No. 04-1350

In the Supreme Court of the United States

KSR INTERNATIONAL CO., PETITIONER

v.

TELEFLEX INC., ET AL.

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

BRIEF FOR THE UNITED STATES
AS AMICUS CURIAE SUPPORTING PETITIONER

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QUESTION PRESENTED

Whether a claimed invention can be "obvious," and therefore unpatentable under 35 U.S.C. 103(a), without proof of some "teaching, suggestion, or motivation" to modify or combine the prior art in the manner claimed.

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INTEREST OF THE UNITED STATES

The United States has a vital interest, encompassing a variety of perspectives, in the proper articulation of the standards governing the issuance and validity of patents. Pursuant to the Patent Clause of the Constitution (Art. I, § 8, Cl. 8), Congress has charged the United States Patent and Trademark Office (PTO), an agency in the Department of Commerce, with responsibility for examining patent applications, issuing patents, and advising the President on domestic and international issues of patent policy. See 35 U.S.C. 1 *et seq*. The United States is regularly engaged in litigation over the validity and scope of patents, sometimes as a patent holder but more commonly as a defendant in infringement actions. The United States has also entered into international agreements that address patent rights. See,

e.g., Agreement on Trade-Related Aspects of Intellectual Property Rights, Dec. 15, 1993, 33 I.L.M. 81. Furthermore, because the standards for issuance and validity of patents may directly affect competition and innovation in the marketplace, this case implicates questions of concern to both the Federal Trade Commission (FTC) and the Antitrust Division of the United States Department of Justice.[1]

STATEMENT

Petitioner KSR International Co. is a Canadian company that markets foot-operated throttle controls—*i.e.*, gas pedals—for passenger cars and light trucks. Pet. App. 20a. Respondents Teleflex Inc. and its subsidiary Technology Holding Co. sued KSR in the United States District Court for the Eastern District of Michigan for patent infringement, alleging that two of KSR's adjustable gas pedal systems literally infringe Claim 4 of their U.S. Patent No. 6,237,565 B1 (the Engelgau patent). *Id.* at 1a-2a, 20a, 23a-24a. The district court granted KSR's motion for summary judgment, concluding that Claim 4 of the Engelgau patent is obvious within the meaning of Section 103(a) of the Patent Act of 1952, 35 U.S.C. 103(a), and therefore invalid. See Pet. App. 18a-49a. The Federal Circuit vacated the grant of summary judgment, concluding that the district court incorrectly applied its "teaching-suggestion-motivation" test in determining that Claim 4 would have been obvious to a person of ordinary skill in the art. *Id.* at 1a-17a.

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[1] See generally, FTC, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* (Oct. 2003) (FTC Report) <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>; Office of the Att'y Gen., U.S. Dep't of Justice, *Report of the Department of Justice's Task Force on Intellectual Property* (Oct. 2004) <http://www.usdoj.gov/olp/ip_task_force_report.pdf>; U.S. Dep't of Justice & FTC, *Antitrust Guidelines for the Licensing of Intellectual Property* (Apr. 6, 1995) (*Licensing Guidelines*), *reprinted in* 4 Trade Reg. Rep. (CCH) ¶ 20,733 (1995) <http://www.usdoj.gov/atr/public/guidelines/0558.pdf>.

A. The Patent Act's Requirement Of Nonobviousness

The Patent Clause of the Constitution vests Congress with authority "[t]o promote the Progress of Science and useful Arts by securing for limited Times to * * * Inventors the exclusive Right to their * * * Discoveries." U.S. Const. Art. I, § 8, Cl. 8. Congress has implemented the Patent Clause through statutory enactments, commonly known as the Patent Acts, that have set out the conditions for securing a patent and that strike "a careful balance between the need to promote innovation and the recognition that imitation and refinement through imitation are both necessary to invention itself and the very lifeblood of a competitive economy." *Bonito Boats, Inc.* v. *Thunder Craft Boats, Inc.*, 489 U.S. 141, 146 (1989); see Gov't Cert. Br. 2 n.1 (citing past statutes).

The Patent Act of 1952, as amended, provides the current law governing the issuance and validity of patents. See 35 U.S.C. 100 *et seq*. Sections 101 through 103 (35 U.S.C. 101-103) provide, as a general matter, that "patentability is dependent upon three explicit conditions: novelty and utility as articulated in § 101 and § 102, and non-obviousness * * *, as set out in § 103." *Graham* v. *John Deere Co.*, 383 U.S. 1, 12 (1966); see *Bonito Boats*, 489 U.S. at 146-151, 156-157. Because "each of [these conditions] must be satisfied," only those new and useful inventions that would not have been "obvious" at the time of their discovery exhibit the "level of innovation necessary to sustain patentability." *Graham*, 383 U.S. at 4, 17.

Congress enacted Section 103(a) to codify the principle, which this Court first recognized in *Hotchkiss* v. *Greenwood*, 52 U.S. (11 How.) 248 (1851), that a new and useful device does not qualify for a patent unless it embodies a "degree of skill and ingenuity" beyond that of "an ordinary mechanic acquainted with the business." *Id.* at 267. See *Graham*, 383 U.S. at 11-18. Section 103(a) states that a claimed invention is not eligible for a patent

> if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

35 U.S.C. 103(a). "The nonobviousness requirement extends the field of unpatentable material beyond that which is known to the public under § 102, to include that which could readily be deduced from publicly available material by a person of ordinary skill in the pertinent field of endeavor." *Bonito Boats*, 489 U.S. at 150 (citing *Graham*, 383 U.S. at 15).

The question of nonobviousness is ultimately one of law, but it turns on "several basic factual inquiries." *Graham*, 383 U.S. at 17. This Court has identified several such inquiries: (1) "the scope and content of the prior art"; (2) "differences between the prior art and the claims at issue"; and (3) "the level of ordinary skill in the pertinent art." *Ibid.* In addition, the Court has stated that "secondary considerations," such as "commercial success" or "long felt but unsolved needs," might provide "indicia of obviousness or nonobviousness." *Id*. at 17-18.

B. The Subject Matter At Issue

The technology at issue in this case is relatively simple and its evolution is straightforward. Before the 1970s, the driver of an automobile typically controlled the vehicle's speed by pressing a foot-operated gas pedal, which was bolted at a fixed location within the footwell of the vehicle interior. The pedal would act as a lever, rotate around a pivot point, and pull a cable or mechanical linkage to actuate the engine throttle. See Pet. App. 20a-21a. In the 1970s, automobile manufacturers began offering adjustable pedal assemblies, designed to accommodate drivers of different heights, that enabled a driver to adjust the pedal position forward and backward within the footwell. *Id*. at 19a-20a; see C.A. App.

1568 (U.S. Patent No. 5,010,782, Col. 1, ll. 14-27 (Asano patent)).[2]

In the 1990s, automobile manufacturers sold increasing numbers of vehicles in the United States that employed computer-controlled engines and electronic throttle controls. See Pet. App. 21a, 41a. The manufacturers of gas pedal assemblies adapted their non-adjustable assemblies by attaching an electronic sensor to the pedal, in place of the mechanical linkage, to determine the pedal position and transmit a corresponding electronic signal to the throttle. See *id.* at 21a. The designs of that era reveal configurations for non-adjustable pedals, mounted on the wall of the footwell, in which the electronic pedal position sensor is actuated by the pedal pivot and is located on a stationary wall bracket to which the pedal and its pivot connect. See *id.* at 33a-35a.[3]

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[2] The driver's adjustment of the pedal position could alter the mechanical "lever[age]" at the pedal pad, by changing the distance between the pad and the pedal pivot, and it could consequently require the driver to apply a different amount of force when operating the pedal. See C.A. App. 1568 (Asano patent, Col. 1, ll. 28-45). The 1989 Asano design addressed that problem by attaching the adjustable pedal assembly to a fixed pivot point located on a stationary bracket in the footwell. See *id.* at 1562, 1565-1567 (Asano patent, Fig. 5-8); Pet. App. 32a-33a. That design then utilized mechanical linkages to preserve a constant force ratio and counteract the effect of adjusting the distance between the pedal pad and pedal pivot. See C.A. App. 1568, 1570-1571 (Asano patent, Col. 1, ll. 48-65; Col. 2, ll. 15-23; Col. 8, l. 63 - Col. 9, l. 4); Pet. App. 12a-13a & n.3. Not all adjustable pedal assemblies seek to address that constant force problem. See, *e.g.*, C.A. App. 1490-1491 (U.S. Patent No. 5,632,183, Col. 1, ll. 35-38, 52-54, Col. 2, ll. 13-15, Col. 4, ll. 26-29 (Rixon '183 patent)).

[3] U.S. Patent No. 5,385,068 (White patent) (C.A. App. 717-723) is illustrative. The White patent, which was filed in 1992, discloses a modular electronic pedal position sensor similar to a sensor later installed in certain 1994 Chevrolet pick-up trucks. That sensor, known as a CTS 503 Series position sensor, was designed to be mounted on the pedal pivot of a gas pedal and included a fitting that allowed the sensor

Respondents' Engelgau patent—the patent at issue in this case—reveals an adjustable pedal apparatus that combines an adjustable gas pedal assembly with an electronic pedal position sensor. The electronic sensor, which measures the pedal position at the pivot, is attached to the support bracket that connects the pedal assembly to the wall of the footwell. Pet. App. 2a, 26a. The patent explains that the pedal assembly "can be any of various adjustable pedal assemblies" and the electronic pedal position sensor can be any such sensor "known in the art." C.A. App. 38-39 (Engelgau patent, Col. 2, ll. 54-56; Col. 3, ll. 22-24).

Claim 4, which is set out verbatim at Pet. App. 3a, describes an apparatus composed of: (1) a support mounted to the vehicle structure; (2) an adjustable pedal assembly with a pedal arm that moves fore and aft with respect to the support; (3) a pivot located on the support to which the pedal assembly is attached; and (4) an electronic pedal position sensor attached to the support. *Id.* at 3a, 25a-26a. Claim 4 further describes that the electronic pedal position sensor is responsive to the pivot, the position of which remains constant with pedal arm adjustments. *Id.* at 3a, 26a.

C. The Proceedings Below

KSR supplies a major automobile manufacturer with adjustable gas pedal assemblies for use with electronically controlled throttles in certain truck lines. Respondents, who compete with KSR, brought this suit alleging that KSR's pedal assemblies infringed three of respondents' patents. As

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to engage the pedal pivot shaft on different makes and models of vehicle gas pedal assemblies. See Pet. App. 32a; C.A. App. 1051-1053 (Willemsen Decl. paras. 12-19). The sensor was mounted on the pedal support bracket in Chevrolet trucks and determined the pedal's position from the movement of the pedal pivot shaft. *Id.* at 1052-1053, 1077 (Willemsen Decl. paras. 16-17, 19 & Exh. 8). See also, *e.g.*, U.S. Patent Nos. 4,958,607 (Lundberg patent), 5,233,882 (Byram patent), 5,241,936 (Byler patent) (C.A. App. 708-716), 5,887,488 (Riggle patent).

a result of a series of motions and stipulations, the parties focused their dispute on whether KSR's pedal assemblies infringed Claim 4 of the Engelgau patent. The parties filed cross-motions for summary judgment, and the district court granted judgment for KSR on the ground that respondents' claimed invention would have been obvious to a person of ordinary skill in the art and that claim 4 of the Engelgau patent was therefore invalid. See Pet. App. 18a-24a.

The district court reached that conclusion based on the four-part inquiry that this Court set out in *Graham*, *supra*. See 383 U.S. at 17-18. It first determined that all of the elements of Claim 4 were revealed in the prior art because the Asano patent (which the patent applicant did not present to the PTO) taught each element except Claim 4's reference to the use of an electronic pedal position sensor, which other prior art references taught. See Pet. App. 28a-35a. The district court then determined that a person of ordinary skill in the art would have had college training in mechanical engineering and experience in the field of pedal assemblies. *Id.* at 35a-36a. The court next found that there was "little difference between the teachings of the prior art and claims of the patent-in-suit," and it further found that a person skilled in the art would readily "combine a pivotally mounted adjustable pedal assembly [the Asano patent] with an off-the-shelf modular pedal position sensor to solve the problem" that the Engelgau patent addressed. *Id.* at 39a, 44a. The court also evaluated, as a "secondary consideration," respondents' claim of commercial success, but the court concluded that the consideration was "insufficient to overcome [KSR's] clear and convincing evidence of obviousness." *Id.* at 48a.

In analyzing whether it would have been obvious to a person of ordinary skill to combine the Asano patent with an electronic pedal position sensor, the district court applied the Federal Circuit's "teaching-suggestion-motivation test." See Pet. App. 8a, 40a-46a. Under that test, a claimed invention that combined elements already present in the prior art would

not have been obvious at the time of invention unless there was a teaching, suggestion, or motivation in the prior art that would have led a person of ordinary skill to combine the prior art references in the manner claimed. See *id.* at 40a-41a. The district court found that a person of ordinary skill would have been motivated to combine pre-existing adjustable pedal assemblies with co-existing electronic pedal position sensors and to avoid known problems with other pedal assemblies. *Id.* at 42a-43a. The court observed that the prior art references were closely related, others in the field had made similar combinations, and the patent examiner, who did not have the benefit of the Asano reference, had recognized similar combinations as obvious. *Id.* at 43a-46a.

The court of appeals reversed on the ground that the district court had incorrectly applied the teaching-suggestion-motivation test. Pet. App. 1a-17a. The court of appeals stated that its test required the district court to make factual findings showing the "specific understanding or principle within the knowledge of the skilled artisan that would have motivated one with no knowledge of [the] invention to make the combination" in "the particular manner claimed by claim 4 of the [Engelgau] patent." *Id.* at 11a-12a (quoting *In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000)); see *id.* at 16a. In other words, the court of appeals ruled that the district court could not find the Engelgau patent invalid as obvious without "specific findings as to a suggestion or motivation to attach an electronic control to the support bracket of the Asano assembly." *Id.* at 12a.

The court of appeals concluded that the Asano patent failed to provide such motivation because it addressed "the constant pedal force problem" in adjustable pedal assemblies, see note 2, *supra*, whereas the Engelgau patent purported to disclose a "smaller, less complex, and less expensive electronic pedal assembly." Pet. App. 12a-13a. The court of appeals also stated that the prior art references that taught the importance of avoiding movement of the pedal position sen-

sor's wiring in non-adjustable pedal assemblies likewise were insufficient because they did not address the problem of wire chafing in "an adjustable pedal assembly" and did "not necessarily go to the issue of motivation to attach the electronic control on the support bracket." *Id.* at 13a.

The court of appeals concluded that KSR's other evidence describing the prior use of electronic pedal position sensors failed "to make out a *prima facie* case of obviousness." Pet. App. 14a. The court acknowledged that the evidence demonstrated a motivation to combine an electronic pedal position sensor with an adjustable pedal assembly and showed that such a sensor "'could have been' mounted on the support bracket of a pedal assembly," but the court concluded that it failed to show a particular "motivation to attach the electronic control to the support bracket." *Id.* at 14a-15a. The court of appeals accordingly concluded that genuine issues of material fact existed concerning "whether a person of ordinary skill in the art would have been motivated * * * to attach an electronic control to the support structure of the [Asano] pedal assembly." *Id.* at 16a-17a. It therefore vacated the district court's judgment and remanded the case "for further proceedings on the issue of obviousness, and, if necessary, proceedings on the issues of infringement and damages." *Id.* at 17a.

SUMMARY OF ARGUMENT

This Court's decision in *Graham* v. *John Deere Co.*, 383 U.S. 1 (1966), sets out the framework for determining whether a claimed invention is nonobvious within the meaning of Section 103(a) of the Patent Act of 1952, 35 U.S.C. 103(a). Under that decision, a court must determine, as questions of fact, the content of the prior art, the differences between the prior art and the inventor's claims, and the level of ordinary skill in the art. The court must then make a legal judgment whether a person of ordinary skill in the field would have found the claimed invention obvious. This Court has applied the *Graham* framework in a variety of contexts to resolve the core

issue: Whether the claimed invention manifests the extraordinary level of innovation that justifies the award of congressionally prescribed rights to exclude others from practicing the invention.

The Federal Circuit has incorrectly supplanted the *Graham* framework by adopting the mandatory teaching-suggestion-motivation test. That test improperly transforms one legitimate means of establishing obviousness—proof that the prior art provided a teaching, suggestion, or motivation for combining separate prior art references—into an inflexible requirement for what should remain a highly contextual judgment. The test, which places unjustified constraints on the necessary exercise of discerning judgment, inappropriately broadens the category of nonobvious and therefore patentable inventions. At the same time, it underestimates the capacity of courts and patent examiners to avoid improper reliance on hindsight. The test exacts a heavy cost in the form of unwarranted extension of patent protection to obvious subject matter.

This Court should restore the proper content of the nonobviousness analysis by refocusing the inquiry on the key question that the *Graham* framework addresses: whether the claimed invention manifests the extraordinary level of innovation, beyond the capabilities of a person having ordinary skill in the art, that warrants the award of a patent. When the PTO or a court reviews a claimed invention that consists of a combination of known art, each should be permitted to conclude—without a mandatory showing of a "teaching, suggestion, or motivation" to combine the known features—that the combination is within the grasp of a person of ordinary skill and therefore obvious. Under a correct application of *Graham*, the court of appeals' judgment should be reversed.

ARGUMENT

THE FEDERAL CIRCUIT HAS PRESCRIBED A FLAWED TEST FOR ASCERTAINING WHETHER A CLAIMED INVENTION IS OBVIOUS

A. This Court's Decisions Establish The Proper Framework For Evaluating Whether A Claimed Invention Is "Obvious" Within The Meaning Of The Patent Act

The Patent Clause authorizes Congress "[t]o promote the Progress of * * * useful Arts, by securing for limited Times to * * * Inventors the exclusive Right to their * * * Discoveries." U.S. Const. Art. I, § 8, Cl. 8. As this Court has explained, "[i]nnovation, advancement, and things which add to the sum of useful knowledge are inherent requisites in a patent system which by constitutional command must 'promote the Progress of . . . useful Arts." *Graham* v. *John Deere Co.*, 383 U.S. 1, 6 (1966). The patent system thus "represents a carefully crafted bargain that encourages both the creation and public disclosure of new and useful advances in technology, in return for an exclusive monopoly for a limited period of time." *Pfaff* v. *Wells Elecs., Inc.*, 525 U.S. 55, 63 (1998) (citing *Bonito Boats, Inc.* v. *Thunder Craft Boats, Inc.*, 489 U.S. 141, 150-151 (1989)). That bargain's effectiveness in inducing creative effort and disclosure depends on "a backdrop of free competition in the exploitation of unpatented designs and innovations." *Bonito Boats*, 489 U.S. at 151.

Section 103(a)'s nonobviousness requirement performs a fundamental role in ensuring that "free exploitation of ideas will be the rule, to which the protection of a federal patent is the exception." 489 U.S. at 151. It embodies the understanding that "concepts within the public grasp, or those so obvious that they readily could be, are the tools of creation available for all." *Id.* at 156. This Court, in a series of decisions beginning with *Graham*, *supra*, and continuing through *Sakraida*

v. *Ag Pro, Inc.*, 425 U.S. 273 (1976), has articulated and applied the key principles that govern the nonobviousness inquiry.

1. This Court observed in *Graham* that Section 103(a)'s nonobviousness requirement codifies a "functional approach," traceable to *Hotchkiss* v. *Greenwood*, 52 U.S. (11 How.) 248 (1851), for defining the "general level of innovation necessary to sustain patentability." See *Graham*, 383 U.S. at 3-4, 11-12. That approach proceeds from the perspective of a "hypothetical person" having ordinary skill in the relevant art, *Dann* v. *Johnston*, 425 U.S. 219, 229 (1976), and turns on whether the claimed invention "as a whole" would have been obvious at the time in light of the "differences between the subject matter sought to be patented and the prior art." 35 U.S.C. 103(a).

The "ultimate question" of patent validity under Section 103(a) is a question of law. *Graham*, 383 U.S. at 17. It rests on a legal judgment, informed by relevant facts, of whether the hypothetical person having ordinary skill in the art would have found the invention as a whole "obvious." Section 103(a) itself identifies three "central factors relevant to any inquiry into obviousness" (*Johnston*, 425 U.S. at 226): the scope and content of the prior art, the differences between the prior art and the claims at issue, and the level of ordinary skill in the pertinent art. See *Graham*, 383 U.S. at 17. Other "secondary considerations" —including a long-felt and unfulfilled need for the invention, the prior failures of others, and the commercial success of the invention—may also provide "indicia" supporting the legal conclusion of "obviousness or nonobviousness," *id.* at 17-18, 35-36, but those considerations will not render an obvious invention patentable. *Anderson's-Black Rock, Inc.* v. *Pavement Salvage Co.*, 396 U.S. 57, 61 (1969) (citing *Great Atl. & Pac. Tea Co.* v. *Supermarket Equip. Corp.*, 340 U.S. 147, 153 (1950)).

In specifying nonobviousness as a condition of patentability, Section 103(a) codifies the Court's historic approach to evaluating whether a claimed invention is sufficiently inno-

vative to warrant a patent, *Graham*, 383 U.S. at 17, but it does not dictate an inflexible formula for making the legal determination whether an invention as a whole would have been "obvious." While the Court identified in its *Graham* decision the framework for analysis and the relevant considerations, it observed that the application of Section 103(a) would continue to depend on the "given factual context," that the inquiry is comparable to that involving similar fact-dependant legal judgments such as "negligence and scienter," and that further refinements "should be amenable to a case-by-case development." *Id.* at 18.

2. This Court's decisions from *Graham* forward reflect the understanding that courts must apply Section 103(a) "realistically" as a "practical test of patentability." See 383 U.S. at 17. The Court has accordingly declined to embrace rigid categorical rules that would hamstring the courts or the PTO—which has "the primary responsibility for sifting out unpatentable material" (*id.* at 18)—when making individualized determinations of obviousness. Instead, the Court has consistently evaluated whether the claimed invention is obvious based on a case-by-case assessment whether the claimed innovation reflects an advancement beyond what would be expected from the exercise of ordinary skill in the relevant field at the time of the claimed invention.

For example, in *Graham* and its companion cases (*Calmer, Inc.* v. *Cook Chemical Co.*, and *Colgate-Palmolive Co.* v. *Cook Chemical Co.*), the Court ruled that a claimed invention of a plow improvement and a claimed invention of a container cap were obvious. See 383 U.S. at 24-26, 32-37. In each instance, the Court identified the prior art, the differences between that art and the claimed inventions, and the level of ordinary skill in the relevant fields. Equipped with that information, the Court ruled that the claimed inventions were obvious, concluding that the claimed innovation in chisel plow design "presents no operative mechanical distinctions" (*id.* at 26) and that the container cap innovation taught "no patentable differ-

ence above the prior art" (*id.* at 35). In neither case did the Court find it necessary to make any "specific findings showing a teaching, suggestion, or motivation to combine prior art teachings in the particular manner claimed by the patent at issue" (Pet. App. 16a).

The Court followed the same approach, explicitly endorsing *Graham*'s reasoning, in *Anderson's-Black Rock, Inc.*, 396 U.S. at 59-63. The Court ruled that a paving machine that combined elements already known in the prior art was not patentable under Section 103(a) because the combination, "though perhaps a matter of great convenience," was "reasonably obvious to one with ordinary skill in the art." *Id.* at 60. The Court noted that a different result might obtain if the combination produced a "new or different function," *ibid.* (quoting *Lincoln Eng'g Co.* v. *Stewart-Warner Corp.*, 303 U.S. 545, 549 (1938)), or produced a "synergistic result," *id.* at 61, but the Court did not hold that either such consideration provided a definitive test for nonobviousness.

The Court also employed the *Graham* framework without further embellishment in *Dann* v. *Johnston*, 425 U.S. 219 (1976). The Court ruled there that a claimed invention of a computerized system for managing bank accounts, which built upon the teachings of the prior art, was obvious. *Id.* at 225. Once again, the Court did not require any "specific findings showing a teaching, suggestion, or motivation to combine prior art" (Pet. App. 16a). Indeed, the Court recognized that "[t]here may be differences between respondent's invention and the state of the prior art." 425 U.S. at 229. The Court based its decision on a determination that "[t]he gap between the prior art and respondent's system is simply not so great as to render the system nonobvious to one reasonably skilled in the art." *Id.* at 230.

The Court also adhered to the *Graham* framework in *Sakraida* v. *Ag Pro, Inc.*, 425 U.S. 273 (1976), ruling that a claimed invention of a method for cleaning dairy barns was obvious. The Court made no inquiry into any teaching, sug-

gestion, or motivation from the prior art. Rather, it concluded that the claimed invention "simply arranges old elements with each performing the same function it had been known to perform" and that "this particular use of the assembly of old elements would be obvious to any person skilled in the art of mechanical application." *Id.* at 282. The Court noted that the invention did not produce a "new or different function," *ibid.* (quoting *Anderson's-Black Rock*, 396 U.S. at 60), or produce a "synergistic" result, *ibid.*, " although perhaps producing a more striking result than in previous combinations," *ibid.* The Court concluded that "[s]uch combinations are not patentable under standards appropriate for a combination patent." *Ibid.*

Finally, in the only post-*Graham* decision in which the Court has specifically ruled that a claimed invention is nonobvious, *United States* v. *Adams*, 383 U.S. 39 (1966), the Court did so without suggesting that the mere absence of any teaching, suggestion, or motivation from the prior art would be sufficient to overcome obviousness objections. See *id.* at 51-52. The Court ruled that the invention at issue—a water-activated, constant-voltage battery—was nonobvious, even though it combined elements that were "well known in the prior art" (*id.* at 51), because it demonstrated innovation beyond the level of ordinary skill in the art. The Court explained that the battery performed in a way that was "unexpected" and "far surpassed then-existing wet batteries" (*ibid.*); the teachings of the prior art would have "deter[red] any investigation" into the inventor's combination (*id.* at 52); and "noted experts expressed disbelief in it" (*ibid.*).

In sum, the Court's decisions, from *Graham* through *Sakraida*, require courts to make the legal judgment whether a claimed invention is nonobvious based on a determination whether it advances the relevant art beyond what a person of ordinary skill, presented with the same problem that confronted the inventor, could have achieved at the time of the invention. Those decisions do not embrace a rigid rule that a

claimed invention is nonobvious in the absence of "specific findings showing a teaching, suggestion, or motivation to combine prior art teachings in the particular manner claimed by the patent at issue" (Pet. App. 16a).

B. The Federal Circuit's Teaching-Suggestion-Motivation Test Should Not Be The Exclusive Means Of Establishing Obviousness

The Federal Circuit has altered this Court's *Graham* framework by engrafting a teaching-suggestion-motivation test "to prevent a hindsight-based obviousness analysis." *Ruiz* v. *A.B. Chance Co.*, 234 F.3d 654, 664 (Fed. Cir. 2000); see, *e.g.*, Pet. App. 6a-7a; *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999); *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998). The court of appeals has reasoned that the test is necessary because "[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight." Pet. App. 7a (quoting *Dembiczak*, 175 F.3d at 999). As this Court's decision in *Adams* confirms, however, that criticism is unwarranted. Courts are fully capable of distinguishing between obvious and nonobvious inventions without undue influence from the claimed invention itself. And the Federal Circuit's mandatory test, however well intentioned, has proved to be unnecessary, misguided, and counterproductive. It should not be adopted as the exclusive method for establishing obviousness.

1. This Court's decisions from *Graham* through *Sakraida* demonstrate that the Federal Circuit's rigid prophylactic test is not needed to implement Section 103(a)'s nonobviousness requirement. This Court has repeatedly made obviousness determinations without requiring "specific findings showing a teaching, suggestion, or motivation to combine prior art teachings in the particular manner claimed by the patent at issue." Pet. App. 16a. There is no reason to reconsider those

decisions and no basis for the Federal Circuit's categorical test.[4]

2. Under the *Graham* framework, it is certainly true that a claimed invention consisting of a combination of prior art may be rejected as obvious based upon a showing of a teaching, suggestion, or motivation to combine the prior art. See, *e.g.*, *Adams*, 383 U.S. at 47 (discussing why the prior art does not teach or suggest the patented combination). The Federal Circuit's test is flawed because it erroneously elevates that particular method of demonstrating obviousness to the *exclusive* means for doing so. The inflexible constraints that the Federal Circuit has imposed through its teaching-suggestion-motivation test prevent the exercise of discerning judgment in making what is necessarily a highly variable inquiry.[5]

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[4] The Court's failure to employ such a test is not just happenstance. The Court has had the opportunity, but has repeatedly declined, to embrace similar formulations of a "suggestion" test. See *In re Johnston*, 502 F.2d 765, 772 (C.C.P.A. 1974) (concluding that the patent was nonobvious because the prior art is "not suggestive of the subject matter of the appealed claims"), rev'd, 425 U.S. 219 (1976); *Ag Pro, Inc.* v. *Sakraida*, 474 F.2d 167, 171 (5th Cir. 1973) (stating "references may not be combined to anticipate the patented claim unless they suggest to one with ordinary skill in the art doing what the applicant has claimed"), rev'd, 425 U.S. 273 (1976); *Calmer, Inc.* v. *Cook Chem. Co.*, 336 F.2d 110, 113 (8th Cir. 1964) (stating that the invention is nonobvious because "there is nothing in the prior art suggesting Scoggin's unique combination of these old features"), rev'd *sub nom. Graham* v. *John Deere Co.*, 383 U.S. 1 (1966).

[5] After this Court called for the views of the United States in this case, the Federal Circuit stated that its teaching-suggestion-motivation test "is consistent with governing obviousness law," citing Section 103(a) and this Court's decisions in *Johnston* and *Graham*. See *In re Kahn*, 441 F.3d 977, 987 (Fed. Cir. 2006). But the *Kahn* decision does not acknowledge the key difference: This Court's decisions nowhere suggest that a court or the PTO *must* make the *specific findings* that the Federal Circuit requires. To the contrary, this Court has consistently ruled that a claimed invention may be obvious based on the small

The Federal Circuit in this case unambiguously reaffirmed its oft-stated view that:

> When obviousness is based on the teaching of multiple prior art references, the movant *must* also establish some "suggestion, teaching, or motivation" that would have led a person of ordinary skill in the art to combine the relevant prior art teachings *in the manner claimed*.

Pet. App. 6a (citations omitted; emphasis added); *id.* at 7a, 11a-12a, 16a.[6] That court also reiterated its requirement of a "specific" and "particular" showing in each and every case. *Ibid.*[7]

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difference between the prior art and what the inventor claimed, without any mention of teaching, suggestion, or motivation. See pp. 13-16, *supra*.

[6] See, *e.g.*, *McGinley* v. *Franklin Sports, Inc.*, 262 F.3d 1339, 1351(Fed. Cir. 2001) ("the central question is whether there is reason to combine [the] references"); *Brown & Williamson Tobacco Corp.* v. *Philip Morris, Inc.*, 229 F.3d 1120, 1124-1125 (Fed. Cir. 2000) ("a showing of a suggestion, teaching, or motivation to combine the prior art references is an 'essential evidentiary component of an obviousness holding'"); see also, *e.g.*, *In re Sang-Su Lee*, 277 F.3d 1338, 1342-1343 (Fed. Cir. 2002); *In re Kotzab*, 217 F.3d 1365, 1370-1371 (Fed. Cir. 2000); *Winner Int'l Royalty Corp.* v. *Wang*, 202 F.3d 1340, 1348-1349 (Fed. Cir. 2000); *In re Rouffet*, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

[7] See, *e.g.*, *Sang-Su Lee*, 277 F.3d at 1343 ("The need for specificity pervades this authority."); *Kotzab*, 217 F.3d at 1371 ("particular findings must be made"); *Dembiczak*, 175 F.3d at 999 (there must be "actual evidence" revealing a "clear and particular" reason to select and combine the elements). The Federal Circuit has repeatedly stated that "'[c]ommon knowledge and common sense,' even if assumed to derive from the [PTO's] expertise, do not substitute" for evidence of a "specific hint or suggestion" to combine prior art. See *In re Sang-Su Lee*, 277 F.3d at 1344-1345. Thus, even when prior art is closely analogous to the invention at issue, the court has required evidence showing a particular suggestion or motivation to combine the prior art to create the invention. See *Dembiczak*, 175 F.3d at 1000.

The Federal Circuit's test is problematic because the factual showing that it requires may be difficult or impossible to make, even though the combination would have been obvious to a person having ordinary skill in the art. For example, a claimed invention may consist of a combination of known elements that, although novel, would be readily apparent to a person of ordinary skill in the art. But there may be no affirmative evidence of a "teaching, suggestion, or motivation" to assemble the combination in the manner claimed, because the combination is sufficiently obvious to persons skilled in the art that no one would have had need or incentive to record the trivial extension of the art.[8] The absence of such information is likely to be most pronounced in new or rapidly expanding technological fields that create sudden economic incentives to adopt or apply existing knowledge in new but readily conceivable combinations. In such circumstances, the first person to perceive the potential commercial advantage of applying existing knowledge and techniques to the new field will often be entitled to a patent under the Federal Circuit's approach, even when implementation of the patented approach would have been a simple and obvious matter for persons possessing the relevant technical skills and presented with the same problem.[9]

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[8] See National Research Council of the National Academies, *A Patent System for the 21st Century* 90 (Stephen A. Merrill et al. eds. 2004) <http://www.nap.edu/html/patentsystem/0309089107.pdf> ("[S]cientists, artisans, and creative people generally speaking strive to publish non-obvious information. So if it is obvious to those of skill in the art to combine references, it is unlikely that they will publish such information."); see also John R. Thomas, *Formalism at the Federal Circuit*, 52 Am. U. L. Rev. 771, 801-802 (2003).

[9] See John F. Duffy, *Rethinking the Prospect Theory of Patents*, 71 U. Chi. L. Rev. 439, 504-505 (2004) (describing how an unexpected technological development, such as the rise of Internet commerce, can trigger patent applications for "new but obvious" ideas); David Schumann, *Obviousness with Business Methods*, 56 U. Miami L. Rev. 727,

3. The Federal Circuit has attempted to ameliorate the difficulty of producing affirmative evidence of a teaching, suggestion or motivation by instructing that it may be found "explicitly or implicitly"

> 1) in the prior art references themselves; 2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or 3) from the nature of the problem to be solved, "leading inventors to look to references relating to possible solutions to that problem."

Pet. App. 6a (citations omitted). As applied by the Federal Circuit, however, the test has often proven difficult to satisfy by "implicit" means, particularly in view of the court's stringent requirement that *specific* evidence be introduced. *E.g.*, *Rouffet*, 149 F.3d at 1359. And to the extent that the test could be satisfied by an entirely "implicit" teaching, suggestion, or motivation from any of those sources, it would add nothing meaningful to the *Graham* framework. Moreover, while a test requiring explicit teachings, suggestions, or motivations at least would streamline the inquiry (at the substantial cost of overprotecting obvious patents), a test that could be satisfied by entirely implicit means would make summary judgment more difficult to obtain. See p. 22, *infra.* In either event, the Federal Circuit's test provides potentially confusing and complicated evidentiary hurdles and detracts from a focus on the statutory concern for nonobviousness vel non.

4. The Federal Circuit's perspective on the problem of hindsight is itself problematic. This Court cautioned in *Graham* against "read[ing] into the prior art the teachings of the invention in issue." 383 U.S. at 36. The Court did not per-

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731-732 (2002); see also William M. Landes & Richard A. Posner, *The Economic Structure of Intellectual Property Law* 304 (2003); Robert P. Merges & John F. Duffy, *Patent Law and Policy: Cases and Materials* 655 (3d ed. 2002) .

ceive, however, any need for extraordinary showings of obviousness to avoid that danger. The Federal Circuit's rigid test underestimates the capacity of courts and the PTO to avoid the influence of hindsight. Retrospective analysis is not unique to patent law, but regularly arises in a wide variety of contexts, including the determination of the competency of counsel in criminal proceedings, see, *e.g.*, *Rompilla* v. *Beard*, 125 S. Ct. 2456, 2462 (2005), reasonable use of force by police officers, see, *e.g.*, *Graham* v. *Connor*, 490 U.S. 386, 396 (1989), and probable cause, see, *e.g.*, *Maryland* v. *Garrison*, 480 U.S. 79, 85 (1987). In those situations, as in *Graham*, the Court has consistently recognized that decisionmakers can avoid the improper influence of hindsight by maintaining conscious awareness of its potentially distorting influence in the decisionmaking process.[10] Courts routinely find, for example, an absence of probable cause in cases in which the police in fact find substantial quantities of contraband in a search. There is no reason to think that courts in patent cases cannot be similarly discerning.

5. The Federal Circuit's flawed teaching-suggestion-motivation test imposes significant burdens on the patent system. That test results in unnecessary proceedings and burdensome evidentiary inquiries, often ending in an erroneous extension of patent protection to obvious subject matter. This case aptly illustrates those problems. The district court found that the Asano patent revealed all of the elements of Claim 4 of the Engelgau patent except the mounting of a pivot-actuated elec-

[10] See *Rompilla*, 125 S. Ct. at 2456 ("hindsight is discounted by pegging adequacy to 'counsel's perspective at the time' investigative decisions were made" (quoting *Strickland* v. *Washington*, 466 U.S. 668, 689 (1984)); *Connor*, 490 U.S. at 396 ("'reasonableness' of a particular use of force must be judged from the perspective of a reasonable officer on the scene, rather than with the 20/20 vision of hindsight"); *Maryland*, 480 U.S. at 85 ("we must judge the constitutionality of [the officers'] conduct in light of the information available to them at the time they acted").

tronic sensor on the adjustable pedal assembly support structure, and it concluded that the claim was obvious because other manufacturers had mounted such sensors on non-adjustable pedal assembly support structures. See Pet. App. 42a-44a. The court of appeals nevertheless concluded that a mechanical engineer with experience in pedal assembly, faced with the problem of mounting an electronic sensor on an adjustable pedal assembly, would not be implicitly motivated to transfer to that context the known technique for mounting the electronic sensor on the support structure of non-adjustable assemblies. See *id.* at 11a-13a; see also 13a-15a (rejecting the district court's alternative bases for finding a teaching, suggestion, or motivation to combine the elements).

Under the court of appeals' decision, the district court would need to conduct additional proceedings to determine whether Claim 4 of the Engelgau patent is obvious. Those proceedings would include a trial to determine, among other things, "whether a person of ordinary skill in the art would have been motivated, at the time the invention was made, to attach an electronic control to the support structure of the pedal assembly disclosed by the Asano patent." Pet. App. 16a-17a. Those costly proceedings are unnecessary. The district court convincingly explained that the combination of known elements would have been obvious to a mechanical engineer confronted with the task of developing an electronically controlled adjustable pedal. *Id.* at 40a-46a. The Federal Circuit's test nevertheless prevents summary resolution of the issue, potentially grants respondents an undeserved windfall, and prevents the public from freely employing what should be "tools of creation available to all." *Bonito Boats*, 489 U.S. at 156.

The Federal Circuit's test also hampers the PTO's administrative process by unduly restricting the ability of patent examiners to reject obvious patent applications without an extensive search for evidence of a teaching, suggestion, or motivation. Congress vested the PTO with "primary respon-

sibility for sifting out unpatentable material." *Graham*, 383 U.S. at 18. That responsibility, which requires technical expertise drawn from a wide variety of disciplines, places extraordinary burdens on patent examiners, particularly in light of the *ex parte* nature of patent examinations and the high volume of patent applications.[11] The Federal Circuit's test prevents the PTO from promptly rejecting claimed inventions on obviousness grounds. See generally FTC, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy* ch. 4, at 9-15 (Oct. 2003), *available at* <www.ftc.gov/os/2003/10/ innovationrpt.pdf>. That test has forced the PTO to expend considerable resources searching, often without success, for a "suggestion, teaching, or motivation" to justify the rejection of patent claims for combinations that one might expect "would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. 103(a).[12]

In sum, the Federal Circuit's teaching-suggestion-motivation test, while a well-intentioned attempt to provide further refinement of the *Graham* framework, has proved unsatisfactory from a wide variety of perspectives. This Court should not adopt that flawed categorical test as the exclusive means of determining whether a claimed invention consisting of a

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[11] In fiscal year 2005 alone, the PTO (which employs approximately 4,500 patent examiners) received more than 400,000 patent applications. Congress intended that Section 103(a) would play a crucial role in filtering out non-innovative applications and focusing the examination efforts on substantial claims.

[12] See, *e.g.*, *Dembiczak*, 175 F.3d at 1000-1001 (ruling that the claimed invention of a lawn trash bag having a Halloween pumpkin design is not prima facie obvious in the absence of a suggestion to combine a normal trash bag with references describing pumpkin designs on paper bags). See also, *e.g.*, Pat. No. 6,368,227 C1 (method of swinging on a swing); Pat. No. 6,266,652 (patent for Internet auction system).

combination of known elements satisfies Section 103(a)'s criterion for patentability.

C. This Court Should Reaffirm Its Sound Approach To Evaluating Obviousness And Apply It To This Case

This Court recognized in *Graham* that the concept of nonobviousness "is not a question upon which there is likely to be uniformity of thought in every given factual context." 383 U.S. at 18. The Court also observed, however, that the difficulties "are comparable to those encountered daily by the courts in such frames of reference as negligence and scienter, and should be amenable to a case-by-case development." *Ibid.* The Court understood that the *Graham* framework might be refined based on the insights gained through experience. The Federal Circuit's misguided appendage of its teaching-suggestion-motivation test, however, has distorted the proper analysis. This Court should restore its sound articulation of Section 103(a)'s nonobviousness standard by reiterating the *Graham* framework and applying it to this case.

1. The Court recognized in *Graham* that the fundamental inquiry under Section 103(a) is whether a claimed invention is sufficiently innovative—in the sense that it reflects an advance beyond the grasp of "a person having ordinary skill in the art" (35 U.S.C. 103(a))—to warrant the award of a temporary right to exclude others from practicing the invention. See 383 U.S. at 12-18. As the Court further explained in *Graham*, Section 103(a) directs that the inquiry should proceed by ascertaining the relevant prior art, identifying the differences between that art and the invention, and determining whether those differences would have been apparent to the person of "ordinary skill" possessing knowledge of all the prior art. See *id.* at 17-18. If the differences would not have been "obvious" to one of ordinary skill—in other words, they would have required *extraordinary* skill—then the inventor has satisfied Section 103(a)'s nonobviousness requirement. See *ibid.*

This Court's decisions make clear that the nonobviousness inquiry ultimately depends heavily on an assessment of the expected capabilities, insights, and ingenuity of the hypothetical person having "ordinary skill in the art to which said subject matter pertains." 35 U.S.C. 103(a). See pp. 13-15, *supra*. That assessment plays a crucial role in moderating the tension between an overly strict nonobviousness standard, which may diminish the patent system's incentives for beneficial research and discovery, and an overly lax nonobviousness standard, which may detrimentally prevent unrestricted exploitation of unremarkable adaptations. See, *e.g.*, FTC, *supra*, ch. 4, at 4-6; *id.* at 11-12 (citing testimony of PTO Deputy Commissioner Stephen G. Kunin); see also *Laboratory Corp. of Am. Holdings* v. *Metabolite Labs., Inc.*, 126 S. Ct. 2921, 2922-2923 (2006) (Breyer, J., dissenting).

The Federal Circuit's test—which focuses attention exclusively on a search for teachings, suggestions, and motivations in the prior art—has misdirected the analysis away from that central inquiry. The Federal Circuit's test effectively assumes that the person of ordinary skill has little capability to combine prior art in the absence of specific teachings or suggestions. The Federal Circuit's systemic diminishment of the role of the person of ordinary skill and its miserly assessment of that person's capabilities has distorted the *Graham* framework. The Court should reiterate that the role of the hypothetical person of ordinary skill is critical in the nonobviousness inquiry and that the person is understood to have "an ability to combine and modify prior art references that is consistent with the creativity and problem-solving skills that in fact are characteristic of those having ordinary skill in the art." FTC, *supra*, ch. 4, at 15.

2. This Court also emphasized in *Graham* that "the primary responsibility for sifting out unpatentable material lies in the Patent Office." 383 U.S. at 18. The PTO's patent examiners possess specialized knowledge in particular technical fields that places them in an advantageous position to assess

the capabilities of the hypothetical "person having ordinary skill in the art." The Federal Circuit's diminishment of the role of the "person having ordinary skill" has correspondingly devalued the PTO's central role in determining whether a claimed invention is patentable. In particular, the Federal Circuit has repeatedly admonished the PTO's Board of Patent Appeals and patent examiners not to rely on "basic knowledge" or "common sense" in finding that combinations of prior art would be within the capabilities of persons having ordinary skill. See, *e.g.*, *In re Sang-Su Lee*, 277 F.3d 1338, 1344-1345 (2002); *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001). The Federal Circuit requires that, "even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination." *Rouffet*, 149 F.3d at 1359. That requirement inexorably compels the PTO to grant patents for claimed inventions that, under a proper application of *Graham*, would be obvious. See note 12, *supra.*

This Court should reiterate that, when the PTO applies its technical expertise and reasonably articulates why a patent claim is obvious under Section 103(a), that determination is entitled to deference reflecting "the primacy of the PTO in ensuring that the claims allowed cover only subject matter that is properly patentable." *Warner-Jenkinson Co.* v. *Hilton Davis Chem. Co.*, 520 U.S. 17, 33-34 (1997). The obviousness inquiry should not require the PTO to conduct an unnecessary search for evidence showing a particular suggestion, teaching, or motivation to make insubstantially innovative combinations of elements that are known in the prior art. The PTO should instead be allowed to bring to bear its full expertise— including its reckoning of the basic knowledge and common sense possessed by persons in particular fields of endeavor— when making the predictive judgment whether an invention would have been obvious to a person of ordinary skill in the art. The patent applicant should bear the burden of proving PTO's Board and examiners wrong. Cf. *In re Berg*, 320 F.3d 1310,

1315 (Fed. Cir. 2003) (the findings of patent examiners and administrative patent judges "can establish a prima facie case of obviousness").

3. When—as in *Graham* and in this case—an alleged infringer challenges the validity of an issued patent on obviousness grounds, a court must reassess the validity of a patent. A patent is entitled to a presumption of validity, see 35 U.S.C. 282, and the courts have long spoken in terms of subjecting challengers to a high burden of persuasion. See, *e.g.*, *Radio Corp. of Am.* v. *Radio Eng'g Labs., Inc.*, 293 U.S. 1 (1934). The *Graham* framework should be applied with those principles in mind, but those principles should not stand as an obstacle to invalidation of obvious subject matter. That is particularly true here, because the presumption of validity has less force when the crucial prior art was not presented to the PTO.[13]

The district court correctly concluded in this case that Claim 4 of the Engelgau patent is obvious as a matter of law. That court fastidiously applied the *Graham* analysis by describing the prior art, Pet. App. 28a-35a, ascertaining the level of ordinary skill, *id.* at 35a-36a, and identifying the differences between the prior art and the claimed invention, *id.*

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[13] The lower courts have taken different approaches to the question whether an alleged infringer must establish invalidity by "clear and convincing evidence" when that infringer has produced pertinent prior art that the patent applicant did not place before the PTO. Compare *American Hoist & Derrick Co.* v. *Sowa & Sons, Inc.*, 725 F.2d 1350, 1360 (Fed. Cir. 1984) (Rich, J.) (the evidentiary burden is constant but the new evidence may "carry more weight"), with *Chicago Rawhide Mfg. Co.* v. *Crane Packing Co.*, 523 F.2d 452, 458 & n.14 (7th Cir. 1975) (Stevens, J.) ("The basis for the requirement that invalidity be established by clear and convincing evidence is largely, if not wholly, dissipated when pertinent prior art is shown not to have been considered by the [PTO]."). See FTC, *supra*, ch. 5, at 26-28. Because there is no dispute in this case over any material fact, there is no need to resolve here any issues regarding the proper standard of proof.

at 36a-40a. The court correctly recognized that the claimed invention simply involved a combination of elements from the prior art, *id.* at 40, and it therefore focused on whether the claimed improvement over the prior art—combining an adjustable gas pedal assembly with an electronic sensor in the manner disclosed in Claim 4—would have been obvious to the person of ordinary skill. Bound by the Federal Circuit's precedents, the district court analyzed the issue through the lens of the teaching-suggestion-motivation test. Nevertheless, its explanation provides ample basis for affirmance under the *Graham* framework. See *id.* at 40a-46a.

The claimed invention is nothing more than a combination of previously known components that "simply arranges old elements with each performing the same function it had been known to perform." *Sakraida*, 425 U.S. at 282. This Court's post-*Graham* decisions indicate that such combinations would have been obvious to a mechanic of ordinary skill in the absence of some additional distinctive factor, such as the creation of a "new or different function," *Anderson's-Black-Rock*, 396 U.S. at 60, a "synergistic result," *id.* at 61, or proof that the prior art "deter[red] any investigation into such a combination," *Adams*, 383 U.S. at 52.[14]

Respondent argued below that the particular placement of the electronic sensor on the adjustable gas pedal assembly's support bracket provided the distinctive inventive feature. See Pet. App. 41a-42a. But as the district court explained, the prior art—specifically the Asano patent, which respondents had not provided to the PTO—revealed the placement of a mechanical throttle control on an adjustable

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[14] The Court's pre-*Graham* decisions support that presumption as well. See, *e.g.*, *Toldeo Pressed Steel Co.* v. *Standard Parts, Inc.*, 307 U.S. 350, 356 (1939); *Lincoln Eng'g Co.* v. *Stewart-Waner Corp.*, 303 U.S. 545, 549 (1938); *Adams* v. *Bellaire Stamping Co.*, 141 U.S. 539, 542 (1891); *Reckendorfer* v. *Faber*, 92 U.S. 347, 357 (1876); *Hailes* v. *Van Wormer*, 87 U.S. (20 Wall.) 353, 368 (1873).

gas pedal assembly's support bracket. See *id.* at 32a-33a; 39a-40a. In addition, the prior art revealed that manufacturers of gas pedal assemblies had adapted their non-adjustable assemblies by employing an electronic sensor in place of a mechanical linkage. See *id.* at 33a-35a, 40a. The district court correctly concluded a person having ordinary skill—in this case, a mechanical engineer familiar with pedal assembly design and presumed to know the prior art—would have recognized the advantage of incorporating an electronic sensor into Asano's adjustable gas pedal assembly and placing the electronic sensor at the very same location as the mechanical linkage. See *id.* at 41a-44a.[15]

In sum, the straightforward application of the *Graham* framework leads to the conclusion that the claimed invention here—a combination of known elements assembled in a manner similar to mechanical devices that performed the same function in the prior art—would have been obvious to a person having ordinary skill in the art. The claimed invention here is at least as obvious as the inventions in *Graham*, see 383 U.S. at 24-26, 32-37, and *Anderson's-Black Rock*, 396 U.S. at

[15] Petitioner has supplied an animation that helpfully illustrates that point. See <http://www.demonstratives.com/animations/intellectual_property/ksr/asano.avi> . The court of appeals suggests that Asano merely shows that the electronic throttle control "could have been" mounted in that manner (Pet. App. 15a), citing the observation in *In re Deuel*, 51 F.3d 1552, 1559 (Fed. Cir. 1995), that one cannot demonstrate obviousness by asserting that it was "obvious to try" a course of experimentation that ultimately led to a discovery. Properly applied, however, the "obvious to try" maxim simply recognizes that knowledge of a wide and undifferentiated range of possibly fruitful investigative approaches does not necessarily make obvious the specific solution found through the course of further investigation. See *In re O'Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988). In this case, the Asano patent provided a clear illustration of how to attach a mechanical throttle control to a pedal assembly support bracket. It required nothing more than ordinary skill to substitute an electronic control for the mechanical one. See Pet. App. 41a-43a.

60-63. The disclosure of that modest innovation does not warrant the award of the extraordinary right to exclude others from practicing the invention.

CONCLUSION

The decision of the court of appeals should be reversed.

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