

at 2492–2494. The test for competence to stand trial, by contrast, is whether the defendant has the present ability to understand the charges against him and communicate effectively with defense counsel. *Dusky v. United States*, 362 U.S., at 402, 80 S.Ct., at 788–789. Even if we were to uphold Oklahoma’s imposition of the clear and convincing evidence rule in competency proceedings, the comparable standards in the two proceedings would not guarantee parallel results.²⁴

More importantly, our decision today is in complete accord with the basis for our ruling in *Addington*. Both cases concern the proper protection of fundamental rights in circumstances in which the State proposes to take drastic action against an individual. The requirement that the grounds for civil commitment be shown by clear and convincing evidence¹³⁶⁹ protects the individual’s fundamental interest in liberty. The *prohibition* against requiring the criminal defendant to demonstrate incompetence by clear and convincing evidence safeguards the fundamental right not to stand trial while incompetent. Because Oklahoma’s procedural rule allows the State to put to trial a defendant who is more likely than not incompetent, the rule is incompatible with the dictates of due process.²⁵

VI

For the foregoing reasons, the judgment is reversed, and the case is remanded to the Oklahoma Court of Criminal Appeals for further proceedings not inconsistent with this opinion.

It is so ordered.



24. For example, a mentally retarded defendant accused of a nonviolent crime may be found incompetent to stand trial but not necessarily be subject to involuntary civil commitment.

25. We note that *Addington* did not purport to resolve any question concerning the rights of the defendant in a criminal proceeding. To the contrary, in his opinion for the Court, Chief Justice Burger contrasted the appropriate standard in

517 U.S. 370, 134 L.Ed.2d 577

1370 **Herbert MARKMAN and Positek,
Inc., Petitioners,**

v.

**WESTVIEW INSTRUMENTS, INC.
and Althon Enterprises, Inc.**

No. 95–26.

Argued Jan. 8, 1996.

Decided April 23, 1996.

Holder of patent for inventory control method for use in dry cleaning business brought patent infringement action against competitor. The United States District Court for the Eastern District of Pennsylvania, Marvin Katz, J., entered judgment as matter of law for competitor, despite jury’s finding of infringement. The Court of Appeals for the Federal Circuit, 52 F.3d 967, affirmed, ruling that interpretation of patent’s claim terms was exclusive province of court. Certiorari was granted. The Supreme Court, Justice Souter, held that: (1) patent infringement actions descended from actions at law, such that Seventh Amendment required trial by jury; (2) common-law practice at time Seventh Amendment was adopted did not require interpretation of claims, or terms of art, by jury rather than judge; and (3) construction of patent, including terms of art within claim, was exclusively within province of court, in view of existing precedent, suitability of interpretation issues for determination by judge, and importance of uniformity in treatment of given patent.

Affirmed.

1. Patents ⇔ 101(1, 4)

Patent must describe exact scope of invention and its manufacture to secure to

civil commitment proceedings with the rules applicable in criminal cases in which “the interests of the defendant are of such magnitude that historically and without any explicit constitutional requirement they have been protected by standards of proof designed to exclude as nearly as possible the likelihood of an erroneous judgment.” 441 U.S., at 423, 99 S.Ct., at 1807–1808.

patentee all to which patentee is entitled, and to apprise public of what is still open to them; these objectives are served by both patent specification, which describes invention in such full, clear, concise, and exact terms as to enable any person skilled in the art to make and use invention, and patent's claims, which particularly point out and distinctly claim subject matter which applicant regards as invention. 35 U.S.C.A. § 112.

2. Patents \Leftrightarrow 101(1)

Patent claim defines scope of patent grant, and functions to forbid not only exact copies of invention, but products that go to heart of invention yet avoid literal language of claim by making noncritical change.

3. Patents \Leftrightarrow 101(2), 226.6

Victory in patent infringement suit requires finding that patent claim covers alleged infringer's product or process, which in turn necessitates determination of what words in claim mean. 35 U.S.C.A. § 271(a).

4. Jury \Leftrightarrow 12(1), 13(1)

Under "historical test" for determining right to jury trial under Seventh Amendment, court asks first whether it is dealing with cause of action that either was tried at law at time amendment was adopted or was at least analogous to action that was tried at law at that time; if action in question belongs in law category, court then asks whether particular trial decision must fall to jury in order to preserve substance of common-law right as it existed in 1791. U.S.C.A. Const. Amend. 7.

5. Jury \Leftrightarrow 13(1)

In determining whether party is entitled to jury trial under Seventh Amendment, statutory action is first compared to 18th-century actions brought in courts of England prior to merger of courts of law and equity. U.S.C.A. Const. Amend. 7.

6. Jury \Leftrightarrow 14(1.1)

Patents \Leftrightarrow 280

Modern patent infringement action descended from infringement actions tried at law in 18th century; thus, Seventh Amendment requires that patent infringement cases today be tried to jury, as their predecessors

were more than two centuries ago. U.S.C.A. Const. Amend. 7.

7. Jury \Leftrightarrow 12(1)

Whether Seventh Amendment requires that particular issue in jury trial be determined by jury depends on whether jury must shoulder this responsibility as necessary to preserve substance of common-law right of trial by jury; only those incidents which are regarded as fundamental, as inherent in and of essence of system of trial by jury, are placed beyond reach of legislature. U.S.C.A. Const. Amend. 7.

8. Jury \Leftrightarrow 12(1)

In evaluating substance of common-law right, for purpose of determining whether Seventh Amendment requires that particular issue in jury trial be determined by jury, court should use historical method, similar to characterizing suits and actions within which issue arises; where there is no exact antecedent, best hope lies in comparing modern practice to earlier ones whose allocation to court or jury is known, seeking best analogy that can be drawn between old and new. U.S.C.A. Const. Amend. 7.

9. Jury \Leftrightarrow 14(1.1)

Seventh Amendment did not require that jury, rather than judge, construe claims in patent and, particularly, terms of art, as common-law practice at time Seventh Amendment was adopted did not support patentee's assertion that jury interpreted patent claims at that time; closest historical analogy was to construction of specifications for which there was no established jury practice, and judges, not jury, ordinarily construed written documents. U.S.C.A. Const. Amend. 7.

10. Patents \Leftrightarrow 101(1), 165(1), 314(5)

Construction of patent, including terms of art within claim, is exclusively within province of court, not jury, in view of existing precedent, suitability of interpretation issues for determination by judge, and importance of uniformity in treatment of given patent.

11. Patents ¶101(2)

Patent construction is special occupation, requiring, like all others, special training and practice; judge, from training and discipline, is more likely to give proper interpretation to such instruments than jury, and judge is, therefore, more likely to be right, in performing such duty, than jury can be expected to be.

12. Patents ¶101(2)

Although question of meaning of term of art in patent claim is subject of testimony requiring credibility determinations, such meaning is more properly determined by judge than jury, as any credibility determinations will be subsumed within necessarily sophisticated analysis of whole document, required by standard construction rule that term can be defined only in way that comports with instrument as whole; jury's capabilities to evaluate demeanor, to sense mainsprings of human conduct, or to reflect community standards, are much less significant than trained ability to evaluate testimony in relation to overall structure of patent.

13. Patents ¶101(2), 165(1)

Importance of uniformity in treatment of given patent supported allocation of all issues of patent claim construction, including construction of terms of art, to court rather than jury; whereas issue preclusion could not be asserted against new and independent infringement defendants, treating interpretive issues as purely legal would promote intrajudicial certainty through application of stare decisis.

Syllabus *

Petitioner Markman owns the patent to a system that tracks clothing through the dry-cleaning process using a keyboard and data processor to generate transaction records, including a bar code readable by optical detectors. According to the patent's claim, the portion of the patent document that defines the patentee's rights, Markman's product can "maintain an inventory total" and "detect and localize spurious additions to in-

ventory." The product of respondent Westview Instruments, Inc., also uses a keyboard and processor and lists dry-cleaning charges on bar-coded tickets that can be read by optical detectors. In this infringement suit, after hearing an expert witness testify about the meaning of the claim's language, the jury found that Westview's product had infringed Markman's patent. The District Court nevertheless directed a verdict for Westview on the ground that its device is unable to track "inventory" as that term is used in the claim. The Court of Appeals affirmed, holding the interpretation of claim terms to be the exclusive province of the court and the Seventh Amendment to be consistent with that conclusion.

Held: The construction of a patent, including terms of art within its claim, is exclusively within the province of the court. Pp. 1389-1396.

(a) The Seventh Amendment right of trial by jury is the right which existed under the English common law when the Amendment was adopted. *Baltimore & Carolina Line, Inc. v. Redman*, 295 U.S. 654, 657, 55 S.Ct. 890, 891, 79 L.Ed. 1636. Thus, the Court asks, first, whether infringement cases either were tried at law at the time of the founding or are at least analogous to a cause of action that was. There is no dispute that infringement cases today must be tried before a jury, as their predecessors were more than two centuries ago. This conclusion raises a second question: whether the particular trial issue (here a patent claim's construction) is necessarily a jury issue. This question is answered by comparing the modern practice to historical sources. Where there is no exact antecedent in the common law, the modern practice should be compared to earlier practices whose allocation to court or jury is known, and the best analogy that can be drawn between an old and the new must be sought. Pp. 1389-1390.

(b) There is no direct antecedent of modern claim construction in the historical sources. The closest 18th-century analogue

*The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader.

See *United States v. Detroit Lumber Co.*, 200 U.S. 321, 337, 26 S.Ct. 282, 287, 50 L.Ed. 499.

to modern claim construction seems to have been the construction of patent specifications describing the invention. Early patent cases from England and this Court show that judges, not juries, construed specification terms. No authority from this period supports Markman's contention that even if judges were charged with construing most patent terms, the art of defining terms of art in a specification fell within the jury's province. Pp. 1390–1393.

(c) Since evidence of common-law practice at the time of the framing does not entail application of the Seventh Amendment's jury guarantee to the construction of the claim document, this Court must look elsewhere to characterize this determination of meaning in order to allocate it as between judge or jury. Existing precedent, the relative interpretive skills of judges and juries, and statutory policy considerations all favor allocating construction issues to the court. As the former patent practitioner, Justice Curtis, explained, the first issue in a patent case, construing the patent, is a question of law, to be determined by the court. The second issue, whether infringement occurred, is a question of fact for a jury. *Winans v. Denmead*, 15 How. 330, 338, 14 L.Ed. 717. Contrary to Markman's contention, *Bischoff v. Wethered*, 9 Wall. 812, 19 L.Ed. 829, and *Tucker v. Spalding*, 13 Wall. 453, 20 L.Ed. 515, neither indicate that 19th-century juries resolved the meaning of patent terms of art nor undercut Justice Curtis's authority. Functional considerations also favor having judges define patent terms of art. A judge, from his training and discipline, is more likely to give proper interpretation to highly technical patents than a jury and is in a better position to ascertain whether an expert's proposed definition fully comports with the instrument as a whole. Finally, the need for uniformity in the treatment of a given patent favors allocation of construction issues to the court. Pp. 1393–1396.

52 F.3d 967 (C.A.Fed.1995), affirmed.

SOUTER, J., delivered the opinion for a unanimous Court.

William B. Mallen, for petitioners.

¹Frank H. Griffin, III, Media, PA, for respondents.

For U.S. Supreme Court briefs, see:

1995 WL 668008 (Pet.Brief)

1995 WL 730381 (Resp.Brief)

1995 WL 763711 (Reply.Brief)

Justice SOUTER delivered the opinion of the Court.

The question here is whether the interpretation of a so-called patent claim, the portion of the patent document that defines the scope of the patentee's rights, is a matter of law reserved entirely for the court, or subject to a Seventh Amendment guarantee that a jury will determine the meaning of any disputed term of art about which expert testimony is offered. We hold that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court.

¹

[1, 2] The Constitution empowers 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. I, § 8, cl. 8. Congress first exercised this authority in 1790, when it provided for the issuance of “letters patent,” Act of Apr. 10, 1790, ch. 7, § 1, 1 Stat. 109, which, like their modern counterparts, granted inventors “the right to exclude others from making, using, offering for sale, selling, or importing the patented invention,” in exchange for full disclosure of an invention, H. Schwartz, *Patent Law and Practice* 1, 33 (2d ed.1995). It has long been understood that a patent must describe the exact scope of an invention and its manufacture to “secure to [the patentee] all to which he is entitled, [and] to apprise the public of what is still open to them.” *McClain v. Ortmyer*, 141 U.S. 419, 424, 12 S.Ct. 76, 77, 35 L.Ed. 800 (1891). Under the modern American system, these objectives are served by two distinct elements of a patent document. First, it contains a specification describing the invention “in such full, clear, concise, and exact

terms as to enable any person skilled in the art . . . to make and use the same.” 35 U.S.C. § 112; see also 3 E. Lipscomb, Walker on Patents § 10:1, pp. 183–184 (3d ed. 1985) (Lipscomb) (listing the requirements for a specification). Second, a patent includes one or more “claims,” which “particularly poin[t] out and distinctly clai[m] the subject matter which the applicant regards as his invention.” 35 U.S.C. § 112. “A claim covers and secures a process, a machine, a manufacture, a composition of matter, or a design, but never the function or result of either, nor the scientific explanation of their operation.” 6 Lipscomb § 21:17, at 315–316. The claim “define[s] the scope of a patent grant,” 3 *id.*, § 11:1, at 280, and functions to forbid not only exact copies of an invention, but products that go to “the heart of an invention but avoids the literal language of the claim by making a ³⁷⁴noncritical change,” Schwartz, *supra*, at 82.¹ In this opinion, the word “claim” is used only in this sense peculiar to patent law.

[3] Characteristically, patent lawsuits charge what is known as infringement, Schwartz, *supra*, at 75, and rest on allegations that the defendant “without authority ma[de], use[d] or [sold the] patented invention, within the United States during the term of the patent therefor . . .” 35 U.S.C. § 271(a). Victory in an infringement suit requires a finding that the patent claim “covers the alleged infringer’s product or process,” which in turn necessitates a determination of “what the words in the claim mean.” Schwartz, *supra*, at 80; see also 3 Lipscomb § 11:2, at 288–290.

Petitioner in this infringement suit, Markman, owns United States Reissue Patent No. 33,054 for his “Inventory Control and Reporting System for Drycleaning Stores.” The patent describes a system that can monitor and report the status, location, and move-

ment of clothing in a dry-cleaning establishment. The Markman system consists of a keyboard and data processor to generate written records for each transaction, including a bar code readable by optical detectors operated by employees, who log the progress of clothing through the dry-cleaning process. Respondent Westview’s product also includes a keyboard and processor, and it lists charges for the dry-cleaning services on bar-coded tickets that can be read by portable optical detectors.

Markman brought an infringement suit against Westview and Althon Enterprises, an operator of dry-cleaning establishments³⁷⁵ using Westview’s products (collectively, Westview). Westview responded that Markman’s patent is not infringed by its system because the latter functions merely to record an inventory of receivables by tracking invoices and transaction totals, rather than to record and track an inventory of articles of clothing. Part of the dispute hinged upon the meaning of the word “inventory,” a term found in Markman’s independent claim 1, which states that Markman’s product can “maintain an inventory total” and “detect and localize spurious additions to inventory.” The case was tried before a jury, which heard, among others, a witness produced by Markman who testified about the meaning of the claim language.

After the jury compared the patent to Westview’s device, it found an infringement of Markman’s independent claim 1 and dependent claim 10.² The District Court nevertheless granted Westview’s deferred motion for judgment as a matter of law, one of its reasons being that the term “inventory” in Markman’s patent encompasses “both cash inventory and the actual physical inventory of articles of clothing.” 772 F.Supp. 1535, 1537–1538 (E.D.Pa.1991). Under the trial court’s construction of the patent, the pro-

1. Thus, for example, a claim for a ceiling fan with three blades attached to a solid rod connected to a motor would not only cover fans that take precisely this form, but would also cover a similar fan that includes some additional feature, *e.g.*, such a fan with a cord or switch for turning it on and off, and may cover a product deviating from the core design in some noncritical way, *e.g.*, a three-bladed ceiling fan with blades attached to a

hollow rod connected to a motor. H. Schwartz, Patent Law and Practice 81–82 (2d ed.1995).

2. Dependent claim 10 specifies that, in the invention of claim 1, the input device is an alphanumeric keyboard in which single keys may be used to enter the attributes of the items in question.

duction, sale, or use of a tracking system for dry cleaners would not infringe Markman's patent unless the product was capable of tracking articles of clothing throughout the cleaning process and generating reports about their status and location. Since Westview's system cannot do these things, the District Court directed a verdict on the ground that Westview's device does not have the "means to maintain an inventory total" and thus cannot "'detect and localize spurious additions to inventory as well as spurious deletions therefrom,'" as required by claim 1. *Id.*, at 1537.

¹³⁷⁶Markman appealed, arguing it was error for the District Court to substitute its construction of the disputed claim term 'inventory' for the construction the jury had presumably given it. The United States Court of Appeals for the Federal Circuit affirmed, holding the interpretation of claim terms to be the exclusive province of the court and the Seventh Amendment to be consistent with that conclusion. 52 F.3d 967 (1995). Markman sought our review on each point, and we granted certiorari. 515 U.S. 1192, 116 S.Ct. 40, 132 L.Ed.2d 921 (1995). We now affirm.

II

[4] The Seventh Amendment provides that "[i]n Suits at common law, where the value in controversy shall exceed twenty dollars, the right of trial by jury shall be preserved. . . ." U.S. Const., Amdt. 7. Since Justice Story's day, *United States v. Wonson*, 28 F. Cas. 745, 750 (No. 16,750) (CC Mass. 1812), we have understood that "[t]he right of trial by jury thus preserved is the right which existed under the English common law when the Amendment was adopted." *Baltimore & Carolina Line, Inc. v. Redman*, 295 U.S. 654, 657, 55 S.Ct. 890, 891, 79 L.Ed. 1636 (1935). In keeping with our longstanding adherence to this "historical test," Wolfram, *The Constitutional History of the Seventh Amendment*, 57 Minn. L.Rev. 639, 640–643 (1973), we ask, first, whether we are dealing with a cause of action that either was

tried at law at the time of the founding or is at least analogous to one that was, see, e.g., *Tull v. United States*, 481 U.S. 412, 417, 107 S.Ct. 1831, 1835, 95 L.Ed.2d 365 (1987). If the action in question belongs in the law category, we then ask whether the particular trial decision must fall to the jury in order to preserve the substance of the common-law right as it existed in 1791. See *infra*, at 1389–1390.³

^{1377A}

[5, 6] As to the first issue, going to the character of the cause of action, "[t]he form of our analysis is familiar. 'First we compare the statutory action to 18th-century actions brought in the courts of England prior to the merger of the courts of law and equity.'" *Granfinanciera, S.A. v. Nordberg*, 492 U.S. 33, 42, 109 S.Ct. 2782, 2790, 106 L.Ed.2d 26 (1989) (citation omitted). Equally familiar is the descent of today's patent infringement action from the infringement actions tried at law in the 18th century, and there is no dispute that infringement cases today must be tried to a jury, as their predecessors were more than two centuries ago. See, e.g., *Bramah v. Hardcastle*, 1 Carp. P.C. 168 (K.B. 1789).

B

This conclusion raises the second question, whether a particular issue occurring within a jury trial (here the construction of a patent claim) is itself necessarily a jury issue, the guarantee being essential to preserve the right to a jury's resolution of the ultimate dispute. In some instances the answer to this second question may be easy because of clear historical evidence that the very subsidiary question was so regarded under the English practice of leaving the issue for a jury. But when, as here, the old practice provides no clear answer, see *infra*, at 1390–1391, we are forced to make a judgment about the scope of the Seventh Amendment guarantee without the benefit of any fool-proof test.

3. Our formulations of the historical test do not deal with the possibility of conflict between actual English common-law practice and American assumptions about what that practice was, or

between English and American practices at the relevant time. No such complications arise in this case.

[7] The Court has repeatedly said that the answer to the second question “must depend on whether the jury must shoulder this responsibility *as necessary to preserve the ‘substance of the common-law right of trial by jury.’*” *Tull v. United States*, *supra*, at 426, 107 S.Ct., at 1840 (emphasis added) (quoting *Colgrove v. Battin*, 413 U.S. 149, 156, 93 S.Ct. 2448, 2452, 37 L.Ed.2d 522 (1973)); see also *Baltimore & Carolina Line*, *supra*, at 657, 55 S.Ct., at 891. ““Only those incidents which are regarded as fundamental, as inherent in and of the essence of the system of trial by jury, are placed beyond³⁷⁸ the reach of the legislature.”” *Tull v. United States*, *supra*, at 426, 107 S.Ct., at 1840 (citations omitted); see also *Galloway v. United States*, 319 U.S. 372, 392, 63 S.Ct. 1077, 1088, 87 L.Ed. 1458 (1943).

The “substance of the common-law right” is, however, a pretty blunt instrument for drawing distinctions. We have tried to sharpen it, to be sure, by reference to the distinction between substance and procedure. See *Baltimore & Carolina Line*, *supra*, at 657, 55 S.Ct., at 891; see also *Galloway v. United States*, *supra*, at 390–391, 63 S.Ct., at 1087–1088; *Ex parte Peterson*, 253 U.S. 300, 309, 40 S.Ct. 543, 546, 64 L.Ed. 919 (1920); *Walker v. New Mexico & Southern Pacific R. Co.*, 165 U.S. 593, 596, 17 S.Ct. 421, 422, 41 L.Ed. 837 (1897); but see *Sun Oil Co. v. Wortman*, 486 U.S. 717, 727, 108 S.Ct. 2117, 2124, 100 L.Ed.2d 743 (1988). We have also spoken of the line as one between issues of fact and law. See *Baltimore & Carolina Line*, *supra*, at 657, 55 S.Ct., at 891; see also *Ex parte Peterson*, *supra*, at 310, 40 S.Ct., at 546; *Walker v. New Mexico & Southern Pacific R. Co.*, *supra*, at 597, 17 S.Ct., at 422; but see *Pullman-Standard v. Swint*, 456 U.S. 273, 288, 102 S.Ct. 1781, 1789, 72 L.Ed.2d 66 (1982).

[8] But the sounder course, when available, is to classify a mongrel practice (like construing a term of art following receipt of evidence) by using the historical method, much as we do in characterizing the suits and actions within which they arise. Where there is no exact antecedent, the best hope lies in comparing the modern practice to earlier ones whose allocation to court or jury

we do know, cf. *Baltimore & Carolina Line*, *supra*, at 659, 660, 55 S.Ct., at 892, 893; *Dimick v. Schiedt*, 293 U.S. 474, 477, 482, 55 S.Ct. 296, 297, 79 L.Ed. 603 (1935), seeking the best analogy we can draw between an old and the new, see *Tull v. United States*, *supra*, at 420–421, 107 S.Ct., at 1836–1837 (we must search the English common law for “appropriate analogies” rather than a “precisely analogous common-law cause of action”).

C

[9] “Prior to 1790 nothing in the nature of a claim had appeared either in British patent practice or in that of the³⁷⁹ American states,” Lutz, *Evolution of the Claims of U.S. Patents*, 20 J. Pat. Off. Soc. 134 (1938), and we have accordingly found no direct antecedent of modern claim construction in the historical sources. Claim practice did not achieve statutory recognition until the passage of the Act of July 4, 1836, ch. 357, § 6, 5 Stat. 119, and inclusion of a claim did not become a statutory requirement until 1870, Act of July 8, 1870, ch. 230, § 26, 16 Stat. 201; see 1 A. Deller, *Patent Claims* § 4, p. 9 (2d ed.1971). Although, as one historian has observed, as early as 1850 “judges were . . . beginning to express more frequently the idea that in seeking to ascertain the invention ‘claimed’ in a patent the inquiry should be limited to interpreting the summary, or ‘claim,’” Lutz, *supra*, at 145, “[t]he idea that the claim is just as important if not more important than the description and drawings did not develop until the Act of 1870 or thereabouts.” Deller, *supra*, § 4, at 9.

At the time relevant for Seventh Amendment analogies, in contrast, it was the specification, itself a relatively new development, H. Dutton, *The Patent System and Inventive Activity During the Industrial Revolution, 1750–1852*, pp. 75–76 (1984), that represented the key to the patent. Thus, patent litigation in that early period was typified by so-called novelty actions, testing whether “any essential part of [the patent had been] disclosed to the public before,” *Huddart v. Grimshaw*, Dav. Pat. Cas. 265, 298 (K.B.1803), and “en-

ablement” cases, in which juries were asked to determine whether the specification described the invention well enough to allow members of the appropriate trade to reproduce it, see, e.g., *Arkwright v. Nightingale*, Dav. Pat. Cas. 37, 60 (C.P. 1785).

The closest 18th-century analogue of modern claim construction seems, then, to have been the construction of specifications, and as to that function the mere smattering¹³⁸⁰ of patent cases that we have from this period⁴ shows no established jury practice sufficient to support an argument by analogy that today’s construction of a claim should be a guaranteed jury issue. Few of the case reports even touch upon the proper interpretation of disputed terms in the specifications at issue, see, e.g., *Bramah v. Hardcastle*, 1 Carp. P.C. 168 (K.B.1789); *King v. Else*, 1 Carp. P.C. 103, Dav. Pat. Cas. 144 (K.B. 1785); *Dollond’s Case*, 1 Carp. P.C. 28 (C.P. 1758); *Administrators of Calthorp v. Waymans*, 3 Keb. 710, 84 Eng. Rep. 966 (K.B. 1676), and none demonstrates that the definition of such a term was determined by the jury.⁵ This absence of an established practice should not surprise us, given the primitive state of jury patent practice at the end of the 18th century, when juries were still new to the field. Although by 1791 more than a century had passed since the enactment of the Statute of Monopolies, which provided³⁸¹ that the validity of any monopoly should be determined in accordance with the common

law, patent litigation had remained within the jurisdiction of the Privy Council until 1752 and hence without the option of a jury trial. E. Walterscheid, *Early Evolution of the United States Patent Law: Antecedents* (Part 3), 77 J. Pat. & Tm. Off. Soc. 771, 771–776 (1995). Indeed, the state of patent law in the common-law courts before 1800 led one historian to observe that “the reported cases are destitute of any decision of importance. . . . At the end of the eighteenth century, therefore, the Common Law Judges were left to pick up the threads of the principles of law without the aid of recent and reliable precedents.” Hulme, *On the Consideration of the Patent Grant, Past and Present*, 13 L.Q. Rev. 313, 318 (1897). Earlier writers expressed similar discouragement at patent law’s amorphous character,⁶ and, as late as the 1830’s, English commentators were irked by enduring confusion in the field. See Dutton, *supra*, at 69–70.

Markman seeks to supply what the early case reports lack in so many words by relying on decisions like *Turner v. Winter*, 1 T.R. 602, 99 Eng. Rep. 1274 (K.B.1787), and *Arkwright v. Nightingale*, Dav. Pat. Cas. 37 (C.P. 1785), to argue that the 18th-century juries must have acted as definers of patent terms just to reach the verdicts we know they rendered in patent cases turning on enablement or novelty. But the conclusion simply does not follow. There is no more

4. Before the turn of the century, “no more than twenty-two [reported] cases came before the superior courts of London.” H. Dutton, *The Patent System and Inventive Activity During the Industrial Revolution, 1750–1852*, p. 71 (1984).

5. Markman relies heavily upon Justice Buller’s notes of Lord Mansfield’s instructions in *Liardet v. Johnson* (K.B.1778), in 1 J. Oldham, *The Mansfield Manuscripts and the Growth of English Law in the Eighteenth Century* 748 (1992). *Liardet* was an enablement case about the invention of stucco, in which a defendant asserted that the patent was invalid because it did not fully describe the appropriate method for producing the substance. Even setting aside concerns about the accuracy of the summary of the jury instructions provided for this case from outside the established reports, see 1 Oldham, *supra*, at 752, n. 11, it does not show that juries construed disputed terms in a patent. From its ambiguous references, e.g., 1 Oldham, *supra*, at 756 (“[Lord Mansfield] left to the jury 1st, on all objections

made to exactness, certainty and propriety of the Specification, & whether any workman could make it by [the Specification]”), we cannot infer the existence of an established practice, cf. *Galloway v. United States*, 319 U.S. 372, 392, 63 S.Ct. 1077, 1088, 87 L.Ed. 1458 (1943) (expressing concern regarding the “uncertainty and the variety of conclusions which follows from an effort at purely historical accuracy”), especially when, as here, the inference is undermined by evidence that judges, rather than jurors, ordinarily construed written documents at the time. See *infra*, at 1393–1394.

6. See, e.g., *Boulton and Watt v. Bull*, 2 H. Bl. 463, 491, 126 Eng. Rep. 651, 665 (C.P. 1795) (Eyre, C.J.) (“Patent rights are no where that I can find accurately discussed in our books”); Dutton, *supra* n. 4, at 70–71 (quoting Abraham Weston as saying “it may with truth be said that the [Law] Books are silent on the subject [of patents] and furnish no clue to go by, in agitating the Question What is the Law of Patents?”).

reason to infer that juries supplied plenary interpretation of written instruments in patent litigation than in other cases implicating the meaning of documentary terms, and we do know that in other kinds of cases during this period judges, not juries, ordinarily construed written documents.⁷ The probability that the judges were doing the same thing in the patent litigation of the time is confirmed by the fact that as soon as the English reports did begin to describe the construction of patent documents, they show the judges construing the terms of the specifications. See *Bovill v. Moore*, Dav. Pat. Cas. 361, 399, 404 (C.P. 1816) (judge submits question of novelty to the jury only after explaining some of the language and “stat[ing] in what terms the specification runs”); cf. *Russell v. Cowley & Dixon*, Webs. Pat. Cas. 457, 467–470 (Exch.1834) (construing the terms of the specification in reviewing a verdict); *Haworth v. Hardcastle*, Webs. Pat. Cas. 480, 484–485 (1834) (same). This evidence is in fact buttressed by cases from this Court; when they first reveal actual practice, the practice revealed is of the judge construing the patent. See, e.g., *Winans v. New York & Erie R. Co.*, 21 How. 88, 100, 16 L.Ed. 68 (1859); *Winans v. Denmead*, 15 How. 330, 338, 14 L.Ed. 717 (1854); *Hogg v. Emerson*, 6 How. 437, 484, 12 L.Ed. 505 (1848); cf. *Parker v. Hulme*, 18 F. Cas. 1138 (No. 10,740) (CC ED Pa. 1849). These indications of our patent practice are the more

impressive for being all of a piece with what we know about the analogous contemporary practice of interpreting³⁸³ terms within a land patent, where it fell to the judge, not the jury, to construe the words.⁸

D

Losing, then, on the contention that juries generally had interpretive responsibilities during the 18th century, Markman seeks a different anchor for analogy in the more modest contention that even if judges were charged with construing most terms in the patent, the art of defining terms of art employed in a specification fell within the province of the jury. Again, however, Markman has no authority from the period in question, but relies instead on the later case of *Neilson v. Harford*, Webs. Pat. Cas. 328 (Exch.1841). There, an exchange between the judge and the lawyers indicated that although the construction of a patent was ordinarily for the court, *id.*, at 349 (Alderson, B.), judges should “leav[e] the question of words of art to the jury,” *id.*, at 350 (Alderson, B.); see also *id.*, at 370 (judgment of the court); *Hill v. Evans*, 4 De. G.F. & J. 288, 293–294, 45 Eng. Rep. 1195, 1197 (Ch. 1862). Without, however, in any way disparaging the weight to which Baron Alderson’s view is entitled, the most we can say is that an English report more than 70 years after the time that concerns us indicates an exception to what probably had been occurring earlier.⁹ In place of

7. See, e.g., Devlin, *Jury Trial of Complex Cases: English Practice at the Time of the Seventh Amendment*, 80 Colum. L.Rev. 43, 75 (1980); Weiner, *The Civil Jury Trial and the Law-Fact Distinction*, 54 Calif.L.Rev. 1867, 1932 (1966). For example, one historian observed that it was generally the practice of judges in the late 18th century “to keep the construction of writings *out of the jury’s hands* and reserve it for themselves,” a “safeguard” designed to prevent a jury from “constru[ing] or refin[ing] it at pleasure.” 9 J. Wigmore, *Evidence* § 2461, p. 194 (J. Chadbourn rev. ed.1981) (emphasis in original; internal quotation marks omitted). The absence of any established practice supporting Markman’s view is also shown by the disagreement between Justices Willis and Buller, reported in *Macbeath v. Haldimand*, 1 T.R. 173, 180–182, 99 Eng. Rep. 1036, 1040–1041 (K.B.1786), as to whether juries could ever construe written documents when their meaning was disputed.

8. As we noted in *Brown v. Huger*, 21 How. 305, 318, 16 L.Ed. 125 (1859):

“With regard to the second part of this objection, that which claims for the jury the construction of the patent, we remark that the patent itself must be taken as evidence of its meaning; that, like other written instruments, it must be interpreted as a whole . . . and the legal deductions drawn therefrom must be conformable with the scope and purpose of the entire document. This construction and these deductions we hold to be within the exclusive province of the court.”

9. In explaining that judges generally construed all terms in a written document at the end of the 18th century, one historian observed that “[i]nterpretation by local usage for example (today the plainest case of legitimate deviation from the normal standard) was still but making its way.” 9 Wigmore, *Evidence* § 2461, at 195; see also *id.*, at 195, and n. 6 (providing examples of this

¹³⁸⁴Markman's inference that this exceptional practice existed in 1791 there is at best only a possibility that it did, and for anything more than a possibility we have found no scholarly authority.

III

[10] Since evidence of common-law practice at the time of the framing does not entail application of the Seventh Amendment's jury guarantee to the construction of the claim document, we must look elsewhere to characterize this determination of meaning in order to allocate it as between court or jury. We accordingly consult existing precedent¹⁰ and consider both the relative interpretive skills of judges and juries and the statutory policies that ought to be furthered by the allocation.

A

The two elements of a simple patent case, construing the patent and determining whether infringement occurred, were characterized by the former patent practitioner, Justice Curtis.¹¹ "The first is a question of law, to be determined by the court, construing the letters-patent, and the description of the invention and specification of claim annexed to them. The second is a question of fact, to be submitted to a jury." *Winans v. Denmead*, *supra*, at 338; see *Winans v. New York & Erie R. Co.*, *supra*, at 100; ¹³⁸⁵*Hogg v. Emerson*, *supra*, at 484; cf. *Parker v. Hulme*, *supra*, at 1140.

In arguing for a different allocation of responsibility for the first question, Markman relies primarily on two cases, *Bischoff v. Wethered*, 9 Wall. 812, 19 L.Ed. 829 (1870), and *Tucker v. Spalding*, 13 Wall. 453, 20 L.Ed. 515 (1872). These are said to show that evidence of the meaning of patent terms

practice). We need not in any event consider here whether our conclusion that the Seventh Amendment does not require terms of art in patent claims to be submitted to the jury supports a similar result in other types of cases.

10. Because we conclude that our precedent supports classifying the question as one for the court, we need not decide either the extent to which the Seventh Amendment can be said to have crystallized a law/fact distinction, cf. *Ex parte Peterson*, 253 U.S. 300, 310, 40 S.Ct. 543,

was offered to 19th-century juries, and thus to imply that the meaning of a documentary term was a jury issue whenever it was subject to evidentiary proof. That is not what Markman's cases show, however.

In order to resolve the *Bischoff* suit implicating the construction of rival patents, we considered "whether the court below was bound to compare the two specifications, and to instruct the jury, as a matter of law, whether the inventions therein described were, or were not, identical." 9 Wall., at 813 (statement of the case). We said it was not bound to do that, on the ground that investing the court with so dispositive a role would improperly eliminate the jury's function in answering the ultimate question of infringement. On that ultimate issue, expert testimony had been admitted on "the nature of the various mechanisms or manufactures described in the different patents produced, and as to the identity or diversity between them." *Id.*, at 814. Although the jury's consideration of that expert testimony in resolving the question of infringement was said to impinge upon the well-established principle "that it is the province of the court, and not the jury, to construe the meaning of documentary evidence," *id.*, at 815, we decided that it was not so. We said:

"[T]he specifications . . . profess to describe mechanisms and complicated machinery, chemical compositions and other manufactured products, which have their existence *in pais*, outside of the documents themselves; and which are commonly described by terms of the art or mystery to which they respectively belong; and these ¹³⁸⁶descriptions and terms of art often require peculiar knowledge and education to understand them aright. . . . Indeed, the

546, 64 L.Ed. 919 (1920); *Walker v. New Mexico & Southern Pacific R. Co.*, 165 U.S. 593, 597, 17 S.Ct. 421, 422, 41 L.Ed. 837 (1897), or whether post-1791 precedent classifying an issue as one of fact would trigger the protections of the Seventh Amendment if (unlike this case) there were no more specific reason for decision.

11. See 1 A Memoir of Benjamin Robbins Curtis, L.L.D., 84 (B. Curtis ed. 1879); cf. *O'Reilly v. Morse*, 15 How. 62, 63, 14 L.Ed. 601 (1854) (noting his involvement in a patent case).

whole subject-matter of a patent is an embodied conception outside of the patent itself. . . . This outward embodiment of the terms contained in the patent is the thing invented, and is to be properly sought, like the explanation of all latent ambiguities arising from the description of external things, by evidence *in pais*.” *Ibid*.

Bischoff does not then, as Markman contends, hold that the use of expert testimony about the meaning of terms of art requires the judge to submit the question of their construction to the jury. It is instead a case in which the Court drew a line between issues of document interpretation and product identification, and held that expert testimony was properly presented to the jury on the latter, ultimate issue, whether the physical objects produced by the patent were identical. The Court did not see the decision as bearing upon the appropriate treatment of disputed terms. As the opinion emphasized, the Court’s “view of the case is not intended to, and does not, trench upon the doctrine that the construction of written instruments is the province of the court alone. *It is not the construction of the instrument, but the character of the thing invented, which is sought in questions of identity and diversity of inventions.*” *Id.*, at 816 (emphasis added). *Tucker*, the second case proffered by Markman, is to the same effect. Its reasoning rested expressly on *Bischoff*, and it just as clearly noted that in addressing the ultimate issue of mixed fact and law, it was for the court to “lay down to the jury the law which should govern them.” *Tucker, supra*, at 455.¹²

¹²If the line drawn in these two opinions is a fine one, it is one that the Court has drawn repeatedly in explaining the respective roles of the jury and judge in patent

12. We are also unpersuaded by petitioner’s heavy reliance upon the decision of Justice Story on circuit in *Washburn v. Gould*, 29 F. Cas. 312 (No. 17,214) (CC Mass. 1844). Although he wrote that “[t]he jury are to judge of the meaning of words of art, and technical phrases,” *id.*, at 325, he did so in describing the decision in *Neilson v. Harford*, Webs. Pat. Cas. 328 (Exch.1841), which we discuss, *supra*, at 1392, and, whether or not he agreed with *Neilson*, he stated, “[b]ut I do not proceed upon this ground.” 29 F. Cas., at 325.

cases,¹³ and one understood by commentators writing in the aftermath of the cases Markman cites. Walker, for example, read *Bischoff* as holding that the question of novelty is not decided by a construction of the prior patent, “but depends rather upon the outward embodiment of the terms contained in the [prior patent]; and that such outward embodiment is to be properly sought, like the explanation of latent ambiguities arising from the description of external things, by evidence *in pais*.” A. Walker, *Patent Laws* § 75, p. 68 (3d ed. 1895). He also emphasized in the same treatise that matters of claim construction, even those aided by expert testimony, are questions for the court:

“Questions of construction are questions of law for the judge, not questions of fact for the jury. As it cannot be expected, however, that judges will always possess the requisite knowledge of the meaning of the terms of art or science used in letters patent, it often becomes necessary that they should avail themselves of the light furnished by experts relevant to the significance of such words and phrases. The judges are not, however, obliged to blindly follow such testimony.” *Id.*, § 189, at 173 (footnotes omitted).

Virtually the same description of the court’s use of evidence in its interpretive role was set out in another contemporary treatise:

¹³“The duty of interpreting letters-patent has been committed to the courts. A patent is a legal instrument, to be construed, like other legal instruments, according to its tenor. . . . Where technical terms are used, or where the qualities of substances or operations mentioned or any similar data necessary to the comprehension of the language of the patent are unknown to the judge, the testimony of

13. See, e.g., *Coupe v. Royer*, 155 U.S. 565, 579–580, 15 S.Ct. 199, 205, 39 L.Ed. 263 (1895); *Silby v. Foote*, 14 How. 218, 226, 14 L.Ed. 391 (1853); *Hogg v. Emerson*, 6 How. 437, 484, 12 L.Ed. 505 (1848); cf. *Brown v. Piper*, 91 U.S. 37, 41, 23 L.Ed. 200 (1875); *Winans v. New York & Erie R. Co.*, 21 How. 88, 100, 16 L.Ed. 68 (1859); cf. also *U.S. Industrial Chemicals, Inc. v. Carbide & Carbon Chemicals Corp.*, 315 U.S. 668, 678, 62 S.Ct. 839, 844, 86 L.Ed. 1105 (1942).

witnesses may be received upon these subjects, and any other means of information be employed. *But in the actual interpretation of the patent the court proceeds upon its own responsibility, as an arbiter of the law, giving to the patent its true and final character and force.*" 2 W. Robinson, *Law of Patents* § 732, pp. 481–483 (1890) (emphasis added; footnotes omitted).

In sum, neither *Bischoff* nor *Tucker* indicates that juries resolved the meaning of terms of art in construing a patent, and neither case undercuts Justice Curtis's authority.

B

Where history and precedent provide no clear answers, functional considerations also play their part in the choice between judge and jury to define terms of art. We said in *Miller v. Fenton*, 474 U.S. 104, 114, 106 S.Ct. 445, 451, 88 L.Ed.2d 405 (1985), that when an issue "falls somewhere between a pristine legal standard and a simple historical fact, the fact/law distinction at times has turned on a determination that, as a matter of the sound administration of justice, one judicial actor is better positioned than another to decide the issue in question." So it turns out here, for judges, not juries, are the better suited to find the acquired meaning of patent terms.

[11] The construction of written instruments is one of those things that judges often do and are likely to do better than jurors unburdened by training in exegesis. Patent construction in particular "is a special occupation, requiring, like all others, special training and practice. The judge, from his training and discipline, is more likely to give a proper ¹³⁸⁹interpretation to such instruments than a jury; and he is, therefore, more likely to be right, in performing such a duty, than a jury can be expected to be." *Parker v. Hulme*, 18 F. Cas., at 1140. Such was the understanding nearly a century and a half ago, and there is no reason to weigh the respective strengths of judge and jury differently in relation to the modern claim; quite the contrary, for "the claims of patents have become highly technical in many respects as the result of special doctrines relating to the proper form and scope of claims that have

been developed by the courts and the Patent Office." Woodward, *Definiteness and Particularity in Patent Claims*, 46 Mich. L.Rev. 755, 765 (1948).

[12] Markman would trump these considerations with his argument that a jury should decide a question of meaning peculiar to a trade or profession simply because the question is a subject of testimony requiring credibility determinations, which are the jury's forte. It is, of course, true that credibility judgments have to be made about the experts who testify in patent cases, and in theory there could be a case in which a simple credibility judgment would suffice to choose between experts whose testimony was equally consistent with a patent's internal logic. But our own experience with document construction leaves us doubtful that trial courts will run into many cases like that. In the main, we expect, any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document, required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole. See *Bates v. Coe*, 98 U.S. 31, 38, 25 L.Ed. 68 (1878); 6 Lipscomb § 21:40, at 393; 2 Robinson, *supra*, § 734, at 484; Woodward, *supra*, at 765; cf. *U.S. Industrial Chemicals, Inc. v. Carbide & Carbon Chemicals Corp.*, 315 U.S. 668, 678, 62 S.Ct. 839, 844, 86 L.Ed. 1105 (1942); cf. 6 Lipscomb § 21:40, at 393. Thus, in these cases a jury's capabilities to evaluate demeanor, cf. *Miller, supra*, at 114, 117, 106 S.Ct., at 451, 453, to sense the "mainsprings of human conduct," *Commissioner v. Duberstein*, 363 U.S. 278, 289, 80 S.Ct. 1190, 1198, 4 L.Ed.2d 1218 (1960), or to reflect community ¹³⁹⁰standards, *United States v. McConney*, 728 F.2d 1195, 1204 (C.A.9 1984) (en banc), are much less significant than a trained ability to evaluate the testimony in relation to the overall structure of the patent. The decisionmaker vested with the task of construing the patent is in the better position to ascertain whether an expert's proposed definition fully comports with the specification and claims and so will preserve the patent's internal coherence. We accordingly think there is sufficient reason to treat construction of terms of art like

many other responsibilities that we cede to a judge in the normal course of trial, notwithstanding its evidentiary underpinnings.

C

[13] Finally, we see the importance of uniformity in the treatment of a given patent as an independent reason to allocate all issues of construction to the court. As we noted in *General Elec. Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 369, 58 S.Ct. 899, 902, 82 L.Ed. 1402 (1938), “[t]he limits of a patent must be known for the protection of the patentee, the encouragement of the inventive genius of others and the assurance that the subject of the patent will be dedicated ultimately to the public.” Otherwise, a “zone of uncertainty which enterprise and experimentation may enter only at the risk of infringement claims would discourage invention only a little less than unequivocal foreclosure of the field,” *United Carbon Co. v. Binney & Smith Co.*, 317 U.S. 228, 236, 63 S.Ct. 165, 170, 87 L.Ed. 232 (1942), and “[t]he public [would] be deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights.” *Merrill v. Yeomans*, 94 U.S. 568, 573, 24 L.Ed. 235 (1877). It was just for the sake of such desirable uniformity that Congress created the Court of Appeals for the Federal Circuit as an exclusive appellate court for patent cases, H.R.Rep. No. 97–312, pp. 20–23 (1981), observing that increased uniformity would “strengthen the United States patent system in such a way as to foster technological growth and industrial innovation.” *Id.*, at 20.

[391] Uniformity would, however, be ill served by submitting issues of document construction to juries. Making them jury issues would not, to be sure, necessarily leave evidentiary questions of meaning wide open in every new court in which a patent might be litigated, for principles of issue preclusion would ordinarily foster uniformity. Cf. *Blonder-Tongue Laboratories, Inc. v. University of Ill. Foundation*, 402 U.S. 313, 91 S.Ct. 1434, 28 L.Ed.2d 788 (1971). But whereas issue preclusion could not be asserted against new and independent infringement defendants even within a given jurisdiction, treating interpretive issues as purely legal will

promote (though it will not guarantee) intra-jurisdictional certainty through the application of *stare decisis* on those questions not yet subject to interjurisdictional uniformity under the authority of the single appeals court.

* * *

Accordingly, we hold that the interpretation of the word “inventory” in this case is an issue for the judge, not the jury, and affirm the decision of the Court of Appeals for the Federal Circuit.

It is so ordered.



517 U.S. 392, 134 L.Ed.2d 593

1392**HOLLY FARMS CORPORATION**
et al., Petitioners,

v.

NATIONAL LABOR RELATIONS
BOARD et al.
No. 95–210.

Argued Feb. 21, 1996.

Decided April 23, 1996.

Union filed representation petition with National Labor Relations Board (NLRB), seeking election in proposed unit of employees of vertically integrated poultry producer which included live-haul workers. NLRB approved proposed bargaining unit, finding live-haul workers were employees protected by National Labor Relations Act (NLRA). NLRB ordered poultry producer to bargain with union as representative of unit. On poultry producer’s petition for review, the Court of Appeals for the Fourth Circuit, 48 F.3d 1360, enforced NLRB’s order. After granting certiorari, the Supreme Court, Justice Ginsburg, held that NLRB’s determination that live-haul workers were employees covered by NLRA, rather than exempt agricultural laborers, was reasonable.

Affirmed.

a copyright case, for the proposition that for a nonwillful infringer the award should be based on post-tax profits.

Nike argues that the award should be based on pre-tax profits, citing *Schnadig Corp. v. Gaines Mfg. Co.*, 620 F.2d 1166, 1169-71, 206 USPQ 202, 207-09 (6th Cir. 1980), a § 289 case; and *Kalman v. Berlyn Corp.*, 914 F.2d 1473, 1482-83, 16 USPQ2d 1093, 1102 (Fed.Cir.1990), a case involving a § 284 lost profits calculation. Nike points out that an award of only the infringers' post-tax profits would leave the appellants in possession of their tax refunds, and that if the appellants still enjoy a profit the award can not be their "total profits" as mandated by the statute. See *Hanover Shoe, Inc. v. United Shoe Mach. Corp.*, 392 U.S. 481, 503, 88 S.Ct. 2224, 2236, 20 L.Ed.2d 1231 (1968); *Kalman*, 914 F.2d at 1482-83, 16 USPQ2d at 1102 (citing *Hanover Shoe*). The district court agreed with that position, as do we. The statute requires the disgorgement of the infringers' profits to the patent holder, such that the infringers retain no profit from their wrong.

IV

SUMMARY

We reverse the district court's ruling that the marking statute does not apply to recovery for design patent infringement under § 289, and remand for determination of whether Nike in fact complied with the marking requirement. We affirm the district court's methodology on the accounting issues.

Costs

No costs.

AFFIRMED IN PART, REVERSED IN PART AND REMANDED.



CYBOR CORPORATION, Plaintiff-Appellant,

v.

FAS TECHNOLOGIES, INC., and Fastar Ltd., Defendants-Cross Appellants.

Nos. 96-1286, 96-1287.

United States Court of Appeals,
Federal Circuit.

March 25, 1998.

Manufacturer of dual stage pump used to apply liquid in precise, small volumes onto semiconductor wafers brought action against patent owner and its licensee, seeking declaratory judgment of non-infringement, invalidity, and unenforceability of patent. Defendants counterclaimed for infringement. The United States District Court for the Northern District of California, Ronald M. Whyte, J., entered judgment upon jury verdict finding willful infringement and denied manufacturer's motion for judgment as matter of law. Manufacturer appealed, and defendants cross-appealed as to damages calculation and court's refusal to award attorney fees. The in banc Court of Appeals, Archer, Senior Circuit Judge, held that: (1) patent claim construction was purely matter of law and was thus subject to de novo review by Court of Appeals, abrogating *Fromson*, 132 F.3d 1437; *Eastman Kodak*, 114 F.3d 1547; *Wiener*, 102 F.3d 534; *Metaullics*, 100 F.3d 938; (2) prosecution history did not preclude patent owner from asserting that device with external reservoir infringed means-plus-function limitation for second pumping means; (3) limitation requiring that fluid flow "to" second pumping means did not preclude fluid from passing through intervening components and was thus literally infringed; (4) additional claims were infringed under doctrine of equivalents; (5) patent owner was not entitled to attorney fees or enhanced damages; and (6) method of calculating damages was not abuse of discretion.

Affirmed.

Plager, Circuit Judge, filed concurring opinion.

Bryson, Circuit Judge, filed concurring opinion.

Mayer, Chief Judge, concurred in the judgment and filed opinion in which Pauline Newman, Circuit Judge, joined.

Rader, Circuit Judge, dissented in part, joined in part, concurred in the judgment, and filed opinion.

Pauline Newman, Circuit Judge, filed additional views in which Mayer, Chief Judge, joined.

1. Federal Courts ⇨765, 776

Court of Appeals reviews denial of motion for judgment as matter of law (JMOL) de novo by reapplying JMOL standard, under which Court can reverse denial of motion for JMOL only if jury's factual findings are not supported by substantial evidence or if legal conclusions implied from jury's verdict cannot in law be supported by those findings.

2. Patents ⇨226.6

In patent infringement analysis, court first determines scope and meaning of patent claims asserted and then properly construed claims are compared to allegedly infringing device.

3. Patents ⇨314(5)

Construction of patent claim is pure issue of law and does not involve subsidiary or underlying questions of fact, and, thus, claim construction is subject to de novo review by Court of Appeals; abrogating *Fromson v. Anitec Printing Plates, Inc.*, 132 F.3d 1437; *Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547; *Wiener v. NEC Elecs. Inc.*, 102 F.3d 534; *Metaullics Sys. Co. v. Cooper*, 100 F.3d 938.

4. Patents ⇨168(2.1)

Prosecution history is relevant to construction of patent claim written in means-plus-function form. 35 U.S.C.A. § 112.

5. Patents ⇨168(2.1)

Clear assertions made during prosecution history in support of patentability may affect range of equivalents for claims written in means-plus-function form, and relevant inquiry is whether competitor would reasonably believe that applicant had surrendered relevant subject matter. 35 U.S.C.A. § 112.

6. Patents ⇨168(1)

Holder of patent for device used to accurately dispense industrial liquids was not precluded, by prosecution history, from asserting that competitor's device, which had reservoir external to its second pump, infringed means-plus-function limitation relating to patented device's "second pumping means," because statements distinguishing prior art merely referred to device having physically unattached reservoir with independent functionality and did not disclaim reservoir that was physically connected to pump and collected only fluid to be dispensed by that pump.

7. Patents ⇨101(3)

Limitation in patent claim for device used to accurately dispense industrial liquids, which required that fluid flow "to" second pumping means, did not preclude fluid from passing through intervening components between filtering means and second pumping means, and patent was thus literally infringed.

8. Patents ⇨237

Claims of patent for device used to accurately dispense industrial liquids was infringed under doctrine of equivalents by device with external reservoir and pump which was equivalent to second pumping means claimed in patent, as such interpretation was not barred by prosecution history.

9. Patents ⇨237

Accused device that does not literally infringe claim may still infringe under doctrine of equivalents if each limitation of claim is met in accused device either literally or equivalently.

10. Patents ⇨168(2.1)

Prosecution history estoppel provides legal limitation on application of doctrine of equivalents by excluding from range of equivalents subject matter surrendered during prosecution of application for patent; estoppel may arise from matter surrendered as result of amendments to overcome patentability rejections or as result of argument to secure allowance of claim.

11. Patents \Leftrightarrow 314(5), 324.5

Prosecution history estoppel is legal question subject to de novo review on appeal.

12. Patents \Leftrightarrow 325.11(2.1)

In determining whether case is exceptional and, thus, eligible for award of attorney fees under patent statute, district court must first determine whether case is exceptional, which is factual determination reviewed for clear error, and then must determine whether attorney fees are appropriate, which is determination reviewed for abuse of discretion. 35 U.S.C.A. § 285.

13. Patents \Leftrightarrow 325.11(2.1)

District court abuses its discretion when its decision regarding attorney fees is based on clearly erroneous findings of fact, is based on erroneous interpretations of law, or is clearly unreasonable, arbitrary or fanciful. 35 U.S.C.A. § 285.

14. Patents \Leftrightarrow 325.11(2.1)

District court's finding that patent infringement case was not exceptional, and thus did not warrant award of attorney fees, was not clearly erroneous, despite jury's finding that infringement was willful, in view of findings that evidence of willfulness and of copying was weak, that alleged infringer's arguments were not frivolous or asserted for improper purpose, and that alleged infringer acted in good faith. 35 U.S.C.A. § 285.

15. Patents \Leftrightarrow 325.11(2.1)

Finding of willful patent infringement does not require finding that case is exceptional, for purpose of awarding attorney fees. 35 U.S.C.A. § 285.

16. Patents \Leftrightarrow 319(3)

Denial of enhanced damages under patent statute is reviewed on appeal for abuse of discretion. 35 U.S.C.A. § 284.

17. Patents \Leftrightarrow 319(3)

Finding of willful patent infringement does not mandate enhanced damages; instead, paramount determination is egregiousness of defendant's conduct based on all facts and circumstances. 35 U.S.C.A. § 284.

* Chief Judge Haldane Robert Mayer assumed the position of Chief Judge on December 25, 1997.

18. Patents \Leftrightarrow 319(3)

Denial of enhanced damages for patent infringement was not abuse of discretion, despite finding that infringement was willful, based on finding that evidence regarding willfulness and copying was weak, that alleged infringer's arguments were justifiable, and that alleged infringer did not litigate in inappropriate fashion. 35 U.S.C.A. § 284.

19. Patents \Leftrightarrow 319(1)

Amount of damages determined by district court for patent infringement is question of fact that is reviewed for clear error on appeal, while method used by district court in reaching that determination is reviewed for abuse of discretion. 35 U.S.C.A. § 284.

20. Patents \Leftrightarrow 319(1)

District court's method of calculating damages for patent infringement was not abuse of discretion, in view of district court's thorough, well-reasoned analysis of facts underlying award of damages and proper evaluation of relevant two-supplier market. 35 U.S.C.A. § 284.

Tod L. Gamlen, Baker & McKenzie, of Palo Alto, CA, argued for plaintiff-appellant. With him on brief was David I. Roche, of Chicago, IL.

Douglas A. Cawley, Hughes & Luce, L.L.P., of Dallas, TX, argued for defendants-cross appellants. With him on brief was Aubrey Nick Pittman.

Before MAYER, Chief Judge,* RICH, NEWMAN, Circuit Judges, ARCHER, Senior Circuit Judge,** MICHEL, PLAGER, LOURIE, CLEVINGER, RADER, SCHALL, BRYSON, and GAJARSA, Circuit Judges.

Opinion for the court filed by Senior Circuit Judge ARCHER, in which Circuit Judges RICH, MICHEL, PLAGER, LOURIE, CLEVINGER, SCHALL, BRYSON, and GAJARSA join; Circuit Judge RADER joins as to part IV. Concurring opinions filed by Circuit Judges PLAGER and BRYSON. Opinions

** Senior Circuit Judge Glenn L. Archer, Jr. vacated the position of Chief Judge on December 24, 1997.

concurring in the judgment filed by Chief Judge MAYER, which Circuit Judge NEWMAN joins, and Circuit Judge RADER. Additional views filed by Circuit Judge NEWMAN, which Chief Judge MAYER joins.

ARCHER, Senior Circuit Judge.

Cybor Corporation (Cybor) appeals from the judgment of the United States District Court for the Northern District of California, 93-CV-20712 (Oct. 31, 1995), that Cybor pump, Model 5226, infringes the claims of U.S. Patent No. 5,167,837 (the '837 patent), currently owned by FAS Star, Ltd. and exclusively licensed to FAS Technologies, Inc. (collectively FAS). FAS cross-appeals the judgment as to the damages calculation, the denial of enhanced damages, and the refusal to declare the case exceptional and to award attorney fees. A panel heard oral argument on January 29, 1997. Before its opinion issued, however, this court *sua sponte* on September 5, 1997 ordered that this case be decided in banc.

We affirm the district court's judgment in its entirety. In so doing, we conclude that the Supreme Court's unanimous affirmance in *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996) (*Markman II*), of our in banc judgment in that case fully supports our conclusion that claim construction, as a purely legal issue, is subject to *de novo* review on appeal. See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979, 34 USPQ2d 1321, 1329 (Fed.Cir.1995) (in banc) (*Markman I*).

1. The actual patent claim is not written in paragraph form as shown here; we have added the breaks for ease of reference to the claim's limita-

BACKGROUND

The '837 patent discloses a device and method for accurately dispensing industrial liquids. The primary use of the patented inventions is to dispense small volumes of liquid onto semiconductor wafers. Claim 1 is representative and reads:¹

1. In a device for filtering and dispensing fluid in a precisely controlled manner, the combination of:

first pumping means;

second pumping means in fluid communication with said first pumping means; and

filtering means between said first and second pumping means, whereby said first pumping means pumps the fluid through said filtering means to said second pumping means;

in which each of said first and second pumping means includes surfaces that contact the fluid, said surfaces being of materials that are non-contaminating to industrial fluids which are viscous and/or high purity and/or sensitive to molecular shear; and

comprising means to enable said second pumping means to collect and/or dispense the fluid, or both, at rates or during periods of operation, or both, which are independent of rates or periods of operation, or both, respectively, of said first pumping means.

Figure 2 of the patent illustrates a preferred embodiment of the invention:

tions.

final judgment on October 31, 1995, and these appeals followed.

DISCUSSION

I.

[1] A. This court reviews a denial of a motion for JMOL *de novo* by reapplying the JMOL standard. See *Read Corp. v. Portec, Inc.*, 970 F.2d 816, 821, 23 USPQ2d 1426, 1431 (Fed.Cir.1992). Under this standard, we can reverse a denial of a motion for JMOL only if the jury's factual findings are not supported by substantial evidence or if the legal conclusions implied from the jury's verdict cannot in law be supported by those findings. See *Kearns v. Chrysler Corp.*, 32 F.3d 1541, 1547-48, 31 USPQ2d 1746, 1751 (Fed.Cir.1994).

[2] An infringement analysis involves two steps. First, the court determines the scope and meaning of the patent claims asserted, see *Markman II*, 517 U.S. at 371-73, 116 S.Ct. at 1387-88, and then the properly construed claims are compared to the allegedly infringing device, see *Read Corp.*, 970 F.2d at 821, 23 USPQ2d at 1431. Although the law is clear that the judge, and not the jury, is to construe the claims, this case presents the issue of the proper role of this court in reviewing the district court's claim construction.

In *Markman I*, we held that, because claim construction is purely a matter of law, this court reviews the district court's claim construction *de novo* on appeal. See *Markman I*, 52 F.3d at 979, 981, 34 USPQ2d at 1329, 1331. In reaching this conclusion, we recognized that

[t]hrough this process of construing claims by, among other things, using certain extrinsic evidence that the court finds helpful

3. It is difficult to reconcile the language and reasoning in this court's recent opinion in *Fromson v. Antec Printing Plates, Inc.*, 132 F.3d 1437, 45 USPQ2d 1269 (Fed.Cir.1997), with *Markman I*, although the opinion purports to do so. As we stated in *Markman I*, "extraneous evidence [such as the expert testimony in *Fromson*] is to be used for the court's understanding of the patent" and in doing so, the court "is not crediting certain evidence over other evidence or making factual evidentiary findings." *Markman I*, 52 F.3d at 981, 34 USPQ2d at 1331 (emphasis in original). Rather, we considered such evidence to be an aid to the court in coming to a correct conclusion as to the true meaning of the language employed in

and rejecting other evidence as unhelpful, and resolving disputes *en route* to pronouncing the meaning of claim language as a matter of law based on the patent documents themselves, the court is *not* crediting certain evidence over other evidence or making factual evidentiary findings. Rather, the court is looking to the extrinsic evidence to assist in its construction of the written document, a task it is required to perform. The district court's claim construction, enlightened by such extrinsic evidence as may be helpful, is still based upon the patent and prosecution history. It is therefore still construction, and is a matter of law subject to *de novo* review.

Id. at 981, 52 F.3d 967, 34 USPQ2d at 1331 (emphasis in original and footnote omitted).

After the Supreme Court's decision in *Markman II*, panels of this court have generally followed the review standard of *Markman I*. See *Serrano v. Telular Corp.*, 111 F.3d 1578, 42 USPQ2d 1538 (Fed.Cir.1997); *Alpex Computer Corp. v. Nintendo Co.*, 102 F.3d 1214, 40 USPQ2d 1667 (Fed.Cir.1996); *Insituform Techs., Inc. v. Cat Contracting, Inc.*, 99 F.3d 1098, 40 USPQ2d 1602 (Fed.Cir.1996); *General Am. Transp. v. Cryo-Trans, Inc.*, 93 F.3d 766, 39 USPQ2d 1801 (Fed.Cir.1996). In some cases, however, a clearly erroneous standard has been applied to findings considered to be factual in nature that are incident to the judge's construction of patent claims. See *Eastman Kodak Co. v. Goodyear Tire & Rubber Co.*, 114 F.3d 1547, 1555-56, 42 USPQ2d 1737, 1742 (Fed.Cir.1997); *Serrano*, 111 F.3d at 1586, 42 USPQ2d at 1544, (Mayer, J., concurring); *Wiener v. NEC Elecs. Inc.*, 102 F.3d 534, 539, 41 USPQ2d 1023, 1026 (Fed.Cir.1996); *Metallics Sys. Co. v. Cooper*, 100 F.3d 938, 939, 40 USPQ2d 1798, 1799 (Fed.Cir.1996).³ We ordered that this case be decided in banc

the patent. See *id.* at 980, 52 F.3d 967, 34 USPQ2d at 1330. The Supreme Court in effect confirmed this when it stated that the credibility determinations among experts "will be subsumed within the necessarily sophisticated analysis of the whole document." *Markman II*, 517 U.S. at 389, 116 S.Ct. at 1395. In *Fromson*, the district court "relied primarily on the '754 specification which describes Fromson's first anodization step as producing [a] porous oxide" barrier. *Fromson*, 132 F.3d at 1442, 45 USPQ2d at 1272. Although the extrinsic evidence—expert testimony, prior art, and scientific tests—confirmed the district court's claim construction, it was direct-

to resolve this conflict, and we conclude that the *de novo* standard of review as stated in *Markman I* remains good law.

[3] B. The Supreme Court framed the question before it in *Markman II* in the alternative: “whether the interpretation of a so-called patent claim . . . is a matter of law reserved entirely for the court, or subject to a Seventh Amendment guarantee that a jury will determine the meaning of any disputed term of art about which expert testimony is offered.” *Markman II*, 517 U.S. at 372, 116 S.Ct. at 1387 (emphasis added). When it answered that question by stating that “[w]e hold that the construction of a patent, including terms of art within its claim, is exclusively within the province of the court,” *id.*, the Court held that the totality of claim construction is a legal question to be decided by the judge. Nothing in the Supreme Court’s opinion supports the view that the Court endorsed a silent, third option—that claim construction may involve subsidiary or underlying questions of fact.⁴ To the contrary, the Court expressly stated that “treating interpretive issues as *purely legal* will promote (though not guarantee) intrajudicial certainty through the application of *stare decisis* on those questions not yet subject to interjurisdictional uniformity under the authority of the single appeals court.” *Id.* at 391, 116 S.Ct. at 1396 (emphasis added); see also *id.* at 387, 116 S.Ct. at 1394 (“‘Questions of construction are questions of law for the judge, not questions of fact for the jury’” (quoting A. Walker, *Patent Laws* § 75 at 173 (3d ed. 1895))). Indeed, the sentence demonstrates that the Supreme Court endorsed this court’s role in providing national uniformity to the construction of a patent claim, a role that would be impeded if we were bound to give deference to a trial judge’s asserted factual determinations incident to claim construction.

The opinions in some of our cases suggesting that there should be deference to what are asserted to be factual underpinnings of

ed primarily to whether Anitec’s thin, nonporous oxide layer infringed the claims. To this extent, the holding in *Fromson* affirming the district court’s claim interpretation follows *Markman I*. See *Bell & Howell Document Management v. Altek Sys.*, 132 F.3d 701, 705–06, 45 USPQ2d 1033, 1038 (Fed.Cir.1997); *Vitronics Corp. v. Concep-*

claim construction assert support from the language in *Markman II* stating that “construing a term of art after receipt of evidence” is a “mongrel practice,” *id.* at 378, 116 S.Ct. at 1390, and that the issue may “fall[] somewhere between a pristine legal standard and a simple historical fact,” *id.* at 388, 116 S.Ct. at 1395 (quoting *Miller v. Fenton*, 474 U.S. 104, 114, 106 S.Ct. 445, 451–52, 88 L.Ed.2d 405 (1985)). These characterizations, however, are only prefatory comments demonstrating the Supreme Court’s recognition that the determination of whether patent claim construction is a question of law or fact is not simple or clear cut; they do not support the view that the Court held that while construction is a legal question for the judge, there may also be underlying fact questions. To the contrary, the court noted that

when an issue “falls somewhere between a pristine legal standard and a simple historical fact, the *fact/law distinction* at times has turned on a determination that, as a matter of sound administration of justice, one judicial actor is better positioned than another to decide the issue in question.”

Id. (quoting *Miller v. Fenton*, 474 U.S. 104, 114, 106 S.Ct. 445, 451–52, 88 L.Ed.2d 405 (1985)) (emphasis added). Thus, the Supreme Court was addressing under which category, fact or law, claim construction should fall and not whether it should be classified as having two components, fact and law.

Further supporting the conclusion that claim construction is a pure issue of law is the Supreme Court’s analysis of the role of expert testimony in claim construction. Generally, the Court has recognized the important role played by juries in evaluating the credibility of a witness, a key consideration in determining the appropriate judicial actor to decide an issue. See *Miller*, 474 U.S. at 114, 106 S.Ct. at 451–52. In the context of claim construction, however, the Court reasoned that, while credibility determinations theoretically could play a role in claim con-

tronic, Inc., 90 F.3d 1576, 1584, 39 USPQ2d 1573, 1578 (Fed.Cir.1996).

4. If this were so, surely the Supreme Court would have discussed whether subsidiary or underlying fact questions should be decided by the judge or the jury.

struction, the chance of such an occurrence is “doubtful” and that “any credibility determinations will be subsumed within the necessarily sophisticated analysis of the whole document, required by the standard construction rule that a term can be defined only in a way that comports with the instrument as a whole.” *Markman II*, 517 U.S. at 389, 116 S.Ct. at 1395; see also *id.* at 388, 116 S.Ct. at 1394–95 (“[T]he testimony of witnesses may be received. . . . But in the actual interpretation of the patent the court proceeds upon its own responsibility, as an arbiter of the law, giving to the patent its true and final character and force.” (quoting 2 W. Robinson, *Law of Patents* § 732 at 481–83 (1890))). Such a conclusion is consistent with the view that claim construction, as a form of “document construction,” *id.* at 388–90, 116 S.Ct. at 1395, is solely a question of law subject to *de novo* review, as noted above. See *Markman I*, 52 F.3d at 981, 34 USPQ2d at 1331.

Moreover, while the Supreme Court’s opinion conclusively and repeatedly states that claim construction is purely legal, another view of the Court’s decision also demonstrates that our standard of review remains intact. The Court’s primary concern in *Markman II* was the Seventh Amendment issue of whether a right to a jury trial on claim construction inured to a party due to any potential factual issues involved. Because the Court did not discuss the appellate standard of review, *Markman II* can be read as addressing solely the respective roles of the judge and jury at the trial level and not the relationship between the district courts and this court. Although our conclusion in *Markman I* that claim construction is a matter of law was affirmed in all respects, even this narrower view of *Markman II* leaves *Markman I* as the controlling authority regarding our standard of review.

Thus, we conclude that the standard of review in *Markman I*, as discussed above, was not changed by the Supreme Court’s decision in *Markman II*, and we therefore reaffirm that, as a purely legal question, we review claim construction *de novo* on appeal

including any allegedly fact-based questions relating to claim construction. Accordingly, we today disavow any language in previous opinions of this court that holds, purports to hold, states, or suggests anything to the contrary, see, e.g., *Fromson*, 132 F.3d at 1444, 45 USPQ2d at 1274 (“The district court’s findings of scientific/technological fact were material to the issue of construction of the term ‘anodizing.’”); *Eastman Kodak*, 114 F.3d at 1555–56, 42 USPQ2d at 1742 (affirming district court’s claim construction “recognizing both the trial court’s ‘trained ability to evaluate [expert] testimony in relation to the overall structure of the patent’ and the trial court’s ‘better position to ascertain whether an expert’s proposed definition fully comports with the specification and claims” (quoting *Markman II*, 517 U.S. at 388–90, 116 S.Ct. at 1394–95)); *Wiener*, 102 F.3d at 539, 41 USPQ2d at 1026 (citing *Markman II* as controlling our standard of review and parenthetically quoting language from *Markman II* that claim construction “falls somewhere between a pristine legal standard and a simple historical fact.”); *Metalllics*, 100 F.3d at 939, 40 USPQ2d at 1799 (“[B]ecause claim construction is a mixed question of law and fact, we may be required to defer to a trial court’s factual findings. Where a district court makes findings of fact as part of claim construction, we may not set them aside absent clear error.” (citations omitted)).

II.

Cybor argues in this appeal that the district court improperly construed the two means-plus-function limitations in the relevant claims of the ’837 patent—the “second pumping means” and the “means to enable” the second pumping means to accumulate liquid, dispense liquid, or both. Cybor also challenges the district court’s construction of the limitation requiring that the fluid flow “to a second pumping means.” All of these arguments turn on the question of whether the district court erred in refusing to limit the scope of the claims based on statements made to the examiner during prosecution.⁵

5. Because Cybor’s claim construction arguments relate to the narrowing of claim scope required by prosecution history, we need not consider whether equivalence under § 112, ¶ 6 is a question of law or fact. See *Markman I*, 52 F.3d at

977 n. 8, 34 USPQ2d at 1327 n. 8. Here, the question of equivalence was given to the jury and Cybor does not challenge the equivalence of its accused device if prosecution history does not narrow the scope of the claims as Cybor argues.

CLAIM DRAFTING EXERCISE

Prepare three independent claims covering the invention depicted below, of varying scope: one broad, one narrow, and one in-between.

Come to class prepared to discuss your approach.

