THE NEW AMERICAN PATENT ACT IN THE LIGHT OF COMPARATIVE LAW: PART II *

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STRAIGHTENING THE ROAD TO THE PATENT

Task and Controlling Policies

Expeditious issuance of patents for inventions is of vital interest to society and, at least normally, to the inventor. Since the statutory monopoly expires seventeen years from the time of issue of the patent and the invention thereupon becomes an untrammeled part of the public domain, society has a recognized claim that public access to the full benefits of the invention is not unduly postponed. The inventor’s position, however, is more equivocal. On the one hand, speedy issuance of the patent may be of importance to him, because he obtains the exclusionary right only upon the grant of the patent and is only then entitled to protect his invention against infringement. On the other hand, the limited duration of the monopoly might be an incentive to strive for a delay in the issuance of the patent by either postponing the filing of the application or protracting further prosecution thereof.

* This is the second of two articles dealing with the new Patent Act. In the prior article, 102 U. of Pa. L. Rev. 291-322 (1954), Mr. Riesenfeld discussed changes in the substantive aspects of patentability. This second article deals with changes in patent procedure before the Patent Office and in the courts. Ed.

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4. For famous litigations involving the issuability, validity or scope of patents which were obtained or claimed more than a decade after the making of the invention or the filing of the original application see Woodbridge v. United States, 263 U.S. 50 (1923) (right to patent for gun projectile, the issuance of which had been deliberately delayed from 1852 until 1879); Columbia Motor Car Co. v. Duerr & Co., 184 Fed. 893 (2d Cir. 1911) (scope of Selden patent for automobile, applied for in 1879, granted in 1895); DeForest Radio Co. v. General Electric Co., 283 U.S. 664 (1931) (validity of Langmuir patent for high vacuum tube, applied for in 1913, granted in 1925).
However, the law provides persuasive inducements for prompt action by the inventor. Of the four main milestones on the road to the patent, *vis.*, conception, reduction to practice, filing of the application, and

5. "Conception" and "reduction to practice" as relevant steps in the inventive process are for the first time recognized in these terms by the new patent code, 66 Stat. 797 (1952), 35 U.S.C.A. §102(g) (Supp. 1953). But these concepts and expressions have held a firmly established place in the cases almost since the inception of the American patent system and have formed the object of a vast number of adjudications. For an exhaustive discussion see 1 REIVE AND CAEASER, INVENTOR 증 REDUCTION AND PRACTICE 317-646 (1940). The originator of this specific American terminology was Justice Story. He stated that as the first step in the process of making a patentable invention the inventor must "reduce it to practice" as early as 1813, in his opinion in Woodcock v. Parker, 30 Fed. Cas. 491, No. 17,971.

Unfortunately the doctrine predicing the existence of a patentable invention on its reduction to practice has court courts into exaggerating the requisite extent of this practice. It is noteworthy that the inherent dangers of Justice Story's concepts were immediately recognized and adverted to by Judge Cranch who insisted: "None of the patent laws have ever required that the invention should be in use or reduced to actual practice before the issuing of the patent, otherwise than by a model, drawings, and a specification containing a written description of the invention and of the manner of making, constructing, and using the same in such full, clear, and exact terms as to enable any person skilled in the art to which it appertains to make, construct, and use the same. . . . I do not consider the expression 'reduced to practice' as importing the bringing of the invention into use. When applied to an invention, it generally means the reducing it into such form that it may be used so as not to be mere theory." Heath v. Hildreth, 11 Fed. Cas. 37, No. 1,217, at 38 (C.C.D. Mass. 1817). In the leading case of Reed v. Cutter, 20 Fed. Cas. 435, No. 11,645, at 438 (C.C.D. Mass. 1841), Judge Story finally cast the doctrine in the accepted form: "An imperfect and incomplete invention, resting in mere theory, or intellectual notion, or in certain experiments, and not actually reduced to practice, and embodied in some distinct machinery, apparatus, manufacture, or composition of matter, is not, and indeed cannot be, patentable under our patent acts. . . ." It is, however, important to note that in the latter case the learned judge expressly conceded that a clause in the Patent Act of 1836 §15, 5 Stat. 123 (1836), which subsequently became Rev. Stat. §4820(2) (1875), 35 U.S.C. §69(2) (1946), had reversed the prior rule requiring reduction to practice for the determination of the first inventor and had accorded priority to the inventor who first conceived of the invention, provided he "was using reasonable diligence in adapting and perfecting the same." This doctrine of a reduction to practice as a requisite and separate step in the making of a patentable invention was quickly endorsed by the text-writers, e.g., CURTIS, A TREATISE ON THE LAW OF PATENTS 37 (1st ed. 1849), and subsequently accepted by the Supreme Court. Thus in the leading case of Seymour v. Osborne, 11 Wall. 516, 552 (U.S. 1870), Justice Clifford stated: " . . . but in order to constitute an invention, the party must have proceeded so far as to have reduced his idea to practice, and embodied it in some distinct form." Or, to give a more recent example, the Court, in United States v. Dubilier Condenser Corp., 289 U.S. 178, 188 (1933), stated with reference to the characteristics of patentable invention: "It is the result of an inventive act, the birth of an idea and its reduction to practice . . . a concept demonstrated to be true by practical application or embodiment in tangible form."
final allowance, only the first step is removed from the subtle or not so subtle pressures of the law. Failure to use diligence in reducing the invention to practice might seriously jeopardize the inventor's priority which otherwise depends on the date of conception. Delay in the filing of the application might likewise entail loss of the right to the patent because of an intervening destruction of novelty or because of abandonment or forfeiture. Finally, diligence in the prosecution of the patent application, including appeals, is specifically insured by the statute by providing that failure to prosecute the application within six months after any action thereon, or within such shorter time, not less than thirty days, as fixed in such action, shall be regarded as abandonment, unless it be shown to the satisfaction of the Commissioner that such delay was unavoidable.

The public interest in prompt submission and dispossession of patent applications, however, is counterbalanced by an equally strong public interest in a careful examination and scrutiny of patent claims as to their practicability, validity, appropriate scope and definiteness. On the one hand, it is unavoidable that the very existence of the examination system invites reliance by the public—a fact that has been recognized and approved in the form of a presumption of validity established


8. 66 Stat. 797 (1952), 35 U.S.C.A. § 102(b) (Supp. 1953). This sub-section bars the right of the first inventor to a patent if more than one year prior to the date of his application the invention was either patented or described in a printed publication anywhere or in public use or on sale in this country. For a discussion of the evolution of this provision consult especially Andrews v. Hovey, 123 U.S. 267 (1887); Electric Storage Battery Co. v. Shimadzu, 307 U.S. 5 (1939). 8. For cases decided by the Supreme Court showing the development of the doctrines of implied abandonment, estoppel or forfeiture produced by undue delay in the filing of the applications see Pennock v. Dialogue, 2 Pet. 1, 16 (U.S. 1829) (per Story, J.); Kendall v. Winsor, 21 How. 322 (U.S. 1858); Agawam Company v. Jordan, 7 Wall. 583, 607 (U.S. 1868); Smith v. Goodyear Dental Vulcanite Co., 93 U.S. 486, 501 (1876); Consolidated Fruit-Jar Co. v. Wright, 94 U.S. 92, 96 (1876); United States Rifle & Cartridge Co. v. Whitney Arms Co., 118 U.S. 22, 24 (1886); Beedle v. Bennett, 122 U.S. 71, 76 (1887); Woodbridge v. United States, 263 U.S. 50 (1923); Electric Storage Battery Co. v. Shimadzu, 307 U.S. 5, 15 (1939).

9. For cases decided by the Supreme Court showing the development of the doctrines of implied abandonment, estoppel or forfeiture produced by undue delay in the filing of the applications see Pennock v. Dialogue, 2 Pet. 1, 16 (U.S. 1829) (per Story, J.); Kendall v. Winsor, 21 How. 322 (U.S. 1858); Agawam Company v. Jordan, 7 Wall. 583, 607 (U.S. 1868); Smith v. Goodyear Dental Vulcanite Co., 93 U.S. 486, 501 (1876); Consolidated Fruit-Jar Co. v. Wright, 94 U.S. 92, 96 (1876); United States Rifle & Cartridge Co. v. Whitney Arms Co., 118 U.S. 22, 24 (1886); Beedle v. Bennett, 122 U.S. 71, 76 (1887); Woodbridge v. United States, 263 U.S. 50 (1923); Electric Storage Battery Co. v. Shimadzu, 307 U.S. 5, 15 (1939).

first by case law and recently by legislation. On the other hand, the scope of the patent grant determines to what extent others are excluded from practicing the art without a license from the patentee and within what limits the art is left open for subsequent patentable inventions. The Supreme Court has consistently exhibited great solicitude both for the future inventor and for the industry affected by the limits of the patentee's exclusive right. Although the underlying policy judgments are not always clear cut and are evidently subject to change, it is obvious that the examination must impose exacting standards both on the applicant and the administrative agency in charge. The scope of examination in the United States seems to be somewhat broader and more stringent than in the United Kingdom. There, it is apparently uncertain whether the Patent Office has jurisdiction to investigate the question of whether the purported invention involves the necessary inventive step or is obvious, except when the issue is

11. Corning v. Burden, 15 How. 252, 271 (U.S. 1853): "It is evident that a patent, thus issued after an inquisition or examination, made by skillful and sworn public officers, appointed for the purpose of protecting the public against false claims or useless inventions, is entitled to much more respect, as evidence of novelty and utility, than those formerly issued without any such investigation."


14. Compare particularly the statement by Taft, C.J., in Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U.S. 45, 63 (1923): "Indeed, when one notes the crude working of machines of famous pioneer inventions and discoveries, and compares them with the modern machines and processes exemplifying the principle of the pioneer discovery, one hesitates in the division of credit between the original inventor and the improvers . . . ."

15. Thus the Supreme Court stated originally that the patentee is entitled to all uses to which the invention can be put, no matter "whether he had conceived the idea of the use or not," Roberts v. Ryer, 91 U.S. 150, 157 (1875) (Italics added); Lovell Mfg. Co. v. Cary, 147 U.S. 623, 635 (1892); Corona Cord Tire Co. v. Dovan Chemical Corp., 276 U.S. 358, 369 (1928). But in Radio Corp. of America v. Radio Engineering Laboratories, Inc., 293 U.S. 1, 14 (1934) this rule was limited to all "potencies and values at least dimly apprehended, and never discarded or forgotten . . . ." (Italics added), although subsequently the dictum again was cited without the qualification. General Electric Co. v. Jewel Incandescent Lamp Co., 326 U.S. 242, 247 (1945). Moreover the recent recognition of process patents for new uses, 66 Stat. 797 (1952), 35 U.S.C.A. § 100(b) (Supp. 1953), certainly should affect the policy regarding the scope of the monopoly of the original inventor. The decision whether such patents for new uses of a patented invention will be independent or subservient is bound to produce complicated policy problems. Dependency of the new use patent seems to be assumed (under the old law) by Wachsmut, Patentability of New Uses, 34 J. Pat. Off. Soc'y 397, 400 (1952), and Judge Bland, concurring in Application of Migridichian, 156 F.2d 250, 254, 255 (C.C.P.A. 1946). The author is indebted for the latter reference to his student, Mr. Rypinski.

16. Compare the negative statements in that respect by MEINHARDT, INVENTIONS, PATENTS AND MONOPOLY 102, 104 (2d ed. 1950), with the seemingly opposite assertion by TERRELL AND SHELLEY, LAW OF PATENTS 177 (9th ed. 1951).
raised by an interested party in special opposition proceedings. Furthermore, if there is legitimate doubt as to whether the purported invention relates to a manufacture or involves the requisite inventive step the application must be allowed. In the United States, on the contrary, it is well settled that the examination extends to all substantive and formal requirements of patentability, such as the questions of statutory subject matter, novelty, utility, standard of invention or definiteness and proper phrasing and scope of claims. It is evident that the resulting task is staggering and requires a large and complex organization. To give a rough idea to the uninitiated it may be mentioned that at present the Patent Office employs a staff of more than 1800 persons and maintains 65 examining divisions for the task of scrutinizing the patent applications which during the recent past have totaled approximately 67,000 per year. The total number of American patents issued approaches 2,700,000, relating to all conceivable kinds of inventions. To facilitate search, patentable subject matter is now divided into 313 main classes with around 45,000 sub-classes.

Any proceedings which have certainty and definiteness as their principal goal engender the threat of excessive formalism which, like a blight, saps their vigor. Common law procedure succumbed to this fate. American patent proceedings revealed some disturbing symptoms of the same condition. The new patent code, fortunately, has straightened the road to the patent, cleared away some of the obstacles and filled in some of the most treacherous traps.

**Simplifying the Application for Patent**

The application for patent sets the stage for the official action of the Patent Office. As in many other legal proceedings culminating in an authoritative determination of general interest—such as an ad-

17. U.K. Patents Act, 1949, 12, 13 & 14 Geo. 6, c. 87, §14(1) (c).
18. MEINHARDT, INVENTIONS, PATENTS AND MONOPOLY 192 (2d ed. 1950); TERRELL AND SHELLLEY, LAW OF PATENTS 177 (9th ed. 1951).
20. Consult especially the PATENT OFFICE'S MANUAL OF PATENT EXAMINING PROCEDURE §§706.03(a), 706.03(p), 706.02, 706.03(g), 706.03(d).
23. By comparison it is perhaps of interest to note that during the year 1952 the number of patent applications in the German Federal Republic (with less than 50,000,000 inhabitants) exceeded 58,000. 32 WIRTSCHAFTSDIENST 727 (1952).
judication in bankruptcy or a criminal conviction—the initial act which opens the proceedings for the issuance of a patent controls, to a large extent, the nature and the scope of the final disposition. Amendments of the original patent application are permitted and are, in fact, the normal occurrence. But the courts have been scrupulous in guarding the interests of intervening inventors and the evolution of the "file wrapper" may be of decisive effect on the validity and interpretation of a claim.

The new patent code, like the prior statute, contains a detailed regulation of the form and substance of the patent application. It must contain a specification of the invention as prescribed by the act, a drawing, an oath to the effect that the applicant believes himself to be the original and first inventor and the signature of the applicant. The specification is the heart of the application. Its content and arrangement are specifically prescribed by the statute and the Rules of Practice in Patent Cases issued thereunder. Apart from the title and a brief summary of the invention (required only by the Rules), the specification must consist of two parts: (a) a detailed "description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same. . . ." and (b) "one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

In that respect American law is in agreement with other patent laws, as for instance that of Germany where the patent application comprises a petition for a patent, an attached specification containing the detailed description, the patent claim or claims and drawings.

Decisional rules relating to the application of, and compliance with, the comparatively simple and general statutory mandate have created

26. See especially the statements of the controlling policies in Schriber-Schroth Co. v. Cleveland Trust Co., 305 U.S. 47, 57 (1938) (and authorities cited); Marconi Wireless Telegraph Co. v. United States, 320 U.S. 1, 34 (1943) (and authorities cited).
27. For illustrative examples of decisions turning on the "file wrapper history" see, Schriber-Schroth Co. v. Cleveland Trust Co., 311 U.S. 211, 217 (1940); Exhibit Supply Co. v. Ace Patents Corp., 315 U.S. 126 (1942).
30. 37 CODE FED. REGS. §§ 1.77, 1.72, 1.73, 1.75, 1.76 (1949 and Supp. 1952).
a veritable maze of casuistry and semantic refinements regarding the allowability of patent applications and the validity and interpretation of patent grants. Unfortunately, these judicial and administrative subtleties are far from being convincing as to their necessity, reasonableness and utility. Ariadne's thread leading out of this labyrinth can perhaps be found by reflecting on the basic functions of the descriptive part of the specification and of the claims. Reducing the subject to the simplest denominators it can be said that the descriptive part of the specification contains the disclosure for which the inventor is rewarded with the patent and which fixes the state of the prior art vis-a-vis subsequent inventors, while the claims afford "the measure of the grant" and "define the boundaries of the monopoly" especially vis-a-vis potential infringers. Yet, although the description of the invention and the claim are distinct in formulation and in purpose, it must not be thought that there is no relevant interrelation between these parts of the specification. Description and claims should "correspond"

33. For details see especially RIVISE AND CAESAR, PATENTABILITY AND VALIDITY, 351-453 (1936); STRINGHAM, PATENT CLAIMS: A DRAFTER'S MANUAL (2 vols. 1939-41); 2 WALKER, PATENTS 743 et seq., 769 et seq., 1204 et seq. (7th ed., Deller, 1937).

34. For recent voices of criticism, general or specific, mild or bitter, coming from members of the patent bar see especially Kent, Patents De-Pending, 32 J. PAT. OFF. Soc'y 18 (1950); Broder, Impressive Elements, 32 J. PAT. OFF. Soc'y 870 (1950); Kent, Revision for Survival, 33 J. PAT. OFF. Soc'y 127 (1951); Broder, Peripatetic Preamble, 33 J. PAT. OFF. Soc'y 855 (1951); Zangwill, Comments on Means Claims and Expressions, 34 J. PAT. OFF. Soc'y 36 (1952). Consult also Coulter, The Field of Statutory Useful Arts, 34 J. PAT. OFF. Soc'y 47, 487, 718 (1952).

35. The descriptive part of the specification is frequently referred to as "specification," but the statutory terminology makes the claims the concluding part of the specification. 66 STAT. 798 (1952), 35 U.S.C.A. § 112 (Supp. 1953). In similar fashion, the U.K. Patents Act, 1949, 12, 13 & 14 Geo. 6, c. 87, § 4(3)(c) provides that "every complete specification shall end with a claim or claims defining the scope of the invention claimed." Analogous provisions are contained in the new Australian Patents Act, No. 42 of 1952, § 40(b), [1952] AUSTR. COMMONWEALTH ACTS 135, and the new South African Patents Act, No. 57 of 1952, § 10(3)(c), [1952] STATUTES OF THE UNION OF SOUTH AFRICA 199. For a survey of the legal effect of the claims on the patent protection in the United Kingdom and Australia, see Dean, The Claiming Clauses of Patent Specifications, 4 RES JUDICATAE 144 (1949).


and "conform" to each other. If the disclosure is broader than the claims, the unclaimed portion of the invention (unless recaptured by a divisional application or a reissue application) is dedicated to the public. Conversely, if the claim is broader than the disclosed invention it is invalid for "overclaiming." Above all, in appropriate cases where the validity or scope of allowed patent claims is in question, the descriptive part of the specification may be resorted to in order to save the claims from the vice of indefiniteness or excessiveness.

Unfortunately the question as to when and how far claims may be aided by the descriptive part of the specification is not a simple matter. The accommodation of the conflicting interests of the inventor and of the competitor accused of infringement in such cases involves complex policy considerations, as was indicated in the previous section. The Supreme Court has been cautious and hesitant in its approach. To be sure, Chief Justice Stone once felt warranted to state flatly that: "[t]he claims of a patent are always to be read or interpreted in the light of its specification," and opinions by some other Justices of the Court contain similar sweeping expressions. But these dicta must not be taken at their face value and must be contrasted with Justice Jackson's observation: "The statute makes provision for specifications separately from the claims. . . . It would accomplish little to require that claims be separately written if they are not to be separately read." Accordingly, the Supreme Court has been extremely reluctant to permit a patentee to broaden a claim by reference to the specification with the attendant result of infringement by an accused process, machine or

40. 37 CODE FED. REGS. §§ 1.75(d), 1.117 (1949) (Rules of Practice in Patent Cases).
41. "Nothing is better settled in the law of patents than that the patentee may claim the whole or only a part of his invention, and that if he only describe and claim a part, he is presumed to have abandoned the residue to the public." McClain v. Ortmayer, 141 U.S. 419, 423-4 (1891).
43. If the allowability of a claim is in issue the Patent Office and the courts will justly insist on a stricter observance of the statutory standards with respect to matters of draftsmanship and will reject claims which might be saved from invalidity after the patent was granted. Application of Jolly, 172 F.2d 566, 569 (C.C.P.A. 1949); Application of Arbeit, 206 F.2d 947 (C.C.P.A. 1953). See also 1 STRINGHAM, PATENT CLAIMS: A DRAFTER'S MANUAL 24 (1939).
44. Schriber-Schroth Co. v. Cleveland Trust Co., 311 U.S. 211, 217 (1940) (italics added).
product. Similarly, the Court has been careful with respect to restrictive interpretation of claims where such limitation is based only upon the specification. True, the Court has freely sanctioned the limitation of claims otherwise too broad or indefinite by resort to the narrower or more definite specifications in cases where the claims expressly referred to the specifications by the magic formula "substantially as described." But the Court has no more than "assumed" the propriety of such procedure in other cases of broadness or indefiniteness and has clearly condemned it where the claims did not suffer from ambiguity but were definitely overclaiming the invention. But even in cases where resort to the descriptive part of the specification might otherwise be permissive to narrow a claim, the patentee cannot succeed if he is estopped by the Patent Office history of the claim.

The Supreme Court has exhibited a high degree of sensitivity against unduly comprehensive or indefinite claims and has invalidated scores of patents on this ground except where greater definiteness

47. In McClain v. Ortmayer, 141 U.S. 419, 424 (1891), Mr. Justice Brown wrote the much-quoted dictum: "The claim is the measure of [the patentee's] right to relief, and while the specification may be referred to to limit the claim, it can never be made available to expand it." (Italics added). It is suggested that "never" means "hardly ever." At least Chief Justice Stone hinted in Smith v. Snow, 294 U.S. 1, 14 (1935), that the Court may condone the broadening of an ambiguous claim in view of the description in order to "secure to the patentee his actual invention." Actually the opinion refused to limit a broad, apparently valid claim merely because of a certain selectiveness in the description. Subsequently, however, this liberality of the Court backfired against the patentee, Smith v. Hall, 301 U.S. 216, 232 (1937).


50. Graver Tank & Mfg. Co. v. Linde Air Products Co., 336 U.S. 271, 277 (1949): "While the cases more often have dealt with efforts to resort to specifications to expand claims, it is clear that the latter fail equally to perform their function as a measure of the grant when they overclaim the invention. When they do so to the point of invalidity and are free from ambiguity which might justify resort to the specifications, we agree with the District Court that they are not to be saved because the latter are less inclusive."

51. Schriber-Schroth Co. v. Cleveland Trust Co., 311 U.S. 211, 217-21 (1940). See also United Carbon Co. v. Binney & Smith Co., 317 U.S. 228, 236 (1942). In the former case the Court held that where a feature found to be an essential element of a patented combination—flexibility of a part—was mentioned in the description but not in the claims, the claims could not be narrowed to contain this limitation, after the applicant had expressly cancelled claims which contained said feature as limitation.

was not reasonably to be required. It has frowned especially upon functional descriptions, at least where they are either wholly functional or functional at the exact point of novelty. Probably as a reaction against what seemed to be a dangerous trend and excessive formalism the framers of the new code inserted a special paragraph in the section dealing with the application designed to authorize within certain limits the use of functional expressions in patent claims. The paragraph in question provides:

"An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure or acts in support thereof, and such claims shall be construed to cover the corresponding structure, material or acts described in the specification or equivalents thereof."

Caution must be used not to overestimate the import of this authorization. By its very terms the provision is restricted to functional descriptions of an element in a claim for a combination. It does not permit wholly functional claims for combinations, if that is conceivable; and it is not applicable at all to claims for processes and, apparently, to claims for compositions of matter. Moreover, it certainly does not dispense with the necessity of "particularly pointing out and distinctly claiming" the subject matter of the purported invention. On the other hand, "functionality" in claim drafting does not seem to be tabu any longer, even though it relates to the "most crucial element in the 'new' combination" or goes to "the precise point of novelty."

Two important recent adjudications have dealt with the new section. In the first of them the Board of Appeals in the Patent Office agreed "that some measure of greater liberality in the use of functional expressions in the definition of elements in proper combination

55. 66 STAT. 798 (1952), 35 U.S.C.A. § 112, par. 3 (Supp. 1953). No such provision was inserted in the corresponding section of the original preliminary draft in PROPOSED REVISION AND AMENDMENT OF THE PATENT LAWS, PRELIMINARY DRAFT WITH NOTES § 28 (Committee on the Judiciary, House of Representatives, Committee Print, 1950). It was, however, added to H.R. 3760, 82d Cong., 1st Sess. § 112 (1951). In the Revision Notes to § 112 the framers say tersely: "A new paragraph relating to functional claims is added."
57. This was the vice of the claim involved in Halliburton Oil Well Cementing Co. v. Walker, 329 U.S. 1, 9 (1946).
59. Ex parte Ball and Hair, 675 O.G. PAT. Off. 5 (1953).
claims is authorized by Section 112 than had been permitted by some of the stricter decisions of the courts in the past.” Of various claims relating to the invention of a hydraulic system for operating a cable reel, the Board upheld a number of them, although they employed means expressions to “specify the novel structure” and to “characterize the novel manner” of operating the same. On the other hand, the Board rejected some other claims because the specified function was “couched in such broad language as to ignore completely [a] condition essential to the practice of applicant’s concept.” It is worth noting that the description in the specification apparently was drafted in structural terms. In the second of these decisions, the Court of Customs and Patent Appeals dealt with certain claims regarding a novel glass tank furnace. The court upheld two claims using functional limitations, because these limitations had no “vital importance in the matter of novelty,” but refused to hold that certain other functional claims were saved by the new Section 112. The court based the decision with respect to the latter claims on the ground that their functional description failed adequately to define the dimension of the element although its dimension was “a vital structural element.” Since the descriptive part of the specification suffered from the identical defect, the court found non-compliance with the statutory mandates of paragraphs 1 and 2 of Section 112. As a result, it seems likely that the courts will not be inclined to indulge in a “new functionalism.”

American law traditionally has adhered to the so-called “inventor principle,” i.e., it has required that the applicant for patent be the inventor. The new code has retained this system but it has alleviated some of its rigors in cases of joint inventions, death or incapacity of the inventor and certain other hardship situations. Particularly the recognition of these latter cases constitutes a real innovation of the new code. The German law originally adhered to the “application principle” but switched to the inventor principle in 1936. However, it still recognizes, in general, that the assignee of an invention may file the application provided he names the inventor and specifies

61. Id. at 955.
the manner in which he succeeded to the right to the patent.\textsuperscript{68} Generally speaking, German law resembles American law with respect to the form, substance and effect of the patent application.\textsuperscript{69} The chief difference lies in the fact that, in contrast to American law, where there are competing inventors, priority is not accorded to the inventor who first conceived the invention or reduced the same first to practice, but to him who filed his application first.\textsuperscript{70}

Codifying and Clarifying Rules of Patent Office Practice

The new patent act codifies to a large extent existing rules for proceedings in the Patent Office which that agency had previously developed under its statutory rule-making powers.\textsuperscript{71} In addition, it enacts some new provisions designed to clarify or modify certain aspects of Patent Office practice pertaining to either \textit{ex parte} proceedings or interferences. As not every purely formal revision is worth discussing, attention will be focused on five aspects of Patent Office practice subject to new regulation by the code, namely:

(1) differentiation of types of Patent Office action;
(2) limitation on permissible amendments;
(3) regulation of division requirements and involuntary divisional applications;
(4) regulation of voluntary divisional applications;
(5) innovations in interferences.

1. Recognition of Different Types of Patent Office Action:

The new act gives statutory sanction to the various types of official action which the Patent Office had come to differentiate under its traditional practice.\textsuperscript{72} Accordingly, the new act recognizes that the exam-

\textsuperscript{68} German Patent Act of 5 May 1936 (R.G.BL. §§ 3, 26(6)).
\textsuperscript{69} German patent claims differ from the usual American forms in that they customarily commence with a generic reference to the invention and then introduce and specify the novel feature with the clause "characterized by," which may be couched in functional terms. See 1 Stringham, Patent Claims: A Drafter's Manual 986 (1941); 2 Reimer, Patentgesetz 765 (1950).
\textsuperscript{70} German Patent Act of 5 May 1936 (R.G.BL. § 3).
\textsuperscript{72} See, for instance, Stringham, Outline of Patent Law and Guide to Digests 357 (1937); see also 37 Code Fed. Regs. §§ 1.106, 1.113, 1.181 (1949) (Rules of Practice in Patent Cases). The Manual of Patent Examining Procedure § 706.01 (1949), provides: "The refusal to grant claims because the matter as claimed is unpatentable is called a 'rejection' . . . . If the form of the claim (as distinguished from its substance) is improper, an 'objection' is made. The practical difference between a rejection and an objection is that a rejection involving the merits of the claim is subject to review by the Board of Appeals, while an objection, if persisted in, may be reviewed only by way of petition to the Commissioner."
ination of the patent application may lead either to a rejection or to a mere objection or requirement, prescribing that in any case the action be accompanied by reasons. This provision does not represent a departure from the accepted state of affairs.

2. Prohibition of Amendments Introducing New Matter:—The new statute prohibits explicitly any amendment which introduces new matter into the disclosure of the invention. This rule likewise signifies no change of the previous practice. It should not prevent in meritorious cases an applicant from being permitted to make “explicit what was already implicit.”

3. Regulation of Division Requirements and Involuntary Divisional Applications:—American patent law, like German patent law, traditionally has adhered to the so-called “unity principle” which permits one patent to be granted only for a “unity of inventions” and accordingly prohibits the joinder of “separate and distinct” inventions in one application. Nevertheless, practical considerations have made the joinder of “dependent and related” inventions desirable and permissible. In the celebrated case of Steinmetz v. Allen, the Supreme Court reviewed extensively the state of the law in this respect and invalidated a Patent Office rule which absolutely proscribed the joinder of machine and process claims, machine and product claims, or product and process claims. The decision was based on the reason that “the statute gives the right to join inventions in one application in cases where the inventions are related, and it cannot be denied by a hard and fixed rule which prevents such joinder in all cases.” As a result, the rules regarding joinder of inventions were revised so as to authorize the applicant to join “several distinct inventions,” where they “are dependent upon each other and mutually contribute to produce a single result,” and to instruct the examiner to issue a “requirement for division” in cases of improper joinder. The new act purports to codify the existing practice and provides that “if two or more independent and distinct inventions are claimed in one application the

74. Ibid.
78. See the discussion of these concepts in Steinmetz v. Allen, 192 U.S. 543, 557 (1904).
79. 192 U.S. 543 (1904).
80. Id. at 561.
82. Id. § 1.142.
Commissioner may require the application to be restricted to one of the inventions." 83 It is submitted that the phraseology is unfortunate since it could imply that the historic prohibition against the joinder of independent and distinct inventions is now merely discretionary with the Commissioner. At any rate, the new rules of practice flatly enjoin the combination of claims for "independent and distinct inventions" and direct a "requirement for restriction." 84

In case of a "requirement for restriction," the applicant may make the excluded invention the subject of a "divisional application," 85 and if such application complies with the new provisions for divisional applications, 86 it will be entitled to the filing date of the original application, and will not be subject to a reference by virtue of a patent issued upon the application with respect to which the requirement for restriction was made. 87

4. Regulation of Voluntary Divisional or Continuation Applications:—The new act also adds 88 a statutory recognition and regulation of the so-called "voluntary divisionals" or "continuation applications." 89 The development of the Patent Office practice in that respect had been sanctioned by the courts long ago despite the absence of a direct statutory authorization; 90 but the extent of its permissibility had caused considerable difficulties, 91 and the latitude of the Supreme Court in that respect had been questioned by a member of that tribunal, 92 and followed only grudgingly by some lower courts. 93

89. The term "voluntary" divisional application is employed to signify that the application is not the result of a requirement for restriction. The Supreme Court has used the terms divisional application and continuation application interchangeably. See Crown Cork & Seal Co. v. Ferdinand Gutmann Co., 304 U.S. 159, 170, 171 (1938) (dissenting opinion); General Talking Pictures Corp. v. Western Electric Co., 304 U.S. 175, 183 (1938).
90. "While divisional applications have never been expressly authorized by statute the courts have long recognized their use as a part of Patent Office procedure." Black, J. (dissenting) in Crown Cork & Seal Co. v. Ferdinand Gutmann Co., 304 U.S. 159, 170 (1938).
93. See, e.g., Hazeltine Research, Inc. v. General Motors Corp., 170 F.2d 6, 8 (6th Cir. 1948).
The practice of allowing divisional applications originated apparently as a result of the Patent Office rule requiring divisions where applications contained different categories of claims. But the device was also found to be invaluable to secure for an applicant the benefit of an invention which he had previously disclosed in an application, but had failed to claim, and which he would otherwise have abandoned to the public. Moreover, it was a convenient method to secure interferences with respect to the added claims. All these results flowed from the doctrine, at an early time sanctioned by the Supreme Court, that the divisional application was a continuation of the original application and benefited from the earlier filing date, thus aiding the inventor in priority disputes and refuting abandonment.

The chief problems regarding the allowability and validity of divisional patents concerned the length of time which the inventor could let pass with impunity before recapturing the disclosed invention. The Supreme Court refused to lay down a hard and fast rule, and held that "in the absence of intervening adverse rights for more than [the period specified in Rev. Stat. 4886] prior to the continuation application, [the latter is] in time." The new statute expressly authorizes a continuation application with the benefit of the filing date of the original application if it (a) is for a patent on an invention properly disclosed in the latter, (b) is filed before the patenting or abandonment of, or termination of proceedings, on the first application or on an application similarly entitled

94. See the comments to that effect by Black, J. (dissenting) in Crown Cork & Seal Co. v. Ferdinand Gutmann Co., 304 U.S. 159, 170-1 (1938).
95. "...[D]ivisional applications [have] not been dealt with in a hostile spirit by the courts, but, on the contrary, designed as they are to secure the patent to the first discoverer, they have been favored to the extent that where an invention clearly disclosed in an application...is not claimed therein but is subsequently claimed in another application, the original will be deemed a constructive reduction of the invention to practice and the later one will be given the filing date of the earlier, with all of its priority of right." Chapman v. Wintroth, 252 U.S. 126, 137 (1920). See also the general comments by Holmes, J. in Milburn Co. v. Davis-Bournonville Co., 270 U.S. 390, 401-2 (1926). The recaptured invention may be an unclaimed step in a patentable process, Crown Cork & Seal Co. v. Ferdinand Gutmann Co., 304 U.S. 159 (1938), or an unclaimed subcombination in a patentable combination, Special Equipment Co. v. Coe, 324 U.S. 370 (1945).
99. This period was two years at the time of the decisions, but subsequently was cut down to one year. 53 Stat. 1212 (1939).
to the benefit of the filing date of the first application, and (c) contains or is amended to contain a specific reference to the original application. The code thus adds the requirement of a specific reference in the continuation application to the parent application and retains the requirements that the divisional application must read on the disclosure of the parent application, and that the disclosure must be continuously before the Patent Office. Unfortunately, the statute fails to establish any limitations with respect to intervening private or public rights. Whether the previously recognized restrictions, however modest, are intended to be and will be preserved, remains to be seen. Such bar to excessive extensions of the patent monopoly seems to be highly desirable, especially in view of the fact that the original idea of the draftsmen to restrict the life of the divisional patent to the unexpired term of the parent patent did not come to fruition.

5. Implementing Determinations in Interference:—Proceedings in the Patent Office of the United States are as a rule of the ex parte type. Adversary proceedings between private contestants traditionally are provided only for the purpose of determining the question of priority between competing applicants, or between an applicant and senior patentees—so-called interference proceedings. American law thus stands in sharp contrast to the patent laws of other countries which permit adversary proceedings in the Patent Office to a much larger extent. In the United Kingdom, for example, elaborate provisions are made for formal proceedings by which interested third parties may, for specified grounds relating to the patentability of the purported invention, either oppose the grant of a patent, or ask for its revocation within twelve months after the sealing. In Germany, the law likewise authorizes formal opposition proceedings instituted by

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104. Proposed Revision and Amendment of the Patent Laws, Preliminary Draft with Notes §35 (Committee on the Judiciary, House of Representatives, Committee Print, 1950).
105. The pertinent clause was not inserted into the corresponding section. H.R. 3760, 82d Cong., 1st Sess. §120 (1951).
108. U.K. Patents Act, 1949, 12, 13 & 14 Geo. 6, c. 87 § 33; for so-called “belated opposition” see Terrell and Shelley, Law of Patents 186 (9th ed. 1951).
interested third parties, and, in addition, provides for annulment proceedings in the Patent Office which may be instituted by interested third parties throughout the life of the patent. The National Patent Planning Commission recommended in its first and third report that American patent law be amended to authorize cancellation proceedings instituted by interested parties in the Patent Office within six months after the issuance of the patent. This recommendation, however, was not adopted by the framers of the new act.

The new statute retains substantially the provisions of the prior law, but makes some additions designed to implement Patent Office determination. The most important of them is the new rule which specifies that a final determination in interference which is adverse to a senior patentee shall constitute a cancellation of the claims involved. The rule that prior patenting after one year constitutes a bar to a claim by another for the same invention is, consonant with the prior law, expressly extended to interference proceedings. The details of the interference practice are regulated by the Patent Office under its rule-making powers in its Rules of Practice. The enactment of the new statute has not necessitated extensive revision of the subject.

Clarifying the Provisions for Judicial Review

Adverse decisions of the examiner in ex parte proceedings are subject to administrative review by the Board of Appeals in the Patent Office. Upon the institution and declaration of an interference, jurisdiction over the inter partes proceedings is taken by the Board of Patent Interferences whose decision is not reviewable by any administrative appellate tribunal in the Office. In accordance with the prior law, the new act contains elaborate provisions for judicial review of the decisions of both the Board of Appeals and Board of

110. German Patent Act of 5 May 1936 (R.G.Bl. §§13, 37) as revised by statute of 22 July 1953. A former provision which limited the availability of annulment proceedings to five years from the grant was eliminated from the act by amendment of 1941. See 1 Reimer, Patentgesetz 569 (1950); 2 id. at 901 (1950).
113. Id. par. 2.
Patent Interferences. But, while the code has revised extensively the sections which controlled previously, the changes concern mostly formal details or matters of draftsmanship.

The provisions for judicial review of Patent Office decisions have undergone a long and complex history which was recapitulated by Justice Roberts in great detail in his carefully considered opinion in the case of *Hoover v. Coe.* The evolution culminated in 1927 in the creation of an alternative system of review: either by appeal to the Court of Appeals for the District of Columbia or by bill in equity in either the District Court of the District of Columbia or any other proper federal district court. With the transformation of the Court of Customs Appeals into the Court of Customs and Patent Appeals in 1929 the appellate functions of the Court of Appeals for the District of Columbia were transferred to this new tribunal. The abolition of the differentiation between actions at law and suits in equity by the federal rules of civil procedure in 1938 finally changed the formal characterization of the remedy in the district courts.

The new act retains the alternative system of judicial review by either appeal to the Court of Customs and Patent Appeals or civil action in the appropriate district court. The chief difference between the two modes of judicial review is that review by the Court of Customs and Patent Appeals is of summary character "on the evidence produced before the Patent Office" while the review by civil action is de novo. As under the previous law this difference in scope of review has important consequences on the right to elect between the two available methods of review. If the decision to be challenged is that of the Board of Appeals, i.e., one terminating ex parte proceed-

119. 325 U.S. 79 (1945).
120. 44 Stat. 1335 (1927).
121. 45 Stat. 1475 (1929).
125. *Hoover Co. v. Coe,* 325 U.S. 79, 83 (1945) ("... trial ... on proof which may include evidence not presented in the Patent Office."); see also 66 Stat. 803 (1952), 35 U.S.C.A. § 146 (Supp. 1953), providing for the admission of the record in the Patent Office "without prejudice to the right of the parties to take further testimony." However, it is recognized that the admissibility of new evidence requires that "there has been no suppression, bad faith or gross negligence on the part of the party offering it." *Shell Development Co. v. Pure Oil Co.,* 111 F. Supp. 197, 199 (D.D.C. 1953); *Knutson v. Gallsworthy,* 164 F.2d 497, 509 (D.C. Cir. 1947). Trial de novo likewise does not warrant that claims not considered by the Patent Office may be litigated in the judicial proceedings. *Gilbert v. Marzall,* 182 F.2d 389 (D.C. Cir. 1950).
ings, the dissatisfied applicant has the unqualified choice between an appeal and review by civil action. Filing an appeal constitutes a waiver of the right to the alternative mode of review. Contrariwise, if the decision to be challenged is that of the Board of Patent Interferences, i.e., the determination of a priority dispute between contesting parties, the dissatisfied party can make the initial choice. If he elects to appeal, however, any adverse party may insist on complete review by civil action; in this event, appellant must dismiss the appeal and may thereafter resort to the alternative remedy.

The scope and the finality of these judicial determinations reviewing Patent Office action has produced much perplexity, doubt, and outright confusion. Two comparatively recent Supreme Court decisions, however, have shed some light upon the obscure matter. In *Hoover v. Coe* the Court held that review by civil action was available to an applicant against a rejection by the Board of Appeals of claims "as not reading on the applicant's disclosure," although in this case a reversal by the district court of the Board's rejection did not determine the right of the applicant to receive a patent but merely implied the direction that the claims should stand allowed for the purpose of declaring an interference. In *Sanford v. Kepner*, the Court decided that if the district court in a civil action to review a determination of priority by the Board of Patent Interferences finds against plaintiff on the issue of priority no adjudication as to the patentability of the adversary's claim is required, although such adjudication is necessary before the court may authorize the Commissioner to issue a patent. It should be noted that the reasoning in these cases contains language which seems to clarify matters beyond the points actually decided. Of particular significance in this connection is the recognition in the *Hoover* case that the principle of res judicata does not prevent the Patent Office from disallowing claims for want of novelty over a newly discovered reference to the prior art even after the district court has held in favor of the applicant. The same principle *a fortiori* has been held to authorize the Patent Office to reject claims on the ground of a newly discovered reference to prior art even after the Court of Customs and Patent Appeals had reversed a rejection on other references.

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128. 325 U.S. 79, 80 (1945).
129. 344 U.S. 13 (1952).
130. 325 U.S. 79, 89 (1945).
This, however, does not signify that the decisions of the Court of Customs and Patent Appeals or of the district courts in proceedings for review of determinations by the tribunals in the Patent Office, are not res judicata against the party who sought review as to the matters directly adjudicated or which could have been urged before the court. Thus in Application of Prutton the Court of Customs and Patent Appeals held that where the district court in reviewing a decision by the Board of Appeals affirmed a rejection based on anticipation, a subsequent rejection of substantially identical claims on the ground of res judicata was proper. The court stated, "Were we to hold otherwise, we would nullify the decision of the Court of Appeals in the earlier case. . . . Appellant having elected in the earlier case to proceed by civil suit under . . . [Rev. Stat.] § 4915, the final decision rendered in that proceeding is conclusive of the issues determined therein, and appellant cannot obtain a further review of such issues in a later-filed application brought before this court." In view of the reasoning in the Hoover case the reverse should also be true, and a rejection of claims on the ground of anticipation affirmed by the Court of Customs and Patent Appeals should preclude a different decision of the same issue by the district court. On the other hand, it has been held that the doctrine of res judicata does not invalidate a patent which the Patent Office granted on a second or divisional application although substantially identical claims of the first or original application had been rejected for want of patentable invention. The same result should follow even in cases where the prior rejection was affirmed by a court on review.

The new act has not changed the above indicated principles as to the scope and effect of the various types of judicial review. It has, however, separated the provisions regulating the civil action for review of decisions by the Board of Appeals from those pertaining to the civil action for review of decisions by the Board of Patent Interferences, and has changed the language of the former so as to be more consonant with the holding of the Hoover case. The famous question of

132. 204 F.2d 291 (C.C.P.A. 1953).
133. 204 F.2d 291, 296 (C.C.P.A. 1953). See also the companion case Application of Prutton, 205 F.2d 198 (C.C.P.A. 1953).
134. Contra: Solomon v. Renstrom, 150 F.2d 805 (8th Cir. 1945) (apparently misled by failure to observe the radical change in 1927).
136. The intimation in the case of Application of Prutton, 204 F.2d 291, 294 (C.C.P.A. 1953), to the effect that the doctrine of res judicata when applied to Patent Office decisions is not as stringent as when applied to judicial decisions on review thereof seems to be unfounded.
whether decisions of the Court of Customs and Patent Appeals have remained unreviewable by the Supreme Court despite the express provision for review by writ of certiorari in the Judicial Code is apparently not materially affected by the new language. It may be significant, however, that the former designation of the decision as "revision" and the former clause which expressly saved to any interested party the right to contest the validity of a patent despite any decision of the court have now been deleted. It is, however, not likely that the Supreme Court will abrogate its self-imposed restraint in the matter.

Recasting the Law Controlling Modification of the Terms of the Patent

So long as his application is pending the inventor may, within set limits, affect the scope of the forthcoming patent either by formal amendment of the application or, in appropriate cases, by filing of a divisional application. Even after the issuance of the patent the patentee has still some powers over the terms and effects of the grant.

American law traditionally has differentiated two methods by which a patentee may substantially modify the terms of the granted patent, viz., by disclaimer and by surrender and reissue. The new act has retained these two devices, but some important changes have been made, especially in the disclaimer practice.

Curtailing the Necessity for and Utility of Disclaimers:—It was early established in English and American patent law that if an inventor obtained a patent for a claim or claims broader than his invention the patent was void in toto. This rule applied even in a case where only one of several claims suffered from that vice and where the defect of overclaiming did not consist in the inclusion of an element not novel but in the excessive breadth of the asserted monopoly such as the claim of a principle or function.

To alleviate the rigors of this rule an English statute of 1835 authorized the patentee to enter "... a Disclaimer of any Part of

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140. See text at note 88 supra.


144. 5 & 6 Will. 4, c. 83, § 1 (1835).
either the Title of the Invention or of the Specification . . . not being such Disclaimer . . . as shall extend the exclusive Right granted by the . . . Letters Patent . . . " American law followed suit in the additional Patent Act of 1837,\textsuperscript{145} and the two pertinent sections of this statute have formed part of the law without substantial change\textsuperscript{146} until the passage of the new code. According to these former provisions a patentee was empowered to save his patent from invalidity owing to over-claiming if " . . . the invalid portion had been claimed 'through inadvertence, accident, or mistake, and without any fraudulent or deceptive intention,' and was also disclaimed without 'unreasonable' neglect or delay."\textsuperscript{147} Under the old practice it was not only permissible to disclaim a whole separate claim but it was also possible to disclaim a portion of a claim for the purpose of narrowing it so long as the excision deleted " . . . distinct and separable matter . . . without mutilating or changing what is left standing."\textsuperscript{148} A disclaimer was even proper though not necessary if it referred only to the descriptive part of the specification.\textsuperscript{149}

The new statute\textsuperscript{150} introduces some radical changes. It abolishes the rule that without prompt disclaimer the existence of one invalid claim renders the whole patent invalid. Instead, it saves the remaining claims despite the invalidity of some claims if the defect of the latter is not due to any deceptive intention. In addition, the new provision restricts the availability of disclaimers to "complete claims." The result of the modifications, of course, is to reduce greatly the practical utility of disclaimers and to curtail the possibility of saving excessive claims for meritorious inventions.

As a comparative comment it is perhaps interesting to note that in Germany the development has proceeded in the opposite direction. Until recently only renunciation of entire claims was permitted.\textsuperscript{151} The new Patent Law Amendment Act of July 18, 1953, however, intro-

\textsuperscript{145} 5 STAT. 193 (§ 7), 194 (§ 9) (1837).
\textsuperscript{149} Carnegie Steel Co. v. Cambria Iron Co., 185 U.S. 403, 436 (1902).
duced a special proceeding for the retroactive limitation of claims and eliminated the requirement of the prior law which permitted only disclaimers of entire claims.152

Clarifying the Rules Regarding Surrender and Reissue:—The other mode of securing a variation of the patent grant in American law is by surrender and reissue. This practice originated with an early incident, upheld by the Supreme Court,153 and was soon thereafter expressly sanctioned by congressional legislation.154 Provisions relating to reissue have remained part of the American patent law ever since, but have undergone numerous changes.155 Although the statute authorized reissue only "[w]henever any patent is wholly or partly inoperative or invalid, by reason of a defective or insufficient specification, or by reason of the patentee claiming as his own invention or discovery more than he had a right to claim as new . . . .,"156 the Supreme Court, although at first grudgingly, sanctioned reissue patents for the purpose of broadening or adding claims.157 The Court construed the statute so as to surround the right to modify the patent with three important safeguards, viz., the requirements that (a) the new claims must be for the same invention as disclosed in the surrendered patent, (b) the defect in the old claims was due to " . . . inadvertence, accident, or mistake, without any fraudulent or deceptive intention . . . ." and (c) due diligence was exercised in discovering and remedying the defect.158 It was suggested in the early decisions159 that in the case of enlarged claims a delay of more than two years was unreasonable in the absence of special circumstances in view of the analogy of the then existing rule that public use for more than two years barred the allowability of an original application. In a recent case the Supreme Court took a further step and held that even where the reissue

154. 4 STAT. 559 (§ 3) (1832).
155. For details see 2 WALKER, PATENTS 1341-4 (7th ed., Deller, 1937), or the survey given by Justice McReynolds in Sontag Chain Stores Co. v. National Nut Co. of Calif., 310 U.S. 281, 283, 284, 286 (1940). The section which controlled prior to the new code was REV. STAT. § 4916 (1875), as revised by 45 STAT. 732 (1928), 35 U.S.C. § 64 (1946).
The patent was applied for within two years intervening rights would be saved from an infringement action.\textsuperscript{160}

The new statute\textsuperscript{161} is the logical culmination of this development. It authorizes the reissues "[w]henever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, by reason of a defective specification or drawing, or by reason of the patentee claiming more or less than he had a right to claim in the patent . . . .",\textsuperscript{162} provided that the reissue patent is for the invention disclosed in the original patent without introduction of new matter. The new statute specifies expressly that the scope of the claims cannot be enlarged, unless the reissue application is filed within two years from the grant of the original patent,\textsuperscript{163} and makes special provision for the protection of intervening rights and interests.\textsuperscript{164} It is perhaps somewhat surprising that the time for an application for reissue is still fixed at two years from the original patent, although the purportedly "analogous" period of public use which bars an original application has been reduced to one year ever since an amendment passed in 1939.

\textbf{Strengthening the Judicial Protection of the Patentee}

\textit{Defining Prohibited Invasions of the Patent Grant}

In the previous instalment of this study it was noted that one of the principal objectives of the framers of the new code was to strengthen the protection of the patent rights and to check the corrosion of the patent system which had set in as a result of certain decisions of the Supreme Court. As a result, the new code has made a careful revision of the sections dealing with infringement and the remedies therefor.\textsuperscript{165}

While the patent does not confer on the patentee the right himself to make, use or vend his own invention, as such right arises under the common law, it does add to such powers the right to restrain others from manufacturing, selling or using that which he invented. This analysis, which was developed by the Supreme Court\textsuperscript{168} in devia-

\textsuperscript{160} Sontag Chain Stores Co. v. National Nut Co. of Calif., 310 U.S. 281 (1940).
\textsuperscript{163} \textit{Id.} par. 4.
tion from the language of the old law, has now found confirmation by the statutory terms.\textsuperscript{167} The grant of these exclusionary rights accorded by the patent is subject to the patentee's disposition either by total or partial assignment including encumbrance or by concession of immunities of greatly varying scope, called licenses.\textsuperscript{168}

An invasion of the patentee's exclusionary rights is a statutory tort, known as infringement. As discussed before, the new code recognizes two types of infringement, developed by case law beginning with the second part of the last century, \textit{viz.}, direct infringement and contributory infringement.\textsuperscript{169} A direct infringer is one who either without authority makes, uses or sells a patented invention within the United States during the term of the patent\textsuperscript{170} or actively induces infringement.\textsuperscript{171} A contributory infringer, on the other hand, is one who, without being technically an infringer, sells an article which constitutes a material part of the invention, is not suitable for substantial non-infringing use and which he knows to be especially made or especially adapted for use in an infringement of such patent.\textsuperscript{172} The reason for this unusual number of qualifications in the statutory definition of contributory infringement was the apprehensiveness of the manufacturers that without these safeguards even the sale of ordinary merchandise might expose them to liability for contributory infringement. It has also been discussed in detail that the Supreme Court's recent expansion of the misuse doctrine and the concomitant eclipse of the doctrine of contributory infringement prompted the enactment of special provisions curbing the scope of the former.\textsuperscript{173} It is therefore not necessary to dwell again on these matters.

It is, however, important to note that the new code has in no way attempted to affect the principles according to which the presence or absence of an infringement is determined. Without attempting an exhaustive classification, it may be said that, generally speaking, in-
fringement cases involve three categories of disputes. In the first class the patentee and the purported infringer have had no dealing with regard to the practice of the invention and the question to be determined is whether the accused device, process or product is covered by the patented invention. In the second class the patentee had authorized the accused party to utilize the invention in some fashion and the question to be determined is whether the challenged practice exceeds the limits of the license. In the third class there was likewise the grant of a license, but the dispute involves not its limits, but its continued subsistence. Only the first two classes of cases normally involve resort to special principles of patent law.

While it is a recognized rule of American patent law that the claims measure the grant, the courts have not determined the presence or absence of an infringement by reliance on rigid technicalities, but by resort to considerations of fairness and social policy. Although the public has a recognized vital interest in that an inventor cannot preempt the whole field in which his invention lies, the courts have been disposed to liberality of varying degree in his favor. The basic rule declares infringement to be committed whenever the patented and the accused device, process or product perform substantially the same function in substantially the same manner. Variations in details are irrelevant so long as the invention and the accused imitation are patentably equivalent. But, as Justice Jackson has lucidly expounded, "equivalence, in the patent law, is not the prisoner of a formula and is not an absolute to be considered in a vacuum." The scope of the liberality inherent in this doctrine of equivalents, which is said to have originated in the case of Winans v. Denmead, will vary according to the merits of the invention, i.e., the technological progress achieved thereby. Thus in the field of pioneer or near-pioneer patents greater range will be given to the reach of the claims than in the case of a

174. See text at note 38 supra.

175. The courts are the self-appointed guardians of the public interest which is "so frequently present but so seldom adequately represented in patent litigation," Muncie Gear Co. v. Outboard Co., 315 U.S. 759, 768 (1942) (per Justice Jackson).

176. Thus the court itself has given the following summary of its policy considerations: "This court has never modified . . . [its view] of the relative importance of the public and private interests involved in every grant of a patent, even while declaring that in the construction of patents and the patent laws, inventor shall be fairly, even liberally, treated." Motion Picture Patents Co. v. Universal Film Mfg. Co., 243 U.S. 502, 511 (1917) (per Justice Clark).


178. Id. at 609.

179. 15 How. 330 (U.S. 1853).
patent in a crowded art. Conversely, the doctrine may even defeat protection if the accused device, process or product embodies substantial functional deviations. Of course, the doctrine does not operate in disregard of the Patent Office history of the claim. File wrapper estoppel will bar the reliance on equivalents specifically excluded by amendment or disclaimer.

It is hardly a surprise to find that other patent systems have developed similar ideas regarding the scope of protection. Thus the German Supreme Court has developed a notion of "equivalence in the patent law sense" which embodies policy considerations identical with those underlying the American adjudications.

The second class of infringement controversies mentioned above, i.e., that which comprises disputes about alleged transgressions of licenses, involves questions which, without sharp demarcation, range from comparatively simple problems turning on the reasonable scope of a granted immunity to major policy issues concerning the extent to which the patent system may be used to control competition. On the lower end of the scale are the cases which establish the line dividing mere repairs and replacements of quickly worn-out or consumed parts, as are implied in a use-license, from reconstruction or substitution which require a license to manufacture. On the opposite end, are the cases dealing with the validity of express limitations, especially price-fixing and tying clauses. These have been discussed at length before.

Finally, in the third class of infringement cases, the invasion of the patent right is predicated upon the prior violation and rescission of an assignment or a license under which the accused practice is claimed


183. For details see F. REIMER, PATENTGESETZ 77-81, 261, 262 (1949).


to be performed.\textsuperscript{186} Ordinarily, this type of controversy hinges on the application of contract principles as developed by state law. Of course, this statement does not signify that the validity and enforceability of licenses is exclusively regulated by state law. It merely means that where the patentee himself invokes the lapse of a license or assignment for the purpose of bringing an infringement suit, normally only state law is involved. Conversely, if the patentee stands on his license the other party may resort to federal patent law principles in order to defeat the license. Thus a license agreement may be void in toto as a matter of patent law because of misuse of the patent monopoly,\textsuperscript{187} especially if it contains tying clauses or forms part of a prohibited price-fixing scheme.\textsuperscript{188} Moreover, where the price-fixing agreement is invalid only in the absence of a valid patent, the licensee may as a matter of federal law assert the invalidity of the patent, in order to defeat the whole license, although ordinarily a patentee is estopped from questioning the validity of a patent.\textsuperscript{189}

Moreover, the statement that the enforceability of rights under a license depends ordinarily on state contracts rules does not imply that a state is barred from protecting the rights of a licensor on principles of tort law. Apparently interference by a third party with the relation between patentee and licensee may constitute a tort under state law, although the proscribed acts do not amount to technical contributory infringement.\textsuperscript{190}

\textsuperscript{186} See, for example, Wilson v. Sanford, 10 How. 99 (U.S. 1850); Hartell v. Tilghman, 99 U.S. 547 (1878); White v. Rankin, 144 U.S. 628 (1892); Healy v. Sea Gull Specialty Co., 237 U.S. 479 (1915); Luckett v. Delpark, Inc., 270 U.S. 496 (1926).

\textsuperscript{187} Cf. Automatic Radio Mfg. Co. v. Hazeltine Research, Inc., 339 U.S. 827 (1950). In this case the license agreement in issue was held to be valid despite the fact that royalties were to be computed on the basis of the total volume of licensee's sales regardless of the volume of sales of the patented articles.


\textsuperscript{190} Cf. Geneva Furniture Mfg. Co. v. S. Karpen & Bros., 238 U.S. 254, 257 (1915) in which the Court held that a cause of action charging defendants "with wrongfully procuring . . . licensees to violate their license contracts in designated particulars, some of which have no bearing on the charge of infringement" was not a case arising under the patent laws for the purpose of federal jurisdiction. See also Independent Wireless Tel. Co. v. Radio Corp. of America, 269 U.S. 459, 466 (1926), in which Chief Justice Taft recognized "that there is a tendency in courts of equity to enjoin the violation of contract rights which are invaded by strangers
The question of how far state law may go in aiding the inventor on tort or equity principles over and above the protection accorded by the patent law is a very complex matter which involves difficult policy considerations. The case law cannot be reduced to a simple formula.\textsuperscript{191} At any rate, the enactment of the new patent code has not materially affected the problem.

Modernising the Procedural Provisions in Matters of Infringement and Interference

The previous patent law contained a number of rather awkward sections relating to the relief available in infringement and interference cases and to matters of pleading and proof in such proceedings.\textsuperscript{192} The provisions in question reflected the tenacity of the old forms of action and were predicated on the separation between law and equity. The adoption of the federal rules of civil procedure and the enactment of the Revised Judicial Code made much of the former statutory language obsolete or superfluous. The new act has properly taken account of the new system of practice and brought the controlling provisions in harmony with it.

in a direct action by the party injured, instead of compelling a roundabout resort to a remedy through the covenant, express or implied, of the other contracting party," but indicated that such a suit was not one under the patent laws.

191. There seems to be ample authority for the proposition that state law on principles of contract law, tort law or equity may and will protect an inventor against a party who, in breach of an agreement or confidential relationship, has appropriated the invention which was not publicly disclosed and has practiced the same for his own gain. See Note, Protection and Use of Trade Secrets, 64 Harv. L. Rev. 976 (1951), and cases collected in Notes, 167 A.L.R. 1114, 1145-51 (1947), and 170 A.L.R. 449-500 (1947). Difficulties, however, exist with respect to the proper type of state relief, where the wrongful appropriator has applied for, or obtained, a patent. In the leading case of Becher v. Contoure Laboratories, Inc., 279 U.S. 388, 391 (1929), the Court, speaking through Mr. Justice Holmes, held that a state court had jurisdiction to entertain a suit for impressing a trust ex maleficio on a patent obtained in a breach of a confidential relationship, but left it undecided whether or not this attempt to get the assignment of the patent, not issued to the true inventor, was made "mistakenly." Moreover, in a prior adjudication in a diversity case the Court had held that equity would not enforce a contract for the assignment of a patent where the same was fraudulently secured to one not being the true inventor, because such patent was invalid. Kennedy v. Hazelton, 128 U.S. 667 (1888). The attempt to reconcile and implement these two cases seems to have created a hopeless muddle. See, e.g., Jones v. Ulrich, 342 Ill. App. 16, 95 N.E.2d 113 (1950); Young Spring & Wire Corp. v. Falls, 293 Mich. 602, 292 N.W. 498 (1940); Harrington v. National Outdoor Advertising Co., 355 Mo. 524, 196 S.W.2d 786 (1946); Coleman v. Whisnant, 225 N.C. 494, 35 S.E.2d 647 (1945); Mayer v. Hochman, 98 N.Y.S.2d 724 (Sup. Ct. 1950). In Grob v. Continental Machine Specialties, Inc., 204 Minn. 459, 283 N.W. 774 (1939) the court refused to entertain a damage action brought by an applicant for a patent against interfering applicants alleged to have filed their application maliciously, for the reason that the Patent Office had primary jurisdiction. According to German law an inventor whose invention has been illegitimately appropriated by another may file an opposition to a patent application of the appropriator or obtain cancellation of a patent thus issued. German Patent Act of 5 May 1936 (R.G.Bl. pt. II, 117, §§ 43, 1313).

Type and Measure of Relief:—The code provides for two categories of civil actions by a patentee: one for relief in cases of infringement, the other for relief in cases of interfering patents.

The relief made available in infringement cases consists of an award of damages and, where appropriate, an injunction restraining the violation of any right secured by the patent. The statute entitles the patentee to "... damages adequate to compensate for the infringement, but in no event less than a reasonable royalty for the use made of the invention by the infringer. ..." While the act makes no special provision for an accounting, it seems to be certain that the accepted rules regarding the right to an accounting and the computation of damages are preserved. Punitive damages are likewise still authorized.

The relief against an invalid interfering patent consists in a declaration of the invalidity thereof. Such declaration should not authorize a formal cancellation by the Patent Office, as paragraph 1 of Section 135 seems to be inapplicable.

Scope of Adjudication:—In both types of proceedings, the validity of the patents involved is subject to judicial determination, and any ground of invalidity, whether relating to the patentability of the purported invention or to the scope and definiteness of the claims, may be raised. Because of the public interest in the freedom from invalid patents, the Supreme Court has taken the position that in infringements...
ment cases the question of whether the patent as granted is infringed is of lesser public importance than that of whether the patent in issue is valid. Accordingly, it has declared it to be the better practice first to inquire into the second question.\textsuperscript{203} It would seem that the same rule should apply in equity suits initiated to resolve the conflict between interfering patents. The contrary rule of \textit{Sanford v. Kepner}, which prevents an applicant who loses on the issue of priority in an interference action under Section 146 from challenging the patentability of the patented invention of the victorious party,\textsuperscript{204} ought not to be extended to the proceedings under Section 291 in view of the express statutory language,\textsuperscript{205} its legislative history\textsuperscript{206} and, above all, the interest of the party who loses on the issue of priority to be at least free from the hazard of infringement.

The new statute has not provided for any right of the Commissioner of Patents to intervene in an infringement suit in which the validity of the patent is in issue, although that right has been accorded to him with respect to interference actions.\textsuperscript{207} This leaves the possibility of a conflict between the Patent Office and the courts unmitigated, despite the recommendations by the National Patent Planning Commission in its first report that the courts should not be left to decide the question without advice by the Patent Office.\textsuperscript{208} In Germany, the Patent Office has exclusive jurisdiction to annul patents.\textsuperscript{209}

\textbf{Parties to and Effect of Adjudications in Infringement Litigations:}—The always intricate twin subjects of "parties" and "binding effect of adjudications" are particularly troublesome in the field of patent litigation. The factual complexities of the subject, the prevalence of a strong public interest in the elimination of invalid

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\bibitem{203} Sinclair \& Carroll Co. v. Interchemical Corp., 325 U.S. 327, 330 (1945).
\bibitem{204} See text at note 129 \textit{supra}.
\bibitem{206} An amendment of 1927 expressly modified Rev. \textit{Stat.} § 4918, the predecessor of § 291, so as to draw within the purview of the adjudication the invalidity of any of the interfering patents "upon any ground," 44 \textit{Stat.} 1337 (1927) (Italics added). No change was intended by the framers of the new act.
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patents and the effects of particularities in statutory language, all have contributed to muddy the waters. The new statute, however, has at least swept away many of the terminological obstacles.

As has been discussed before, the statute accords the right to sue for infringement to the patentee, i.e., to the recipient of the grant or his “successors” in title. Licensees as such are not mentioned; but it is safe to assume that an exclusive licensee may bring action as under the prior law, if he makes the patent owner a party. Conversely, the patent owner who has granted an exclusive license can and should join the licensee as a necessary party in an action against a third party infringer, and apparently the exclusive licensee is entitled to intervene as a matter of right. On the other hand, if a party threatened with an infringement suit by an exclusive licensee wishes to get relief in the form of a declaratory judgment action, joinder of the patentee as indispensable party does not seem to be required.

Special considerations apply when infringement is claimed to have been committed by a manufacturer and his customers. Ordinarily every one of these infringers is individually liable and subject to separate civil action. But if the patentee has sued the manufacturer without having brought action against the customers, a judgment against the manufacturer decreeing an accounting of all profits and full damages resulting from the sales of the infringing articles will bar subsequent actions against the purchasers of such articles; similarly


211. See the stress on that factor in Independent Wireless Tel. Co. v. Radio Corp. of America, 269 U.S. 459, 464, 466 (1926).

212. Riesenfeld, supra note 167, at 313.


214. Riesenfeld, supra note 167, at 313.


217. A. Belanger & Sons, Inc. v. Brisk Waterproofing Co., 116 F. Supp. 127 (D. Mass. 1953), relying on A. L. Smith Iron Co. v. Dickson, 141 F.2d 3, 6 (2d Cir. 1944); Hook v. Hook & Ackerman, Inc., 187 F.2d 52 (3d Cir. 1951); and United Lacquer Mfg. Corp. v. Maas & Waldstein Co., 111 F. Supp. 139 (D.N.J. 1953). But the last two of these cases are not in point, involving partial assignees rather than exclusive licensees, while conversely in the Dickson case it is not clear whether the defendant licensee was any more than a bare licensee. For a general dicussion of the protection of an accused infringer under the declaratory judgment procedure see Soffer, Justiciable Controversy Under the Federal Declaratory Judgment Act and the Exercise of Patent Rights, 22 Geo. WASH. L. Rev. 63 (1953), 36 J. PAT. OFF. Soc'y 168 (1954).


219. Wagner Sign Service, Inc. v. Midwest News Reel Theatres, Inc., 119 F.2d 929 (7th Cir. 1941). If the damages are not fully compensatory, however, subsequent actions against the infringing customers are still possible, Birdsell v. Shaliol, 112 U.S. 485 (1884); Union Tool Co. v. Wilson, 259 U.S. 107 (1922).
the customers are apparently entitled to plead the judgment of a prior action against the manufacturer, holding the patent to be invalid or not to have been infringed, as a bar against subsequent infringement actions. 220 A manufacturer may intervene as a matter of permission in an infringement action against his customer; but, if he wishes to inject a counterclaim enlarging the subject of the litigation, the courts may either reject the intervention or limit its scope. 221 The procedural devices of joinder, intervention and suit for declaratory judgment have produced complicated situations of multiple litigation. The courts, however, possess ample powers and discretion to achieve a "comprehensive disposition of litigation" 222 and to curb the ill effects of "forum shopping with a vengeance." 223

Simultaneous or seriatim attacks against the same patent in separate interference proceedings or separate infringement suits may, inevitably, result in inconsistent holdings as to validity because of the "accepted limitations of the doctrine of res judicata." 224 Cancellation of a patent by court decree or action by the government, however, is possible only under special contingencies, such as fraud or deceit. 225 Whether the administrative cancellation introduced by paragraph 1 of Section 135 of the new code 226 is meant to have in rem effect is, in the opinion of the writer, an open problem.

Jurisdiction Over Controversies Involving Patents:—The patent act carefully refrains from any general regulation of jurisdiction over controversies involving patents and contains only one special venue provision. 227 Such jurisdiction therefore is controlled by the Revised Judicial Code which confers upon the district courts exclusive original "jurisdiction of any civil action arising under any Act of Congress relating to patents . . . ." 228 The distribution of jurisdiction between


224. Radio Corp. v. Radio Laboratories, 293 U.S. 1, 7 (1934).


226. See text following note 112 and note 201 supra.


state courts and federal courts under this provision or its predecessors has formed the subject of a long series of adjudications by the Supreme Court which started with Wilson v. Sanford,229 and has been reviewed from time to time by the Court.230 Generally speaking it is settled that the jurisdiction depends on the allegations and the relief prayed for in the complaint. If the complaint directly attacks the validity of a patent or seeks redress against a violation of the patentee's rights flowing from his monopoly, the federal courts have exclusive jurisdiction; but, unless some other reason for federal jurisdiction is present, the state courts are the proper forum when the status of a contract relating to the patent or the enforcement or other protection of rights derived from such contract are the principal subjects of the adjudication sought. In such cases, the state courts may give incidental relief against threatened infringement, if such is the consequence of a cancelled license.231

CONCLUSION.

This lengthy inquiry can be summed up in some very brief conclusions. The new patent act has not introduced any major modification of the existing American system. Most of its new provisions constitute a codification, clarification or stabilization of judicial doctrines. Some of the changes are technically significant. In this class belong the recognition of process patents for the new use of old devices or products, the curbs on the misuse doctrine, the alleviation of the anti-functionality principle in claims, and the new rules concerning the necessity for, and availability of disclaimers. Undoubtedly, some of these innovations will need judicial clarification. The most important effect of the revision, however, is its significance as a reaffirmation of the congressional belief in the social usefulness of a strong and vigorous patent system.

From the comparative aspect it is interesting to note not only that the great trends of the American system have kept in line with those

229. 10 How. 99 (U.S. 1850).
231. See, e.g., H. J. Heinz Co. v. Superior Court, 266 P.2d 5 (Sup. Ct. Cal. 1954), in which the court upheld a contempt order requiring destruction of infringing articles built under an invalid license agreement. The federal courts had refused to enjoin these contempt proceedings, without taking any position in regard to the power of the state court to curb threatened infringement by such order, for the reason that 28 U.S.C. § 2283 did not authorize federal interference in such case. H. J. Heinz Co. v. Owens, 189 F.2d 505, rehearing denied, 191 F.2d 257 (9th Cir. 1951).
of the other western countries, but that, in addition, the administration of American patent law has produced numerous technical legal problems which are directly paralleled in the other English speaking countries as well as in other industrial nations, especially Germany. In fact, the similarity between many German and American patent law doctrines is startling. On the other hand, the greater inclination of American law to accord inventor’s rights to him who has first conceived the idea rather than to him who has first reduced it to practice or embodied it in a patent application is worthy of emphasis as an important policy judgment that seems preferable to the position taken elsewhere.

The comparison of American patent law institutions with those of other countries suggest further that a close-range field study should be made of the experiences of other nations with opposition and cancellation proceedings in the Patent Office and with the so-called patents of addition which protect subsequent improvements by the inventor short of the inventive step requisite for independent patentability. These devices might have utility even under our system. Perhaps the greatest defect in the preparations for recent reform was that they did not include a study of current practices abroad.