

No. 11-796

IN THE
Supreme Court of the United States

VERNON HUGH BOWMAN,
Petitioner,

v.

MONSANTO COMPANY, *et al.*,
Respondents.

ON WRIT OF CERTIORARI TO THE
UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

BRIEF FOR RESPONDENTS

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QUESTIONS PRESENTED

1. Whether the first-sale doctrine grants the purchaser of a patented article the right to make, use, and sell an unlimited number of new copies of the patented invention that have never been sold.

2. Whether patent law treats as *per se* unenforceable all restrictions imposed by license on the use of a patented article following an authorized sale.

CORPORATE DISCLOSURE STATEMENT

Respondent Monsanto Company is a publicly held corporation; no publicly held company owns 10% or more of its stock. Respondent Monsanto Technology LLC is a wholly owned subsidiary of Monsanto Company.

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BRIEF FOR RESPONDENTS

STATEMENT

A. Monsanto's Biotechnology

This case concerns a revolutionary biotechnology that enables certain crops to tolerate glyphosate, the active ingredient in Roundup® and several other herbicides. Glyphosate is highly effective at eliminating most weeds and is valued for its environmental benefits, including its relative lack of toxicity and its ability to bind to soil and break down quickly. But glyphosate-based herbicides are non-selective, meaning that they also cause severe damage to conventional crop plants (*i.e.*, plants that have not been genetically modified to tolerate the herbicide). JA87a.

After investing hundreds of millions of dollars and more than a decade of research and development, Monsanto developed Roundup Ready® biotechnology, allowing farmers to use glyphosate to control weeds without harming their crops.¹ That technology, embodied in the DNA of Roundup Ready® crop seeds and the plants grown from them, immunizes plants from the herbicidal effects of glyphosate. It has proven extraordinarily popular. Monsanto first commercialized it for soybeans in 1996, and by 2007 it was being used in more than 90 percent of soybeans grown in the United States. JA87a-88a.

As reflected by farmers' overwhelming adoption, the technology offers soybean growers significant economic, safety, and environmental benefits. First, it has decreased production costs. A 2004 study estimated that the use of Roundup Ready® soybean seeds decreased labor costs by approximately \$6.50 per acre and herbicide costs by \$8.68 per acre. JA96a. Second, because glyphosate controls a broad spectrum of weeds,

¹ Two Monsanto patents are at issue here. In relevant part, U.S. Patent No. RE39,247E (the '247 patent) describes novel DNA molecules that contain the genetic code for an enzyme that allows Roundup Ready® crops to withstand application of glyphosate. Monsanto asserted infringement of claims in the '247 patent directed to the DNA molecules themselves; glyphosate-tolerant plant cells, seeds, and plants that have been transformed with those DNA molecules; and a method of controlling weeds by planting the transformed seeds and then spraying glyphosate over the fields in which they were planted. U.S. Patent No. 5,352,605 (the '605 patent) describes the use of certain viral "promoter" DNA sequences for regulating the expression of man-made genes in plant cells. Monsanto asserted claims of the '605 patent directed to man-made genes containing the promoter present in Roundup Ready® soybeans and to plant cells containing that gene. *See* Pet. App. 3a-6a.

its use with soybean plants containing the patented technology has significantly reduced the management time needed to grow soybeans. Farmers need not engage in the laborious process of scouting weeds and matching particular herbicides to them, and they can use the saved time for other productive pursuits. JA94. Third, it has made weed control safer. Before the introduction of Roundup Ready® soybeans, growers often had to apply three or more different, higher-risk herbicides to achieve the same control that is achieved using glyphosate alone. JA91a, 95a. Fourth, the technology has had significant environmental benefits. Glyphosate is recognized as more environmentally friendly than other herbicides, and Roundup Ready® technology enables farmers to reduce or eliminate tillage of the soil, decreasing erosion and soil loss. JA93a. Finally, because the need for tilling is reduced or eliminated, Roundup Ready® technology has enabled more farmers to plant soybeans in narrower rows, increasing the number of soybean plants grown per acre. *See* Carpenter & Gianessi, *Herbicide tolerant soybeans: Why growers are adopting Roundup Ready varieties*, 2 *AgBioForum* 65, 65-72 (1999), <http://agbioforum.org/v2n2/v2n2a02-carpenter.htm>.

B. Monsanto's Licensing Program

Monsanto commercializes its invention by permitting sales of Roundup Ready® seeds to farmers who obtain a separate license (called a "Technology Agreement") defining their rights with respect to the patented technology embodied in those seeds.² JA37a-38a.

² Monsanto licenses dozens of competing seed companies to incorporate Roundup Ready® technology into their own seed varieties and to market Roundup Ready® seeds under their own

The Technology Agreement authorizes farmers to use Roundup Ready® seeds to grow a “single commercial crop” that will also contain the patented gene technology. JA29a. A farmer is therefore authorized to sell the crop he grows from Roundup Ready® seeds for consumption through customary commercial channels—to an agricultural processor, for example, or to a grain elevator that in turn resells harvested crops to processors. In exchange for this limited right, Monsanto receives a royalty for each bag of Roundup Ready® seeds sold.

Under their license from Monsanto, farmers may not save seeds from harvested crops for planting on their own fields, nor may they sell saved seeds to others for planting.³ JA29a. Nor does Monsanto license the planting of Roundup Ready® seeds obtained from an unauthorized seller or by anyone without a valid license agreement. A farmer who wishes to grow crops from Roundup Ready® seeds must obtain new seeds each planting season—which also enables the farmer to obtain the latest varieties from seed companies and benefit from warranties offered by the seed companies and Monsanto.

These restrictions on reproduction, use, and transfer are essential to protect the company’s investment in its patented technology. Any grower with suitable land can reproduce genetically-identical soybeans at an exponential rate. Because the patented technology is in the DNA of Roundup Ready® seeds, soybeans grown

brands. Monsanto also sells soybean seeds containing the technology, largely through its own subsidiary seed companies.

³ Harvested soybeans can be used either as a commodity or as a seed, depending on whether they are processed for consumption or cleaned for planting.

from those seeds will also contain the genetic trait that allows them to tolerate glyphosate. JA37a-38a. And a single soybean seed can produce a plant containing as many as 80 soybeans, each of which can be harvested, cleaned, and planted to create new glyphosate-tolerant soybeans—virtually ad infinitum.⁴ Were Monsanto unable to restrict this type of exponential reproduction, its ability to protect its patented technology would effectively be lost as soon as the first generation of the product was introduced into the market. JA102a-104a, 115a.

C. Petitioner's Conduct

Petitioner operates a farm in Indiana. From 1999 through 2007, petitioner planted Roundup Ready® soybean seeds, including soybeans purchased from Pioneer, a seed company that licenses the Roundup Ready® technology from Monsanto and incorporates the technology into its own proprietary soybean varieties. He executed a Technology Agreement, agreeing not to plant harvested Roundup Ready® soybeans.⁵

⁴ Actual yields vary. In 2007, USDA estimated that in Knox County, Indiana, where petitioner's farm is located, each acre of soybeans planted produced enough soybeans to plant 26 acres the following season. JA100a.

⁵ In 2002, Petitioner executed a Pioneer Hi-Bred Technology Agreement, which identified Monsanto's '605 and '247 patents (then listed as No. 5,633,435). JA27a. Petitioner thereby agreed to "use the seed containing the subject technology for planting a commercial crop only in a single season ... and not to save any crop produced from this seed for replanting." *Id.* Petitioner has always maintained that he did not save any of the soybeans he grew from the Roundup Ready® seeds he legitimately acquired, and Monsanto did not allege patent infringement based on any of his activities relating to crops grown from that seed.

In May 1999, petitioner wrote Monsanto about where he “legally” stood regarding the Roundup Ready® seeds he had purchased from Pioneer. JA21a-22a. Petitioner informed Monsanto that he desired to save and plant the progeny soybeans he grew. *Id.* Monsanto explained that saving soybeans for planting was not permitted. JA158a-161a.

Petitioner then developed an idea that, he believed, would provide an inexpensive source of soybeans containing Monsanto’s technology for planting. He concluded that he could purchase commodity soybeans from a grain elevator, plant those soybeans (most of which would contain the Roundup Ready® trait) to create a new crop, and never compensate Monsanto for use of the invention. Thus, although petitioner would not be planting seeds harvested from his own crop or seeds purchased directly from another farmer (which, he understood, would violate the terms of each farmer’s Technology Agreement), he would be planting soybeans that other farmers had grown, harvested, and sold to the grain elevator as a commodity. He implemented his plan even though he understood it would be illegal for the grain elevator to sell him seeds for re-planting. JA83a (“I knew that the elevator can’t sell me seed beans. That’s illegal.”).⁶

⁶ Contrary to petitioner’s suggestion (Br. 6), it is *not* customary for grain elevators to sell harvested soybeans to farmers for use as seed. Sales of soybean and other crop seeds are subject to extensive federal and state regulations that make grain elevators an unlikely source of crop seed. The Federal Seed Act and its Indiana counterpart impose on sellers of seeds detailed labeling and record-keeping requirements designed to ensure that farmers know what they are planting and that seeds can be tracked. *See* 7 U.S.C. §§ 1551-1611; Ind. Code §§ 15-15-1-32 to -43. Section 15-15-1-40 of the Indiana Code, for example, prohibits distribution of ag-

Beginning in 1999, petitioner purchased commodity soybeans from a grain elevator and used them to grow “second crop” soybeans—*i.e.*, soybeans planted and harvested after another crop. As petitioner hoped and expected, most of those soybeans carried the Roundup Ready® trait. *See* Pet. Br. 8 (“[T]he commodity beans I bought turned out to be mostly R.R. beans as I had hoped.”). Petitioner then took advantage of the soybeans’ glyphosate tolerance by spraying his fields with glyphosate, thereby killing not only the weeds but also all of the soybean plants that did not contain Monsanto’s patented biotechnology. JA75a-80a.

Petitioner sold most of his harvested crop to a grain elevator but saved some to plant the following year. JA25a, 75a, 79a. He repeated this practice for the next eight years, adding to his stock of saved seeds by making periodic additional purchases of commodity soybeans from the grain elevator and killing off all plants that lacked the patented biotechnology by spraying his fields. JA75a-80a.

D. Proceedings Below

In October 2007, after discovering petitioner’s unauthorized cultivation of soybeans containing the Roundup Ready® trait, Monsanto sued petitioner to prevent further infringement of its patents and for damages arising from past infringement.⁷ Petitioner

ricultural seed within Indiana without a label informing purchasers about the variety being sold and maturity information. An elevator storing commingled soybeans could not provide such information.

⁷ Various amici make (*see* Center for Food Safety (CFS) Br. 11-17; Public Patent Foundation Br. 2, 4) unsupported assertions about Monsanto’s program of patent enforcement. To protect its investment, Monsanto has filed patent infringement actions

did not raise patent exhaustion in his answer or pursue any discovery on that theory. It was undisputed that petitioner's crops contained the Roundup Ready® trait and that petitioner had intentionally cultivated those crops and treated them with glyphosate. JA75a-80a, 83a-84a, 128a.

After Monsanto moved for summary judgment, the court ordered submissions regarding the patent exhaustion doctrine and *Quanta Computer, Inc. v. LG Electronics, Inc.*, 553 U.S. 617 (2008). Pet. App. 29a. It also invited submissions of additional evidence. *Id.* Both parties filed briefs. Other than his own affidavit, petitioner submitted no evidence on the exhaustion issue. For example, he did not attempt to show that the soybeans he purchased from the grain elevator were harvested from seeds purchased by other growers in authorized sales. JA189a-191a.

The district court concluded that the exhaustion doctrine was inapplicable because Monsanto had never authorized any sale of the soybeans petitioner harvested, or any unrestricted sale of soybeans containing its patented technology. Pet. App. 40a-41a. The court

against intentional infringers. Monsanto has publicly committed not to assert its patent rights against persons who obtain its technology inadvertently. See *Monsanto's Commitment: Farmers and Patents* ("It has never been, nor will it be, Monsanto policy to exercise its patent rights where trace amounts of patented seed or traits are present in [a] farmer's fields as a result of inadvertent means."), <http://www.monsanto.com/newsviews/Pages/commitment-farmers-patents.aspx> (last visited Jan. 15, 2013). When Monsanto is forced to pursue a patent infringement suit to stop a farmer from intentionally infringing, it donates any damages awarded to youth leadership initiatives. See *Why Does Monsanto Sue Farmers Who Save Seeds*, <http://www.monsanto.com/newsviews/Pages/why-does-monsanto-sue-farmers-who-save-seeds.aspx> (last visited Jan. 15, 2013).

granted summary judgment to Monsanto and entered a final judgment. The court ruled that petitioner had infringed Monsanto's patents and awarded Monsanto compensatory damages of \$84,456.30, plus costs and interest. Pet. App. 44a-45a, 46a-51a, 52a-53a.

On appeal, petitioner renewed his argument that Monsanto's patent rights in second- and subsequent-generation soybeans were exhausted, and that prior Federal Circuit decisions holding to the contrary were no longer valid after *Quanta*. The Federal Circuit rejected that contention and affirmed. In so ruling, the court examined two of its prior decisions, *Monsanto Co. v. McFarling*, 302 F.3d 1291 (Fed. Cir. 2002), and *Monsanto Co. v. Scruggs*, 459 F.3d 1328 (Fed. Cir. 2006), which had rejected similar contentions. Each of those cases also involved farmers who replanted harvested second-generation soybeans without authorization from Monsanto, although in those cases the farmers had saved and replanted soybeans from their own harvests, not soybeans purchased from a grain elevator.

The Federal Circuit explained that its prior decisions had identified two distinct reasons why Monsanto retains patent rights in the biotechnology contained in soybeans harvested from Roundup Ready® soybean seeds (and soybeans grown from them). First, Monsanto never makes or permits an unconditional sale of soybeans containing its biotechnology; rather, it allows Roundup Ready® seeds to be sold for planting only through authorized channels and subject to a limited license that strictly defines the allowable uses of the soybean seeds and their progeny. Pet. App. 13a. Second, the court explained, “[t]he first sale doctrine of patent exhaustion ... [wa]s not implicated, as the new seeds grown from the original batch had never been

sold.” Pet. App. 13a (quoting *McFarling*, 302 F.3d at 1299 (punctuation altered)).

In this case, the court of appeals found the second rationale sufficient to reject petitioner’s claim of patent exhaustion, without relying on the first rationale. The court explained that, even if Monsanto’s patent rights in the soybeans petitioner purchased from the grain elevator had been exhausted through another farmer’s sale of those soybeans to the elevator (a point the court did not decide), Monsanto nonetheless retained its patent rights in the crops petitioner grew from those soybeans, which had never been sold and which petitioner was never authorized to create: “[O]nce a grower, like Bowman, plants the commodity seeds containing Monsanto’s Roundup Ready® technology and the next generation of seed develops, the grower has created a newly infringing article.” Pet. App. 14a.

SUMMARY OF ARGUMENT

I. The first-sale doctrine does not apply to the *new* soybeans petitioner made, which were never the subject of any sale, much less a sale authorized by Monsanto.

A. Exhaustion is limited to the particular article sold and arises from the rationale that, through making a sale of an article embodying its invention, the patentee receives full reward for the use of its invention in that article. That rationale cannot apply to *other* articles, such as the new soybeans petitioner grew, that have never been sold. Monsanto’s patent rights in those soybeans were thus not exhausted.

Petitioner argues (Br. 34) that all “subsequent generations” of soybeans produced from a common ancestor are “embodied” in the original soybean. But the

cases petitioner cites for support (*Quanta* and *Univis*) held only that if an incomplete article “substantially embodie[s]” the invention, then an exhausting sale grants the purchaser rights in “*the article sold*,” *Quanta*, 553 U.S. at 638 (emphasis added); they do not suggest that exhaustion can grant a purchaser rights in an unlimited number of other, as-yet-uncreated articles.

Petitioner also argues that exhaustion applies because title to the new soybeans initially vested in him. This Court has never suggested that *initial possession* of title in a patented article is relevant, nor is it.

B. Additionally, the patent exhaustion doctrine never grants the purchaser the right to “make” new copies of the invention, as petitioner did when he cultivated new crops of soybeans embodying the invention. Although petitioner argues that growing crops does not constitute a “making,” nothing in the Patent Act suggests Congress intended that term to have anything other than its ordinary meaning, which encompasses the production of new crops by farming.

Petitioner’s contention (Br. 42) that “it was the planted soybean, not petitioner” that “made” new Roundup Ready® soybeans would eliminate protection for inventions produced through biological processes, an outcome that cannot be reconciled with this Court’s prior decisions recognizing patent protection for such innovations. Moreover, petitioner fails to account for the substantial human effort required to create new generations of soybeans, including planting, fertilizing, applying herbicide to, and harvesting each crop.

Petitioner also contends that because cultivating soybeans constitutes “using” the planted soybeans as seeds, it cannot also be a “making” of new soybeans,

but there is no basis for reading these statutory rights as mutually exclusive in this way.

C. Petitioner's argument that the sale of a single soybean exhausts Monsanto's patent rights in all progeny would result in utility patent owners receiving *less* protection than is provided under the Plant Patent Act (PPA) or the Plant Variety Protection Act (PVPA). That result cannot be squared with Congress's intent or this Court's decisions that holders of utility patents receive *greater* protection than is provided under the PPA or PVPA.

D. Accepting petitioner's position would devastate innovation in biotechnology, which entails notoriously high research and development costs. Inventors are unlikely to make such investments if they cannot prevent purchasers of living organisms containing their invention from using them to produce unlimited copies.

II. In any event, Monsanto's patent rights also were not exhausted in the harvested soybeans petitioner purchased.

A. This Court has long held, and petitioner agrees, that patentees may license some rights while withholding others. Such a license limits not only a licensee's own rights, but also the rights the licensee can convey to third parties.

B. Petitioner argues that, even though a patentee can impose use, making, and sale restrictions on its licensees, a patentee cannot use patent law to enforce any of those conditions if the license is accompanied or followed by an authorized sale. But this Court held in *Mitchell v. Hawley* and *General Talking Pictures* that license restrictions are enforceable under patent law following a sale.

Like the licensees in those cases, farmers and independent seed companies make new patented articles under licenses that limit the use of those articles, even after a sale. Just as those licensees could not transfer—and their purchasers could not acquire—rights the licenses themselves did not give, farmers and independent seed companies could not have conveyed to downstream purchasers, like petitioner, rights expressly withheld in their licenses with Monsanto—including the right to grow new soybeans from harvested soybeans.

This Court has never adopted petitioner’s *per se* rule against the enforcement of any license restriction following a sale. Instead, the Court has only applied the patent exhaustion doctrine to void restrictions that resulted in improper tying or price fixing.

C. Adopting the rule petitioner proposes would expand patent exhaustion into contexts ill-suited to its rationale, as this case illustrates. By authorizing use of its technology for a single growing season in exchange for a small royalty, Monsanto can incrementally recover its research and development investment through multiple transactions over many years, making use of the invention affordable. But if Monsanto could not limit reproduction of Roundup Ready® soybeans, commercialization of inventions embodied in seeds and plants would be well-nigh impossible. The only practical way to license the Roundup Ready® trait commercially is to convey it in soybean seeds to farmers and to allow those farmers to sell their crops containing that trait to consumers.

While petitioner attempts to defend his *per se* rule based on the “policy against restraints on the alienation of personal property” (Br. 44), patent rights always act as a restraint on the alienation of any personal proper-

ty. *See* 35 U.S.C. § 271(a). Moreover, petitioner's preferred alternative to patent protection—complex contractual arrangements—would, if effective, similarly restrain alienation, while imposing far greater transaction costs.

III. Contracts are a completely inadequate substitute for patent protection here. Monsanto could never enter into a contract with every entity that might misappropriate its technology. Lacking ubiquitous privity of contract, Monsanto could not be protected against or compensated for the full damage caused by a breach. Contract law would provide Monsanto with no ability to obtain injunctive relief against parties with whom it had no contract, such as those who purchased progeny soybeans from a breaching grower. It therefore could not enjoin them from making unlimited copies of the technology. Further, Monsanto could not recover from a breaching party all the damages caused by downstream growers who misappropriate the technology: Even if such damages were deemed non-speculative, no contracting party could afford to pay them. In any event, even to attempt to establish and monitor such a broad web of contracts would entail vast transaction costs that would ultimately be borne by authorized purchasers of the technology and their customers.

ARGUMENT

I. THE SALE OF A PATENTED ARTICLE DOES NOT GRANT THE PURCHASER RIGHTS TO MAKE, USE, OR SELL COPIES OF THAT ARTICLE

Petitioner contends that the patent exhaustion doctrine permits him to make, use, and sell an unlimited number of new copies of Monsanto's invention from the soybeans he purchased from the grain elevator. That contention fundamentally misapprehends the doctrine,

which applies only to the specific article sold, not to *new* articles embodying the patented invention. In addition, the patent exhaustion doctrine never authorizes a purchaser to “make” new copies of the invention. The exhaustion doctrine therefore cannot provide petitioner with the sweeping rights he claims.

The rule petitioner advances would undermine the patent system’s purpose of encouraging innovation. If, as petitioner argues, the sale of a patented article conferred rights to make, use, or sell articles beyond the one actually sold, the inventor would find it impossible to maintain the exclusivity conferred by the patent laws the moment he commercialized the invention: Every sale would create a new potential competitor with rights to make, use, and sell new copies of the invention.

A. The First-Sale Doctrine Is Inapplicable To The Soybeans Petitioner Grew Because They Had Never Been Sold At The Time Of Infringement

The Federal Circuit correctly decided the only issue it reached: The new soybeans petitioner made were not subject to the first-sale doctrine because they had never been sold. Pet. App. 14a. That rationale is sufficient to dispose of this case and to affirm the judgment of the court of appeals.

1. Patent exhaustion, where it properly applies, allows the purchaser of an article embodying an invention to use and resell *that particular article*—but it does not confer the right to make, use, or sell the invention *generally*. This Court has never wavered from the principle that patent exhaustion applies only to the specific article that was sold in an authorized sale. *See, e.g., Quanta Computer, Inc. v. LG Electronics, Inc.*, 553

U.S. 617, 625 (2008) (“[T]he initial authorized sale of a patented item terminates all patent rights *to that item*.” (emphasis added)); *id.* at 626-628, 631-632, 636-637; *United States v. Univis Lens Co.*, 316 U.S. 241, 251 (1942) (the sale of an article exhausts “so far as [the invention] is or may be embodied *in that particular article*”) (emphasis added); *United States v. General Electric Co.*, 272 U.S. 476, 489 (1926) (an exhausting sale deprives the patentee of control over what the purchaser does “with *the article* after his purchase” (emphasis added)); *Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 516 (1917) (“[T]he *article sold* [is] thereby carried outside the monopoly of the patent law.” (emphasis added)); *Adams v. Burke*, 84 U.S. (17 Wall.) 453, 455 (1873) (exhausting sale “carries with it the right to the use of *that machine*” (emphasis added)); *Bloomer v. Millinger*, 68 U.S. (1 Wall.) 340, 350 (1864) (patent exhaustion cuts off “any interest whatever *in the machine so sold*” (emphasis added)); *Wilson v. Rousseau*, 45 U.S. (4 How.) 646, 683 (1846) (“[T]he right to use the thing patented necessarily results in a right to use *the machine*, and nothing more.” (emphasis added)).

More particularly, the purchaser of a patented article does not, by his purchase, obtain the right to make, use, or sell *new* articles embodying the patented invention. As the Court explained in *Mitchell v. Hawley*, 83 U.S. (16 Wall.) 544, 548 (1873), “the purchaser of the implement or machine for the purpose of using it in the ordinary pursuits of life ... does not acquire any right to construct another machine either for his own use or to be vended to another for any purpose.” *See also Bloomer v. McQuewan*, 55 U.S. (14 How.) 539, 549 (1852) (noting this “plain” distinction). Thus, the purchaser of a patented article may “repair” it by replacing

worn or damaged parts, but the purchase confers no right to “reconstruct” the object so as to create a new copy of the invention. *See Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 342 (1961) (replacing convertible-top fabric was permissible repair with respect to claims directed to an automobile with a convertible top); *American Cotton-Tie Co. v. Simmons*, 106 U.S. 89, 93 (1882) (creating new cotton ties “by piecing together severed pieces of” old patented ties was impermissible reconstruction with respect to claims to novel cotton ties); *Wilbur-Ellis Co. v. Kuther*, 377 U.S. 422, 424 (1964) (“The idea of ‘reconstruction’ ... has the special connotation of those acts which would impinge on the patentee’s right ‘to exclude others from making’ the article.” (citation omitted)).

The principle that exhaustion extends only to the specific article sold follows directly from the rationale for the doctrine itself. When the authorized sale of an article embodying a patented invention exhausts the patentee’s rights in that article, it is because the patentee has “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.*” *Adams*, 84 U.S. (17 Wall.) at 456; *see also Univis*, 316 U.S. at 251. But where the patentee has never “received his reward ... by the sale of the article,” *Univis*, 316 U.S. at 251, the basis for exhaustion is lacking, and terminating patent rights in that article would “deprive a patentee of his just rights.” *Keeler v. Standard Folding Bed Co.*, 157 U.S. 659, 666 (1895). Patent exhaustion therefore extends only to “that quantity of the product of his invention” that was actually sold, *id.* at 661, and no further.

2. As petitioner acknowledges, each soybean is a different article than the dozens of new soybeans a

grower can produce from it in the first season, the thousands in the second, the hundreds of thousands in the third, and so forth. *See* Br. 38 (“use” of planted seeds “result[s] in the creation of a new item” (emphasis omitted)). Each soybean with the Roundup Ready® trait contains the patented invention in identical form, but each is also a distinct article embodying that invention and is therefore independently subject to the patentee’s rights.

The soybeans petitioner grew were never the subject of *any* sale, let alone an exhausting one. Those articles did not even exist until petitioner’s activities brought them into being. Because the soybeans petitioner grew himself had never been sold by anyone, Monsanto’s patent rights in the inventions contained in those soybeans could not have been exhausted.

This Court addressed a similar issue in *Microsoft Corp. v. AT&T Corp.*, 550 U.S. 437, 452-453 (2007), and concluded that identical copies of software must be treated as separate components from the master disk used to make them, even though the only use of the master disk was to create such copies. That logic also applies to soybeans, as this Court observed in likening making copies of software to making copies of biological material through reproduction. *Id.* at 453-454 (“Copying software abroad, all might agree, is indeed easy and inexpensive. But the same could be said of other items: ... ‘chemical or biological substances might be created by reproduction[.]’”).

Petitioner raises two arguments why the exhausting sale of one soybean should be deemed to exhaust patent rights in all future descendant soybeans. Both lack merit.

First, petitioner argues (Br. 34, 37) that all “[s]ubsequent [g]enerations” of soybeans produced from a common ancestor are “[e]mbodied” or “substantially embod[ied]” in the original soybean. Therefore, petitioner contends, the sale of even a single Roundup Ready® soybean exhausts Monsanto’s rights with respect to *every* soybean that may ever be produced from that original.

Accepting this argument would require an unprecedented expansion of the exhaustion doctrine. This Court has never suggested that the sale of a single article could exhaust patent rights as to some indefinite quantity of articles *other* than the one actually sold, so long as the original article “embodies” the others. Nor has this Court ever suggested that exhaustion can apply to future articles that have not come into existence in any form, let alone been sold in an authorized sale.

Petitioner purports (Br. 34-35) to model his reasoning on *Quanta* and *Univis*, but his argument bears no resemblance to the Court’s analysis in those cases. In both *Quanta* and *Univis*, the exhaustion analysis turned in significant part on whether an *incomplete* article “substantially embodied” the patented invention, such that an authorized, unrestricted sale of the incomplete article would exhaust any patent rights “*with respect to the article sold.*” *Quanta*, 553 U.S. at 631, 638 (emphasis added). Petitioner, by contrast, contends (Br. 34-35) that the article sold substantially embodies all *subsequent generations* of future articles, such that the patentee’s rights are exhausted with respect to those future articles.⁸ Neither *Quanta* nor *Univis* sug-

⁸ Petitioner has expressly disclaimed any argument that the soybeans are “incomplete” in the sense described by *Quanta* and *Univis*. Br. 36 (“The seeds are not ‘incomplete’ or ‘unfinished’ arti-

gests that the relevant question is whether the article sold embodies other, as-yet-uncreated articles that contain the patented invention; rather, those cases concern the antecedent question of whether the *invention* was embodied in the particular article that was sold.

Second, petitioner argues (Br. 43-44) that exhaustion applies to the soybeans he grew because “[f]armers such as Bowman who choose to plant commodity grain for their second crop lawfully own the next-generation [soybeans].” But as this Court stated without qualification in *Quanta*, “[e]xhaustion is triggered *only* by a *sale* authorized by the patent holder.” 553 U.S. at 636 (emphasis added). The initial vesting of ownership rights in the producer of a patented article is neither a sale nor any other *transfer* of title from the patentee or its licensee, and therefore cannot trigger exhaustion.⁹

Although some of this Court’s early exhaustion decisions refer to the *transfer* of title in an authorized sale,¹⁰ the Court has never suggested that the *initial possession* of title in an article is relevant. Nor could it be. Whenever an infringer creates a new copy of an invention without authorization, he is likely to hold title to the object he has fashioned. For example, a company

cles that merely embody ‘essential features’ of the claimed inventions.”).

⁹ Petitioner’s notion (Br. 43-44) that Monsanto “permitt[ed] title in progeny seeds to vest in farmers” and therefore “permitted exhaustion to apply to those seeds” is misplaced, because Monsanto has no right to exclude any person from “possessing” or “holding title” to those soybeans. Monsanto’s patents instead give it the right to exclude others from making, using, or selling its patented invention. 35 U.S.C. § 154(a).

¹⁰ See, e.g., *Bauer & Cie v. O’Donnell*, 229 U.S. 1, 17 (1913); *Mitchell*, 83 U.S. at 548.

that manufactures a cellphone without authorization from a patentee with rights covering it will likely have title to the resulting product—but the manufacturer will nonetheless infringe the patent by making and selling the phone. Similarly, unauthorized reconstruction of a patented article constitutes infringement, even when the infringer owns the object. *See, e.g., Aro*, 365 U.S. at 346; *American Cotton-Tie*, 106 U.S. at 93. And unauthorized assembly of component parts into a new patented article can infringe a combination patent, even if the assembler owns all the component parts. *See, e.g., Ives v. Hamilton*, 92 U.S. 426, 431 (1876). Making exhaustion coextensive with the initial possession of title would seriously undermine patent protection, because it would allow anyone to make a patented article from staple goods without regard for the patentee’s rights.¹¹

B. Patent Exhaustion Does Not Apply To Soybeans Made Without Monsanto’s Authorization

1. The Patent Act grants the holder of a valid patent “the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States.” 35 U.S.C. § 154(a)(1). The rights to make, use, and sell “are each substantive rights, and may be granted or conferred separately by the patentee.” *Adams*, 84 U.S. (17 Wall.) at 456. Engaging in any of these activities without the authorization of the patentee is infringement. 35 U.S.C. § 271(a).

¹¹ Likewise, a manufacturer licensed by a patentee has title in the patented articles he produces, but exhaustion does not apply to those articles until they are sold in an authorized sale. *See General Electric*, 272 U.S. at 489-490; *Quanta*, 553 U.S. at 636.

As petitioner concedes, this Court’s decisions establish that the patent exhaustion doctrine has no relevance to the “mak[ing]” of a patented invention. *See* Br. 37 (“It is well settled that the exhaustion doctrine does not extend to the right to ‘make’ a new product.”). Even where an exhausting sale provides the purchaser of a patented article the right to use and resell it without restriction, the purchaser acquires no right to “make” new copies of the invention.

That principle is dispositive of this case. Petitioner’s planting and cultivation of soybeans containing the Roundup Ready® trait was an infringing act because he thereby “ma[de]” new articles embodying Monsanto’s invention without its authorization, in contravention of Monsanto’s exclusive right to control the “making” of its invention. 35 U.S.C. §§ 154(a)(1), 271(a).¹²

2. Petitioner attempts to avoid that straightforward conclusion by arguing (Br. 37-42) that growing crops containing patented traits does not constitute “making” within the meaning of § 271(a). Those arguments lack merit.

¹² There is no merit to petitioner’s assertion (Br. 10) that “there was no evidence before the district court that could have supported a judgment based on the number of infringing units allegedly ‘made.’” Monsanto’s damages calculations were based on a reasonable royalty derived from the increased profits petitioner could realize from the new soybeans he grew. JA101a-116a (in the hypothetical negotiation of a reasonable royalty Monsanto would “insist on no less than 75% of the net income from the infringing soybeans”). To calculate the number of soybeans grown, Monsanto’s expert understandably utilized yield estimates based on the number of acres Bowman planted (*e.g.*, JA100a, 103a & n.1), as actually counting the soybeans Bowman had produced was impossible.

Petitioner concedes (Br. 7-8) that he cultivated nine seasons' worth of soybeans containing Monsanto's patented Roundup Ready® trait by planting either soybeans he purchased from the grain elevator or soybeans he had grown from grain elevator soybeans, which he had saved from previous harvests. Each year, petitioner had to plant the soybeans he saved or purchased from the elevator in suitable soil, at the correct depth, and in the correct manner, at a time suitable for planting, and fertilize them, *see* C.A. App. A0329-0332, A0351; National Soybean Research Laboratory, *Soybean Production Basics*, <http://www.nsrll.illinois.edu/general/soyprod.html> (last visited Jan. 15, 2013); he applied glyphosate to kill weeds (as well as any soybean plants not possessing the Roundup Ready® trait); and he had to harvest the resulting crop. *See, e.g.*, JA75a, 79a. The soybeans petitioner cultivated did not spontaneously grow themselves: their reproduction required substantial, and sustained, human effort.

a. Petitioner suggests (Br. 37-38), however, that when he cultivated soybeans containing the Roundup Ready® trait, there was no “making” within the meaning of §§ 154(a)(i) and 271(a). There is no support for that contention in the language of the statute, this Court's decisions, or Congress's objectives in enacting the Patent Act.

Nothing in the Patent Act suggests that the words “making” and “makes” in §§ 154(a) and 271(a) have anything other than their ordinary, common meanings. The ordinary meaning of “making” encompasses the creation or production of new articles—including the production of new soybeans through the act of farming. *See, e.g., Webster's Third New International Dictionary* 1363 (3d ed. 2002) (one meaning of “make” is “to plant and raise (a crop)”); *Texas & Pac. Ry. Co. v. Bayliss*, 62

Tex. 570, 574 (1884) (“The meaning of the word *make*, when used in relation to a crop, is as well understood as any other word in our language. It means ‘produce at maturity.’”); cf. *Random House Dictionary of the English Language* 1161 (2d ed. 1987) (defining “make” as “to produce”); 6 *Oxford English Dictionary* 73 (1933) (defining “making” to include “production”).

As this Court explained when interpreting the terms “manufacture” and “composition of matter,” “Congress plainly contemplated that the patent laws would be given wide scope.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308 (1980). If the term “make” is to be applied meaningfully to protect inventions as diverse as chemical compounds, mechanical devices, microchips, computer software, and living organisms not found in nature—which are made in drastically different ways—it must be given similarly broad scope.

Congress and the courts have repeatedly expressed the understanding that cultivating crops is a “making.” In *Barlow v. Collins*, for example, this Court considered an agency’s interpretation of a statute permitting assignment of certain government payments “as security for cash or advances to finance *making a crop*.” 397 U.S. 159, 160 (1970) (quoting Agricultural Adjustment Act of 1938, 52 Stat. 31, 35). The agency defined the clause “[t]o finance *making a crop*” as meaning “to finance the *planting, cultivating, or harvesting* of a crop,” among other things. *Id.* at 162 n.3 (quoting 32 Fed. Reg. 14,921 (1967) (emphasis added)). The Controlled Substances Act defines the term “manufacture”—a term even narrower than “making”—to include “production,” which is defined to include “planting, cultivation, growing, or harvesting.” 21 U.S.C. § 802(15), (22). And Congress has consistently referred to farmers as “producers” of crops. Cf. 7 U.S.C.

§ 7951(8) (“[P]roducer’ means an owner, operator, landlord, tenant, or sharecropper that shares in the risk of producing a crop on a farm.”); *id.* § 7333(e)(4)(A)(ii) (referring to “a producer who produces a crop on a farm”). Many lower courts have also referred to farming as the act of “making crops.” *See, e.g., Cummer-Graham Co. v. Straight Side Basket Corp.*, 142 F.2d 646, 647 (5th Cir. 1944) (referring to license “to use the patented harrow in *making* crops” (emphasis added)); *Roque Gonzalez & Cia. v. Torres*, 51 F.2d 237, 238 (1st Cir. 1931) (“These firms agreed to make advancements for use in *making*, harvesting, and storing his 1929 crop.” (emphasis added)).¹³

Petitioner concedes (Pet. 20) that a “making” occurs when what he calls “seed producers” (*i.e.*, Monsanto-licensed seed variety developers like Pioneer) “manufacture[]” Roundup Ready® seeds for sale to growers across the nation. But petitioner’s cultivation activities are no different, except in scale. Like petitioner, “seed producers” engage in the steps of planting, fertilizing, applying herbicide, and harvesting.¹⁴ McDonald &

¹³ Petitioner argues (Br. 39) that the United States’ definition of “make” as “to bring about” or “to cause to exist” is “overly broad” because it would eliminate the distinction between direct and indirect infringement. This Court need not determine the outer limits of the term “make,” however, because producing new crops embodying a patented invention falls well within those limits. *See also* U.S. Br. 27-28 (explaining why petitioner’s argument lacks merit).

¹⁴ Contrary to petitioner’s assertion (Pet. 20), “seed producers” do not “artificially insert patented germplasm into naturally occurring soybeans seeds” in order to make Roundup Ready® seeds; doing so would require separate USDA approval each time, *see* 7 U.S.C. § 7711(c)(2); 7 C.F.R. § 340.6; *see also Monsanto Co. v. Geertson Seed Farms*, 130 S. Ct. 2743, 2749-2750 (2010). Instead, “seed producers” crossbreed their varieties with the progeny of a

Copeland, *Seed Production: Principles and Practices* 29-36 (2012). In both cases, the desired result is the same: the production of many new Roundup Ready® soybeans.

b. Petitioner also suggests (Br. 42) that nature, rather than petitioner, was the relevant actor under § 271(a): “[I]t was the planted soybean, not [petitioner], that ‘physically connected’ all elements of the claimed invention into an ‘operable whole.’” Petitioner cites no authority for the proposition that growing new soybeans should be attributed to the agency of the *seeds*, rather than the farmer. Such a rule could have wide-ranging adverse consequences for patent rights: much modern technology involves assembly of elements into an “operable whole” through “physical connection” not directly performed by human actors. The circuitry in microchips is arranged by a computer and constructed by computerized photolithography and etching equipment. Copies of computer software are made entirely by a machine based on an instruction that may not even come directly from a human. These acts of “making” require far less direct human intervention than growing a crop.

Petitioner’s position amounts to a rule that the Patent Act provides no protection for the making of inventions produced through biological processes. Under petitioner’s rule, it is the organism that performs the “making” of such products, yet one could hardly hold a soybean or bacterium liable for patent infringement. More fundamentally, that argument cannot be recon-

particular soybean line transformed by Monsanto and approved by the USDA. *See* Determination of Nonregulated Status of Monsanto Co., Genetically Engineered Soybean Line, 59 Fed. Reg. 26,781 (May 24, 1994).

ciled with this Court’s recognition of patent protection for living organisms generated through human intervention. *See Chakrabarty*, 447 U.S. 303. The Court there explained that patent protection applies to “anything under the sun that has been made by man,” *id.* at 309 (quoting S. Rep. No. 82-1979, at 5 (1952)), with no suggestion that human activity must be the sole means of creating each embodiment of the invention, to the exclusion of all other forces (biological, chemical, or mechanical).¹⁵

c. Petitioner further contends (Br. 37-38) that the activity of cultivating soybeans does not constitute “making” new soybeans but rather constitutes “using” the planted soybeans as seeds. But petitioner points to nothing to suggest that an act of “using” cannot *also* be an act of “making.” Courts customarily do not read two statutory prohibitions as mutually exclusive, such that a violation of one provision cannot constitute a violation of the other.¹⁶ Nothing in the text of the Patent Act

¹⁵ The understanding that unauthorized cultivation of crops containing a protected trait constitutes infringement is also reflected in the Plant Variety Protection Act. The PVPA grants breeders the right to exclude others from “reproducing” protected plant varieties by planting harvested seeds and makes growers liable for unauthorized reproduction if they engage in that activity. 7 U.S.C. §§ 2483(a)(1), 2541(a). Congress believed that unauthorized cultivation would be the primary way that rights in plant varieties would be infringed: “[I]nfringement is expected almost never to be by independent work, but by willful reproduction starting from the protected variety itself.” H.R. Rep. No. 91-1605, at 11 (1970).

¹⁶ *See, e.g., United States v. Wright*, 742 F.2d 1215, 1219 (9th Cir. 1984) (“However, the cultivation and possession provisions are not mutually exclusive but overlapping. It is quite possible to possess with intent to distribute the marijuana that is being cultivated.”); *Ferrell v. United States*, 963 F. Supp. 615, 621 (E.D. Mich.

suggests that Congress deviated from that principle here.

Indeed, this Court's decisions make clear that petitioner cannot "use" his existing soybeans to violate Monsanto's rights by "making" new articles without Monsanto's authorization. In *American Cotton-Tie*, patented cotton ties that were made and sold by the patentee were later acquired by the defendant after they were used by others. 106 U.S. at 91. There was no question that the used ties were the unrestricted personal property of the defendants, who were generally free to use or dispose of them as they wished. This Court nonetheless held that "[w]hatever right the defendants could acquire to the *use* of the old buckle," the defendant could not "*use*" it by reassembling it to make new ties embodying the plaintiff's patented design. *Id.* at 91, 93-94 (emphasis added). Similarly, whatever right petitioner acquired to "use" the seeds he purchased from the grain elevator, he could not "use" them to make new copies of Monsanto's patented invention.

C. Petitioner's Argument Is Inconsistent With Congress's Statutory Scheme And This Court's Precedent On Patent Protection For Innovations Embodied In Plants

Petitioner's argument that the sale of a single soybean exhausts Monsanto's patent rights in all progeny would result in utility patent owners receiving *less* protection than is provided under the Plant Patent Act of 1930, 35 U.S.C. §§ 161-164, or the Plant Variety Protection Act, 7 U.S.C. §§ 2321 *et seq.* Contrary to petition-

1997) ("[J]ust because the Defendant's conduct may constitute 'carrying' under the statute does not mean that conduct may not also be a 'use' within the definition of the statute.").

er's argument (Br. 54), that result cannot be squared with Congress's intent or this Court's decisions, which hold that holders of utility patents receive *greater* protection than is provided under the PPA or PVPA.

A PPA patent grants only the right to exclude others from "asexually reproduc[ing] a protected plant," and can be obtained by satisfying a more "relaxed" description requirement than that applicable to utility patents. See *J.E.M. Ag Supply, Inc. v. Pioneer Hi-Bred Int'l, Inc.*, 534 U.S. 124, 133 (2001). As this Court has noted, "[p]lant patents under the PPA ... have very limited coverage and less stringent requirements than [35 U.S.C.] § 101 utility patents." *Id.*

The PVPA protects rights in "sexually reproduced ... plant variet[ies]," including the right to exclude others from "sexually multiply[ing], or propagat[ing]" the variety. 7 U.S.C. §§ 2402(a), 2541(a)(3). As with the PPA, the requirements for obtaining a plant variety protection (PVP) certificate are less stringent, and the protection provided to the patentee is less extensive, than with a utility patent. See *J.E.M.*, 543 U.S. at 142.

By contrast, a utility patent protects "any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof," 35 U.S.C. § 101, including inventions embodied in sexually and asexually reproduced plants. A patent is available, however, only if the patentee can satisfy the demanding standards of usefulness, novelty, nonobviousness, enablement, written description, and the other requirements set forth in 35 U.S.C. §§ 101-123. "Because of the more stringent requirements, utility patent holders receive greater rights of exclusion than holders of a PVP certificate" or a plant patent under the PPA. *J.E.M.*, 534 U.S. at 133, 143.

Petitioner’s argument would turn this statutory scheme on its head, denying utility patent holders the most important right available under the PVPA and PPA—the right to control reproduction of the invention in new plants. Under the PPA, breeders can prevent purchasers from asexually reproducing a patented plant even after an authorized sale. *See J.E.M.*, 534 U.S. at 136 (noting that statute’s purpose was to protect covered plants from being “regularly copied, draining profits from those who discovered or bred new varieties”). Similarly, under the PVPA, breeders can restrict buyers from sexually reproducing the plant “as a step in marketing (for growing purposes) the variety,” 7 U.S.C. § 2541(a)(3), and from selling progeny seed for replanting beyond the amount needed to replant the farmer’s own acreage, *see Asgrow Seed Co. v. Winterboer*, 513 U.S. 179, 190-191 (1995).

Were petitioner’s argument accepted, a utility patent owner would have *none* of these rights: The patentee could not prevent a buyer from reproducing plants containing the invention or selling the resulting copies of the invention for *any* purpose. Moreover, all authorized purchasers would obtain a broad right to save seeds or use them for research without the patentee’s authorization, in direct contradiction to this Court’s prior determination that “[t]he utility patent statute does not contain ... exemptions” for saving seed and research. *J.E.M.*, 534 U.S. at 140. Petitioner can point to nothing that would justify this complete reversal of the relationship between utility patents and the protections provided by the PPA and PVPA.

D. The Court Should Not Create An Exception Disfavoring Innovations In Biotechnology

Petitioner argues (Br. 51) that the Court should not create an “exception” to patent exhaustion for genetically modified seeds, but in fact it is petitioner who seeks to create an exception for biotechnology and other inventions that can be identically (and in some cases massively and quickly) reproduced. Petitioner would presumably accept, for example, that the purchaser of an industrial machine does not thereby obtain the right to create a new, identical copy of that machine out of steel, copper, or other raw materials. Yet he nonetheless argues that the purchaser of a biotechnological invention, such as an improved seed, does obtain the right to use that invention to produce an unlimited number of additional copies of the seed. Under petitioner’s view, the fact that an invention can be used to create more units of that invention renders normal exhaustion principles inapplicable. But petitioner offers no support for the position that normal exhaustion principles are inapplicable merely because an invention is “made” in one particular way.

Adopting petitioner’s position would be particularly devastating to innovation in biotechnology. Although patents would theoretically remain available for inventions embodied in living organisms under this Court’s decision in *Chakrabarty*, there would be little incentive for inventors to undertake the expensive and time-consuming research necessary to develop patentable inventions, as they would receive essentially no protection against the copying of any commercialized invention embodied in living organisms. Other inventions and technologies with similar characteristics would also be at risk: a software product that is replicated by a machine, a 3-D printer that can be used to

print components for more 3-D printers,¹⁷ or a synthetic molecule that can be used to produce copies of itself.¹⁸ See U.S. Br. 18. Under such a regime, innovators in biotechnology and similar fields would find it far more difficult, if not impossible, to recoup their investments in research and development.

Petitioner's rule would be particularly damaging because research and development costs for cutting-edge work in biotechnology are notoriously high. See FTC, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, ch. 3, at 16 (Oct. 2003) (The research and development process "is particularly lengthy for biotechnology firms, because biotechnology innovation is more uncertain than innovation in other industries."). Biotechnology research and development expenditures are more than double the average of the pharmaceutical industry, which itself is several times more intensive than any other industry. *Id.* at 15-16. For every successful biopharmaceutical, for example, there are approximately 10,000 failed attempts. DiMasi & Grabowski, *The Cost of Biopharmaceutical R&D: Is Biotech Different?*, *Managerial & Decision Economics* 473 (2007). It costs even more to bring useful inventions to market. The average time to commercialize an agricultural trait is 13.1 years, at a

¹⁷ See RepRap, http://reprap.org/wiki/Main_Page ("Since many parts of RepRap are made from plastic and RepRap prints those parts, RepRap self-replicates by making a kit of itself—a kit that anyone can assemble given time and materials.") (last visited Jan. 15, 2013).

¹⁸ See Emspak, *Scientists Build Self-Replicating Molecule*, *DiscoveryNews*, Oct. 14, 2011, <http://news.discovery.com/tech/scientists-buil-self-replicating-molecule-111014.html>.

cost of \$136 million.¹⁹ Thus, it is particularly important in this area that innovators have sufficient incentive to invent. The rule petitioner seeks would jeopardize the fundamental purpose of the patent system.

II. A PATENTEE MAY CONVEY LIMITED RIGHTS TO LICENSEES AND PURCHASERS

As explained above (and as the Federal Circuit correctly held, *see* Pet. App. 14a), this case should be resolved on the ground that Monsanto's rights in the soybeans petitioner grew were not exhausted: Those soybeans had never been sold, and patent exhaustion does not authorize making new articles. As the United States agrees (Br. 32), the Court therefore need not reach any of petitioner's contentions that Monsanto's rights in *prior* generations of soybeans were exhausted, either because Monsanto authorized farmers to sell harvested soybeans to grain elevators as commodities, or because farmers purchased soybean seeds from seed dealers in authorized sales.²⁰

Should the Court deem such a determination necessary, however, it should conclude that Monsanto's pa-

¹⁹ *See* CropLife International, *Study: Cost of Bringing a Biotech Crop to Market*, <http://www.croplife.org/PhillipsMcDougallStudy> (last visited Jan. 15, 2013).

²⁰ Nor is analysis of Monsanto's patent rights in the grain elevator soybeans possible on the record petitioner developed. As petitioner recognizes (*e.g.*, Br. 9), exhaustion is an affirmative defense, which means he bears the burden of proof, *see Fuji Photo Film Co. v. ITC*, 474 F.3d 1281, 1293-1294 (Fed. Cir. 2007). But petitioner offered no evidence about whether the soybeans he obtained from the grain elevator had previously been sold in a sale Monsanto authorized. Response to Request for Admission, No. 1, Dkt. No. 41 (S.D. Ind.) (conceding that he "do[es] not know the origin of the[] [soy]beans"); *see also* JA83a, 163a, 167a.

tent rights in the prior generations of seeds were not exhausted and affirm the judgment on that alternative basis. Monsanto issued a limited license in its technology to farmers who acquired Roundup Ready® seeds in authorized sales. That license withheld any right to plant harvested soybeans, and the price of that license reflected its limited scope. This Court’s decisions make clear that a patentee may limit its licensees’ rights to use its invention, and that those restrictions are not *per se* unenforceable merely because the licensee subsequently sells an article embodying that invention to a third party. *See Mitchell*, 83 U.S. (16 Wall.) at 548; *General Talking Pictures Corp. v. Western Electric Co.*, 304 U.S. 175, 181 (1938). Accordingly, petitioner never acquired the right to use the soybeans he purchased from the grain elevator to grow a new crop and he infringed when he did so.

A. A Patentee May License Limited Rights To Make, Use, And Sell The Patented Invention

The fundamental difficulty with petitioner’s argument is that it fails to address Monsanto’s license arrangements with farmers and seed companies. All farmers who purchase Roundup Ready® seeds in an authorized sale have separately entered into a “Technology Agreement” license to limited rights. Specifically, that Agreement authorizes the use of Roundup Ready® technology solely for growing one commercial crop of soybeans. Monsanto has never licensed any farmer to make multiple seasons’ use of its Roundup Ready® technology by planting harvested soybeans. Instead, the Monsanto Technology Agreement expressly states that it does not authorize farmers to “save any crop produced from the seed for replanting, or supply saved seed to anyone for replanting”—the very rights

at issue in this case. JA40a; *see also* JA29a, 126a-127a. For these license rights, Monsanto receives a royalty that is trivial in comparison to the value of using Roundup Ready® technology in nearly unlimited quantities of soybean seeds for the life of its patents.²¹

This Court has long held that patent rights are divisible and that patent owners may license some rights while withholding others. *See Adams*, 84 U.S. (17 Wall.) at 456. Seventy years ago, “[t]he practice of granting licenses for a restricted use” was already “an old one.” *General Talking Pictures Corp. v. Western Electric Co.*, 305 U.S. 124, 127 (1938). Then, as now, the legality of that practice “has never been questioned.” *Id.*; *see also General Electric*, 272 U.S. at 490; *E. Bement & Sons v. National Harrow Co.*, 186 U.S. 70, 91 (1902); *Mitchell*, 83 U.S. (16 Wall.) at 548; *Rubber Co. v. Goodyear*, 76 U.S. (9 Wall.) 788, 799 (1870). Accordingly, “with few exceptions” courts will enforce “any condition[.]” in a license granting “the right to manufacture or use or sell [a patented] article.” *E. Bement & Sons*, 186 U.S. at 91 (emphasis added); *see also General Elec-*

²¹ Petitioner argues (Br. 29-31) that farmers are not licensees because they are purchasers. This is an incorrectly formalistic analysis. Farmers are both purchasers and licensees. They purchase soybean seeds, which they then use to “make” new patented articles under the authority of their license. Monsanto is paid a license fee each time a farmer obtains these rights, whether or not Monsanto sells the soybean seeds. Moreover, unlike the transactions in the cases petitioner cites, the sale of Roundup Ready® soybeans is “a qualified sale for less than value for limited use.” *Bauer*, 229 U.S. at 16 (cited in Pet. Br. 30). Where a transaction is, in fact, a sale for full value, courts must treat it as such whether it is termed a sale or a license. But Monsanto plainly does not receive full value for its invention when the first authorized sale of Roundup Ready® seeds to a farmer is made. *See* pp. 44-45, *infra*.

tric, 272 U.S. at 489 (a patent owner may grant a license “upon *any* condition the performance of which is reasonably within the reward which the patentee by the grant of the patent is entitled to secure” (emphasis added)). Petitioner *agrees* that such limited licenses are well-accepted and that activity outside of the license grant can be remedied through an infringement action. Br. 26 (“Where a patentee licenses someone else to make patented products, the patentee may retain rights under the patent to control the terms upon which the products are sold.”).

A license defines the boundaries of a licensee’s rights. A licensee may, for example, obtain the right “to make and use the patented articles but [not the] right to sell them.” *General Electric*, 272 U.S. at 490. Such a licensee “acquires an interest in the articles made”—he owns and may use the objects themselves— “[b]ut if he sells them he infringes the right of the patentee, and may be held for damages and enjoined.” *Id.*; see also, e.g., *Cole v. Hughes Tool Co.*, 215 F.2d 924 (10th Cir. 1954) (describing patentee’s practice of manufacturing and leasing patented drill bits).

The license likewise limits the rights a licensee can convey to others; just as a licensee may not exceed its own authorization from the patentee, it also may not authorize another party to exceed that authority. See *Mitchell*, 83 U.S. (16 Wall.) at 548; see *General Talking Pictures*, 304 U.S. at 181 (holding that the licensee “could not convey to petitioner what both knew it was not authorized to sell”). Thus because no grower was ever licensed the right to plant, or to authorize others to plant, harvested soybeans, no grower was ever in a position to transfer that right to petitioner—whether petitioner obtained the soybeans he planted from a

grain elevator, a neighboring farmer, or his own harvest.

B. This Court Has Never Held That A Sale *Per Se* Renders Unenforceable Reasonable Restrictions Imposed By A License

Petitioner does not challenge the particular restrictions Monsanto places on use of its patent technology or Monsanto's right to impose use, making, and sale restrictions on its licensees. Instead, he argues broadly (Br. 13, 26-28) that a patentee cannot enforce any such restrictions through an infringement action if the license is accompanied or followed by an authorized sale. Thus, petitioner argues, because Monsanto and licensed seed companies sold Roundup Ready® seeds to licensed farmers, and because Monsanto authorized those farmers to sell their harvest to grain elevators as a commodity, Monsanto's patent rights with respect to petitioner's use of the soybeans purchased from the grain elevator are exhausted. According to petitioner, these sales provided him greater rights in those soybeans than the licensee-farmer who sold them to the grain elevator had the right to convey.²² That is incorrect.

1. This Court's decisions do not establish any such *per se* rule against enforcing reasonable conditions following a sale. To the contrary, the Court has made

²² Petitioner cannot establish that the elevator's sale of soybeans *to him* was authorized by Monsanto. Monsanto has no contractual relationship with grain elevators and does not authorize elevators to do anything with its technology. Nor is there any reason to believe Monsanto would authorize grain elevators to sell soybeans to growers for use as seed, because federal and state laws effectively prohibit grain elevators from selling commingled soybeans for use as seed. *See* n.6, *supra*.

clear that a patentee may commercialize its invention by authorizing certain use rights and not others, even when there has been a sale of the article embodying the invention. *See, e.g., Mitchell*, 83 U.S. (16 Wall.) at 548 (exhaustion is triggered “where the sale is absolute, and *without any conditions*” (emphasis added)); *Keeler* 157 U.S. at 663 (“[W]hen [a patent owner] has himself constructed a machine and sold it *without any conditions*” the owner’s rights in the machine are exhausted. (emphasis added)).

In *Mitchell*, a patent owner, Taylor, granted an exclusive license to Bayley to make, use, and license others to make and use a patented hat-felting machine in Massachusetts and New Hampshire. 83 U.S. (16 Wall.) at 548-549. The license expressly provided that “the licensee ‘*shall not, in any way, or form, dispose of, sell, or grant, any license to use the said machines beyond the expiration*’ of the original [patent] term.” *Id.* at 549. Bayley “*sold* [four] machines” to Mitchell and gave him a license to “run and use” the machines in Haverhill, Massachusetts, without any other restrictions or conditions. *Id.* (emphasis added). After the patent was extended for a further term, Mitchell continued to use the machines, thus exceeding the rights that the patent owner had licensed Bayley to convey. *Id.*

The Court concluded that Mitchell’s extended-term use was infringement. Because Bayley (the licensee) had never obtained the right to authorize use beyond the end of the original patent term, he could not pass that right on to Mitchell (the purchaser). “[H]owever innocent [he] may [have] be[en],” Mitchell had no right to continue using the machine and had therefore in-

fringed when he did so. *Mitchell*, 83 U.S. (16 Wall.) at 550.²³

The Court reached a similar conclusion in *General Talking Pictures*. That case arose after a licensee made and sold a patented amplifier for commercial use, even though he had been licensed to make and sell amplifiers only for private use. In an infringement suit brought against the purchaser, this Court held that the sale had not exhausted the patent owner's right to exclude the purchaser from using the amplifier commercially. The Court reasoned that the licensee "could not convey to [the purchaser] what both knew it was not authorized to sell." 304 U.S. at 181.

In *American Cotton-Tie*, the patent owner itself made and sold patented metal ties for cotton bales stamped with the statement "Licensed to use once only." 106 U.S. at 91. That condition "was deemed of importance by the Court" when it upheld a patent-infringement suit against those who had violated the condition by refurbishing spent ties for reuse. *See Aro*, 365 U.S. at 343 n.9.

This case is materially indistinguishable. Like Bayley in *Mitchell* and the American Transformers Company in *General Talking Pictures*, farmers and inde-

²³ The Court did not, as petitioner contends (Br. 25-26), reach that conclusion because the original sale from Bayley to Mitchell was "unauthorized." Had that been the Court's rationale then it would have held, which it did not, that Mitchell's infringement began as soon as he started to use the machines during the original patent term. To the contrary, the Court framed the question before it as whether Mitchell and his partners were "authorized to continue to use the four machines just the same under the extended letters-patent *as they had the right to do* under the original patent, when the purchase was made." 83 U.S. at 549 (emphasis added).

pendent seed companies make new patented articles under licenses that limit the use of those articles, even after a sale. Just as the licensees in those cases could not transfer—and their purchasers could not acquire—rights the licenses themselves did not authorize, farmers and independent seed companies could not have conveyed to downstream purchasers, like the grain elevator and petitioner, rights expressly withheld in their licenses with Monsanto.²⁴

2. Petitioner tries to dismiss *Mitchell* and the other relevant precedents by arguing (Br. 26) that in the nineteenth century, the word “conditions” always meant something different than it does today. But other courts and commentators at the time understood that a patentee or its licensee could sell a patented product and also transfer to the purchaser fewer than all rights to use the product. For example, relying on *Mitchell*, the court in *Porter Needle Co. v. National Needle Co.* explained that “courts have permitted a severance of ownership and right of use, if the patentee has chosen to dissever them, and if his intent is not doubtful.” 17 F. 536, 537-538 (C.C.D. Mass. 1883), *approvingly cited by General Talking Pictures*, 304 U.S. at 182. Similarly, in *International Pavement Co. v. Richardson*, 75 F. 590, 593 (C.C.E.D. Pa. 1896), the court, relying on *Mitchell*, stated: “The defendant purchased, not the machines by themselves, but the machines in connection with the license which regulated and limited their use. It was one transaction.” The

²⁴ Nor would there be any basis for analyzing restricted sales made by the patentee itself any differently. *See Aro*, 365 U.S. at 343 n.9 (discussing restricted sale by patentee in *American Cotton-Tie*, 106 U.S. at 91). To hold otherwise would be to exalt form over substance.

leading patent law treatise of the late-nineteenth century likewise stated: “Not only may the patentee impose *conditions*, limiting the use of the patented article, upon his grantees and express licensees, but any person having the right to sell may at the time of sale restrict the use of his vendee within specific boundaries of time or place or method[.]” 2 Robinson, *The Law of Patents for Useful Inventions* § 824 (1890) (emphasis added). Indeed, during the era that petitioner and the United States (U.S. Br. 30-31) claim this Court was applying a *per se* rule against the enforcement of any such condition, this Court found exhaustion only in cases involving *unrestricted* sales. See, e.g., *Keeler*, 157 U.S. 659; *Hobbie v. Jennison*, 149 U.S. 355 (1893); *Adams*, 84 U.S. (16 Wall.) 453.²⁵

3. No subsequent decision of this Court has changed that established law. To the contrary, the Court has rendered conditions following a sale unenforceable in only two circumstances: resale price restrictions and tying arrangements. See, e.g., *Univis*, 316 U.S. 241 (fixing resale price); *United States v. Masonite Corp.*, 316 U.S. 265 (1942) (fixing resale price); *Motion Picture Patents Co.*, 243 U.S. 502 (tying arrangement); *Straus v. Victor Talking Mach. Co.*, 243 U.S. 490 (1917) (fixing resale price); *Bauer & Cie v. O'Donnell*, 229 U.S. 1 (1913) (fixing resale price).

The Court rejected these specific conditions because of their anti-competitive effects. In *Motion Pic-*

²⁵ Petitioner makes much (Br. 33) of the fact that the licensee in *Adams* had no right to use the invention more than 10 miles outside Boston. Unlike in *Mitchell* and in this case, however, the licensee in *Adams* had no restrictions on the use rights it could convey to others in a sale, which is why exhaustion applied in that case but does not apply here.

tures Patents, for example, the Court voided a requirement that purchasers of a patented projector show only the patentee's unpatented films because such a requirement would be "[t]he perfect instrument of favoritism and oppression," allowing the patent owner to leverage its monopoly in one field (patented projectors) to obtain a monopoly in another (unpatented film). 243 U.S. at 515; *see also id.* at 517 (pointing to recent passage of the Clayton Act as "confirm[ation]" of the Court's decision). Likewise, in *Strauss*, the Court set aside a license that dictated re-sale prices after concluding that "[t]he scheme of distribution [was] not a system designed to secure ... a reasonable use of [the patented] machines, within the grant of the patent laws, but [was] in substance and in fact a mere price-fixing enterprise." *Id.* at 501. In each of these cases, the Court emphasized these anti-competitive effects.²⁶ "[C]lear[ly] ... [the] practical consequences" of the restrictions disallowed by these cases differ substantially from "those attending restrictions on the time, place or purpose of use." Powell, *The Nature of A Patent Right*, 17 Colum. L. Rev. 663, 685-686 (1917). Contrary to the historical narrative of petitioner and the United States, it thus "seem[ed] clear" to a leading commentator immediately after *Motion Picture Patents* was decided that this Court's decision had "not impugn[ed] the authority of ... earlier decisions sustaining the validity of [such] restrictions." *Id.* That observation remains true today.

²⁶ Later cases are to similar effect. In *Univis*, for example, the Court applied its earlier rule against resale price restrictions to the sale of an incomplete article that is destined to be finished by the purchaser. 316 U.S. 241.

There is no allegation of improper tying, price-fixing, or other anti-competitive conduct here, nor could there be. Monsanto places no restrictions on the price at which licensed seed companies sell their soybeans. Likewise, Monsanto does not tie the right to use Roundup Ready® seeds to the purchase of any other product or technology. And, because Monsanto licenses its Roundup Ready® trait to dozens of other seed manufacturers, farmers can obtain the right to use that trait in combination with other companies' seed varieties.

The United States asserts (Br. 31) that in *Quanta*, the Court “describe[d] the patent-exhaustion doctrine in terms that leave little room for enforcement through patent law of post-sale restrictions on use or resale.” But that ignores “important aspects” of the facts that distinguish *Quanta* from this case. *Quanta*, 553 U.S. at 636. In *Quanta*, the Court found that the relevant license “broadly permitted” Intel to make, use, and sell the patented invention. *Id.* Here, by contrast, farmers’ and seed companies’ rights are expressly limited by the Technology Agreement, which forbids saving harvested soybeans for planting, or transferring those soybeans for others to plant. Under the United States’ argument, the *only* fact that mattered in *Quanta* was that Intel was authorized to make the specific sale it made to Quanta, and (contrary to this Court’s analysis) it did not matter that (1) “[n]othing in the License Agreement restrict[ed] Intel’s right to sell its microprocessors and chipsets to purchasers who intend to combine them with non-Intel parts”; or that (2) “[n]o conditions limited Intel’s authority to sell.” *Id.* at 636-637. But the Court would have had no reason to so thoroughly probe these “important aspects” if all that mattered was whether Intel’s specific sales to Quanta

were authorized—which no party in that case disputed. *Id.* at 636.

C. A *Per Se* Rule Would Ill-Serve The Purposes Of The Patent Act And The Patent Exhaustion Doctrine

1. The *per se* rule that petitioner and the United States urge this Court to adopt would expand patent exhaustion into many contexts ill-suited to its rationale. In explaining the basis for exhaustion, the Court has indicated that the Patent Act’s purpose of providing incentives to innovation is “fulfilled,” *Univis*, 316 U.S. at 251, when a patent owner has “received *all* the royalty or consideration which he claims for the use of his invention,” *Adams*, 84 U.S. (17 Wall.) at 456 (emphasis added). Put another way, “[t]he test” for exhaustion is whether “it may fairly be said that the patentee has received his reward for the use of the article.” *Masonite Corp.*, 316 U.S. at 278. But there are many circumstances in which a patent owner cannot receive an adequate reward for the use of his invention if the first authorized sale of any article embodying that invention renders unenforceable all patent restrictions on its use. This case well illustrates the point.

Farmers who obtain the right to grow a single crop of Roundup Ready® soybeans pay a tiny fraction of what Monsanto would have to charge for the right to make, use, and sell copies of Monsanto’s technology through multiple generations of seeds. *See Monsanto Co. v. Ralph*, 382 F.3d 1374, 1384 (Fed. Cir. 2004). Because farmers can readily reproduce plants containing the Roundup Ready® trait—and in the case of soybeans, can create millions of copies within a few years—Monsanto would quickly lose the ability to commercialize its invention if it were not able to limit

reproduction. To recover its investment absent such restrictions, Monsanto would have to charge farmers who purchased the first generation of soybeans an astronomical sum. That result would be both undesirable and impracticable; in all likelihood, Monsanto would be unable to bring its invention to market.²⁷

But under the Federal Circuit's correct application of patent exhaustion principles, Monsanto is able to recover its investment by charging grower-licensees a reasonable fee each time they use the invention in an authorized way—*i.e.*, each time they make an authorized retail purchase of Roundup Ready® seeds to produce a commercial crop. This licensing program, under which Monsanto can recover its investment across multiple transactions, allows Monsanto to make use of its invention affordable. *Cf. Mitchell*, 83 U.S. (16 Wall.) 544 (permitting patent owner to obtain his reward in two installments, one for the original patent term, and the second for the extended term). But unlike in *Quanta*, it does not lead to Monsanto being paid twice for the *same* right.

Requiring a patent owner, in every case, to charge in a single transaction the amount necessary to compensate for all patent rights would eliminate beneficial uses for many inventions. Few customers need, and fewer could afford, unlimited rights in a patented prod-

²⁷ Furthermore, if petitioner's rule were adopted, then not only every farmer, but also every seed company could reproduce Monsanto's biotechnology without limitation. Once a seed company possessed even a single "exhausted" soybean containing the Roundup Ready® trait, it could massively reproduce that trait without making any further payment to Monsanto and could bring seeds containing the trait to market without the need to recoup Monsanto's research and development costs.

uct like those at issue here. If patentees are not able to authorize sales transferring fewer than all patent rights at a reduced price, then customers will have to pay for rights they do not need and in many instances will be priced out of the market entirely. Customers may desire, for example, to make only research use of a product and not to commercialize it themselves; petitioner's proposal would prevent such an arrangement from being given effect under the patent laws whenever the product was sold to such customers—which, especially in the case of products like seeds and bacteria that are consumed in their intended use, may be the only feasible way that the product can be transferred. Curtailing patent owners' licensing flexibility could well prevent inventors from developing or commercializing their inventions entirely. Undoubtedly, that is the decision that inventors investigating other readily replicable technologies will make if petitioner's arguments are accepted.

2. This case presents a particularly forceful context for concluding that the sale of an item embodying a patented invention does not *per se* eliminate the patentee's right to limit its licensees' use of that item. For more traditional technologies, the patentee can license use of the patented invention without any transfer of title by leasing a patented article or licensing manufacture from unpatented raw materials without authorizing sale. But the *only* practical way to commercially license Monsanto's patented invention is to convey it in crop seeds to farmers. These vehicles for delivering the patented technology to licensees are fully consumed when used; they cannot be leased or rented because Monsanto could not require return of those articles upon completion of the licensed use. Likewise, Monsanto cannot provide a bare license to make the pa-

tented invention because, as a practical matter, soybean seeds containing the patented technology can be produced only through propagation and cross-breeding of a seed that already contains the patented invention. That Monsanto *must* accompany each license for a farmer to manufacture the patented technology with a sale of seeds that will be consumed when planted should not convert a limited license to use the technology to grow one commercial crop into a blanket authorization to become a direct competitor of Monsanto.

Monsanto's authorization to farmers to sell their crop to soybean consumers likewise does not, as petitioner would have it, convert the limited license of the Technology Agreement into an unrestricted license for customer use, such as was at issue in *Quanta* or *Adams*. Because of the nature of the patented technology, the farmer *must* be permitted to sell his crop for consumption to benefit from his licensed use rights. Not allowing him to do so would defeat the purpose of his license. But unlike the farmer, the farmer's authorized customers (consumers of soybeans) are not paying for—and have no use for—the trait that allows soybeans to tolerate glyphosate.²⁸ The farmer is thus wholly unlike Intel and Lockhart & Seeyle in *Quanta* and *Adams*, respectively. The farmer took his license from Monsanto because he wanted to benefit from *his own use* of the invention. By contrast, Intel and Lockhart & Seeyle took a license not because they would benefit themselves by using it, but because they want-

²⁸ As petitioner notes (Br. 5, 32), no distinction (price or otherwise) is made between soybeans containing Roundup Ready® technology and conventional soybeans when they are sold for consumption purposes rather than as seed. To the consumer, there is no difference.

ed to sell a product with which *their customers would use* the invention. There is no sound reason to treat these two completely different licenses identically under the patent exhaustion doctrine.

3. Petitioner’s proposal would give parties an incentive to engage in inefficient, pretextual transactions solely to extinguish patent rights. *See Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700, 705 (Fed. Cir. 1992).²⁹ For example, petitioner evidently would accept that a company that purchased a license to “use and sell for research purposes only” a patented therapeutic antibody-producing hybrid cell line would infringe the patent if it then made commercial sales of the antibodies that the cell line produced; that commercial use of the antibody would exceed the scope of the limited license. But, under petitioner’s submission, if the laboratory were to sell that cell line to a third party, and its customer then used the cell line to make antibodies for commercial sale, the customer would not be infringing the patent. That result makes little sense, as neither the licensee nor its customer would have ever paid the patentee for rights to use the patented cell line for commercial purposes. Moreover, the laboratory could

²⁹ Petitioner and the United States overstate the holding in *Mallinckrodt*. The Federal Circuit held that a patentee’s right to exclude “may be waived in whole or in part,” and correctly noted that no decision of this Court has ever held that all restrictions accompanying the sale of patented goods are *per se* unenforceable. *Mallinckrodt*, 976 F.2d at 703-704. The Federal Circuit, however, did not hold in *Mallinckrodt* that all conditions imposed by a patentee prevent application of the patent exhaustion doctrine—or even that the specific condition imposed in that case did so. It merely held that the district court erred by holding “that no condition can be placed on the sale of patented goods, for any reason.” *Id.* at 708. It remanded the case to the district court for further proceedings. *Id.* at 709.

then obtain for itself the right to make antibodies for commercial use by reacquiring the patented cell line back from its customer, again without paying the patentee anything for those rights.

It is not difficult to see how such pretextual transactions would develop in this context. Petitioner understood that his license from Monsanto prohibited him from saving his own harvested soybeans for planting. *See* JA21a-22a, JA158a-159a. But if he is correct that a farmer's sale of harvested soybeans to a grain elevator exhausts Monsanto's patent rights in those soybeans, then petitioner could sell his harvested soybeans to the elevator and at the same time buy back soybeans for planting in the next season. Or, he could arrange for another farmer to sell his harvested soybeans to the elevator and then buy some of those soybeans from the elevator for replanting—even though, under the Technology Agreement, he plainly would not be authorized to plant soybeans that he purchased directly from another grower. The patent exhaustion doctrine was never intended to be an engine of gamesmanship.

4. Petitioner argues (Br. 44) that a *per se* rule would “comport[] with the strong and longstanding policy against restraints on the alienation of personal property.” But patent rights *always* act as a restraint on alienation of personal property, as it is always an act of infringement to “sell” an article that embodies another's patent rights without authorization. 35 U.S.C. § 271(a); *cf. Asgrow*, 513 U.S. at 188 n.3 (“Applying the rule disfavoring restraints on alienation to interpretation of the PVPA is rather like applying the rule disfavoring restraints upon freedom of contract to interpre-

tation of the Sherman Act.”).³⁰ Moreover, the regime petitioner proposes would not eliminate restraints: as petitioner observes, even if his position were adopted, Monsanto could still place limits through complex contractual arrangements. *See* Br. 55-56 (“Monsanto could legally require farmers who buy first-generation Roundup Ready® seeds to sell progeny seeds only to grain elevators that agree to obtain promises from purchasers of the progeny seed not to plant them.”); *id.* 26 (“Conditions in a license agreement may be enforced by patent law where restrictions on authorized purchasers cannot be so enforced.” (capitalization altered)).

* * *

Experience has shown that there may be many circumstances in which patentees desire to offer, and licensees desire to acquire, less than the full set of rights to use a patented invention, even when the most or only feasible way to commercialize the invention includes a sale of an article embodying it. This case presents exactly such a circumstance. Monsanto could not, as a practical matter, commercialize its invention except by (a) authorizing seeds containing that technology to be sold to farmers, and (b) offering farmers a limited license to use those seeds to make and sell progeny soy-

³⁰ Recent decisions of this Court in a related context have given less weight to “the common-law rule against restraints on alienation” and overruled precedents that had relied on that rule. *Leegin Creative Leather Prods., Inc. v. PSKS, Inc.*, 551 U.S. 877, 887-888 (2007) (overruling *Dr. Miles Med. Co. v. John D. Parke & Sons Co.*, 220 U.S. 373 (1911)); *see also Continental T.V. Inc. v. GTE Sylvania, Inc.*, 433 U.S. 36, 53 n.21 (1977) (overruling *United States v. Arnold, Schwinn & Co.*, 388 U.S. 365 (1967)). As in *Leegin* and *Continental T.V.*, so too here the Court “should be cautious about putting dispositive weight on doctrines from antiquity but of slight relevance.” *Leegin*, 551 U.S. at 888.

beans. This Court's precedents do not forbid such arrangements from being given effect under the patent laws, nor do the patent laws require Monsanto and farmers to abandon such a mutually beneficial relationship.

III. CONTRACTUAL REMEDIES ALONE ARE INADEQUATE TO ENCOURAGE INNOVATION IN READILY REPLICABLE TECHNOLOGIES

Without the prospect of meaningful patent protection, Monsanto and other companies would have little reason to "risk the often enormous costs in terms of time, research, and development" necessary to develop technologies such as those at issue in this case. *Kewanee Oil Co. v. Bicron Corp.*, 416 U.S. 470, 480 (1974). Petitioner and certain amici argue that Monsanto and others could use contracts to protect their investments equally well. *See* Pet. Br. 55-57; American Antitrust Institute Br. 20-36; CFS Br. 25-26. They are wrong for several reasons.

First, contrary to his suggestion (Br. 55-56) that Monsanto could maintain control of its patented technology simply by signing contracts with grain elevators,³¹ under petitioner's theory, Monsanto would have to complete the impossible task of establishing contractual privity with *every* person who might try to misappropriate its patented technology. Otherwise, anyone not in privity with Monsanto who obtained even a single soybean descended from a Roundup Ready® seed

³¹ The premise of even that assertion is not self-evidently correct: Monsanto has no direct relationship with grain elevators in the process of bringing harvested soybeans to market, and there is no clear reason why a grain elevator would believe itself obligated to sign such a contract with Monsanto.

purchased in an authorized sale could cultivate an unlimited number of soybeans containing Monsanto's patented technology without ever having to pay Monsanto. Such a soybean could be purchased from another grower or a grain elevator, plucked from a field or road, or snatched off the back of a truck. Monsanto could never identify, let alone enter into a contract with, every such individual. Even the growers and seed companies that currently contract with Monsanto would have no reason to continue those contracts given how easy it would be to obtain a single "exhausted" soybean that would eliminate the need to pay any royalties to Monsanto.³²

Second, contractual remedies against breaching parties would be grossly inadequate to address the harm caused by a breach. If, for example, a grower breached his Technology Agreement by selling his harvest to twenty-five neighbors, any injunction Monsanto could obtain against the grower who breached would do nothing to prevent the neighbors from making unlimited copies of the technology. And Monsanto would be unable to obtain a contract-based injunction against the neighbors' replication of soybeans embodying the invention. *Cf. eBay Inc. v. Mercexchange, LLC*, 547 U.S. 388, 395 (2006) (Roberts, C.J., concurring) ("This 'long tradition of [granting injunctive relief for patent infringement]' is not surprising, given the difficulty of protecting a right to *exclude* through monetary remedies that allow an infringer to *use* an invention against a patentee's wishes[.]"). Nor is it likely that a contract damages award would fully account for any injury

³² For this reason, petitioner's contention (Br. 57) that commodity soybeans would not compete with first-generation Round-up Ready® seed is incorrect.

caused by the neighbors. Monsanto would likely be able to recover damages for lost sales directly attributable to unauthorized sale by the grower (the breaching party). But Monsanto might not be able to recover damages for lost sales caused by the neighbors' unauthorized replication of the invention because of the difficulty of "establishing" those damages "with reasonable certainty," *Restatement (Second) Contracts* § 352 (1981), and of showing that the full extent of those damages were reasonably foreseeable to the breaching party, *id.* § 351.³³ And even if Monsanto were able to prove such damages, no breaching party—not even the largest seed company—could afford to compensate Monsanto for the lost sales of Roundup Ready® seeds caused by numerous other parties' unlimited replication of the invention.

Third, for Monsanto to even attempt to establish a wholly contract-based enforcement regime would require an enormous web of contracts.³⁴ Petitioner pro-

³³ As the court explained in *Monsanto Co. v. McFarling*, 363 F.3d 1336, 1348-1349 (Fed. Cir. 2004):

Proof of loss is of course substantially more difficult when the breaching farmer supplies or sell the seed to another farmer in violation of the agreement. If a farmer transfers seed to a third-party for replant, Monsanto not only has no privity of contract with the purchasers, but it also faces difficulty tracing the seed, locating and deposing the individuals who purchased it, and thus determining the amount of harm caused by the breach. In this situation, the difficulty of proof of loss would be considerable.

³⁴ Petitioner's amici suggest that Monsanto chose to market Roundup Ready® soybeans in other countries relying on contract, rather than patent, rights. CFS Br. 26-27. That is incorrect. Monsanto does not market Roundup Ready® soybeans at all in Great Britain. Monsanto established its royalty collection system

poses (Br. 55-56) that Monsanto require licensed farmers to sell only to grain elevators that separately contract with Monsanto. Presumably, petitioner imagines that those contracts would in turn permit sales only to parties that have also contracted with Monsanto. And so on, until every potential user of Monsanto's patented technology has signed a Monsanto contract. The transaction costs, and disutility, of such an approach would be immense.

In sum, petitioner's position would not simply move Monsanto from one legal regime (patent law) to another (contract law). It would remove Monsanto's technology from effective legal protection entirely.³⁵ And it would

in Brazil on the basis of patent rights it held there, and which Monsanto continues to seek to enforce. In Argentina, Monsanto's patents were nullified (along with numerous other similar patents from other companies) by the Argentine courts. As a result, the technology rapidly spread through piracy. Monsanto repeatedly sought to implement a contract-based model for royalty collections, all without success. Indeed, the source cited by petitioner's amici itself states: "[a]s can be expected, monitoring of these private contracts is not easy and they do not substitute [for intellectual property] law." See Campi, *Innovation and Intellectual Property Rights. The Case of Soybean Seeds in Argentina and the U.S.*, <http://www.ungs.edu.ar/globelics/wp-content/uploads/2011/12/ID-140-Campi-Privatization-of-Knowledge-Intellectual-Property-Right.pdf> (cited by CFS Br. 26).

³⁵ The suggestion that Monsanto could protect Roundup Ready® technology with a PVPA certificate (CFS Br. 26) is misplaced because a PVPA certificate could not be issued on the Roundup Ready® technology; PVPA certificates are limited to specific plant varieties. 7 U.S.C. § 2402. Further, the "research exception" to infringement under the PVPA, *id.* § 2544, permits the purchaser of a plant covered by a PVPA certificate to cross-breed it with other plants to develop new plant varieties which can be grown and sold without violating the PVPA. See also *id.* § 2483(a)(1).

similarly deny protection to other inventors who are seeking to develop revolutionary technological advances.

CONCLUSION

The judgment of the court of appeals should be affirmed.

Respectfully submitted.

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