

## Syllabus.

BRENNER, COMMISSIONER OF PATENTS v.  
MANSON.CERTIORARI TO THE UNITED STATES COURT OF CUSTOMS AND  
PATENT APPEALS.

No. 58. Argued November 17, 1965.—Decided March 21, 1966.

In December 1957 Ringold and Rosenkranz applied for a patent on an allegedly novel process for making certain steroids, claiming priority as of December 1956. A patent issued thereon in 1959. In January 1960 respondent filed an application to patent the same process, asserting that he had discovered it prior to December 1956, and requesting that an "interference" be declared to test the issue of priority. Respondent's application was denied by a Patent Office examiner, the Board of Appeals affirming, for failure "to disclose any utility for" the compound produced by the process. The Court of Customs and Patent Appeals (CCPA) reversed, holding that "where a claimed process produces a known product it is not necessary to show utility for the product" as long as it is not detrimental to the public interest. *Held*:

1. This Court has jurisdiction under 28 U. S. C. § 1256 to review upon petition of the Commissioner of Patents patent decisions of the CCPA. Pp. 523-528.

2. The Patent Office properly may refuse to declare an "interference" on the ground that the application therefor fails to disclose a prima facie case of patentability. P. 528, n. 12.

3. The practical utility of the compound produced by a chemical process is an essential element in establishing a prima facie case for the patentability of the process. Pp. 528-536.

(a) One may patent only that which is useful. Pp. 528-529, 535.

(b) Respondent has not provided any basis for overturning the determination of the Patent Office that the utility requirement was not satisfied in this case by reference to the alleged utility of an adjacent homologue. Pp. 531-532.

(c) The requirement that a chemical process be useful is not satisfied by a showing that the compound yielded belongs to a class of compounds which scientists are screening for possible uses. Pp. 532-536.

(d) Nor is the utility requirement for chemical processes satisfied by a showing that the process works, *i. e.*, yields the intended product. Pp. 532-536.

52 C. C. P. A. (Pat.) 739, 333 F. 2d 234, reversed.

*Paul Bender* argued the cause for petitioner, *pro hac vice*, by special leave of Court. With him on the brief were *Solicitor General Marshall*, *Assistant Attorney General Douglas*, *Sherman L. Cohn* and *Edward Berlin*.

*Dean Laurence* argued the cause for respondent. With him on the brief were *Herbert I. Sherman* and *John L. White*.

*W. Brown Morton, Jr.*, and *Ellsworth H. Mosher* filed a brief for the American Patent Law Association, as *amicus curiae*, urging affirmance.

MR. JUSTICE FORTAS delivered the opinion of the Court.

This case presents two questions of importance to the administration of the patent laws: First, whether this Court has certiorari jurisdiction, upon petition of the Commissioner of Patents, to review decisions of the Court of Customs and Patent Appeals; and second, whether the practical utility of the compound produced by a chemical process is an essential element in establishing a *prima facie* case for the patentability of the process. The facts are as follows:

In December 1957, Howard Ringold and George Rosenkranz applied for a patent on an allegedly novel process for making certain known steroids.<sup>1</sup> They claimed

<sup>1</sup> The applicants described the products of their process as "2-methyl dihydrotestosterone derivatives and esters thereof as well as 2-methyl dihydrotestosterone derivatives having a C-17 lower alkyl group. The products of the process of the present invention have a useful high anabolic-androgenic ratio and are especially valuable for treatment of those ailments where anabolic or antiestrogenic effect together with a lesser androgenic effect is desired."

priority as of December 17, 1956, the date on which they had filed for a Mexican patent. United States Patent No. 2,908,693 issued late in 1959.

In January 1960, respondent Manson, a chemist engaged in steroid research, filed an application to patent precisely the same process described by Ringold and Rosenkranz. He asserted that it was he who had discovered the process, and that he had done so before December 17, 1956. Accordingly, he requested that an "interference" be declared in order to try out the issue of priority between his claim and that of Ringold and Rosenkranz.<sup>2</sup>

A Patent Office examiner denied Manson's application, and the denial was affirmed by the Board of Appeals within the Patent Office. The ground for rejection was the failure "to disclose any utility for" the chemical compound produced by the process. Letter of Examiner, dated May 24, 1960. This omission was not

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<sup>2</sup> 35 U. S. C. § 135 (1964 ed.) provides: "Whenever an application is made for a patent which, in the opinion of the Commissioner, would interfere with any pending application, or with any unexpired patent, he shall give notice thereof . . . . The question of priority of invention shall be determined by a board of patent interferences . . . whose decision, if adverse to the claim of an applicant, shall constitute the final refusal by the Patent Office of the claims involved, and the Commissioner may issue a patent to the applicant who is adjudged the prior inventor. . . ."

Patent Office Rule 204 (b), 37 CFR § 1.204 (b), provides: "When the filing date or effective filing date of an applicant is subsequent to the filing date of a patentee, the applicant, before an interference will be declared, shall file an affidavit that he made the invention in controversy in this country, before the filing date of the patentee . . . and, when required, the applicant shall file an affidavit . . . setting forth facts which would prima facie entitle him to an award of priority relative to the filing date of the patentee."

Judge Thurman Arnold has provided an irreverent description of the way patent claims, including "interferences," are presented to the Patent Office. See *Monsanto Chemical Co. v. Coe*, 79 U. S. App. D. C. 155, 145 F. 2d 18.



cured, in the opinion of the Patent Office, by Manson's reference to an article in the November 1956 issue of the *Journal of Organic Chemistry*, 21 *J. Org. Chem.* 1333-1335, which revealed that steroids of a class which included the compound in question were undergoing screening for possible tumor-inhibiting effects in mice, and that a homologue<sup>3</sup> adjacent to Manson's steroid had proven effective in that role. Said the Board of Appeals, "It is our view that the statutory requirement of usefulness of a product cannot be presumed merely because it happens to be closely related to another compound which is known to be useful."

The Court of Customs and Patent Appeals (hereinafter CCPA) reversed, Chief Judge Worley dissenting. 52 C. C. P. A. (Pat.) 739, 745, 333 F. 2d 234, 237-238. The court held that Manson was entitled to a declaration of interference since "where a claimed process produces a known product it is not necessary to show utility for the product," so long as the product "is not alleged to be detrimental to the public interest." Certiorari was granted, 380 U. S. 971, to resolve this running dispute over what constitutes "utility" in chemical process claims,<sup>4</sup> as well as to answer the question concerning our certiorari jurisdiction.

<sup>3</sup> "A homologous series is a family of chemically related compounds, the composition of which varies from member to member by  $\text{CH}_2$  (one atom of carbon and two atoms of hydrogen). . . . Chemists knowing the properties of one member of a series would in general know what to expect in adjacent members." *Application of Henze*, 37 C. C. P. A. (Pat.) 1009, 1014, 181 F. 2d 196, 200-201. See also *In re Hass*, 31 C. C. P. A. (Pat.) 895, 901, 141 F. 2d 122, 125; *Application of Norris*, 37 C. C. P. A. (Pat.) 876, 179 F. 2d 970; *Application of Jones*, 32 C. C. P. A. (Pat.) 1020, 149 F. 2d 501. With respect to the inferior predictability of steroid homologues, see, *infra*, p. 532.

<sup>4</sup> In addition to the clear conflict between the Patent Office and the CCPA, there arguably exists one between the CCPA and the Court of Appeals for the District of Columbia. See *Petrocarbon*

## I.

Section 1256 of Title 28 U. S. C. (1964 ed.), enacted in 1948, provides that "Cases in the Court of Customs and Patent Appeals may be reviewed by the Supreme Court by writ of certiorari." This unqualified language would seem to foreclose any challenge to our jurisdiction in the present case. Both the Government<sup>5</sup> and the respondent urge that we have certiorari jurisdiction over patent decisions of the CCPA, although the latter would confine our jurisdiction to those petitions filed by dissatisfied applicants and would deny the Commissioner of Patents the right to seek certiorari.<sup>6</sup> This concert of opinion does not settle the basic question because jurisdiction cannot be conferred by consent of the parties. The doubt that does exist stems from a decision of this

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*Limited v. Watson*, 101 U. S. App. D. C. 214, 247 F. 2d 800, cert. denied, 355 U. S. 955. But see *Application of Szwarc*, 50 C. C. P. A. (Pat.) 1571, 1576-1583, 319 F. 2d 277, 281-286.

<sup>5</sup> The present case is the first in which the Government has taken the position that § 1256 confers jurisdiction upon this Court to review patent decisions in the CCPA. Prior to *Glidden Co. v. Zdanok*, 370 U. S. 530, the Government was of the view that the Court lacked jurisdiction. See, e. g., the Brief in Opposition in *Dalton v. Marzall*, No. 87, O. T. 1951, cert. denied, 342 U. S. 818. After the decision in *Glidden*, discussed *infra*, at 526, the Government conceded the issue was a close one. See, e. g., Brief in Opposition in *In re Gruschwitz*, No. 579, O. T. 1963, cert. denied, 375 U. S. 967.

<sup>6</sup> We find no warrant for this curious limitation either in the statutory language or in the legislative history of § 1256. Nor do we find persuasive the circumstance that the Commissioner may not appeal adverse decisions of the Board of Appeals. 35 U. S. C. §§ 141, 142, and 145 (1964 ed.). As a member of the Board and the official responsible for selecting the membership of its panels, 35 U. S. C. § 7 (1964 ed.), the Commissioner may be appropriately considered as bound by Board determinations. No such consideration operates to prevent his seeking review of adverse decisions rendered by the CCPA.



Court, rendered in January 1927, in *Postum Cereal Co. v. California Fig Nut Co.*, 272 U. S. 693, which has been widely interpreted as precluding certiorari jurisdiction over patent and trademark decisions of the CCPA.

*Postum*, however, was based upon a statutory scheme materially different from the present one. *Postum* involved a proceeding in the Patent Office to cancel a trademark. The Commissioner of Patents rejected the application. An appeal was taken to the then Court of Appeals for the District of Columbia, which in 1927 exercised the jurisdiction later transferred to the CCPA. Under the statutory arrangement in effect at the time, the judgment of the Court of Appeals was not definitive because it was not an order to the Patent Office determinative of the controversy. A subsequent bill in equity could be brought in the District Court and it was possible that a conflicting adjudication could thus be obtained. On this basis, the Court held that it could not review the decision of the Court of Appeals. It held that the conclusion of the Court of Appeals was an "administrative decision" rather than a "judicial judgment": "merely an instruction to the Commissioner of Patents by a court which is made part of the machinery of the Patent Office for administrative purposes." 272 U. S., at 698-699. Therefore, this Court concluded, the proceeding in the Court of Appeals—essentially administrative in nature—was neither case nor controversy within the meaning of Article III of the Constitution. Congress might confer such "administrative" tasks upon the courts of the District of Columbia, wrote Chief Justice Taft, but it could not empower this Court to participate therein.

Congress soon amended the statutory scheme. In March of 1927 it provided that an action in the District Court was to be alternative and not cumulative to appellate review, that it could not be maintained to overcome

an adjudication in the Court of Appeals.<sup>7</sup> In 1929 Congress transferred appellate jurisdiction over the Commissioner's decisions from the Court of Appeals to what had been the Court of Customs Appeals and was now styled the Court of Customs and Patent Appeals.<sup>8</sup> Whereas the Court of Appeals had been empowered to take additional evidence and to substitute its judgment for that of the Commissioner, the CCPA was confined to the record made in the Patent Office.<sup>9</sup> Compare *Federal Communications Comm'n v. Pottsville Broadcasting Co.*, 309 U. S. 134, 144-145. Despite these changes, however, *Postum* had acquired a life of its own. It continued to stand in the way of attempts to secure review here of CCPA decisions respecting the Commissioner of Patents. See, e. g., *McBride v. Teeple*, 311 U. S. 649, denying certiorari for "want of jurisdiction" on the authority of *Postum*.<sup>10</sup>

This was the background against which Congress, in its 1948 codification of statutes pertaining to the judiciary, enacted § 1256, blandly providing in unqualified language for review on certiorari of "[c]ases in the Court of Customs and Patent Appeals." Nothing in the legislative materials relating to the statute, except its language, is of assistance to us in the resolution of the present problem: Did the statutory changes which followed

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<sup>7</sup> Act of March 2, 1927, c. 273, § 11, 44 Stat. 1335, 1336. See *Ghadden Co. v. Zdanok*, *supra*, at 572-579; Kurland & Wolfson, Supreme Court Review of the Court of Customs and Patent Appeals, 18 Geo. Wash. L. Rev. 192 (1950). This remains the law. 35 U. S. C. §§ 141, 145.

<sup>8</sup> Act of March 2, 1929, c. 488, 45 Stat. 1475.

<sup>9</sup> See Kurland & Wolfson, *op. cit. supra*, n. 7, at 196.

<sup>10</sup> Apart from *Postum*, until enactment of § 1256 in 1948 there existed no statutory basis for jurisdiction in these cases. See Robertson & Kirkham, Jurisdiction of the Supreme Court of the United States, § 251 (Wolfson & Kurland ed. 1951).

*Postum* mean that a patent decision by the CCPA was a "judicial" determination reviewable by this Court under Article III? And, if so, was § 1256 intended to create such jurisdiction?

Assistance came with the 1958 revision of the Judicial Code. Congress there declared the CCPA "a court established under article III . . .," that is, a constitutional court exercising judicial rather than administrative power. 28 U. S. C. § 211 (1964 ed.). In 1962 this Court addressed itself to the nature and status of the CCPA. *Glidden Co. v. Zdanok*, 370 U. S. 530, raised the question whether a judge of the CCPA was an Article III judge, capable of exercising federal judicial power. In answering that question in the affirmative, MR. JUSTICE HARLAN's opinion, for three of the seven Justices participating, expressly left open the question whether § 1256 conferred certiorari jurisdiction over patent and trademark cases decided in the CCPA, 370 U. S., at 578 n. 49. It suggested, however, that *Postum* might be nothing more than a museum piece. The opinion noted that *Postum* "must be taken to be limited to the statutory scheme in existence before" 1929. 370 U. S., at 579. The concurring opinion of MR. JUSTICE CLARK, in which THE CHIEF JUSTICE joined, did not reflect any difference on this point.

Thus, the decision sought to be reviewed is that of an Article III court. It is "judicial" in character. It is not merely an instruction to the Commissioner or part of the "administrative machinery" of the Patent Office. It is final and binding in the usual sense.<sup>11</sup> In sum, *Postum*

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<sup>11</sup> This is not to say that a CCPA determination that an applicant is entitled to a patent precludes a contrary result in a subsequent infringement suit, any more than issuance of a patent by the Patent Office or the decision in an earlier infringement action against a different "infringer" has that effect. See, e. g., *Graham v. John Deere Co.*, ante, p. 1, at 4. We review decisions of the Dis-



has no vitality in the present setting, and there remains no constitutional bar to our jurisdiction.

Having arrived at this conclusion, we have no difficulty in giving full force and effect to the generality of the language in § 1256. It would be entirely arbitrary for us to assume, despite the statutory language, that Congress in 1948 intended to enshrine *Postum*—dependent as it was upon a statutory scheme fundamentally altered in 1927 and 1929—as a hidden exception to the sweep of § 1256. The contrary is more plausible: that by using broad and unqualified language, Congress intended our certiorari jurisdiction over CCPA cases to be as broad as the Constitution permits.

This conclusion is reinforced by reference to the anomalous consequences which would result were we to adopt a contrary view of § 1256. Determinations of the Patent Office may be challenged either by appeal to the CCPA or by suit instituted in the United States District Court for the District of Columbia. 35 U. S. C. § 145, 28 U. S. C. § 1542 (1964 ed.). Where the latter route is elected, the decision obtained may be reviewed in the Court of Appeals for the District of Columbia Circuit, and ultimately in this Court upon writ of certiorari. *Hoover Co. v. Coe*, 325 U. S. 79. It would be strange indeed if corresponding certiorari jurisdiction did not exist where the alternative route was elected. Were that so, in the event of conflict between the CCPA and the courts of the District of Columbia, resolution by this Court would be achievable only if the litigants chose to proceed through the latter. Obviously, the orderly administration both of our certiorari jurisdiction and of the patent laws requires that ultimate review be available in this Court, regardless of the route chosen by the litigants.

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trict Court under 35 U. S. C. § 145 although these are subject to the same measure of readjudication in infringement suits. See *Hoover Co. v. Coe*, 325 U. S. 79.

We therefore conclude that § 1256 authorizes the grant of certiorari in the present case. We now turn to the merits.<sup>12</sup>

## II.

Our starting point is the proposition, neither disputed nor disputable, that one may patent only that which is

<sup>12</sup> Respondent and the *amicus curiae* take a different view than does the Government of precisely what the issue on the merits is. They argue that the issue of "patentability" is not properly before us, that the issue actually presented is whether the Primary Examiner in the Patent Office has authority under Rule 204 (b) himself to evaluate the sufficiency of affidavits submitted under that Rule.

Both the Board of Appeals and the CCPA rejected this view and focused instead on the question of what averments satisfy the statutory requirement that a claimed chemical process be "useful." We agree. First, the issue of "patentability" cannot be foreclosed by the circumstance that the Patent Office—which, according to counsel for respondent, processes some 1,800 claims and issues 700 patents each week—has already issued a patent to Ringold and Rosenkranz who asserted in their claim that their process yielded useful products. See note 1, *supra*. Second, there is no basis for the proposition that even where an applicant for an interference presents a claim which on its face is unpatentable, a complicated and frequently lengthy factual inquiry into priority of invention must inexorably take place. On the contrary, Rule 201 (a), 37 CFR § 1.201 (a), defines an interference proceeding as one involving "two or more parties claiming substantially the same *patentable* invention and may be instituted as soon as it is determined that common *patentable* subject matter is claimed . . . ." (Emphasis supplied.) See *Application of Rogoff*, 46 C. C. P. A. (Pat.) 733, 739, 261 F. 2d 601, 606: "The question as to patentability of claims to an applicant must be determined before any question of interference arises and claims otherwise unpatentable to an applicant cannot be allowed merely in order to set up an interference." See also *Wirkler v. Perkins*, 44 C. C. P. A. (Pat.) 1005, 1008, 245 F. 2d 502, 504. Cf. *Glass v. De Roo*, 44 C. C. P. A. (Pat.) 723, 239 F. 2d 402.

The current version of Rule 203 (a), 37 CFR § 1.203 (a), makes it explicit that the examiner, "[b]efore the declaration of interference," must determine the patentability of the claim as to each party. See also Rule 237, 37 CFR § 1.237.



"useful." In *Graham v. John Deere Co.*, ante, p. 1, at 5-10, we have reviewed the history of the requisites of patentability, and it need not be repeated here. Suffice it to say that the concept of utility has maintained a central place in all of our patent legislation, beginning with the first patent law in 1790<sup>13</sup> and culminating in the present law's provision that

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."<sup>14</sup>

As is so often the case, however, a simple, everyday word can be pregnant with ambiguity when applied to the facts of life. That this is so is demonstrated by the present conflict between the Patent Office and the CCPA over how the test is to be applied to a chemical process which yields an already known product whose utility—other than as a possible object of scientific inquiry—has not yet been evidenced. It was not long ago that agency and court seemed of one mind on the question. In *Application of Bremner*, 37 C. C. P. A. (Pat.) 1032, 1034, 182 F. 2d 216, 217, the court affirmed rejection by the Patent Office of both process and product claims. It noted that "no use for the products claimed to be developed by the processes had been shown in the specification." It held that "It was never intended that a patent be granted upon a product, or a process producing a product, unless such product be useful." Nor was this new doctrine in the court. See *Thomas v. Michael*, 35 C. C. P. A. (Pat.) 1036, 1038-1039, 166 F. 2d 944, 946-947.

<sup>13</sup> See Act of April 10, 1790, c. 7, 1 Stat. 109; Act of Feb. 21, 1793, c. 11, 1 Stat. 318; Act of July 4, 1836, c. 357, 5 Stat. 117; Act of July 8, 1870, c. 230, 16 Stat. 198; Rev. Stat. § 4886 (1874).

<sup>14</sup> 35 U. S. C. § 101 (1964 ed.).



The Patent Office has remained steadfast in this view. The CCPA, however, has moved sharply away from *Bremner*. The trend began in *Application of Nelson*, 47 C. C. P. A. (Pat.) 1031, 280 F. 2d 172. There, the court reversed the Patent Office's rejection of a claim on a process yielding chemical intermediates "useful to chemists doing research on steroids," despite the absence of evidence that any of the steroids thus ultimately produced were themselves "useful." The trend has accelerated,<sup>15</sup> culminating in the present case where the court held it sufficient that a process produces the result intended and is not "detrimental to the public interest." 52 C. C. P. A. (Pat.), at 745, 333 F. 2d, at 238.

It is not remarkable that differences arise as to how the test of usefulness is to be applied to chemical processes. Even if we knew precisely what Congress meant in 1790 when it devised the "new and useful" phraseology and in subsequent re-enactments of the test, we should have difficulty in applying it in the context of contemporary chemistry where research is as comprehensive as man's grasp and where little or nothing is wholly beyond the pale of "utility"—if that word is given its broadest reach.

Respondent does not—at least in the first instance—rest upon the extreme proposition, advanced by the court below, that a novel chemical process is patentable so long

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<sup>15</sup> Thus, in *Application of Wilke*, 50 C. C. P. A. (Pat.) 964, 314 F. 2d 558, the court reversed a Patent Office denial of a process claim, holding that 35 U. S. C. § 112 (1964 ed.) was satisfied even though the specification recited only the manner in which the process was to be used and not any use for the products thereby yielded. See also *Application of Adams*, 50 C. C. P. A. (Pat.) 1185, 316 F. 2d 476.

In *Application of Szwarc*, 50 C. C. P. A. (Pat.) 1571, 319 F. 2d 277, the court acknowledged that its view of the law respecting utility of chemical processes had changed since *Bremner*. See generally, Note, The Utility Requirement in the Patent Law, 53 Geo. L. J. 154, 175-181 (1964).

as it yields the intended product<sup>16</sup> and so long as the product is not itself "detrimental." Nor does he commit the outcome of his claim to the slightly more conventional proposition that any process is "useful" within the meaning of § 101 if it produces a compound whose potential usefulness is under investigation by serious scientific researchers, although he urges this position, too, as an alternative basis for affirming the decision of the CCPA. Rather, he begins with the much more orthodox argument that his process has a specific utility which would entitle him to a declaration of interference even under the Patent Office's reading of § 101. The claim is that the supporting affidavits filed pursuant to Rule 204 (b), by reference to Ringold's 1956 article, reveal that an adjacent homologue of the steroid yielded by his process has been demonstrated to have tumor-inhibiting effects in mice, and that this discloses the requisite utility. We do not accept any of these theories as an adequate basis for overriding the determination of the Patent Office that the "utility" requirement has not been met.

Even on the assumption that the process would be patentable were respondent to show that the steroid produced had a tumor-inhibiting effect in mice,<sup>17</sup> we would

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<sup>16</sup> Respondent couches the issue in terms of whether the process yields a "known" product. We fail to see the relevance of the fact that the product is "known," save to the extent that references to a compound in scientific literature suggest that it might be a subject of interest and possible investigation.

<sup>17</sup> In light of our disposition of the case, we express no view as to the patentability of a process whose sole demonstrated utility is to yield a product shown to inhibit the growth of tumors in laboratory animals. See *Application of Hitchings*, 52 C. C. P. A. (Pat.) 1141, 342 F. 2d 80; *Application of Bergel*, 48 C. C. P. A. (Pat.) 1102, 292 F. 2d 955; cf. *Application of Dodson*, 48 C. C. P. A. (Pat.) 1125, 292 F. 2d 943; *Application of Krimmel*, 48 C. C. P. A. (Pat.) 1116, 292 F. 2d 948. For a Patent Office view, see Marcus, *The Patent Office and Pharmaceutical Invention*, 47 J. Pat. Off. Soc. 669, 673-676 (1965).

not overrule the Patent Office finding that respondent has not made such a showing. The Patent Office held that, despite the reference to the adjacent homologue, respondent's papers did not disclose a sufficient likelihood that the steroid yielded by his process would have similar tumor-inhibiting characteristics. Indeed, respondent himself recognized that the presumption that adjacent homologues have the same utility<sup>18</sup> has been challenged in the steroid field because of "a greater known unpredictability of compounds in that field."<sup>19</sup> In these circumstances and in this technical area, we would not overturn the finding of the Primary Examiner, affirmed by the Board of Appeals and not challenged by the CCPA.

The second and third points of respondent's argument present issues of much importance. Is a chemical process "useful" within the meaning of § 101 either (1) because it works—*i. e.*, produces the intended product? or (2) because the compound yielded belongs to a class of compounds now the subject of serious scientific investigation? These contentions present the basic problem for our adjudication. Since we find no specific assistance in the legislative materials underlying § 101, we are remitted to an analysis of the problem in light of the general intent of Congress, the purposes of the patent system, and the implications of a decision one way or the other.

In support of his plea that we attenuate the requirement of "utility," respondent relies upon Justice Story's

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<sup>18</sup> See n. 3, *supra*.

<sup>19</sup> See respondent's letter requesting amendment, dated July 21, 1960, Record, pp. 20-23. See also *Application of Adams*, 50 C. C. P. A. (Pat.) 1185, 1190, 316 F. 2d 476, 479-480 (concurring-dissenting opinion). In the present case, the Board of Appeals found support in the Ringold article itself for the view that "minor changes in the structure of a steroid may produce profound changes in its biological activity." Record, p. 52.



well-known statement that a "useful" invention is one "which may be applied to a beneficial use in society, in contradistinction to an invention injurious to the morals, health, or good order of society, or frivolous and insignificant"<sup>20</sup>—and upon the assertion that to do so would encourage inventors of new processes to publicize the event for the benefit of the entire scientific community, thus widening the search for uses and increasing the fund of scientific knowledge. Justice Story's language sheds little light on our subject. Narrowly read, it does no more than compel us to decide whether the invention in question is "frivolous and insignificant"—a query no easier of application than the one built into the statute. Read more broadly, so as to allow the patenting of any invention not positively harmful to society, it places such a special meaning on the word "useful" that we cannot accept it in the absence of evidence that Congress so intended. There are, after all, many things in this world which may not be considered "useful" but which, nevertheless, are totally without a capacity for harm.

It is true, of course, that one of the purposes of the patent system is to encourage dissemination of information concerning discoveries and inventions.<sup>21</sup> And it may be that inability to patent a process to some extent discourages disclosure and leads to greater secrecy than would otherwise be the case. The inventor of the process, or the corporate organization by which he is employed, has some incentive to keep the invention

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<sup>20</sup> Note on the Patent Laws, 3 Wheat. App. 13, 24. See also Justice Story's decisions on circuit in *Lowell v. Lewis*, 15 Fed. Cas. 1018 (No. 8568) (C. C. D. Mass.), and *Bedford v. Hunt*, 3 Fed. Cas. 37 (No. 1217) (C. C. D. Mass.).

<sup>21</sup> "As a reward for inventions and to encourage their disclosure, the United States offers a seventeen-year monopoly to an inventor who refrains from keeping his invention a trade secret." *Universal Oil Prods. Co. v. Globe Oil & Ref. Co.*, 322 U. S. 471, 484.

secret while uses for the product are searched out. However, in light of the highly developed art of drafting patent claims so that they disclose as little useful information as possible—while broadening the scope of the claim as widely as possible—the argument based upon the virtue of disclosure must be warily evaluated. Moreover, the pressure for secrecy is easily exaggerated, for if the inventor of a process cannot himself ascertain a “use” for that which his process yields, he has every incentive to make his invention known to those able to do so. Finally, how likely is disclosure of a patented process to spur research by others into the uses to which the product may be put? To the extent that the patentee has power to enforce his patent, there is little incentive for others to undertake a search for uses.

Whatever weight is attached to the value of encouraging disclosure and of inhibiting secrecy, we believe a more compelling consideration is that a process patent in the chemical field, which has not been developed and pointed to the degree of specific utility, creates a monopoly of knowledge which should be granted only if clearly commanded by the statute. Until the process claim has been reduced to production of a product shown to be useful, the metes and bounds of that monopoly are not capable of precise delineation. It may engross a vast, unknown, and perhaps unknowable area. Such a patent may confer power to block off whole areas of scientific development,<sup>22</sup> without compensating benefit to the public. The basic *quid pro quo* contemplated by the Constitution and the Congress for granting a patent monopoly is the benefit derived by the public from an invention with substantial utility. Unless and until a process is refined and developed to this point—where specific bene-

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<sup>22</sup> See *Monsanto Chemical Co. v. Coe*, 79 U. S. App. D. C. 155, 158-161, 145 F. 2d 18, 21-24.

fit exists in currently available form—there is insufficient justification for permitting an applicant to engross what may prove to be a broad field.

These arguments for and against the patentability of a process which either has no known use or is useful only in the sense that it may be an object of scientific research would apply equally to the patenting of the product produced by the process. Respondent appears to concede that with respect to a product, as opposed to a process, Congress has struck the balance on the side of non-patentability unless “utility” is shown. Indeed, the decisions of the CCPA are in accord with the view that a product may not be patented absent a showing of utility greater than any adduced in the present case.<sup>23</sup> We find absolutely no warrant for the proposition that although Congress intended that no patent be granted on a chemical compound whose sole “utility” consists of its potential role as an object of use-testing, a different set of rules was meant to apply to the process which yielded the unpatentable product.<sup>24</sup> That proposition seems to us little more than an attempt to evade the impact of the rules which concededly govern patentability of the product itself.

This is not to say that we mean to disparage the importance of contributions to the fund of scientific infor-

<sup>23</sup> See, e. g., the decision below, 52 C. C. P. A. (Pat.), at 744, 333 F. 2d, at 237. See also *Application of Bergel*, 48 C. C. P. A. (Pat.), at 1105, 292 F. 2d, at 958. Cf. *Application of Nelson*, 47 C. C. P. A. (Pat.), at 1043-1044, 280 F. 2d, at 180-181; *Application of Folkers*, 52 C. C. P. A. (Pat.) 1269, 344 F. 2d 970.

<sup>24</sup> The committee reports which preceded enactment of the 1952 revision of the patent laws disclose no intention to create such a dichotomy, and in fact provide some evidence that the contrary was assumed. Sen. Rep. No. 1979, Committee on the Judiciary, 82d Cong., 2d Sess., 5, 17; H. R. Rep. No. 1923, Committee on the Judiciary, 82d Cong., 2d Sess., 6, 17. Cf. Hoxie, A Patent Attorney's View, 47 J. Pat. Off. Soc. 630, 636 (1965).



mation short of the invention of something "useful," or that we are blind to the prospect that what now seems without "use" may tomorrow command the grateful attention of the public. But a patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion. "[A] patent system must be related to the world of commerce rather than to the realm of philosophy. . . ." <sup>25</sup>

The judgment of the CCPA is

*Reversed.*

MR. JUSTICE DOUGLAS, while acquiescing in Part I of the Court's opinion, dissents on the merits of the controversy for substantially the reasons stated by MR. JUSTICE HARLAN.

MR. JUSTICE HARLAN, concurring in part and dissenting in part.

While I join the Court's opinion on the issue of certiorari jurisdiction, I cannot agree with its resolution of the important question of patentability.

Respondent has contended that a workable chemical process, which is both new and sufficiently nonobvious to satisfy the patent statute, is by its existence alone a contribution to chemistry and "useful" as the statute employs that term.<sup>1</sup> Certainly this reading of "useful" in the statute is within the scope of the constitutional grant, which states only that "[t]o promote the Progress of Science and useful Arts," the exclusive right to "Writings and Discoveries" may be secured for limited times to those who produce them. Art. I, § 8. Yet the patent statute is somewhat differently worded and is on

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<sup>25</sup> *Application of Ruschig*, 52 C. C. P. A. (Pat.) 1238, 1245, 343 F. 2d 965, 970 (Rich, J.). See also, *Katz v. Horni Signal Mfg. Corp.*, 145 F. 2d 961 (C. A. 2d Cir.).

<sup>1</sup> The statute in pertinent part is set out in the Court's opinion, p. 529, *ante*.

its face open both to respondent's construction and to the contrary reading given it by the Court. In the absence of legislative history on this issue, we are thrown back on policy and practice. Because I believe that the Court's policy arguments are not convincing and that past practice favors the respondent, I would reject the narrow definition of "useful" and uphold the judgment of the Court of Customs and Patent Appeals (hereafter CCPA).

The Court's opinion sets out about half a dozen reasons in support of its interpretation. Several of these arguments seem to me to have almost no force. For instance, it is suggested that "[u]ntil the process claim has been reduced to production of a product shown to be useful, the metes and bounds of that monopoly are not capable of precise delineation" (p. 534, *ante*) and "[i]t may engross a vast, unknown, and perhaps unknowable area" (p. 534, *ante*). I fail to see the relevance of these assertions; process claims are not disallowed because the products they produce may be of "vast" importance nor, in any event, does advance knowledge of a specific product use provide much safeguard on this score or fix "metes and bounds" precisely since a hundred more uses may be found after a patent is granted and greatly enhance its value.

The further argument that an established product use is part of "[t]he basic *quid pro quo*" (p. 534, *ante*) for the patent or is the requisite "successful conclusion" (p. 536, *ante*) of the inventor's search appears to beg the very question whether the process is "useful" simply because it facilitates further research into possible product uses. The same infirmity seems to inhere in the Court's argument that chemical products lacking immediate utility cannot be distinguished for present purposes from the processes which create them, that respondent appears to concede and the CCPA holds that

the products are nonpatentable, and that therefore the processes are nonpatentable. Assuming that the two classes cannot be distinguished, a point not adequately considered in the briefs, and assuming further that the CCPA has firmly held such products nonpatentable,<sup>2</sup> this permits us to conclude only that the CCPA is wrong either as to the products or as to the processes and affords no basis for deciding whether both or neither should be patentable absent a specific product use.

More to the point, I think, are the Court's remaining, prudential arguments against patentability: namely, that disclosure induced by allowing a patent is partly undercut by patent-application drafting techniques, that disclosure may occur without granting a patent, and that a patent will discourage others from inventing uses for the product. How far opaque drafting may lessen the public benefits resulting from the issuance of a patent is not shown by any evidence in this case but, more important, the argument operates against all patents and gives no reason for singling out the class involved here. The thought that these inventions may be more likely than most to be disclosed even if patents are not allowed may have more force; but while empirical study of the industry might reveal that chemical researchers would behave in this fashion, the abstractly logical choice for them seems to me to maintain secrecy until a product use can be discovered. As to discouraging the search by

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<sup>2</sup> Any concession by respondent would hardly be controlling on an issue of this general importance, but I am less clear than the Court that such a concession exists. See, *e. g.*, Brief for Respondent, p. 53. As to the CCPA, it is quite true that that court purports in the very case under review and in others to distinguish product patents, although its actual practice may be somewhat less firm. See *Application of Adams*, 50 C. C. P. A. (Pat.) 1185, 316 F. 2d 476, *Application of Nelson*, 47 C. C. P. A. (Pat.) 1031, 280 F. 2d 172.



others for product uses, there is no doubt this risk exists but the price paid for any patent is that research on other uses or improvements may be hampered because the original patentee will reap much of the reward. From the standpoint of the public interest the Constitution seems to have resolved that choice in favor of patentability.

What I find most troubling about the result reached by the Court is the impact it may have on chemical research. Chemistry is a highly interrelated field and a tangible benefit for society may be the outcome of a number of different discoveries, one discovery building upon the next. To encourage one chemist or research facility to invent and disseminate new processes and products may be vital to progress, although the product or process be without "utility" as the Court defines the term, because that discovery permits someone else to take a further but perhaps less difficult step leading to a commercially useful item. In my view, our awareness in this age of the importance of achieving and publicizing basic research should lead this Court to resolve uncertainties in its favor and uphold the respondent's position in this case.

This position is strengthened, I think, by what appears to have been the practice of the Patent Office during most of this century. While available proof is not conclusive, the commentators seem to be in agreement that until *Application of Bremner*, 37 C. C. P. A. (Pat.) 1032, 182 F. 2d 216, in 1950, chemical patent applications were commonly granted although no resulting end use was stated or the statement was in extremely broad terms.<sup>3</sup> Taking this to be true, *Bremner* represented

<sup>3</sup> See, e. g., the statement of a Patent Office Examiner-in-Chief: "Until recently it was also rather common to get patents on chemical compounds in cases where no use was indicated for the claimed compounds or in which a very broad indication or suggestion as

a deviation from established practice which the CCPA has now sought to remedy in part only to find that the Patent Office does not want to return to the beaten track. If usefulness was typically regarded as inherent during a long and prolific period of chemical research and development in this country, surely this is added reason why the Court's result should not be adopted until Congress expressly mandates it, presumably on the basis of empirical data which this Court does not possess.

Fully recognizing that there is ample room for disagreement on this problem when, as here, it is reviewed in the abstract, I believe the decision below should be affirmed.

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to use was included in the application. [*Bremner* and another later ruling] . . . have put an end to this practice." *Wolfe*, *Adequacy of Disclosure as Regards Specific Embodiment and Use of Invention*, 41 J. Pat. Off. Soc. 61, 66 (1959). The Government's brief in this case is in accord: "[I]t was apparently assumed by the Patent Office [prior to 1950] . . . that chemical compounds were necessarily useful . . . and that specific inquiry beyond the success of the process was therefore unnecessary . . . ." Brief for the Commissioner, p. 25. See also *Cohen & Schwartz*, *Do Chemical Intermediates Have Patentable Utility?* 29 Geo. Wash. L. Rev. 87, 91 (1960); *Note*, 53 Geo. L. J. 154, 183 (1964); 14 Am. U. L. Rev. 78 (1964).