[49] *Atmel case,* 946 F.2d at 828.

[50] *ULSI,* 995 F.2d at 1570, 27 U.S.P.Q.2d (BNA) at 1140. One wonders what would happen if a Sanyo vendee had purchased Sanyo branded EPROMs to insert into a vendee branded system. If a dependent claim of the Intel EPROM patent contained limitations combining the EPROM with a power source, would the vendee then be liable to Intel for infringement of the dependent claim? In the absence of express authorization in the license agreement, it appears that Intel would so contend. The exact wording of the Sanyo license was as follows:
3.5 Intel hereby grants and will grant to Sanyo an [sic] non-exclusive, world-wide royalty free license without the right to sublicense except to Subsidiaries, under Intel Patents which read on any Sanyo Semiconductor Material, Semiconductor Device, Magnetic Bubble Memory Device, Integrated Circuit and Electronic Circuit products, for the lives of such patents, to make, use and sell *such products. Atmel case,* 946 F.2d at 826, n. 9 (emphasis in original).

[51] *ULSI,* 995 F.2d at 1572, 27 U.S.P.Q.2d (BNA) at 1141.

[52] *Id.*

[53] *ULSI,* 995 F.2d at 1576, 27 U.S.P.Q.2d (BNA) at 1144.

[54] In fairness to the dissent, it is necessary to point out language in *Mitchell,* (not cited by the majority or the dissent) that may support "for the purpose of using it in the ordinary pursuits of life" formulation for first sale:
Purchasers of the exclusive privilege of making or vending the patented machine hold the whole or a portion of the franchise which the patent secures, depending upon the nature of the conveyance, and of course the interest which the purchaser acquires terminates at the time limited for its continuance by the law which created the franchise, unless it is expressly stipulated to the contrary. But the purchaser of the implement or machine for the purpose of using it in the ordinary pursuits of life stands on different grounds, as he does not acquire any right to construct another machine either for his own use or to be vended to another for any purpose. Complete title to the implement or machine purchased becomes vested in the vendee by the sale and purchase, but he acquires no portion of the franchise, as the machine, when it rightfully passes from the patentee to the purchaser, ceases to be within the limits of the monopoly. *Mitchell,* 83 U.S. (16 Wall.) at 548.

[55] *Millinger,* 68 U.S. at 351. *See also* Unidisco, Inc. v. Schattner, 824 F.2d 965, 968, 3 U.S.P.Q.2d (BNA) 1439, 1441 (Fed. Cir. 1987) (holding that the sale of product by licensed seller to an exclusive distributor was not a sublicense).

[56] In *Mitchell,* the same justice who authored the *Millinger* decision (Justice Clifford) wrote that a restricted license deprived the grantor of the ability to pass good title. *Mitchell,* 83 U.S. (16 Wall.) at 550.

[57] *ULSI,* 995 F.2d at 1572, 27 U.S.P.Q.2d (BNA) at 1141.

[58] *ULSI,* 995 F.2d at 1570, 27 U.S.P.Q.2d (BNA) at 1136.

[59] One might also ponder the applicability of "third party beneficiary" status to the foundry customer. *See* 17A C.J.S. *Contracts,* § 519(3), 954-56, n. 4; Knox v. Ball, 191 S.W.2d 17, 23 (Tex. 1945) (dealing with a suit on a bond):
It is not necessary that the person to be benefitted by the contract be named therein, if he is otherwise sufficiently described or designated, and the fact that the particular person who is to benefit from the promise is not known when the promise is made is immaterial, if he can be identified. He may even be one of a class of persons if the class is sufficiently described or designated. *Knox,* 191 S.W.2d at 23.
Query: Is a subsequent transferee from an authorized manufacturer "a person to be benefitted" by the license agreement?
Answer: Maybe not, but it works as well as the dissent's real estate analogy.

[60] *ULSI,* 995 F.2d at 1574, 27 U.S.P.Q.2d (BNA) at 1143. The majority said that the incidents of a sublicense were lacking because "HP did not empower ULSI to make Intel-patented chips or to use or sell any such chips except those lawfully sold to it by HP." *Id.* at 1570, 27 U.S.P.Q.2d (BNA) at 1139. If ULSI had guessed the details of the Intel design and asked HP to make chips based on those designs, would this have required a license? Not if the only relevance is to the issue of infringement. Does it embody the patented invention or not? *See generally Univis Lens,* 316 U.S. at 250-52.

[61] *ULSI,* 995 F.2d at 1575-76, 27 U.S.P.Q.2d (BNA) at 1144.

[62] *ULSI,* 995 F.2d at 1569, 27 U.S.P.Q.2d (BNA) at 1138-39.

[63] *See Univis Lens,* 316 U.S. at 250-52.

[64] *ULSI,* 995 F.2d at 1574, 27 U.S.P.Q.2d (BNA) at 1143.

[65] *See Camco,* 277 F.2d at 297.

[66] *ULSI,* 995 F.2d at 1576, 27 U.S.P.Q.2d (BNA) at 1144.

[67] *ULSI,* 995 F.2d at 1571-72, 27 U.S.P.Q.2d (BNA) at 1141.

[68] *ULSI,* 995 F.2d at 1575-76, 27 U.S.P.Q.2d (BNA) at 1144.

[69] *Id.*

[70] *See* discussion *supra* note 19.

[71] One is the ability to keep a continuation application pending for twenty years while making hind-sight reconstructions of the original invention in order to draft claims covering technology quantum leaps away from the original conception and reduction to practice. *See* GEORGE W. STOCKING AND MYRON W. WATKINS, MONOPOLY AND FREE ENTERPRISE (The Twentieth Century Fund, New York) (including report and recommendations of the Committee on Cartel and Monopoly). The text states that: "[m]oreover, a 'slumbering' application in the Patent Office can be used, if drafted in broad and nebulous terms, as a convenient sponge for absorbing new developments in the particular industrial art as they unfold, from whatever quarter they may come." *Id.* at 458. *See also Patents: Hearings before the Committee on Patents, House of Representatives, on General Revision of Patent Laws,* 72nd Congress, January 25-28 and February 16-17 (1932)(statement of G.H. Willitts, patent attorney and secretary of a "group of 50 large manufacturing concerns"). *See, e.g.,* U.S. Patent No. 1,203,190 to Fritten (filed in 1916 and pending 36 years).