The End of Ownership

Personal Property in the Digital Economy

The title-level DOI for this work is:

doi:10.7551/mitpress/10524.001.0001

9 Patents and the Ordinary Pursuits of Life

Imagine walking into an auto dealership to buy a new car. You look around, find a promising model, and approach the salesperson to find out the price. They explain: "Oh, have I got a great deal for you! This beauty is 10 percent off the normal sticker price, but there is a small catch. The discount requires that you only use our special 'single-use' tires. That means you can drive on them as much as you like, but once they get a flat or are low on air, you can't repair or refill them yourself; instead you have to order new 'single-use' tires from our online store. Otherwise, I'm afraid you'll infringe our patents."

To some, the notion that the tires you buy couldn't be refilled seems not only inefficient but also absurd. And the idea that refilling them could somehow put you on the hook for patent infringement is even more bizarre. Yet, the most influential patent court in America recently held that these sorts of restrictions on any patented product are legal and enforceable.

The case, *Lexmark v. Impression Products*, involves printer manufacturer Lexmark, a company that has fought for over a decade to stop its customers from buying competing ink cartridges or refilling authorized ones, using the combination of intellectual property rights and DRM. Much like Keurig's coffee scheme, Lexmark's strategy involves selling customers a device, but conditioning their use on the purchase of authorized accessories. You buy the coffee maker, but can only use Keurig's coffee pods; you buy the printer, but can only use Lexmark ink cartridges, and only once.

When Lexmark customers buy one of its ink cartridges, they may discover text on the outside of the packaging telling them that if they open the box, they "agree to return the empty cartridge only to Lexmark for recycling." If they don't accept those terms, they are instructed to "return the unopened package to your point of purchase." If they prefer to pay more, "a regular price cartridge without these terms is available."

Crucially, Lexmark maintains that consumers who violate these restrictions are patent infringers. How could you infringe a patent by reusing a product you paid for? Lexmark argues that even if consumers own their printers, they don't actually unconditionally own the cartridges that contain the ink. Lexmark customers, the company says, merely license the ink cartridges for a single-use, and the act of refilling them infringes its patented technology. If Lexmark is right, a customer's ability to use the printer they own is contingent on Lexmark's permission. A printer is useless without ink, after all. It also means that Lexmark—or any device maker—can leverage its patents over one product to control aftermarkets for related ones.

For Lexmark, attempts to tie its products and accessories together are nothing new. In 2002, as we discussed in chapter 7, the company tried to use the DMCA's anti-circumvention rules to accomplish the same goal. It claimed that the software that exchanged data between its printer and its cartridges contained DRM that protected the printer software from being accessed without authorization. Fortunately, this theory was rejected by the Sixth Circuit Court of Appeals. Recognizing the anti-competitive and anti-consumer impact that such claims could have, one judge wrote: "If we were to adopt Lexmark's reading of the statute, manufacturers could potentially create monopolies for replacement parts simply by using similar, but more creative, lock-out codes. Automobile manufacturers, for example, could control the entire market of replacement parts for their vehicles by including lock-out chips."[1]

That result is clearly not what Congress intended. Despite this rebuke, Lexmark shifted tactics from copyright to patent law, hoping that it could achieve the same control over downstream use via a different legal doctrine. Whether or not it can will depend on how the Supreme Court views the interaction between patent owners and purchasers of patented devices and whether it will recognize the crucial role of patent exhaustion.

Patent Law's Flexible Approach to Exhaustion

Much like copyright exhaustion, patent exhaustion historically has played a central role in curbing attempts to monopolize post-sale uses of patented goods. And while copyright law has focused largely on the statutory embodiment of the first sale rule over the last century, patent law embraces a more flexible common law exhaustion regime. As early as 1852, the Supreme Court held in *Bloomer v. McQuewan* that once a patented good was sold, the patent owner could not interfere with the rights of purchasers to use it "in the ordinary pursuits of life."[2] It announced this rule for many of the

reasons we've already discussed, emphasizing personal property: "[W]hen the machine passes to the hands of the purchaser, it is no longer within the limits of the [patent] monopoly. ... The implement or machine becomes [the purchaser's] private, individual property."[3]

But what does it mean to use a digital good in the ordinary pursuits of life? At the very least, you would expect to be able to use a device for its intended purpose, to repair it, and to transfer it. But according to Lexmark and many manufacturers of the things that make up the Internet of Things, those customary uses depend on patent holder permission. Yet the history of patent exhaustion directly contradicts that assertion. A mere twenty-six years after the *Bloomer* decision, the Supreme Court stated with unusual clarity that the purchase of a patented product "carrie[s] with it the right to the use of that machine so long as it [is] capable of use."[4] Equally clear was that this right to use one's purchases trumped any attempt by patent owners to impose restrictions on how or where one could use the product. The case, *Adams v. Burke*, involved a coffin maker who sold special coffin lids to undertakers in the Boston area. The lid-maker tried to impose a territorial limit that barred use of its lids outside of a ten-mile radius. But the Supreme Court rejected this attempt under the rule of patent exhaustion. According to the Court, it is part of "the essential nature of things" that when a patent holder sells a device, it "parts with the right to restrict [its] use."[5]

Two years after *Adams v. Burke*, the Supreme Court again struck down an attempt by a patent holder to impose post-sale restrictions on a purchaser. In *Keeler v. Standard Folding-Bed Co*. the Court said in no uncertain terms that "one who buys patented articles of manufacture from one authorized to sell them becomes possessed of an absolute property in such articles, unrestricted in time or place." The Court was convinced that "the inconvenience and annoyance to the public that an opposite conclusion would occasion are too obvious to require illustration."[6]

One of the most controversial technological innovations of all time—the electric chair—helps illustrate the power exhaustion gives product owners to ignore the objections of the patent holder. On August 6, 1890, the Westinghouse Electric Company's Alternating Current Dynamo was put to a novel use—killing a human being. One year earlier, William Kemmler, a twenty-eight-year-old seller of fruits and vegetables in Buffalo, N.Y., had wandered home drunkenly and murdered his lover Tillie with an ax. After the attack, Kemmler allegedly told a bystander, "I've done it and I expect to take the rope."[7] But technology was one step ahead of Kemmler. Earlier that year, the State of New York became the first to authorize electric execution, and on May 13, 1889, Kemmler was sentenced to "die by electricity."[8]

During the previous decade, the use of alternating current, or AC, to kill humans had been the center of a contentious political and publicity war between two of the most famous Americans of the Gilded Age—industrialist millionaire George Westinghouse and Thomas Edison, inventor of AC's rival, direct current (DC). Despite Edison's ingenuity, Westinghouse, with the brief help of the electrical savant Nikola Tesla, had been gaining ground quickly in the electric power market. Desperate to promote DC, Edison sought to highlight the dangers of AC. The electric chair thus became the perfect symbol of what the Edison camp was calling "the killing current."[9]

But Westinghouse owned patents on the key components of AC and refused to license them for use in execution. Still, Edison's agents would not be deterred. Recognizing that Westinghouse's patent rights could be exhausted for individual dynamos after their initial sale, they reached out to one of Westinghouse's disgruntled licensees and secretly bought up used Westinghouse alternators in order to build the first three electric chairs in history. Westinghouse objected, but patent exhaustion prevented him from controlling the devices after they entered the stream of commerce. In this way, patent exhaustion helped Edison demonstrate how deadly AC could be using Westinghouse's own patented products.[10] Had Westinghouse been able to restrict the use of his dynamos like Lexmark and other patent holders do today, the debate about the electric chair would have focused on hypotheticals instead of the gruesome reality that became the center of the discussion.

It's easy to see why patent holders might object to these sorts of unauthorized uses. But the Supreme Court understood that patent exhaustion furthered important interests in terms of both competition policy and consumer protection. So it resisted attempted end runs around patent exhaustion by companies that used techniques like those adopted today by Lexmark. In two 1917 cases, the Court rejected efforts to attach strings to the sale of patented devices. In the first, *Straus v. Victor Talking Mach. Co.,* the Court struck down a licensing notice that attempted to both fix the resale price of phonograph players and also force purchasers to use the patent holder's records and needles exclusively. The Court held that this was nothing more than an attempt "to sell property for a full price, and yet to place restraints upon its further alienation." Such tactics, the Court explained, are "hateful to the law" and "obnoxious to the public interest."

The second case, *Motion Picture Patents Co. v. Universal Film Manufacturing Co.*, involved Edison's patented film projectors. Edison was happy to use Westinghouse dynamos over the patent holder's objections, but when it came to his own patents, Edison had a very different view. His projectors

were extremely popular, but Edison quickly realized that the real money was in selling film reels, which he had also patented. So he attached a large steel plate to each of his projectors that asserted that they could only be used with Edison reels. After his patent on the reel expired, the defendants decided to make their own compatible film reels for use with Edison's projector. Edison sued them and their customers, claiming that use of the new reels with the patented projector violated the restriction stamped on the side of the device.

For Edison—much like Lexmark and Keurig—tethering a device that customers are likely to buy only once to a consumable accessory product like ink, coffee, or reels of film looked like a savvy business model. By locking out competitors, Edison could keep the more lucrative film reel market to himself. However, the Supreme Court's *Motion Picture Patents Co.* decision ultimately rejected Edison's attempt to trump patent exhaustion. It explained that "the primary purpose of our patent laws is not the creation of private fortunes for the owners of patents, but is 'to promote the progress of science and the useful arts.'" As a result, "the right to vend is exhausted by a single, unconditional sale, the article sold being thereby carried outside the monopoly of the patent law and rendered free of every restriction which the vendor may attempt to put upon it."[11]

This "single-recovery" approach is rooted in the basic purposes of IP policy. By limiting patent holders to a single profit per sale, it maximizes the incentives to distribute new inventions to as many people as possible and at the same time encourages purchasers to fully utilize the products they buy. It also avoids idiosyncratic arrangements of rights that impose high information costs on purchasers.[12] Limiting patent holders to a single recovery also guards against the abuse that would likely occur if patent holders were granted ongoing control over products released into the stream of commerce: "A restriction which would give to the plaintiff such a potential power for evil ... is plainly void because wholly without the scope and purpose of our patent laws, and because, if sustained, it would be gravely injurious to that public interest, which we have seen is more a favorite of the law than is the promotion of private fortunes."[13]

Just as the Supreme Court recently reiterated in the copyright context, the foundation of patent exhaustion is "the common law's refusal to permit restraints on the alienation of chattels."[14] In *Kirtsaeng v. John Wiley & Sons, Inc.*—the used textbook case—the Court emphasized "the importance of leaving buyers of goods free to compete with each other when reselling or otherwise disposing of these goods." In large part, exhaustion is a reflection of the fact that "American law ... has generally thought that competition,

including freedom to resell, can work to the advantage of the consumer."[15] That's just as true for patented devices as it is for copyrighted works.

The Return of Edison's Label

In light of such powerful statements in favor of exhaustion over the last 150 years, you might wonder how companies like Lexmark can continue to insist that they have the right to control how we can use the products we buy. If the Supreme Court rejected Edison's film projector label, what makes the conditions on Lexmark's printer cartridges any different? The answer comes in the form of a case decided by the Court of Appeals for the Federal Circuit—the court that handles all patent appeals in the United States—just a couple of decades ago. In *Mallinckrodt v. Medipart*,[16] the Federal Circuit tried to rewrite the history of patent exhaustion. And it may have succeeded.

But to understand how *Mallinckrodt* departed from the settled law of patent exhaustion, we need to step back fifty years. Before the age of semiconductors, electronics relied on vacuum tubes to control electric current. *General Talking Pictures v. Western Electronic*[17] involved patents on vacuum tube amplifiers. Western Electric, a subsidiary of AT&T, licensed its patents to the Transformer Company to manufacture tubes for private home use. But Western Electric reserved the right to license their vacuum tube amplifier patents for commercial use—in movie theaters, for instance. In other words, the Transformer Company was authorized by the patent holder to make and sell devices only for the private home market; it wasn't allowed to make or sell devices for the commercial market. The Transformer Company sold those devices to General Talking Pictures, which supplied them to movie theaters, drawing Western Electric's ire and eventually a lawsuit.

On its face, the facts of the case seemed straightforward. The manufacturer knowingly made and sold the invention without a valid license. To manufacture a patent device, you need permission from the patent holder. Otherwise you are an infringer. Western Electric could have granted the Transformer Company a license that permitted it to make as many devices as it could, for whatever purpose, and sell them to whomever it chose. But that's not what Western Electric did. It granted a license "expressly confined to the right to manufacture and sell the patented amplifiers for radio amateur reception, radio experimental reception, and home broadcast reception." Exhaustion requires a sale authorized by the patent holder. But when the Transformer Company sold devices to General Talking Pictures, those sales were anything but authorized. They were expressly forbidden,

as both parties knew. As the Supreme Court put it, "The patent owner did not sell to [General Talking Pictures] the amplifiers in question or authorize the Transformer Company to sell them or any amplifiers for use in theaters or any other commercial use."[18] So those unauthorized sales were infringing. For more than fifty years, this seemed like the obvious and accepted holding of the case.

In 1992, however, the Federal Circuit decided *Mallinckrodt.* There, the court adopted a novel interpretation of *General Talking Pictures*. Rather than being a case about unauthorized sales, the Federal Circuit interpreted *General Talking Pictures* as a case about "conditional" sales. But that reading was inconsistent with more than a century of Supreme Court law denying patent holders the right to place conditions on patented objects that had been legitimately sold.

Mallinckrodt involved patented aerosol delivery devices used in hospitals to dispense a mist for use in diagnostic lung X-rays. The devices cost about $10 to make but were sold for closer to $50. The patent holder, Mallinckrodt, labeled the devices "Single use only," allegedly to encourage their proper disposal as "biohazardous waste."[19] Of course, Mallinckrodt was surely aware that the single use restriction would boost device sales as well. But rather than buying new devices after every use, some hospitals sent the depleted devices to defendant Medipart, who recharged them and sent them back to the hospitals for reuse. Mallinckrodt sued, claiming that its "Single use only" label trumped exhaustion and precluded hospitals from working with Medipart to recondition the devices.

The judges hearing the case faced the question that all such cases pose—how to balance the interests of intellectual property owners with the rights of consumers and aftermarket competitors. Perhaps influenced by the adoption of licenses in the software industry, the Federal Circuit sided with the patent owner, finding that unless the restrictions placed on purchasers somehow rose to the level of an antitrust violation for monopolizing an industry, consumers and competitors could simply choose not to purchase the restricted goods.

When confronted with the Supreme Court precedents, including *Motion Picture Patents*, the judges effectively shrugged their shoulders. They equated those precedents with antiquated notions of consumer protection and outdated economics. Instead the court favored the "freedom of contract"—the idea that parties should be free to strike whatever bargain they think is best—ignoring the fact that similar restrictions on the sale of patented goods had been rejected for the previous hundred years and failing to distinguish between a breach of contract and the infringement of a

patent. Whatever the agreement between Mallinckrodt and the hospitals, Medipart—the defendant in the case—never agreed to anything.

With this ideology in hand, the Federal Circuit embraced a distorted rewriting of *General Talking Pictures*. That case, it suggested, stands for the proposition that a "valid condition of the sale" of patented goods bars exhaustion and limits what the purchaser can do with a product. However, the court failed to explain adequately how Mallinckrodt's "Single use only" label differed from Edison's or the restrictions in *Bloomer v. McQuewan*, *Adams v. Burke*, *Keeler v. Standard Folding-Bed Co.*, or *Straus v. Victor Talking Machine Co*. Its reading ignored the longstanding hostility toward such restrictions. It also leads to the conclusion that, simply by including a label on a product, a patent holder can eliminate exhaustion and the rights that go along with it.

In the aftermath of *Mallinckrodt v. Medipart*, the world of patent exhaustion has been in disarray for over two decades. What exactly is the difference between a "valid condition of the sale" and an unenforceable post-sale restriction? Can you refill your coffee cups and printer cartridges or not?

Even the Supreme Court's most recent forays into patent exhaustion suffer from their own lack of clarity. In a 2008 case, LG Electronics sued Quanta Computer for using LG's patented semiconductor chip technology in Quanta products. Quanta purchased the chips from a licensed retailer, Intel. So by all accounts, it owned the chips outright. However, LG argued that its contract with Intel specified that Intel had the right to sell LG-licensed chips, but Intel's customers couldn't actually *use* those chips without a separate patent license from LG.

Legally, this argument has some appeal. Patent rights can be divided up into bits and pieces, just like real property. So why, LG argued, shouldn't it be allowed to sell the right to make a semiconductor chip to Intel and then sell the rights to use the chip to Intel's customers? Among other things, that strategy might allow for price discrimination. The buyers of the chips might be willing to pay considerably different sums for the privilege of using them.

But the Supreme Court wisely rejected those arguments. It understood that "the initial authorized sale of a patented item terminates all patent rights to that item."[20] LG couldn't maintain control over the use of their patented devices after an authorized sale. When a patented item is lawfully made and sold, "there is no restriction on [its] use to be implied for the benefit of the patentee."[21] After all, what would the point of buying something be if you couldn't use it? Moreover, the Court recognized that if it allowed

patentees to avoid exhaustion through the use of artful drafting by their lawyers, they could "shield practically any patented item from exhaustion."

Because the Supreme Court rebuffed LG's attempt to condition downstream use of its products, many have read the Court's opinion in *Quanta* as undermining the foundation of *Mallinckrodt*. In holding that LG's patent rights were exhausted, the *Quanta* decision acknowledged that contract law, not patent law, is the proper framework for enforcing post-sale restrictions. The Court suggested that even though an authorized sale occurred, a breach of contract claim might survive.[22] For the Court, potential remedies under the contract were separate from the question of exhaustion.

Mallinckrodt had assumed the opposite, concluding that "[u]nless 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," and thereby retain their patent rights as long as the restriction is "reasonably within the patent grant."[23] But *Quanta* found that if there is an authorized sale of an article, no amount of contracting can change the fact that the patent owner's rights in the article have been exhausted.

Self-Replicating Technologies and the Puzzle of the Perpetual Copying Machine

Similar to copyright, patent exhaustion has also been complicated by technological advances, and in particular technologies where reproduction or replication is simple or even self-executing. In 2013, the Supreme Court again revisited the doctrine of patent exhaustion, this time in relation to genetically modified soybean seeds. Monsanto owned patents on these seeds, and sued farmers who saved seeds from prior seasons and replanted them, claiming this infringed the exclusive right to "make" their patented products. Bowman, one of these farmers, argued that patent rights in the seeds were exhausted when farmers bought the original batch, and any subsequent seeds that came from the harvested plants were subject to exhaustion as well. Seeds, he argued, are naturally "self-replicating"; they grew themselves. The Court rejected Bowman's arguments, including the so-called "blame-the-bean" defense, but it noted that its holding was limited to the facts of the case; other technologies might, in fact, self-replicate "outside of the purchaser's control" or that self-replication might be "a necessary but incidental step in using the item for another purpose." In noting this, the Court cited to section 117 of the Copyright Act, which you'll

recall allows for the creation of essential step copies and modifications of software programs.

Another self-replication case will likely arise in the near future, presenting courts with even greater challenges for balancing intellectual and personal property rights. The fact that farmers are confronting them in the context of their seeds and combine harvesters shows exactly how uncertain ownership of technology has become. After all, if we can't easily enjoy the ordinary pursuits of life on the farm, where can we?

Selling Globally, Exhausting Locally

Just as copyright law confronted the question of international exhaustion in *Kirtsaeng*, patent law is trying to decide what to make of sales of patented devices that occur outside of the United States. If foreign sales trigger exhaustion, products bought overseas—sometimes at much lower prices—can be imported into the U.S. market. If they don't, global commerce becomes fragmented and complex for any product containing a patented technology.

The confusion over this issue began in 2001, when despite a long line of cases finding exhaustion could be triggered by any authorized sale in the world, the Federal Circuit found just the opposite in *Jazz Photo Corp. v. International Trade Commission*.[24] The case involved Fuji Photo, a company that patented the disposable camera—a novelty hit at weddings, graduations, and birthday parties before ubiquitous camera phones. Event planners would hand them out to attendees, who would snap photos during the festivities and then leave the cameras behind to be developed as a batch. Fuji's competitors saw an opportunity to take the used cameras, ship them oversees to be restocked with film, and then import them back into the United States for sale. Fuji sued, claiming that despite lawfully purchasing the used cameras, these companies infringed Fuji's patent. Refurbishing them, Fuji argued, was the equivalent of making a new patented product.

The Federal Circuit held that, for cameras purchased in the United States, patent exhaustion applied and refurbishing was perfectly legal. However, for cameras bought abroad, refurbishing was infringement. Why the difference? According to the court, "United States patent rights are not exhausted by products of foreign provenance." In support, the decision cited a single Supreme Court case from 1890, *Boesch v. Graff*, for the proposition that "a lawful foreign purchase does not obviate the need for license from the United States patentee before importation into and sale in the United States."[25]

The *Boesch* case, however, said no such thing. In that case, the patentees held patents on lamp-burners in both Germany and the United States. The defendant purchased lamp-burners in Germany, not from the patent holder, but from Hecht. Hecht was permitted, as a "prior user" under German law, to make and sell the lamp-burners. The question in the case was whether the defendant could resell the lamp-burners purchased from Hecht in the United States. The Supreme Court concluded that sales made by Hecht—as opposed to sales made by the patent holder—did not trigger exhaustion.[26] Again, the fundamental requirement of exhaustion is an authorized transfer of the object by the *rights holder*. So in *Boesch*, there was no exhaustion—not because the sale occurred overseas, but because the defendants didn't purchase the products from the patent holder. Rather than see the case for what it was, a holding that refused to apply exhaustion in the absence of an authorized sale, the Federal Circuit's reading of *Boesch* gave patent holders the worldwide right to geographically discriminate, a major departure from over a hundred years of exhaustion precedent.[27]

The Supreme Court's decision in *Kirtsaeng*, rejecting territorial limits on copyright exhaustion, casts serious doubt on the continued viability of *Jazz Photo*. As we noted earlier, *Kirtsaeng* stressed the common law roots of exhaustion, which made no territorial distinctions. Those roots are shared by patent exhaustion. *Kirtsaeng* warned of the absurd results that a strict national exhaustion regime could inflict on commerce. The Court noted that under such a rule, for example, cars made overseas couldn't be resold by their domestic owners because they contained copyrighted code. That's equally true of the thousands of patented components in your vehicle or smartphone. *Kirtsaeng* also dismissed the notion that copyright holders were entitled to segment markets geographically: "The Constitution's language nowhere suggests that [copyright] should include a right to divide markets or a concomitant right to charge different purchasers different prices for the same book, say to increase or to maximize gain. Neither, to our knowledge, did any Founder make any such suggestion. We have found no precedent suggesting a legal preference for interpretations of copyright statutes that would provide for market divisions."[28]

Despite the cold reception it received at the Supreme Court, that's precisely the argument patent holders make against international exhaustion. If foreign sales trigger exhaustion, it throws a wrench in their carefully laid plans. One response to this argument is to say, as the Supreme Court did in *Kirtsaeng*, "too bad." Patents, like copyrights, do not entitle their holders to control all valuable uses of their products. Those rights have limits, and patent holders have to live with them.

Yet just as John Wiley pointed to the positive impact price discrimination could have on students in developing countries who need cheap textbooks, patent holders have told their own, even more compelling story of the upside of market segmentation. Instead of cheap books, patent holders point to cheap pharmaceuticals. Citizens in developed countries like the United States can generally afford to pay much more for a product than those in poorer or less developed nations. By charging rich countries more, drug companies can charge poor countries less. And often that's what happens. For example, one 2010 study examined the difference in international drug prices and found that in the top five countries, the prices were almost five times as high as they are in the bottom five countries.[29] The result, patent holders claim, is a net increase in access to potentially lifesaving medicine.

Putting aside the fact that the pharmaceutical industry doesn't tell us much about the market for smartphones or ink cartridges, there are reasons to doubt the accuracy of this simple story.[30] No doubt, some patients in developing economies benefit from price discrimination. But not all do. Drug companies are sometimes tempted to take advantage of the vast disparities of wealth within poor countries by selling their products at high prices to a lucrative minority. Many drugs are still unaffordable in developing countries despite strict bans on exporting them.[31] And countries like the United States have their own problems with wealth inequality. When rich countries supply subsidies through high consumer prices, the poor in those countries don't fare well.[32] Ultimately, while pharmaceutical companies feel public pressure to keep drug prices low in the developing world, the goal of price discrimination is not to increase social welfare but to maximize profits. Just like textbook publishers, large drug companies enjoy extraordinary profits. In 2014, Forbes reported Pfizer's profits at an astounding 42 percent.[33] That's not a company that sets prices on the basis of social welfare.

Even accepting the argument that price discrimination should be encouraged, it is far from clear that it depends on restricting patent exhaustion. If Pfizer wants to charge different prices in different countries, it has plenty of tools at its disposal. As a patent holder, it has incredibly strong bargaining power and can insist on contract terms that restrict imports into the United States. Product tracking technologies have improved dramatically, so detecting breaches through customs inspections and other forms of commercial surveillance are much more likely today than even a decade ago. Aside from avoiding breach, pharmaceutical manufacturers and distributors have reputational incentives to keep up their end of such a deal. There's also the nonpatent regulation of pharmaceuticals to consider. For

prescription drugs made in the United States and sold abroad, the FDA explicitly prohibits re-importation, even if those drugs aren't patented. In short, it's not clear that a national exhaustion rule is necessary for price discrimination.

Exhaustion's End?

And so we arrive at *Lexmark v. Impression Products*, decided in February 2016.[34] In that case, the majority of a twelve-judge panel of the Federal Circuit upheld Lexmark's right to restrict resale of printer cartridges the company had authorized for sale but had marked with a "Single Use" label, reaffirming the court's commitment to the flawed reasoning of *Mallinckrodt*. And at the same time, it stuck to its guns on the *Jazz Photo* rule, holding that authorized sales outside of the United States do not trigger exhaustion, despite the Supreme Court's holding in *Kirtsaeng*.

In its opinion, the Federal Circuit articulated a radical rewriting of not only patent exhaustion, but the nature of consumer property interests. According to the court, when a patentee sells you a product, the extent of your rights to use and enjoy that product are entirely dependent on the wishes of the patent holder. The sale, in the Federal Circuit's understanding, represents an implied license to use or transfer the product—not unlike John Deere's theory that farmers merely have an implied license to drive their tractors. But if the patent holder announces—through a label, sticker, or some other means—its desire to restrict your behavior with respect to things you've bought, your property rights have been unilaterally redefined. But that's not how property law works. Nor is it how courts have historically understood exhaustion. Property rights in chattels, even patent-protected ones, are not subject to the attachment of these kinds of puppeteer's strings. If consumers' rights to use and transfer the things they buy were really contingent on implied permission, those rights can be taken away at any time. That is not what ownership looks like.

Aside from its mangling of the post-sale restrictions question, the Federal Circuit also sidestepped *Kirtsaeng*'s universal exhaustion rule. Instead of acknowledging the shared common law origins of patent and copyright exhaustion, the court took pains to distinguish the two bodies of law. It pointed out that despite rewards abroad, international exhaustion could also deny patent holders the reward of an initial sale in the United States, but that is equally true for copyright holders under *Kirtsaeng*. It pointed out that the scope and availability of patent protection varies between countries, but copyright laws are not uniform either. It also invoked the principle

of territoriality—the notion that the United States cannot regulate conduct outside our borders—but exhaustion does not require extraterritorial application of the law, merely the recognition of facts that occurred abroad. And in any case, *Kirtsaeng* rejected that same argument in the copyright context. Perhaps more effectively, the Federal Circuit relied on the fact that *Kirtsaeng* turned on the Supreme Court's interpretation of section 109 of the Copyright Act and that the Patent Act has no equivalent statutory provision, so the Court's textual analysis is inapplicable. But the Supreme Court's reading of the statute was heavily influenced by the centuries of personal property common law that preceded it, a history that should have informed the Federal Circuit's understanding of patent exhaustion just as it informed the Supreme Court's understanding of copyright exhaustion. As we write, petitions have already been filed in the Supreme Court. If the Court agrees to hear the case, we hope it will recognize some measure of respect for the rights of buyers. Otherwise, ownership in the digital economy will be at even greater risk.

Whether it's international exhaustion, self-replicating technologies, or attempted post-sale restrictions, patent law is confronting the question at the heart of this book—what do you own when you buy a product? It's the question the Supreme Court asked more than 150 years ago in its first patent exhaustion decision and the one the Federal Circuit continues to struggle to adequately answer. In the next and final chapter, we turn to some ways courts and lawmakers might answer the question more clearly and more fairly.