

THE  
LAW OF PATENTS<sup>cf</sup>

AND

PATENT PRACTICE IN THE PATENT OFFICE  
AND THE FEDERAL COURTS

WITH

RULES AND FORMS

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BY

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OF THE

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ON TRADEMARKS, AND ANNOTATOR OF  
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IN TWO VOLUMES

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VOLUME I

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## AUTHOR'S NOTE.

The evolution of invention is a subject whose history will never be written, for its genesis is pre-historic. It may, indeed, antedate man, for in the darkness before his advent his predecessors may have fashioned the first tools of industry and the first weapons of warfare. The first stone-axe surely involved invention, and there was neither judge, lawyer or expert to assert that its production was merely the result of the exercise of mechanical skill.

The invention of the chisel, the spade, the lever, the wheel (doubtless a section of tree-trunk), the wheel-barrow, the hour-glass, the sun-dial, the first harnessing of the draft-animal—what a wonderful history is here, never to be recorded, of matchless brain-feats performed by nameless primeval man.

Necessity was the mother of all these first great inventions; and the inventors were doubtless as well rewarded as some of those of more modern times. For the inventor has ever been the true soldier of fortune, wresting his invention out of the unknown by brain-ordeal, and then getting small, or great, or no reward from society for what he has done; the amount of his reward usually having no relation whatever to the value of his invention.

To revert to those first inventors (and bearing in mind that long centuries were to pass before the word "first" would be incorporated in a patent statute), by imagining their deeds, when there was no prior art, the student may gain at once a comprehension of what effect must be given the prior art in weighing invention.

What of the factor of individuality in invention? Is the inventor nothing more than an incident in the onward progress of society? Is invention something bound

to be accomplished? Are Morse, Whitney, Edison, merely the inventors of that which was bound to be invented, if not by them, by some unnamed and unknown other?

These are questions of rare fascination to the philosophical mind. Ask yourself boldly the question; without Edison, would present-day science be loser? The riddle of the Sphinx, the mystery of the Man with the Iron Mask, are no more difficult of solution.

Yet we find one of the best thinkers of all time answering the question with that promptness and emphasis which predominate his writings.

“It was long disputed whether the honor of inventing the method of Fluxions belonged to Newton or to Leibnitz. It is now generally allowed that these great men made the same discovery at the same time. Mathematical science, indeed, had then reached such a point that, if neither of them had ever existed, the principle must inevitably have occurred to some person within a few years. So in our own time the doctrine of rent, now universally received by political economists, was propounded, almost at the same moment, by two writers unconnected with each other. Preceding speculators had long been blundering round about it; and it could not possibly have been missed much longer by the most heedless inquirer. We are inclined to think that, with respect to every great addition which has been made to the stock of human knowledge, the case has been similar; that without Copernicus we should have been Copernicans,—that without Columbus, America would have been discovered,—that without Locke we should have possessed a just theory of the origin of human ideas. Society indeed has its great men and its little men, as the earth has its mountains and its valleys. But the inequalities of intellect, like the inequalities of the surface of our globe, bear so small a proportion to the mass,



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that, in calculating its great revolutions, they may safely be neglected. The sun illuminates the hills, while it is still below the horizon; and truth is discovered by the highest minds a little before it becomes manifest to the multitude. This is the extent of their superiority. They are first to catch and reflect a light, which, without their assistance, must, in a short time, be visible to those who are far behind them.”<sup>1</sup>

Whether this philosophical theory be sound or not, it is certainly pernicious. Any philosophy which belittles the importance of the individual, and which holds out to the individual the belief that if he does not contribute to society the best work of which he is capable, it is a matter of indifference, because some one else is certain to do, as well or better, the work that he might have done, is inherently vicious.

In contrast with the fatalistic theory which we have just considered, a typical American thinker has given us the following:

“At the close of the thirteenth century the human intellect awoke from its sleep. The Monk of Pisa who invented spectacles—a most divine invention which gave sight to the blind—may be said, without any exaggeration, to have furnished eyes to the soul as well as the body. Shall we ascribe too much importance to this invention, if we impute to it the effect of drawing men’s thoughts from the crudities of the metaphysical dogmas of the schools, to an investigation of the eternal truth of nature? It led the way to the bright career of discovery and invention. The magnetic needle came into common use, and the mariner, trusting to this mysterious guide, boldly crossed the broadest seas; the ships of the enterprising Venetians, passing beyond the utmost boundary of geographical knowledge, brought home the

1. Macaulay; Essay on John Dryden.

strange story of the discovery of Greenland and its desolate inhabitants. The lucubrations of the alchemists, too, were about to develop a capital result, not, indeed, the making of gold, but a result whose effect was to destroy forever the distinction of physical power; the ~~art~~ was no longer to triumph over the civilized man, ~~nor~~ were the works of art or of science ever again to be endangered by an irruption of ignorant barbarians. The power of man, his mere physical power, was indefinitely exalted, and the force which nature had denied him in making him one of the weakest of creatures was compensated by science more than a thousandfold when she gave him gunpowder. To this period, too, we are to refer another invention of vast benefit,—the mode of consuming pit coal,—an invention which has exercised an immense influence over the condition of nations, and to which the country from whence we all draw our descent mainly owes her position in arts and arms.

“Next came the ‘Great Epoch.’ Gunpowder had given to man a kind of earthly omnipotence; printing was to give his works immortality, to diffuse throughout all the ramifications of society the knowledge that had been hoarded up by a few. No more might the philosopher fear lest his labors, in the conflicting interests of nations or passions of party, should be lost. Civilized man could spread out and perpetuate his intellectual productions. If there be any great landmark in the history of the earth—anything that points out the distinctive character of one age from another, surely it is to be met with in these great discoveries. We are not to suppose that men now possess more ability than at earlier ages. At a remote period, the Chaldeans had discovered the true system of the world and had built up theories which are now being confirmed. They wanted, however, the physical powers to disseminate their knowledge, and to protect themselves from the destruction



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that menaced them from more ignorant nations. Before the invention of printing and gunpowder, the world's history was a perpetual squabble of one prince with another, one nation with its rival. With a few exceptions, its philosophy was a vain show, a thing not applicable to the comforts or purposes of life. Notions of military glory made conquest the end of human ambition and of human happiness; and he who had murdered most, and burned most, and ruined most, and pillaged most, was the greatest man; it was a conquest of man over his fellow, a conquest not less disgraceful to the vanquished than to the victor. Instead of subduing nature, and thereby raising the standard of power and wisdom, all the bad passions that can be engendered in the breast of mortals bore sway, and rapine and murder required no apology, provided the scale on which they were carried was sufficiently large. How greatly damaged was the world at the epoch of which I speak; men began to find out that there were ways to be powerful without the destruction of their rivals, and that to conquer nature with her own weapons was the only mode to be truly great. And now for awhile the results of successful experiment followed each other with rapidity, not only in those giant discoveries which have regenerated the world, but also in the arts of peace,—the arts that adorn civilized life. The construction of maps and charts which was introduced tended in no small degree to hasten the discovery of America. Engraving on copper gave a new impulse to painting, and secured faithful representations of natural objects where words and printing might fail to describe them. Navigation felt the great improvement that astronomy, magnetism, geography, and printing had bestowed. Vasco de Gama doubled the Cape of Good Hope and anchored his ships in the Indian seas; and to Castile and Leon, Columbus gave a new world.

“The posterity of men who had thus signalized and adorned their age did them no disgrace. Magellan, a Portuguese aspiring to the fame of Columbus, sailed through the straits that still bear his name! and Europe saw with astonishment ships which had circumnavigated the world. The telescope was produced—watches were first made—the variation of the compass assigned—and improvement extended even to the minor arts; skewers which had been used by ladies were banished, and the common brass pin substituted in their stead. It is true that whatever improvements take place in the condition of men originate with themselves; and all governments have been found either to oppose, or only to yield slowly to them. For teaching the true system of the world—for the discovery of the secondary planets, the moons of Jupiter—for showing spots on the sun, the holy inquisition laid violent hands on Galileo, an immortal man; and the same government that was forced by the times to establish in England by act of Parliament the ‘Book of Common Prayer,’ caused to be burned by the common hangman the books of astronomy and geography, because they were ‘infected with magic.’ But the persecutions which were endured by philosophers from the malice of princes could neither rein nor stop the progress of knowledge. Decimal arithmetic with all its advantages was promulgated, and soon after a Scotch baron invented logarithms; the thermometer made its appearance in Holland; and that maritime spirit which had doubled the capes of South Africa and South America already sought a northwest passage to India and projected a visit to the North Pole. Harvey discovered the circulation of the blood,—a discovery that has done more for the advancement of medical science than almost all that preceded it. Toricelli invented the barometer, and proved that air possessed weight; Huygens invented the pendulum clock; Otto Guericke con-



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structed the first air pump, and exposed bodies to a vacuum. The current of discovery was now fairly in motion—scientific associations were springing up in every country; and had things still gone on even in their usual channel, the accumulation of knowledge would have been great. But a propitious event occurred—for at the close of 1642 Isaac Newton was born, a man whom God made to comprehend his works.”<sup>1</sup>

It is our own conclusion that the history of invention is composed of the history of individual inventions, and the efforts of individual inventors. In it, each inventor has a place, large or small. The whole is the aggregate of the atoms composing it. Many have lived and died in comparative obscurity whose work was indispensable to those who followed them in the arts in which they labored. Witness, what Dolbear did for wireless, and Langley for the aeroplane.

The complexity of modern life goes parallel with the complexity of our inventions, and the complexity of the system of patent laws and their administration. If a legal text-writer can lend any aid to the orderly administration of the patent laws he is a benefactor to the users as well as the originators of inventions. In this spirit this work was undertaken.

The insistence of our English brethren that our Patent System is directly derived from their own, and theirs in turn from the Statute of Monopolies, is plausible, but scarcely convincing in the light of the differences between our systems, and in the light of the abuses which solely gave rise to the Statute of Monopolies, and which it was solely designed to prevent. That statute has been glorified by judicial construction until it is generally recognized as “one of the constitutional landmarks of British liberty, like the Petition of Right, the Habeas

1. Draper; Lecture on “The Development of Civilization in Europe” (delivered at Hampden-Sidney College, Virginia, 1837).

Corpus Act, and other great constitutional Acts of Parliament.”<sup>1</sup> The *Case of Monopolies*, 11 Coke, 84 b, illuminates it, and there is no under-estimating its value in the upbuilding of the British Constitution. But the suppression of offensive monopolies is a very different thing from laying the foundation of a system for the protection of invention, in the sense in which we use the word “invention.” With this distinction, and in the light of what progress Great Britain has made by the embodiment of our ideas in her system of patent laws and administration, we are prone to insist that the United States has led always since 1790, in the legal recognition of the inventor, and in the delicate adjustment of the respective rights of the inventor and the public.

Great Britain was undoubtedly first in recognizing invention as worthy of monopoly, aeons after the Stone Age. Her colonies in America were destined to rebel and grow into the greatest of all republics, the home of the greatest inventors of all time. It is the unfortunate fact that while the colonists were heirs by birth to the great body of the common-law, there was no common-law of letters patent for inventions. It is unfortunate that any department of the law should be based solely upon statute. The constant jeopardy to which any system of law is exposed when it is so founded is a positive calamity whose seriousness is in direct ratio to the importance of its subject matter.

Our brilliant contemporary of the English bar, Augustine Birrell, in his lectures on Copyright, has not minced his words in dealing with those Parliamentary word-jugglings that have so embarrassed the development of the law of Copyright.

1. *Butchers' Union Slaughter House, etc. Co. v. Crescent City, etc. Co.*, 111 U. S. 746, 762, 28 L. Ed. 585, 588.



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“In England the question (of perpetual copyright) was complicated, and, indeed, butchered, by an Act of Parliament—the first copyright statute anywhere to be found—the 8th of Good Queen Anne. \* \* \* How annoying, how distressing, to have evolution artificially arrested and so interesting a question stifled by an ignorant Legislature, set in motion not by an irate populace clamouring for cheap books (as a generation later they were to clamour for cheap gin), but by the authors and their proprietors, the booksellers.”<sup>1</sup>

Turning to another of Mr. Birrell's writings—his address upon the late Walter Bagehot—we find this epigram which it will richly repay every patent lawyer to think over:

“He had mastered the niceties of Conveyancing in the chambers of Sir Charles Hall, and the mysteries of Special Pleading in those of Mr. Justice Quain; and no sooner had he mastered these niceties and mysteries than they were all abolished by acts of Parliament.”<sup>2</sup>

The ability to fairly and uniformly judge the question of invention is possibly the rarest judicial quality. In the United States there are very many Federal judges: of them, a mere handful ever practiced in patent causes before their elevation to the bench. It seems probable that active work at the bar in patent causes is a detriment, rather than an advantage to the individual as regards his ability to weigh fairly, and uniformly, the question of invention. That faculty seems to be inborn, and not susceptible of cultivation save by actual judicial experience, and that experience seems to be worthless when the individual commences his judicial career with what may be termed color-blindness as to invention. This comparison is deliberately made. Just as color-blindness does not imply that the individual who

1. Birrell, *Copyright in Books*, pp. 19, 22.

2. Birrell, *Essays and Addresses*, p. 138.



is color-blind is defective in either of his other senses, so we have preserved in the reports the evidence as to many a judge that he was capable in weighing evidence on any subject other than that of invention. Passing from the individual to groups of individuals, we find that the shifting of the personnel of our United States Circuit Courts of Appeals produces remarkable variations in their ability to pass fairly and uniformly upon the question of invention. The fear that it is impossible to adopt a method of designation which will produce a fair patent court of last resort is at the root of the opposition to the creation of such a court. Its opponents argue that it is better to "bear those ills we have than fly to others that we know not of." The answer to this argument is given in the text. We advert to this question here only by way of pointing out that, however complete the general rules of patent law may become, and however firmly its principles may be settled, in its administration, either in the Patent Office or in the courts it is not, and never can become, an exact science. As Herbert Spencer has said, "We find that much of what we call science is not exact, and that some of it, as physiology, can never become exact."<sup>1</sup>

The absence of any definition of invention would seem, as a matter of first impression at least, to be an obstacle in the way of the scientific development of the law of patents. Yet to those who have long considered the question, the absence of definition seems inevitable and final. Mr. Fletcher Moulton, when at the zenith of his leadership of the Patent Bar of England, said "it would seem to be necessary to fix upon some definition of invention, but this has never been done, and in my opinion no definition of invention can be found which is of the slightest assistance to anyone in a case of difficulty. \* \* \*

1. Essay, "The Genesis of Science."

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When you approach the dividing line it is so impossible to get a test that it becomes, more or less, a matter of personal opinion.”<sup>2</sup> His conclusion is amply sustained by the illustrations of conflicting decisions in the several Federal circuits which are given in the present text. The practical result of this situation is to make the defense of want of invention omnipresent in patent litigation in this country, and it is the writer's experience that the cases are rare in which counsel for the patent or for the defense can advise his client, in advance of the decision of the court of last resort, with any degree of confidence, what the courts will do with that defense. That this fact is a strong deterrent to the proper development of patent property cannot be denied.

The very uncertainty of patent litigation seems to us good reason for that independent examination by courts of concurrent jurisdiction which is always recognized in theory, even though it is shirked in application. In a recent *per curiam opinion*, the Circuit Court of Appeals of the Second Circuit has said:

“Although the parties are entitled to the independent judgment of this court, nevertheless the orderly administration of justice requires that, where a question has been decided after careful and exhaustive examination by the Court of Appeals of one circuit, another court of co-ordinate jurisdiction should not reach a different conclusion unless persuaded that the first decision is clearly wrong. Especially is this true in patent causes, for otherwise, under our present system, a party may be punished for an act which on the other side of a dividing line is perfectly lawful and proper.”<sup>3</sup> We would rather have it expressed that particularly in patent causes the

2. Presidential Address before the Junior Institution of Civil Engineers (1904).

3. *Calculagraph Co. v. Automatic Time Stamp Co.*, 187 Fed. Rep. 276, ——— C. C. A. ———.



co-ordinate court should make a diligent independent examination, because of the public interest on the one hand (its right to use what is of common right), and the holding of a solemn government grant of monopoly, made after skilled examination of the art, on the other. If the grant be valid, it should be sustained because of the consideration (by disclosure) passing from the inventor to the public. If the grant be void, the people of the circuit should be protected from paying tribute under it. The ordinary rule of comity certainly ought not to be more rigidly applied in patent cases than in any other, for the questions of government grant and public right impose a peculiar duty upon the court which is not ordinarily present in litigation between private parties.

The future of invention is limitless. The future of the patent law will depend for its stability upon the non-interference of legislation. It is to be hoped that any new enactments will be characterized by the conservatism which has marked the progress of the subject of late years. The judicial development of the subject may be relied upon with confidence. Every decade has added invaluable judicial opinions to the literature of the patent law, until today the problem of selection has become one of embarrassment to the text-writer. Some of the most valuable opinions at our service were written by the *nisi prius* court, and occasionally in cases which were reversed upon the merits.

Whatever range of usefulness this work may occupy, it is hoped that it will meet with the approval of the courts and counsel having to do with patent litigation. None know as well as they the difficulties of the subject; none more keenly appreciate the fact that "the language of an opinion is an uncertain guide when divorced from the facts."<sup>1</sup>

1. Quarles, J., in *Jahn v. Champagne Lumber Co.*, 157 Fed. Rep. 414.



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In the English literature of this subject there are frequent references to the dictum of Lord Watson: "There are many things which you cannot say are or are not inventions until you have tried them." The author's experience has been that the same rule might be paraphrased with reference to legal text-books. Whatever the brilliancy of style or clearness of expression, it must respond to the need of the student or it is valueless. High finish and symmetrical lines attract the eye to the edged tool, but the cutting edge must be there. To the test of shop practice these pages are now committed.

JAMES LOVE HOPKINS.

Central National Bank Building,  
St. Louis, Missouri,  
September 1st, 1911.

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## CHAPTER I.

### INTRODUCTORY AND HISTORICAL.

#### § 1. "Letters Patent" defined.

From a practical working standpoint, letters patent for invention may be broadly defined as the indicia of a governmental effort to reward the inventor for the disclosure of his invention by giving him, for a fixed period, the right to exclude others from its practice.

It may be instructive to analyze this definition. The "effort" of the sovereign or legislature may be thwarted by many incidents; for example, an incompetent judiciary; or, such numerous infringements as to render their prosecution by the patentee impossible; or, the fact that the inventor is ahead of his time, and the public, through ignorance, declines to give him tribute.

The reward is for the disclosure—not the making—of the invention. The invention must first be made, but the governmental interest does not attach until it is disclosed.

The only benefit passing to the inventor is the right to exclude. He has, by natural law, the right to practice and the right to assign the privilege of practicing.

Among the judicial definitions of letters patent, the following are notable. Mr. Justice Clifford defines letters patent as "Public franchises granted to the inventors of new and useful improvements for the purpose of securing to them, as such inventors, for the limited term therein mentioned, the exclusive right and liberty to make and use and vend to others to be used their own inventions, as tending to promote the progress of science and the useful arts, and as matter of compensation to the inventors for their labor, toil and expense in making

(1)



the inventions, and reducing the same to practice for the public benefit, as contemplated by the Constitution and sanctioned by the laws of Congress.”<sup>1</sup>

Judge Sanborn’s definition is more concise:

“A patent is a contract by which the government secures to the patentee the exclusive right to vend and use his invention for a few years, in consideration of the fact that he has perfected and described it and has granted its use to the public forever after.”<sup>2</sup>

“A patent” in the language of Judge Colt “is an incorporeal property right in an invention, created by statute.”<sup>3</sup> As Judge Wheeler has put it, “It is merely an incorporeal right to exclude others from using the invention throughout the United States conferred by the Government upon compliance with certain requirements.”<sup>4</sup>

## § 2. Letters Patent for inventions, and the Statute of Monopolies.

This work is not intended to present the history of the patent law, but it will assist in a proper understanding of the modern law to briefly examine its early history.

Letters Patent (*Litterae Patentēs*—open letters), were known to feudalism, and are referred to in Domesday Book, as the medium whereby the King, in writ-form, witnessed his grants of lands.<sup>5</sup> They became the usual method by which, in later centuries, the royal grants of rights or privileges were witnessed. They were named in contradistinction to the close writs (*litterae clausae*) which were sealed with the privy seal and recorded in

1. Seymour v. Osborne, 78 U. S. (11 Wall.) 516, 20 L. Ed. 33, 35.

2. National Hollow Brake Beam Co. v. Interchangeable Brake Beam Co., 106 Fed. Rep. 693, 701, 45 C. C. A. 544.

3. Head v. Porter, 70 Fed. Rep. 498, 504.

4. Jewett v. Atwood Suspender Co., 100 Fed. Rep. 647, 648. See 9 U. S. E. 148.

5. Maitland, Domesday Book, p. 264.

the close rolls. The letters patent were, for many centuries, unrecorded, and were sealed with the great seal, for popular recognition.

It has been said that the first patent for an invention of which we have record was issued by Edward III (1327-1377), in favor of an alleged discovery of the philosopher's stone.<sup>6</sup> The history of letters patent for invention has been considerably confused with that of the letters patent for other forms of privileges, which were issued for the sale of goods and the exercise of trades; it was to these latter forms of monopoly, and not to any grants of letters patent for invention, that the complaints of the people during the reign of Elizabeth (1559-1603) were due. Indeed, from the detailed statement of Hume, we gather that the list of patents for monopolies which finally aroused the wrath of Parliament and led the Queen to "acquaint the House (of Commons) that she would immediately cancel the most grievous and oppressive of these patents,"<sup>7</sup> was confined almost if not entirely, to trade monopolies for dealing in oil, sulphur, salt, iron, and the other common necessities of life.

From the reign of the third Edward (1327-1377) to the time of James I, the histories available to the modern reader abound with references to grants of trade-monopolies: but they are silent as to patents for inventions, with a few exceptions, such as the "sieve, or instrument for melting of lead" for which a patent was granted to its alleged inventor, one Humphrey of the Tower.<sup>8</sup>

In this connection it should be remembered that James, upon his accession to the throne, in 1603, procured the enactment by Parliament of a statute against anyone convicted of "witchcraft, sorcery, or enchantment, or

6. Fulton on Patents (London, 1894), p. 2.

7. Hume, Ch. XLIV.

8. Darcy v. Allin, Noy. Rep. 173.



having commerce with the devil.”<sup>9</sup> This was hardly a fitting accomplishment in the monarch who, according to some writers of repute, is credited with laying the foundation of the modern patent systems of Great Britain and the United States.

Centuries which produced no scientists, and during which the attention of Christendom was, in the language of Draper, “engrossed by image-worship, transubstantiation, the merits of the saints, miracles, shrine-cures,”<sup>10</sup> could not give birth to our modern patent system, or even dimly foreshadow its coming. England had been buried in a cloud of intellectual darkness; illiteracy was universal. The awakening of literature came, no one knows whence or why, during the reign of Elizabeth. The desire for conquest over-sea came with it. The awakening of science in England was to follow—but not at once. The 21st year of the reign of James the First (1624) preceded it, and brought with it the enactment of the Statute of Monopolies. England had as yet no necessity for a Patent Act. Laws are not called into being save by some necessity, real or fancied, which leads to their enactment. So that the Statute of Monopolies was not intended, and its words show, when viewed in the light of contemporaneous history, that it was not intended, to serve as a basis for the systematic grant of letters patent for invention, as we understand the term. The statute, however, prohibited in terms the grant of letters patent by the crown except for “the sole working or making of any manner of new manufactures, within this realm to the first and true inventor or inventors of such manufactures, which others at the time of the making of such letters patent and grants did not use, so

9. Draper, Intellectual Development of Europe, Vol. 2, p. 118.

10. Draper, Conflict of Religion and Science, p. 159.



they be not contrary to the law or mischievous to the state." These words have become the foundation of the English patent system, merely through construction. They did not contemplate either that patent system or one like our own. "A patent for a useful invention is not, under our law, or the law of England, a grant of a monopoly, in the sense of the old common law."<sup>11</sup> It may be remarked, however, that the Statute of Monopolies foreshadowed the nature of the modern British letters patent, in fact, as remarked by Mr. Justice Gray, "In England the grant of a patent for an invention is considered as simply an exercise of the royal prerogative." And the learned jurist, proceeding to contrast therewith the *motif* of our patent system, observes that "in this country letters patent for inventions are not granted in the exercise of prerogative, or as a matter of favor, but under article 1, section 8 of the Constitution."<sup>12</sup>

The early history of Letters Patent in America is yet to be written, and is foreign to our present purpose. But it is curious to note something of its beginning.

Twenty-one years after the landing of the Mayflower the records of the General Court of the Massachusetts Bay Colony disclose the granting to one Samuel Winslow of a patent for a process for the manufacture of salt (1641). There were possibly others earlier, and certainly many others before the first Congress passed the Act of 1790.

Charles Pinckney is accredited with inspiring, in the Constitutional Convention, the patent clause of the Constitution.

Less than one year before he signed the first Patent Act (of April 10, 1790), in his first inaugural address

11. Curtis on Patents, XIX.

12. *Belknap v. Schild*, 161 U. S. 15, 40 L. Ed. 600.

(April 30, 1789), Washington made an appeal for the protection of inventions in these words: "I cannot forbear intimating to you the expediency of giving effectual encouragement, as well to the introduction of new and useful inventions from abroad, as to the exertions of skill and genius in producing them at home."

That the infant States themselves were prompt to recognize inventions is evident from the following provision of the Patent Act of 1793:

"§ 7. And be it further enacted, That where any State, before its adoption of the present form of government, shall have granted an exclusive right to any invention, the party claiming that right shall not be capable of obtaining an exclusive right under this act, but on relinquishing his right under such particular State, and of such relinquishment, his obtaining an exclusive right under this act shall be sufficient evidence."

In 1810 the first patent case was disposed of by the United States Supreme Court,<sup>13</sup> and marked the beginning of the series of opinions which that court continued term by term to contribute to the literature and learning of the patent law, until the establishment of the Circuit Courts of Appeals deprived the Supreme Court of appellate jurisdiction in all patent cases not involving the jurisdiction of the Circuit Court, save such as the Supreme Court itself might see fit to review by granting the writ of certiorari.

### § 3. The constitutional provision.

Among the powers vested in Congress by the Federal Constitution, and enumerated in the eighth section of the first article of that instrument, is that enabling it "to promote the progress of science and the useful arts, by

13. *Tyler v. Tuel*, 6 Cranch, 324, 3 L. Ed. 237.

securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”

The policy of the law, Mr. Chief Justice Fuller has said, “is to encourage useful discoveries by securing their fruits to those who make them.”<sup>14</sup> The constitutional provision above quoted is the expression of this general policy of our modern law, in concrete form. From it has sprung our system of patent law.

Had the inventor no rights in his invention recognizable by the common law? Mr. Chief Justice Taney said: “The inventor of a new and useful improvement certainly has no exclusive right to it, until he obtains a patent:”<sup>15</sup> and in a later opinion he says that the inventor’s rights “are to be regulated and measured by these (the patent) laws, and cannot go beyond them.”<sup>16</sup> Mr. Justice Field said: “Until the patent is issued there is no property right in it (the invention), that is, no such right as the inventor can enforce,”<sup>17</sup> and Mr. Justice Gray has said that “the patentee has no exclusive right of property in his invention, except under and by virtue of the statutes securing it to him.”<sup>18</sup>

And yet these dicta, and those of the writers who have relied upon them, must be taken with the broad qualification that the inventor always had the right, at common law, to practice his invention privately, and retain it as a secret of his trade. Mr. Justice Gray while

14. *Fowle v. Park*, 131 U. S. 88, 33 L. Ed. 67.

15. *Gayler v. Wilder*, 10 Howard 477-493, 13 L. Ed. 504.

“A patent does not confer even the right to use the invention. The inventor had that right before.” *Wheeler, J., in Jewett v. Atwood Suspender Co.*, 100 Fed. Rep. 647, 648.

16. *Brown v. Duchesne*, 19 Howard 183, 15 L. Ed. 595.

17. *Marsh v. Nichols*, 128 U. S. 605, 32 L. Ed. 538.

18. *Dable Grain Shovel Co. v. Flint*, 137 U. S. 41, 34 L. Ed. 618. For other pertinent dicta see *Rein v. Clayton*, 37 Fed. Rep. 354-356.



on the state bench in Massachusetts said "it is settled that a secret art is a legal subject of property."<sup>19</sup>

§ 4. The inchoate right of the inventor before the issuance of Letters Patent.

It has long been recognized that, under the various Patent Acts of the United States, the inventor has an inchoate right in his invention from the time when it is first made.

Mr. Chief Justice Taney recognized this right in 1850, when he said:

"The discoverer of a new and useful improvement is vested by law with an inchoate right to its exclusive use, which he may perfect and make absolute by proceeding in the manner which the law requires."<sup>20</sup>

In the same opinion, he held that this inchoate right may be the subject of a contract of sale; and that doctrine has remained the law ever since.<sup>21</sup>

19. Peabody v. Norfolk, 98 Mass., 452.

Mr. Justice Clifford had the same thought when he said, referring to inventions generally, "They are indeed property, even before they are patented, and continue to be such, even without that protection, until the inventor abandons the same to the public, unless he suffers the patented product to be in public use or on sale, with his consent and allowance, for more than two years before he files his application." Jones v. Sewall, 6 Fisher 343, Fed. Case No. 7495.

So had Mr. Justice Hunt, who said, "So far as the plaintiff's own use or manufacture is concerned, it needs no act of Con-

gress to enable it to make, use and vend the article, and it obtains no such right from Congress. The benefit of the patent law is that the plaintiff may prevent others from making, using, or vending its invention. To itself, to its own right to make use, or vend, no right or authority is added by those statutes." Manufacturing Co. v. Vulcanite Co., 13 Blatchf. 375, 383.

20. Gayler v. Wilder, 10 How. 477-493, 13 L. Ed. 510.

21. Clum v. Brewer, Fed. Case No. 2909, 2 Curt. 506; Newell v. West, Fed. Case No. 10,150; Emmons v. Sladdin, Fed. Case No. 4470; Hendrie v. Sayles, 98 U. S. 552; Rein v. Clayton, 37 Fed. Rep. 354.

It is this inchoate right under which the statute permits the inventor to practice his invention publicly during any period less than two years, provided that he so claims his inchoate right as not to abandon the invention to the public.<sup>22</sup>

And it is this same inchoate right whose life is prolonged during the pendency of the application for letters patent; during that period, the right is of course, still assignable, although the inventor cannot recover for the use of his invention by another, prior to the date of the issuance of letters patent.<sup>23</sup>

§ 5. The nature of Letters Patent as property.

Much has been said in the past about the distinction between the monopoly of the common law, and the monopoly of United States letters patent, issued under the constitutional provision. In his treatment of this question, Mr. Curtis said:

“The patent of the United States, having grown up under a positive grant of authority in the Federal Constitution, is to be considered, in respect to the subjects of the exclusive privilege, with reference to that grant, and to the legislation which has been under it. In England, the corresponding system has rested upon a proviso in the Statute of Monopolies, which excepted from the prohibitions of that act letters patent granted by the crown for ‘the sole working or making of any manner of new *manufactures*, within this realm, to the first and true inventor or inventors of such manufactures, which others at the

22. Sargent v. Seagrave, Fed. Case No. 12,365, 2 Curt. 553.

23. Kirk v. United States, 163 U. S. 49, 41 L. Ed. 66; Marsh v. Nichols, 128 U. S. 605-612, 32 L.

Ed. 538-541; Brown v. Duchesne, 19 How. 183-195, 15 L. Ed. 595-599; Gayler v. Wilder, 10 How. 477-493, 13 L. Ed., 504-511.

time of the making of such letters patent and grants did not use, so they be not contrary to the law, nor mischievous to the state.' ”

“The distinction thus established between those exclusive privileges which the crown may and those which it may not grant proceeds upon the principle, that a monopoly, in the prohibited sense, is a grant which restrains others from the exercise of a right or liberty which they had before the grant was made; whereas the exclusive privilege intended to be secured by letters patent for an invention contemplates something in which other persons than the inventor had not, before his invention, a right to deal, or which they had not a right to use, because it did not exist. Other persons than the first inventor of a thing had the same right to invent it that he had; but as he has been the first to invent it, the patent system—proceeding upon the policy of encouraging the exercise of inventive talent by securing to the inventor an original property, which, without protection, would have rested only upon a principle of natural justice—takes notice of the exclusive right of that first inventor, and makes it effectual by assuming that he who has first exercised the right of invention has bestowed something upon society which ought to procure for him thereafter, at least for a time, the exclusive right to make or use that thing.”<sup>24</sup>

Whatever the nature and reason for the adoption of the word “monopoly” into the nomenclature of our American law of patents, the word has become indispensable through long use, and in a department of the Science of Law in which words are of prime importance, probably

24. Curtis on Patents, §§ 1, 2.



no other word exists which could take its place. It is used in no offensive or condemnatory sense as applied to the right co-existent with, and embodied in, the grant of letters patent. It is indicative of that right to exclude all others for a limited time, with which the constitutional provision and the Federal Statutes enacted under its beneficent inspiration and authority, have rewarded the inventor's contribution to the store of common knowledge of the public.

The acquisition of the patent rights finds its prototype in that reduction to possession which is at the very basis of all the forms of ownership which the law can recognize.

In Mr. Taylor's treatise upon the Science of Jurisprudence we find this excellent consideration of ownership by reduction to possession:

“From the consideration of rights that relate to no tangible external object we must pass to those proprietary rights that represent the extension of the power of an individual over portions of the physical world. When the state is organized the strong hand of law gives to the mere fact of possession that protection which the savage, who has hidden the game he has killed in his cave, can hope for only so long as it is undiscovered, or ‘so long as he watches to defend it, or is stronger than his rivals.’<sup>25</sup> In all law systems the fact of being the first finder, discoverer, or possessor of a thing has invariably enforced in favor of such a person the claim to actual proprietorship. Neither the Roman nor the common law, however, given to the pursuer of wild animals the rights of possession until escape has been made impossible by some means. Until then another

25. Bentham, *Principes du Code Civil*, par Dumont, ch. IX.

may step in and kill or catch and carry off the game if he can.<sup>26</sup> According to Justinian a wild beast so badly wounded that it might easily be taken must be actually taken before it belongs to its captor.<sup>27</sup> And an English court has held that when fish were nearly surrounded by a seine, with an opening of seven fathoms between the ends, at which boats were stationed to frighten them from escaping, they were not reduced to possession as against a stranger who rowed in through the opening and helped himself.<sup>28</sup> On the other hand, Judge Lowell has upheld a custom of the American whalers in the Arctic Ocean which gives the whale to the vessel whose iron first remains in it, provided claim be made before cutting in.<sup>29</sup> In Roman law the possessory Interdicts of the praetor had the greatest possible validity for the purposes of guarding even the most casual and transitory claims of an actual possessor, and, under certain circumstances, of enabling such claims to mature into substantial rights of ownership. The classical jurists recognized two degrees of control over an object, the lower of which is known to modern civilians as *detentio*, the higher as *possessio*, properly so called. 'Possession is the occupation of anything with the intention of exercising the rights of ownership in respect of it.'<sup>30</sup> It has been well said that possession stands in a position intermediate between simple detention and absolute ownership, and that it implies two elements, a physical and a mental one,—physical detention and mental in-

26. Dig. 41, 1, 5, 2 Kent's Comm. 349, citing Pierson v. Post, 3 Caines (N. Y.) 175; Buster v. Newkirk, 20 Johnson (N. Y.) 75.

27. Inst. 2, 1, 13.

28. Young v. Hichens, 6 Q. B. 606.

29. Swift v. Gifford, 2 Lowell 110. Cf. Holmes, The Common Law, p. 218.

30. Hunter, Roman Law, 209.

tention to hold the thing possessed as one's own.  
\* \* \* Leaving out of view such things as are incapable of appropriation, such as air, and in most cases water, and such things as are set apart for the general purposes of the state, ownership may extend to things movable and immovable, *res fungibiles* and *non-fungibiles*, things corporeal and incorporeal, *singulae res* and *universitas rerum*, and things divisible and indivisible, principal and accessory, existing and about to exist. Acquisition, original or derivative, may take place through occupancy, specification, accession, invention, prescription, alienation in life, alienation on death, adjudication, and forfeiture. Apart from dominion or absolute ownership, in which the mode of user, duration of the right, and facilities of alienation are unlimited or indefinite, there are lesser rights of ownership including emphyteusis, and usufructuary estates generally, servitudes or easements, and generally all *jura in re* according to the largest intent of the classical jurists, including the rights of carriers, of depositaries, or pledgees, and of the merest possessors; and estates for life, for years, or upon condition, copyhold estates, and estates in tail in English law. Rights of ownership less than the most unrestricted ones are strictly limited on many sides; and their classification may rest upon the differences in the mode of the user allowed, in the duration of the right, or the faculties for its transmission from hand to hand."<sup>31</sup>

The foundation of any worth-while study of the cases relating to letters patent must be premised upon two elementary and vital rules:

31. Taylor, *The Science of Jurisprudence*, 543, 549.



First: There must be explicit authority in the constitutional provision or the Federal Statutes for the granting of every patent.

Second: That in every litigation upon a patent the rights of the public are of precisely the same importance as those of the nominal litigants.

These rules are not only the basis of the law of patents, but every opinion in the books is determined by the application of one or the other of them.

The inventor is a medium who materializes out of the limitless domain of abstract thought a tangible invention. The inventive act is two-part,—conception, plus reduction to practice. Having conceived, he may never reduce to practice, and so will never acquire a patent right. By actual reduction to practice, plus public use of his invention for two years, he gives his invention to the public. But actual reduction plus application for a patent, or constructive reduction by the filing of the application, will ripen into a patent right. If that patent does not find its support in an actual novel contribution to the knowledge of the public, its effect is to take away from the public, and to give to the individual, that which is of common right, and of which the possession cannot be taken from the public.

That, in its last analysis, is the law of property in patents.

§ 6. The rights of the owner of an unpatented invention.

In considering the nature of letters patent, we have touched upon the subject of those inventions that may be secretly practiced. The subject is rendered difficult by its inherent nature, and its necessarily slow development through adjudication. It is settled that “a secret in

trade is fully recognized as property in equity, the disclosure of which will be restrained by injunction.”<sup>32</sup>

But the foundation of the right rests upon the condition that what is claimed as a secret is really a secret. It need not be new—the fact of its secrecy makes its life, as a secret, indeterminate. Must it be “useful,” as that term is applied to patented inventions? Can it be recognized and protected in equity if it should be acquired by two or more persons or groups of persons who have obtained their knowledge by independent experiments, or whose assignors have independently acquired the knowledge? Must it rise to the dignity of invention, by having the attributes required of patentable inventions? Will the doctrine “*de minimis non curat lex*” apply, if the alleged secret is of trifling value? These are a few of the unanswered questions which are suggested by the reported cases, and we cannot venture upon their discussion. The nature of the subject is such that there probably never will be a definition of “secrets” formulated which will be of general application. The following is an abstract of some phases of the subject that have been adjudicated:

In a case involving “a secret process of manufacture of cloth,” relief by injunction was granted against the plaintiff’s ex-employee, and those associated with him,<sup>33</sup> and similar relief against persons similarly situated was granted where the “secrets” involved were “secret receipts for veterinary medicines,”<sup>34</sup> “a secret mode of dyeing,”<sup>35</sup> “a secret medical recipe.”<sup>36</sup>

32. Smith, J., in *Champlin v. Stoddart*, 30 Hun. 300, 302.

33. *Peabody v. Norfolk*, 98 Mass. 452.

34. *Yovatt v. Winyard*, 1 Jac. & W. 394.

35. *Bryson v. Whitehead*, 1 S. & S. 74.

36. *Morison v. Moat*, 9 Hare, 241; *Weston v. Heurmons*, 2 Vict. L. R. Eq. 121.

It must be borne in mind that in the class of cases referred to, relief has usually been granted upon the theory of breach of trust, arising out of a confidential relationship between employer and employee. The subject-matter of the secret process is seldom discussed, and one case goes so far as to sustain, as against a suit for rescission of a contract for sale of corporate stock, a "secret" process upon which an application for patent was finally rejected upon a long expired patent, the court observing "many an invention and many an idea of value are doubtless to be found in the records of the patent office, but, so far as public actual knowledge thereof is concerned, they might as well be non-existent. \* \* \*

Upon the issue whether the process was in fact a new and secret one, the burden is upon the complainant to establish the fact that it was not, and I do not think the evidence clearly shows such to be the case. It does not appear that any metal treated by this process was in the market, or was in use by any one except the few who procured it from the Hawkeye Metal Company and those connected therewith. The Burt patent issued in December, 1869, expired in 1886, and it would not prevent the use of the process."<sup>37</sup> This was not a suit to secure the protection of an alleged secret process, but the language of the very able jurist who wrote the opinion shows that he regarded patentable novelty as an utterly immaterial consideration in determining whether a trade secret existed or not. His views in this regard do not appear to be logically sound, and we do not quote them as authoritative, but to show the great difficulty surrounding the question of what is really such a trade secret as the courts well recognize. Congress has exempted

37. Shiras, J., in *Benton v. Ward*, 59 Fed. Rep. 411, 413.



from punishment for contempt a witness who refuses "to disclose any secret invention or discovery made or owned by himself." § 4908, R. S. U. S.

The recognition and protection extended by the common law to trade secrets is, indeed, generally understood.<sup>38</sup> Many, if not a majority, of chemical processes in use in the United States to-day are secret and unpatented. Instances may be readily imagined of machines whose construction might be indefinitely preserved as a secret,<sup>39</sup> while their product was being publicly used or sold. The advantage of retaining such machines and processes secret and unpatented is manifest, for the monopoly, so long as the secrecy is preserved, is complete and of unlimited duration. This monopoly, however, may at any time be wholly lost from either of two causes, namely, an independent discovery of the same invention by another, or the discovery from the inventor or his assigns of the secret, provided such discovery is not effected by fraudulent means. In exchange for this hazardous monopoly, which may be of infinite duration, the constitutional provision offers a secure and exclusive right to practice the invention, for a limited term, in consideration of a full disclosure of the invention, to inure to the benefit of the public upon the expiration of the patent. And it offers the same protection to that larger class of inventions that cannot be profitably practiced in secret.

#### § 7. "Discoveries" defined.

The language of the constitutional provision, with reference to the patent law, is clear. The word "discov-

38. Hopkins on Trademarks (2d. Ed.) Sections 90, 91, 92. Secret inventions or discoveries are expressly recognized by sec. 4908, R. S. U. S. See *Dornan v. Keefer*, 49 Fed. Rep. 462.

39. *Dobson v. Graham*, 49 Fed. Rep. 17.

eries'' is the only word contained in it concerning which doubt has arisen. It is sufficient to say that it is used either as a synonym for "inventions," or for "disclosures," in which latter event it refers to the disclosure by the inventor which is the consideration for the issuance of the patent.<sup>40</sup>

40. "Every invention may, in a certain sense, embrace more or less of discovery, for it must always include something that is new; but it by no means follows that every discovery is an invention. It may be the soul of an invention, but it cannot be the subject of the exclusive control of the patentee, or the patent law, until it inhabits a body, no more than can a disembodied spirit be subjected to the control of human laws." Shipman J., in *Morton v. New York Eye Infirmary*, Fed. Case No. 9865, 2 Fisher 320, 5 Blatchf. 116.

"Much of the confusion of ideas upon this subject has arisen from the ambiguity of the words 'discover' and 'discovery' used in the Constitution and the patent law of the United States. In their primary and common meaning they are not synonymous with 'invent' and 'invention.' Webster in the last 8 vo. edition of his dictionary, under the word 'discover,' says 'discover' differs from 'invent.' 'We discover what before existed. We invent what did not before ex-

ist.' And under the article 'invention' he says: 'invention differs from discovery. Invention is applied to the contrivance and production of something that did not before exist. Discovery brings to light that which existed before, but which was not known. A discovery, in this sense, is not the subject of a patent; and it will be found, by a careful perusal of the Constitution and laws of the United States upon the subject of patents for useful arts, etc., that it is not used in this sense, but always as synonymous with invention. Thus (in the constitutional provision it is evident that the 'discoveries' the use of which is to be secured, are the discoveries of inventors only. The applicant must invent, contrive, or produce something that did not exist before. A man may discover (i. e., may disclose) his invention; and for that discovery or disclosure he will be entitled to the exclusive use of his invention for a limited time." Cranch, J., in *Re Kemper*, Fed. Case No. 7687; 1 McArthur 1-4; Cranch, 89.

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§ 8. The constitutional power domestic in character.

Of this provision of the Constitution, Mr. Chief Justice Taney said "the power thus granted is domestic in its character, and necessarily confined within the limits of the United States. It confers no power on Congress to regulate commerce, or the vehicles of commerce, which belong to a foreign nation, and occasionally visit our ports in their commercial pursuits." He accordingly held that an improvement placed on a foreign vessel in a foreign port, and not in violation of the laws of the country to which the vessel belonged, was not an infringement of the rights of a holder of a patent of the United States, nor could the patentee complain of the use of such improvement on the vessel while entering or leaving a port of the United States.<sup>41</sup>

Inasmuch as the constitutional provision gives Congress the power to make all laws necessary and proper for carrying the expressed power into execution, "it follows that Congress may provide such instrumentalities in respect of securing to inventors the exclusive right to their discoveries as in its judgment will be best calculated to effect that object."<sup>42</sup>

§ 9. Congress given power to fix term.

As to the term for which letters patent are to be granted, Mr. Justice Story said, referring to the Constitutional provision, "It contemplates that this exclusive right shall exist but for a limited period, and that the period shall be subject to the discretion of Congress."<sup>43</sup>

41. *Brown v. Duchesne*, 19 Howard, 183, 15 L. Ed. 595.

42. Mr. Chief Justice Fuller in *United States v. Duell*, 172 U. S. 576, 583, 43 L. Ed. 560.

43. *Pennock v. Dialogue*, 2 Peters 1, 16, 7 L. Ed. 327.



**§ 10. Rights granted subject to police regulations of the States.**

Mr. Justice Harlan has said, "it is true that letters patent, pursuing the words of the statute, do, in terms grant to the inventor, his heirs and assigns, the exclusive right to make, use and vend to others his invention or discovery, throughout the United States and the Territories thereof. But, obviously, this right is not granted or secured without reference to the general powers which the several states of the Union unquestionably possess in reference to their purely domestic affairs, whether of internal commerce or of police."<sup>44</sup> The states may prohibit the sale of patented articles, therefore, in the exercise of the police power, and they may exact a license tax for the sale of articles covered by letters patent, provided that the tax so exacted does not discriminate against interstate commerce.<sup>45</sup>

**§ 11. The various Patent Acts.**

The first patent act was passed by Congress April tenth, 1790. Other writers have treated exhaustively of the original and other acts now obsolete. We will not concern ourselves with any but the laws now in force, and will pass directly to a consideration of the tests by which the validity of letters patent for inventions is to be determined.

Disregarding, for the present, reissued patents, which we will deal with specially, it may be stated that a patent may be invalid because of (a) defective execution, or (b) want of proper subject-matter.

Treating these subjects in their natural order, it first becomes necessary to examine the formal parts of which letters patent consist.

44. *Patterson v. Kentucky*, 97 U. S. 501, 24 L. Ed. 1115.

45. *Webber v. Virginia*, 13 Otto 344, 26 L. Ed. 565. See Post, §§ 312, 313.

## CHAPTER II.

## THE GRANT AND ITS ATTENDANT PRESUMPTIONS.

## § 12. The grant.

In all letters patent of the United States the copy of the drawings and specifications is preceded by the grant. Section 4884, R. S. U. S., provides that this grant "shall contain a short title or description<sup>1</sup> of the invention or discovery, correctly indicating its nature and design, and a grant to the patentee, his heirs or assigns, for the term of seventeen years, of the exclusive right to make, use, and vend the invention or discovery throughout the United States, and the territories thereof, referring to the specification for the particulars thereof."

Under section 4883, R. S. U. S., the grant was issued in the name of the United States of America, under the seal of the Patent Office, and was signed by the Secretary

1. Pursuant to this provision, the title must be consistent with the specification. *Hogg v. Emerson*, 6 Howard 437, 12 L. Ed. 505. "The title or description given to the invention in the grant is never expected to be specific, but only to indicate the nature and design of the invention. The specification, as its name indicates, must be searched for the exact description of what the patentee claims." *Sickles v. Gloucester Mfg. Co.*, 1 Fisher 222-229, Fed. Case No. 12,841.

"This description ought not to be repugnant to the specification; but, provided it honestly sets forth, in few words, the 'nature and design' of the patent, it is

sufficient." *Goodyear v. Central R. of New Jersey*, 1 Fisher 626-635, Fed. Case No. 5563.

"Every patent, whatever may be the general heading or title by which the invention is designated, refers to the specification annexed for a more particular description." Dissent of Mr. Justice Nelson in *LeRoy v. Tatham*, 14 Howard 156-179, 14 L. Ed. 367.

The title being merely a brief description "cannot limit the claim of the patentee to narrower bounds than those described in his specification." *Goodyear v. Central R. of New Jersey*, 1 Fisher 626-636, Fed. Case No. 5563.

of the Interior and countersigned by the Commissioner of Patents. It was provided by another act (25 Stat. at Large, ch. 15, p. 40) that the signature of one of the assistant Secretaries of the Interior instead of that of the Secretary, would suffice. On April 11, 1902, section 4883 was amended, so that the signature of the Commissioner of Patents alone is necessary.<sup>2</sup>

§ 13. The nature of the right conveyed by the grant.

By the grant, three distinct substantive rights are conveyed to the patentee, "the right to make, the right to sell, and the right to use the patented article."<sup>3</sup>

The monopoly conveyed by the grant is absolute for the term of the letters patent; that is to say, the patentee is under no obligation to practice, or to permit others to practice, his invention.

It is true that in one case it was said by Judge Blodgett that "under a patent which gives a patentee a monopoly, he is bound either to use the patent himself or allow others to use it on reasonable or equitable terms;"<sup>4</sup> but in several later cases, this dictum has been expressly criticised and controverted,<sup>5</sup> and the contrary doctrine is now established.<sup>6</sup>

2. 32 St. at L., pt. 1, ch. 417, p. 95.

3. Coxe, J., in Tuttle v. Matthews, 28 Fed. Rep. 98.

4. Hoe v. Knap, 27 Fed. Rep. 204-212. To the same effect see Judge Grosscup's dissenting opinion in Fuller v. Berger, 120 Fed. Rep. 274, 281, 56 C. C. A. 588.

5. Consolidated Roller Mill Co. v. Coombs, 39 Fed. Rep. 803-805; Campbell Printing Press Mfg. Co. v. Manhattan R. Co., 49 Fed. Rep. 930-934; Fuller v. Berger, 120 Fed. Rep. 274-277, 56 C. C. A.

588, 65 L. R. A. 381; E. Bement & Sons v. National Harrow Co., 186 U. S. 70, 90, 46 L. Ed. 1058, 1068.

6. Edison Electric Light Co. v. Mt. Morris Electric Light Co., 7 C. C. A. 375, 58 Fed. Rep. 572; Heaton Peninsular Button Fastener Co. v. Eureka Specialty Co., 35 L. R. A. 728, 25 C. C. A. 267, 77 Fed. Rep. 294; Crown Cork & Seal Co. v. Aluminum Stoppper Co., 48 C. C. A. 72, 108 Fed. Rep. 845, 868; Fuller v. Berger, 65 L. R. A. 381, 56 C. C. A. 588, 120 Fed. Rep. 274, 277; Lamson



The monopoly conveyed by the grant "is one entire thing and cannot be divided into parts," except as provided by the patent statutes.<sup>7</sup> In the language of Mr. Justice Gray "the patentee or his assigns may, by instrument in writing, assign, grant and convey, either (1st) the whole patent, comprising the exclusive right to make, use and vend the invention throughout the United States; or (2d) an undivided part or share of that exclusive right; or (3d) the exclusive right under the patent within and throughout a specified part of the United States. U. S. R. S., sec. 4898. A transfer of either of

Consol. Store Service Co. v. Hillman, 59 C. C. A. 510, 123 Fed. Rep. 416, 422; Victor Talking Machine Co. v. The Fair, 61 C. C. A. 58, 123 Fed. Rep. 425; United States Consol. Seeded Raisin Co. v. Griffin & S. Co., 61 C. C. A. 334, 126 Fed. Rep. 364, 368; Rupp & W. Co. v. Elliott, 65 C. C. A. 544, 131 Fed. Rep. 730; Railway Appliance Co. v. Munroe, 77 C. C. A. 383, 147 Fed. Rep. 241; O. H. Jewel Filter Co. v. Jackson, 72 C. C. A. 304, 140 Fed. Rep. 340, 343; United States Fastener Co. v. Bradley, 79 C. C. A. 180, 149 Fed. Rep. 222; Rubber Tire Wheel Co. v. Milwaukee Rubber Works Co., 83 C. C. A. 336, 154 Fed. Rep. 358, 361; Indiana Mfg. Co. v. J. I. Case Threshing Mach. Co., 83 C. C. A. 343, 154 Fed. Rep. 365; Carr v. Rice, 1 Fisher 198, 200 Fed. Cas. No. 2440; Wintermute v. Redington, 1 Fisher 243, Fed. Cas. 17,896; Ransom v. New York, 1 Fisher 255, Fed. Cas. 11, 573; Pitts v. Wempe, 1 Biss. 87, 2 Fisher 15, Fed. Cas. 11,194; Whitney v. Emmett, Bann. v. 304, Fed. Case 17,585; Broadnax v. Central Stock Yard & Transit Co., 6 Bann. & Ard. 609, 4 Fed. Rep. 214, 216;

Re Brosnahan, 4 McCrary 1, 18 Fed. Rep. 62; Consolidated Roller Mill Co. v. Coombs, 39 Fed. Rep. 803; Wirt v. Hicks, 46 Fed. Rep. 71; Campbell Printing-Press & Manufacturing Co. v. Manhattan R. Co., 49 Fed. Rep. 930; Edison Electric Light Co. v. Mt. Morris Electric Light Co., 57 Fed. Rep. 642, 644; Masseth v. Reiber, 59 Fed. Rep. 614; Masseth v. Johnston, 59 Fed. Rep. 613; Bonsack Mach. Co. v. Smith, 70 Fed. Rep. 383; Columbia Wire Co. v. Freeman Wire Co., 71 Fed. Rep. 302, 306; Wyckoff v. Wagner Typewriter Co., 88 Fed. Rep. 515; White v. Peerless Rubber Mfg. Co., 111 Fed. Rep. 190; Broderick Copygraph Co. v. Mayhew, 131 Fed. Rep. 92; National Automatic Weighing Mach. Co. v. Daab, 136 Fed. Rep. 891, 895; Hoe v. Miehle Printing Press & Mfg. Co., 141 Fed. Rep. 115; Hartman v. John D. Park & Sons Co., 145 Fed. Rep. 358; Continental Paper Bag Co. v. Eastern Paper Bag Co., 210 U. S. 404, 426, 52 L. Ed. 1122.

7. Waterman v. Mackenzie, 138 U. S. 252, 34 L. Ed. 923.

these three kinds of interests is an assignment, properly speaking, and vests in the assignee a title in so much of the patent itself, with a right to sue infringers; in the second case, jointly with the assignor; in the first and third cases, in the name of the assignee alone. Any assignment or transfer, short of one of these, is a mere license, giving the licensee no title in the patent, and no right to sue at law in his own name for an infringement.”<sup>8</sup>

§ 14. Effect of the word “heirs” in the grant.

Under section 4884, R. S. U. S., the grant runs to the patentee, his heirs or assigns. This language has been construed to read in the alternative, as a grant to the patentee, or his heirs, or assigns; so that a patent whose terms follow the wording of the act in this respect, issued to an applicant who dies before it issues, is not void.<sup>9</sup>

§ 15. Misnomer of grantee.

“A grant is not necessarily void by reason of an error in the Christian name of the grantee, and where it contains any other matter descriptive of the person for whom it was intended, extrinsic proof of so much matter is admissible to identify the grantee, and, if he is thus identified, effect will be given to the grant accordingly.”<sup>10</sup>

8. Ibid.

9. *De La Vergne Refrigerating Machine Co. v. Featherstone*, 147 U. S. 209-230, 37 L. Ed. 138.

10. McKennan, J., in *Northwestern Fire Extinguisher Co. v. Philadelphia Fire Extinguisher Co.*, 1 Ban. & Ard. 177-181, Fed. Case 10,337, reviewing the authorities.

### § 16. Co-partners as grantees.

A grant to individuals described as being of a certain partnership, vests the title jointly in the individuals and not in the firm.<sup>11</sup>

### § 17. By whom signed.

The courts "take judicial notice of the persons who from time to time preside over the Patent Office, whether permanently or transiently, and the production of their commission is not necessary to support their official acts."<sup>12</sup> Consequently, it is no objection to the validity of a patent that it is signed by "an acting Commissioner of Patents," and that the record contains no averment or proof of his title to the office.<sup>13</sup> The act formerly imperatively prescribed the signatures of both the Secretary of the Interior and the Commissioner of Patents, or that of some other acting official of each department named. "The omission of one signature is not more permissible than the omission of all."<sup>14</sup> The omission of either signature, however, as the result of accident or inadvertence, might be subsequently remedied, but by the action of existing officers of the department furnishing the missing signature, and not by former officers, who had gone out of office.<sup>15</sup> When the missing signature is supplied, the date of such signing should be indicated, as from that time only can the instrument operate as a patent for the invention claimed.<sup>16</sup>

11. *Levy v. Dattlebaum*, 63 Fed. Rep. 992.

12. Mr. Justice Campbell in *York and Maryland R. Co. v. Winans*, 17 Howard 30-41, 15 L. Ed. 350.

13. *Ibid*; and *Dorsey Rake Co. v. Marsh*, 7 Fed. Cas. 942.

14. Mr. Justice Field in *Marsh v. Nichols*, 128 U. S. 605-612, 32 L. Ed. 538.

15. *Ibid*, at pp. 614-615.

16. *Marsh v. Nichols*, 128 U. S. 605-612, 32 L. Ed. 538.



§ 18. Presumptions arising from the grant.

There are certain presumptions attendant upon the grant of letters patent. The first is the broad presumption that the patent is valid.<sup>17</sup> The second, that the device described and claimed is patentable generally.<sup>18</sup> This latter presumption includes the co-ordinate presumption that the patentee was the original and first inventor of what is described and claimed;<sup>19</sup> this presumption is strengthened when the application has been in interference, and the examiner of interferences, board of examiners, and commissioner have concurred on the question of priority;<sup>20</sup> that its disclosure is full and clear;<sup>21</sup> that its subject-matter is operative,<sup>22</sup> that it is not void for double patenting,<sup>23</sup> and possesses utility,<sup>24</sup> and embodies invention.<sup>25</sup> The date of the issuance of the patent is presumptively the date of invention.<sup>26</sup>

There are also analogous presumptions arising from the contents of the grant. Thus, the grant of a patent

17. *Wilkins Shoe-Button Fastener Co. v. Webb*, 89 Fed. Rep. 982, 996, *Hunt Bros. Packing Co. v. Cassidy*, 3 C. C. A. 525, 53 Fed. Rep. 257; "It is a solemn grant issued by competent authority under the sanction of law. It is a muniment of title. He who would overcome it must do so by clear and convincing evidence." *Baker, J., in Holloway v. Dow*, 54 Fed. Rep. 511-514.

18. *Mesker v. Thuener*, 42 Fed. Rep. 329; *Lehnbeuter v. Holthaus*, 105 U. S. 94, 26 L. Ed. 939; *Thomas Roberts Stevenson Co. v. McFassell*, 90 Fed. Rep. 707; *Fay v. Mason*, 120 Fed. Rep. 506, 512.

19. *Carnegie Steel Co. v. Cambria Iron Co.*, 89 Fed. Rep. 721-727; *Patterson v. Duff*, 20 Fed.

Rep. 641; *Ross v. Montana Union Ry. Co.*, 45 Fed. Rep. 424.

20. *Stonemetz Mach. Co. v. Brown Mach. Co.*, 57 Fed. Rep. 601-604.

21. *Fay v. Mason*, 120 Fed. Rep. 506, 512.

22. *Dashiel v. Grosvenor*, 162 U. S. 425, 40 L. Ed. 1025, 75 O. G. 507.

23. *Ryan v. Newark Mattress Co.*, 96 Fed. Rep. 100, 103.

24. *Patent Button Co. v. Scovill Mfg. Co.*, 92 Fed. Rep. 151-154.

25. *Hoffman v. Young*, 2 Fed. Rep. 74; *Marsh v. Seymour*, 97 U. S. 348, 24 L. Ed. 963, 13 O. G. 723, \*12 *Brodix* 53.

26. *Fay v. Mason*, 120 Fed. Rep. 506, 511.

to an assignee of the inventor is presumptive evidence that the assignment has been regularly made and recorded,<sup>27</sup> and a grant to joint patentees creates the presumption that the invention was joint.<sup>28</sup>

Where the grant has been antedated the presumption is that it was so done properly,<sup>29</sup> and the grant of a reissue raises the presumption that it was proper to grant it,<sup>30</sup> and that the prerequisites to the granting of a reissue have been complied with,<sup>31</sup> though, of course, that presumption is not conclusive.

As to the weight to be attached to the presumptions of novelty, utility and patentable invention which arise from the grant, "the presumption which this rule affords is sometimes slight, and sometimes renders but little assistance."<sup>33</sup>

The grant of a reissued patent creates the presumption that the original patent was inoperative or imperfect on account of a defective or insufficient specification.<sup>34</sup> The presumptions relating to the validity of the patent are based upon the presumed expertness of the examination in the Patent Office. In the language of Judge Wallace, "the trained experts of the Patent Office have decided that what was done by the patentee arose to the dignity of an invention."<sup>35</sup> Judge Putnam has said that "in

27. *Whitcomb v. Spring Valley Coal Co.*, 47 Fed. Rep. 652.

28. *Priestley v. Montague*, 47 Fed. Rep. 650; *Page Woven Wire Fence Co. v. Land*, 49 Fed. Rep. 936.

29. *Tilghman v. Proctor*, 102 U. S. 707, 22 L. Ed. 279, 19 O. G. 859, 13 Brodix 29.

30. *Klein v. Russell*, 19 Wall. 433, 22 L. Ed. 116; *Fay v. Mason*, 120 Fed. Rep. 506, 510.

31. *Philadelphia & Trenton R. Co. v. Stimpson*, 14 Pet. 448, 10 L. Ed. 536, 4 Brodix 398.

32. *Peoria Target Co. v. Cleveland Target Co.*, 47 Fed. Rep. 728.

33. *Putnam, J.*, in *Burnham & Duggan Ry. Appliance Co. v. Naumkeag St. Ry. Co.*, 57 Fed. Rep. 651-653.

34. *Fay v. Mason*, 120 Fed. Rep. 506, 510.

35. *Beer v. Walbridge*, 100 Fed. Rep. 465, 466, 40 C. C. A. 496.



many cases the presumption which it (the grant) affords is very slight and purely technical,"<sup>36</sup> and again that "the presumption which this rule affords is sometimes slight and sometimes renders but little assistance;"<sup>37</sup> and Judge Jenkins has said: "The presumption referred to is sometimes defined to mean that the patent itself is prima facie evidence of novelty and of invention, but that presumption is probably a mere rule of evidence, which casts the burden of proof upon the alleged infringer. This presumption cannot usurp the province of the court to declare what constitutes novelty. The court should give due consideration to the action of the Patent Office, but should not permit that action to control its deliberate judgment when it is manifest that there is no invention."<sup>38</sup>

Where the history of the application for the patent shows that the Patent Office did not refer to and consider the references which are urged against the validity of the patent in litigation, the court must determine the weight and effect to be given such references, as a matter of first impression, and the failure of the Patent Office to cite such references may wipe out the ordinary presumption of validity attendant upon the grant. Thus, Judge Gray has said: "We do not agree with the contention, that the fact that the file wrapper discloses the patent to have been granted as first applied for, without any references, adds any force to the presumption of novelty arising from the grant. On the contrary, we think the force of that presumption is much diminished, if not destroyed, by the lack of any reference by the

36. Chase v. Fillebrown, 58 Fed. Rep. 374, 376.

37. Burnham & Duggan Ry. Appliance Co. v. Naumkeag St. Ry. Co., 57 Fed. Rep. 651, 653.

38. J. J. Warren Co. v. Rosenblatt, 80 Fed. Rep. 540, 543, 25 C. C. A. 625; citing Hollister v. Benedict Mfg. Co., 113 U. S. 59, 71, 28 L. Ed. 901, 905.



Examiner to, or consideration of, the 'Clark' patents. It does not seem likely that an expert examiner would pass them by, without notice or consideration, if they had been called to his attention." 39

§ 19. Does the grant create a presumption that the thing patented does not infringe prior patents?

This question has given rise to a controversy that is one of the most notable incidents in the growth of our patent law. In 1853 Mr. Justice Grier said:

"By the Patent Act of 1793, any person desirous of obtaining a patent for an alleged invention, made application to the Secretary of State, and received his patent on payment of the fees, and on a certificate of the Attorney General that his application 'was conformable to the Act.' No examination was made by persons qualified to judge whether the alleged invention was new or useful, or had been patented before. That rested wholly on the oath of the applicant. The Patent Act of 1790 had made a patent prima facie evidence; but this Act was repealed by that of 1793, and this provision was not re-enacted in it. Hence a patent was not received in courts of justice as even prima facie evidence that the invention patented was new or useful, and the plaintiff was bound to prove these facts in order to make out his case. But the Act of 4th of July, 1836, introduced a new system, and an entire change in the mode of granting patents. It provided for a new officer, styled the Commissioner of Patents, to 'superintend, execute and perform all acts and things touching and respecting the granting and issuing of patents, etc.' The commissioner was authorized

39. American Soda Fountain Co. v. Sample, 130 Fed. Rep. 145, 149, 64 C. C. A. 497.

to appoint a chief clerk, and three examining clerks, a machinist and other officers.”

“On the filing of an application the commissioner is required to make, or cause to be made, an examination of the alleged invention, in order to ascertain whether the same had been invented or discovered by any other person in this country, prior to the application; or whether it had been patented in this or any foreign country, or had been on public use or sale, with the applicant’s consent, prior to his application; and if the commissioner shall find that the invention is new and useful or important, he is authorized to grant a patent for the same. In case the decision of the commissioner and his examiner is against the applicant, and he shall persist in his claim, he may have an appeal to a board of examiners, to consist of three persons, appointed for that purpose by the Secretary of State, who, after a hearing, may reverse the decision of the commissioner in whole or in part. By the Act of 1839, the Chief Justice of the District of Columbia was substituted in place of the board of examiners.”

“It is evident that a patent, thus issued after an inquiry 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. Consequently such a patent may be, and generally is, received as *prima facie* evidence of the truth of the facts asserted in it. And in cases where the evidence is nicely balanced, it may have weight with a jury in making up their decision as to the plaintiff’s right; and if so, it is not easy to perceive why the defendant who uses a patented machine should not have the benefit of a like presumption in his favor, arising from a like investiga-



tion of the originality of his invention, and the judgment of the public officers, that his machine is new, *and not an infringement of the patent previously granted to the plaintiff*. It shows, at least, that the defendant has acted in good faith, and is not a wanton infringer of the plaintiff's rights, and ought not, therefore, to be subjected to the same stringent and harsh rule of damages which might be justly inflicted on a mere pirate. It is true the mere question of originality or infringement generally turns on the testimony of the witnesses produced on the trial; but if the plaintiff's patent in a doubtful case may have some weight in turning the scale in his favor, it is but just that the defendant should have the same benefit from his; *valeat quantum valeat*. The parties should contend on an equal field, and be allowed to use the same weapons."<sup>40</sup>

In the later case of *Blanchard v. Putnam*, however, the Supreme Court held that it is no answer to the charge of infringement to plead or prove that the defendant is the licensee of the owner of another patent, and that his machine is constructed in accordance with that patent.<sup>41</sup> Thus the doctrine of *Corning v. Burden* was overruled in so far as it relates to the presumption of non-infringement, as has been held on circuit by Judge (now Mr. Justice) McKenna.<sup>42</sup>

But it has since been held by the Circuit Court of Appeals for the Ninth Circuit that *Blanchard v. Putnam* has in turn been overruled by *Miller v. Mfg. Co.* (151 U. S. 208) and *Boyd v. Tool Co.* (158 U. S. 260).<sup>43</sup> That the accuracy of this conclusion is not beyond cavil is sug-

40. *Corning v. Burden*, 15 Howard, 252, 14 L. Ed. 683.

41. *Blanchard v. Putnam*, 75 U. S. (8 Wall.) 420-426, 19 L. Ed. 433.

42. *Norton v. Eagle Automatic Can Co.*, 59 Fed. Rep. 137-139.

43. *Ransome v. Hyatt*, 69 Fed. Rep. 148, 16 C. C. A. 185.



gested by examining the language of the later cases referred to. In the Miller case the court says "the issuance of the patents to Gardiner & Downey, Berlew & Kissell, and Elder creates a *prima facie* presumption of patentable difference from that of the Wright patent of 1879."<sup>44</sup> To this point Corning v. Burden is cited. This is the whole conclusion of the opinion as to the presumption arising from the defendant's patent, and fails to bear out the contention of the Circuit Court of Appeals that it reverses the Blanchard case, because in this respect Blanchard v. Putnam is consistent with Corning v. Burden.

Turning to the Boyd case, we find that the defendant attempted to justify under a patent granted upon an application that was pending in the Patent Office at the same time with that of the patent in suit. In the opinion written by Mr. Justice Shiras, we find the following language:

"As both applications were pending in the Patent Office at the same time, and as the respective letters were granted, it is obvious that it must have been the judgment of the officials that there was no occasion for an interference and that there were features which distinguished one invention from the other. In American Nicholson Pavement Co. v. Elizabeth, 4 Fisher's Pat. Cas. 189, Mr. Justice Strong said: 'The grant of the letters patent was virtually a decision of the Patent Office that there is a substantial difference between the inventions. It raises the presumption that, according to the claims of the latter patentees, this invention is not an infringement of the earlier patent.' It would also seem to be evident that, as the purpose of the invention was the same, and as the principal parts of the respective ma-

44. Miller v. Eagle Mfg. Co.,  
151 U. S. 204-208, 38 L. Ed. 121.

chines described were substantially similar, it was also the judgment of the office that the distinguishing features were to be found in some of the smaller and, perhaps, less important devices described and claimed.”<sup>45</sup>

There are two points decided here. First, that the grant raises a presumption of the existence of features distinguishing one patented device from another; second, that where the principal parts of the patented devices are the same, there is a presumption that the distinguishing features reside in the minor details, which is a self-evident proposition. The dictum of Mr. Justice Strong is quoted from without comment either of assent or dissent, it is wholly irrelevant to the context, and the writer is satisfied that its presence in the opinion is through clerical error, or want of proper revision.

The Pavement Company case quoted from was appealed to the Supreme Court and we there find that the doctrine laid down by the Circuit Court was not referred to. The question of infringement is discussed and disposed of without reference to any presumption created by the grant of letters patent.<sup>46</sup>

It is upon this slender foundation that the Ninth Circuit Court of Appeals has held that *Blanchard v. Putnam* has been overruled. It is impossible for us to follow the Court of Appeals in this conclusion.

The *Miller* and *Boyd* cases both relate to the presumption of patentable difference rather than to that of non-infringement.

45. *Boyd v. Janesville Hay Tool Co.*, 158 U. S. 260-263, 39 L. Ed. 973.

46. *Elizabeth v. American Nicholson Pavement Co.*, 97 U. S. 126, 24 L. Ed. 1000.



Inasmuch as a patent may improve upon and yet infringe a prior patent,<sup>47</sup> it is the writer's conclusion that while it is always competent to show that the defendant is operating under a junior patent for the purpose of showing a patentable difference between his device and that of the patent in suit; the fact that he is operating under such a patent does not create even a *prima facie* defense to the charge of infringement. And this conclusion is not in conflict with the rule that the issuance of the defendant's patent creates a presumption of patentable difference between the patent and all those which precede it;<sup>48</sup> indeed, it is in perfect harmony with that rule, for as long as the Patent Office is bound to issue patents for patentable improvements even though they infringe it is *reductio ad absurdum* to say that the grant raises a presumption of non-infringement.

§ 20. The terms for which Letters Patent are granted.

Section 4884, R. S. U. S., provides that the grant of "every" patent shall be for a term of seventeen years. This does not embrace design patents, which § 4931, R. S. U. S., provides "may be granted for the term of three years and six months, or for seven years, or for fourteen years, as the applicant may, in his application elect."

Notwithstanding the language of the grants issued under § 4884 for the term of seventeen years, § 4887, R. S. U. S., formerly contained the provision that "every patent granted for an invention which has been previously patented in a foreign country shall be so limited

47. Woodward v. Boston Lasting Mach. Co., 60 Fed. Rep. 283, 285; Rodenhausen v. Keystone Wagon Co., 51 Fed. Rep. 220, 223; McCormick v. Talcott, 61 U. S. (20 How.) 405, 15 L. Ed. 930;

Clough v. Gilbert Mfg. Co., 106 U. S. 166, 178, 27 L. Ed. 138.

48. St. Louis Car Coupler Co. v. National Malleable Castings Co., 87 Fed. Rep. 885-897, 31 C. C. A. 265.



as to expire at the same time with the foreign patent, or, if there be more than one, at the same time with the one having the shortest term, and in no case shall it be in force more than seventeen years'' (Act of July 8, 1870, ch. 230, 16 Stat. at L., 201).

This provision was eliminated from § 4887 by the Act of March 3, 1897, ch. 391, § 3, 29 Stat. at L. 693; and the section has since been amended by Act of March 3, 1903, ch. 1019, § 1, 32 Stat. at L. 1226, without the restoration of the provision above set forth.

The length of time which has elapsed since this term-limiting law became obsolete, has almost rendered consideration of this peculiar subject unnecessary and superfluous in a work of this character. While the provision was in effect it led to many hard fought litigations, whose records now are useless, though entertaining to the reader. It will be seen that the first question to be raised under the provision was that of the identity or non-identity of subject-matter existing between the domestic and foreign patents, and it was held that a construction of non-identity should be favored, where the court was convinced that the inventor did not intend patenting the same invention abroad, in order that the domestic patent might live.<sup>49</sup>

It is obvious, however, that the determination of the question of identity was a matter of some difficulty. The test usually, though not necessarily, applied was that of submitting the disclosure of the foreign patent to the rules governing infringement cases; if the disclosure fell within the claims of the domestic patent, the latter would be brought within the statute.<sup>50</sup> The addition to the

49. *Brush Electric Co. v. Electrical Accumulator Co.*, 47 Fed. Rep. 48.

50. *Siemens v. Sellers*, 123 U. S. 276, 31 L. Ed. 153; *Commercial Mfg. Co. v. Fairbank Canning Co.*, 135 U. S. 176, 34 L. Ed. 88.

domestic application of improvements not present in the foreign patent, the widening or narrowing of the domestic claims, could not protect the latter from the operation of the statute, and the claims of the domestic patent were treated as an entirety; it was impracticable to declare a patent expired as to certain claims but living as to others.<sup>51</sup>

Conversely, the narrowing of the scope of the American patent, or its restriction to a single claim, did not absolve it from limitation in duration by a foreign patent for the same invention,<sup>52</sup> nor did the fact that there existed between the two slight differences in minor details<sup>53</sup> or even in principle.<sup>54</sup> The rule was stated in one case that, to prevent the operation of the statute, the devices of the foreign and the domestic patent should be so different that both might be patented in this country;<sup>55</sup> but it is believed that the statement, while illuminative of the argument as to similarity in the case at bar to which it was applied, was not of general application. The question of similarity between domestic and foreign patents was naturally complicated by the different languages employed in other than English-speaking countries, and Judge Coxe very properly held that mere changes of phraseology made by the translators and Patent Office officials, "did not and could not operate to change the invention."<sup>56</sup> It was his deduction from the Supreme Court cases that the question of identity under § 4887 was to be tested by these questions:

51. *Clark v. Wilson*, 28 Fed. Rep. 95; *Holmes Electric Protective Co. v. Metropolitan Burglar Alarm Co.*, 33 Fed. Rep. 254.

52. *Accumulator Co. v. Julien Electric Co.*, 57 Fed. Rep. 605.

53. *J. L. Mott Iron Works v. Henry McShane Mfg. Co.*, 80 Fed.

Rep. 516; *Siemens v. Sellers*, 123 U. S. 276, 31 L. Ed. 153.

54. *Clark v. Wilson*, 28 Fed. Rep. 95.

55. *Accumulator Co. v. Julien Electric Co.*, 57 Fed. Rep. 605, 614.

56. *Accumulator Co. v. Julien Electric Co.*, 57 Fed. Rep. 605, 616.



“Is the principal invention of the domestic patent found in the foreign patent? Is the subject-matter of the one the same in all essential particulars as that of the other? In other words, will a structure made pursuant to the foreign patent infringe the domestic patent? Could both the patents have been granted in this country?”<sup>57</sup>

It was held that the Commissioner of Patents should limit the term of the domestic patent, upon the face of the grant and in accordance with the facts, where a prior foreign patent for the same subject-matter had been issued;<sup>58</sup> but his failure so to do did not affect the validity of the United States patent.<sup>59</sup>

Where the foreign patent relied upon to curtail the life of a domestic patent was adjudged void *ab initio*, its grant did not in anywise affect that of the United States patent, but it was treated as if it had never existed.<sup>60</sup>

The filing date of the application for United States letters patent was never a material matter in determining the application of this provision; it was a matter of indifference whether the foreign grant was before or after the filing date at home, provided it preceded the issuance of the domestic patent.<sup>61</sup> Similarly, the effect of the foreign patent was governed by the actual date of

57. Ibid; citing *Siemens v. Sellers*, 123 U. S. 276, 31 L. Ed. 153; *Commercial Mfg. Co. v. Fairbank Canning Co.*, 135 U. S. 176, 34 L. Ed. 88.

58. *Bate Refrigerating Co. v. Gillett*, 13 Fed. Rep. 553.

59. *Canan v. Pound Mfg. Co.*, 23 Fed. Rep. 185; *Bate Refrigerating Co. v. Hammond*, 129 U. S. 151, 32 L. Ed. 645.

60. *Bate Refrigerating Co. v. Gillett*, 20 Fed. Rep. 192.

61. *Edison Electric Light Co. v. U. S. Electric Lighting Co.*, 35 Fed. Rep. 134; *Seibert Cylinder Oil Co. v. William Powell Co.*, 35 Fed. Rep. 591; *American Bell Telephone Co. v. Cushman*, 57 Fed. Rep. 842; *Bate Refrigerating Co. v. Sulzberger*, 157 U. S. 1, 39 L. Ed. 601.



its issuance,<sup>62</sup> and that date governed its status under this section, even though the foreign patent was antedated.<sup>63</sup>

Further difficulty attended this subject by reason of the questions arising under foreign patent laws as to the length of the term of the foreign patent. The life of the domestic patent, it was held, depended upon the actual duration of the foreign patent, and would be contracted or expanded by the conditions which operated under the foreign law to curtail or extend the life of the foreign patent;<sup>64</sup> so that an extension of the foreign patent as a matter of right inherent in the patent, would prolong the life of the domestic patent to the date of expiration of the extended term.<sup>65</sup> But this result did not attach to an extension of the foreign patent not through a right inherent in the patent when issued; an extension of the foreign patent as a matter of royal favor or special legislative enactment did not operate to extend the life of the domestic patent beyond the end of the term for which the foreign patent was originally granted.<sup>66</sup> Where the foreign patent was extensible as a matter of right, but for different extension periods, the domestic patent expired at the end of that

62. *Emerson v. Lippert*, 31 Fed. Rep. 911; *Seibert Cylinder Oil Co. v. William Powell Co.*, 35 Fed. Rep. 591; *Edison Electric Light Co. v. Waring Electric Co.*, 59 Fed. Rep. 358; *Smith v. Goodyear Dental Vulcanite Co.*, 93 U. S. 486, 23 L. Ed. 952.

63. *Gold & Stock Telegraph Co. v. Commercial Telegram Co.*, 23 Fed. Rep. 340.

64. *Huber v. N. O. Nelson Mfg. Co.*, 38 Fed. Rep. 830; *Bate Refrigerating Co. v. Hammond*, 129 U. S. 151, 32 L. Ed. 645.

65. *Edison Electric Light Co. v. Perkins Electric Lamp Co.*, 42 Fed. Rep. 327; *Consolidated Roller Mill Co. v. Walker*, 42 Fed. Rep. 575; *Edison Electric Light Co. v. U. S. Electric Lighting Co.*, 52 Fed. Rep. 300, 3 C. C. A. 83; *Bate Refrigerating Co. v. Hammond*, 129 U. S. 151, 32 L. Ed. 645.

66. *Henry v. Providence Tool Co.*, 3 Bann. & Ard. 501, Fed. Case 6384.

extension period when the foreign patent terminated in fact.<sup>67</sup>

This section did not contemplate that the term of a domestic patent should be abbreviated by a foreign patent issued on the application of another who did not act in the interest or with the acquiescence or consent of the domestic applicant.<sup>68</sup>

*Extensions.* The subject of extensions of letters patent is now merely of historical interest, so far as actual practice is concerned. Congress now has the power, as it had even before the Act of July, 1832, 4 Stat. at L. 577, to prolong the life of letters patent beyond the terms for which they are granted, by private acts upon individual applications.<sup>69</sup>

Since 1861 no extensions except as to patents granted before that time have been within the jurisdiction of the Patent Office (see §§ 4924 to 4928, R. S. U. S., both inclusive) and Congress has not exercised its power by private acts. The various statutes relating to extensions, from the years 1832 to 1861 are collected in the Appendix of this book, and the older text-writers have dealt with the subject exhaustively.<sup>70</sup>

67. *Bonsack Mach. Co. v. Beach*, 180 U. S. 384, 45 L. Ed. 586.  
Smith, 70 Fed. Rep. 383.

68. *Wilcox & Gibbs Sewing Mach. Co. v. Industrial Mfg. Co.*, 110 Fed. Rep. 210; *Hobbs v.*

69. *Wilson v. Rousseau*, 4 How. 646, 687, 11 L. Ed. 1141.

70. See 9 U. S. E. 245.

## CHAPTER III.

## PATENTABLE SUBJECT-MATTER, AND APPLICATIONS FOR PATENTS.

## § 21. The drawings.

It is provided by § 4889, R. S. U. S., that "when the nature of the case admits of drawings,<sup>1</sup> the applicant shall furnish one copy, signed by the inventor or his attorney in fact, and attested by two witnesses, which shall be filed in the Patent Office and a copy of the drawings, to be furnished by the Patent Office, shall be attached to the patent as a part of the specification."<sup>2</sup> From time to time the Patent Office has prescribed rules relating to the drawing, which must be given due regard by the solicitor.

## § 22. Drawings supplementary to the specification.

The purpose of the drawing is to enable one skilled in the art to which the patent relates, who has also the description and claims before him, to practice the invention. The drawing, therefore, is sufficient, if, with the assistance of the specification, it effects this result;<sup>3</sup>

1. *Ex parte Chase*, 16 O. G. 809. In a patent for a machine a drawing is necessary. *Burrall v. Jewett*, 2 Paige (N. Y.) 134; also in a patent for an article of manufacture. *Ex parte Chase*, 16 O. G. 809.

2. *Hoe v. Cottrell*, 1 Fed. Rep. 597; *Wilcox & Gibbs S. M. Co. v. Industrial Mfg. Co.*, 161 Fed. Rep. 743, 746.

3. *Emerson Co. v. Nimocks*, 40 C. C. A. 87, 99 Fed. Rep. 737, 738; *Pullman Palace Car Co. v. Wagner Palace Car Co.*, 38 Fed. Rep. 416, 424; *Ives v. Hamilton*, 92 U. S. 426, 432, 23 L. Ed. 494, 10 O. G. 336, 10 Brodix 405; *Singer v. Braunsdorf*, 7 Blatchf. 521, Fed. Case 12,897.



and an error in either part of the patent may thus be corrected by the aid of the other.<sup>4</sup> The specification governs, while the drawing merely illustrates.<sup>5</sup> It is not essential to the validity of the patent, however, that the drawing be mentioned or referred to in the description or the claims.<sup>6</sup> "The drawings are usually looked at only for the purpose of better understanding the meaning of the claim, and certainly not for the purpose of changing it and making it different from what it is."<sup>7</sup> Omissions or inconsistencies in the drawing may be overcome by an adequate description.<sup>8</sup> When the description is defective, the drawings alone may have to be looked to in order to ascertain the form, proportion and position of the parts of a patented machine;<sup>9</sup> though a claim, otherwise void in view of the prior state of the art, cannot be sustained by reference to the particular angle at which the drawing shows one part of the mechanism to be held by another part,<sup>10</sup> and a broad description and claim will not be restricted to the device of the drawing.<sup>11</sup> A part shown in the drawings but not described or claimed is not covered by the patent.<sup>12</sup> The draw-

4. *Hogg v. Emerson*, 11 How. 587-606, 13 L. Ed. 824, 5 Brodix 279; *Consolidated Brake Shoe Co. v. Detroit Steel & Spring Co.*, 59 Fed. Rep. 902; *Banker v. Bostwick*, 18 O. G. 61.

5. *Hamilton v. Ives*, 6 Fisher 244, Fed. Case 5, 982.

6. *Emerson v. Hogg*, 2 Blatchf. 1, Fed. Case 4, 440.

7. Mr. Chief Justice Fuller in *Howe Machine Co. v. National Needle Co.*, 134 U. S. 388, 33 L. Ed. 963, 51 O. G. 475, 20 Brodix 199; followed in *Wheaton v. Norton*, 70 Fed. Rep. 833-842.

8. *Western Telephone Mfg. Co. v. American Electric Telephone Co.*, 65 C. C. A. 313, 131 Fed. Rep. 75.

9. *Schneider v. Lovell*, 10 Fed. Rep. 666-668; *Banker v. Bostwick*, 3 Fed. Rep. 517.

10. *Caverly v. Deere*, 13 C. C. A. 452, 66 Fed. Rep. 305.

11. *Consolidated Bunging App. Co. v. Metropolitan Brewing Co.*, 60 Fed. Rep. 93-95.

12. *Couse v. Johnson*, 16 O. G. 719.

ings may be amended to conform to the description,<sup>13</sup> and will be referred to in construing an ambiguous claim.<sup>14</sup>

§ 23. Defective drawing as ground for reissue.

Where a defect exists in the drawing which would render it impossible to construct an operative machine according to the drawing, the fact justifies the issuance of a reissue.<sup>15</sup> But a part of a device referred to in the specification as an incidental detail of the mechanism, with no suggestion that it formed a part of the combination which was new, and not included in the drawings of the original, cannot be made a feature of a reissue by embracing it in the new drawings and specifying it as an essential feature of the invention, where adverse equities have arisen.<sup>16</sup>

§ 24. Working drawings unnecessary.

It is not necessary that the drawings be detailed working drawings.<sup>17</sup> Indeed, a drawing is not to be regarded as a working plan, unless it is so stated in the specification.<sup>18</sup>

§ 25. Drawings may show alternative constructions.

While it is very doubtful whether the showing of alternative constructions has ever benefited a patent, such

13. Consolidated Brake Shoe Co. v. Detroit Steel & Spring Co., 59 Fed. Rep. 902.

14. Koerner v. Deuther, 143 Fed. Rep. 544, 545.

15. Beach v. American Box Mach. Co., 63 Fed. Rep. 597-603.

16. Carpenter Straw Sewing Machine Co. v. Searle, 60 Fed. Rep. 83.

17. American Hide & Leather Splitting and Dressing Mach. Co. v. American Tool Mach. Co., 4 Fisher, 284, Fed. Case 302; Royer v. Coupe, 29 Fed. Rep. 358.

18. Elgin Co-operative Butter-Tub Co. v. Creamery Package M. Co., 80 Fed. Rep. 294, 25 C. C. A. 426; Caverly's Admr. v. Deere & Co., 13 C. C. A. 452, 66 Fed. Rep. 305.

showing is permissible and where the alternative forms are within the same claims, the difference in their disclosures is immaterial.<sup>19</sup>

§ 26. Proceedings to obtain the grant of Letters Patent.

It is not contemplated to include in this book a comprehensive treatment of Patent Office practice. But the intimate connection existing between the Patent Office proceedings and the issued patent require a general summary of the subject in this place.

§ 27. The Patent Office—how constituted.

The Patent Office of the United States is a part of the Department of the Interior;<sup>20</sup> its administration being entrusted to a commissioner, assistant commissioners and three Examiners-in-chief appointed by the President, the remainder of the staff being appointed by the Secretary of the Interior upon the nomination of the Commissioner of Patents.<sup>21</sup> The Secretary of the Interior must approve all orders of disbarment made by the Commissioner of Patents (under § 487, R. S. U. S.), and the regulations which, from time to time, the Commissioner may establish for the conduct of proceedings in the Patent Office (under § 483, R. S. U. S.). But though he is charged in § 441, R. S. U. S., “with supervising all public business relating to \* \* \* patents for inventions,” the Secretary of the Interior has no authority to reverse the action of the Commissioner of Patents in granting or withholding a patent.<sup>22</sup>

19. Schreiber v. Grimm, 19 C. C. A. 67, 72 Fed. Rep. 671.

20. Sec. 475, R. S. U. S.

21. Sec. 476, R. S. U. S.

22. Butterworth v. United States, 112 U. S. 50, 28 L. Ed. 656.



§ 28. The Patent Office bar.

Attorneys at law, and persons not attorneys at law who furnish evidence of their competence in assisting applicants before the Patent Office, may be registered for the purpose of practicing in the Patent Office. Subject to the accused having opportunity to be heard, and subject to the approval of the Secretary of the Interior, practitioners may be disbarred for unprofessional conduct by the Commissioner, and his order is not appealable.<sup>23</sup>

§ 29. Statutory prerequisites to filing application.

The statutes<sup>24</sup> particularly enumerate the matter to be embodied in the description, claims and oath, and provide that the applicant may be required to furnish a model, or, in the case of compositions of matter, specimens, of his invention.

The authority to grant a patent depends on an application made and pending for that purpose.<sup>25</sup>

§ 30. The classes of patentable subject-matter.

There are five classes of inventions enumerated in the patent statutes—under the titles of art, machine, manufacture, composition of matter and designs. Whether designs were ever properly classed as inventions is a mooted question. The first four are the fundamental groups of which Commissioner Butterworth said, “It is evident that the words ‘art,’ ‘machine,’ ‘manufacture,’ and ‘composition of matter,’ were carefully chosen to cover what were regarded as four great and distinct classes of inventions. It is undoubtedly the in-

23. *Wedderburn v. Bliss*, 83 Off. Gaz. 296, 12 App. D. C. 485.

24. §§ 4888-4892, inclusive, R. S. U. S.

25. *Railway Register Mfg. Co. v. Broadway & Seventh Ave. Ry. Co.*, 26 Fed. Rep. 522, 525.

tention of the law to distinguish as separate inventions 'a new art,' 'a new machine,' 'a new manufacture,' 'a new composition of matter,' 'an improved art,' 'an improved machine,' 'an improved manufacture,' 'an improved composition of matter,'—eight in all. These may be called the 'statutory classes of inventions,' between which the lines of division are sharply drawn."<sup>26</sup>

The subject-matter of each of these four divisions requires distinct consideration. The solicitor must determine in which division the invention belongs before he can draft his specification, and the lawyer must prepare his offensive or defensive case from the same starting point.

### § 31. Process.

The word "Art" as used in the patent statutes is the synonym of "process."

"A process, *eo nomine*, is not made the subject of a patent in our act of Congress. It is included under the general term 'useful art.' An art may require one or more processes or machines in order to produce a certain result or manufacture. The term machine includes every mechanical device or combination of mechanical powers and devices to perform some function and produce a certain effect or result. But where the result or effect is produced by chemical action, by the operation or application of some element or power of nature, or of one substance to another, such modes, methods, or operations, are called processes. A new process is usually the result of discovery; a machine, of invention. The art of tanning, dyeing, making water-

26. In *Ex parte Blythe*, 30 Off Gaz. 1321, 1322.

proof cloth, vulcanizing India rubber, smelting ores, and numerous others, are usually carried on by processes, as distinguished from machines. One may discover a new and useful improvement in the process of tanning, dyeing, etc., irrespective of any particular form of machinery or mechanical device. And another may invent a labor-saving machine by which this operation or process may be performed, and each may be entitled to his patent. \* \* \* It is when the term process is used to represent the means or method of producing a result that it is patentable, and it will include all methods or means which are not effected by mechanism or mechanical combinations.<sup>27</sup>

Of the four primary divisions into which patentable inventions fall (disregarding designs), all must originate as mental concepts, or abstract thought; as the Supreme Court has pointed out, the process alone remains invisible to the eye, a conception of the mind, known only by its results, while the machine, the manufacture and the composition of matter develop into tangible and visible substance.<sup>28</sup>

Processes fall naturally into two groups; those in which chemical action alone is employed, and those in which the operation of the process is effected by mechanical means. Of the first class there was never any question that they were the proper subjects of patents. As to the second class, it has always been held that if the process consisted of the mere function or principle of a particular mechanism, it was not patentable; but whether, if the method could be practiced by several me-

27. Grier, J., in *Corning v. Burden*, 15 How. 252, 267, 14 L. Ed. 683. To the same effect, see *New*

*Process Fermentation Co. v. Maus*, 20 Fed. Rep. 725.

28. *Cochrane v. Dcener*, 94 U. S. 780, 24 L. Ed. 139.



chanical instrumentalities, so that it existed, as an invention, independently from any particular machinery used in its performance, it was patentable, grave doubt was long entertained by the courts.<sup>29</sup>

This doubt has been settled (finally, it is to be hoped) by an opinion so comprehensive as to be worthy of extended quotation:

“It is lastly contended, and this is perhaps the most important question in the case, that in view of the former declaration and opinions of this court, what is termed a process patent relates only to such as are produced by chemical action, or by the operation or application of some similar elemental action, and that such processes do not include methods or means which are effected by mere mechanical combinations, and a part of the language used in *Corning v. Burden*, 15 How. 252, 14 L. Ed. 683, and *Risdon Iron & Locomotive Works v. Medart*, 158 U. S. 68, 39 L. Ed. 899, is seized upon in support of this contention. We have no disposition to question the decision in those cases.

“An examination of the extent of the right to process patents requires consideration of the object and purposes of the Congress in exercising the constitutional power to protect, for a limited period, meritorious inventions or discoveries. Section 4886, R. S. S. U., provides: ‘Any person who has invented or discovered any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement thereof \* \* \* may \* \* \* obtain a patent therefor.’

29. *Appleton Mfg. Co. v. Star Mfg. Co.*, 60 Fed. Rep. 411, 9 C. C. A. 42; *Wells Glass Co. v. Henderson*, 67 Fed. Rep. 930, 15 C. C. A. 84.

“This is the statute which secures to inventors the right of protection; and it is not the province of the courts to so limit the statute as to deprive meritorious inventors of its benefits. The word ‘process’ is not used in the statute. The inventor of a new and useful art is distinctly entitled to the benefit of the statute as well as he who invents a machine, manufacture, or composition of matter. The word ‘process’ has been brought into the decisions because it is supposedly an equivalent form of expression, or included in the statutory designation of a new and useful art.

“What, then, is the statutory right to a patent for a ‘process’ when the term is properly considered? Curtis, in his work on the Law of Patents, says: ‘A process may be altogether new, whether the machinery by which it is carried on be new or old. A new process may be invented or discovered, which may require the use of a newly-invented machine. In such a case, if both the process and the machine were invented by the same person, he could take separate patents for them. A new process may be carried on by the use of an old machine in a mode in which it was never used before. \* \* \* In such a case, the patentability of the process in no degree depends upon the characteristic principle of the machine, although machinery is essential to the process, and although a particular machine may be required.’ Curtis, Patents, 4th Ed., § 14, note.

“In Robinson on Patents, vol. 1, § 167, it is said: ‘While an art cannot be practiced except by means of physical agents, through which the force is brought in contact with or is directed toward its object, the existence of the art is not dependent on any of the special instruments employed. It is a

legal, practical invention in itself. Its essence remains unchanged, whatever variation takes place in its instruments, as long as the acts of which it is composed are properly performed.'

“And Walker on Patents, 4th Ed., § 3, states that valid process patents may be granted for ‘operations which consist entirely of mechanical transactions, but which may be performed by hand or by any of several different mechanisms or machines.’

“It is undoubtedly true, and all the cases agree, that the mere function or effect of the operation of a machine cannot be the subject-matter of a lawful patent. But it does not follow that a method of doing a thing, so clearly indicated that those skilled in the art can avail themselves of mechanism to carry it into operation, is not the subject-matter of a valid patent. The contrary has been declared in decisions of this court. A leading case is *Cochrane v. Deener*, 94 U. S. 780, 24 L. Ed. 139, in which this court sustained a process patent involving mechanical operations, and in which the subject was discussed by Mr. Justice Bradley, speaking for the court. On page 787 that learned justice said: ‘That a process may be patentable, irrespective of the particular form of the instrumentalities used, cannot be disputed. \* \* \* Either may be pointed out; but, if the patent is not confined to that particular tool or machine, the use of the others would be an infringement, the general process being the same. A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed and reduced to a different state of thing. If new and useful, it is just as patentable as is a piece of machinery. In the language of the



patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be new or patentable, whilst the process itself may be altogether new, and produce an entirely new result. The process requires that certain things should be done with certain substances and in a certain order; but the tools to be used in doing this may be of secondary consequence.'

“This clear and succinct statement of the rule was recognized and applied (Mr. Justice Bradley again speaking for the court) in the case of *Tilghman v. Proctor*, 102 U. S. 707, 26 L. Ed. 279. In the course of the opinion the learned justice tersely says: ‘A machine is a thing. A process is an act, a mode of acting. The one is visible to the eye,—an object of perpetual observation. The other is a conception of the mind,—seen only by its effects when being executed or performed. Either may be the means of producing a useful result.’

“That this court did not intend to limit process patents to those showing chemical action or similar elemental changes is shown by subsequent cases in this court.

In *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537, 42 L. Ed. 1136, the opinion was written by the same eminent justice who wrote the opinion in *Risdon Iron & Locomotive Works v. Medart*, 158 U. S. supra, and, delivering the opinion of the court, he said:

‘These cases (158 U. S. 68, and *Wicke v. Ostrum*, 103 U. S. 461, 26 L. Ed. 409) assume, although they do not expressly decide, that a process, to be patentable, must involve a chemical or other similar elemental action; and it may be still regarded as an open question whether the patentability of pro-

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cesses extends beyond this class of inventions.' And added these significant words:

'Where the process is simply the function or operative effect of a machine, the above cases are conclusive against its patentability; but where it is one which, though ordinarily and most successfully performed by machinery, may also be performed by simple manipulation, such, for instance, as the folding of paper in a peculiar way for the manufacture of paper bags, or a new method of weaving a hammock, there are cases to the effect that such a process is patentable, though none of the powers of nature be invoked to aid in producing the result. *Eastern Paper Bag Co. v. Standard Paper Bag Co.*, 30 Fed. Rep. 63; *Union Paper Bag Mach. Co. v. Waterbury*, 39 Fed. Rep. 389; *Travers v. American Cordage Co.*, 64 Fed. Rep. 771. This case, however, does not call for an expression of our opinion upon this point, nor even upon the question whether the function of admitting air directly from the train pipe to the brake cylinder be patentable or not, since there is no claim made for an independent process in this patent, and the whole theory of the specification and claims is based upon the novelty of the mechanism.'

"And the same learned justice wrote the opinion of the court in *Carnegie Steel Co. v. Cambria Iron Co.*, 185 U. S. 403, 46 L. Ed. 968, and sustained a process patent. If, by any construction, that process could be said to involve a 'chemical or other similar elemental action,' no stress was laid upon that fact. This court, speaking through Mr. Chief Justice Waite, sustained a patent in the *Telephone Cases*, 126 U. S. 1, 31 L. Ed. 863, for a method of transmitting electrical undulations similar in form

to the vibrations of the air accompanying vocal sounds, and at the same time the patent for the apparatus by which the method was operated was sustained.

“In *Leeds & C. Co. v. Victor Talking Mach. Co.*, decided at this term, 213 U. S. 301, 318, 53 L. Ed. 495, 500, this court said: ‘A process and an apparatus by which it is performed are distinct things. They may be found in one patent; they may be made the subject of different patents.’

“We therefore reach the conclusion that an invention or discovery of a process or method involving mechanical operations, and producing a new and useful result, may be within the protection of the Federal statute, and entitle the inventor to a patent for his discovery.

“We are of opinion that Golding’s method was a substantial improvement of this character, independently of particular mechanisms for performing it, and the patent in suit is valid as exhibiting a process of a new and useful kind.”<sup>30</sup>

### § 32. Machine.

The second division of subject-matter enumerated in § 4886, R. S. U. S., is “machines.” There has been some discussion by text writers as to whether the word “machine” includes tools.<sup>31</sup> While this question is largely academic, it is a legitimate inquiry, suggested by two apparently conflicting dicta of the Supreme Court. In *Corning v. Burden*, 15 How. 252, 14 L. Ed. 683, it was said “The term ‘machine’ includes every mechanical device or combination of mechanical powers and devices

30. Mr. Justice Day, in *Expanded Metal Co. v. Bradford*, 214 U. S. 366, 381, 53 L. Ed. 1034, 1039.

31. Macomber, *Fixed Law of Patents*, § 768; Robinson on Patents, § 175.



to produce some function and to produce a certain effect or result;”<sup>32</sup> while in *Burr v. Duryee*, 68 U. S. 531, 17 L. Ed. 750, it is said, “A machine is a concrete thing, consisting of parts, or of certain devices. The principle of a machine is properly defined to be ‘its mode of operation’ or the peculiar combination of devices which distinguishes it from other machines.” This doctrine of *Burr v. Duryee* has been repeated and amplified in so many of the later cases that the student can readily understand that the text writer would prefer to exclude tools from classification as machines if he could do so legitimately. Indeed Professor Robinson has taken his stand upon the score of expediency, rather than authority, when he says, “In spite of some doubts on the part of judges and law writers as to the existence of such a distinction as is here indicated between machines and other instruments, it is nevertheless certain that the harmony of the law and the proper application of the decisions of the courts to their subject-matter require it to be drawn. The whole doctrine of ‘*modus operandi*,’ as the distinguishing element of a machine, is involved in it and inexplicable without it; and it has been sufficiently recognized to place it among the established features of our patent system.”<sup>33</sup>

So able a patent judge as Judge Lowell apparently classified tools as machines. He said, “The argument that a machine must be automatic in order to be patentable is not sound. A piano is not automatic, nor is any tool or implement intended for use by hand, but improvements in any such tool used in an art or industry are patentable.”<sup>34</sup>

32. Followed in *Chicago Sugar Refining Co. v. Pope Glucose Co.*, 84 Fed. Rep. 981.

33. Robinson on Patents, § 175, note 1.

34. *Coupe v. Weatherhead*, 16 Fed. Rep. 673, 675. To the same effect see *Oliver v. White*, 18 So. Car. 241.

To exclude tools from classification as machines is to simplify the application of the rule that the function or result or principle of a machine is not patentable.<sup>35</sup> With this explanation, the definition of *Corning v. Burden* is sufficient for the purposes of our present inquiry.

Inventions relating to Machines have been judicially classified as follows:<sup>36</sup> First, inventions embracing the entire (new) machine. Second, those embracing one or more of the elements of the machine, but not the entire machine. Third, those embracing a new element and a new combination of old elements. Fourth, those where all the elements of the machine are old and the invention resides merely in a new combination of those elements.

### § 33. Manufacture.

This is the title given by § 4886, R. S. U. S., to the third division of patentable subjects. It has been defined by Judge Acheson thus: "The term 'manufacture,' as used in the patent law, has a very comprehensive sense, embracing whatever is made by the art or industry of man, not being a machine, a composition of matter, or a design."<sup>37</sup>

In *Merrill v. Yeomans*, 94 U. S. 568, 24 L. Ed. 635, the Supreme Court in construing a patent which recited "In carrying on my new manufacture of deodorizing heavy oils with this apparatus," said that the word "manufacture" was here used in the sense of the word "process," a word which could be substituted for it, without a shade of change in the meaning. The Supreme Court certainly did not intend to rule that "manufacture" and "process" are synonymous. Probably the

35. See *Expanded Metal Co. v. Bradford*, 214 U. S. 366, 53 L. Ed. 1034.

36. This classification is that of Clifford, J., in *Union Sugar*

*Refinery v. Mathiesson*, Fed. Case 14,399, 3 Clifford 639.

37. *Johnson v. Johnston*, 60 Fed. Rep. 618, 620.



best definition that can be gathered from the cases is that the word "manufacture" includes every mechanical or chemical product which is new and useful and embodies the exercise of invention, which is neither a "machine" or "a composition of matter." For the purposes of this definition, tools may be classified indifferently as "machines" or "manufactures."

It is obvious that, to be patentable, a manufacture must be dependent upon its own novel and useful and patentable characteristics, independent of the agency by which it is made, and of the ingredients of which it is composed. A new manufacture may be produced by an old machine and from old ingredients. The novelty of the machine has no bearing upon the patentability of the manufacture, and if it depends for novelty upon its ingredients, it will be patentable, usually, as a composition of matter.

"Articles of manufacture may be new in the commercial sense when they are not new in the sense of the patent law. New articles of commerce are not patentable as new manufactures, unless it appears in the given case, that the production of the new article involved the exercise of invention or discovery beyond what was necessary to construct the apparatus for its manufacture or production."<sup>38</sup>

"Nothing short of invention or discovery will support a patent for a manufacture any more than for an art, machine or composition of matter, for which proposition there is abundant authority in the decisions of this court."<sup>39</sup>

"It is quite obvious that a manufacture, or a product of a process, may be no novelty, while, at the same

38. *Glue Co. v. Upton*, 6 Off. Gaz. 840.

39. Mr. Justice Clifford, in *Union Paper Collar Co. v. Van Deusen*, 90 U. S. 530-566, 23 L. Ed. 128, 133.



time, the process or agency by which it is produced may be both new and useful—a great improvement on any previously known process, and therefore patentable as such. And it is equally clear, in cases of chemical inventions, that when, as in the present case, the manufacture claimed as novel is not a new composition of matter, but an extract, obtained by the decomposition or disintegration of material substances, it cannot be of importance from what it has been extracted. There are many things, well known and valuable in medicine, or in the arts, which may be extracted from divers substances. But the extract is the same, no matter from what it has been taken. A process to obtain it from a subject from which it has never been taken may be the creature of invention, but the thing itself, when obtained, cannot be called a new manufacture. It may have been in existence and in common use before the new means of obtaining it was invented, and possibly before it was known that it could be extracted from the subject to which the new process is applied. Thus, if one should discover a mode, or contrive a process, by which prussic acid could be obtained from a subject in which it is not now known to exist, he might have a patent for his process.”<sup>40</sup>

#### § 34. Composition of matter.

By “Composition of Matter” is meant a mixture or chemical combination of materials.<sup>41</sup> “The product must have some distinctly new property, or be applicable to some new use.”<sup>42</sup>

40. Strong, J., in *The Wood-Paper Patent*, 23 Wall. 566, 23 L. Ed. 31.

41. Bouvier Dict., title “Composition of Matter.”

42. Morris, J., in *Van Camp v. Maryland Pavement Co.*, 34 Fed. Rep. 740-743, 43 Off. Gaz. 884.

A specification of a new composition of matter giving only the names of the substances which are to be mixed together, without stating the relative proportions, or stating the proportions ambiguously or vaguely, is void.<sup>43</sup>

“A discovery of a new substance by means of chemical combinations of known materials is empirical, and discovered by experiment. Where patent is claimed for such a discovery, it should state the component parts of the new manufacture claimed with clearness and precision, and not leave the person attempting to use the discovery to find it out ‘by experiment.’ ”<sup>44</sup>

§ 35. Composition of matter; construction and infringement.

This is the fourth subdivision of patentable subject-matter described in § 4886, R. S. U. S. The term “composition of matter” is the equivalent in meaning of “compound,” and has thus been defined judicially, “A patentable compound or composition of matter is one that is produced by the intermixture of two or more specific ingredients, and possesses properties pertaining to none of those ingredients separately, thereby accomplishing a new and useful result.”<sup>45</sup>

It is clear that a substance patentable as a composition of matter, might also be patentable as a manufacture. In such a case if the patent claimed only the article of manufacture, although it described the ingredients of a new composition of matter, the failure to claim the composition would result in its dedication to the public.<sup>46</sup>

43. Wood v. Underhill, 46 U. S., 5 How. 1, 12 L. Ed. 23.

44. Mr. Justice Grier in Tyler v. Boston, 74 U. S., 7 Wallace 327 19 L. Ed. 93.

45. Lane v. Levi, 21 App. D. C. 168, 104 Off. Gaz. 1898.

46. Underwood v. Gerber, 149 U. S. 224, 37 L. Ed. 710.

Speaking further of patents for compositions of matter, Mr. Justice Shepard has said, "The patentee who seeks protection for such a composition must describe with clearness and precision the component parts thereof, the process of their intermixture, and the result."<sup>47</sup>

"The identity of a composition depends, in general, upon the identity of its ingredients and of their co-operative law, as well as upon the identity of the properties and effect of the composition as a whole."<sup>48</sup>

"The addition, however, of substances that do not, by their interaction, change the properties, effect, or usefulness of the composition, does not destroy its identity. The composition is the same if its properties substantially remain."<sup>49</sup>

"Nor is a patent for a compound any less infringed through the substitution of one of its ingredients by another substance well known in the arts at the date of the patent, as endowed with the same capacity, and which, therefore, does not change its properties and effect."<sup>50</sup>

"On the other hand, it is an undoubted principle of the patent law that the omission of one of a combination of old parts distinctly claimed in the patent is not an infringement."<sup>51</sup>

Almost every rule affecting the validity of patents for compositions of matter can be applied in the same terms to patents for new articles of manufacture. The

47. Citing *Tyler v. Boston*, 74 U. S., 7 Wallace 327, 330, 19 L. Ed. 93; 1 *Robinson Patents*, § 192; 2 *Idem*, §§ 500 and 532.

48. Citing, 1 *Robinson Patents*, § 300.

49. Citing, 1 *Robinson Patents*, § 195; *Klein v. Russell*, 19 Wall. 433, 22 L. Ed. 116.

50. Citing 1 *Robinson Patents*, § 247; *Fuller v. Yentzer*, 94 U. S. 288, 297, 24 L. Ed. 103; *Rowell v. Lindsay*, 113 U. S. 97, 102, 28 L. Ed. 906; *Fay v. Cordesman*, 109 U. S. 408, 420, 27 L. Ed. 979; *Hubbell v. U. S.*, 179 U. S. 77, 82, 45 L. Ed. 95.

51. *Lane v. Levi*, 21 App. D. C. 168, 104 Off. Gaz. 1898.



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following illustrative paragraph is from the pen of Judge Coxe, whose opinions in patent cases are notable: "If one discovers a new and useful product he is entitled to the full benefit thereof no matter how it may be produced. *Merrill v. Yeomans*, 94 U. S. 568, 24 L. Ed. 235. A patent for a product must produce, by the process it describes, that article and no other. If the article be old it cannot be the subject of a patent even though made artificially for the first time. 'Every patent for a product or composition of matter must identify it so that it can be recognized aside from the description of the process for making it, or else nothing can be held to infringe the patent which is not made by that process.' *Cochrane v. Badische Anilin & Soda Fabrik*, 111 U. S. 293, 310, 28 L. Ed. 433. A product is not patentable upon the ground that an already known article is made more perfectly by the new process or machine than it was before. If this rule were otherwise the product of each successive machine would be patentable. Improvements in degree of quality are not the subject of a patent. *Wooster v. Calhoun*, 11 Blatchf. 215, Fed. Case 18,035. 'A new process is usually the result of discovery, a machine of invention.' *Corning v. Burden*, 15 How. 252, 14 L. Ed. 503. 'A distinction must be observed between a new article of commerce and a new article which, as such, is patentable. Any change in form from a previous condition may render the article new in commerce. \* \* \* When certain properties are known to belong generally to classes of articles, there can be no invention in putting a new species of the class in a condition for the development of its properties similar to that in which other species of the same class have been placed for similar development.' *Milligan & Higgins Glue Co. v. Upton*, 97 U. S.

3, 24 L. Ed. 985. The claims in question cover a new article of manufacture—a product as distinguished from a process.”<sup>52</sup>

§ 36. Non-patentability of business systems.

In considering the question indicated in the above title, the student finds that the Patent Office has persistently granted patents for the class of alleged inventions which, for want of a better terminology, may be called “business systems.”

The Maybaum Patent Number 465,485, for “means for securing against excessive losses by bad debts,” contained claims of which the following is typical:

“(1) The means for securing merchants and others from excessive losses by bad debts, which consist of a sheet provided with separate spaces and suitable headings, substantially as described, for the name of the assurer, the name of the assured, the percentage or amount beyond which assurance is given, the class or classes of persons, as to rating, capital, or otherwise, in respect to whom said losses are guaranteed against, and the percentage of said capital or the amount which said losses must not exceed.”

Judge Blodgett sustained a demurrer to a bill charging infringement of this patent, saying “I do not intend to decide that a man may not have a patent for a mode of keeping accounts, or for a form of tabulating amounts or statistics; but am clearly of opinion that his patent cannot be construed to cover a business principle such as a law of averages, which seems to have been the purpose of the specifications in his patent.”<sup>53</sup> Judge

52. *Badische Anilin & Soda Fabrik v. Kalle*, 94 Fed. Rep. 163, 171.

53. *United States Credit System Co. v. American Indemnity Co.*, 51 Fed. Rep. 721, 754.



Wheeler in another case reached the same conclusion, saying "this (patent) is for a method of transacting common business, which does not seem to be patentable as an art."<sup>54</sup> In affirming Judge Wheeler, Judge Lacombe said, "The holder of this patent has not, by it, secured any monopoly of the 'transactions' to be recorded; and such transactions having their origin and completion independent of this patent, there is not patentable novelty in the use of sheets for the purpose of recording them."<sup>55</sup>

A similar patent for "means for securing railroads and shippers against loss of freight," met with the same adjudication, the opinion of the Appellate Court saying "All this evidences good judgment upon the part of one who is experienced in the particular business, but it does not rise to the level of invention."<sup>56</sup>

Another patent of the same general class was for a "method of and means for cash-registering and account-checking." The Appellate Court said "It is manifest that the subject-matter of the claims is not a machine, manufacture or composition of matter. If within the language of the statute at all, it must be as a 'new and useful art.' \* \* \* In the sense of the patent law, an art is not a mere abstraction. A system of transacting business disconnected from the means for carrying out the system is not, within the most liberal interpretation of the term, an art. Advice is not patentable."<sup>57</sup>

The case last referred to appears to place patents relating to systems of doing business, employing only

54. United States Credit System Co. v. American Credit Indemnity Co., 53 Fed. Rep. 818, 819.

55. United States Credit System Co. v. American Credit Indemnity Co., 59 Fed. Rep. 139, 143, 8 C. C. A. 49.

56. Wallace, J., in Hocke v. N. Y. Central & H. R. R. Co., 122 Fed. Rep. 467, 469, 58 C. C. A. 627.

57. Coxe, J., in Hotel Security Checking Co. v. Lorraine Co., 160 Fed. Rep. 467, 469, 87 C. C. A. 451.



ruled sheets or strips of paper, and having no mechanical elements, among the things that are not patentable, upon the proper ground. They are not within the classes of patentable subject-matter specified in § 4836, R. S. U. S., and that objection is quite sufficient.

### § 37. Function.

The question of function enters into the law of patents both as a determining factor in determining the validity of combination claims, and as one of the comparative tests of identity in determining the question of infringement. The importance of the word is the result of the judicial interpretation of the patent statutes; it is not named therein. All that the statute (§ 4886, R. S. U. S.) exacts of a patent for a machine is that it shall be new, useful, and embody invention.

Every patentable and operative combination of mechanical elements has as its primary origin the conception of a need to be filled, and an idea of means to accomplish the satisfaction of that need. These are purely mental operations, which manifestly fall short of possible monopolization by patent. The idea of means, by embodiment in written words and accompanied by such pictorial explanation as the law requires and the necessities of the case demand, when lodged in the Patent Office acquires constructive reduction to practice, and may ripen into a patent. But to justify the contractual relationship thus entered into between the patentee and that public which (at least in theory) is the party of the first part, the patentee must have disclosed, as a consideration for his patent franchise, and his claim must embrace, a means for accomplishing a defined result. He must present a map of the road to the desired destination. If he merely points out the destination, and points out no path of travel to that destination, his claim is merely a wall built to encircle the desired point, and a demand of tribute from all who would travel that way.

This comparison is presented in the effort to distinguish between "function" and "result." A truly functional claim is an attempt to build a wall between the result and those who seek that result. Function and result are not identical. Function and principle are not identical, nor are function and mode of operation the same. The inventor must not claim "any road to Rome," or "all roads to Rome," but the road to Rome which he has discovered, and which he surveys and stakes for the guidance of those who would follow him.

In meeting these requirements the inventor is directed by the statutory mandate; "in the case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery" (§ 4883, R. S. U. S.).

With these introductory cautions, we are prepared to approach the analysis of the cases in order to get a working idea of what "function" is, and why claims have been held to be void because they were functional, and to learn, if we may, why the ablest patent lawyers have differed as to whether given claims were functional or not.

We will premise our clinical investigation with a very recent statement of a rule of law which has been established for more than half a century. "A valid patent cannot be secured for a function, a mode of operation, or a result, separate from the means or mechanical devices by which the result is accomplished."<sup>58</sup>

58. E. B. Adams, J., in *Union Match Co. v. Diamond Match Co.*, 162 Fed. Rep. 148, 151, 89 C. C. A. 172. To the same effect see *Matthews v. Shoneberger*, 4 Fed.

Rep. 635, 18 Off. Gaz. 1464; *Lull v. Clark*, 13 Fed. Rep. 456; *Hatch v. Moffitt*, 15 Fed. Rep. 252; *Lawther v. Hamilton*, 21 Fed. Rep. 811; *Royer v. Schultz Belting Co.*,



As this statement is not tautological, we see at once that "function" is not synonymous with either "mode of operation" or "result."

There is an auxiliary rule which carries us a step further in our investigation. "Since a function is not patentable, a combination of functions is not; nor is a combination of mechanical devices or elements and one of the functions of that combination."<sup>59</sup>

We turn to the case in which the last-quoted announcement was made, for an illustrative application of the doctrine of function. There were in suit two patents granted to one Hien. The first Hien patent contained this claim:

"The combination, in a brake beam, of a hollow beam, a strut, end plugs or caps, 8, and a truss rod, 3, which extends through the caps, 8, and is provided with nuts, substantially as and for the purposes specified."<sup>60</sup>

The second Hien patent embodied these claims:

"A metallic brake beam, consisting of a compression member, a tension member, and an interposed strut; the compression member having a camber, and the beam

28 Fed. Rep. 850; Goshen Sweeper Co. v. Bissell Carpet Sweeper Co., 72 Fed. Rep. 67, 19 C. C. A. 13; Stearns v. Russell, 85 Fed. Rep. 218, 29 C. C. A. 121; Palmer Pneumatic Tire Co. v. Lozier, 90 Fed. Rep. 732, 33 C. C. A. 255; Cary Mfg. Co. v. Neal, 90 Fed. Rep. 725; National Hollow Brake Beam Co. v. Interchangeable Brake Beam Co., 106 Fed. Rep. 693, 45 C. C. A. 544; O'Reilly v. Morse, 15 How. 62, 14 L. Ed. 601; Corring v. Burden, 15 How. 252, 14 L. Ed. 683; Corn Planter Patent, 23 Wall. 181, 23 L. Ed. 161; Roberts v. Ryer, 91 U. S. 150,

23 L. Ed. 267; Fuller v. Yentzer, 94 U. S. 288, 24 L. Ed. 103; Crescent Brewing Co. v. Gottfried, 128 U. S. 158, 32 L. Ed. 390; Miller v. Eagle Mfg. Co., 151 U. S. 186, 38 L. Ed. 121; Westinghouse v. Boyden Power Brake Co., 170 U. S. 537, 556, 42 L. Ed. 1136.

59. Sanborn, J., in National Hollow Brake Beam Co. v. Interchangeable Brake Beam Co., 106 Fed. Rep. 693, 709, 45 C. C. A. 544.

60. National Hollow Brake Beam Co. v. Interchangeable Brake Beam Co., 106 Fed. Rep. 693, 699, 45 C. C. A. 544.



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structure containing means of adjustment whereby the camber of the compression member is produced and the resiliency of the beam made available.

“A metallic brake beam, consisting of a hollow compression member, a tension member, and an interposed strut; the compression member having a camber, and the beam structure containing means of adjustment whereby the camber of the compression member is produced and the resiliency of the beam made available.

“In a trussed brake beam, the combination of a tension member having threaded ends and nuts therefor, a strut, and a cambered compression member, which maintains the tension of the parts and prevents the rotation of the nuts, substantially as specified.”<sup>61</sup>

The functional issue is stated and the rule applied by the court, thus: “Turning to the first, second, and seventh claims of the second patent of Hien, we are met by the contention of counsel for the appellee that they are anticipated by the combination of his first patent, because the camber or resilience in the beam, which is the only new factor in these claims, may be produced, maintained, and adjusted by simply turning the nuts of the former device. In opposition to this view counsel for the appellants argued that this camber in the beam or the cambered beam of the second patent is a new element, not described or claimed, and not found, in the combination of the first patent, and that its addition to that combination constitutes a new and patentable invention. The argument is ingenious and persuasive, but it is certainly fallacious. The camber or resilience in the beam is one of the products or functions of the brake beam of the first patent; not, indeed, the ultimate function which that beam was created to perform, the

61. National Hollow Brake Beam Co., 106 Fed. Rep. Beam Co. v. Interchangeable 693, 700, 45 C. C. A. 544.

function of stopping cars, but nevertheless a function of that device, because it may be produced by the use of that combination by simply turning the nuts upon the ends of its tension rod. Now, the function or result of the operation of a machine or combination is not patentable under our laws, and therefore the camber in the beam could not be monopolized by means of a patent. The means, the mechanical device, by which that camber was produced and that alone, was capable of protection by such a franchise.”<sup>62</sup>

A pointed illustration of the difficulty attendant upon the application of the doctrine under consideration involved the following claim of the Westinghouse, Jr., Patent No. 360,072:

“In a brake mechanism the combination of a main air pipe, an auxiliary reservoir, a brake cylinder, and a triple valve having a piston whose preliminary traverse admits air from the auxiliary reservoir to the brake cylinder, and which by further traverse admits air directly from the main air pipe to the brake cylinder, substantially as set forth.”<sup>63</sup>

The Supreme Court in the majority opinion by Mr. Justice Brown, said:

“In the construction of this claim, the district judge was of opinion that it was broad enough to cover other devices in which air was admitted directly from the train pipe to the brake cylinder by the further traverse of the piston actuating a valve admitting such air, and that the defendants could not exculpate themselves from the charge of infringement by the fact that in their device the

62. National Hollow Brake Beam Co. v. Interchangeable Brake Beam Co., 106 Fed. Rep. 693, 708, 45 C. C. A. 544.

63. Westinghouse v. Boyden Power Brake Co., 170 U. S. 537, 543, 24 L. Ed. 1136, 1139.

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train-pipe air was admitted through the triple-valve chamber, and not through a by-passage, nor by the fact that in their device the further traverse of the piston opens the main valve in a special manner, which produces the same result, but does not make use of a separate auxiliary valve.

“Upon the other hand, the Circuit Court of Appeals held that ‘the transmission of train-pipe air and auxiliary reservoir air simultaneously to the brake cylinder is a result of (or) function, and is not patentable;’ that ‘the means by which this or any other result or function is accomplished may be many and various, and if these several means are not mechanical equivalents, each of them is patentable.’ It was of opinion that when the second claim, ‘in its language describing the action of that device, failed to describe any means by which the extreme traverse of the piston produced it, declaring merely that the piston, ‘by a further traverse, admits air directly from the main air pipe to the brake cylinder,’ it was fatally defective, claiming only a result, which is public property, and not identifying the specific means (his own property) by which the result is achieved.’

“It is true, as observed by the Court of Appeals, that the further traverse of the piston for use in cases of emergency had been shown in prior patents, but it had never been employed for the purpose of admitting air directly from the main air pipe to the brake cylinder until the patent in suit was taken out.

“The claim in question is, to a certain extent, for a function, *viz.*, the admission of air directly from the train pipe to the brake cylinder, and is only limited to such function when performed by the



further traverse of the piston of the triple valve. This limitation, however, does not obviate the objection that the means are not fully and specifically set forth for the performance of the function in question.

“The difficulty we have found with this claim is this: That, if it be interpreted simply as a claim for the function of admitting air to the brake cylinder directly from the train pipe, it is open to the objection, held in several cases to be fatal, that the mere function of a machine cannot be patented.

“This rule was clearly laid down in the leading case of *Corning v. Burden*, 56 U. S. (15 How.) 252, 14 L. Ed. 683, in which Mr. Justice Grier, delivering the opinion of the court, drew the distinction between such processes as were the result or effect of ‘chemical action, by the operation or application of some element or power of nature, or of one substance to another,’ and the mere result of the operation of a machine, with regard to which he says: ‘It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted, and not for the result or effect itself. It is when the term ‘process’ is used to represent the means or method of producing a result that it is patentable, and it will include all methods or means which are not affected by mechanism or mechanical combination.

“ ‘But the term process is often used in a more vague sense, in which it cannot be the subject of a patent. Thus we say that a board is undergoing the process of being planed, grained or being ground, iron of being hammered or rolled. Here the term is used subjectively or passively as applied to the material operated on, and not to the method or mode

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of producing that operation, which is by mechanical means, or the use of a machine, as distinguished from a process.'

“ ‘In this use of the term it represents the function of a machine, or the effect produced by it on the material subjected to the action of the machine. But it is well settled that a man cannot have a patent for the function or abstract effect of a machine, but only for the machine which produces it.’

“In the subsequent case of *Burr v. Duryee*, 68 U. S. (1 Wall.) 531, 570, 17 L. Ed. 650, 658, Mr. Justice Grier laid down the same principle as follows: ‘The Patent Act grants a monopoly “to anyone who may have discovered or invented any new and useful art, machine, or composition of matter.”’

\* \* \* That law requires that the specification “should set forth the principle and the several modes in which he has contemplated the application of that principle, or character by which it may be distinguished from other inventions, and shall particularly point out the part, improvement, or combination which he claims as his own invention or discovery.” We find here no authority to grant a patent for a principle or a mode of operation, or an *idea*, or any other abstraction. A machine is a concrete thing, consisting of parts, or of certain devices and combination of devices. The principle of a machine is properly defined to be “its mode of operation,” or that peculiar combination of devices which distinguish it from other machines. A machine is not a principle or an idea. The use of ill-defined abstract phraseology is the frequent source of error. It requires no great ingenuity to mystify a subject by the use of abstract terms of indefinite or equivocal meaning. Because the law requires a

patentee to explain the mode of operation of his peculiar machine, which distinguishes it from others, it does not authorize a patent for a "mode of operation as exhibited in a machine." Much less can any inference be drawn from the statute, that an inventor who has made an improvement in a machine, and thus effects the desired result in a better or cheaper manner than before, can include all previous inventions, and have a claim to the whole art, discovery, or machine which he has improved. All others have an equal right to make improved machines, provided they do not embody the same, or substantially the same, devices, or combination of devices, which constitute the peculiar characteristic of the previous invention.'

"So, also, in *Fuller v. Yentzer*, 94 U. S. 288, 24 L. Ed. 103, this court, speaking through Mr. Justice Clifford, also said: 'Patents for a machine will not be sustained if the claim is for a result, the established rule being that the invention, if any, within the meaning of the patent act, consists in the means or apparatus by which the result is obtained, and not merely in the mode of operation, independent of the mechanical devices employed; nor will a patent be held valid for a principle or for an idea, or any other mere abstraction.'

"Most of the prior authorities upon this subject are reviewed in the recent case of *Risdon Iron & Locomotive Works v. Medart*, 158 U. S. 68, 39 L. Ed. 899, in which it was also held that a valid patent could not be obtained for a process which involved nothing more than the operation of a piece of mechanism, or the function of a machine. See, also, to the same effect, *Wicks v. Ostrum*, 103 U. S. 461, 469, 26 L. Ed. 409, 410. These cases assume, although



they do not expressly decide, that a process to be patentable must involve a chemical or other similar elemental action, and it may be still regarded as an open question whether the patentability of processes extends beyond this class of inventions. Where the process is simply the function or operative effect of a machine, the above cases are conclusive against its patentability; but where it is one which, though ordinarily and most successfully performed by machinery, may also be performed by simple manipulation, such, for instance, as the folding of a paper in a peculiar way for the manufacture of paper bags, or a new method of weaving a hammock, there are cases to the effect that such a process is patentable, though none of the powers of nature be invoked to aid in producing the result. *Eastern Paper Bag Co. v. Standard Paper Bag Co.*, 30 Fed. Rep. 63; *Union Paper Bag Machine Co. v. Waterbury*, 39 Fed. Rep. 389; *Travers v. American Cordage Co.*, 64 Fed. Rep. 771. This case, however, does not call for an expression of our opinion upon this point, nor even upon the question whether the function of admitting air directly from the train pipe to the brake cylinder be patentable or not, since there is no claim made for an independent process in this patent, and the whole theory of the specification and claims is based upon the novelty of the mechanism.

“But if the second claim be not susceptible of the interpretation that it is simply for a function, then the performance of that function must be limited to the particular means described in the specification for the admission of air from the train pipe to the brake cylinder.”<sup>64</sup>

64. *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537, 553, 42 L. Ed. 1136, 1142.

Mr. Justice Shiras' dissenting opinion, concurred in by Mr. Justice Brewer (Mr. Justice Gray and Mr. Justice McKenna also dissenting) says of this claim:

“The second claim of the patent is before us for construction on its own terms, and, to avoid protracting this discussion, the opinion of Judge Morris in the Circuit Court is referred to and adopted as a sound construction of that claim. 66 Fed. Rep. 997. This claim is not, as I read it, open to the objection that it aims to patent a principle. It sets forth the discovery that by a co-operation of the air from the auxiliary reservoir and that from the main air pipe, the action of the brakes is quickened and the air vented from the main air pipe directly to the brake cylinder.

“But even if the second claim must, as argued in the opinion of the court, be read, by reason of the letter of the claimant's attorney, as if it called for the auxiliary valve described in the first and fourth claims, and even if, when not so read, it can be regarded as void because simply for a function or principle, nevertheless the invention, as described in the other claims and specifications, is clearly set forth, and, under the evidence as to the state of the art, is entitled to be regarded as a pioneer. Regarding the second claim as a mere statement of the idea or invention and the other claims as describing a form or combination of mechanism which embodies the invention and renders it operative, all the requisites of the law are sufficiently complied with.”<sup>65</sup>

In adopting the opinion of the Circuit Court respecting claim 2, Mr. Justice Shiras sends us to the opinion of Judge Morris, from which we quote:

“The first three elements of this claim are the usual mechanism of an automatic air brake. The remaining

65. *Westinghouse v. Boyden Power Brake Co.*, 170 U. S. 537, 583, 42 L. Ed. 1136, 1152.



element, which was the only novel one at the date of the patent, is a triple valve having a piston which, by two distinct movements, performs two distinct functions,—the first, its preliminary traverse, by which it admits air from the auxiliary reservoir to the brake cylinder, which is the ordinary effect of the usual movement of the triple-valve piston; and the second, its further traverse, which is a new and distinct use, admitting air directly from the main air pipe to the brake cylinder, resulting in venting the main pipe and in producing the quick action. Now this, as I understand it, was the invention which Westinghouse brought to light. He discovered, and by experiment demonstrated, that, by a further traverse of the triple piston, train-pipe air could be vented from the train pipe, and that it would give two very important results, namely: First, quickening of the action of the brakes from the forward to the rear cars, so that the application of the brakes became almost instantaneous on all cars; and, second, utilizing the vented air for direct action in the brake cylinder.

“Now, although quick-action emergency brakes were being sought for, no one before Westinghouse had accomplished this result, and the means by which he accomplished it were entirely novel. Indeed, upon first impression, it is paradoxical and startling to find that, when a sudden, quick, and powerful application of brakes is needed in the face of impending danger, it is to be obtained by a sudden large release of the pressure in the train pipe, to the extent of 15 or 20 pounds below that in the auxiliary reservoir, and that by using this low-pressure air to operate the brake cylinder, instead of the air under greater pressure stored in the auxiliary reservoir, this remarkably effective application of the brakes is obtained. In the domain of quick-action brakes, this device would seem to belong to that class of pioneer



inventions, the patents for which are to be construed so as to be co-extensive with the real invention, if the language of the claim will permit it.

“It is shown that Westinghouse was the first who used a further traverse of the triple-valve piston to perform the operation required to vent the train pipe into the brake cylinder to effect quick action. The result was new, and the means were new. His claim 2 is broad enough in language to cover every device in which that is done by the further traverse, admitting air directly from the train pipe to the brake cylinder, substantially by the means described in the specifications; that is, by the further traverse actuating a valve which so admits the train-pipe air. \* \* \* In his specifications of patent No. 481,135, Boyden alleges that his device differs essentially from Westinghouse’s patent No. 360,070, and involves a new mode of operation. The question whether it does or does not was the very question then pending in this suit, and, so far as the examiner passed upon it in allowing the specification to stand, he did so upon the ex parte application of Boyden, and unassisted by testimony as to the state of the art at the date of the Westinghouse patent, and without testimony as to the scope of the Westinghouse quick-action invention, and its great importance and merit; and therefore without the opportunity of judging whether or not it was a pioneer invention of a fundamental character, entitled to a construction co-extensive with the invention, or was simply a patent for an improvement in a known art, to be restricted to the form of the device shown in the model and illustrations. The determination of that question is the starting point in the consideration of the controversy, and, in my judgment, the fact that Westinghouse was the first discoverer of the vital underlying invention should turn the scale in his favor. The complainants

are entitled to a decree for an injunction and account, with reference to a master in the usual form.”<sup>66</sup>

The opinion of the Circuit Court of Appeals<sup>67</sup> need not be referred to, except as to that part which illustrates the views of that court upon the theory of function, as we have presented it in the introductory portion of this title: “We think that when claim 2 of 360,070, in its language describing the action of that device, failed to describe the means by which the extreme traverse of the piston produced it, declaring merely that the piston, ‘by a further traverse, admits air directly from the main air pipe to the brake cylinder,’ it was fatally defective, claiming only a result, which is public property, and not identifying the specific means (his own property) by which the result is achieved. That this invention of Westinghouse, thus undefined, is one of the highest value to the public, and that it is a pioneer one in the art of quick-action air brakes, is not denied, and is conceded. It is conspicuously one of those pioneer inventions which entitle the proprietor to a liberal protection from the courts in construing the claim. But there is a limit to the judicial liberality in this direction. If an inventor is ambiguous, or obscure, or halt, or limp in his language of description, the courts will help him out, and so construe the claim as to give distinct identity to his device. If there be a doubt in the mind of the court or of a jury on the issue of mechanical equivalency, the court will give, and instruct the jury to give, the benefit of the doubt to the pioneer inventor. But where the inventor falls so far short in his description as to claim only the result which his machine accomplishes, and omits an explicit definition of the means

66. Morris, J., in *Westinghouse v. Boyden Power Brake Co.*, 66 Fed. Rep. 997, 1001-1007.

67. *Boyden Power Brake Co. v. Westinghouse Air Brake Co.*, 70 Fed. Rep. 816, 17 C. C. A. 430.



by which he does it, as in the case at bar, the courts have another duty to perform, one which they owe to the public and to the worthy fraternity of inventors, and must decline to give him general rights where he is entitled only to special rights.”<sup>68</sup>

The Westinghouse case to which we have given such extended consideration is the most notable case in the courts of the United States bearing upon the knotty problem of function. Argued October 22 and 23, 1896, re-argued March 1 and 2, 1897, again re-argued March 10 and 11, 1898, and decided by a bare majority of five to four on May 9, 1898, it left the problem of function exactly where it found it—so interwoven with other considerations that always arise when the functional question is raised, that to separate those portions of an opinion dealing with the charge that the claim is functional, from those that deal with the standing of the claim in its art, and from those that deal with what the defendant has done by way of infringement, is nearly always difficult, and at times well-nigh impossible.

Judge Morris and the four dissenting justices in the Westinghouse case were apparently swayed throughout their entire reasoning by their conviction that the patent in suit was “for a pioneer invention of a fundamental character.” (Judge Morris, 66 Fed. Rep. at page 1007); while the bare majority of the Supreme Court said explicitly: “We are inclined to look with more favor upon this (the defendant’s) device, not only because it is a novel one and a departure from the Westinghouse patent but because it solved at once in the simplest manner the problem of quick action, whereas the Westinghouse patent did not prove to be a success until certain

68. Boyden Power Brake Co. v. Westinghouse Air Brake Co., 70 Fed. Rep. 816, 17 C. C. A. 430.



additional members had been incorporated into it.”<sup>69</sup>

Theoretically, the question of function should be determined as a matter of pure examination of the claim and description; practically, it is not. The counsel for the patent can best entrench themselves upon the lines indicated by the opinions of Judge Morris and Mr. Justice Shiras; counsel against the patent usually raise the defense of function as the next to last resort, the defense of aggregation being entitled to the honor of last place.

### § 38. Mode of operation.

The term “mode of operation” is self-defining. It applies to instrumentalities which have a self-contained law of operation. The writer finds no authority in the cases for the doctrine that the term can ever be applied to articles of manufacture, which have no “*modus operandi*.”<sup>70</sup> The relationship of the mode of operation to the machine was thus stated by Mr. Justice Grier:

“A machine is a concrete thing, consisting of parts, or of certain devices and combinations of devices. The principle of a machine is properly defined to be its ‘mode of operation,’ or that peculiar combination of devices which distinguish it from other machines. We find here no authority to grant a patent for a ‘principle’ or a ‘mode of operation’ or an *idea* or any other abstraction. \* \* \* A machine is not a principle or an idea. The use of ill-defined abstract phraseology is the frequent source of error. It requires no great ingenuity to mystify a subject by the use of abstract terms of

69. Mr. Justice Brown, in 170 U. S. at page 572.

70. See Walker on Patents, § 37. Compare Robinson on Patents, § 175.

indefinite or equivocal meaning. Because the law requires a patentee to explain the mode of operation of his peculiar machine, which distinguishes it from others, it does not authorize a patent for a 'mode of operation as exhibited in a machine.' ” 71

That the mode of operation of a machine is an integral part of the invention embodied in the machine has been recognized by the Supreme Court. “We are entitled to look at the practical operation of the machine. \* \* \* If the device of the respondent shows a substantially different mode of operation, even though the result of the operation of the machine remains the same, infringement is avoided.” 72

The analysis of the mode of operation of a combination claim will frequently determine the question whether the claim is a true combination or merely an aggregation “of several results, each the complete result of one of the combined elements.” 73 This may be termed the first application of the “mode of operation” as a test for the claim. Although the doctrine of aggregation applies to articles of manufacture as well as to machines, 74 and articles of manufacture have no “mode of operation,” the primary test of a machine combination is to determine whether the disclosed mode of operation discloses a unitary result, which may be either a new result, or an old result attained in a better or cheaper manner. 75

71. *Burr v. Duryee*, 1 Wall. 531, 17 L. Ed. 650.

72. *Cimiotti Unhairing Co. v. American Fur. Ref. Co.*, 198 U. S. 399, 413, 49 L. Ed. 1100, 1107.

73. *National Cash Register Co. v. American Cash Register Co.*,

53 Fed. Rep. 367, 3 C. C. A. 559.

74. *Antidel v. Chicago Hotel Cabinet Co.*, 89 Fed. Rep. 308, 32 C. C. A. 216.

75. *Bowers v. Von Schmidt*, 63 Fed. Rep. 572.

When the next test is applied to the machine combination claim, of fixing its status in the art by its comparison with the prior art, the mode of operation is still of paramount importance, because want of novelty in the mode of operation will negative invention.<sup>76</sup> The exploration of the art may disclose that the mode of operation of the claim being tested is merely the combined operation of two old combinations, as where two old machines are so connected as to subject the product of one machine to the operation of the other. This is merely an aggregation of the prior separate mechanisms, with their inherent individual modes of operation, and therefore is unpatentable.<sup>77</sup>

On the other hand, its mode of operation may be invoked to save the claim, inasmuch as no former device can anticipate it unless it has the same mode of operation.<sup>78</sup> The case of a corn-sheller patent, in which the same parts existed in the same combination in the prior art, but the patent was saved by a finding of a new mode of operation resulting from a reversal of motion of one of the parts, is typically illustrative.<sup>79</sup>

We finally find the mode of operation to be possibly the most important of the tests of infringement. It is usually stated that substantial identity between the two machines must be found, both as to function, mode of operation, and result; but the question of result is so frequently complicated with the question of double use, and the question of function is attended with such uncertainty in its application, that the first step in establishing identity to hold an alleged infringer, after a formal showing

76. *Burt v. Ivory*, 133 U. S. 349, 33 L. Ed. 647.

77. *Goss Printing Press Co. v. Scott*, 108 Fed. Rep. 253, 47 C. C. A. 302; and to the same effect see *Burnham v. Union Mfg. Co.*,

110 Fed. Rep. 765, 49 C. C. A. 163.

78. *Haines v. McLaughlin*, 135 U. S. 584, 22 L. Ed. 241.

79. *Keystone Mfg. Co. v. Adams*, 151 U. S. 139, 38 L. Ed. 103.



of identity of elements or their equivalents, is the establishment of identity in mode of operation of the defendant's machine with that of the patent—to show that “in substantially the same way,” as well as “by substantially the same means,” it accomplishes substantially “the same end.”<sup>80</sup> The substantial identity of result will not establish the infringement unless that result is reached in substantially the same way,<sup>81</sup> but where the mode of operation of the patent is adopted, infringement is not averted by non-essential changes of form or structure.<sup>82</sup>

### § 39. Result.

Inasmuch as § 4886, R. S. U. S., has named manufactures and compositions of matter as two of the four classes of patentable subject-matter defined by it, it follows that wherever the courts have said (as they often, and properly have) that a result is not patentable, they had no reference to either of the classes named, both of which are the result or product of methods or unpatentable operations. The Supreme Court has quite adequately settled the rule that a result, or effect, is not patentable.

“Patents for a machine will not be sustained if the claim is for a result, the established rule being that the invention, if any, within the meaning of the patent act, consists in the means or apparatus by which the result is obtained.”<sup>83</sup>

80. *Scott v. Hoe*, 70 Fed. Rep. 781, 17 C. C. A. 410.

81. *Werner v. King*, 96 U. S. 218, 24 L. Ed. 96; *Engle Sanitary & Cremation Co. v. City of Elwood*, 73 Fed. Rep. 484.

82. *Hutter v. De Q. Bottle Stopper Co.*, 128 Fed. Rep. 283, 62 C. C. A. 652; *O. H. Jewell Filter Co. v. Jackson*, 140 Fed. Rep. 340, 72 C. C. A. 304.

83. *Clifford, J., in Fuller v. Yentzer*, 94 U. S. 288, 24 L. Ed. 103.

“It is for the discovery or invention of some practicable method or means of producing a beneficial result or effect, that a patent is granted, and not for the result or effect itself.”<sup>84</sup>

“A patent is not good for an effect, or the result of a certain process, as that would prohibit all other persons from making the same thing by any means whatsoever.”<sup>85</sup>

The question of identity of result is an important factor in the determination of questions of infringement.<sup>86</sup> But as results are not patentable, there may be identity of result without the existence of infringement, as identity of result is no evidence of infringement unless substantially the same means, operating in substantially the same way, have been employed.<sup>87</sup>

On the other hand, non-identity of result is by no means conclusive that infringement does not exist. This is the necessary sequence of the rule that the inventor is entitled to all of the uses of which his invention is capable.<sup>88</sup>

It is by their results that the utility of methods or machines is judged. A patent that is inoperative<sup>89</sup> as well as one whose only use is injurious or in violation of good morals or police regulations<sup>90</sup> is invalidated by its result.

84. Grier, J., in *Corning v. Burden*, 15 How. 252, 14 L. Ed. 683.

85. McLean, J., in *LeRoy v. Tatham*, 14 How. 156, 14 L. Ed. 367.

86. *Electric Railroad Signal Co. v. Hall Railroad Co.*, 114 U. S. 87, 29 L. Ed. 96.

87. See ante, title “Mode of Operation,” § 38, p. 77.

88. *Roberts v. Ryer*, 91 U. S. 150, 23 L. Ed. 267; *Western Electric Co. v. La Rue*, 139 U. S. 601, 35 L. Ed. 294; *Potts v. Creager*, 155 U. S. 597, 39 L. Ed. 275.

89. *Bliss v. Brooklyn*, 10 Blatchf. 521, Fed. Case 1, 546.

90. *National Automatic Device Co. v. Lloyd*, 40 Fed. Rep. 89.

§ 40. Trademarks applied to patented articles.

It is foreign to the scope of this treatise to dwell at any great length upon the subject of trademarks, in their relationship to patented articles. But any intelligent reading of the numerous cases in which the trademarks applied to patented articles are concerned must be premised upon an understanding of the fundamental difference between trademarks and patents (even design patents).

§ 41. Trademark defined.

A trademark is a distinctive name, word, mark, emblem, design, symbol or device, used in lawful commerce to indicate or authenticate the source from which has come, or through which has passed, the chattel upon or to which it is applied or affixed.<sup>91</sup>

This definition of trademark is believed to be sufficiently accurate and comprehensive for workable use.

The difference between trademarks and patents has been thus treated of by Mr. Justice Miller in *Trademark Cases*;<sup>92</sup> "the ordinary trademark has no necessary relation to invention or discovery. The trademark recognized by the common law is generally the growth of a considerable period of use, rather than a sudden invention. It is often the result of accident rather than design, and when under the act of Congress it is sought

91. Hopkins on Trademarks, § 2

92. 100 U. S. 82, 94, 25 L. Ed. 550, 552. See, also, *Taylor v. Carpenter*, 2 Sandf., Ch. 603, 11 Paige 292; *Cox Manual*, Case No. 84; *Levy v. Waitt*, 21 U. S. App. 394, 61 Fed. Rep. 1008, 10 C. C. A. 227; *Hoyt v. Hoyt*, 143 Pa. St. 623, 24 Am. St. Rep. 575;

*Sarrazin v. W. R. Irby Cigar Co.*, 93 Fed. Rep. 624, 626, 35 C. C. A. 496. A trademark "may be, and usually is, wholly destitute of originality." Mr. Justice Brown in *Duer v. Corbin Cabinet Lock Co.*, 149 U. S. 216, 223, 37 L. Ed. 707. To the same effect, see *Wm. J. Moxley Co. v. Braun & Fitts Co.*, 93 Ill. App. 183.



to establish it by registration, neither originality, invention, discovery, science or art is in any way essential to the right conferred by that act. If we should endeavor to classify it under the head of writings of authors, the objections are equally strong. In this, as in regard to inventions, originality is required. And while the word *writings* may be liberally construed, as it has been, to include original designs for engravings, prints, etc., it is only such as are *original*, and are founded in the creative powers of the mind." And in the House of Lords, in 1882, Lord Blackburn said,<sup>93</sup> "trademarks have sometimes been likened to letters patent and sometimes to copyrights, from both of which they differ in many respects. And I think to borrow a phrase used by Lord Ellenborough in *Waring v. Cox*,<sup>94</sup> with reference to a different branch of the law 'much confusion has arisen from similitudinary reasoning on the subject.' "

This distinction is further borne out by a case in which it was sought to sustain a design patent for a horseshoe calk by the argument that the design served to distinguish the complainant's goods from those of other makers. The *per curiam* opinion of the Circuit Court of Appeals of the second circuit says "the designers of articles of manufacture not otherwise entitled to receive design patents cannot justify the issuance of such patents on any theory that the design is a trademark."<sup>95</sup>

The incidental use of a trademark upon a patented article creates a peculiar termination of the life of that trademark, but does not otherwise alter its characteristics. In his treatise on the law of trademarks the writer has presented a monograph upon this topic from which the following is taken:

93. *Johnston v. Orr Ewing*, 7  
App. Cas. 219, 228

94. 1 Camp. 369.

95. *Rowe v. Blodgett & Clapp  
Co.*, 112 Fed. Rep. 61, 50 C. C.  
A. 120.

*Names of patented articles.* The general rule as to the name applied to a patented article during the life of the patent, is that upon the expiration of the patent, the public acquires the right to make, use, and sell the patented article, and to distinguish it by the name which it bore during the life of the patent.<sup>96</sup>

In the leading case upon this subject, Mr. Justice White, speaking for the United States Supreme Court, explained the reason of the rule as follows: "It is self-

96. Fairbanks v. Jacobus, Fed. Case No. 4508, 14 Blatchf. 337; Singer Mfg. Co. v. Stanage, 6 Fed. Rep. 279; Adeo v. Peck Bros. & Co., 39 Fed. Rep. 209; Singer Mfg. Co. v. June, 163 U. S. 169 (reversing Singer Mfg. Co. v. June, 41 Fed. Rep. 208); Wilcox & Gibbs S. M. Co. v. The Gibbens Frame, 17 Fed. Rep. 623; Singer Mfg. Co. v. Bent, 163 U. S. 205 (reversing Singer Mfg. Co. v. Bent, 41 Fed. Rep. 214); Centaur Co. v. Killenberger, 87 Fed. Rep. 725; Singer Mfg. Co. v. Larsen, 8 Biss. 151, Fed. Case 12, 902; Burton v. Stratton, 12 Fed. Rep. 696-700; Good-year Rubber Co. v. Day, 22 Fed. Rep. 44; Singer Mfg. Co. v. Riley, 11 Fed. Rep. 706; Wheeler & Wilson Mfg. Co. v. Shakespear, 39 L. J. Ch. 36; Tucker Mfg. Co. v. Boyington, Fed. Cas. 14,229; 9 Off. Gaz. 455; Filley v. Child, 16 Blatchf. 376; Fed. Cas. 4787; Ralph v. Taylor, L. R. 25 Ch. D. 194; Linoleum Mfg. Co. v. Nairn, 7 Ch. D. 834; Young v. Macrae, 9 Jur. N. S. 322; Re Palmer's Trademark, 24 Ch. D. 504; Re Leonard

& Ellis Trademark, 26 Ch. D. 288; Brill v. Singer Mfg. Co., 41 Ohio St. 127, 52 Am. Rep. 74; Hiram Holt Co. v. Wadsworth, 41 Fed. Rep. 34; Coats v. Merrick Thread Co., 36 Fed. Rep. 324; Centaur Co. v. Heinsfurter, 84 Fed. Rep. 955, 28 C. C. A. 581; Lorillard v. Pride, 28 Fed. Rep. 434; Gally v. Colt's Patent Fire Arms Mfg. Co., 30 Fed. Rep. 118; Dover Stamping Co. v. Fellows, 163 Mass. 191, 47 Am. St. Rep. 448; Centaur Co. v. Robinson, 91 Fed. Rep. 889; Centaur Co. v. Neathery, 91 Fed. Rep. 891, 34 C. C. A. 118; followed in Centaur Co. v. Reinecke, 34 C. C. A. 684, 91 Fed. Rep. 1001; Centaur Co. v. Hughes Bros. Mfg. Co., 91 Fed. Rep. 901, 34 C. C. A. 127; Centaur Co. v. Marshall, 97 Fed. Rep. 785, 38 C. C. A. 413, affirming Centaur Co. v. Marshall, 92 Fed. Rep. 605; Warren Featherbone Co. v. American Featherbone Co., 72 C. C. A. 571, 141 Fed. Rep. 513; B. B. Hill Co. v. Sawyer-Boss Mfg. Co., 112 Fed. Rep. 144.



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evident that on the expiration of a patent the monopoly created by it ceases to exist, and the right to make the thing formerly covered by the patent becomes public property. It is upon this condition that the patent is granted. It follows, as a matter of course, that on the termination of the patent there passes to the public the right to make the machine in the form in which it was constructed during the patent. We may therefore dismiss without further comment the complaint, as to the form in which the defendant made his machines. It equally follows from the cessation of the monopoly and the falling of the patented device into the domain of things public, that along with the public ownership of the device there must also necessarily pass to the public the generic designation of the thing which has arisen during the monopoly, in consequence of the designation having been acquiesced in by the owner, either tacitly, by accepting the benefits of the monopoly, or expressly, by his having so connected the name with the machine as to lend countenance to the resulting dedication. To say otherwise would be to hold that, although the public had acquired the device held by the patent, yet the owner or the manufacturer of the patented thing had retained the designated name which was essentially necessary to vest the public with the full enjoyment of that which has become theirs by the disappearance of the monopoly. In other words, that the patentee or manufacturer could take the benefit and advantage of the patent upon the condition that at its termination the monopoly should cease, and yet when the end was reached disregard the public dedication and practically perpetuate indefinitely an exclusive right.

“The public having the right on the expiration of the patent to make the patented article and to use its generic name, to restrict this use, either by preventing its



being placed upon the articles when manufactured, or by using it in advertisements or circulars, would be to admit the right and at the same time destroy it. It follows, then, that the right to use the name in every form passes to the public with the dedication resulting from the expiration of the patent.

“Nor is this right governed by different principles where the name, which has become generic, instead of being an arbitrary one, is the surname of the patentee or original manufacturer.”<sup>97</sup>

There appears to be an exception to this general rule where the use of the name antedates the existence of the patent, and where it further appears that the name and not the patent gave its value to the article.<sup>98</sup>

In accordance with the general rule, the Patent Office has declined to register a trademark which is the name of a patented article,<sup>99</sup> even in association with an arbitrary symbol.<sup>100</sup>

It is by no means clear what trademarks applied to patented articles, other than mere names or words descriptive of the thing patented, will become *publici juris* upon the expiration of the patent. Thus the Supreme Court of Massachusetts has held that where a special word, device or symbol is added to the general descriptive name of the article of the patent, it is possible that the trademark right may exist in the combination of the word and the device or symbol, notwithstanding the expiration of the patent.<sup>101</sup>

97. *Singer Mfg. Co. v. June Mfg. Co.*, 163 U. S. 169, 185, 41 L. Ed. 118, 124.

98. *Batcheller v. Thomson*, 35 C. C. A. 532, 93 Fed. Rep. 660, 665.

99. *Ex p. Velvriil Co., Ltd.*, 84 Off. Gaz. 807.

100. *Holophane Glass Co.*, 100 Off. Gaz. 450; *Ex p. Farnum & Co.*, 18 Off. Gaz. 412.

101. *Dover Stamping Co. v. Fellows*, 163 Mass. 191, 47 Am. St. Rep. 448.

In this connection, Lindley, L. J., says: "I do not mean to say that a manufacturer of a patented article cannot have a trademark not descriptive of the patented article, so as to be entitled to the exclusive use of that mark after the patent has expired, for instance, if he impressed upon the patented articles a griffin, or some other device; but, if his only trademark is a word or set of words descriptive of the patented article of which he is the only maker, it appears to me to be impossible for him ever to make out, as a matter of fact, that his mark denotes him as the maker, as distinguished from other makers."<sup>102</sup>

In every case of the kind under consideration, however, others will be enjoined from using the mark in such a way as to deceive the public into the false belief that they are getting the goods of the original owner of the mark.<sup>103</sup>

Thus in the leading case, the court found that the Singer Sewing Machine sold by the defendant after the expiration of the Singer patent, embodied features not a part of the patented article, and which had been used by the complainant to indicate itself as the manufacturer of the machine; and Mr. Justice White in reversing and remanding the case directed a decree of injunction in favor of the complainant, "perpetually enjoining the defendant, its agents, servants, and representatives, first, from using the word 'Singer' or any equivalent thereto, in advertisements in relation to sewing machines, without clearly and unmistakably stating in all said advertisements that the machines are made by the defendant, as distinguished from the sewing machines made by the Singer Manufacturing Company; second, also perpet-

102. *Re Palmer's Trademark*, L. R. 24 Ch. D. 504-521.

103. *Singer Mfg. Co. v. Charle-*

*bois*, 16 *Rap. Jud. Q. C. S.* 167; *Centaur Co. v. Link*, 62 *N. J. Eq.* 147, 49 *Atl. Rep.* 828.

ually enjoining the defendant from marking upon sewing machines or upon any plate or device connected therewith or attached thereto the words 'Singer,' or words or letters equivalent thereto, without clearly and unmistakably specifying in connection therewith that such machines are the product of the defendant or other manufacturers, and therefore not the product of the Singer Manufacturing Company.'"<sup>104</sup>

It is manifest, however, that to create this right in the public, two conditions of facts are prerequisite; first, there must have been a patent, second, the patent must have expired.

Where the owner of the trademark had made an unsuccessful application for a patent upon the article to which the trademark was applied, Bradley, J., held that he had a valid subsisting right to the trademark upon the rejection of his application, and said "His failure to establish his patent (which would have covered all his rights) ought not to preclude him from falling back on his right to the trademark."<sup>105</sup>

In a case where the patent had not expired, Judge Vann, speaking for the Court of Appeals of New York, said: "Assuming that upon the expiration of the patent any one may use the name, until that time arrives, why should the inventor be deprived of a right which, without question, would be his if he had not taken out a patent for his invention."<sup>106</sup>

Where a name indicating a patented article exists, an exclusive licensee for the sale of the patented articles under a license to which the defendant is not a party can-

104. Singer Mfg. Co. v. Bent, 163 U. S. 205, 41 L. Ed. 118, 131.

105. Sawyer v. Kellogg, 7 Fed. Rep. 720, 723.

106. Waterman v. Shipman, 130 N. Y. 301, reversing s. c., 8 N. Y. Supp. 814.



not enjoin him from conducting an unfair competition by means of the name; the licensor not being a party to the action, and no infringement of the patent being charged, and the defendant having the right to deal in the articles known by the name.<sup>107</sup> If the patent is reissued the trademark will be valid during the life of the reissued patent.<sup>108</sup>

§ 42. The name given an unpatented invention by the inventor.

Such names clearly should, if otherwise unobjectionable, be treated as valid trademarks in the hands of the inventor or his assigns. Under the rule discussed in the next section, if the inventor patents his invention, he cannot lengthen his monopoly's duration by applying a trademark to the patented article; his right to the trademark expires with the life of the letters patent. Where he elects to dedicate his invention to the public, his right to adopt a trademark for such specimens as he himself may manufacture, is obvious. But the name by which he distinguishes his invention, being the necessary name of the article, cannot be used by another, holding no assignment from the inventor.<sup>109</sup>

§ 43. Necessary name of a product.

The necessary name of a product, natural or manufactured, cannot be a trademark, for the reasons we have discussed. This is true of goods manufactured under a patent. The descriptive name by which they are known during the life of the letters patent becomes their popular name in the trade—the name by which they are necessarily known and distinguished. When, therefore, the

107. *Johnson v. Seaman*, 108 Fed. Rep. 951, 48 C. C. A. 158; reversing *Seaman v. Johnson*, 106 Fed. Rep. 915.

108. *Hiram Holt Co. v. Wadsworth*, 41 Fed. Rep. 34.

109. *H. B. Chaffee Mfg. Co. v. Selchow*, 131 Fed. Rep. 543.

protection of the patent has expired the name is *publici juris*, and the manufacturer under the letters patent can claim no trademark in it.<sup>110</sup>

Thus, the word "Linoleum" as applied to a kind of floor covering,<sup>111</sup> "Singer" applied to sewing machines,<sup>112</sup> and "Lanoline" applied to a wool-fat preparation,<sup>113</sup> were held to be *publici juris* upon the expiration of the letters covering the articles to which they were applied.

Analogous to this class of cases is that where new combinations of old elements are found, and it is sought to distinguish such a new compound or combination by joining the descriptive names of its constituent elements. This is best illustrated by a case where the words claimed as trademark were "Ferro-phosphorated Elixir of Calisaya Bark," which claim was distinctly negatived by the New York Court of Appeals, Folger, J., saying: "They may not be appropriated by one to mark an article of his manufacture, when they may be used truthfully by another to inform the public of the ingredients which make up an article made by him."<sup>114</sup> For this reason the name "Acid Phosphate" applied to a medicinal preparation,<sup>115</sup> and "Indurated Fibre" applied to wares made of wood-pulp,<sup>116</sup> are not valid trademarks; and the word "Bromo-Quinine" was refused registration

110. Centaur Co. v. Robinson, 91 Fed. Rep. 889; Same v. Neathery, 91 Fed. Rep. 891; Same v. Hughes Bros. Mfg. Co., 91 Fed. Rep. 901.

111. Linoleum Mfg. Co. v. Nairn, L. R. 7 Ch. D. 834, 47 L. J. Ch. 430, 38 L. T. N. S. 448, 26 W. R. 463, Seb. 536

112. Singer Mfg. Co. v. Bent,

163 U. S. 205; Singer Mfg. Co. v. June, 163 U. S. 169.

113. Jaffe v. Evans & Sons, Ltd., 75 N. Y. Supp. 257.

114. Caswell v. Davis, 58 N. Y. 223-233.

115. Rumford Chemical Works v. Muth, 35 Fed. Rep. 524.

116. Indurated Fibre Co. v. Amoskeag Fibre Co., 37 Fed. Rep. 695.

as a trademark for medicines,<sup>117</sup> as was also the word "Ferro-Manganese" as a mark for mineral waters,<sup>118</sup> and the word "Bromo-Celery" for a medicinal preparation.<sup>119</sup>

There are cases, however, where such words or combinations of words have been held not to be descriptive. Thus the word "Cocaine" as applied to a hair wash compounded from cocoanut oil and other ingredients,<sup>120</sup> and "Magnetic Balm" as applied to a medicinal compound,<sup>121</sup> have been upheld as valid trademarks. The word "Electro-Silicon" applied to a polishing compound has also been upheld,<sup>122</sup> and it appears very clear that the words "Magnetic" or "Electric" as used in the two cases last referred to are purely arbitrary and fanciful.

We have noted that the Patent Office has refused registration to an applicant offering the word "Bromo-Quinine" as the name of a medicinal preparation. This decision is in hopeless conflict with some of the adjudicated cases. The word "Bromodia," as a trademark for a chemical combination of chloral hydrate, bromide of potassium and other substances, was admitted to registration and subsequently upheld as valid, the court upon final hearing saying that the word "has no meaning whatever except as connected with complainants' business, and as associated with and indicative of a soothing or soporific mixture prepared and sold by them."<sup>123</sup> The word "Bromo-Caffeine" was admitted to regis-

117. *Re Grove, Newton*, Dig. 192; s. c., *Ibid.* 191, 67 *Off. Gaz.* 1447.

118. *Re Excelsior Springs Co.*, *Newton* Dig. 153.

119. *Re Bromo-Celery Co.*, *Newton* Dig. 1453.

120. *Burnett v. Phalon*, 3 *Keyes* 594.

121. *Smith v. Sixbury*, 25 *Hun.* 232.

122. *Electro-Silicon Co. v. Trask*, 59 *How. Pr.* 189; *Electro-Silicon Co. v. Hazard*, 29 *Hun.* 369.

123. *Battle & Co. v. Finlay* (preliminary hearing), 45 *Fed. Rep.* 796; (final hearing), 50 *Fed. Rep.* 106.



tration, and upheld judicially, the Court of Appeals of New York saying, per Peckham, J.: "We think there is a distinction between the facts in this case and that of *Caswell v. Davis*.<sup>124</sup> In this case the term perhaps suggests that some one among the hundreds of substances that bromine may combine with has been used in such combination together with caffeine. There are, however, some seven different ingredients in the plaintiff's preparation, and there is no free bromine among them, and there is no evidence as to what the substance is which the bromine (if any) had combined with before being used in the preparation, and so it is plain that the words 'Bromo-Caffeine' do not in fact describe the ingredients or even give any clear general idea as to what they are."<sup>125</sup> It is the general rule that "when an article is made that was theretofore unknown, it must be christened with a name by which it can be recognized and dealt in, and the name thus given to it becomes public property, and all who deal in the article have the right to designate it by the name by which alone it is recognizable."<sup>126</sup>

Under peculiar circumstances a mark, otherwise a valid trademark, will become the common property of two or more merchants, each of whom may have a right to its use, provided he so uses it as not to pass off his goods as those of one of the others entitled to use the mark. Thus a plaintiff was refused an injunction restraining the use of the mark "Aramingo Check" to designate printed cloth made at the Aramingo Mills, where the defendant showed that the cloth sold by him under the mark was the product of the same mills, and

124. 58 N. Y. 223, cited supra.

126. Wallace, J., in *Leclanche*

125. *Keasbey v. Brooklyn Chemical Works*, 142 N. Y. 467, 476.

*Battery Co. v. Western Elec. Co.*, 23 Fed. Rep. 276.

the labels used by the respective parties differed in size and color so that confusion would not result from their use.<sup>127</sup>

§ 44. The inventor's use of his name as against assignees of his patents.

The use of proper names in connection with patented articles is governed in general by the same rules as trademarks so used. It is obvious that the bare assignment of a patent does not divest the assignor of the right to use his own name in connection with articles made under his earlier or later patents, or from truthfully describing himself as the inventor of the subject-matter of the assigned patent. In such a case Judge Noyes has said: "Dr. Reed had no right to sell his improved shoe as the original shoe, but to prevent him in connection with the sale of the later shoe from describing himself as the inventor of the earlier one would be to give the complainant that which it neither bought or paid for."<sup>128</sup>

Where a patentee causes a corporation to be organized as licensee, with his name embodied in the corporate name, there is grave doubt whether he can compel the discontinuance of that use of his name upon the termination of the license. But such a licensee may then be enjoined from using his name upon its goods in such a way as to lead the public to believe they are still made under the patent.<sup>129</sup>

§ 45. Statutory authority of Commissioner.

The Commissioner of Patents is empowered by statute<sup>130</sup> to establish regulations, not inconsistent with law,

127. *Colloday v. Baird*, 4 Phila. 139; *Cox' American Trademark Cases*, 257.

128. *Dr. A. Reed Cushion Shoe Co. v. Frew*, 162 Fed. Rep.

887, 889, 89 C. C. A. 577.

129. *Stimpson Computing Scale Co. v. W. F. Stimpson Co.*, 104 Fed. Rep. 893, 44 C. C. A. 241.

130. Sec. 483, R. S. U. S.

for the conduct of proceedings in the Patent Office, subject to the approval of the Secretary of the Interior. These rules, in so far as they are consistent with law, are as authoritative as the statutes. "If there is inconsistency between the rules and statute, the latter must prevail."<sup>131</sup>

§ 46. The petition.

As a matter of Patent Office procedure under rule, a petition is required to accompany the description and claims. The petition is addressed to the Commissioner of Patents and contains a recital of the name, nationality, residence and postoffice address of the applicant, and prays that a patent be granted upon the invention, which is therein named, referring to the specifications for its full disclosure.

While a petition has always been required to be presented by an applicant for letters patent, it is a very unimportant form, and seldom contains any reference to the invention except by its mere title, and a reference to the specifications.<sup>132</sup>

§ 47. The effect of the filing of an application upon the question of date of invention.

A rejected application is not sufficient to establish priority of invention under the statutes;<sup>133</sup> but "the courts have uniformly held that an application which eventuates in a patent, and which sufficiently describes the invention, is conclusive evidence that the invention

131. United States ex rel. v. Allen, 192 U. S. 543-565, 48 L. Ed. 555.

132. Hogg v. Emerson, 6 How. 437, 480, 12 L. Ed. 505, 523.

133. Automatic Weighing Machine Co. v. Pneumatic Scale Corp., 166 Fed. Rep. 288, 297, 92 C. C. A. 206.



was made at the time the application was filed.”<sup>134</sup> So the Patent Office has always adhered to the rule that the filing of an allowable application for patent is a constructive reduction to practice.<sup>135</sup> These rules are founded upon the fact that the statutes define the necessary procedure to obtain a patent. “It is enough,” says an oft-quoted opinion, “that the inventor has perfected his invention, and is able to furnish to the Patent Office such specifications (and model) as the law requires. Having done this, the patent, in so far as prerequisites to its validity, either by way of experiment or use, are material, is valid.”<sup>136</sup>

#### § 48. The description.

By the terms of § 4888 the description must be “in such full, clear, concise and exact terms as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected” to practice the invention. The degree of skill of the persons referred to has been commented upon by Judge Green thus: “Persons skilled in the art to which the specification is addressed are in fact those of ordinary and fair information \* \* \* not those having very great technical knowledge relating to the subject-matter of the invention.”<sup>137</sup> The necessity of this provision is self-evident. A full and accurate description is necessary to enable the Patent Office to judge correctly upon the questions of operativeness, utility, novelty, aggre-

134. Colt, J., in *Automatic Weighing Machine Co. v. Pneumatic Scale Corp.*, 166 Fed. Rep. 288, 297, 92 C. C. A. 206.

135. *Croskey v. Atterbury*, 9 App. D. C. 207, 76 Off. Gaz. 163; *Christensen v. Noyes*, 15 App. D. C. 94, 90 Off. Gaz. 223; *Silverman v. Hendrickson*, 19 App. D. C. 381,

99 Off. Gaz. 1171; *Davis v. Garrett*, 28 App. D. C. 9, 123 Off. Gaz. 1991; *Duryea v. Rice*, 28 App. D. C. 423, 126 Off. Gaz. 1357.

136. *Woodruff, J.*, in *Wheeler v. Clipper Mower Co.*, 10 Blatchf. 181, Fed. Case 17, 493.

137. *Tannage Patent Co. v. Zahn*, 66 Fed. Rep. 986-989.

gation, and the like; to enable the government to know what is granted and what will become open to the public when the patent expires; to advise the public to what the monopoly of the patent extends; to let other inventors know what has been accomplished (at least on paper) in the art; to instruct assignees or licensees how to practice the invention; and to inform the courts in litigation in which the patent is used in evidence.<sup>138</sup> Viewing the patent as the analogue of a contract, the description (not the claim) is the inventor's contribution to scientific knowledge; hence it will vitiate the resulting patent if, by negligence or design, it fails to be so full, clear, concise and exact, as to enable the public to practice the invention, and such failure will be treated as is failure of consideration in the case of the contract.

§ 49. Description only a part of the specification.

The description is merely a part of the specification, of which the claims form the remainder.<sup>139</sup> This is made clear by a reading of the various sections of the Patent Act: In §§ 4888 and 4916 the words "specification and claim" are employed; in § 4902 the words "description" and "specification" are introduced; "but it is clear that the word 'specification,' when used without the word 'claim,' means description and claim."<sup>140</sup> The word "specification" is used with that comprehensive meaning in §§ 4884, 4895, 4902, 4903, 4917, 4920 and 4922.

138. *Hogg v. Emerson*, 6 How. 437, 12 L. Ed. 505, 5 Brodix 1; *Bates v. Coe*, 98 U. S. 31, 25 L. Ed. 68, 15 O. G. 337, 12 Brodix 150.

139. *Badische Anilin & Soda*

*Fabrik v. Higgin*, 15 Blatchf. 290, Fed. Case No. 722.

140. Mr. Justice Blatchford, in *Wilson v. Coon*, 6 Fed. Rep. 611, 615.

These considerations lead us to the understanding of the rule of construction which is the subject of the next paragraph.

§ 50. The claims may be referred to in construing the description.

This rule rests upon the analogy of letters patent to contracts. Like contracts, the specification must be read as a whole, or from the four corners of the instrument, in weighing the intent of its contents, and ascertaining the metes and bounds of the invention; subject to the other rule, to be considered later, that while a claim may be limited, it can never be expanded, by reference to the description.<sup>141</sup>

“If a claim, uncertain when considered apart from the description, can by reference to the latter be rendered so clear as to satisfy the requirement of the statute, that the inventor ‘shall particularly point out and distinctly claim’ his invention, by parity of reasoning a doubtful point in the description, when considered apart from the claims, can by reference to the latter, when in themselves unambiguous, be rendered so clear as to satisfy the other requirement of the statute that the inventor shall fully and clearly set forth his invention in the description. That under such circumstances a description uncertain or indefinite when considered alone, but not inconsistent with the claims, may be rendered certain and sufficient to meet the requirements of the statute by reading the whole specification together has

141. McClain v. Ortmayer, 141 U. S. 419, 35 L. Ed. 800; Lehigh Valley Railroad Co. v. Mellon, 104 U. S. 112, 26 L. Ed. 639.



frequently been recognized and is, we think, a sound rule of law.”<sup>142</sup>

### § 51. Distinguishing the invention.

The language of § 4888 is keenly specific; “and he shall particularly point out \* \* \* the part, improvement, or combination which he claims as his invention or discovery.”

“It is not enough to give such a description of the machine patented as to show, by comparing it with other machines, what part has been invented. \* \* \* Where an improvement on a machine referred to the previous patent of the machine, as showing the part invented, it was held sufficient. It is not enough that the thing designed to be embraced by the patent should be made apparent on the trial, by a comparison of the new with the old machine. The specifications must be complete.”<sup>143</sup>  
 “A description of the machine which mixes up the new and old, but does not describe what the invention is, cannot be sustained.”<sup>144</sup>

### § 52. How drawings may aid description.

We have considered the function of the drawings as a part of the application. It is sufficient at this point to note the general rule as stated by Judge Wheeler: “The

142. Bradford, J., in *Electric Smelting and Aluminum Co. v. Carborundum Co.*, 102 Fed. Rep. 618, 629, 42 C. C. A. 537; citing *Battin v. Taggart*, 17 How. 74, 85, 15 L. Ed. 37; *The Corn-Planter Patent*, 23 Wall. 181, 224, 23 L. Ed. 161; *Carver v. Manufacturing Co.*, 2 Story 430, 466; *Howes v. Nutes*, 4 Cliff. 173, 174, Fed. Case 6,790; *Ryan v. Goodwin*, 3 Sumn. 514, 520, Fed. Case 12,186;

*Meyers v. Frame*, 8 Blatchf. 446, 457, Fed. Case 9, 991; *Parker v. Stiles*, 5 McLean 44, 56 Fed. Case 10,749; *Lowell v. Lewis*, 1 Mason 182, 188, Fed. Case 8, 568.

143. Mr. Justice McLean, in *Brooks v. Jenkins*, 3 McLean 432, Fed Case 1, 953.

144. Mr. Justice Story, in *Evans v. Eaton*, 7 Wheat. 356, 5 L. Ed. 472.

drawing could and should be looked at, if necessary, in order to explain an ambiguous or doubtful specification, and to make the invention capable of being understood and used. But it cannot supply an entire want of any part of a specification or claim in a suit upon a patent, although it might afford ground for a reissue covering the part shown by it. U. S. R. S., § 4916.”<sup>145</sup>

Where the court was conscious that the specification was “ambiguous and uncertain,” on final hearing leave was granted to put proof in the record as to the true reading of the drawings, the court finding that the defendant infringed the claim.<sup>146</sup> The drawing alone, in the absence of any descriptive matter, in the original specification, cannot support a reissue.<sup>147</sup> The drawing will be examined to ascertain the true meaning of the terms used in describing the invention.<sup>148</sup>

§ 53. The importance of describing what is old.

The direction of § 4888, R. S. U. S., to the applicant, to “particularly point out \* \* \* his invention or discovery” finds its reflection in the necessity for pointing out where the invention begins, and on what foundation in the prior art it is built.

“When a man supposes he has made an invention or discovery useful in the arts and, therefore, the proper subject of a patent, it is, nine times out of ten, an improvement on some existing article, process or machine, and is only useful in connection with it. It is necessary, therefore, for him, in his application to the Patent Of-

145. Wheeler, J., in *Tinker v. Wilber Eureka Mower & Reaper Mfg. Co.*, 1 Fed. Rep. 138, 139; followed in *Gunn v. Savage*, 30 Fed. Rep. 366, 369.

146. *Frazier v. Gates & Sco-*

*ville Iron Works*, 22 Fed. Rep. 439, 443.

147. *Ives v. Sargent*, 119 U. S. 652, 30 L. Ed. 544.

148. *Steiner & Voegtly Hdw. Co. v. Tabor Sash Co.*, 178 Fed. Rep. 831, 836.

face, to describe that upon which he engrafts his invention, as well as the invention itself; and, in cases where the invention is a new combination of old devices, he is bound to describe with particularity all these old devices, and then the new mode of combining them, for which he desires a patent. It thus occurs that, in every application for a patent, the descriptive part is necessarily largely occupied with what is not new, in order to an understanding of what is new.”<sup>149</sup>

The description, in the language of Judge Grosscup, must “clearly distinguish the old from the new, so that the novelty claimed is obvious.”<sup>150</sup>

The reference to that structure in the prior art to which the improvement relates is judged by the sufficiency of the description, as a guide to those skilled in the art, in practicing the later invention.

The invention may relate to an improvement upon something that has been patented, or something that has never been patented. This does not affect the question of sufficiency of description, except that a reference to the patent, expired or subsisting, upon which the improvement is based, is sufficient to guide the intending user of the improvement with economy of words.

“As to the supposed distinction between an improvement on a machine patented and one not so, there is nothing in it. In both cases the improvement must be described, but with this difference, that in the former case it may be sufficient to refer to the patent and specification for a description of the original machine, and then to state in what the improvements on such original machine consist; whereas in the latter case it would be

149. Mr. Justice Miller, in *Merrill v. Yeomans*, 94 U. S. 568, 24 L. Ed. 235.

150. *Cerealine Mfg. Co. v. Bates*, 101 Fed. Rep. 272, 280, 41 C. C. A. 341.



necessary to describe the original machine and also the improvement. The reason for this distinction is too obvious to require explanation.”<sup>151</sup>

Again, the sufficiency of the description must be governed by the essential characteristics of the invention. A new machine, performing a new function; a new device or element, which is to be claimed both alone and in a combination of old elements; and a new combination of old elements, all call for individual treatment, according to their needs, and the Supreme Court so holds.

“Inventors of machines are required, before they secure a patent, to deliver a written description of the improvement and of the manner and process of making, constructing and using the same, in such full, clear and exact terms as to enable one skilled in the art or science to make, construct and use the invention. Drawings are also required in certain cases, and if the invention is such that it may be represented by a model, the applicant for a patent is required to furnish a model of the improvement. Requirements of the kind, in cases where they apply, may be regarded as conditions precedent to the right of the commissioner to grant such an application; but cases often arise where they or some of them do not apply.

“An applicant for a patent, ‘in case of a machine,’ is required to explain the principle thereof, the best mode of applying the same, and to point out and distinctly claim the part, improvement or combination which he claims as his invention; and the respondents contend that the patent of the complainant is invalid because the specification does not comply with that requirement. R. S. U. S., § 4888.

151. Mr. Justice Washington, in *Evans v. Eaton*, 3 Wash. 443, 1 Robb 193, Fed. Case 4,560.

“Inventions sometimes embrace an entire machine, and in such cases it is sufficient if it appears that the claim is co-extensive with the patented improvement. Other inventions embrace only one or more parts of a machine, and in such cases the part or parts claimed must be specified and pointed out, so that constructors, other inventors, and the public may know what the invention is and what is withdrawn from general use.

“Patented inventions are also made which embrace both a new device or element and a new combination of old devices embodied in the same apparatus or machine. Particular description of the improvement is required in such a case, as the property of the patentee in such a case consists not only in the new device, but also in the new combination.

“Modern inventions very often consist merely of a new combination of old elements or devices, where nothing is or can be claimed except the new combination. Such a combination is sufficiently described, to constitute a compliance with the letter and spirit of the Act of Congress, if the devices of which it is composed are specifically named, their mode of operation given, and the new and useful result to be accomplished is pointed out, so that those skilled in the art and the public may know the extent and nature of the claim and what the parts are which co-operate to do the work claimed for the invention.”<sup>152</sup>

§ 54. Description must obviate experimentation in practicing the invention.

Section 4888, R. S. U. S., is keenly explicit in calling for a description in “full, clear, concise, and exact terms,” and Mr. Justice Brown has said “the object of

152. Mr. Justice Clifford, in *Parks v. Booth*, 102 U. S. 96-107, 26 L. Ed. 55, 56.

this is to apprise the public of what the patentee claims as his own, the courts of what they are called upon to construe, and competing manufacturers and dealers of exactly what they are bound to avoid. If the description be so vague and uncertain that no one can tell, except by independent experiments, how to construct the patented device, the patent is void.”<sup>153</sup>

This rule applies to patents for processes, machines, manufactures and compositions of matter.

#### § 55. Composition of matter.

“Inasmuch as the discovery of a new substance by means of chemical combination is empirical, and results from experiment, the law requires that the description in a patent for such discovery should be specially clear and distinct. ‘When the specification of a new composition of matter gives only the names of the substances which are to be mixed together, without stating any relative proportion, undoubtedly it would be the duty of the court to declare the patent void; and the same rule would prevail when it was apparent that the proportions were stated ambiguously or vaguely, for in such cases it would be evident on the face of the specification that no one could use the invention without first ascertaining by ex-

153. The Incandescent Lamp Patent, 159 U. S. 465, 474, 40 L. Ed. 221, 224. To the same effect see Grant v. Raymond, 6 Peters 218, 247, 8 L. Ed. 376, 386; Wood v. Underhill, 46 U. S. (5 Howard) 1, 5, 12 L. Ed. 23, 24; Tyler v. Boston, 74 U. S. (7 Wall.) 327, 19 L. Ed. 93; Bene v. Jeantet, 129 U. S. 683, 32 L. Ed. 803; Howard v. Detroit Stove Works, 150 U. S. 164, 167, 37 L. Ed. 1039, 1040; Schneider v. Lovell, 10 Fed. Rep.

666; Welling v. Crane, 14 Fed. Rep. 571; Lockwood v. Faber, 27 Fed. Rep. 63; Chemical Rubber Co. v. Raymond Rubber Co., 71 Fed. Rep. 179, 18 C. C. A. 31; Badische Anilin & Soda Fabrik v. Kalle, 94 Fed. Rep. 163, 167; DeLamar v. DeLamar Mining Co., 110 Fed. Rep. 538; DeLamar v. DeLamar Mining Co., 117 Fed. Rep. 240, 247, 54 C. C. A. 272; Panzl v. Battle Island Paper Co., 138 F. R. 48, 53, 70 C. C. A. 474.



periment the exact proportion of the different ingredients required to produce the result intended to be obtained. The specification must be in such full, clear, and exact terms as to enable any one skilled in the art to which it appertains to compound and use the invention; that is to say, to compound and use it without any experiments of his own.' An inventor cannot 'speculate on the equivalents of his claimed invention, and thereby oblige the public to resort to experiments in order to determine the scope of the claims of his patent.' ''<sup>154</sup>

“It was said by Mr. Chief Justice Taney in *Wood v. Underhill*, 46 U. S. (5 How.) 1, 5, 12 L. Ed. 23, 24, with respect to a patented compound for the purpose of making brick or tile, which did not give the relative proportions of the different ingredients: ‘But when the specification of a new composition of matter gives only the names of the substances which are to be mixed together, without stating any relative proportion, undoubtedly it would be the duty of the court to declare the patent void. And the same rule would prevail where it was apparent that the proportions were stated ambiguously and vaguely. For in such cases it would be evident on the face of the specification, that no one would use the invention without first ascertaining, by experiment, the exact proportion of the different ingredients required to produce the result intended to be obtained. \* \* \* And if, from the nature and character of the ingredients to be used, they are not susceptible of such exact description, the inventor is not entitled to a patent.’

“So, in *Tyler v. Boston*, 74 U. S. (7 Wall.) 327, 19 L. Ed. 93, wherein the plaintiff professed to have discovered a combination of fusel oil with the mineral and earthy oils, constituting a burning fluid, the patentee stated that

<sup>154</sup>. Townsend, J., in *Panzl v. Battle Island Paper Co.*, 138 Fed Rep. 49, 53.

the exact quantity of fusel oil which is necessary to produce the most desirable compound must be determined by experiment. And the court observed: 'Where a patent is claimed for such a discovery it should state the component parts of the new manufacture claimed with clearness and precision, and not leave a person attempting to use the discovery to find it out by experiment.' ”<sup>155</sup>

### § 56. Process.

“The law does not require that a discoverer or inventor, in order to get a patent for a process, must have succeeded in bringing his art to the highest degree of perfection. It is enough if he describes his method with sufficient clearness and precision to enable those skilled in the matter to understand what the process is, and if he points out some practicable way of putting it into operation.”<sup>156</sup>

Where temperatures are employed, they may be given with latitude, as between maximum and minimum stated temperatures, leaving the degree between those temperatures to the operator, where, within those limits, the process may be applied without injury.<sup>157</sup>

As to the recitation of the steps of a process, the decisions are harmonious in requiring a high degree of definiteness.

“The statement of a process upon the part of a patentee, to be sustainable, must not only clearly distinguish the old from the new, so that the novelty claimed is obvious, but must point out the new steps so definitely,

155. Mr. Justice Brown, in *The Incandescent Lamp Patent*, 159 U. S. 465-474, 40 L. Ed. 221-224.

156. Mr. Chief Justice Waite,

in *Telephone Cases*, 126 U. S. 1, 31 L. Ed. 863.

157. *Mowry v. Whitney*, 81 U. S. (14 Wall.) 620, 20 L. Ed. 860, 864.

that one wishing to use that process for the production of the desired product, will have a clear chart before his eye. In this essential the Gent process utterly fails. An inspection of the description discloses its progressive steps—hulling and clipping; steaming and moistening; compression through warm rollers—but as we have shown, none of these are new. What degree of steaming or moistening is not made apparent; what should be the warmth of the rolls does not appear. The user would be obliged, with this chart before him, to experiment, just as Gent doubtless experimented, before he obtained a hard, dry flake. The patent would be no guide; it would not even facilitate the production of the hard, dry flake. It leaves the world, as would-be manufacturers, just where it found Gent—with valuable general information on the subject, but with no definite formula. As a process patent, therefore, the Gent claim fails.”<sup>158</sup>

#### § 57. Manufactures.

In considering the sufficiency of the description of an alleged new article of manufacture, it is important to bear in mind the distinctions which make a new article of manufacture patentable. This subject has been clarified by the following judicial consideration:

“Is the hard, dry flake a new article of manufacture within the meaning of the patent law? New articles of manufacture must not be confounded with a new article of commerce. The latter may be novel and highly useful, even to the displacement in commerce of its predecessors, but is not, on that account, patentable. Powdered sugar succeeded to loaf sugar; ground coffee to coffee in the berry, and as articles of commerce largely supplanted sugar and coffee in their previous forms, but no one

<sup>158</sup>. Grosscup, J., in *Cerealine Mfg. Co. v. Bates*, 101 Fed. Rep. 272, 280, 41 C. C. A. 341.



claims that, within the meaning of the patent law, such change, though new and useful, constituted a new article of manufacture.

“Steel, on the other hand, when first made, as the result of the combination of carbon and iron, was an essentially new manufacture. It introduced a practically new metal into the uses of mankind. It differed so essentially from its ingredients in their former state, that the change was not a mere modification, but was a creation. No one would classify steel with iron; it is a distinct species.

“Is this true of the hard, dry flake of the Gent patent? The whole emphasis of appellant’s contention is placed upon the fact that, unlike flour, the flake is not laminated, but through the presence of soluble starch and dextrine the granules cohere, and a flake results. The development of dextrine is urged as the efficacious novelty giving to this product its merit. But dextrine is inherent in every cereal containing starch which has been subjected to a certain degree of heating. It is found in breads that have been twice baked in a high degree of heat; it is the well known result of heat applied to soluble starch; it is doubtless present in the wheat and barley flake of previous cereal foods.

“The Gent product may be brighter in color, more desirable in commerce, and more useful, than its predecessors, but is composed of no ingredients previously unknown, and is the result of no essentially new combination of old ingredients; nor is it, so far as we can see, the result of any new mechanical or chemical process. At most, it is an advance only upon the old art in the direction of perfection—a step merely in the mechanical evolution of cereal foods and general flour-making.

“There is no clear line of demarcation between what may be called new articles of commerce, not patentable

though useful, and new articles of manufacture patentable as such. Each instance brought to the attention of the court must be determined more or less upon the situation peculiar to itself. We think it sufficient to say that no result of a machine or process is patentable independently, where it is apparent that such result is a degree only in advance, in the evolution of an art that is as wide as is the manufacture of cereal foods and flour.”<sup>159</sup>

The nature of the subject-matter which is patentable as an article of manufacture being thus defined, the description will be weighed by its sufficiency of definition of the article itself, and not of the method of its production. This rule has been thus applied by the Supreme Court: “It is quite immaterial (even if it be a fact) that the Johnson specification is insufficient to teach a manufacturer how to make the patented corset. It is enough if it sufficiently describes the corset itself. Neither it nor the plaintiff’s specification exhibits the process of making. Neither of them set up a claim for a process.”<sup>160</sup>

The same court has thus amplified the rule: “Every patent for a product or composition of matter must identify it so that it can be recognized aside from the description of the process for making it, or else nothing can be held to infringe the patent which is not made by that process.”<sup>161</sup>

### § 58. Designs.

The protection of designs by Letters Patent is of very doubtful propriety. The characteristics of a patentable

159. Grosscup, J., in *Cerealine Mfg. Co. v. Bates*, 101 Fed. Rep. 278, 280, 41 C. C. A. 341.

160. Mr. Justice Strong, in *Cohn v. United States Corset Co.*,

93 U. S. 366, 23 L. Ed. 907.

161. Mr. Justice Blatchford, in *Cochrane v. Badische Anilin & Soda Fabrik*, 111 U. S. 293, 28 L. Ed. 433.



design always bring it, or should bring it, within the scope of the copyright act. No design can be properly regarded as an invention. If any design could be truthfully characterized as an invention, all drawings, paintings, photographs and sculpture should be equally within the terms of the Patent Act.

The original design Patent Statute reads as follows:

“Section 4929, R. S. U. S.—Any person who, by his own industry, genius, efforts, and expense, has invented and produced any new and original design for a manufacture, bust, statue, alto-relievo, or bas-relief; any new and original design for the printing of woolen, silk, cotton, or other fabrics; any new and original impression, ornament, patent, print, or picture to be printed, painted, cast, or otherwise placed on or worked into any article of manufacture; or any new, useful, and original shape or configuration of any article of manufacture, the same not having been known or used by others before his invention or production thereof, or patented or described in any printed publication, may, upon payment of the fee prescribed, and other due proceedings had the same as in cases of inventions or discoveries, obtain a patent therefor.” (Act of July 8, 1870, ch. 230, 16 Stat. at L. 209.)

The present act is as follows:

“Section 4929, R. S. U. S.—Any person who has invented any new, original, and ornamental design for an article of manufacture, not known or used by others in this country before his invention thereof, and not patented or described in any printed publication in this or any foreign country before his invention thereof, or more than two years prior to his application, and not in public use or on sale in this country for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the fees required by law and other due proceedings had, the same



as in cases of inventions or discoveries covered by section forty-eight hundred and eighty-six, obtain a patent therefor.”

The British Patents, Designs, and Trademarks Act, 1883, provides for the registration of designs as follows:

Part III, § 47. (1) “The comptroller may, on application by or on behalf of any person claiming to be the proprietor of any new or original design not previously published in the United Kingdom, register the design under this part of this Act.”

Section 50. (1) “When a design is registered, the registered proprietor of the design shall, subject to the provisions of this Act, have copyright in the design during five years from the date of registration.”

Under the British Act it has been held that the design, to be registrable, “must be new or original with reference to the kind of article for which it is registered, meaning by kind of article not the class of article mentioned in the schedule to the rules, but the kind of article having regard to its general character and use. A design may be new for a coal-scuttle but not for a bonnet. On the other hand, a design for a shade of a gas lamp can hardly be new if it was old for an oil lamp.”<sup>162</sup>

The British idea of copyright resultant from registration of the design is far more rational than the present American system, and it is believed that little loss would result from the repeal of the design patent act of the United States, and the leaving of the owners of designs to the provisions of the copyright act for their protection.

162. Lindley, L. J., in Clarke's Design (1896), 2 Ch. 38, 45.

Judge Taft, speaking of design patents, said:

“The whole purpose of Congress, as pointed out by Mr. Justice Strong, speaking for the Supreme Court, in the case of *Gorham Co. v. White* (14 Wall. 511), was to give encouragement to the decorative arts. It contemplated not so much utility as appearance. ‘The law manifestly contemplates that giving certain new and original appearances to a manufactured article may enhance its salable value, may enlarge the demand for it, and be a meritorious service to the public. \* \* \* It is the appearance itself which attracts attention and calls our favor or dislike. It is the appearance itself, therefore, no matter by what agency caused, that constitutes mainly, if not entirely, the contribution to the public which the law deems worthy of recompense.’”<sup>163</sup>

§ 59. The relation of invention to designs.

The statute premises that the design must have been “invented,” and thus the quality of invention, of a peculiar kind, is necessary to the validity of the design patent. It has been said that “the statute which protects inventors requires the production of a new and pleasing design. The invention demanded consists in the conception and production of a design which can be so characterized.”<sup>164</sup>

“It has been clearly stated that, to entitle an inventor to the benefit of the section in regard to design patents, ‘there must be originality, and the exercise of the inventive faculty.’ ‘Mere mechanical skill is insufficient. There must be something akin to genius—an effort of the brain, as well as the hand.’”<sup>165</sup>

163. *Westinghouse Electric & Mfg. Co. v. Triumph Electric Co.*, 97 Fed. Rep. 99-101, 38 C. C. A. 65.

164. *Green, J., in Caldwell v. Powell*, 73 Fed. Rep. 488, 19 C. C.

A. 592, 77 Off. Gaz. 1272.

165. *Shipman, J., in Cary Mfg. Co. v. Neal*, 98 Fed. Rep. 617, 618; citing *Smith v. Whitman Saddle Co.*, 148 U. S. 674, 679, 37 L. Ed. 606.

“It seems perfectly fair to argue from these cases that if the industry and efforts expended in the production of a design need not be the personal industry or the personal efforts of the patentee, then the expense al-  
luded to need not be a personal expense of the inventor. It is the conception of a design as the result of inventive genius which characterizes the inventor. The realization of that conception may be brought about by any means which the inventor may fairly control or obtain.”<sup>166</sup>

“The invention in a majority of patented designs is very small and of a very low order. All the statute as commonly interpreted requires is the production of a new and pleasing design, which may add value to the object for which it is intended.”<sup>167</sup>

“In order to support a patent for a design \* \* \* there must be some invention, and not a mere application to a new material of something already known. The design must be new and original, and not a copy or an imitation. This is required by the clear words of the section, and has been constantly recognized in the judicial decisions under it.”<sup>168</sup>

The study of the cases is difficult because so many of the patents issued and adjudicated as design patents have not been for designs at all, but merely for the physical distortion of particular parts of articles of manufacture, such as parallel corrugations upon the surface

166. Green, J., in *Matthews & Willard Mfg. Co. v. Trenton Lamp Co.*, 73 Fed. Rep. 212, 217.

167. Butler, J., in *Smith v. Stewart*, 55 Fed. Rep. 481, 483.

168. Mr. Justice Gray, in *Foster v. Crossin*, 44 Fed. Rep. 62; citing *Clark v. Bousfield*, 10 Wall.

133, 139; *Gorham Co. v. White*, 14 Wall. 511, 524; *Wooster v. Crane*, 5 Blatchf. 282. The English statute and cases are similar. *Mulloy v. Stevens*, 10 L. T. N. S. 190; *Lazarus v. Charles*, L. R. 16 Eq. 117.



of a rubber mat,<sup>169</sup> or a perforated sheet of veneer applied to the front face of the back of a bow-backed chair.<sup>170</sup> These illustrations might be multiplied indefinitely. This unwarrantable abuse of a statute which itself was enacted through a curious misconception of what constitutes invention, reached its climax in the issuance of a patent for a design for a horse-shoe calk,<sup>171</sup> and a patent for a design for "a washer for thill-couplings,"<sup>172</sup> both of which articles had their designs concealed from the human eye the moment they were placed in use. In the case last referred to, the court said "it is another instance of the 'liberal,' if not lax, practice, in issuing design patents. \* \* \* The washer, like the horse-shoe calk, is not intended for display, but for an obscure use. There is no evidence that its form appeals in any way to the eye, or serves to commend it to purchasers and users as a thing of beauty. There is not a scintilla of evidence that the sale of a single washer was ever induced by reason of any attractiveness in its appearance. Functional utility entitled the patentee to the mechanical patent \* \* \*, but mere functional utility did not entitle him to a design patent for the same article."

Judge Archbald has written the following resume of the cases bearing upon the character of invention which the design patent statute is intended to comprehend:

"It was never the intention of Congress, in allowing patents for designs, to duplicate the existing law, so that an inventor, at his option, could cover that which had nothing but a practical value either with a design or a mechanical patent, or, as is now claimed, with both. A

169. New York Belting & Packing Co. v. New Jersey Car Spring Co., 137 U. S. 445, 34 L. Ed. 741.

170. Paine v. Snowden, 50 Fed. Rep. 776.

171. Rowe v. Blodgett, 112 Fed. Rep. 61, 50 C. C. A. 120.

172. Bradley v. Eccles, 126 Fed. Rep. 945, 949, 61 C. C. A. 669.

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distinct class of inventions, having characteristics and features of its own, was intended to be reached by the statute, and to this it is to be confined. It is, indeed, a perversion to attempt to extend it to anything else. *Weisgerber v. Clowney*, 131 Fed. Rep. 477. It has been accordingly expressly decided that a horse-shoe calk, such as we have here, was not patentable as a design (*Rowe v. Blodgett*, 103 Fed. Rep. 873, 112 Fed. Rep. 61, 50 C. C. A. 120); nor a syringe (*Marvel v. Pearl*, 114 Fed. Rep. 946); nor plates to hold together the ends of machine belting (*Eaton v. Lewis*, 115 Fed. Rep. 635); nor a thill-coupling and washer for carriages (*Bradley v. Eccles*, 126 Fed. Rep. 945, 61 C. C. A. 669). In each of these instances it is manifest that artistic configuration, addressed to the eye, practically counted for nothing, the whole value of the device being found in the uses to which it could be put, to which the mind of the inventor was naturally addressed. To say that the form into which such articles are cast adds to their attractiveness to a purchaser, and thus enhances their salable value, enlarging the demand, merely obscures the issue. It is true that this is recognized in *Gorham Co. v. White*, 14 Wall. 511, 20 L. Ed. 731, as one of the objects, in providing for design patents; but that it thereby made the law applicable to anything and everything, without regard to its character, or whether it was otherwise within the purview of the statute, by no means follows. Neither is anything to the contrary to be made out of the word 'useful,' to be found in the statute. The utility intended by this is artistic, and not practical, as is implied from the context. The design, with respect to the article of manufacture for which it is devised, must contribute something which is artistically worth the while,



and which is not hurtful or frivolous.<sup>173</sup> This is not to say that that which is covered by a design may not also have useful features (*Eiecla Foundry Co. v. Ealker, L. R.* 14 App. Cas. 550); but only that, where the article to which it is applied has nothing but that which is useful or functional to commend it, a mechanical, and not a design, patent is the proper one to take out. In the present instance, conceding that there may be artistic lines in the configuration of the complainant's calks, these add nothing to it, and amount to nothing, except as they make for its greater usefulness. In that lies its real value, and it is that which the inventor has contributed to the world, if he has contributed anything. As applied to a horse-shoe calk, which is made for use in ice, snow, and grime, art is wasted, and display so inappropriate as to be frivolous, and so not useful, within the meaning of the law."<sup>174</sup>

§ 60. Novelty as applied to design patents.

This question is one that presents, upon investigation, a curious diversity of opinion, which tends to embarrass any effort to analyze the cases.

Judge Green has said, upon this issue: "To obtain a grant of letters patent for a design, the applicant must show the presence in his design of originality, in some degree at least. In other words, appropriation of the invention of another, though the design may disclose alteration, does not justify, nor is it to be rewarded by, the issuance of letters patent creating a monopoly. Thus

173. *Westinghouse Mfg. Co. v. Triumph Electric Co.*, 97 Fed. Rep. 99, 38 C. C. A. 65; *Rowe v. Blodgett*, 103 Fed. Rep. 873; *Marvel v. Pearl*, 114 Fed. Rep. 946. *In re Seaman*, 4 O. G. 691; *Ex parte Norton*, 22 O. G. 1205; *Ex parte Schulze-Berge*, 42 O. G. 293.

174. *Williams Calk Co. v. Nev-erslip Mfg. Co.*, 136 Fed. Rep. 210, 215; affirmed in *Williams Calk Co. v. Kemmerer*, 145 Fed. Rep. 929, 76 C. C. A. 466. To the same effect, see, *Weisgerber v. Clowney*, 131 Fed. Rep. 477.



in *Theberath v. Trimming Co.*, 15 Fed. Rep. 246, in speaking of patents for designs, Judge Nixon in this court said:

‘Patents for designs differ from patents for inventions or discoveries in this respect: that they have reference to appearance rather than utility. Their object is to encourage the arts of decoration more than the invention of useful products. A picture or design that merely pleases the eye is a proper subject for such a patent, without regard to the question of utility, which is always an essential ingredient in an invention or discovery patent. But, notwithstanding these differences, all regulations and provisions that are applicable to the obtaining or protecting of patents of the latter kind are by § 4933 of the Revised Statutes, made applicable also to design patents.’

“I think it may be taken as settled that, to sustain a design patent, there must be exhibited in the production of the design an exercise of the inventive or original faculty as clear and of as high degree as is called for in patents for inventions or discoveries. In the latter class there must be novelty and utility; in the former, beauty and originality. In both, the final production must have been engendered by the exercise of brain power, and to such an extent that it may be said to be born of genius. If this be correct, it follows, necessarily, that the adaptation of old devices, or of old forms or designs, though never so beautiful, to new purposes or ornamentations, however exquisite the result, is not invention. It is not begotten of originality. And so it is forbidden for one to choose an existing design, simply to devote it to a new use, and, because of such new use, successfully to claim the benefits of the patent laws.”<sup>175</sup>

175. *Cahoone Barnett Mfg. Co. v. Rubber & Celluloid Harness Co.*, 45 Fed. Rep. 582, 585.

Judge Coxe has said "in each case there must be novelty. \* \* \* It is impossible to read the literature upon this subject without being convinced that the courts, though applying the same rules, have looked with greater leniency upon design patents than patents for other inventions. From the nature of things, this must be so. A design patent must relate to subject-matter comparatively trivial. The object of the law is to encourage those who have industry and genius sufficient to originate objects which give pleasure through the sense of sight."<sup>176</sup>

Novelty is negatived by sale or public use more than two years prior to the filing of the application.<sup>177</sup> But a design patent cannot be anticipated by showing that the features of the design are found separately in prior designs, if they are nowhere so combined as to produce the same effect as a whole.<sup>178</sup>

It has been held that the amount of novelty is immaterial, if the design of the patent impresses the eye differently from anything preceding it.<sup>179</sup>

Judge Sage has said that the degree of novelty "may be small, but the effect of the ornament must, to some extent at least be new."<sup>180</sup>

#### § 61. Infringement of design patents.

"The test of infringement of a design patent appears to be the existence of such similarities as will lead ordinary persons to think the articles in question are the same."<sup>181</sup>

176. *Untermeyer v. Freund*, 37 Fed. Rep. 342.

177. *Anderson v. Eiler*, 46 Fed. Rep. 777; *Anderson v. Saint*, 46 Fed. Rep. 760, 762.

178. *Kraus v. Fitzpatrick*, 34 Fed. Rep. 39.

179. *Redway v. Ohio Stove Co.*,

38 Fed. Rep. 582; *Britton v. White Mfg. Co.*, 67 Fed. Rep. 93; *Brad-dock Glass Co. v. Macbeth*, 64 Fed. Rep. 12., 12 C. C. A. 70.

180. *Redway v. Ohio Stove Co.*, 38 Fed. Rep. 583.

181. *Wheeler, J.*, in *Kraus v. Fitzpatrick*, 34 Fed. Rep. 39.



“In design patents the test of identity, on questions of anticipation and infringement, is the eye of the observer. And in determining this question the court may avail itself of such common knowledge as is possessed by the general public. The fundamental question is whether the inventive faculty has been exercised to produce anything which is original and pleasing to the eye.”<sup>182</sup>

The statutory penalty for the infringement of design patents is fixed as follows:

“That hereafter, during the term of letters patent for a design, it shall be unlawful for any person other than the owner of said letters patent, without the license of such owner, to apply the design secured by such letters patent, or any colorable imitation thereof, to any article of manufacture for the purpose of sale, or to sell or expose for sale any article of manufacture to which such design or colorable imitation shall, without the license of the owner, have been applied, knowing that the same has been so applied. Any person violating the provisions, or either of them, of this section, shall be liable in the amount of two hundred and fifty dollars; and in case the total profit made by him from the manufacture or sale, as aforesaid, of the article or articles to which the design, or colorable imitation thereof, has been applied, exceeds the sum of two hundred and fifty dollars, he shall be further liable for the excess of such profit over and above the sum of two hundred and fifty dollars. And the full amount of such liability may be recovered by the owner of the letters patent, to his own use, in any Circuit Court of the United States having

182. Townsend, J., in *Bevin Bros. Mfg Co. v. Starr Bros. Bell Co.*, 114 Fed. Rep. 362. To the same effect, see, *Jennings v. Kibbe*, 10 Fed. Rep. 669; *Ripley v. Elson Glass Co.*, 49 Fed. Rep. 927;

*Redway v. Ohio Stove Co.*, 38 Fed. Rep. 582; *Gorham Mfg. Co. v. White*, 81 U. S. 511 (14 Wall.) 20 L. Ed. 731; *Smith v. Whitman Saddle Co.*, 148 U. S. 674, 37 L. Ed. 606.



jurisdiction of the parties, either by action at law or upon a bill in equity for an injunction to restrain such infringement.” (Act of February 4, 1887, ch. 105, 24 Stat. at L. 387, § 1).

This Act has been held constitutional.<sup>183</sup> Although it had been held on circuit that knowledge of the patent was immaterial in a suit for the recovery of the statutory penalty,<sup>184</sup> the Supreme Court has held that the defendant must be proven to have knowledge of the patent.<sup>185</sup>

No damages can be recovered under this section where the plaintiff has failed to mark the articles bearing the design “patented” in accordance with § 4900 R. S. U. S.<sup>186</sup>

The penalty of this section is not given in addition to the actual profits.<sup>187</sup> A single order and sale can only be punished by the infliction of one penalty.<sup>188</sup>

## § 62. The claims.

As the claims are the measure of the monopoly created by the patent, they are the most vital part of the specification. The statute<sup>189</sup> prescribes that the applicant “shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention.”

As elsewhere stated, each claim in reality is a patent

183. *Untermeyer v. Freund*, 58 Fed. Rep. 205, 7 C. C. A. 183.

184. *Pirkl v. Smith*, 42 Fed. Rep. 410.

185. *Dunlap v. Schofield*, 152 U. S. 244, 38 L. Ed. 426.

186. *Monroe v. Anderson*, 58 Fed. Rep. 398; *Lowell Mfg. Co. v. Hogg*, 70 Fed. Rep. 787; *Dunlap*

*v. Schofield*, 152 U. S. 244, 38 L. Ed. 426.

187. *Pirkl v. Smith*, 42 Fed. Rep. 410.

188. *Gimbel v. Hogg*, 97 Fed. Rep. 791, 38 C. C. A. 419; reversing *Hogg v. Gimbel*, 94 Fed. Rep. 518.

189. § 4888, R. S. U. S.

in itself.<sup>190</sup> For this reason, although courts may criticise the multiplication of claims,<sup>191</sup> it is the duty of the solicitor to secure as many claims, non-identical in form, as can be drawn to the invention. For "one void claim \* \* \* does not vitiate the entire patent, if made by mistake or inadvertence and without any wilful default or intent to defraud or mislead the public."<sup>192</sup>

The claim, in the language of Mr. Justice Bradley, "is a statutory requirement for the purpose of making the patentee (applicant) define precisely what his invention is;"<sup>193</sup> and Judge Wallace has added the words "so distinctly and exactly as to apprise other inventors and the public, what is withdrawn from general use."<sup>194</sup> Judge Gilbert has stated the same idea in these words: "The object of a claim in a patent is to publish to the world the precise nature of the invention which the patentee seeks to protect."<sup>195</sup>

The claim may therefore be defined as the inventor's definition of his invention.

Inasmuch, therefore, as the claim defines the metes and bounds of the inventor's accomplishment, its formulation is the most difficult task of the solicitor. In this undertaking he is between the Scylla of narrowness, and the Charybdis of excessive breadth. Under the rule that "that which infringes if later would anticipate if

190. Pope Mfg. Co. v. Gormully & Jeffrey Mfg. Co., 34 Fed. Rep. 893.

191. Westinghouse Air Brake Co. v. New York Air Brake Co., 112 Fed. Rep. 424.

192. Mr. Justice Bradley, in Carlton v. Bokee, 84 U. S. (17 Wall.) 463, 21 L. Ed. 517.

193. White v. Dunbar, 119 U. S. 47, 30 L. Ed. 303.

194. Thomson-Houston Elec. Co. v. Elmira & H. Ry. Co., 71 Fed. Rep. 396, 404, 18 C. C. A. 145.

195. Santa Clara Valley Mill & Lumber Co. v. Prescott, 42 C. C. A. 477, 102 Fed. Rep. 501, 505.

earlier," the broad claim which the inventor desires as a trap for the infringer has often proved its own destroyer, by being met in the prior art.

The number of claims contained in a patent depends upon many things, the merit of the invention (though the least meritorious frequently present a bewildering labyrinth of claims), the complexity or simplicity of the invention, the taste and skill of the solicitor, and the strictness or laxity of the examination in the Patent Office.

Each claim must speak for itself, when read in the light of the description and drawings; for "each claim of the patent standing by itself, is a separate patent for the device covered by the claim."<sup>196</sup>

The following discussion of the nature of combination claims is worth presentation in full:

"A combination is a union of elements, which may be partly old and partly new, or wholly old or wholly new. But, whether new or old, the combination is a means—an invention—distinct from them. They, if new, may be inventions and the proper subjects of patents, or they may be covered by claims in the same patent with the combination.

"But whether put in the same patent with the combination or made the subjects of separate patents, they are not identical with the combination. To become that they must be united under the same co-operative law. Certainly, one element is not the combination, nor, in any

196. *Blodgett, J., in Pope Mfg. Co. v. Gormully & Jeffrey Mfg. Co.*, 34 Fed. Rep. 893. To the same effect, see, *United Nickel Co. v. California Elec. Works*, 25 Fed. Rep. 475, 479; *Celluloid Mfg. Co. v. Zylonite Brush & Comb Co.*, 27 Fed. Rep. 291, 294, 35 Off. Gaz. 1228.



proper sense, can it be regarded as a substantive part of the invention represented by the combination, and it can make no difference whether the element was always free or becomes free by the expiration of a prior patent, foreign or domestic. In making a combination, an inventor has the whole field of mechanics to draw from.”<sup>197</sup>

### § 63. Elements.

In a combination claim, as a matter of law every element is conclusively presumed to be old, whether or not it is old in fact. As Mr. Justice Brown has said “the failure to claim either one of the elements separately raises a presumption that no one of them is novel.”<sup>198</sup>

### § 64. “Element” defined.

The term “Element” applies to the one or more integers comprised in a claim. It indicates each of the two or more factors selected by the inventor and embodied in one claim as comprising a combination. It does not follow that it must be expressly enumerated in the claim. “If the patentee specifies any element as entering into the combination, either directly by the language of the claim, or by such a reference to the descriptive part of the specification as carries such element into the claim, he makes such element material to the combination.”<sup>199</sup>

It is the rule of the Patent Office to deny patentability where the applicant has merely improved one element of an old combination.<sup>200</sup>

197. Mr. Justice McKenna, in *Leeds & Catlin Co. v. Victor Talking Machine Co.*, 213 U. S. 301, 318, 53 L. Ed. 805, 813.

198. *Richards v. Chase Elevator Co.*, 159 U. S. 477, 486, 40 L. Ed. 225, 228.

199. Mr. Justice Blatchford, in *Fay v. Cordesman*, 109 U. S. 408, 420, 27 L. Ed. 979, 981.

200. *In re McNeill*, 20 App. D. C. 294, 100 Off. Gaz. 2178; *In re Ratican*, 162 Off. Gaz. 540.

An illustrative case is one in which a mathematical formula, not referred to in the claim, was read into it to give it validity, and hold an infringer.<sup>201</sup>

On the other hand, when the position of a patent in its art is strong, even the express introduction of an element to its claim by a reference letter or figure does not limit that element to the specific form shown in the drawing. "A reference in a claim to a letter or figure used in the drawing and in the specification to describe a device or an element of a combination does not limit the claim to the specific form of that element there shown unless that particular form was essential, or embodied the principle of, the improvement claimed."<sup>202</sup>

At times the courts have, in the case of reference letters or numerals which apparently imported a distinct element into the claim, disregarded such element altogether. Illustrative cases are those involving this combination:

"The combination, in a candy-machine, of a rotative, perforated vessel, A, A', A'', C, C', and a heating attachment, or burner, m, substantially as shown and for the purpose set forth."

Of this claim, one court has said, "The patent has been adjudged in another jurisdiction to be a pioneer patent, and the testimony of the complainant's expert points in the same direction. There is consequently no apparent

201. Westinghouse Electric & Mfg. Co. v. Saranac Lake Elec. Light Co., 113 Fed. Rep. 884, 887, 51 C. C. A. 514.

202. Sanborn, J., in National Hollow Brake-Beam Co. v. Interchangeable Brake-Beam Co., 106 Fed. Rep. 693, 715, 45 C. C. A. 544; citing, Reed v. Chase, 25 Fed. Rep. 94, 100; Delemater v. Heath,

58 Fed. Rep. 414, 424, 7 C. C. A. 279, 284; Muller v. Tool Co., 77 Fed. Rep. 621, 23 C. C. A. 357; McCormick Harvesting Mach. Co. v. Aultman, Miller & Co., 69 Fed. Rep. 371, 393, 16 C. C. A. 259, 281; Bonnette Arc Lawn Sprinkler Co. v. Koehler, 82 Fed. Rep. 428, 431, 27 C. C. A. 200, 203.

reason why any restrictive force should be given to the letters of reference. There is no reason why the letter A'' should be held to constitute an element or an essential part of an element of the claim in suit. Any argument in that direction would make each of the other lettered parts also distinctive and essential elements incapable of the slightest variation. As already indicated, the letters of reference simply point out the 'rotative vessel,' and do not restrict the claim to the particular form of construction shown in the drawings.''<sup>203</sup>

### § 65. The oath.

The oath accompanying an original application has been held to be "but a prerequisite to the granting of the patent, and in no degree essential to its validity."<sup>204</sup> And it has been held that the existence of the oath will not be inquired into collaterally in an infringement suit.<sup>205</sup> The Supreme Court has held that the recital in letters patent that the required oath was taken before the patent was granted is, in the absence of fraud, conclusive that the oath was so taken.<sup>206</sup>

Section 558 of the Code of Law of the District of Columbia provides in part: "No notary public shall be authorized to take acknowledgments, administer oaths, certify papers, or perform any official acts in connection with matters in which he is employed as counsel, attorney, or agent or in which he may be in any way interested before any of the departments aforesaid."

203. Cross, J., in *Electric Candy Mach. Co. v. Empire Cream Separator Co.*, 161 Fed. Rep. 532, 556; the former adjudication referred to being *Electric Candy Mach. Co. v. Morris*, 156 Fed. Rep. 972.

204. Story, J., in *Whittemore v. Cutter*, 1 Robb. 28, Fed. Case 17. 600.

205. *Holmes Burglar Alarm Telegraph Co. v. Domestic Tel. and Tel. Co.*, 42 Fed. Rep. 220.

206. *Seymour v. Osborne*, 78 U. S. (11 Wall) 516, 20 L. Ed. 33.



Of this section the Court of Appeals of the District of Columbia has said: "It clearly appears from the record that A. F. Herbsleb was the attorney for the appellant for the preparation and prosecution of the opposition, and that as a notary public in and for Hamilton County, Ohio, where the appellant resided, he certified to the oath made by its treasurer, Hall. We agree with the commissioner that the proviso of section 558 is not confined in its application to notaries public of the District of Columbia. Its language is that "no notary" shall be authorized to take acknowledgments, administer oaths, certify papers, or perform any official acts in connection with matters in which he is employed as counsel, attorney, or agent, or in which he may be in any way interested before any of the departments of the United States Government." 207

Accordingly it has been held that if the oath is executed before an officer who is also an attorney for the applicant, the oath is void, a new oath will be required, and if all the other essential parts of the application are on file, the application will be dated as of the date when the new oath is received in the Patent Office.<sup>208</sup>

The statute imperatively requires that no one but the inventor can make the oath in his life-time, or his executor or administrator after his death. A patent issued upon a false oath of inventorship is void, and a bill to compel its assignment will be dismissed upon that ground.<sup>209</sup>

#### § 66. Supplemental oaths.

The nature of the supplemental oath, and its requisites are defined by Rule 48 of the Patent Office as follows:

207. *Hall's Safe Co. v. Herring-Hall-Marvin Safe Co.*, 31 App. D. C. 498, 135 Off. Gaz., 1804.

208. *Riegger v. Beierl*, 150 Off. Gaz. 826.

209. *Kennedy v. Hazleton*, 128 U. S. 667, 672, 32 L. Ed. 576.

“When an applicant presents a claim for matter originally shown or described but not substantially embraced in the statement of invention or claim originally presented, he will file a supplemental oath to the effect that the subject-matter of the proposed amendment was part of his invention, was invented before he filed his original application, was not known or used before his invention, was not patented or described in a printed publication in any country more than two years before his application, was not patented to himself or to others with his knowledge or consent in this or any foreign country on an application filed more than twelve months prior to his application, was not in public use or on sale in this country for more than two years before the date of his application, and has not been abandoned. Such supplemental oath must be attached to and properly identify the proposed amendment.”

This requirement applies to divisional applications.<sup>210</sup> It is employed in the introduction of process claims, where the process was described, but not claimed, in the application as filed.<sup>211</sup> The question of requiring a supplemental oath from one of the parties to an interference is *ex parte* and not subject to argument by the opposing party.<sup>212</sup> The supplemental oath is not of itself conclusive evidence that the matter to which it relates was a part of the original invention, and that fact should be determined by an examination of the specification and drawing as originally filed.<sup>213</sup> It is not the function of the supplemental oath to introduce any new matter not substantially described or disclosed originally.<sup>214</sup>

210. *Forbes v. Thomson*, 53 Off. Gaz. 2042.

211. *Ex parte Perkins*, 55 Off. Gaz. 139.

212. *Rennyson v. Merritt*, 58 Off. Gaz. 1415.

213. *Ex parte Regan*, 45 Off. Gaz. 589.

214. *Steward v. Ellis v. Lee v. Howe*, 49 Off. Gaz. 1983; *Ex parte Lillie*, 53 Off. Gaz. 2041.

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§ 67. New oaths.

Where the date of the oath is more than thirty days prior to the date of the filing of the application, a new oath is usually required.<sup>215</sup> When a new oath is required it must be made by the inventor if he is alive, and an oath or affirmation by his assignee will not suffice.<sup>216</sup> The object in requiring an oath of a date recent to the filing date of the application relates to the contents of the oath with reference to prior public use or sale; the action of the primary examiner in requiring a new oath may be reviewed by the Commissioner upon petition.<sup>217</sup>

§ 68. Patentable subject-matter.

In section 4886 of the Revised Statutes of the United States, the benefits of the patent statutes are extended to any new and useful

1. Art (see *ante*, § 31).
2. Machine (see *ante*, § 32).
3. Manufacture (see *ante*, § 33).
4. Composition of Matter (see *ante*, § 34).

All subject-matter not included in the enumeration named is excluded from the benefits of the Patent Act.

§ 69. Patent Office classification.

It is provided by rule 63 of the Patent Office that applications are classified "according to the various arts." As to the application of this rule, Hall, Commissioner, said: "The classification in the Patent Office is not founded upon names and titles, but upon the actual subjects of art. The nomenclature given to the classes constitutes but the guide by which the separate subjects may be found in their appropriate places in the reposit-

215. Ex parte Wilson, 63 Off. Gaz. 465.

216. Ex parte Stevens, 59 Off. Gaz. 299; Ex parte McCoy, 80 Off. Gaz. 2037.

217. Ex parte Hoschke, 122 Off. Gaz. 1045.



tories of human knowledge and experience. When found, each subject must disclose and define itself, its structure, use, and function. Classification is the great *Aula Regis* which contains the state of art; and every new invention, like a newly arrived alien, must come before this august assembly of classification and submit to the test of naturalization by a sort of comparative anatomy — by a comparison of construction, function, and utility with all the subjects before it. Classification determines what is or is not a machine, a tool, or implement; whether it is generally new and original, or is composite, made of two recognized old machines, tools, or implements, or whether it presents mere additions to or improvements upon what already exists and is known. When, therefore, the applicant asserts that his invention is a ‘machine,’ he at once brings himself within the province of the statute, which expressly specifies a machine as one of the subjects of invention, and an applicant is entitled to demand protection by a single patent for everything which constitutes his new machine.”<sup>218</sup> The fact that the various claims of an application cover specific devices which are separately classified in the Patent Office, is ground for requiring division of the application.<sup>219</sup> Whatever its classification, or whether it embraces more than one invention, the application must sufficiently describe its invention or inventions to obviate experimentation in practice, whether it relates to a machine,<sup>220</sup> a process,<sup>221</sup> a manufacture,<sup>222</sup> or a composition of matter.<sup>223</sup>

218. *Ex parte Willcox & Barton*, 45 Off. Gaz. 455, 457.

219. *Ex parte Ramsey*, 146 Off. Gaz. 721.

220. *Parks v. Booth*, 102 U. S. 96, 101, 26 L. Ed. 54.

221. *Western Elec. Mfg. Co.*

*v. Ansonia Brass & Copper Co.*, 114 U. S. 447, 452, 29 L. Ed. 210.

222. *Tyler v. Boston*, 74 U. S. (7 Wall.) 327, 19 L. Ed. 93.

223. *Wood v. Underhill*, 46 U. S. (5 How.) 1, 5, 12 L. Ed. 23, 24.

## PATENT OFFICE PROCEDURE UNDER THE APPLICATION.

## § 70. Filing.

Having thus considered the various subject-matter upon which patent applications may be predicated, the essential steps toward the obtaining of the patent may be considered in their order. The date of filing in the Patent Office fixes the time from which the statutory two years' public use and sale are to be reckoned; the date of the execution of the application by the inventor is immaterial.<sup>224</sup> The filing fee of \$15 must accompany the application; if the application is filed before the payment of the filing fee, the date of the application is that of the payment of the fee. When any material part of the application is missing or defective, no filing date is assigned until the application is completely filed as to all of its parts.<sup>225</sup>

Accordingly, when the nature of the case requires a drawing, the application is not "filed" until the drawing is filed.<sup>226</sup> Where the drawing, filing fee, and an unsigned specification are filed, no filing date will be given until a properly executed specification is supplied.<sup>227</sup> But in a process application, where the specification sufficiently discloses the process to admit of examination on the merits, the filing is complete when the specification and filing fee are received by the Patent Office, even though a drawing is subsequently required to show a means for practicing the process.<sup>228</sup>

224. *Henry v. Francetown Soap Stone Co.*, 2 Fed. Rep. 78, 81; *Graham v. McCormick*, 11 Fed. Rep., 859, 862.

225. *Ex parte Russell*, 84 Off. Gaz. 2021.

226. *Palmer v. Bailey*, 83 Off. Gaz. 1207.

227. *Ex parte Hallberg*, 83 Off. Gaz. 1208.

228. *Ex parte Russell*, 84 Off. Gaz. 2021.

Where a specification is informal for other reasons than want of signature, such as the omission of the place of residence of the applicant, filing is not accomplished until such defects are cured.<sup>229</sup>

Until the application is filed complete in all its parts, and the filing fee has been paid, it will neither be subjected to examination or placed in interference.<sup>230</sup> When the filing has been properly accomplished, a formal receipt is issued by the Patent Office, reciting the filing date, the serial number assigned to the application, and the short title of the alleged invention which is the subject of the application; and by that date, serial number, short title and the name of the applicant, the application is referred to in all further proceedings in the Patent Office, unless and until a patent is issued, when a number is assigned to the patent.

#### § 71. Effect of filing.

The immediate effect of the filing of the application is to submit it to the examination and action of the Patent Office. The effect of the filing as a constructive reduction to practice we have elsewhere examined. The pending application is kept secret.<sup>231</sup> The application once filed cannot be withdrawn for any purpose.<sup>232</sup>

Being filed, the application is assigned to the division of the Patent Office in which it may most appropriately be examined. The determination as to where it shall be assigned is usually, but not invariably, determined by the short title of the application. By this means the solicitor is enabled at times to divert to the division which he prefers an application which might properly

229. *Ex parte Brand*, 82 Off. Gaz. 893.

230. *Palmer v. Bailey*, 83 Off. Gaz. 1207.

231. *Ex parte Neale*, 15 Off. Gaz. 511.

232. *Ex parte Van Etten*, 80 Off. Gaz. 1760.



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be dealt with in either of several divisions. But the original assignment of the application for examination is not final, as the division first receiving it may determine that it properly belongs in another division; and being transferred to such second destination it may again be transferred. Thus, a mechanism in which a new hinge or a new valve is an element of novelty, may find proper lodgment in any one of several divisions, and its division is determined not only by the short title of the application but measurably by the drawing, and largely by the description, and to a degree by the language of the claims. This question is necessarily one which involves not only the skill of the specification writer, but that knowledge of the personnel of the Patent Office which can come only by actual experience, and a resultant personal knowledge of that complex bureau.

This subject is on the psychological side of the law of patents, and for that reason has been avoided in the past by text-writers. But it is of vital importance in actual practice. Not only individuals, but groups of men, even scientifically educated men, have strong mental bias. In the examining corps of the Patent Office, as on the Federal bench, there are men of good education and high attainments, who cannot recognize invention. The history of the patent law of the United States may some time be written which will review the records of our Federal judges in tabulation of their attitudes towards patents. If and when such a history is compiled, there will be found judges who have extinguished patent litigation in the districts in which they sat by their uniform hostility to all patents.

From the best figures obtainable there is at least one Federal Judicial Circuit in which the Court of Appeals has for years reversed over sixty per cent of all patent cases in which the Circuit Court decreed relief for the

patent owner. These reversals may not indicate hostility to patent interests, but the figures certainly justify very definite advice to intending litigants.

This reasoning extends to the Patent Office, as every experienced practitioner is aware. Hence the importance of the solicitor entrusted with an important invention knowing in advance of preparing the application, if possible, in which division it is to be examined.

These suggestions may serve their purpose if they put some young solicitor or lawyer upon inquiry before filing an application or suit. They are not intended to reflect upon the integrity of those gentlemen who, in the Patent Office or on the Federal bench, are inclined against claims to invention. When no one can define invention, it is no aspersion on any one's integrity that he cannot see invention in anything. It may, indeed, indicate a superior judicial mind, to find what in a career of a score of years, a certain judge has found, in every patent cause tried before him, either that the patent in suit was anticipated, void for want of invention, or not infringed. But, none the less, it would be the duty of the lawyer knowing of such a record, to warn the owner of an infringed patent contemplating suit in the district in which that judge sits, to try to have his rights under the patent adjudicated elsewhere.

The short title above referred to must satisfy the requirements of § 4884, R. S. U. S., and whether it does so is for the Patent Office to determine.<sup>233</sup> With this restriction, the applicant is allowed to select such title as he wishes.<sup>234</sup>

## § 72. Examination.

The position of the examiner is judicial. He is not to pass on the merits until defects of form has been cor-

233. *Ex parte* Nickola, 57 Off. Gaz. 1425.

234. *Ex parte* Becker, 64 Off. Gaz. 559.



rected,<sup>235</sup> and as to such defects it is his duty to point them out to the applicant specifically, and indicate how they may be remedied.<sup>236</sup>

Formal defects being eliminated, the examination on the merits is made, and while it has been held that it is the duty of the examiner to aid the applicant in securing adequate claims,<sup>237</sup> it is his primary duty to see that nothing is patented which is already open to the public, or patented to others.

If he finds the claims as presented to be patentable, the application will be allowed if no corrections as to form are needed. Very few applications result in allowance on the first Patent Office action, however, and when such allowance is made, it is almost invariably looked upon with suspicion, as indicating negligence on the part of the examiner.<sup>238</sup>

### § 73. Rejection.

If the examiner finds that either or all of the claims presented are, in his judgment, unpatentable, he will reject the objectionable claims in such terms as to advise the applicant fully and specifically of the grounds of rejection. If the rejection is upon the ground of want of novelty the examiner should cite the patents or other publications upon which his rejection is based,<sup>239</sup> or if he cannot cite a reference should support his denial of the applicant's priority by an affidavit.<sup>240</sup> His rejection

235. *Ex parte Sillman*, 34 Off. Gaz. 1389; *Ex parte Mill*, 40 Off. Gaz. 918.

236. *Ex parte Wilkins*, 24 Off. Gaz. 1270.

237. *Ex parte Donovan*, 44 Off. Gaz. 698.

238. *American Soda Fountain Co. v. Sample*, 130 Fed. Rep. 145, 64 C. C. A. 497.

239. *Ex parte Fairbanks*, 3 Off. Gaz. 65.

240. *Ex parte Hill*, 16 Off. Gaz. 765.



cannot, however, be based upon an abandoned,<sup>241</sup> or a rejected<sup>242</sup> application. He should cite none but pertinent references,<sup>243</sup> and should cite the best references first.<sup>244</sup>

In his citation of references he may cite a drawing unaccompanied by descriptive matter,<sup>245</sup> and identity of material, form, shape or use is not required to make the reference pertinent,<sup>246</sup> and it has been held that the device of the reference may be valueless.<sup>247</sup>

In his action the Examiner will not interfere with the applicant's use of terms of reference, provided that their use does not produce ambiguity, uncertainty or confusion.<sup>248</sup>

Upon examination, the examiner may determine that certain sheets, or other parts, of the drawings are superfluous, and may direct them to be cancelled.<sup>249</sup>

#### § 74. Amendment of application.

In response to an action the applicant must amend within one year (formerly, two years). The applicant may resubmit the rejected claims without amendment, and if a second rejection results, his remedy is by appeal to the Board of Examiners-in-Chief.<sup>250</sup> In a re-

241. *Ex parte Borden*, 26 Off. Gaz. 439; *Webster v. Sanford*, 44 Off. Gaz. 567; *Corn Planter Patent*, 90 U. S. (23 Wall.) 181, 23 L. Ed. 161.

242. *Northwestern Fire Extinguisher Co. v. Philadelphia Fire Extinguisher Co.*, Fed. Case 10, 337; *Webster v. Sanford*, 44 Off. Gaz. 567; *Blades v. Rand, McNally & Co.*, 27 Fed. Rep. 93.

243. *Ex parte Brownlie*, 3 Off. Gaz. 212.

244. *Ex parte Sanders*, 13 Off. Gaz. 818.

245. *Ex parte Borden*, 26 Off. Gaz. 439.

246. *Ex parte Chatillon*, 2 Off. Gaz. 115.

247. *Sargent v. Burge*, 11 Off. Gaz. 1055.

248. *Ex parte Averell*, 56 MS. Dec. 442; *Ex parte Hollis*, 86 Off. Gaz. 489.

249. *Ex parte Krause*, 56 Off. Gaz. 1708; *Ex parte Griffin*, 85 Off. Gaz. 454.

250. *Ex parte Edward*, 9 Off. Gaz. 794.

quest for reconsideration, it is the duty of the applicant to distinctly and specifically point out the alleged errors in the examiner's action.<sup>251</sup>

Discourteous language in an argument filed in the prosecution of an application will render the document containing it subject to be refused admission to the files, and to be returned to the applicant,<sup>252</sup> and, of course, the examiner is under a reciprocal duty of courtesy to applicants and their attorneys.<sup>253</sup>

The right of amendment seems to depend upon the phraseology of § 4888, R. S. U. S., which reads: "*Before any inventor or discoverer shall receive a patent for his invention or discovery,*" etc. The disclosure and claim demanded by this section relate to the perfected application, with the alterations and amendments in which the Patent Office and the applicant have jointly assisted to contribute to compliance with the statute. "Requirements of the kind," Mr. Justice Clifford has said, "may be regarded as conditions precedent to the right of the Commissioner to grant such an application."<sup>254</sup>

The object of amending, therefore, is to fully supply these conditions; but the inherent nature of the application for patent is such that the range which amendment can properly take is limited, and has been often treated judicially.

The rule of the earlier cases appears to be accurately given by Judge Blatchford, thus: "The specification is always open to amendment of its description and claims, and to the addition of new matters of description and new claims, where the drawings and model exhibit the

251. *Ex parte Appel*, 84 Off. Gaz. 1145.

252. *Ex parte McQueen*, 85 Off. Gaz. 609.

253. *Ex parte Horstick*, 84 Off. Gaz. 981.

254. *Parks v. Booth*, 102 U. S. 96, 26 L. Ed. 54.



matters involved in the amendments and additions; and this privilege continues until the matter of the application is finally disposed of, by the granting of a patent, or otherwise.”<sup>255</sup>

Under this doctrine the latitude of amendments was anywhere up to the limit of the disclosure of the drawings and model. That latitude has been greatly contracted by judicial rulings, as will be seen from the later cases to which we will refer.

In alluding to these cases it is well to note at the beginning that “the grant of the patent is *prima facie* evidence that the necessary conditions precedent were complied with.”<sup>256</sup> Therefore the presumption is in favor of the patent as issued being sustained by the application as filed.

The modern doctrine has been thus announced by Mr. Justice Bradley in the leading case.

“It will be observed that we have given particular attention to the original application, drawings and models filed in the Patent Office by Thompson and Bachelder. We have deemed it proper to do this, because, if the amended application and model, filed by Tanner five years later, embodied any material addition to or variance from the original—anything new that was not comprised in that—such addition or variance cannot be sustained on the original application. The law does not permit such enlargements of an original specification, which would interfere with other inventors who have entered the field meantime, any more than it does in the case of reissues of patents previously granted. Courts

255. *Singer v. Braunsdorf*, 7 Blatchf. 521, Fed. Case 12,897.

256. *Coxe, J., in Beach v. American Box Machine Co.*, 63 Fed. Rep. 597, 604; citing *Cromp-*

*ton v. Belknap Mills*, 3 Fisher 536, Fed. Case 3 406; *Whittemore v. Cutter*, 1 Gall. 429, Fed. Case 17, 600; *Hartshorn v. Eagle Shade Roller Co.*, 18 Fed. Rep. 90.



should regard with jealousy and disfavor any attempts to enlarge the scope of an application once filed, or of a patent once granted, the effect of which would be to enable the patentee to appropriate other inventions made prior to such alteration, or to appropriate that which has, in the meantime, gone into general use.”<sup>257</sup>

There is no doubt that this excerpt exactly states the rule; the chief difficulty in its application is as to the facts in the particular case.<sup>258</sup>

There is another rule which adds to the difficulty of applying, or even understanding, the rule thus stated. It is based upon the Patent Office practice of permitting new matter to be introduced in the description (without change in the drawings), by amendment, subject, merely to requiring of the applicant a new oath. In recognizing this rule Judge Coxe has said, “A new oath was not necessary because the amendments introduced no new invention.”<sup>259</sup>

It has even been held permissible to amend the drawing by adding to it the essential feature of the invention, where the amendment could be made in the light of the description, and the material has been omitted by accident.<sup>260</sup>

But the troublesome and principal thought inspired by the cases is that they apparently recognize the doctrine of the leading case, by frequent references to that case, and still insist that a new oath is all that is necessary

257. *Chicago & N. W. R. Co. v. Sayles*, 97 U. S. 554, 24 L. Ed. 1053. For application of the rule see *Eagleton Mfg. Co. v. West, Bradley & Cary Mfg. Co.*, 111 U. S. 490, 28 L. Ed. 493.

258. *Beach v. American Box Machine Co.*, 63 Fed. Rep. 597, 604.

259. *Beach v. American Box Machine Co.*, 63 Fed. Rep. 597, 604. See, to the same effect, *American Lava Co. v. Steward*, 155 Fed. Rep. 731, 84 C. C. A. 157.

260. *Consolidated Brake Shoe Co. v. Detroit Steel & Spring Co.*, 59 Fed. Rep. 902.

to validate a departure from the original application. We will briefly refer to a few of the cases which display this peculiar feature.

In a late case Judge Severens said: "If the application as amended were to be construed as embodying such an invention as is now claimed, it was another and different from that for which the patent was originally sought, and, if an amendment having that consequence was permissible, it should have been verified by the oath of the inventor."<sup>261</sup>

It will be observed that the learned judge is very cautious in this announcement, because he merely says that an amendment should receive a new oath when embodying and presenting another and different invention from that for which the patent was originally sought, *if* an amendment of that kind is permissible at all. Therefore, he does not bind himself to the doctrine that a case may be so varied by amendment as to present another invention. But immediately following the portion of his opinion just quoted we find this: "The case of *Eagleton Mfg. Co. v. West, etc., Mfg. Co.*, supra (111 U. S. 490, 28 L. Ed. 493) was strikingly like the case at bar in all material facts which were made the basis of decision. *Eagleton*, the patentee, died soon after making his application. It was prosecuted by his administrators, by their attorneys. The amendment was made by them, but was not sworn to. The invention and application were assigned by the administrators to the *Eagleton*

261. *American Lava Co. v. Steward*, 155 Fed. Rep. 731, 737, 84 C. C. A. 157; citing, *Chicago & N. W. R. Co. v. Sayles*, 97 U. S. 554, 24 L. Ed. 1053; *Eagleton Mfg. Co. v. West, Bradley & Carey Mfg. Co.*, 111 U. S. 490, 28 L. Ed. 493; *Kennedy v. Hazelton*, 128 U.

S. 667, 32 L. Ed. 576; *Michigan Central R. Co. v. Consolidated Car Heating Co.*, 67 Fed. Rep. 121, 14 C. C. A. 232; *Cleveland Foundry Co. v. Detroit Vapor Stove Co.*, 131 Fed. Rep. 853, 68 C. C. A. 233.



Company and the patent issued to it. In the present case Dolan sixteen days after making his application assigned his entire interest to one Napheys, and it went through two more assignments before the amendment was filed. It is true that in the Eagleton case the application had been a long time pending when the amendment was made, but that fact was not made the basis of the decision.”<sup>262</sup>

This paragraph is quoted because it seems to represent a misunderstanding of what was decided in the Eagleton case. The central idea of that case appears to us to have been that where, by amendment, any invention is sought to be patented which was not sought to be patented in the application as originally filed, such an amendment is in violation of the patent law, and the resulting patent is void. In the Eagleton case Mr. Justice Blatchford said: “In view of the entire change in the specification, as to the invention described, the patent, to be valid, should have been granted on *an application* made and sworn to be the administratrix.”<sup>263</sup> There is no suggestion that the mere affidavit of the administratrix could have made the amendment good.

The Dolan patent, which was the subject-matter of *American Lava Co. v. Steward*, 155 Fed. Rep. 731, 84 C. C. A. 157, was previously sustained in a decision of the Circuit Court of Appeals of the Second Circuit, as against the same defense of departure, by amendment, from the application as originally filed. The latter court based its decision upon the following grounds: “The original drawings and specifications sufficiently show and suggest the claims finally made, or at least are not

262. *American Lava Co. v. Steward*, 155 Fed. Rep. 731, 737, 84 C. C. A. 157.

263. *Eagleton Mfg. Co. v. West, Bradley & Cary Mfg. Co.*, 111 U. S. 490, 498, 28 L. Ed. 493, 496.



inconsistent therewith.<sup>264</sup> Subject to the foregoing rules, an inventor may amend his specification so as to include therein all the advantages within the scope of his invention.<sup>265</sup>

“It was unnecessary, in the original application, where only the tip was sought to be patented, to set forth the steps in the process by which the desired result was accomplished. But when the applicant sought to cover both process and product, he explains that the process by which he secures perfect combustion consists in first surrounding the gas with an envelope of air sufficient to cause complete combustion, and in subsequently supplying such additional air as is sufficient for that purpose. The original specification and drawings disclose the envelope construction of air-passages surrounding the jet of gas. In these circumstances, we conclude that there is no substantial conflict between the statements in the original and amended specifications; that the original specification sufficiently disclosed the nature of the invention claimed in the patent, and sufficiently suggested the process involved therein; and that, as the invention or discovery of the process involved the invention of the product, and the product was the result of the process, the claims for the process were properly included in the patent in suit.”<sup>266</sup>

To summarize; the fact that the Patent Office has required the applicant to furnish a new oath in support of an amendment containing a departure from the invention sought to be patented by the application as originally filed, seems to indicate that it is possible to

264. Citing *Hobbs v. Beach*, 180 U. S. 383, 45 L. Ed. 586.

265. Citing *Singer Mfg. Co. v. Cramer*, 109 Fed. Rep. 652, 48 C. C. A. 588.

266. *Townsend, J., in Kirchner v. American Acetylene*

*Burner Co.*, 128 Fed. Rep. 599, 606, 64 C. C. A. 107; citing, *Giant Powder Co. v. California Works*, 98 U. S. 126, 25 L. Ed. 77; *Wing v. Anthony*, 106 U. S. 142, 27 L. Ed. 110.

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defend upon the ground that the departure invalidated the patent. The degree of permissible enlargement of, or departure from, the originally filed specification is not determined by any existing rule, and the applicant makes such enlargement or departure at his peril.

§ 75. Delay in amending.

Section 4894, R. S. U. S., provides as follows:

“All applications for patent shall be completed and prepared for examination within one year after the filing of the application, and in default thereof, or upon failure of the applicant to prosecute the same within one year after any action therein, of which notice shall have been given to the applicant, they shall be regarded as abandoned by the parties thereto, unless it be shown to the satisfaction of the Commissioner of Patents that such delay was unavoidable.”

One year is thus provided for the filing of amendments in response to the actions of the Patent Office. The time was reduced from two years to one year by the Act of March 3, 1897, ch. 391, sec. 4, 29 Stat. at L. 629.

Under the statute as it existed prior to its amendment Judge Brawley said: “The inventor does not determine the measure of his rights or of his obligations. The law determines that for him, and, if the government thinks that more speed is desirable in the interest of the public, it should change the law; the courts cannot do so. Nor can they exact of inventors any degree of diligence other than compliance with the statutory provisions, official regulations, departmental requirements, and formal demands which are prescribed by and for the officials and others charged with duties under the patent laws. Certain fixed periods are provided in sections 4894 and 4904, R. S. U. S., for securing progress in applications for patents. If the inventor is allowed two years after



a judgment against him within which to take appeal, he may wait until the last day of the two years. If Congress thinks this is too long a time, it should fix another limitation, but courts cannot deny the benefits which the statute gives.”<sup>267</sup>

#### § 76. Divisional applications.

The present rule of the Patent Office governing the division of applications is as follows:

“If several inventions, claimed in a single application, be of such a nature that a single patent may not be issued to cover them, the inventor will be required to limit the description, drawing, and claim of the pending application to whichever invention he may elect. The other inventions may be made the subjects of separate applications, which must conform to the rules applicable to original applications. If the independence of the inventions be clear, such limitation will be made before any action upon the merits; otherwise it may be made at any time before final action thereon, in the discretion of the Examiner.” (Rule 42.)

The rule formerly provided as follows:

“Claims for a machine and its product must be presented in separate applications.

“Claims for a machine and the process in the performance of which the machine is used must be presented in separate applications.

“Claims for a process and its product may be presented in the same application.”

This rule was held to be invalid, Mr. Justice McKenna observing: “The Patent Office has not been consistent in its views in regard to the division of inventions. At

267. *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 Fed. Rep. 845, 851, 48 C. C. A. 72. To the same effect, see, *American Bell Tel. Co. v. United States*, 68 Fed. Rep. 542, 15 C. C. A. 569.



times convenience of administration has seemed to be of greatest concern; at other times more anxiety has been shown for the rights of the inventors. The policy of the office has been denominated that of 'battledore and shuttlecock,' and rule 41 as it now exists was enacted to give simplicity and uniformity to the practice of the office. Its enactment was attempted to be justified by the assumption that the patent laws gave to the office a discretion to permit or deny a joinder of inventions. But, as we have already said, to establish a rule applicable to all cases is not to exercise discretion. Such a rule ignores the differences which invoke discretion, and which can alone justify its exercise, and we are of opinion therefore that rule 41 is an invalid regulation."<sup>268</sup>

The question of enforcing the division of applications is without any statutory authority. The rule is well settled that one cannot divide an integral invention, or have two patents for the same thing.<sup>269</sup>

So far as the reports disclose no United States patent has ever been held invalid as embracing more than one invention. While it is manifestly improper to include two separate and distinct inventions, which have no correlation, in a single patent, wherever co-relation exists, and the two inventions have such inherent capacity for mutual or common employment as to constitute, for example, a single operative machine, there is no danger of invalidity, resulting from the rule which we have elsewhere discussed, that in letters patent each claim is a patent of itself.

268. United States ex rel. Steinmetz v. Allen, 192 U. S. 543, 563, 48 L. Ed. 563.

269. Western Electric Co. v. Williams-Abbott Electric Co., 108 Fed. Rep. 952, 955, 48 C. C. A.

159; Miller v. Eagle Mfg. Co., 151 U. S. 186, 38 L. Ed. 121; Pneumatic Tire Co. v. Lozier, 90 Fed. Rep. 732, 33 C. C. A. 255; Fassett v. Ewart Mfg. Co., 62 Fed. Rep. 404, 10 C. C. A. 441.

How unfortunately division has resulted for applicants in the past is illustrated a number of times in the reports.<sup>270</sup>

In one case where the Patent Office had forced a division where there was but a single invention, two patents based upon a single original application, and issued on the same day, were treated as a single patent.<sup>271</sup>

Where division is required the patent issued upon the divisional application, so far as regards a defense of two years' public use, relates back to the first application and will receive the credit of the filing date of that application.<sup>272</sup>

The exercise of the power to require a division ought to be expressly conferred upon the Commissioner of Patents by statute. Even then, the difficulty of determining whether the division should be required will frequently render a decision difficult. Where doubt exists as to the propriety of requiring a division, that doubt ought to be resolved in favor of retaining the subject-matter in a single application.

Under the old rule as to division, quoted above, no appeal was permitted from the decision of the Primary Examiner requiring division. That practice was corrected by the Supreme Court, by the issuance of the writ of mandamus, compelling the Commissioner of Patents to require the Primary Examiner to forward an appeal to the Board of Examiners-in-Chief.<sup>273</sup>

270. *H. W. Johns Mfg. Co. v. Robertson*, 89 Fed. Rep. 504; *Benjamin v. Bale*, 158 Fed. Rep. 617, 85 C. C. A. 439; *Underwood v. Gerber*, 149 U. S. 224, 37 L. Ed. 710.

271. *Benjamin v. Bale*, 158 Fed. Rep. 617, 85 C. C. A. 439;

*Underwood v. Gerber*, 149 U. S. 224, 37 L. Ed. 710.

272. *Stirling Co. v. St. Louis Brewing Assn.*, 79 Fed. Rep. 80.

273. *United States ex rel. Steinmetz v. Allen*, 192 U. S. 543-563, 48 L. Ed. 563.



§ 77. Abandonment.

Abandonment enters the law of patents in various forms, namely, in abandoned experiments, abandonment of an invention to the public, abandonment of an application for letters patent.

These various forms of abandonment are measurably co-related, and will be here dealt with in the order named.

§ 78. Abandoned experiments are experiments which have not only been abandoned, but have been unsuccessful.<sup>274</sup>

Such experiments do not affect the validity of a subsequent patent<sup>275</sup> even though an unsuccessful application for a patent was made upon them.<sup>276</sup>

Speaking of abandoned experiments, Mr. Justice Swayne said: "The invention or discovery relied upon as a defense, must have been complete, and capable of producing the result sought to be accomplished. If the thing were embryotic or incóate; if it rested in specula-

274. *Coffin v. Ogden*, 18 Wallace 120, 124, 31 L. Ed. 821, 823.

275. *Albright v. Celluloid Harness Trimming Co.*, 1 Fed. Cas. No. 147, 2 Ban & A. 629, 12 Gaz. 227; *Whittlesey v. Ames*, 13 Fed. 893, 9 Biss. 225; *Phillips v. Carroll*, 23 Fed. 249; *Fay v. Allen*, 24 Fed. 804; *American Bell Tel. Co. v. People's Tel. Co.*, 25 Fed. 725 (affirmed in 126 U. S. 1, 31 L. Ed. 863); *Hoyt v. Slocum*, 26 Fed. 329; *Hutchinson v. Everett*, 26 Fed. 531; *International Tooth Crown Co. v. Richmond*, 30 Fed. 775; *American Bell Tel. Co. v. American Cushman Tel. Co.*, 35 Fed. 731, 1 L. R. A. 60; *Gamewell Fire-Alarm Tel. Co. v. Municipal Signal Co.*, 61 Fed. 948, 10 C. C. A. 184; *Standard Cartridge Co. v. Pe-*

*ters Cartridge Co.*, 77 Fed. 630, 23 C. C. A. 367; *Westinghouse Electric Co. v. Beacon Lamp Co.*, 95 Fed. 462-464; *R. Thomas, etc., Co. v. Electric Porcelain, etc., Co.*, 111 Fed. 923; *General Electric Co. v. Wise*, 119 Fed. 922; *Arrott v. Standard Sanitary Mfg. Co.*, 131 Fed. 457 (affirmed in 135 Fed. 750, 68 C. C. A. 388); *United Shoe Mach. Co. v. Greenman*, 153 Fed. 283, 82 C. C. A. 581 (affirming 145 Fed. 538); *Whitely v. Swayne*, 7 Wall. 685, 19 L. Ed. 199; *Keystone Mfg. Co. v. Adams*, 151 U. S. 139, 38 L. Ed. 103; *Deering v. Winona Harvesting Works*, 155 U. S. 286, 302, 39 L. Ed. 153.

276. *Brown v. Guild*, 90 U. S. 181, 211, 23 L. Ed. 161.



tion or experiment; if the process pursued for its development had failed to reach the point of consummation, it cannot avail to defeat a patent founded upon a discovery or invention which was completed; while in the other case there was only progress, however near that progress may have approximated to the end in view. The law requires not conjecture but certainty."<sup>277</sup>

It does not follow, however, that because a prior device was abandoned it was an abandoned experiment within the meaning of the rule. On the contrary, it may anticipate, despite its abandonment.<sup>278</sup> Such prior device may constitute an anticipation even though unsuccessful and abandoned, if its failure was merely due to defective details or construction which could be overcome by mere mechanical skill.<sup>279</sup>

Where a machine has been made to work successfully, and was abandoned only because its owner had no further use for it, it cannot be regarded as an abandoned experiment;<sup>280</sup> and, as a general deduction from the cases, any device used sufficiently to demonstrate its operativeness, will not be regarded as an abandoned experiment.<sup>281</sup>

The mere abandonment of experiments on an incomplete invention, made with the expectation of resuming them, is not an abandonment of the invention.<sup>282</sup>

277. *Coffin v. Ogden*, 18 Wall. 120, 124, 21 L. Ed. 821, 823.

278. *Bromley Bros. Carpet Co. v. Stewart*, 51 Fed. Rep. 912, 915.

279. *Pickering v. McCullough*, 104 U. S. 310, 319, 26 L. Ed. 749, 752.

280. *Bromley Bros. Carpet Co. v. Stewart*, 51 Fed. Rep. 912, 915.

281. *Stephenson v. Brooklyn Cross-town Ry. Co.*, 14 Fed. Rep. 457, 459; *Electric Accumulator Co. v. Julien Electric Co.*, 38 Fed. Rep. 131; *American Roll Paper Co. v. Weston*, 51 Fed. Rep. 240.

282. *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 Fed. Rep. 845, 48 C. C. A. 72.

§ 79. Abandoned inventions are public property.

The inventor may, if he chooses, willfully abandon his invention, or he may by his extraneous acts preclude himself from subsequently claiming any exclusive right in his invention.

Wherever abandonment occurs, it is absolute and cannot be recalled.<sup>283</sup> The issue of abandonment is between the inventor on the one hand and the whole public on the other: "An abandonment cannot be in favor of one person, but to the public, giving everyone the right to use and manufacture the invention."<sup>284</sup>

It is obvious that the question of abandonment is practically raised in the defense of actions brought upon the patent, and to the end that the patent may be invalidated by the defense so interposed. There is no presumption in favor of abandonment; it is a defense which must be interposed by answer,<sup>285</sup> and the absence of an allegation negating abandonment does not make a bill of complaint demurrable.<sup>286</sup>

"The defense of abandonment is separate and distinct from that of having been in public use or on sale for a period exceeding two years."<sup>287</sup> While, of course, a single sale of the thing patented more than two years

283. *Pennock v. Dialogue*, 2 Peters 1, 7 L. Ed. 327; *Kendall v. Windsor*, 62 U. S. (21 Howard) 322, 328, 16 L. Ed. 165; *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 92, 96, 24 L. Ed. 68; *Woodbury Patent Planing Machine Co. v. Keith*, 101 U. S. 479, 484, 25 L. Ed. 939; *Western Electric Co. v. Sperry Electric Co.*, 58 Fed. Rep. 186, 191.

284. *Knowles, J.*, in *Ross v. Montana Union Ry. Co.*, 45 Fed. Rep. 424.

285. *Kendall v. Winsor*, 21 Howard 322, 7 L. Ed. 327; *Consolidated Fruit Jar Co. v. Wright*, 94 U. S. 92, 24 L. Ed. 68; *United States Electric Lighting Co. v. Consolidated Electric Light Co.*, 33 Fed. Rep. 869; *Warren Featherbone Co. v. Warner Bros. Co.*, 92 Fed. Rep. 990.

286. *Warren Featherbone Co. v. Warner Bros. Co.*, 92 Fed. Rep. 990.

287. *Shiras, J.*, in *Mast, Foss & Co. v. Dempster Mill Mfg. Co.*, 71 Fed. Rep. 701.

prior to the application for patent, will defeat the patent,<sup>288</sup> that state of facts technically falls within the latter class of defenses. "An abandonment of an invention to the public may be evinced by the conduct of the inventor at any time, even within the two years named in the law."<sup>289</sup>

With this premise as to the defense of abandonment, we will deal with the acts which have been held to evidence, or not to evidence, abandonment. In reading the decisions it is important to note that, before abandonment can be found, it must be clearly proven that the inventor intended to dedicate his invention to the public.<sup>290</sup> All reasonable doubts in this regard are to be resolved in favor of the patent.<sup>291</sup>

Abandonment of an invention is either direct or inferred from circumstances.<sup>292</sup> An express abandonment occurs when the inventor expressly declares that he abandons his invention to the public;<sup>293</sup> as where, in a published article, he states that the invention "is open to anybody."<sup>294</sup>

Abandonment may occur, in point of time, at any time prior to the application for patent, or thereafter and before the issuance of letters patent.<sup>295</sup>

288. *Henry v. Francetown Soap Stone Co.*, 2 Fed. Rep. 78.

289. Mr. Justice Bradley, in *Elizabeth v. Pavement Co.*, 97 U. S. 126, 134, 24 L. Ed. 1000; quoted and followed in *Anderson v. Eller*, 46 Fed. Rep. 777.

290. *Ide v. Trorlicht, Duncker & Renard Carpet Co.*, 115 Fed. Rep. 137, 53 C. C. A. 341.

291. *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 Fed. Rep. 845, 48 C. C. A. 72.

292. *Crown Cork & Seal Co. v.*

*Aluminum Stopper Co.*, 108 Fed. Rep. 845, 48 C. C. A. 72.

293. *Kendall v. Winsor*, 21 Howard, 322, 328, 16 L. Ed. 165; *United States Rifle & Cartridge Co. v. Whitney Arms Co.*, 118 U. S. 22, 24, 30 L. Ed. 53.

294. *Westinghouse Elec. & Mfg. Co. v. Saranac Lake Elec. Light Co.*, 108 Fed. Rep. 221, 224; affirmed on Appeal, 113 Fed. Rep. 884, 51 C. C. A. 514.

295. *Crown Cork & Seal Co. v. Aluminum Stopper Co.*, 108 Fed. Rep. 845, 48 C. C. A. 72.



Delays in the Patent Office due to the applicant exhausting as nearly as possible the statutory limitation as to time, do not evidence abandonment; the courts not requiring any degree of diligence beyond that required by the statute.<sup>296</sup>

The fact that one abandons his experiments relating to his incomplete invention, intending to resume them, is not an abandonment of the invention.<sup>297</sup>

The abandonment of an application which is one of two co-pending applications for the same invention is not an abandonment of the invention.<sup>298</sup>

Delay in filing an application for letters patent in the United States, until after the expiration of a foreign patent for the same invention, works the abandonment of the invention in the United States.<sup>299</sup>

#### § 80. Abandonment by failure to claim.

The claim being the limitation of the monopoly created by the grant of letters patent, the patentee dedicates to the public everything shown and described in the drawings and description, not embodied in the claims.<sup>300</sup> But this rule does not apply to the disclosure of a distinct and separable invention which could not be claimed in the same application.<sup>301</sup>

296. *Ibid.*

297. *Ibid.*

298. *Edison v. American Mutoscope Co.*, 110 Fed. Rep. 660.

299. *Huber v. N. O. Nelson Mfg. Co.*, 148 U. S. 270, 37 L. Ed. 447.

300. *Kinloch Telephone Co. v. Western Elec. Co.*, 113 Fed. Rep. 652, 51 C. C. A. 362; *Ide v. Trorlicht, Duncker & Renard Carpet Co.*, 115 Fed. Rep. 137, 53 C. C. A. 341.

301. *Suffolk Co. v. Hayden*, 3 Wall. 315, 18 L. Ed. 76; *McMillan v. Rees*, 1 Fed. Rep. 722; *Collender v. Griffith*, 2 Fed. Rep. 206; *Graham v. Geneva Lake Crawford Mfg. Co.*, 11 Fed. Rep. 138; *Graham v. McCormick*, 11 Fed. Rep. 859; *Vermont Farm Mach. Co. v. Marble*, 19 Fed. Rep. 307; *Hatch v. Moffitt*, 15 Fed. Rep. 252; *Brush Electric Co. v. Julien Electric Co.*, 41 Fed. Rep. 679.

**§ 81. Continuing applications.**

As we have seen, abandonment of the invention is by no means inferred from the abandonment of an application for a patent embracing that invention. When the question of bar by reason of public use and sale arises, the patent so attacked is frequently sought to be carried back through the application upon which it was issued, to an antecedent application, in order that it may receive the benefits attaching to the filing date of the earlier application, as against the said defense. Again, the earlier filing date may be sought in order that it may be employed as the date of the constructive reduction of the invention to practice. Because of the fact that an abandonment of the antecedent application is final and cannot be recalled, the first inquiry in cases of this character under discussion is whether or not the continuity of the application was broken by abandonment.

The following summary of the cases is in the language of Judge Sanborn: "There is a wide difference between the abandonment of an invention and the abandonment of an application for it. An abandonment of an application is not necessarily an abandonment of the invention, and, after the application has been abandoned, a valid patent for the invention may nevertheless be secured upon a new application, provided the invention has not gone into public use or been upon sale for more than two years prior to the filing of the latter. In cases in which the first application has not been abandoned, subsequent applications and amendments constitute a continuance of the original proceeding, and the two years' public use or sale which may avoid the patent must

be reckoned from the presentation of the first application, and not from the filing of subsequent applications or amendments.<sup>302</sup>

“But the abandonment of an application destroys the continuity of the solicitation of the patent. After abandonment a subsequent application institutes a new and independent proceeding, and the two years’ public use or sale which may invalidate the patent issued upon it must be counted from the filing of the later application.”<sup>303</sup>

### § 82. Forfeiture for non-payment of final fee, and renewed applications.

It is provided by § 4885, R. S. U. S., that the final fee (of \$20.00) shall be paid not later than six months from the time at which the application was passed and allowed and notice thereof was sent to the applicant or his agent; and if the final fee is not paid within that period the patent shall be withheld.

The effect of non-payment of the final fee within the

302. Citing *U. S. v. American Bell Telephone Co.*, 167 U. S. 224, 42 L. Ed. 144; *Colgate v. Western Union Tel. Co.*, Fed. Case 2995; *Miehle v. Read*, 96 O. G. 426; *Thomson-Houston Electric Co. v. Winchester Avenue R. Co.*, 71 Fed. Rep. 192, 73 O. G. 2155; *Godfrey v. Eames*, 1 Wall. 317, 17 L. Ed. 684; *Smith v. Goodyear Dental Vulcanite Co.*, 93 U. S. 486, 23 L. Ed. 952; *Cain v. Park*, 14 App. D. C. 42, 86 O. G. 797, 798; *Ex parte Stewart*, 4 O. G. 665; *Stirling Co. v. St. Louis Brewing Ass’n*, 79 Fed. Rep. 80; *Dederick v. Fox*, 56 Fed. Rep. 714, 717; *Ligowski Clay-Pigeon Co. v.*

*American Clay-Bird Co.*, 34 Fed. Rep. 328, 333.

303. *Sanborn, J.*, in *Hayes-Young Tie Plate Co. v. St. Louis Transit Co.*, 137 Fed. Rep. 81, 82, 70 C. C. A. 1, citing *Bevin v. East Hamilton Bell Co.*, Fed. Case 1379; *Lindsay v. Stein*, 10 Fed. Rep. 907; *Lay v. Indianapolis Brush & Broom Mfg. Co.*, 120 Fed. Rep. 831, 835, 57 C. C. A. 313, 317; *Mowry v. Barber*, Fed. Case 9892; *Marsh v. Sayles*, Fed. Case 9119; *Ex parte Simpson*, Fed. Case 12,878; *Carty v. Kellogg*, 73 O. G. 285; *Cain v. Park*, 86 O. G. 797, 798.



time limited, and the time within which a renewal application may be filed are thus covered by statute.

“Any person who has an interest in an invention or discovery, whether as inventor, discoverer, or assignee, for which a patent was ordered to issue upon the payment of the final fee, but who fails to make payment thereof within six months from the time at which it was passed and allowed, and notice thereof was sent to the applicant or his agent, shall have a right to make an application for a patent for such invention or discovery the same as in the case of an original application. But such second application must be made within two years after the allowance of the original application. But no person shall be held responsible in damages for the manufacture or use of any article or thing for which a patent was ordered to issue under such renewed application prior to the issue of the patent. And upon the hearing of renewed applications preferred under this section, abandonment shall be considered as a question of fact.” (Section 4897, R. S. U. S.)

The provision in this section that abandonment “shall be considered as a question of fact,” renders the decision of the Commissioner reviewable in a suit upon the patent.<sup>304</sup> Of this section Commissioner Marble has said:

“From the first the office has accepted the payment of a new fee and a request that the patent issued upon the old papers was a sufficient new filing or refiling within the spirit of the law. This is in effect a revival of the old application or a refiling upon payment of a new fee. For it cannot be supposed that the oath of invention attached to one application can support a patent granted upon another. (James Heginbotham, 8 O. G. 237.) A similar practice, I am informed, was permitted in refiling

304. United States Rifle & Cartridge Co. v. Whitney Arms Co., 118 U. S. 22, 30 L. Ed. 53.

'withdrawn' applications renewed under the provisions of section 35, second proviso, law of 1870. Aside from the significance of this practice as a contemporaneous construction of the law by those who participated in framing it, the practice is the only one by which effect can be given to the words of the statute which extend to assignees the privilege of filing new applications within two years. In continuation of the spirit of the act of 1864, which enabled an assignee to perfect the application by payment of the final fee, the assignee is now permitted to make payment of a new fee in aid, and continuation of an application already filed. In this way alone can any special meaning be attached to this provision additional to and not inconsistent with other equally binding provisions of the law.

"If the views now expressed as to the status of the second application called for by section 4897 are correct, it is clear that the section declares in effect that a 'withheld' application is *sui generis*, having neither the incidents of a rejected or abandoned application, but that it is an application held in abeyance and liable to be revived upon the payment of a new fee, and that such applications will only become abandoned after the expiration of two years, reckoning from the date of allowance. Like section 4894, it limits the life of the application to two years after the last action of the office, but operates upon a different class of applications, and introduces the new principle that after a certain period of neglect an additional tax will be imposed upon the inventor."<sup>305</sup>

It was formerly the rule of the Patent Office that the renewal application must be signed by the applicant, but the rulings to that effect were overruled by Commissioner Allen in an opinion in which he said:

305. Ex parte Livingston, 20 Off. Gaz. 1747, 1749.



“Assuming, then, that an attorney with proper authorization from his principal may sign and file a petition for renewal, the question next arises whether the power of attorney ordinarily given in an original application contains such an authorization. These powers usually delegate, among other things, the right ‘to transact all business in the Patent Office in connection with the application.’

“It has been the custom of the office before and since the decision in *ex parte Thomas* (92 Off. Gaz. 1035) to allow an attorney to prosecute the renewal of the application by virtue of the power given him in the original case. This is believed to be the right practice, since an applicant appoints an attorney with the idea of getting him a patent on his invention, and the prosecution of the renewal is so closely allied with the prosecution of the original that the acquiescence of the applicant in the acts of the attorney in prosecuting the renewal should be presumed in the absence of any protest or revocation of the power on the part of the applicant.

“The power of attorney given by the applicant in the present application contains the clause referred to above, delegating to his attorney the right to transact all business in this office in connection with the application.

“As the applicant has elected to use all the parts of his old application in his renewal, it is held, in view of the established practice of permitting an attorney to prosecute a renewal by virtue of his original power, that the signing of a petition for a renewal is such an act in connection with the application as is authorized to be done by his attorney in the power of attorney which has been given him.”<sup>306</sup>

306. *Ex parte Agee*, 101 Off. Gaz. 1609.