

# SUPPLEMENT\*

## CHAPTER 2

### NOVELTY

#### **Helsinn Healthcare S.A. v. Teva Pharmaceuticals USA, Inc. 139 S. Ct. 628 (2019)**

■ JUSTICE THOMAS delivered the opinion of the Court.

The Leahy-Smith America Invents Act (AIA) bars a person from receiving a patent on an invention that was “in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention.” 35 U.S.C. §102(a)(1). This case requires us to decide whether the sale of an invention to a third party who is contractually obligated to keep the invention confidential places the invention “on sale” within the meaning of §102(a).

More than 20 years ago, this Court determined that an invention was “on sale” within the meaning of an earlier version of §102(a) when it was “the subject of a commercial offer for sale” and “ready for patenting.” *Pfaff v. Wells Electronics, Inc.*, 525 U.S. 55, 67 (1998). We did not further require that the sale make the details of the invention available to the public. In light of this earlier construction, we determine that the reenactment of the phrase “on sale” in the AIA did not alter this meaning. Accordingly, a commercial sale to a third party who is required to keep the invention confidential may place the invention “on sale” under the AIA.

#### I

Petitioner Helsinn Healthcare S. A. (Helsinn) is a Swiss pharmaceutical company that makes Aloxi, a drug that treats chemotherapy-induced nausea and vomiting. Helsinn acquired the right to develop palonosetron, the active ingredient in Aloxi, in 1998. In early 2000, it submitted protocols for Phase III clinical trials to the Food and Drug Administration (FDA), proposing to study

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\* John Golden thanks the Notre Dame Institute for Advanced Study and Notre Dame Technology Ethics Center for support during the time that the 2022 Teacher’s Manual and Supplement were completed.

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a 0.25 mg and a 0.75 mg dose of palonosetron. In September 2000, Helsinn announced that it was beginning Phase III clinical trials and was seeking marketing partners for its palonosetron product.

Helsinn found its marketing partner in MGI Pharma, Inc. (MGI), a Minnesota pharmaceutical company that markets and distributes drugs in the United States. Helsinn and MGI entered into two agreements: a license agreement and a supply and purchase agreement. The license agreement granted MGI the right to distribute, promote, market, and sell the 0.25 mg and 0.75 mg doses of palonosetron in the United States. In return, MGI agreed to make upfront payments to Helsinn and to pay future royalties on distribution of those doses. Under the supply and purchase agreement, MGI agreed to purchase exclusively from Helsinn any palonosetron product approved by the FDA. Helsinn in turn agreed to supply MGI however much of the approved doses it required. Both agreements included dosage information and required MGI to keep confidential any proprietary information received under the agreements.

Helsinn and MGI announced the agreements in a joint press release, and MGI also reported the agreements in its Form 8-K filing with the Securities and Exchange Commission. Although the 8-K filing included redacted copies of the agreements, neither the 8-K filing nor the press releases disclosed the specific dosage formulations covered by the agreements.

On January 30, 2003, nearly two years after Helsinn and MGI entered into the agreements, Helsinn filed a provisional patent application covering the 0.25 mg and 0.75 mg doses of palonosetron. Over the next 10 years, Helsinn filed four patent applications that claimed priority to the January 30, 2003, date of the provisional application. Helsinn filed its fourth patent application—the one relevant here—in May 2013, and it issued as U.S. Patent No. 8,598,219 ('219 patent). The '219 patent covers a fixed dose of 0.25 mg of palonosetron in a 5 ml solution. By virtue of its effective date, the '219 patent is governed by the AIA. See §101(i).

Respondents Teva Pharmaceutical Industries, Ltd., and Teva Pharmaceuticals USA, Inc. (Teva), are, respectively, an Israeli company that manufactures generic drugs and its American affiliate. In 2011, Teva sought approval from the FDA to market a generic 0.25 mg palonosetron product. Helsinn then sued Teva for infringing its patents, including the '219 patent. In defense, Teva asserted that the '219 patent was invalid because the 0.25 mg dose was “on sale” more than one year before Helsinn filed the provisional patent application covering that dose in January 2003.

The AIA precludes a person from obtaining a patent on an invention that was “on sale” before the effective filing date of the patent application:

“A person shall be entitled to a patent unless . . . the claimed invention was patented, described in a printed publication, or in public use, *on sale*, or

otherwise available to the public before the effective filing date of the claimed invention.” 35 U.S.C. §102(a)(1) (emphasis added).

See also §102(b)(1) (exception for certain disclosures made within a year before the effective filing date). Disclosures described in §102(a)(1) are often referred to as “prior art.”

The patent statute in effect before the passage of the AIA included a similar proscription, known as the “on-sale bar”:

“A person shall be entitled to a patent unless—

“(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

“(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or *on sale* in this country, more than one year prior to the date of the application for patent in the United States.”

35 U.S.C. §§102(a)-(b) (2006 ed.) (emphasis added).

The District Court determined that the “on sale” provision did not apply. It concluded that, under the AIA, an invention is not “on sale” unless the sale or offer in question made the claimed invention available to the public. *Helsinn Healthcare S. A. v. Dr. Reddy’s Labs. Ltd.*, 2016 WL 832089, \*45, \*51 (DNJ, Mar. 3, 2016). Because the companies’ public disclosure of the agreements between Helsinn and MGI did not disclose the 0.25 mg dose, the court determined that the invention was not “on sale” before the critical date. *Id.*, at \*51–\*52.

The Federal Circuit reversed. 855 F. 3d 1356, 1360 (2017). It concluded that “if the existence of the sale is public, the details of the invention need not be publicly disclosed in the terms of sale” to fall within the AIA’s on-sale bar. *Id.*, at 1371. Because the sale between Helsinn and MGI was publicly disclosed, it held that the on-sale bar applied. *Id.*, at 1364, 1371.

We granted certiorari to determine whether, under the AIA, an inventor’s sale of an invention to a third party who is obligated to keep the invention confidential qualifies as prior art for purposes of determining the patentability of the invention. 585 U.S. \_\_\_\_ (2018). We conclude that such a sale can qualify as prior art.

## II

### A

The United States Constitution authorizes Congress “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” Art. 1, §8, cl. 8. Under this grant of authority, Congress has crafted a federal patent system that encourages “the creation and disclosure of new, useful,

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and nonobvious advances in technology and design” by granting inventors “the exclusive right to practice the invention for a period of years.” *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 151 (1989).

To further the goal of “motivating innovation and enlightenment” while also “avoiding monopolies that unnecessarily stifle competition,” *Pfaff*, 525 U.S., at 63, Congress has imposed several conditions on the “limited opportunity to obtain a property right in an idea,” *Bonito Boats, supra*, at 149. One such condition is the on-sale bar, which reflects Congress’ “reluctance to allow an inventor to remove existing knowledge from public use” by obtaining a patent covering that knowledge. *Pfaff, supra*, at 64; see also *Pennock v. Dialogue*, 2 Pet. 1, 19 (1829) (explaining that “it would materially retard the progress of science and the useful arts” to allow an inventor to “sell his invention publicly” and later “take out a patent” and “exclude the public from any farther use than what should be derived under it”).

Every patent statute since 1836 has included an on-sale bar. *Pfaff, supra*, at 65. The patent statute in force immediately before the AIA prevented a person from receiving a patent if, “more than one year prior to the date of the application for patent in the United States,” “the invention was . . . on sale” in the United States. 35 U.S.C. §102(b) (2006 ed., Supp. IV). The AIA, as relevant here, retained the on-sale bar and added the catchall phrase “or otherwise available to the public.” §102(a)(1) (2012 ed.) (“A person shall be entitled to a patent unless” the “claimed invention was . . . in public use, on sale, or otherwise available to the public. . .”). We must decide whether these changes altered the meaning of the “on sale” bar. We hold that they did not.

### B

Congress enacted the AIA in 2011 against the backdrop of a substantial body of law interpreting §102’s on-sale bar. In 1998, we determined that the pre-AIA on-sale bar applies “when two conditions are satisfied” more than a year before an inventor files a patent application. *Pfaff*, 525 U.S., at 67. “First, the product must be the subject of a commercial offer for sale.” *Ibid.* “Second, the invention must be ready for patenting,” which we explained could be shown by proof of “reduction to practice” or “drawings or other descriptions of the invention that were sufficiently specific to enable a person skilled in the art to practice the invention.” *Id.*, at 67-68.

Although this Court has never addressed the precise question presented in this case, our precedents suggest that a sale or offer of sale need not make an invention available to the public. For instance, we held in *Pfaff* that an offer for sale could cause an inventor to lose the right to patent, without regard to whether the offer discloses each detail of the invention. *E.g., id.*, at 67. Other cases focus on whether the invention had been sold, not whether the details of the invention had been made available to the public or whether the sale itself had been publicly disclosed. *E.g., Consolidated Fruit-Jar Co. v. Wright*, 94

U.S. 92, 94 (1877) (“[A] single instance of sale or of use by the patentee may, under the circumstances, be fatal to the patent. . .”); cf. *Smith & Griggs Mfg. Co. v. Sprague*, 123 U.S. 249, 257 (1887) (“A single sale to another . . . would certainly have defeated his right to a patent. . .”); *Elizabeth v. Pavement Co.*, 97 U.S. 126, 136 (1878) (“It is not a public knowledge of his invention that precludes the inventor from obtaining a patent for it, but a public use or sale of it”).

The Federal Circuit—which has “exclusive jurisdiction” over patent appeals, 28 U.S.C. §1295(a)—has made explicit what was implicit in our precedents. It has long held that “secret sales” can invalidate a patent. *E.g.*, *Special Devices, Inc. v. OEA, Inc.*, 270 F. 3d 1353, 1357 (2001) (invalidating patent claims based on “sales for the purpose of the commercial stockpiling of an invention” that “took place in secret”); *Woodland Trust v. Flowertree Nursery, Inc.*, 148 F. 3d 1368, 1370 (1998) (“Thus an inventor’s own prior commercial use, albeit kept secret, may constitute a public use or sale under §102(b), barring him from obtaining a patent”).

In light of this settled pre-AIA precedent on the meaning of “on sale,” we presume that when Congress reenacted the same language in the AIA, it adopted the earlier judicial construction of that phrase. See *Shapiro v. United States*, 335 U.S. 1, 16 (1948) (“In adopting the language used in the earlier act, Congress ‘must be considered to have adopted also the construction given by this Court to such language, and made it a part of the enactment’”). The new §102 retained the exact language used in its predecessor statute (“on sale”) and, as relevant here, added only a new catchall clause (“or otherwise available to the public”). As *amicus* United States noted at oral argument, if “on sale” had a settled meaning before the AIA was adopted, then adding the phrase “or otherwise available to the public” to the statute “would be a fairly oblique way of attempting to overturn” that “settled body of law.” Tr. of Oral Arg. 28. The addition of “or otherwise available to the public” is simply not enough of a change for us to conclude that Congress intended to alter the meaning of the reenacted term “on sale.” Cf. *Holder v. Martinez Gutierrez*, 566 U.S. 583, 593 (2012) (determining that a reenacted provision did not ratify an earlier judicial construction where the provision omitted the word on which the prior judicial constructions were based).

Helsinn disagrees, arguing that our construction reads “otherwise” out of the statute. Citing *Paroline v. United States*, 572 U.S. 434 (2014), and *Federal Maritime Comm’n v. Seatrain Lines, Inc.*, 411 U.S. 726 (1973), Helsinn contends that the associated-words canon requires us to read “otherwise available to the public” to limit the preceding terms in §102 to disclosures that make the claimed invention available to the public.

As an initial matter, neither of the cited decisions addresses the reenactment of terms that had acquired a well-settled judicial interpretation. And Helsinn’s argument places too much weight on §102’s catchall phrase. Like

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other such phrases, “otherwise available to the public” captures material that does not fit neatly into the statute’s enumerated categories but is nevertheless meant to be covered. Given that the phrase “on sale” had acquired a well-settled meaning when the AIA was enacted, we decline to read the addition of a broad catchall phrase to upset that body of precedent.

### III

Helsinn does not ask us to revisit our pre-AIA interpretation of the on-sale bar. Nor does it dispute the Federal Circuit’s determination that the invention claimed in the ’219 patent was “on sale” within the meaning of the pre-AIA statute. Because we determine that Congress did not alter the meaning of “on sale” when it enacted the AIA, we hold that an inventor’s sale of an invention to a third party who is obligated to keep the invention confidential can qualify as prior art under §102(a). We therefore affirm the judgment of the Federal Circuit.

*It is so ordered.*

## CHAPTER 7

### PROCEDURES AND INSTITUTIONS

**Oil States Energy Services, LLC v. Greene’s Energy Group, LLC**  
**138 S. Ct. 1365 (2018)**

■ JUSTICE THOMAS delivered the opinion of the Court.

The Leahy-Smith America Invents Act, 35 U.S.C. § 100 *et seq.*, establishes a process called “inter partes review.” Under that process, the United States Patent and Trademark Office (PTO) is authorized to reconsider and to cancel an issued patent claim in limited circumstances. In this case, we address whether inter partes review violates Article III or the Seventh Amendment of the Constitution. We hold that it violates neither.

#### I

##### A

Under the Patent Act, the PTO is “responsible for the granting and issuing of patents.” 35 U.S.C. § 2(a)(1). When an inventor applies for a patent, an examiner reviews the proposed claims and the prior art to determine if the claims meet the statutory requirements. Those requirements include utility, novelty, and nonobviousness based on the prior art. The Director of the PTO then approves or rejects the application. An applicant can seek judicial review of a final rejection.

##### B

Over the last several decades, Congress has created administrative processes that authorize the PTO to reconsider and cancel patent claims that were wrongly issued. In 1980, Congress established “*ex parte* reexamination,” which still exists today. See Act To Amend the Patent and Trademark Laws, 35 U.S.C. § 301 *et seq.* *Ex parte* reexamination permits “[a]ny person at any time” to “file a request for reexamination.” § 302. If the Director determines that there is “a substantial new question of patentability” for “any claim of the patent,” the PTO can reexamine the patent. §§ 303(a), 304. The reexamination process follows the same procedures as the initial examination.

In 1999, Congress added a procedure called “inter partes reexamination.” Under this procedure, any person could file a request for reexamination. The Director would determine if the request raised “a substantial new question of patentability affecting any claim of the patent” and, if so, commence a reexamination. §§ 312(a), 313 (2006 ed.). The reexamination would follow the gen-

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eral procedures for initial examination, but would allow the third-party requester and the patent owner to participate in a limited manner by filing responses and replies. §§ 314(a), (b) (2006 ed.). Inter partes reexamination was phased out when the America Invents Act went into effect in 2012.

### C

The America Invents Act replaced inter partes reexamination with inter partes review, the procedure at issue here. Any person other than the patent owner can file a petition for inter partes review. The petition can request cancellation of “1 or more claims of a patent” on the grounds that the claim fails the novelty or nonobviousness standards for patentability. § 311(b). The challenges must be made “only on the basis of prior art consisting of patents or printed publications.” *Ibid.* If a petition is filed, the patent owner has the right to file a preliminary response explaining why inter partes review should not be instituted.

Before he can institute inter partes review, the Director must determine “that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged.” § 314(a). The decision whether to institute inter partes review is committed to the Director’s discretion. The Director’s decision is “final and nonappealable.” § 314(d).

Once inter partes review is instituted, the Patent Trial and Appeal Board—an adjudicatory body within the PTO created to conduct inter partes review—examines the patent’s validity. The Board sits in three-member panels of administrative patent judges. During the inter partes review, the petitioner and the patent owner are entitled to certain discovery; to file affidavits, declarations, and written memoranda; and to receive an oral hearing before the Board. The petitioner has the burden of proving unpatentability by a preponderance of the evidence. The owner can file a motion to amend the patent by voluntarily canceling a claim or by “propos[ing] a reasonable number of substitute claims.” § 316(d)(1)(B). The owner can also settle with the petitioner by filing a written agreement prior to the Board’s final decision, which terminates the proceedings with respect to that petitioner. If the settlement results in no petitioner remaining in the inter partes review, the Board can terminate the proceeding or issue a final written decision.

If the proceeding does not terminate, the Board must issue a final written decision no later than a year after it notices the institution of inter partes review, but that deadline can be extended up to six months for good cause. If the Board’s decision becomes final, the Director must “issue and publish a certificate.” § 318(b). The certificate cancels patent claims “finally determined to be unpatentable,” confirms patent claims “determined to be patentable,” and incorporates into the patent “any new or amended claim determined to be patentable.” *Ibid.*



A party dissatisfied with the Board’s decision can seek judicial review in the Court of Appeals for the Federal Circuit. Any party to the inter partes review can be a party in the Federal Circuit. The Director can intervene to defend the Board’s decision, even if no party does. When reviewing the Board’s decision, the Federal Circuit assesses “the Board’s compliance with governing legal standards de novo and its underlying factual determinations for substantial evidence.” *Randall Mfg. v. Rea*, 733 F.3d 1355, 1362 (C.A. Fed. 2013). \* \* \*

### III

Article III vests the judicial power of the United States “in one supreme Court, and in such inferior Courts as the Congress may from time to time ordain and establish.” § 1. Consequently, Congress cannot “confer the Government’s ‘judicial Power’ on entities outside Article III.” *Stern v. Marshall*, 564 U.S. 462, 484 (2011). When determining whether a proceeding involves an exercise of Article III judicial power, this Court’s precedents have distinguished between “public rights” and “private rights.” Those precedents have given Congress significant latitude to assign adjudication of public rights to entities other than Article III courts.

... Our precedents have recognized that the doctrine covers matters “which arise between the Government and persons subject to its authority in connection with the performance of the constitutional functions of the executive or legislative departments.” *Crowell v. Benson*, 285 U.S. 22, 50 (1932). In other words, the public-rights doctrine applies to matters “‘arising between the government and others, which from their nature do not require judicial determination and yet are susceptible of it.’” *Ibid.* (quoting *Ex parte Bakelite Corp.*, 279 U.S. 438, 451 (1929)). Inter partes review involves one such matter: reconsideration of the Government’s decision to grant a public franchise.

### A

Inter partes review falls squarely within the public-rights doctrine. This Court has recognized, and the parties do not dispute, that the decision to *grant* a patent is a matter involving public rights—specifically, the grant of a public franchise. Inter partes review is simply a reconsideration of that grant, and Congress has permissibly reserved the PTO’s authority to conduct that reconsideration. Thus, the PTO can do so without violating Article III.

### 1

This Court has long recognized that the grant of a patent is a “‘matte[r] involving public rights.’” *United States v. Duell*, 172 U.S. 576, 582–583 (1899) (quoting *Murray’s Lessee v. Hoboken Land & Improvement Co.*, 18 How. 272, 284 (1856)). It has the key features to fall within this Court’s longstanding formulation of the public-rights doctrine.

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*Ab initio*, the grant of a patent involves a matter “arising between the government and others.” *Ex parte Bakelite Corp.*, *supra*, at 451.... Specifically, patents are “public franchises” that the Government grants “to the inventors of new and useful improvements.” *Seymour v. Osborne*, 11 Wall. 516, 533 (1871). The franchise gives the patent owner “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). That right “did not exist at common law.” *Gayler v. Wilder*, 10 How. 477, 494 (1851). Rather, it is a “creature of statute law.” *Crown Die & Tool Co. v. Nye Tool & Machine Works*, 261 U.S. 24, 40 (1923).

Additionally, granting patents is one of “the constitutional functions” that can be carried out by “the executive or legislative departments” without “‘judicial determination.’” *Crowell, supra*, at 50–51 (quoting *Ex parte Bakelite Corp.*, *supra*, at 452). Article I gives Congress the power “[t]o promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries.” § 8, cl. 8. Congress can grant patents itself by statute. And, from the founding to today, Congress has authorized the Executive Branch to grant patents that meet the statutory requirements for patentability. When the PTO “adjudicate[s] the patentability of inventions,” it is “exercising the executive power.” *Freytag v. Commissioner*, 501 U.S. 868, 910 (1991) (Scalia, J., concurring in part and concurring in judgment) (emphasis deleted).

Accordingly, the determination to grant a patent is a “matte[r] involving public rights.” *Murray’s Lessee, supra*, at 284. It need not be adjudicated in Article III court.

## 2

Inter partes review involves the same basic matter as the grant of a patent. So it, too, falls on the public-rights side of the line.

Inter partes review is “a second look at an earlier administrative grant of a patent.” *Cuozzo Speed Techs., LLC v. Lee*, 579 U.S., at \_\_\_\_\_. The Board considers the same statutory requirements that the PTO considered when granting the patent. Those statutory requirements prevent the “issuance of patents whose effects are to remove existent knowledge from the public domain.” *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 6 (1966). So, like the PTO’s initial review, the Board’s inter partes review protects “the public’s paramount interest in seeing that patent monopolies are kept within their legitimate scope,” *Cuozzo, supra*, at \_\_\_\_\_. Thus, inter partes review involves the same interests as the determination to grant a patent in the first instance.

The primary distinction between inter partes review and the initial grant of a patent is that inter partes review occurs *after* the patent has issued. But that distinction does not make a difference here. Patent claims are granted subject to the qualification that the PTO has “the authority to reexamine—and

perhaps cancel—a patent claim” in an inter partes review. See *Cuozzo, supra*, at \_\_\_\_\_. Patents thus remain “subject to [the Board’s] authority” to cancel outside of an Article III court. *Crowell*, 285 U.S., at 50.

This Court has recognized that franchises can be qualified in this manner. For example, Congress can grant a franchise that permits a company to erect a toll bridge, but qualify the grant by reserving its authority to revoke or amend the franchise. Even after the bridge is built, the Government can exercise its reserved authority through legislation or an administrative proceeding. The same is true for franchises that permit companies to build railroads or telegraph lines.

Thus, the public-rights doctrine covers the matter resolved in inter partes review. The Constitution does not prohibit the Board from resolving it outside of an Article III court.

## B

Oil States challenges this conclusion, citing three decisions that recognize patent rights as the “private property of the patentee.” *American Bell Telephone Co.*, 128 U.S., at 370; see also *McCormick Harvesting Machine Co. v. Aultman*, 169 U.S. 606, 609 (1898) (“[A granted patent] has become the property of the patentee”); *Brown v. Duchesne*, 19 How. 183, 197 (1857) (“[T]he rights of a party under a patent are his private property”). But those cases do not contradict our conclusion.

Patents convey only a specific form of property right — a public franchise. See *Pfaff*, 525 U.S., at 63–64. And patents are “entitled to protection as any other property, *consisting of a franchise*.” *Seymour*, 11 Wall. at 533 (emphasis added). As a public franchise, a patent can confer only the rights that “the statute prescribes.” *Gayler, supra*, at 494; *Wheaton v. Peters*, 8 Pet. 591, 663–664 (1834) (noting that Congress has “the power to prescribe the conditions on which such right shall be enjoyed”). It is noteworthy that one of the precedents cited by Oil States acknowledges that the patentee’s rights are “derived altogether” from statutes, “are to be regulated and measured by these laws, and cannot go beyond them.” *Brown, supra*, at 195.

One such regulation is inter partes review. The Patent Act provides that, “[s]ubject to the provisions of this title, patents shall have the attributes of personal property.” 35 U.S.C. § 261. This provision qualifies any property rights that a patent owner has in an issued patent, subjecting them to the express provisions of the Patent Act. Those provisions include inter partes review. \* \* \*

## C

Oil States and the dissent contend that inter partes review violates the “general” principle that “Congress may not ‘withdraw from judicial cognizance any matter which, from its nature, is the subject of a suit at the common law,

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or in equity, or admiralty.’” *Stern*, 564 U.S., at 484 (quoting *Murray’s Lessee*, 18 How., at 284). They argue that this is so because patent validity was often decided in English courts of law in the 18th century. For example, if a patent owner brought an infringement action, the defendant could challenge the validity of the patent as an affirmative defense. Or, an individual could challenge the validity of a patent by filing a writ of *scire facias* in the Court of Chancery, which would sit as a law court when adjudicating the writ.

But this history does not establish that patent validity is a matter that, “from its nature,” must be decided by a court. *Stern*, *supra*, at 484 (quoting *Murray’s Lessee*, *supra*, at 284). The aforementioned proceedings were between private parties. But there was another means of canceling a patent in 18th-century England, which more closely resembles inter partes review: a petition to the Privy Council to vacate a patent. The Privy Council was composed of the Crown’s advisers. From the 17th through the 20th centuries, English patents had a standard revocation clause that permitted six or more Privy Counsellors to declare a patent void if they determined the invention was contrary to law, “prejudicial” or “inconvenient,” not new, or not invented by the patent owner. Individuals could petition the Council to revoke a patent, and the petition was referred to the Attorney General. The Attorney General examined the petition, considered affidavits from the petitioner and patent owner, and heard from counsel. Depending on the Attorney General’s conclusion, the Council would either void the patent or dismiss the petition. \* \* \*

The Patent Clause in our Constitution “was written against the backdrop” of the English system. *Graham*, 383 U.S., at 5. Based on the practice of the Privy Council, it was well understood at the founding that a patent system could include a practice of granting patents subject to potential cancellation in the executive proceeding of the Privy Council. The parties have cited nothing in the text or history of the Patent Clause or Article III to suggest that the Framers were not aware of this common practice. Nor is there any reason to think they excluded this practice during their deliberations. And this Court has recognized that, “[w]ithin the scope established by the Constitution, Congress may set out conditions and tests for patentability.” *Id.*, at 6, 8. We conclude that inter partes review is one of those conditions. \* \* \*

### E

We emphasize the narrowness of our holding. We address the constitutionality of inter partes review only. We do not address whether other patent matters, such as infringement actions, can be heard in a non-Article III forum. And because the Patent Act provides for judicial review by the Federal Circuit, we need not consider whether inter partes review would be constitutional “without any sort of intervention by a court at any stage of the proceedings,” *Atlas Roofing Co. v. Occupational Safety and Health Review Comm’n*, 430 U.S. 442, 455, n. 13 (1977). Moreover, we address only the precise

constitutional challenges that Oil States raised here. Oil States does not challenge the retroactive application of inter partes review, even though that procedure was not in place when its patent issued. Nor has Oil States raised a due process challenge. Finally, our decision should not be misconstrued as suggesting that patents are not property for purposes of the Due Process Clause or the Takings Clause.

## IV

In addition to Article III, Oil States challenges inter partes review under the Seventh Amendment. The Seventh Amendment preserves the “right of trial by jury” in “Suits at common law, where the value in controversy shall exceed twenty dollars.” This Court’s precedents establish that, when Congress properly assigns a matter to adjudication in a non-Article III tribunal, “the Seventh Amendment poses no independent bar to the adjudication of that action by a nonjury factfinder.” *Granfinanciera, S.A. v. Nordberg*, 492 U.S. 33, 53–54 (1989). No party challenges or attempts to distinguish those precedents. Thus, our rejection of Oil States’ Article III challenge also resolves its Seventh Amendment challenge. \* \* \*

■ JUSTICE GORSUCH, WITH WHOM THE CHIEF JUSTICE JOINS, DISSENTING.

After much hard work and no little investment you devise something you think truly novel. Then you endure the further cost and effort of applying for a patent, devoting maybe \$30,000 and two years to that process alone. At the end of it all, the Patent Office agrees your invention is novel and issues a patent. The patent affords you exclusive rights to the fruits of your labor for two decades. But what happens if someone later emerges from the woodwork, arguing that it was all a mistake and your patent should be canceled? Can a political appointee and his administrative agents, instead of an independent judge, resolve the dispute? The Court says yes. Respectfully, I disagree. \* \* \*

As I read the historical record presented to us, only courts could hear patent challenges in England at the time of the founding. If facts were in dispute, the matter first had to proceed in the law courts. If successful there, a challenger then had to obtain a writ of *scire facias* in the law side of the Court of Chancery. The last time an executive body (the King’s Privy Council) invalidated an invention patent on an ordinary application was in 1746, ... and the last time the Privy Council even *considered* doing so was in 1753 .... After *Baker v. James*, the Privy Council “divest[ed] itself of its functions” in ordinary patent disputes, Hulme, *Privy Council Law and Practice of Letters Patent for Invention from the Restoration to 1794* (Pt. II), 33 L.Q. Rev. 180, 194 (1917), which “thereafter [were] adjudicated solely by the law courts, as opposed to the [crown’s] prerogative courts,” Mossoff, *Rethinking the Development of Patents: An Intellectual History, 1550–1800*, 52 *Hastings L.J.* 1255, 1286–1287 (2001).

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This shift to courts paralleled a shift in thinking. Patents began as little more than feudal favors. The crown both issued and revoked them. And they often permitted the lucky recipient the exclusive right to do very ordinary things, like operate a toll bridge or run a tavern. But by the 18th century, inventors were busy in Britain and invention patents came to be seen in a different light. They came to be viewed not as endowing accidental and anticompetitive monopolies on the fortunate few but as a procompetitive means to secure to individuals the fruits of their labor and ingenuity; encourage others to emulate them; and promote public access to new technologies that would not otherwise exist. The Constitution itself reflects this new thinking, authorizing the issuance of patents precisely because of their contribution to the “Progress of Science and useful Arts.” Art. I, § 8, cl. 8. “In essence, there was a change in perception — from viewing a patent as a contract between the crown and the patentee to viewing it as a ‘social contract’ between the patentee and society.” Waltersheid, *The Early Evolution of the United States Patent Law: Antecedents* (Part 3), 77 J. Pat. & T. Off. Soc. 771, 793 (1995). And as invention patents came to be seen so differently, it is no surprise courts came to treat them more solicitously. \* \* \*

With so much in the relevant history and precedent against it, the Court invites us to look elsewhere. Instead of focusing on the revocation of patents, it asks us to abstract the level of our inquiry and focus on their issuance. Because the job of issuing invention patents traditionally belonged to the Executive, the Court proceeds to argue, the job of revoking them can be left there too. But that doesn’t follow. Just because you give a gift doesn’t mean you forever enjoy the right to reclaim it. And, as we’ve seen, just because the Executive could *issue* an invention (or land) patent did not mean the Executive could *revoke* it. To reward those who had proven the social utility of their work (and to induce others to follow suit), the law long afforded patent holders more protection than that against the threat of governmental intrusion and dispossession. The law requires us to honor those historical rights, not diminish them.

Still, the Court asks us to look away in yet another direction. At the founding, the Court notes, the Executive could sometimes both dispense and revoke public franchises. And because, it says, invention patents are a species of public franchises, the Court argues the Executive should be allowed to dispense and revoke them too. But labels aside, by the time of the founding the law treated patents protected by the Patent Clause quite differently from ordinary public franchises. Many public franchises amounted to little more than favors resembling the original royal patents the framers expressly refused to protect in the Patent Clause. The Court points to a good example: the state-granted exclusive right to operate a toll bridge. By the founding, courts in this country (as in England) had come to view anticompetitive monopolies like that with disfavor, narrowly construing the rights they conferred. By contrast,

courts routinely applied to invention patents protected by the Patent Clause the “liberal common sense construction” that applies to other instruments creating private property rights, like land deeds. *Davis v. Palmer*, 7 F. Cas. 154, 158 (No. 3,645) (C.C.D. Va. 1827) (Marshall, C.J.). As Justice Story explained, invention patents protected by the Patent Clause were “not to be treated as mere monopolies odious in the eyes of the law, and therefore not to be favored.” *Ames v. Howard*, 1 F. Cas. 755, 756 (No. 326) (C.C.D. Mass. 1833). For precisely these reasons and as we’ve seen, the law traditionally treated patents issued under the Patent Clause very differently than monopoly franchises when it came to governmental invasions. Patents alone required independent judges. \* \* \*

## SUPPLEMENT

### CHAPTER 8

#### CLAIM CONSTRUCTION AND INFRINGEMENT

**Gillette Co. v. Energizer Holdings, Inc.**  
**405 F.3d 1367 (Fed. Cir. 2005)**

■ Before MICHEL, CHIEF JUDGE; ARCHER, SENIOR CIRCUIT JUDGE; AND RADER, CIRCUIT JUDGE.

■ RADER, CIRCUIT JUDGE.

The Gillette Company (Gillette) owns U.S. Patent No. 6,212,777 (issued April 10, 2001) (the '777 patent) for wet-shave safety razors with multiple blades. Gillette sued Energizer Holdings, Inc. (Energizer) in the United States District Court for the District of Massachusetts alleging Energizer's QUAT-TRO®, a four-bladed wet-shave safety razor, infringes certain claims of the '777 patent. The district court denied Gillette's motion for a preliminary injunction because it found that the claims of the '777 patent covered only a three-bladed razor, and, consequently, Gillette did not show a reasonable likelihood of success on its claim of literal infringement by Energizer's four-bladed razor. *The Gillette Co. v. Energizer Holdings, Inc.*, No. 03-11514-PBS (D. Mass. Jan. 15, 2004). Because the district court erred in construing the claims of the '777 patent to cover only three-bladed safety razors, this court vacates and remands.

#### I

The '777 patent claims a disposable safety razor with a group of blades, each blade placed in a particular geometric position relative to the other blades of the group. Prior art razors with multiple blades shaved closer to the skin than two-bladed razors but had “a serious detrimental influence on other blade unit characteristics, most notably the drag forces experienced when the blade unit is moved over the skin, with the consequence that the overall performance of the blade unit [was] markedly inferior [compared to two-bladed razors] despite a closer shave being obtained.” '777 patent, col. 1, ll. 24–29.

The inventive contributions of the '777 patent are varying progressively the exposure and spacing parameters of the blades to overcome the undesired drag forces produced by razors with multiple blades, not simply limiting the number of blades to three. “The blade exposure is defined to be the perpendicular distance or height of the blade edge measured with respect to a plane tangential to the skin contacting surfaces of the blade unit elements next in front of and next behind the edge.” *Id.* at col. 1, ll. 50–59. Specifically, the blade closest to the guard (leading blade) is positioned with a negative exposure to (i.e.



recessed below) its tangential plane. *Id.* The blade closest to the cap (trailing blade) is positioned with a positive exposure to (i.e., extending above) its tangential plane. *Id.* A blade in between the leading and trailing blades is positioned with an exposure with respect to its tangential plane in between the exposures of the leading and trailing blades with respect to their respective tangential planes. *Id.* at col. 2, ll. 28–40. The result is a generally “progressive exposure” of the blades with each of the identified blades shaving closer to the skin than the preceding blade. This blade configuration reduces the drag forces produced by the blades and equalizes the work performed by each successive blade. *Id.* at col. 1, ll. 63–66. Additionally, the span marks the distance between successive blades. A progressive span would involve gradually increasing the spacing between the guard and the leading blade, each successive blade, and the trailing blade and the cap. *See, e.g., id.* at col. 2, ll. 16–20. The progression of the blade span likewise reduces frictional drag, leading to a close and comfortable shave.

Claim 1 of the ’777 patent shows this progressive exposure innovation in shaving technology:

1. A safety razor blade unit comprising a guard, a cap, and a group of first, second, and third blades with parallel sharpened edges located between the guard and cap, the first blade defining a blade edge nearest the guard having a negative exposure not less than  $-0.2$  mm, and the third blade defining a blade edge nearest the cap having a positive exposure of not greater than  $+0.2$  mm, said second blade defining a blade edge having an exposure not less than the exposure of the first blade and not greater than the exposure of the third blade.

’777 patent, col. 4, ll. 5–14.

The Energizer QUATTRO® razor is the accused infringing device. The QUATTRO® employs a cartridge with a guard, a cap, and four blades. The leading blade has a negative exposure of not less than  $-0.2$  mm; the trailing blade has a positive exposure of not greater than  $+0.2$  mm. The QUATTRO® further has two middle blades with essentially the same exposure, which is greater than that of the leading blade and less than that of the trailing blade. In anticipation of Energizer’s launch of the QUATTRO®, Gillette filed a patent infringement suit asserting that the QUATTRO® infringed the claims of the ’777 patent. Shortly thereafter, Gillette moved for a preliminary injunction to enjoin Energizer from making and selling the QUATTRO®.

Following a two-day hearing, the district court denied Gillette’s motion, finding that Gillette had not shown a reasonable likelihood of success on its claim of literal infringement. *Gillette*, slip op. at 1. The trial court primarily based its decision on the conclusion that the terms “first,” “second,” and “third” of claim 1 limited the scope of that claim to a razor having solely three blades.

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*Id.*, slip op. at 11. Gillette now appeals, and this court has jurisdiction under 28 U.S.C. § 1292(c)(1).

### II

The grant of a preliminary injunction under 35 U.S.C. § 283 is within the discretion of the district court. This court reviews a preliminary injunction decision for an abuse of discretion. *Novo Nordisk of N. Am., Inc. v. Genentech, Inc.*, 77 F.3d 1364, 1367 (Fed. Cir. 1996). “An abuse of discretion may be established by showing that the court made a clear error of judgment in weighing relevant factors or exercised its discretion based upon an error of law or clearly erroneous factual findings.” *Id.*

As the moving party, Gillette is entitled to a preliminary injunction if it shows: (1) reasonable likelihood of success on the merits of its claims; (2) irreparable harm if an injunction is not granted; (3) a balance of hardships tipping in its favor; and (4) the injunction’s favorable impact on the public interest. *Reebok Int’l Ltd. v. J. Baker, Inc.*, 32 F.3d 1552, 1555 (Fed. Cir. 1994). In order to demonstrate a likelihood of success on the merits, Gillette has to show that, in light of the presumptions and burdens that will inhere at trial on the merits, (1) Energizer likely infringes the ’777 patent, and (2) the claims of the ’777 patent will likely withstand Energizer’s challenges to validity. *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1350 (Fed. Cir. 2001). While Energizer raised issues of validity in opposition to Gillette’s motion for a preliminary injunction, the district court held that Gillette did not demonstrate a reasonable likelihood of success on the threshold issue of literal infringement. Therefore, the trial court did not address the validity issues. Accordingly, the validity of the ’777 patent is not before this court on appeal.

To review Gillette’s likelihood of success on its literal infringement claim, this court, as the trial court before it, must first determine the meaning and the scope of the claims on this preliminary record. *See Oakley, Inc. v. Sunglass Hut Int’l*, 316 F.3d 1331, 1339 (Fed. Cir. 2003) .... “In construing claims, the analytical focus must begin and remain centered on the language of the claims themselves, for it is that language that the patentee chose to use to particularly point out and distinctly claim the subject matter which the patentee regards as his invention.” *Interactive Gift Express, Inc. v. Compuserve, Inc.*, 256 F.3d 1323, 1331 (Fed. Cir. 2001) (quoting 35 U.S.C. § 112, ¶ 2); *see also SRI Int’l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 n.14 (Fed. Cir. 1985) (en banc) (“Specifications teach. Claims claim.”).

Claim construction requires this court to place the claim language in its proper technological and temporal context. The best tools for this enterprise are the various forms of intrinsic evidence and, when appropriate, extrinsic evidence. *See Vitronics, Corp. v. Conceptoronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). The intrinsic evidence, “i.e., the patent itself, including the claims, the specification and, if in evidence, the prosecution history . . . is the most

significant source of the legally operative meaning of disputed claim language.” *Id.* (internal citation omitted); ....

Applying this case law, this court must determine, on this preliminary record, whether the language “comprising . . . a group of first, second, and third blades” in the ’777 patent can encompass four-bladed safety razors (such as the QUATTRO®) or is limited to solely three-bladed safety razors. As explained below, this court discerns that claim 1 uses the “open” claim terms “comprising” and “group of,” in addition to other language, to encompass subject matter beyond a razor with only three blades. Moreover, the specification’s focus on blade exposures and express reference to “blade units with a plurality of blades,” ’777 patent, col. 1, ll. 3–6, shows as well that this invention covers razors with more than three blades.

The objective of the invention of the ’777 patent is to reduce drag forces in safety razors with more than two blades. *See id.* at col. 1, ll. 24–37. The ’777 patent accomplishes this objective by progressively increasing the blade exposure and the blade span. *Id.* at col. 1, ll. 37–59. Indeed, the specification specifically acknowledges that it is not the three blades themselves which solve the prior art problem of detrimental drag forces, but instead the arrangement of three blades in a particular spatial configuration, stating “the novel aspects of the present invention residing in the provision of three blades set in the blade unit *set in particular dispositions with respect to each other and the guard and the cap.*” *Id.* at col. 3, ll. 16–19 (emphasis added). The written description likewise discusses these parameters with respect to the relative positioning of each of the three blades at length at column 1, line 60 through column 2, line 40. These principles of progressive blade exposure and progressive blade span could apply equally to four or five blades. Such a geometric arrangement of three, four, or even more blades will achieve a closer shave and, at the same time, minimize excess drag. It may be that a four-bladed safety razor is a less preferred embodiment. A four-bladed razor costs more to build, requires more parts, and adds more frictional drag compared to the three-bladed version. Nevertheless, a patentee typically claims broadly enough to cover less preferred embodiments as well as more preferred embodiments, precisely to block competitors from marketing less than optimal versions of the claimed invention.

Indeed, the language of claim 1 of the ’777 patent encompasses more than only three-bladed razors. At the outset, the open language of claim 1 embraces technology that may add features to devices otherwise within the claim definition. *Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1271 (Fed. Cir. 1986). The claim uses two terms to show this open-ended meaning. The word “comprising” transitioning from the preamble to the body signals that the entire claim is presumptively open-ended. *Crystal Semiconductor Corp. v. TriTech Microelectronics Int’l, Inc.*, 246 F.3d 1336, 1347 (Fed. Cir. 2001); *Innovad Inc. v. Microsoft Corp.*, 260 F.3d 1326, 1333 (Fed. Cir. 2001). Because the

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patentee invoked this open-ended treatment in claim 1 of the '777 patent, the scope of claim 1 encompasses all safety razors satisfying the elements set forth in claim 1. The addition of elements not recited in the claim cannot defeat infringement. *See Crystal Semiconductor*, 246 F.3d at 1348 (“[T]he transition ‘comprising’ creates a presumption that the recited elements are only a part of the device, that the claim does not exclude additional, unrecited elements. *KCJ Corp. v. Kinetic Concepts, Inc.*, 223 F.3d 1351, 1356 (Fed. Cir. 2002).”).

The claim element identifying the blades likewise uses another presumptively “open” claim term – “group of.” ’777 patent, col. 4, l. 6. At the outset, the language “group of” does not place any limits or closed implications on the elements following this broad designation. Claim drafters often use the term “group of” to signal a Markush group. A Markush group lists specified alternatives in a patent claim, typically in the form: a member selected from the group consisting of A, B, and C. *See Manual of Patent Examining Procedure* § 803.2 (2004). A Markush group by its nature is closed. If an applicant tries to claim a Markush group without the word “consisting,” the PTO will insist upon the addition of this word to ensure a closed meaning. Thus, in order to “close” a Markush group, the PTO insists on the transition phrase “group consisting of.” *See Abbott Labs. v. Baxter Pharm. Prods., Inc.*, 334 F.3d 1274, 1280 (Fed. Cir. 2003). Without the word “consisting” the simple phrase “group of” is presumptively open. If intending to limit the claimed invention to a three-bladed razor, the patent drafter would not have used the words “group of.” Rather, the drafter would have used the words “group consisting of,” or the simple formulation “and first, second, and third blades.” Because the drafter chose to use the open term “group of,” additional members in the element “group of . . . blades” will not defeat infringement. In other words, a razor with two “second blades,” as in the QUATTRO®, will still fall within the literal language of the claim.

The element at issue requires:

*a group of first, second, and third blades* with parallel sharpened edges located between the guard and cap, the *first blade defining* a blade edge nearest the guard having a negative exposure not less than –0.2 mm, and the *third blade defining* a blade edge nearest the cap having a positive exposure of not greater than +0.2 mm, said *second blade defining* a blade edge having an exposure not less than the exposure of the first blade and not greater than the exposure of the third blade.

’777 patent, col. 4, ll. 5–14 (emphases added). This element clearly defines a “group of blades” as a subset of the total number of blades in the razor, and specifically identifies which blades of the razor are the “first, second, and third” blades of the subset. The first blade in the group is the blade “nearest the guard,” or leading blade. The third blade in the group is the blade “nearest the cap,” or trailing blade. The second blade is defined by its exposure, and must

“hav[e] an exposure not less than the exposure of the first blade and not greater than the exposure of the third blade.” Given that the first and third blades must be the leading and trailing blades, respectively, and in light of the specification’s discussion of a progressive blade exposure, the second blade must also be located between the first and third blades. *See id.* col. 1, l. 60–col. 2, l. 40 (discussing a progressive blade exposure from a first blade to a second and third blades). Thus, any blade in between the first and third blades and with an exposure greater than that of the first blade and less than that of the third blade is a “second” blade in the claimed subset of blades. The accused QUAT-TRO® device, in fact, has two “second blades” because both of the middle blades in the accused device meet the definition of the “second blade” set forth in the claim. Any subset of three blades in a blade unit meeting these definitions is a “group of blades” as defined by the clear language of the claim. This claim is not ambiguous. In fact, the patentee underscored this open-ended claim meaning by using both the open-ended transition phrase “comprising” for all elements of claim 1 as discussed above, and the open-ended claim term “group of” for each part of this element.

The language of the claims depending from claim 1 also support reading “comprising” and “group of” as open terms. Claim 2, which depends from claim 1, adds the limitation that “*the span* between the first blade edge and the guard is substantially smaller than *a span* between the edges of the first and second blades and the span between the edges of the second and third blades.” *Id.* at col. 4, ll. 17–20 (emphases added). The patent drafter’s use of “a span” between the first and second blades recognizes that more than one such span may exist. On the other hand, the drafter’s use of “the span” to identify the span between the guard and first blade recognizes that only one such span is possible.<sup>2</sup>

The terms “first, second, and third” are terms to distinguish different elements of the claim, not terms supplying a numerical limit. Thus, the “first,” “second,” and “third” blades need not necessarily appear in that order or necessarily limit the blade unit to only three blades. Instead, these ordinal terms designate different blades within the “unit” according to their location and elevation. The claim itself makes this distinction. The claim defines both the “first” and “third” blades in terms of their location relative to the guard and cap, respectively, and further specifies their respective elevations. The second blade is defined solely by its elevation and location between the leading and

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<sup>2</sup> Dependent claims 9 and 10 use “the span” and “the exposure,” respectively, to refer to the span and exposure of the second blade. ’777 patent, col. 4, ll. 41–45. This definitive recitation of a single span and exposure likely limits these dependent claims to a single second blade, *i.e.*, a three-bladed embodiment of the invention.

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trailing blades. None of the blades in the “group” are defined by their consecutive order relative to the other blades.

To make it abundantly clear that the reference to “first,” “second,” and “third” blades was not a serial or numerical limitation, the claim does not follow a consecutive order (i.e., it does not discuss the second blade after the first). The claim is thus clearly not using the ordinals — first, second, third — to show a consecutive numerical limit but only to distinguish or identify the various members of the group. The case law of this court supports this reading of the claim language “first, second, and third.” *See 3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (“use of the terms ‘first’ and ‘second’ is common patent-law convention to distinguish between repeated instances of an element” and should not necessarily be interpreted to impose a serial limitation on a claim).

The specification provides further support for interpreting claim 1 to encompass razors with more than three blades. The first sentence of the written description of the invention teaches that “*the invention ... relates in particular to safety razors having blade units with a plurality of blades.*” ’777 patent, col. 1, ll. 3–5 (emphasis added). This reference defines the “invention” to encompass “a plurality of blades,” thus eschewing any numerical limit on the number of blades. The written description buttresses this statement of the invention through its use of the same open-ended “group of” language used in claim 1. *Id.* at col. 1, ll. 37–40 (“Thus, in accordance with *the present invention* there is provided a safety razor blade unit comprising a guard, cap and a *group of three blades ....*”) (emphasis added). The specification makes numerous references to a preferred embodiment of the invention with three blades, *see, e.g., id.* at col. 2, ll. 50–53 and col. 4, ll. 2–3, but that narrower embodiment does not impose a limit on the broader claim language as elucidated by the reference to “the invention” as embracing a “plurality of blades.” *See Comark Communications v. Harris Corp.*, 156 F.3d 1182, 1186 (Fed. Cir. 1998) (refusing to import limitations from the specification to the claims); ....

The prosecution of patents related to the ’777 patent also supports reading claim 1 as an open claim. The defendant itself endorsed an open interpretation of “comprising” when it argued to the European Patent Office (EPO) that a virtually identical claim in Gillette’s European counterpart to the ’777 patent would not exclude an arrangement with four or more blades. This blatant admission by this same defendant before the EPO clearly supports this court’s holding that those skilled in the art would construe the claims of the ’777 patent to encompass razors with more than three blades.

The district court adopted Energizer’s argument that the numerous (approximately thirty) references to “three,” “third” and “tertiary” in the specification limit the scope of the claims. *Gillette*, slip op. at 14. However, “words or expressions of manifest exclusion” or “explicit” disclaimers in the specification are necessary to disavow claim scope. *Housey Pharms., Inc. v. Astrazeneca UK*

*Ltd.*, 366 F.3d 1348, 1352 (Fed. Cir. 2004); *Liebel-Flarsheim v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004). Despite the numerous cites to three-bladed razors plucked from the written description, no statement in the patent surrenders or excludes a four-bladed razor. Neither the district court nor Energizer refers to the “manifest” or “explicit” exclusion test. This patent and its prosecution record fall far short of any kind of disclaimer or disavowal. Not only did the patentee claim the invention with two open-ended terms (“comprising” and “group of”), but the specification expressly teaches that the invention encompasses a “plurality of blades.” This court declines to import limitations to the claims from the specification absent a “manifest” or “explicit” exclusion. *Id.* The patentee did not disclaim razors with more than three blades at all, let alone “manifestly,” or “explicitly.” Rather the patentee opened its teachings of the invention in the specification with an express statement that the “invention” covers “blade units with a plurality of blades.” ’777 patent, col. 1, ll. 3–6. The applicant did not “manifestly” or “explicitly” disclaim blade units with a plurality of blades by expressly defining the invention in those exact terms. More important, the language of the claim itself, with its open transition phrases and use of ordinals to distinguish but not limit claim elements, shows that the invention embraces “a plurality of blades.”

### III

Based on the preliminary record before this court, the district court erred in limiting the claims of the ’777 patent to encompass safety razors with solely three blades. Accordingly, this court vacates the district court’s denial of a preliminary injunction on the grounds of Gillette’s failure to show a likelihood of success on the merits of its claim. However, because the claim construction set forth in this opinion is preliminary and based upon an incomplete record, the district court will have every opportunity to review and revisit this claim construction during development of a full record. Indeed, this court recognizes the difficulty imposed on a trial court to construe claim terms based upon a preliminary “likelihood” record. *See, e.g., CVI/Beta Ventures, Inc. v. Tura, LP*, 112 F.3d 1146, 1160 n.7 (Fed. Cir. 1997) (reversing its own earlier “likelihood” claim construction of terms that were appealed after a complete record) ....

In light of the foregoing analysis, the decision of the district court is vacated and remanded for further proceedings consistent with this opinion, including analysis of Energizer’s invalidity defenses raised in opposition to Gillette’s motion for a preliminary injunction. \* \* \*

#### ■ ARCHER, SENIOR CIRCUIT JUDGE, DISSENTING.

Because the majority exalts form over substance in reaching its conclusion, specifically elevating claiming conventions over the clear teachings of the specification of U.S. Patent No. 6,212,777 (“the ‘777 patent”), I dissent.

## SUPPLEMENT

### I

In construing a claim, we first look to the words of the claims, and these words are generally given their ordinary and customary meaning. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996). Our search for the proper meaning of claim terms does not stop there, however, because a patentee may choose to “use terms in a manner other than their ordinary meaning.” *Id.* Such a redefinition or limitation of a claim term need not be explicit. “In other words, the specification may define claim terms ‘by implication’ such that the meaning may be ‘found in or ascertained by a reading of the patent documents.’” *Bell Atl. Network Servs., Inc. v. Covad Communications Group, Inc.*, 262 F.3d 1258, 1268 (Fed. Cir. 2001) (quoting *Vitronics*, 90 F.3d at 1582); .... Thus, “the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; *it is the single best guide to the meaning of a disputed term.*” *Vitronics*, 90 F.3d at 1582 (emphasis added). The majority eschews this teaching in our case law, instead focusing primarily on the ordinary and customary meaning of the claim terms.

The construction of claim 1 of the ’777 patent hinges on how the terms “comprising” and “group of” are construed. The majority follows claiming conventions and ascribes an open meaning to these terms. In doing this, the majority ignores the overwhelming teaching of the specification that the invention of the ’777 patent is a razor limited to three blades arranged in the described claim configuration.<sup>3</sup>

Claim 1 reads “comprising a guard, a cap, and a group of first, second, and third blades”; it does not read “a group of blades comprising first, second, and third blades.” In this claim, the transition term “comprising” refers only to the total number of elements in the complete razor, allowing for a razor with additional elements besides the guard, the cap, and the three blade unit. *See ...; Moleculon Research Corp. v. CBS, Inc.*, 793 F.2d 1261, 1271 (Fed. Cir. 1986) (holding that a step which recites engaging “eight cube pieces as a composite cube” does not read on a step which engages more than eight cube pieces, despite the use of the transitional term “comprising”). For example, claim 1 could include a safety razor with an additional guard or cap or some other element altogether. Because the transition term “[c]omprising” is not a weasel word with which to abrogate claim limitations,” *Spectrum Int’l*, 164 F.3d at 1379–80, or to impermissibly expand a claim’s scope, claim 1 should not be construed as permitting a group with more than three blades simply because claim 1 contains the open transition term “comprising” in its preamble when the entire specification points to the invention as being only a three-bladed razor with progressive blade exposure and span. The dependent claims themselves

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<sup>3</sup> The blade configuration refers to the described progressive and variable blade spans and blade exposures and the three blades’ location relative to each other.



demonstrate that the blade unit of the invention contains only three blades – including a single second blade. Specifically, whenever the second blade is referred to individually, it is referred to singularly (“the edge of the second blade,” claim 6, ll. 2–3, claim 7, line 2; “the exposure of the second blade,” claim 10, line 2). Similarly, the dependent claims’ use of the term “span” (singular) whenever the distance between the first and second blades and second and third blades is mentioned evidences that there can only be a single second blade: “*a span* between the edges of the first and second blades,” claim 5, line 2 (emphasis added); “*a span* between the edge of the third blade and the edge of the second blade,” claim 6, ll. 2–3 (emphasis added); “*a span* between the edge of the second blade and the edge of the first blade,” claim 7, ll. 2–3 (emphasis added); “*a span* between the edges of the first and second blades and between the edges of the second and third blades,” claim 8, ll. 2–3 (emphasis added); and “*the span* between edges of the second and third blades,” claim 9, line 2 (emphasis added). A blade unit including more than one second blade would contain “spans” (plural) between “the second blade” and the first or third blade—one between the first or third blade and the first second blade and one between that same first or third blade and the second second blade. There simply could not be a single span between a first or third blade and two second blades. The majority states that the use of “a span” for describing the distance between the edges of the first and second blades and that between the edges of the second and third blades suggests that there can be more than one span for each. In other words, there can be a first span between the edge of the first blade and the edge of the first second blade and a second span between the edge of the first blade and the edge of the second second blade. Such an interpretation of “a span” is not consistent with the remainder of the claim language, however. Claims 5 and 8 state that this span is “substantially equal to 1.5 mm.” In a razor having two second blades as proposed by the majority, the first and second blades would have to be virtually in the same spot to satisfy this claim language (a configuration the majority does not even claim the specification supports), as the edge of each second blade would have to be substantially 1.5 mm from the edge of the first blade. Thus, there can only be a single span between the edge of the first blade and the edge of the second blade and a single span between the edge of the third blade and the edge of the second blade. The majority’s claim construction effectively replaces “span” with “spans”; this is not what is claimed.

The specification similarly limits the invention to a blade unit having only three blades. The written description begins with an explanation of how two-bladed safety razors have dominated the wet shaving industry. “Safety razors having blade units with two blades have in recent years been sold in very large numbers and are generally acknowledged to give a better quality shave, especially in terms of closeness, than single bladed razors.” ’777 patent, col. 1, ll. 34–37. The specification then explains that a blade unit with more than two

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blades can provide a closer shave but notes that such a multi-bladed razor is not desirable for other reasons:

Closeness of a shave obtained is only one parameter by which razor users judge the performance of a razor. Adding extra blades can have a serious detrimental influence on other blade unit characteristics, most notably the drag forces experienced when the blade unit is moved over the skin, with the consequence that the overall performance of the blade unit can be markedly inferior despite a closer shave being obtainable.

*Id.* at col. 1, ll. 24–29. The specification then discloses that the inventors have discovered *a particular blade geometry for a three-bladed razor* so as to overcome the traditional shortcomings of razors having more than two blades. Specifically, the inventors found that adding a third blade positioned between the other two blades in a particular configuration improved closeness while adding only minimal drag:

It has been found that with a blade unit comprising three blades, the frictional drag forces can be kept at an acceptable level while allowing an improved shaving efficiency, by setting the blades relative to each other and to guard and cap surfaces positioned in front of and behind the blade edges, according to a particular geometrical disposition.

*Id.* at col. 1, ll. 32–37. As such, with the exception of the three-bladed razor having the claimed geometry, the specification actually discourages, or teaches away from, razors that have more than two blades. In this regard, the specification expressly cautions that “[a]dding extra blades [more than two] can have a serious detrimental influence on . . . blade unit characteristics.” *Id.* at col. 1, ll. 25–27. The general summary or description of the invention thus describes a three-bladed razor with a certain blade configuration and criticizes other blade units having more than two blades.

We have construed claims to be limited to one type of device where the written description has emphasized features of that device and criticized other similar devices. *See Astrazeneca*, 384 F.3d at 1340 (citing *SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1340–45 (Fed. Cir. 2001) (construing claims to be limited to catheters with coaxial lumens where written description emphasized coaxial lumens as a feature of the invention and criticized catheters using other types of lumens)). Here, the inventors expressly state that using more than two blades in a safety razor is problematic. ’777 patent, col. 1, ll. 24–31. They then explain that these problems are overcome by a three-bladed razor having blades arranged with progressive blade spans and blade exposures. *Id.* at col. 1, ll. 32–37. This discussion, which expressly emphasizes certain features of the invention (a three-blade unit with the

blades arranged in the described geometry) and impliedly criticizes other similar devices (blade units having more than two blades not having the same features), suggests the claims should be narrowly construed.

In my view, therefore, the term “comprising” should not be read as encompassing a blade unit having more than three blades. This is made clear by the claims themselves and by the written description as described below. The traditional open claiming term “comprising” thus applies to the limitations of the razor as a whole, that is, the cap, the guard, and the blade unit and permits other elements included in the razor. However, it does not permit the expansion of the number of blades in the blade unit itself.

Turning to the term “group of,” the written description makes clear that this term is not used as an open claiming term as Gillette argues. The term “group of” occurs only once in the written description when the patentee is describing the invention as a whole in the background section of the patent. The group is specifically described as three blades:

Thus, in accordance with the present invention there is provided a safety razor blade unit comprising a guard, a cap and *a group of three blades* with parallel sharpened edges located between the guard and cap, the first blade defining the edge nearest the guard having an exposure not greater than zero, and the third blade defining the blade nearest the cap having an exposure not less than zero.

’777 patent, col. 1, ll. 37–44 (emphasis added).

While not referring again to the “group of” blades, the patentee consistently and frequently refers to his invention as a three-bladed safety razor.<sup>4</sup> For example, when the written description speaks of the “blade unit” of the invention,<sup>5</sup> the only type of blade unit identified is one having three blades: “blade unit comprising . . . a group of three blades,” ’777 patent, col. 1, ll. 39–40; “three-

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<sup>4</sup> It was represented to the district court, and noted in its opinion, that the word “three,” “third,” or “tertiary” is used in thirty different places in the mere three-column-long specification of the ’777 patent. Gillette, No. 03-11514-PBS, slip op. at 14. Additionally, nowhere in the specification is the possibility of a four-bladed razor even suggested. This supports a finding that the claims should be interpreted as limited to razors having only three blades. See *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1348 (Fed. Cir. 2004) (noting that the specification referred to transmitting data over a phone line roughly two dozen times and never suggested transmitting data through the use of a packet switched network).

<sup>5</sup> The patentee uses the term “blade unit” to describe the carrier of the blades of the invention. See ’777 patent, col. 2, ll. 63–64 and representation thereof in Figs. 1 and 2.

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bladed blade unit,” *id.* at col. 1, line 54; “three bladed safety razor blade unit,” *id.* at col. 2, line 50; and “three blades set in the blade unit,” *id.* at col. 3, ll. 17–18. When explaining the basic structure of the invention, the specification discloses “the novel aspects of the present invention resid[e] in the provision of *three* blades set in the blade unit set in particular dispositions with respect to each other and the guard and cap.” (*Id.* at col. 3, ll. 16–19) (emphasis added). By stating that the unit (group) of three blades (disposed in the described manner) confers novelty to the invention disclosed in the ’777 patent, the patentee clearly shows that he regards the invention to be a safety razor with a blade unit having exactly three blades with progressive exposure and span.

The majority contends that a three-bladed razor is merely a preferred embodiment of the invention of the ’777 patent, as opposed to the invention. However, the specification is replete with instances where the patentee described the invention as a razor having three blades with the described blade geometry. To this end, the specification states “[w]ith a *three-bladed safety razor blade unit* having the blades disposed as specified herein we have found an enhanced overall shaving performance in comparison to a two-bladed razor,” (*id.* at col. 2, ll. 50–53) (emphasis added) (located immediately prior to the patentee’s statement that “some specific embodiments of the invention are described below”); “it is ensured that an enhanced shaving efficiency is secured due to there being *three sharpened blades*,” (*id.* at col. 4, ll. 2–3) (emphasis added) (the final sentence of the written description which explains that “[w]ith the embodiments of the invention” this result is reached); “in accordance with the present invention there is provided a safety razor blade unit comprising a guard, a cap and *a group of three blades*,” *id.* at col. 1, ll. 37–40 (emphasis added) (located in the background section of the patent). These statements are directed to the invention as a whole and suggest that three blades is a part of the invention, not merely a preferred embodiment. We have held that a claim term was properly construed in accordance with a limitation that was “repeatedly and consistently” described in the specification where “[t]hose statements, some of which [were] found in the ‘Summary of the Invention’ portion of the specification, [were] not limited to describing a preferred embodiment, but more broadly describe the overall inventions of [the] patent[.]” *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d at 1346–48 (stating “the claims must be interpreted in light of the specification . . . which repeatedly and consistently describes the local and remote systems of the claimed inventions as communicating directly over a telephone line” and holding that communications were restricted to being over a telephone line and excluded the use of a packet-switched network). Such is the case here.

That a three-bladed razor is not merely a preferred embodiment of the invention of the ’777 patent is further evidenced by the fact that the specification addresses only changes in the blade exposure and blade span, not the number of blades. Specifically, the ’777 patent states:

A steadily increasing blade exposure has been found most effective. Therefore, the value of the exposure of *the secondary blade* is ideally approximately half way between the exposure values for the primary and tertiary blades, and very satisfactory test results have been obtained with *all three blade edges* lying in a common plane. In most embodiments a secondary blade exposure substantially equal to zero will be very satisfactory. We recommend that the tertiary blade exposure be a positive value equal in magnitude to the negative exposure of the primary blade.

\* \* \*

The span S1 of the primary blade 11 is from 0.5 to 1.5 mm and is preferably substantially equal to 0.70 mm. The span S2 of the secondary blade 12 and the span S3 of the tertiary blade 13 have the values in the range of 1.0 to 2.0 mm. They are shown [in FIG. 1] equal with a value substantially equal to 1.50 mm. The edge of the tertiary blade is at a distance S4 substantially equal to 1.80 mm in front of the cap.

*Id.* at col. 2, ll. 30–40, col. 3, ll. 25–32. (emphases added). Likewise, when describing “the preferred embodiment of the invention,” *id.* at col. 2, ll. 61–62, the specification describes the blade exposures of the primary and tertiary blades as being the variant factor, with the exposure of the primary blade being –0.04 mm and the exposure of the tertiary blade being +0.06 mm:

A more favourable blade arrangement is shown in FIG. 2. The spans S1, S2, S3 and S4 are the same as those mentioned above for FIG. 1. The primary blade in this embodiment has an exposure of –0.04 mm, the exposure of *the secondary blade* 12 is zero, *the edges of all three blades* lying in a common plane P as in FIG. 1, and the exposure of the tertiary blade 13 is +0.06 mm. Thus, there is a progressive increase in blade exposure from the leading blade 11 to the trailing blade 13.

*Id.* at col. 3, ll. 41–50 (emphases added). The consistent factor throughout these passages and the patent’s drawings is the presence of three blades arranged with progressive blade exposures and blade spans. It is the value of the blade exposure and span that the inventors intended could vary, not number of blades in the configuration. Thus, a three-bladed razor is not merely a preferred embodiment of the invention; rather, it is the invention. Indeed, nowhere in the specification is the blade unit of the invention expressly described as having multiple blades in excess of three.

The majority discusses at length that the claim terms “first,” “second,” and “third” do not import a sequential or finite meaning, thus allowing for two “second” blades positioned between the first and third blades, with the blades arranged having the described blade exposures and blade spans. Such a premise, however, assumes that a razor with four blades arranged with one blade configured as the claimed “first blade,” one blade configured as the claimed

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“third” blade, and the remaining two blades configured as the claimed “second” blade would achieve the same desirable results as a razor with only three blades (i.e., one “second blade”) arranged in the described geometry. Contrary to the majority’s implication, there is absolutely no support in the specification for this assumption. Further, the inclusion of more than three blades is in direct conflict with the specification’s repeated and consistent reference to the invention as containing three blades, e.g., “the three-bladed unit of the invention,” “a three-bladed safety razor blade unit,” “three blades,” and “three sharpened blades.” Finally, the text of the claim itself and the specification suggest only one second blade (i.e., “said second blade,” *id.* col. 4, line 11, “the secondary blade,” col. 3, lines 28, 46 (emphases added)). By using “the” and the singular form of “blade,” the patentee showed his invention possessed only one second blade positioned between the blade closest to the cap and the blade closest to the guard. The patentee did not state “secondary blades,” which would be the situation if the invention included two secondary blades. Further, in the introductory section of the patent, when the patentee is defining “blade exposure,” he explains how to measure it in terms of “the three-bladed unit of the invention . . .,” *id.* at col. 1, l. 54 (emphasis added). The specification’s prevalent references to a three-bladed razor and the claim’s use of the singular “blade” show that there can only be one “first” blade, one “second” blade, and one “third” blade. Any other reading of the claim terms “first,” “second,” and “third” is counter to the very nature of the invention described and claimed in the ’777 patent.<sup>6</sup>

In sum, the patent specification 1) repeatedly and consistently teaches that the safety razor of the invention is one having three blades; 2) teaches preferred embodiments which vary the configuration of the blades but in no way changes the number of blades of the invention; and 3) discourages the use of more than two blades in a blade unit except for the three-bladed blade unit having the claimed geometry. I believe these teachings together clearly demonstrate that the inventors did not regard a blade unit with four blades arranged in the described geometry as their invention. Therefore, “comprising” and “group of” should not be construed to include a safety razor having more than three blades.

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<sup>6</sup> The majority is correct that the use of the terms “first,” “second,” and “third” in a claim does not necessarily impart a sequential meaning to the items being claimed. However, here the balance of the language in claim 1 clearly demonstrates that the inventor intended a sequential relationship by saying that the second blade is located between the first and third blades. ’777 patent, col. 4, ll. 7–11 (“[T]he first blade defining a blade edge nearest the guard . . . and the third blade defining a blade edge nearest the cap.”).

The only support in the specification for the majority’s position that “comprising” and “group of” should be given their conventional meaning is the following sentence: “This invention is concerned with safety razors, and relates in particular to safety razors having blade units with *a plurality of blades* defining parallel sharpened edges arranged to pass in turn over a skin surface being shaved.” *Id.* at col. 1, ll. 3–6 (emphasis added). This single, broad statement, not repeated or endorsed elsewhere in the patent’s written description, cannot be read to expand the invention beyond what is explicitly described throughout the specification. In particular, it cannot rewrite the statements that the novelty of the invention “resid[es] in the provision of three blades set in the blade unit,” *id.* at col. 3, ll. 16–18, and that the goal of “an enhanced shaving efficiency is secured due to there being three sharpened blades,” *id.* at col. 4, ll. 2–3. The majority relies on this one instance of the use of the word “plurality” and conveniently ignores the repeated statements in the specification that the blade unit is composed of three blades.<sup>7</sup>

Finally, the majority’s claim construction ignores the notice function of the specification. As the Supreme Court stated almost two hundred years ago, an

*object of the specification is, to put the public in possession of what the party claims as his own invention, so as to ascertain if he claim[s] any thing that is in common use, or is already known, and to guard against prejudice or injury from the use of an invention which the party may otherwise innocently suppose not to be patented....*

*Evans v. Eaton*, 20 U.S. 356, 434 (1822) (emphases added). Anyone reading the ’777 patent would be left with the indelible impression that the patentee had invented a three-bladed, and only three-bladed, safety razor with blades having the described variable blade span and blade exposure. Only with a crystal ball could a competitor in the safety-razor industry have concluded that the ’777 patent could cover a four-bladed razor.

## II.

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<sup>7</sup> Additionally, the fact that the terms “several blades,” “many blades,” and “extra blades” occur in the specification is irrelevant to the claim construction at issue here. These phrases are contained in a discussion of longstanding problems associated with multiple blades. As noted above, the specification states that the use of multiple blades has historically been problematic. The solution proposed in the ’777 patent is the three-bladed blade unit of the invention with its three blades set in the blade unit in particular dispositions with respect to each other and the guard and the cap.

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Certainly, claiming conventions demonstrate that claim terms such as “comprising” and “group of” are traditionally viewed as open claim terms. However, here, the specification makes abundantly clear that the invention of the ’777 patent was a razor having three blades, no more, arranged in the described geometry. For this reason, I would affirm the district court’s claim construction and its denial of Gillette’s motion for a preliminary injunction.



**SciMed Life Systems, Inc. v. Advanced Cardiovascular Systems, Inc.**  
**242 F.3d 1337 (Fed. Cir. 2001)**

■ Before BRYSON, CIRCUIT JUDGE; PLAGER, SENIOR CIRCUIT JUDGE; AND DYK, CIRCUIT JUDGE.

■ BRYSON, CIRCUIT JUDGE.

SciMed Life Systems, Inc., (SciMed) owns three U.S. patents drawn to features of balloon dilatation catheters: U.S. Patent Nos. 5,156,594 (the '594 patent), 5,217,482 (the '482 patent), and 5,395,334 (the '334 patent). SciMed filed suit against Advanced Cardiovascular Systems, Inc., (ACS) in the United States District Court for the Northern District of California, charging ACS with infringement of each of the three patents. On ACS's motion for summary judgment, the district court ruled that ACS had not infringed the disputed patents. The district court's ruling was based on the court's conclusion that the asserted claims were limited to a structure not found in ACS's accused devices and on the court's conclusion that ACS's devices did not infringe SciMed's patents under the doctrine of equivalents. We agree with the district court's claim construction and its ruling on the equivalents issue. We therefore affirm the summary judgment of non-infringement.

I

Balloon dilatation catheters are used in coronary angioplasty procedures to remove restrictions in coronary arteries. The SciMed patents describe catheters having three sections: a first shaft section, a second shaft section, and a transition section between the two. The first shaft section is long, relatively stiff, and generally tubular. The second shaft section is relatively flexible and contains a balloon at the end, which is inflated to relieve the arterial restriction. The transition section connects the first and second shaft sections and provides a gradual transition in stiffness between the two shaft sections.

The catheters claimed in the SciMed patents contain two passageways, or lumens. The first lumen, the guide-wire lumen, is used to guide the catheter through a patient's arteries to the site of the arterial restriction. A guide wire is first inserted into one of the patient's arteries. The guide-wire lumen is then threaded over the guide wire to guide the catheter through the patient's arteries until the catheter reaches the coronary restriction. In the invention recited in the SciMed patents, the guide wire does not enter the catheter at the proximal end of the catheter, i.e., the end closer to the surgeon, but at a point nearer to the distal end of the catheter, i.e., the leading end of the catheter as it is inserted into the patient. The guide-wire lumen is present only in the distal portion of the catheter and does not extend the entire length of the catheter. The second lumen is the inflation lumen. It extends through all sections of the

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catheter and terminates in a connection with the balloon. The balloon is inflated by forcing fluid into the inflation lumen. The balloon then compresses the material restricting the artery, thereby relieving the restriction.

The parties agree that only two arrangements of the two lumens are known and practiced in the art. In the dual (or adjacent) lumen configuration, the two lumens are positioned side-by-side within the catheter. In the coaxial lumen configuration, the guide wire lumen runs inside the inflation lumen; in that configuration the inflation lumen, viewed in cross-section, is annular in shape. The parties also agree that the accused ACS devices employ only the dual lumen configuration and that the preferred embodiment described in the SciMed patents employs the coaxial lumen configuration.

Based on language in the common written description portion of the three SciMed patents, the district court construed the asserted claims of the patents to be limited to catheters with coaxial lumens, and not to read on catheters with a dual lumen configuration. The court noted that “the language contained in SciMed’s specifications *expressly* limits all embodiments of the claimed invention to a coaxial structure.” The court focused in particular on language from the common specification describing the coaxial lumen structure as the “basic sleeve structure for all embodiments of the present invention contemplated and disclosed herein.” That language, the court concluded, “leaves no doubt that a person skilled in the art would conclude that the inventor envisioned only one design for the catheters taught in SciMed’s patents—an intermediate sleeve section containing two . . . lumens arranged coaxially.”

In light of the district court’s construction of the asserted claims, SciMed conceded that ACS’s accused catheters did not literally infringe any of the asserted claims. In addition, the court held on summary judgment that the two lumen arrangements were sufficiently different that no reasonable jury could find the accused catheters to infringe the SciMed patents under the doctrine of equivalents. SciMed appeals the claim construction and the summary judgment based on that construction.

## II

The principal question in this case is a narrow one: whether the common specification of the three patents limits the scope of the asserted claims to catheters with coaxial lumens. There is nothing pertinent to this issue in the prosecution history of the three patents; the case turns entirely on an interpretation of the asserted claims in light of the specification, which is essentially identical for each of the three patents. Like the district court, we interpret the specification to disclaim the dual lumen configuration and to limit the scope of the asserted claims to catheters with coaxial lumen structures having annular inflation lumens. We therefore construe the asserted claims to read only on catheters with coaxial lumens, and not on catheters with dual or side-by-side lumens.

Claim 19 of the '594 patent is representative of the asserted claims of the three patents in suit. It claims the following:

In an elongate dilatation catheter of the type that can be slidably moved along a guide wire that can extend past a distal end of the catheter, wherein the guide wire is received in a guide wire lumen of the catheter, the guide wire extending from a distal guide wire lumen opening to a proximal guide wire lumen opening disposed in a portion of the catheter that is spaced distally from a proximal end of the catheter, the dilatation catheter including an inflatable balloon and an inflation lumen extending through the catheter separate from the guide wire lumen, an improvement comprising:

a first proximal shaft section of the catheter defined by a relatively rigid metallic tube;

a second shaft section disposed distally of the first shaft section, the second shaft section being relatively more flexible than the first shaft section; and

a transition section disposed between the first shaft section and the second shaft section, the transition section including a transition member comprising a metallic element of gradually diminished dimension, the transition member extending adjacent to the proximal guide wire lumen opening

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SciMed argues at length that in construing the claims based on the written description, the district court has committed one of the cardinal sins of patent law—reading a limitation from the written description into the claims. *See Comark Communications, Inc. v. Harris Corp.*, 156 F.3d 1182, 1186 ... (Fed. Cir. 1998). But that is not an accurate characterization of what the district court did. Instead, the district court properly followed the invocation that “[c]laims must be read in view of the specification, of which they are a part.” *Markman v. Westview Instruments*, 52 F.3d 967, 979–980 (Fed. Cir. 1995), *aff’d*, 517 U.S. 370 (1996); *see also United States v. Adams*, 383 U.S. 39, 49 ... (1966) (“[C]laims are to be construed in light of the specifications and both are to be read with a view to ascertaining the invention.”); ....

As this court has recently explained, “[o]ne purpose for examining the specification is to determine if the patentee has limited the scope of the claims.” *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000). Where the specification makes clear that the invention does not include a particular feature, that feature is deemed to be outside the reach of the claims of the patent, even though the language of the claims, read without reference to the specification, might be considered broad enough to encompass the feature in question. Thus, in the *Watts* case, the claim in dispute recited pipe joints that could be “sealingly connected.” The court noted that the specification described only one method to achieve the sealing connection, that is, to misalign the taper angles

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of the respective threads of the joined pipes. The court pointed out that the specification “actually limits the invention to structures that utilize misaligned taper angles, stating that ‘the present invention utilizes [the varying taper angle] feature.’” 232 F.3d at 883. In light of that statement, the court construed the claim language as limited to connections effected by misaligned taper angles.

Another case in which the claims were given a narrow construction in light of the written description is *Wang Labs, Inc. v. America Online, Inc.*, 197 F.3d 1377 (Fed. Cir. 1999). In that case, the parties agreed that in general usage the claim term “frame” could be applied both to “bit-mapped display systems” and to “character-based systems.” The court, however, construed the claims as limited to character-based systems. The court noted that the “only system that is described and enabled” in the patent specification “uses a character-based protocol,” and that references to bit-mapped protocols did “not describe them as included in the applicant’s invention, and that the specification would not be so understood by a person skilled in the field of the invention.” *Id.* at 1382. Citing *Modine Manufacturing Co. v. United States International Trade Commission*, 75 F.3d 1545, 1551 (Fed. Cir. 1996), the court explained that “when the ‘preferred embodiment’ is described as the invention itself, the claims are not entitled to a broader scope than that embodiment.” 197 F.3d at 1383.

The court in *Cultor Corp. v. A.E. Staley Manufacturing Co.*, 224 F.3d 1328 (Fed. Cir. 2000), followed a similar analytical path....

Finally, we find instructive the analysis in *Toro Co. v. White Consolidated Industries, Inc.*, 199 F.3d 1295 (Fed. Cir. 1999). The patent at issue described and claimed a hand-held convertible vacuum-blower for vacuuming and blowing leaves and yard debris. In the claimed device, the cover was fitted with a ring that restricted the size of the air inlet when the device was being used in blower mode. One of the questions before the court was whether the cover, which the claim characterized as “including” a restriction ring, had to be permanently attached to the restriction ring. To answer that question the court looked to the specification. The court observed that the specification and drawings showed the ring as part of and permanently attached to the cover, and did not illustrate or describe any other structure. Indeed, the court pointed out, the specification described the advantages of the unitary structure as important to the invention. Based on the specification, the court construed the term “including” in the asserted claims as requiring that the restriction ring be attached to the cover. 199 F.3d at 1302.

The analysis in these cases is directly applicable to the claim construction issue presented here. At various points, the common specification of the three patents indicates that the claimed invention uses coaxial, rather than side-by-side lumens, i.e., that the guide wire lumen is contained within the inflation lumen and that the inflation lumen is annular. Read together, these

portions of the common specification lead to the inescapable conclusion that the references in the asserted claims to an inflation lumen “separate from” the guide wire lumen must be understood as referring to coaxial lumens, and thus that the asserted claims read only on catheters having coaxial lumens.

First, the abstract of each of the patents refers to the intermediate sleeve section of the invention as including “an inner core tube which defines a guide wire lumen.” The abstract adds that the inflation lumen is “continued as an annular inflation lumen” through the sleeve section of the catheter. Thus, from the outset the specification identifies the inflation lumen, as that term is used in the SciMed patents, as annular, i.e. coaxial rather than dual in structure.

Second, in discussing the disadvantages of certain prior art structures, the written description of each of the patents explains that the prior art catheters with shortened guide wire lumens “suffer from several disadvantages.” The first cited disadvantage is that “[s]uch catheters have been one piece polyethylene catheters having dual lumen configurations adjacent their distal regions. Typically, such catheters have larger than necessary shaft sizes and are stiffer in their distal regions than would be desired . . . .” ’594 patent, col. 3, ll. 3–8; ’482 patent, col. 3, ll. 5–10; ’334 patent, col. 3, ll. 10–15. Thus, the SciMed patents distinguish the prior art on the basis of the use of dual lumens and point out the advantages of the coaxial lumens used in the catheters that are the subjects of the SciMed patents. That discussion in the written description supports the district court’s conclusion that the claims should not be read so broadly as to encompass the distinguished prior art structure. *See, e.g., Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 1159 (Fed. Cir. 1998) (specification distinguished prior art as inferior and touted advantages of a conical shaped cup for use in an artificial hip device; “[s]uch statements make clear that the ’589 patent discloses *only* conical shaped cups and nothing further”); *Ekchian v. Home Depot, Inc.*, 104 F.3d 1299, 1304 (Fed. Cir. 1997) (“[S]ince, by distinguishing the claimed invention over the prior art, an applicant is indicating what the claims do not cover, he is by implication surrendering such protection.”).

Third, the “Summary of the Invention” portion of the patents describes “the present invention” as having a sleeve section with an inner core tube having a guide wire lumen extending through it and an outer sleeve defining “a longitudinally extending annular inflation lumen.” ’594 patent, col. 3, ll. 33–45; ’482 patent, col. 3, ll. 34–46; ’334 patent, col. 3, ll. 40–52. The characterization of the “present invention” includes several more references to the “annular inflation lumen” as well, *see* ’594 patent, col. 3, ll. 58–59, 61, col. 4, ll. 43–44; ’482 patent, col. 3, ll. 59–60, 62, col. 4, ll. 45–46; ’334 patent, col. 3, ll. 65, 68, col. 4, ll. 51–52, and the “Conclusion” section of the written description again refers to the “guide wire lumen and annular inflation lumen” in the distal portions of the catheter. ’594 patent, col. 14, ll. 26–28; ’482 patent, col. 14, ll. 31–33; ’334 patent, col. 3, ll. 41–44. As in the *Wang Labs* and *Modine* cases cited above, the characterization of the coaxial configuration as part of

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the “present invention” is strong evidence that the claims should not be read to encompass the opposite structure.

The most compelling portion of the specification, and the portion on which the district court principally focused, is the passage in the section entitled “Catheter Intermediate Sleeve Section” in which the inflation lumen is described as annular in structure, being formed from an outer sleeve or tube (the inflation lumen) and an inner core tube (the guide wire lumen). See ’594 patent, col. 7, ll. 26–28, 63–65; ’482 patent, col. 7, ll. 29–31, 66–68; ’334 patent, col. 7, ll. 41–43, col. 8, ll. 10–12. The patents then recite:

The intermediate sleeve structure defined above is the basic sleeve structure for *all embodiments of the present invention contemplated and disclosed herein*—namely, an inner core tube bonded to a distal portion of the main catheter shaft, with an outer sleeve forming an annular continuation of the inflation lumen through the main shaft between the core tube and outer sleeve. As discussed below and illustrated herein, various configurations of the connections and components relative to the formation of the distal guide wire lumen, including the coupling of the main shaft to the intermediate sleeve section, are contemplated.

’594 patent, col. 8, ll. 3–14; ’482 patent, col. 8, ll. 6–17; ’334 patent, col. 8, ll. 18–29 (emphasis added).

This language defines SciMed’s invention in a way that excludes the dual, or side-by-side, lumen arrangement. SciMed argues that the references to the annular inflation lumen are meant only to refer to the preferred embodiment of the invention, and not to indicate that the claims should be construed as limited to a structure employing coaxial lumens. That argument, however, flies in the face of the many statements in the written description that define “the invention” as employing a coaxial lumen structure and distinguish the prior art in part on the ground that it used a dual lumen structure, which had the disadvantage of making the shaft sizes of the catheters larger than necessary and making the catheters “stiffer in their distal regions than would be desired.” ’594 patent, col. 3, ll. 3–9; ’482 patent, col. 3, ll. 5–11; ’334 patent, col. 3, ll. 10–16. SciMed’s argument is particularly unconvincing in the face of its own statement in the written description that the structure containing coaxial lumens (“namely, an inner core tube bonded to a distal portion of the main catheter shaft, with an outer sleeve forming an annular continuation of the inflation lumen through the main shaft between the core tube and the outer sleeve”) is “the basic sleeve structure for all embodiments of the present invention contemplated and disclosed herein.” ’594 patent, col. 8, ll. 4–9; ’482 patent, col. 8, ll. 7–12; ’334 patent, col. 8, ll. 19–24. That characterization of the invention cannot reasonably be interpreted as limited to the preferred embodiment, as SciMed argues, but is expressly made applicable to “all embodiments of the present invention.”

The words “all embodiments of the present invention” are broad and unequivocal. It is difficult to imagine how the patents could have been clearer in making the point that the coaxial lumen configuration was a necessary element of every variant of the claimed invention. Moreover, there is no suggestion that the patentee made that statement unaware of the alternative dual lumen configuration, because earlier in the patent the patentee had distinguished the dual lumen configuration used in prior art devices as having disadvantages that the coaxial lumens used in the patented invention had overcome. *See* ’594 patent, col. 3, ll. 1–22; ’482 patent, col. 3, ll. 3–24; ’334 patent, col. 3, ll. 8–29. (describing the dual lumen configuration). This is therefore a clear case of disclaimer of subject matter that, absent the disclaimer, could have been considered to fall within the scope of the claim language.

Citing *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1248 ... (Fed. Cir. 1998), and *Johnson Worldwide Assocs. v. Zebco Corp.*, 175 F.3d 985, 989–90 ... (Fed. Cir. 1999), SciMed argues that the only way in which statements in the written description can restrict the scope of a claim is by setting forth a specific, narrowing definition for a particular claim term. As indicated by the cases discussed above, such as *Watts*, *Wang Labs*, *Cultor*, and *Tekmar*, SciMed’s characterization of the role of the written description is too narrow. While it is true, of course, that “the claims define the scope of the right to exclude” and that “the claim construction inquiry, therefore, begins and ends in all cases with the actual words of the claim,” *Renishaw PLC*, 158 F.3d at 1248, the written description can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format. *See, e.g., Phonometrics, Inc. v. Northern Telecom Inc.*, 133 F.3d 1459, 1466 ... (Fed. Cir. 1998) .... In this case, the written description makes clear that when the asserted claims refer to the respective locations of the guide wire and inflation lumens, and in particular when the claims refer to the inflation lumen as “extending through the catheter separate from” the guide wire lumen, the claim language refers to coaxial lumens.

Because the three SciMed patents make clear that the lumens referred to in the claims are all coaxial in structure, the district court was correct to construe the patents as disclaiming the dual lumen configuration. Under such a construction, SciMed concedes that no literal infringement can be found. The district court therefore properly entered summary judgment in favor of ACS on the issue of literal infringement.

### III

In a separate opinion, the district court rejected SciMed’s argument that ACS’s accused devices infringed the three asserted patents under the doctrine of equivalents. We agree with the court that the doctrine of equivalents is

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inapplicable in this case and that the district court properly granted summary judgment to ACS on that issue.

As noted above, the common specification of SciMed's patents referred to prior art catheters, identified them as using the dual lumen configuration, and criticized them as suffering from the disadvantages of having "larger than necessary shaft sizes" and being "stiffer in their distal regions than would be desired." '594 patent, col. 3, ll. 6–8; '482 patent, col. 3, ll. 8–10; '334 patent, col. 3, ll. 13–15. That criticism of the dual lumen configuration was consistent with the evidence from SciMed witnesses and documents, which noted the advantages of the coaxial lumen configuration in increasing the flexibility of catheters and their ability to track through the coronary arterial system. The disclaimer of dual lumens was made even more explicit in the portion of the written description in which the patentee identified coaxial lumens as the configuration used in "all embodiments of the present invention."

Having specifically identified, criticized, and disclaimed the dual lumen configuration, the patentee cannot now invoke the doctrine of equivalents to "embrace a structure that was specifically excluded from the claims." *Dolly, Inc. v. Spalding & Evenflo Cos.*, 16 F.3d 394, 400 (Fed. Cir. 1994). A particular structure can be deemed outside the reach of the doctrine of equivalents because that structure is clearly excluded from the claims whether the exclusion is express or implied. In *Moore, U.S.A., Inc. v. Standard Register Co.*, 229 F.3d 1091 (Fed. Cir. 2000), for example, the court considered a claim to a mailer-type business form in which the longitudinal strips of adhesive extend "the majority of the lengths" of the longitudinal margins of the form. The patentee argued that the accused form, in which the longitudinal strips of adhesive extended a minority of the length of the longitudinal margin of the form, infringed under the doctrine of equivalents. The court rejected the argument, holding that "it would defy logic to conclude that a minority—the very antithesis of a majority—could be insubstantially different from a claim limitation requiring a majority, and no reasonable juror could find otherwise." 229 F.3d at 1106. Similarly, in *Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547 (Fed. Cir. 1997), the patent claimed a process that included crystallizing a particular substance at high temperature "under an inert gas atmosphere." The patentee argued that certain of the accused processes, which used "heated air" rather than "an inert gas atmosphere" infringed under the doctrine of equivalents. The court rejected that argument, explaining that "the claim language specifically excludes reactive gases—such as 'heated air'—from the scope of the claims" and in light of that specific exclusion, the accused processes could not infringe under the doctrine of equivalents. 114 F.3d at 1561. In each of these cases, by defining the claim in a way that clearly excluded certain subject matter, the patent implicitly disclaimed the subject matter that was excluded and thereby barred the patentee from asserting infringement under the doctrine of equivalents.



The court did effectively the same thing in *Sage Products, Inc. v. Devon Industries, Inc.*, 126 F.3d 1420 (Fed. Cir. 1997).... [T]he court determined that because the scope of the claim was limited in a way that plainly and necessarily excluded a structural feature that was the opposite of the one recited in the claim, that different structure could not be brought within the scope of patent protection through the doctrine of equivalents. See *Ethicon Endo-Surgery, Inc. v. U.S. Surgical Corp.*, 149 F.3d 1309, 1317 (Fed. Cir. 1998) (subject matter is “specifically excluded” from coverage under the doctrine of equivalents if its inclusion is “inconsistent with the language of the claim”).

Finally, in *Athletic Alternatives, Inc. v. Prince Manufacturing, Inc.*, 73 F.3d 1573, 37 USPQ2d 1365 (Fed. Cir. 1996), the court addressed a claim directed to a system for stringing tennis rackets with splayed strings. The court construed the claim to require that the stringing system produce rackets with at least three different splay-creating offset distances for the strings. Having construed the claim in that manner, the court held that, for purposes of the doctrine of equivalents, “the properly construed claim *cannot* have an equivalent in a racket with only two offset distances,” i.e., the two-distance splayed string system was “specifically excluded from the scope of the claims.” 73 F.3d at 1582, 37 USPQ2d at 1373 (quoting *Dolly*, 16 F.3d at 400, 29 USPQ2d at 1771)....

The principle articulated in these cases is akin to the familiar rule that the doctrine of equivalents cannot be employed in a manner that wholly vitiates a claim limitation. See *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17, 29–30 (1997); *Athletic Alternatives*, 73 F.3d at 1582, 29 USPQ2d at 1771 (“specific exclusion” principle is “a corollary to the ‘all limitations’ rule”). Thus, if a patent states that the claimed device must be “non-metallic,” the patentee cannot assert the patent against a metallic device on the ground that a metallic device is equivalent to a non-metallic device. The unavailability of the doctrine of equivalents could be explained either as the product of an impermissible vitiation of the “non-metallic” claim limitation, or as the product of a clear and binding statement to the public that metallic structures are excluded from the protection of the patent. As the court made clear in *Sage*, the foreclosure of reliance on the doctrine of equivalents in such a case depends on whether the patent clearly excludes the asserted equivalent structure, either implicitly or explicitly.

In that respect, this case is an even stronger one for not applying the doctrine of equivalents than cases such as *Dolly*, *Sage*, *Eastman Kodak*, *Moore*, and *Athletic Alternatives*. Each of the SciMed patents specifically recognized and disclaimed the dual lumen structure, making clear that the patentee regarded the dual lumen configuration as significantly inferior to the coaxial lumen configuration used in the invention. Where such an explicit disclaimer is present, the principles of those cases apply *a fortiori*, and the patentee cannot be allowed to recapture the excluded subject matter under the doctrine of

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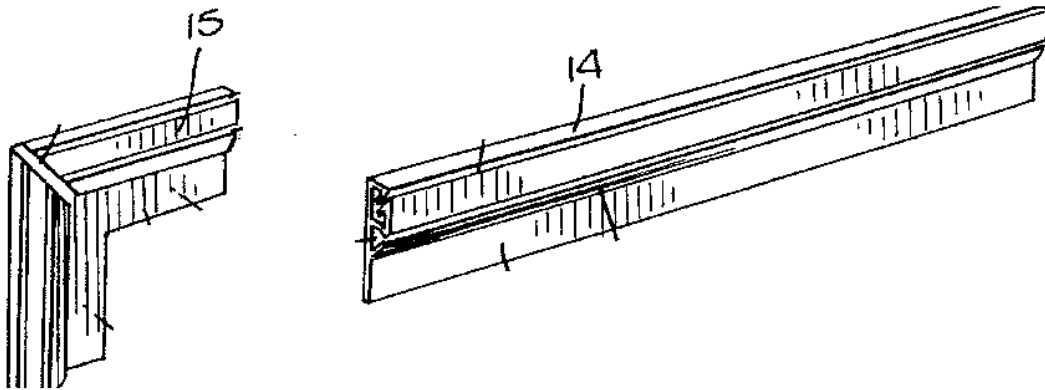
equivalents without undermining the notice function of the patent. As the court observed in *Sage*, the patentee had an opportunity to draft the patent in a way that would make clear that dual lumens as well as coaxial lumens were within the scope of the invention, but the patentee did just the opposite, leaving competitors and the public to draw the reasonable conclusion that the patentee was not seeking patent protection for catheters that used a dual lumen configuration. Under these circumstances, the district court was justified in concluding that a reasonable jury could not find that the accused devices infringe the SciMed patents under the doctrine of equivalents.

*AFFIRMED.*

■ DYK, CIRCUIT JUDGE, CONCURRING.

On the facts of this particular case, I agree with the result reached by the majority, and I join the opinion. I also agree with the majority that “the written description can provide guidance as to the meaning of the claims, thereby dictating the manner in which the claims are to be construed, even if the guidance is not provided in explicit definitional format.” The problem is that our decisions provide inadequate guidance as to when it is appropriate to look to the specification to narrow the claim by interpretation and when it is not appropriate to do so. Until we provide better guidance, I fear that the lower courts and litigants will remain confused.

**Unique Concepts, Inc. v. Brown**  
**939 F.2d 1558 (Fed. Cir. 1991)**



Excerpt from Fig. 2 of U.S. Pat. No. 4,108,260 (issued Apr. 19, 1977)  
 (some matter omitted)

■ Before RICH, MAYER, AND LOURIE, CIRCUIT JUDGES.

■ LOURIE, CIRCUIT JUDGE.

Unique Concepts, Inc. and Floyd M. Baslow (collectively “Unique”) appeal from the May 4, 1990, final judgment of the United States District Court for the Southern District of New York, holding that certain products produced by defendants Kevin Brown (d/b/a Creative Walls, Templar and Schram) and World Plastics Extruders, Inc. (collectively “Brown”) do not infringe Unique’s patent. *Unique Concepts, Inc. v. Brown*, 735 F. Supp. 145 (S.D.N.Y.1990). We affirm.

## BACKGROUND

### A. *The Patent in Suit*

Unique is the exclusive licensee under U.S. Patent 4,[01]8,260 (‘260 patent), entitled “Fabric Wall Coverings,” issued April 19, 1977, and owned by Floyd M. Baslow. Contrary to its title, the patent is not directed to wall coverings themselves, but to an “assembly of border pieces” used to attach a fabric wall covering to a wall. The assembly is made up of a number of “right angle corner border pieces” and “linear border pieces” which are arranged so as to form a frame around the area of a wall to be covered....

The ’260 patent issued from [an] application [that] as originally filed contained 14 claims. Claim 1, the only independent claim, recited an assembly comprising “linear border pieces and right angle corner border pieces,” each of the border pieces having a raised face, a storage channel, and a keyway. The

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original claims of the Baslow application were rejected by the Patent and Trademark Office (PTO) as being unpatentable in view of various references. The Examiner found that the references “show frames including corners in arrangements similar to that of applicant....”

In response, the applicant amended his claims and argued against the references, stating that “[t]he main advantage of the present invention is that it greatly simplifies the mounting of a fabric covering.... Thus an amateur can practice the present invention....”

The next item in the file history is a notice of allowability together with an examiner’s amendment cancelling claims 1–3 and 5–14, and amending claim 4 to depend from claim 15. Application claims 15–17 and 4 issued as claims 1–4 of the ’260 patent, respectively. Claim 1, the sole independent claim, reads:

1. An assembly of border pieces for creating a framework attachable to a wall or other flat surface for mounting a fabric sheet which is cut to dimensions at least sufficient to cover the surface, *said assembly comprising linear border pieces and right angle corner border pieces* which are arranged in end-to-end relation to define a framework that follows the perimeter of the area to be covered, *each piece* including a raised face, a storage channel running adjacent the outer edge of the piece and having a narrow inlet communicating with said face, the portion of the selvage of said sheet which includes fabric material in excess of that necessary to cover said surface being stuffed in said storage channel so that the exposed selvage of the sheet lies against said face to present a smooth appearance which extends to said inlet and is directly adjacent said perimeter, said linear pieces being formed of an integral one piece plastic material of sufficient elasticity to permit dilation of said inlet whereby said inlet may be temporarily expanded to admit said excess material and then contracted to retain said excess material in said storage channel.

(Emphasis added).

### B. *The Proceedings in the District Court*

Unique brought the present suit in 1986, alleging that certain products made by Brown infringed claims 1–3 of the ’260 patent ....

After some initial maneuvering, the parties entered into an extensive “Stipulation and Order,” which substantially narrowed the issues for trial. Pursuant to the stipulation, the sole issue which remained was whether two of Brown’s products (the “regular flat track with heel” and the “cove track”) infringed claims 1–3 of the ’260 patent. Validity was not at issue; the stipulation prevented a claim interpretation which would render the claims invalid.

Brown maintained that its accused products do not infringe for two reasons. First, the accused products do not have corner pieces which were *pre-formed* at a right angle, but instead employ two linear pieces which are each mitered, *i.e.*, cut at a 45 degree angle, and then placed together to form a right angle. [The second reason is irrelevant for these opinion excerpts.]

A trial was held, at which each party, by agreement, presented as its only witness a patent expert. After hearing the testimony, the judge entered judgment for Brown, finding that ... the mitered linear pieces used by Brown do not meet the claim language “right angle corner border pieces,” either literally or under the doctrine of equivalents. Unique appealed.

### DISCUSSION

The '260 patent claims a framework for mounting a fabric sheet “comprising linear border pieces and right angle corner border pieces.” The district court found the patent not infringed because, *inter alia*, the language “right angle corner pieces” is limited to preformed corner pieces, whereas the mitered linear pieces used by Brown do not meet this limitation either literally or under the doctrine of equivalents.

Unique argues that the district court erred in finding that the claims do not literally cover assemblies having mitered corners. Claim construction is an issue of law, which we review *de novo*. To ascertain the meaning of claims, we consider three sources: the claims, the specification, and the prosecution history.

The language of claim 1 makes unambiguous reference to two distinct elements of the claimed structure: linear border pieces and right angle corner pieces. If, as Unique argues, linear border pieces of framing material, whose ends are mitered, are the same as linear border pieces *and* a right angle corner piece, the recitation of both types of pieces is redundant. Unique’s argument for merging the two types of claim elements into one also violates the oft-quoted “all elements rule,” the essence of which is that to prove infringement, every element in the claim must be found in the accused device either literally or equivalently. The district court thus correctly held that the plain language of the claim includes two distinct types of elements, including right angle corner border pieces, thereby precluding literal infringement.

The specification also shows that the claim language “right angle corner border piece” means a single preformed piece. The specification repeatedly refers to the preformed pieces 15 and 16, using only the words “right angle” border pieces or “corner pieces.” In addition, the drawings show only preformed corner pieces and no mitered pieces.

The specification does refer once to “improvise[d] corner pieces” as an alternative to the preformed pieces:

Instead of using preformed right-angle corner pieces of the type previously disclosed, one may improvise corner pieces by miter-cutting the ends of a

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pair of short linear border pieces at right angles to each other and providing a space between the cut ends to define the necessary storage slot. For this purpose, a temporary spacer may be used to provide exactly the right amount of storage space. The advantage of such corner pieces resides in the fact that linear pieces may be mass-produced at low cost by continuous extrusion, whereas preformed corner pieces must be molded or otherwise fabricated by more expensive techniques. On the other hand, *a preformed corner piece is somewhat easier for a do-it-yourselfer to work with.*

Col. 8, lines 28–41 (emphasis added). However, this reference does not negate the claim language clearly reciting right angle corner pieces. This paragraph, rather than providing an illustration of a right angle corner border piece, as the dissent indicates, provides an alternative to it. The language right angle corner border piece is too clear to encompass linear pieces that are not right angle corner pieces. The fact that mitered linear border pieces meet to form a right angle corner does not make them right angle corner pieces, when the claim separately recites both linear border pieces and right angle corner border pieces. Such an interpretation would run counter to the clear meaning of the language. Linear border pieces are not right angle corner border pieces. Both types of pieces are required by the claim.

The statute requires that an inventor particularly point out and distinctly claim the subject matter of his invention. It would run counter to this statutory provision for an applicant for patent to expressly state throughout his specification and in his claims that his invention includes right angle corner border pieces and then be allowed to avoid that claim limitation in a later infringement suit by pointing to one paragraph in his specification stating an alternative that lacks that limitation, and thus interpret the claim contrary to its plain meaning. Such a result would encourage an applicant to escape examination of a more broadly-claimed invention by filing narrow claims and then, after grant, asserting a broader scope of the claims based on a statement in the specification of an alternative never presented in the claims for examination.

The claims as granted contain the right angle corner border piece limitation. All the limitations of a claim must be considered meaningful, and Brown's avoidance of that limitation avoids literal infringement.

It is also well-established that subject matter disclosed but not claimed in a patent application is dedicated to the public. *Edward Miller & Co. v. Bridgeport Brass Co.*, 104 U.S. 350, 352 (1881). That is what occurred here. If Unique intended to claim mitered linear border pieces as an alternative to its right angle corner border pieces, it had to persuade the examiner to issue such a claim. As will be shown below, Unique failed to do so.

The prosecution history also supports the district court's decision. During the prosecution of the '260 patent, the examiner understood the right angle corner pieces of Claim 1 to be distinct from mitered linear pieces, because he

initially rejected the claims, citing and referring to other references as showing preformed, right angle corner pieces or braces. The applicant overcame the rejection by arguing the advantage of simplification for the do-it-yourselfer. As noted in the specification, a preformed corner piece is one of the advantages of the invention making it attractive to the do-it-yourselfer.

There then occurred a telephone interview between the attorney and the examiner, following which the Examiner cancelled certain claims. Among the cancelled claims was original Claim 9, which depended from original Claim 1 (also cancelled) and recited short linear mitered pieces as forming a right angle corner piece.

The dissent relies upon Claim 9 to construe what is now Claim 1 as including linear pieces which are mitered to form a corner piece. It interprets “linear pieces whose ends are mitered” to be a species of generic Claim 1’s “right angle corner border pieces,” and therefore within its scope. Such a construction is unjustified because the language of Claim 1 is clear and is inconsistent with Claim 9 being dependent thereon.

The record contains no indication of what transpired in the interview and why Claim 9 was cancelled. A plausible reason is that Claim 9 was cancelled because it was not properly dependent upon original Claim 1. The court referred to Brown’s expert, who stated that the claim was cancelled because it did not encompass an invention suitable for a do-it-yourselfer. The dissent finds this expert testimony to be “wholly incredible.” We do not know why Claim 9 was cancelled and cannot speculate on the reasons for the cancellation; we can only interpret the clear language of the claims as granted.

When the language of a claim is clear, as here, and a different interpretation would render meaningless express claim limitations, we do not resort to speculative interpretation based on claims not granted. Our interpretation gives full effect to the recitation of two distinct elements in the claimed structure: linear border pieces and right angle corner border pieces. It also gives full effect to the specification and the expert testimony, and a reasonable interpretation of the prosecution history.

With respect to infringement by equivalents, since Brown conceded that the “result” of the right angle corner piece of the accused device is substantially the same as that of Claims 1, 2, and 3, the district court held that “the result is substantially the same; however, the means and function of the patented and accused devices are not the same, negating a finding of equivalents.” Unique argues that the district court erred as a matter of law by omitting the word “substantial” in its conclusory statement regarding infringement by the doctrine of equivalents. We disagree.

The issue of law on this point is whether the trial court understood and properly applied the requisite elements for finding infringement by equivalence, *i.e.*, determining whether the ’260 patent and Brown’s structure are substantially the same in function, way and result. On review of the record, we

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conclude that the court understood and correctly applied the appropriate test. The court-appointed expert told the judge that a finding of infringement by equivalents requires a determination whether the accused devices achieve *substantially the same* result and *substantially the same* function of the claimed invention, in *substantially the same* way. At trial, Unique's expert similarly testified. Brown's expert repeated the test, with short-hand reference to "*the same*" instead of *substantially the same*. However, there is no indication that the judge (or either party) misunderstood this short-hand reference and eliminated the word "substantially" from his analysis. Brown's counsel recounted the *substantially the same* test while examining its witness. Unique's counsel did not cross-examine Brown's expert on this point. In the opinion itself, the judge's use of "substantially," taken in context, refers to all of the factors in a doctrine of equivalents analysis.

The determination whether an accused device infringes the claims of a patent is one of fact, reviewed under the clearly erroneous standard. Therefore, we may reverse the district court's finding of no infringement only if we are left with a "definite and firm conviction that a mistake has been committed" by the trial court. *U.S. v. Gypsum Co.*, 333 U.S. 364, 395 (1948). The court explained that because Brown's device performs the function and achieves the result in a substantially different way, there was no infringement by Brown's frame of the '260 patent:

One of the main objects of the invention was stated to be to make something useful for a do-it-yourselfer. In fact, claim 9, as originally presented, expressly called for mitered pieces and was cancelled because it was not something that a do-it-yourselfer could do, according to [Brown's] expert witness. The accused device has a *different and complicated way* of doing what the right-angle piece does in the patented device. It is a lot simpler for the do-it-yourselfer to use the preformed right-angle pieces of the patented device and far more difficult to create corners by the mitered means used and the function of the accused device.

735 F. Supp. at 147 (emphasis added). This finding is supported by the testimony of Brown's expert as to the difference between mitered corners and preformed corners:

In this particular case it is more than simply cutting two pieces because you have to cut four pieces to make two mates. You have the channel and the inlet that has to be made also.

Additionally, you have to have a spacer and make the proper space so you can shove the little piece of selvage that's left over at the end and make a nice fine product.

Additionally, you have to put that corner piece up in the right place in the right section. It is simply *quite a different procedure* to do



all of this and to end up with the same result as a right-angle corner piece. I think you are doing something in a *completely different way*.

(Emphasis added). On review of the record, we see no clear error in the district court's findings.

### CONCLUSION

The district court was correct in concluding that the claim language "right angle corner border pieces," properly construed with reference to the specification and prosecution history, requires a preformed corner piece.... Moreover, the district court did not clearly err in finding that Brown's accused frame does not infringe under the doctrine of equivalents because it does not perform in the same way. \* \* \*

#### ■ RICH, CIRCUIT JUDGE, DISSENTING.

As the majority opinion states, this appeal comes to us with two issues, both relating to infringement of the claims in suit, claims 1–3, plus a stipulation which inhibited the trial court from considering validity or so construing the claims as to render them invalid for any reason. The issues, then, are (1) whether a "keyway" limitation must be read into the claims, which do not refer to a keyway, in order to save them from invalidity and (2) whether the claims in suit are not infringed because they must be construed as limited to *preformed one-piece* corner border pieces which defendants do not use.

The majority rests its decision on issue (2) and therefore does not reach issue (1), agreeing with defendants' contentions and the district court. On this issue of claim construction, I am constrained to disagree with both the district court and the majority for the following reasons. I do agree that the majority, having reached its decision on issue (2), albeit incorrectly as a matter of claim construction, was justified in not reaching issue (1). Since I would hold to the contrary on issue (2), I would feel obliged to pass on issue (1) and would hold that under long-established precedent too well settled to require citation it is not permissible to read limitations into claims which they clearly do not contain. In sum, I would hold claim 1 infringed, as did the court-appointed expert or "master," though I would hold it *literally* infringed. (This assumes that defendants' assemblies have *both corner* border pieces (as distinct from "linear" border pieces) and *linear* border pieces, which I do not know to be the fact.)

Parties cannot, by stipulation, make invalid claims valid nor can they require this or any other court to violate established principles of claim construction. Validity and infringement are unrelated questions. Invalid claims can perfectly well be infringed, which is simply a matter of construing the words of the claim and then determining whether they can be read on the accused structure. Courts constantly hold claims infringed but invalid. Validity vel non should have no effect on how the infringement issue is decided. The

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district judge did not seem to understand that. The stipulation that the claims *must* be so construed for infringement purposes as to assure their actual validity is *not binding on courts*. Parties cannot require courts to decide *legal* questions, which are reviewable *de novo*, a certain way. If they wish to settle their cases, they should do just that.

In the present posture of this appeal, the sole question is whether the majority has correctly construed the meaning of a single limitation in claim 1, which claim is set forth in full in its opinion. That limitation is: “right-angle corner border pieces.” I simply disagree with the majority’s conclusions and with its attempted supporting reasoning. We arrive at different “plain meanings.”

I fully agree with the majority’s statement of the law respecting claim construction, a question of law we review *de novo*. We construe claims in the light of the *language of the claim* itself, the *specification* on which it is based, and the whole *prosecution history*. The majority has not properly done this and, in my judgment, has demonstrably come to a wrong conclusion. Significant statements in the specification and prosecution history are misapplied. I shall begin with the specification.

As the majority states, the specification first describes and illustrates the *one-piece* corner pieces 15 and 16, outside and inside corners respectively. True, these are the only corner pieces shown in drawings. Then the specification contains the significant statement quoted in the majority opinion from the patent at col. 8, lines 28–41. (*My emphasis*):

Instead of using *preformed* right-angle corner pieces of the type previously disclosed, one may improvise *corner pieces* by miter-cutting the ends of a pair of *short* linear border pieces placed *at right angles* to each other and providing a space between the cut ends to define the necessary storage slot. For this purpose, a temporary spacer may be used to provide exactly the right amount of storage space. The *advantage of such corner pieces* resides in the fact that linear pieces may be mass-produced at low cost by continuous extrusion, whereas *preformed* corner pieces must be molded or otherwise fabricated by more expensive techniques. On the other hand, a preformed corner piece is *somewhat* easier for a do-it-yourselfer to work with.

Perhaps this is a matter, on both sides, of seeing what you choose to see. Beyond question, however, the specification discloses *two species* of right-angle corner border pieces: (1) preformed one-piece and (2) mitered, *short*, linear pieces, arranged at right angles and properly spaced at their junction. The latter are to be joined to longer linear pieces. No drawing is needed to make (2) clear. In any case, there are always, in a single assembly, both *corner* pieces and *linear* pieces, even when the second species of corner is used.

Now I turn to the contents of the file-wrapper. From day one when the application was filed these two kinds of corners were not only described but

claimed and we look to this, equally with the specification, to determine the correct construction of the claim 1 language. Original claim 1, as filed, used exactly the same terminology as patent claim 1, “right-angle corner border pieces.” There were 14 original claims on day one. Among them was claim 9, depending from claim 1, reading:

9. An assembly as set forth in claim 1, wherein *said right-angle corner pieces are formed by a pair of short linear pieces whose ends are mitered and spaced from each other to define a slot therebetween* to receive the pucker of the selvage when the selvage is locked into the keyway. [My emphasis.]

Note that claim 9 is referring back to “right angle” corners *as described in claim 1* and is thus defining a species of that genus. Now, what does that tell one skilled in the art about the meaning of “right-angle corner border pieces”? It tells one that the claim 1 phrase is, and was clearly intended by the applicant to be, broad enough to cover the species recited in claim 9, which the majority says it does not cover. There is a genus-species relationship between the phrase in claim 1, which never changed throughout the prosecution, and the particular form of corner piece recited in claim 9.

I have to disagree with the majority’s criticism or downplaying of my use of claim 9 as a construction aid in several particulars. The majority seems to start with an *a priori* assumption of what the “clear” language of claim 1 means. On the other hand, I am looking at the genealogical record of that claim to *find out* what it means.

The majority says, “we ... cannot speculate on the reasons for the cancellation” of claim 9 because we have no idea of the content of the ‘phone conversation between the examiner and the attorney which led to cancellation, along with many other claims. I agree. The majority then *speculates* that it may have been an improper dependent claim, though it is not apparent why and the majority gives no reason. I don’t care why (or whether) claim 9 was cancelled — it was simply part of the original application and sheds a bright *light* on what claim 1 was intended to mean.

I see no significance to the fact that claim 9 was cancelled because it *is* part of the prosecution history, *all* of which is clearly before us. The majority correctly states that we must consider the prosecution history, of which claim 9 is a significant part.

The majority opines that the alternative corner piece described in claim 9 *has not been claimed* and is therefore dedicated to the public. This strange position begs the question. Of course it has not been claimed *specifically*. The question, however, is whether it is covered by or included in claim 1, which I say it is. Therefore, its subject matter is not “dedicated to the public.”

35 U.S.C. § 112, which requires claims, is irrelevant to a consideration of what claims mean. Since Brown’s so-called “expert” — expert only in the

## SUPPLEMENT

sense he was a patent lawyer — knew no more than the members of this panel, his speculations are of no value to us. The citation of cases is also of no help in finding out what claims mean.

To me, claim 9 is the only evidence of record, except for the specification itself, which is of any value in construing claim 1, and I think it is of great value.

The majority seems to say that my construction of claim 1 “would render meaningless express claim limitation.” I await enlightenment on what those “express limitations” are. I have already said that I read both *corner* pieces and *linear* pieces in claim 1. The debate here is over the *kinds* of corner pieces claim 1 covers. It is clear that it is not limited to unitary or preformed or one-piece corner pieces as shown in the drawings at 15 and 16. That much is truly “clear.”

Much has been made of the contention that using short mitered corner pieces is something that a “do-it-yourselfer” — an “amateur” — is unable to do. Defendants’ expert speculated, with no support whatsoever, that, in his opinion, the examiner required claim 9 to be cancelled because “it was simply not something that a do-it-yourselfer could do.” Both defendants and the district court relied heavily on this testimony. I find this opinion testimony to be wholly incredible. The sole basis given by the expert for his opinion was the fact that claim 9 was cancelled while claim 4 was not. However, there is absolutely nothing in the record showing *why* the examiner allowed certain claims and cancelled certain other claims.

The fact is that this whole “do-it-yourselfer” argument has been blown way out of proportion. The specification does not state that do-it-yourselfers are *incapable* of using mitered corner pieces; it merely states, as quoted above, that preformed corner pieces are “somewhat easier for a do-it-yourselfer to work with.” Furthermore, the *only reference* to do-it-yourselfers during prosecution is a statement that certain known *prior art* arrangements are difficult for a do-it-yourselfer to use because the *fabric must be cut precisely to size* whereas according to the invention of the ’260 patent, the fabric need merely be cut *roughly* to size, with the excess fabric being stuffed in the storage channel. This is equally true as to either kind of corner. To infer from this one statement that the claims must be limited to features not recited in the claims (i.e., “*preformed*” corner pieces) is contrary to established patent law practice.

Let us consider next another lesson about meaning to be learned from the specification. In the quotation above from column 8, in the opening sentence the drafter of the specification exhibits a clear consciousness of the distinction between “preformed right-angle corner pieces” and those made by mitering and placing at right angles two short pieces of linear border pieces. Claim 1 does not contain the limiting word “preformed” yet the majority, without justification, is reading it into the claim in holding that the claim does not cover corner pieces which are made up as clearly described in the specification.

I also point out that the term “right-angle” is not a limitation to *pre-formed* unitary pieces since the specification makes clear that the made-up variety of corners are also right-angle corner pieces when assembled.

The majority’s argument based on alleged violation of the “all elements” rule is untenable. It overlooks the fact that the teaching in the specification is clear about making “corner pieces” by using two “*short* linear border pieces” (my emphasis) and then using such “improvised” *corner pieces in conjunction with linear pieces* to make the complete wall frame. Of course, it is the all-elements rule on which the defendants rely for non-infringement, arguing that they have no “corner pieces” when in fact they have a type of corner piece which is disclosed and claimed as an element of the combination of claim 1. I am not “merging the two types of claim elements into one” — whatever that may mean. I am simply saying that the element defined in claim 1 as “right-angle corner border pieces” is, as clearly shown by the patent and its prosecution history, a limitation generic to two types of corner pieces disclosed in the patent which is broad enough to read on defendants’ structure because it is clearly *not* limited to “preformed” or “unitary” corner pieces, as held below and by the majority. That is the sum and substance of my position and it calls for reversal.

The prosecution history contains nothing contradictory to my position and much to support it, as shown above. I have not found any evidence to contradict it or to support the district court opinion which demonstrates a dismal failure to comprehend many patent law fundamentals and accepts, as established fact, opinion statements of defendants’ expert witness unsupported by the record. \* \* \*