

No. 05-378

In the Supreme Court of the United States

KENNETH HARRIS AND JACQUELINE B. WAHL,
PETITIONERS

v.

JONATHAN W. DUDAS,
DIRECTOR, PATENT AND TRADEMARK OFFICE

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

BRIEF FOR THE RESPONDENT IN OPPOSITION

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QUESTION PRESENTED

Whether the court of appeals properly concluded that petitioner's patent claims were obvious in light of existing patents.

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OPINIONS BELOW

The opinion of the court of appeals (Pet. App. 1a-11a) is reported at 409 F.3d 1339. The decision of the United States Patent and Trademark Office Board of Patent Appeals and Interferences (Pet. App. 14a-28a) is unreported. The decision of the Board denying rehearing (Pet. App. 29a-33a) is unreported.

JURISDICTION

The judgment of the court of appeals was entered on May 25, 2005. A petition for rehearing was denied on June 30, 2005 (Pet. App. 12a-13a). The petition for a writ of certiorari was filed on September 16, 2005. The

jurisdiction of this Court is invoked under 28 U.S.C. 1254(1).

STATEMENT

1. The Patent Clause of the Constitution empowers Congress “[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. 1, § 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 obtaining a patent. See, *e.g.*, Patent Act of 1790, ch. 7, 1 Stat. 109; Patent Act of 1793, ch. 11, 1 Stat. 318; Patent Act of 1836, ch. 357, 5 Stat. 117; Patent Act of 1839, ch. 88, 5 Stat. 353; Patent Act of 1870, ch. 230, 16 Stat. 198; Patent Act of 1939, ch. 451, 53 Stat. 1212; Patent Act of 1952, ch. 950, 66 Stat. 792.

The Patent Act of 1952, as amended, provides the currently controlling law governing the issuance of patents. See 35 U.S.C. 1 *et seq.* Sections 101 through 103 set out the basic requirements to qualify for a patent. As this Court has explained, those Sections indicate that “patentability is dependent upon three explicit conditions: novelty and utility as articulated and defined in § 101 and § 102, and non-obviousness * * * , as set out in § 103.” *Graham v. John Deere Co.*, 383 U.S. 1, 12 (1966); see *United States v. Adams*, 383 U.S. 39, 48 (1966); see generally *Bonito Boats, Inc. v. Thunder Craft Boats, Inc.*, 489 U.S. 141, 146-151 (1989).

Of importance here, Section 103 of the Patent Act articulates the requirement, added explicitly in 1952, that the subject matter of the invention must be “non-obvious.” 35 U.S.C. 103. Section 103 specifically

states that a patent may not be obtained if the differences between the subject matter 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.” 35 U.S.C. 103(a). In other words, “[p]atentability is to depend, in addition to novelty and utility, upon the ‘non-obvious’ nature of the ‘subject matter sought to be patented’ to a person having ordinary skill in the pertinent art.” *Graham*, 383 U.S. at 14 (quoting 35 U.S.C. 103(a)).

2. Petitioners filed U.S. Patent Application 09/797,326 (‘326 Application) claiming a nickel-based superalloy for turbine engine blades that experience high temperatures. Pet. App. 1a-2a. “The alloy disclosed in the ‘326 Application contains nickel, plus twelve additional elements defined by a range of weight percentages.” *Id.* at 2a. For example, Claim 1 refers to a weight percentage of “about 4.3% to about 5.3% Chromium (Cr).” *Ibid.* (citation omitted). The ‘326 Application discloses an embodiment of the claimed alloy—“CMSX®- 486”—that has “improved stress-rupture properties over other alloys.” *Id.* at 2a-3a.

A patent examiner within the Patent and Trademark Office (PTO) rejected the application. See C.A. App. 301-310. The examiner ruled that the claims were obvious in view of a previously issued patent on nickel-based alloys, referred to as the “Yoshinari” patent. C.A. App. 303 (citing 35 U.S.C. 103(a)).¹ The patent examiner noted, for example, that “the ranges of Yoshinari’s [chromium]” “overlap the subject matter of claim 1.” Pet. App. 17a. The Yoshinari patent discloses a weight per-

¹ The examiner also rejected petitioners’ application as obvious based on a second patent, but the court of appeals did not address that alternative rejection. Pet. App. 3a n.1.

cent of chromium of “5 to 14%, preferably 5.5 to 9%” while petitioners’ patent gives a range of “about 4.3 to about 5.3.” *Id.* at 17a n.3, 19a; C.A. App. 303-304. Moreover, “it would have been within the expected skill of a routinier in the art to have optimized the contents of these elements in order to maximize the properties” of the superalloy. *Id.* at 304. In an effort to overcome the obviousness finding, petitioners suggested that “CMSX®-486” displayed “unexpected results relative to the prior art range.” Pet. App. 23a. The examiner found that argument unpersuasive. See C.A. App. 308-309.

The PTO’s Board of Patent Appeals and Interferences (Board) affirmed the examiner’s rejection of petitioners’ patent application. The Board stated that a “*prima facie* case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art.” Pet. App. 21a. It concluded that “[s]uch is the case here.” *Ibid.* The Board additionally concluded that a “person of ordinary skill in the art would have reasonably expected that the chromium content affects the hot corrosion resistance of the superalloy” and thus “would have recognized the suitability of adjusting the content of the disclosed elements within the disclosed ranges.” *Ibid.* “Since the ranges of claim 1 overlap[] the invention of Yoshinari, the burden is shifted to [petitioners] to establish that the claimed invention would not have been obvious.” *Ibid.* The Board evaluated petitioners’ claim that they had carried that burden because CMSX®-486 “exhibits superior results.” *Id.* at 22a. The Board found, however, that petitioners “ha[d] not explained why [the] results obtained are unexpected” or why their “single example is representative of the entire claimed range.” *Id.* at 23a.

The United States Court of Appeals for the Federal Circuit affirmed. Pet. App. 1a-11a. The court of appeals stated that “a prima facie case of obviousness arises when the ranges of a claimed composition overlap the ranges disclosed in the prior art.” *Id.* at 4a (collecting cases). The court further explained that, “[e]ven without complete overlap of the claimed range and the prior art range, a minor difference shows a prima facie case of obviousness.” *Ibid.* The court pointed out that eleven of Yoshinari’s disclosed ranges completely encompass petitioners’ claimed ranges. *Ibid.* “Only Yoshinari’s chromium range (5.0 - 14.0) does not completely encompass the ‘326 Application’s chromium range (4.3 - 5.3).” *Ibid.* Rejecting petitioners’ view that Yoshinari’s ranges were too broad to disclose any specific alloy, the court of appeals noted that this case does not involve ranges that are “too broad to teach a subset range.” *Id.* at 7a.

Having found that the PTO established a prima facie case of obviousness, the court of appeals considered whether petitioners had met their burden of rebutting that prima facie showing. Pet. App. 8a-9a. The court concluded that the improved stress-rupture properties of petitioners’ CMSX®-486 “does not represent a ‘difference in kind’ that is required to show unexpected results.” *Id.* at 9a (citation omitted). Furthermore, because the Yoshinari patent taught that “limiting the percentages of chromium” would improve “hot corrosion resistance,” the increase in stress-rupture properties of CMSX®-486 was not unexpected. *Id.* at 9a-10a. And, even assuming that the results of CMSX®-486 were unexpected, petitioners “needed to show results covering the scope of the claimed range,” not just the unexpected results of one compound. *Id.* at 10a.

ARGUMENT

The court of appeals correctly concluded that the PTO properly rejected petitioners' patent application because the claimed invention was obvious. The court of appeals' fact-based decision does not conflict with any decision of this Court or with any decision of the Federal Circuit or another court of appeals. Further review is not warranted.

1. The PTO has primary responsibility for "sifting out unpatentable material." *Graham*, 383 U.S. at 18. In *Graham*, the Court identified the "basic factual inquiries" relevant to the determination whether a claimed invention is obvious within the meaning of Section 103. *Id.* at 17. "Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved." *Ibid.* In addition, the Court identified "secondary considerations" such as "commercial success" and "failure of others" that may "give light" to the non-obviousness inquiry. *Ibid.*

When examining a patent for nonobviousness, the PTO employs a two-step process, asking "(1) whether a prima facie case of obviousness has been established, and, if so, (2) whether the affidavits presented are sufficient to overcome the prima facie case of obviousness." *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984) (quoting *In re Surrey*, 319 F.2d 233, 235 (C.C.P.A.), cert. denied, 375 U.S. 930 (1963)).² "If rebuttal evidence of

² The *Piasecki* court observed that, while the "origin" of that prima facie inquiry is "uncertain," "its ancestry includes mechanisms which were called 'presumptions of unpatentability.'" 745 F.2d at 1472 (quoting *In re Henze*, 181 F.2d 196, 201 (C.C.P.A. 1950)).

adequate weight is produced, the holding of *prima facie* obviousness, being but a legal inference from previously uncontradicted evidence, is dissipated.” 745 F.2d at 1472. Accord, *e.g.*, *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992) (“*prima facie* case is a procedural tool of patent examination, allocating the burdens of going forward as between examiner and applicant”); *In re Kumar*, 418 F.3d 1361 (Fed. Cir. 2005) (same). See 37 C.F.R. 1.56(b) (“A *prima facie* case of unpatentability is established when the information compels a conclusion that a claim is unpatentable * * * before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.”).

2. Here, both the Board and the court of appeals applied a sensible and long-standing refinement of the *prima facie* obviousness inquiry, by presuming that a chemical composition claim is obvious if it merely identifies a subset of a previously identified chemical composition. Pet. App. 4a, 21a-22a. The presumption is a reasonable one: If a patent application claims a range of chemical compositions, and the claimed range is within the range of compositions already protected by a patent, the application does not appear to rest on any new learning or discovery. The Federal Circuit has repeatedly recognized that a claimed invention that is merely a narrower version of a patented invention is *prima facie* obvious. See, *e.g.*, *Kumar*, 418 F.3d at 1366 (“A *prima facie* case of obviousness may be made when the only difference from the prior art is a difference in the range or value of a particular variable.”); *In re Peterson*, 315 F.3d 1325, 1330 (Fed. Cir. 2003) (“the existence of overlapping or encompassing ranges shifts the burden to the applicant to show that his invention would not have been

obvious”); *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990) (“slightly different ranges of carbon monoxide concentration” not sufficient for patentability absent a “showing that the claimed range achieves unexpected results relative to the prior art range”).

Petitioners’ claim in this case is a textbook example of a claim that is obvious in view of the ranges disclosed in the prior art. Eleven of Yoshinari’s disclosed ranges completely encompass petitioners’ claimed ranges. Pet. App. 4a. The only element that falls partially outside Yoshinari’s general range—chromium—is only .2 weight percent below Yoshinari’s preferred range. Moreover, the Board found that “a person of ordinary skill in the art would have recognized the suitability of adjusting the content of the disclosed elements within the disclosed ranges.” *Id.* at 21a. Thus, the Yoshinari patent either completely encompasses or substantially overlaps each claimed range. In effect, petitioners are claiming Yoshinari’s superalloy using a subset of Yoshinari’s ranges.

3. Petitioners concede “[t]here are many cases in which claimed ranges should be found *prima facie* obvious in view of prior art encompassing or overlapping ranges.” Pet. 17. Petitioner’s central contention is that the court of appeals held that “*any time* a claimed range is encompassed or overlapped by a prior art range * * *, it is *prima facie* obvious.” Pet. 9 (emphasis added). The court of appeals, however, did not purport to establish such a “mechanical” rule. Pet. 7.

Instead, the court of appeals simply reiterated and applied the general rule that petitioners concede is proper. The court of appeals stated only a presumptive rule for “this type of claim.” Pet. App. 4a. The Board expressed the same point, stating that a “*prima facie*

case of obviousness *typically* exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art.” Pet. App. 21a (emphasis added). As the court of appeals recognized, an unwavering rule in those circumstances is not warranted because “a disclosed range might become too broad to teach a subset range.” *Id.* at 7a (citing *In re Peterson*, 315 F.3d 1325, 1330 n.1 (Fed. Cir. 2003)). An invention that significantly narrows a broad range, and as a result teaches an invention that one skilled in the art would not have discovered based on the prior art, can be non-obvious.

The decision below is in harmony with prior cases recognizing that a narrow overlap within a broad range may be consistent with a finding of nonobviousness. For example, there is no conflict with *In re Baird*, 16 F.3d 380, 383 (Fed. Cir. 1994), in which the court of appeals stated that “a disclosure of millions of compounds does not render obvious a claim to three compounds, particularly when that disclosure indicates a preference leading away from the claimed compounds.” The court of appeals here agreed that “a disclosed range might become too broad to teach a subset range.” Pet. App. 7a (discussing *Peterson*).

Petitioners argue that this case fits within the *In re Baird* and *In re Peterson* exception to obviousness for overly broad ranges. According to petitioners, the Yoshinari patent “ranges encompass millions, if not billions, of possible alloys.” Pet. 12. As the court of appeals explained, however, the ranges set out in the Yoshinari patent, when compared to the ranges set out by petitioners, are not too broad to teach a subset range, Pet. App. 7a-8a, particularly when the teachings of the Yoshinari patent are considered. As the Board found, Yoshinari’s preferred embodiments and examples pro-

vide a road map that would lead a person of ordinary skill in the art directly to the ranges claimed by petitioners. *Id.* at 21a.

In short, this case represents a routine application of the settled rule that an overlap of ranges generally creates a presumption of obviousness. The court of appeals expressly recognized that not every overlap warrants the presumption, but concluded that this case was typical and governed by the general rule. There is no need for the Court to review that narrow factbound determination.

4. Petitioners claim that the prima facie obviousness inquiry “must be based on all of the facts.” Pet. 8 (emphasis omitted). See Pet. 17-18. In petitioners’ view, the prima facie inquiry must account for all of the obviousness factors set out in *Graham v. John Deere, supra*. Pet. 8-9. That assertion is incorrect. The purpose of the “initial inquiry” is to provide a structured process for the development and consideration of the relevant *Graham* factors. The initial examination in this case focused on the overlap with the prior art, which then placed the burden on the applicant to refute the presumption of obviousness or face rejection. Petitioners’ view that all the factors are to be considered at the initial prima facie stage would eliminate the well-established and sensible prima facie process.

5. Petitioners incorrectly claim that the decision below “makes it impossible” for any patent applicant claiming overlapping ranges to avoid the presumption of obviousness. Pet. 19. The court of appeals expressly stated that the prima facie presumption could be overcome if, for example, the overlapping ranges led to “unexpected results.” Pet. App. 9a. Rather than bar all overlapping claims, the court of appeals narrowly held

that this particular patent application did not teach anything unexpected. The claimed alloy cannot qualify as non-obvious because it is similar in composition and qualities to alloys described in the prior art. *Ibid.* The court of appeals stated the proper rule of law and applied it to the facts of this case. Further review is not warranted.

CONCLUSION

The petition for a writ of certiorari should be denied.

Respectfully submitted.

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