SUMMARY

OF THE

LAW OF PATENTS

FOR

USEFUL INVENTIONS

WITH

FORMS.

BY

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PREFATORY NOTE.

In A. D. 1874, I published a Manual of Patent Law, smaller even than the present volume and intended mainly for unprofessional readers. The edition being exhausted—largely by sale to the profession—and the patent law having had important additions made to it, by the action of the court, I have rewritten the whole into a substantially new book, intending to make it more useful to lawyers than the former one, without, I trust, making the greater part less useful to unprofessional readers.

W. E. S.

August, 1883.
CHAPTER I.

HISTORY AND NATURE OF THE PATENT LAW.

The patent law of these United States is, in some sort, the offspring of the pre-existing system of Great Britain, which arose, not from positive enactment, but from a negative provision in a statute passed during the reign of James I, A. D. 1624, curtailing the power of the Crown to grant monopolies, but excepting "Letters Patent and grants of privilege for a term of twenty-one years or under, heretofore made, of the sole working or making of any manner of new manufacture, within this realm, to the first and true inventor or inventors of such manufacture," etc.

Although the patent laws of these two countries, statutory and constructive, are not identical in all respects—notably in the fact that the British courts construe an introducer, as well as an originator, to be an inventor—they are in many points, the same: in the earlier years of the republic the English cases were freely cited in our courts, and such citation, both to and by our courts, is still practiced to some extent; but the mass of American patent litigation is so large in later years that there is little occasion to go to English courts for precedents.
SUMMARY OF PATENT LAW.

During our colonial existence, patents for invention granted by the crown were sometimes extended to have effect in these colonies.¹

One colony, at least, had what was virtually a patent law.²

After the Declaration of Independence, and before the adoption of the present constitution, various of the states exercised the right of granting patents.³

¹ An example is that of Thomas Masters, of Philadelphia, who, in A. D. 1717, petitioned William Keith, Lieutenant Governor of Pennsylvania, setting forth that his majesty had graciously granted to his wife, Sybella Masters, two patents, one for curing corn, and another for weaving chip hats, and praying that the same might be recorded in Pennsylvania, which prayer was granted.

² Witness the following from the printed statutes of Connecticut for the year 1672, page 52 :— "It is ordered that there shall be no monopolies granted or allowed among us but of such new inventions as shall be judged profitable to the country and for such time as the general court shall deem meet." As early as 1716 this colony granted to Ebenazer Fitch, of Suffield, a monopoly of slitting mills for fifteen years; and afterward kept up what was for those times an active business in granting patents of this sort, sometimes advancing to the grantee the funds necessary to put his invention into practice. Massachusetts, in 1641, granted to Samuel Winslow a monopoly of salt making after his peculiar method, for ten years.

³ New Hampshire, in 1786, granted to Benjamin Dearborn, a virtual patent for a printing press and for a book printed on it called the "Pupil's Guide." The next year Dearborn procured another exclusive grant covering a water throwing engine and weighing scales. John Fitch, from Philadelphia, and James Rumsey, from Virginia, contended before several of the state legislatures for the exclusive rights to propel boats by steam. There was no need of a contest from our modern stand point for the two systems were as different as could well be: Fitch had paddles at the sides of his boat worked by an engine within, while Rumsey attained propulsion by forcing a stream of water out at the stern and against the water of the river. Rumsey founded a Rumseian Society with Benjamin Franklin as president, procured the endorsement of Gen. Washington and generally prevailed over Fitch.
The framers of the constitution of these United States, therefore, acted in the light of experience when they made provision for patents upon new and useful inventions, in the fundamental law of the nation. The constitutional provision for patents is contained in Article I, Section 8:

"The Congress shall have power * * *: To promote the progress of science and the useful arts, by securing, for limited times, to authors and inventors the exclusive right to their respective writings and discoveries: * * * also to make all laws which shall be necessary and proper for carrying into execution the foregoing powers."

The first patent law of these United States was approved April 10, 1790, and, though it has been amended and changed many times since, there has been no radical departure from the system as originally founded.

The first patent law of these United States, approved April 10, 1790, prescribed a petition to the Secretary of State, the Secretary of War, the Attorney General, and demanded a fee of five dollars. February 21, 1793, the Act of 1790 was repealed and a new one passed permitting the merger of the existing state grants in regular national patents, and raising the fee to thirty dollars. By Act of July 4, 1836, the Patent Office and the office of Commissioner of Patents were created; patents ran fourteen years, conditionally extensible for seven more; provision for examination into the novelty of alleged inventions was made; the fee for citizens was kept at thirty dollars with a drawback of twenty dollars if the patent was not allowed. The Act of August 29, 1842, made designs patentable. The Act of March 2, 186
abolished extension and made the term of patents seventeen years; the application fee was made fifteen dollars and the final fee twenty dollars. The later acts are substantially codifications of the Act of 1861 as modified by construction.

The language of the provision for patents contained in the constitution is worthy of careful attention, for it states the reasons why patents are granted; which reasons are not the ones that the popular understanding supposes them to be. The belief is very generally entertained that inventors have a natural right to the exclusive use of their inventions, that the passage of the patent statute is but a recognition of this natural right and that the chief end and aim of the law is to give rewards to the inventors. Such is not the fact: an inventor has no natural right to the exclusive use of his invention.\(^1\)

It is a tolerably self-evident proposition that one natural right of a man is to have an equal chance with his fellow-man to amass wealth. When, of two neighbors in the state of nature as nearly as may be, rudely cultivating the soil with primitive and awkward tools, one of them invents an improved implement, there is no principle of natural justice which forbids the neighbor, on seeing how well the new implement works, to make and use one like it. The neighbor's act does not injure the inventor in any possible way. If the neighbor has not the right to make and use the improved tool he is shut off from an equal chance with the inventor of making gains, and this when his hindrance is no help to the

\(^1\) *Traité des Brevets D'Invention* par C. Renouard, Phillips on Patents.
inventor. It is not uncommon to urge upon this point that as the inventor confers a benefit on his neighbor by giving him knowledge of the invention, the neighbor is bound by that gratitude which is natural to the race, to make some return therefor: this may be admitted, but the principle is not so strong as the one that the inventor is bound in common justice to his fellow, to allow him an equal chance with himself to amass wealth, when doing so entails no injury on himself. Not only this but the neighbor, at the time the inventor brought out his new tool, might have already begun to ponder upon the poor work done with the old one, and very soon would have invented the improvement himself and thus acquired as good a title to the exclusive use thereof as the prior inventor, a use, however, from which he would be debarred by a person having no better title than himself, a thing clearly unjust.

This is by no means a suppositious or fanciful case; it is a very common one. On an average about 20,000 applications for patents are made yearly to the United States Patent Office and only about 12,000 patents are granted thereupon; the remainder are generally rejected for want of novelty; that is, because some one has invented the same thing previously. At a first glance this may seem surprising but on further consideration it ceases to be so, for it is a recognized fact that the mind is governed by laws of action just as much as the body; so that given a certain mechanical desideratum to be produced and two minds of similar knowledge and habits to produce it, and they will be quite likely to travel the same road to the same result.
As a learned judge has said:—"An inventor has no right to his invention at common law. He has no right of property in it originally. The right which he derives is a creature of the statute and of grant, and is subject to certain conditions incorporated in the statutes and in the grants. If to-day you should invent an art, a process or a machine, you have no right at common law, nor any absolute natural right, to that for seven, ten, fourteen, or any given number of years against him who invents it to-morrow, without any knowledge of your invention, and thus cut me and everybody else off from the right to do to-morrow what you have done to-day. There is no absolute or natural right at common law that I, being the original and first inventor to-day, have to prevent you and everybody else from inventing and using to-morrow or next day the same thing."\(^1\)

If an inventor has a natural exclusive right for his invention for one moment he has it forever; and if any limit of time can be set to such a right only infinite wisdom is adequate to so delicate a task. To state the doctrine of natural right thus is to show that it does not exist. The law has never recognized the doctrine of natural right for it cannot recognize what does not exist.

The Policy of the Patent Law is primarily a selfish one on the part of the public. The benefit of the inventors is a secondary consideration; it is only a means to an end.

The constitution of these United States gives Congress power to enact patent laws for a definite purpose, which

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is "to promote the progress of science and the useful arts," and the means to be used are, "by securing, for limited times, to authors and inventors the exclusive right to their respective writings and discoveries." The reason for enacting patent statutes is clearly stated in the fundamental law.¹

The theory of the law is that the promotion of science and the useful arts is of great benefit to the community at large and that such promotion can be attained by securing to inventors and authors for limited times the exclusive right to their inventions and writings. That such theory is correct it is needless to say. It is almost self-evident, or at any rate susceptible of proof, that there has been no more powerful factor in the production of the magnificent material prosperity of the United States of America than wise patent laws and their kindly construction by the courts. A Commissioner of Patents held, after careful estimate, that one-half of the manufacturing investments of the whole country are based upon patents. A later official opinion puts patents as the basis of two-thirds of the manufactures of the nation. It needs but little observation to learn that there is hardly an important manufacturing industry in the Union that has not had its success assured at some time by one of these qualified monopolies. After making due allowance for that versatility and vigor produced and stimulated in a people by its growth¹ in a new country, the wisely framed and kindly construed patent law remains a

¹ Day v. Union Rubber Co., 3 Blatchford, 500; Kendal v. Winsor, 21 Howard, 322.
factor as potent as any, if not more potent than any other, in the production of our unrivaled national prosperity.\(^1\)

It might be supposed that the advance in prosperity due to inventions would be confined to patent owners, during the existence of the monopoly, but such is not the case; the general public is benefited, even while the patents are in force, more than the patent owners, in the cheapened price of manufactured goods and the like.\(^2\)

It has not rarely been said that the invention and introduction of labor saving machinery has lessened the demand for manual labor and lowered the wages thereof. Statistics show that in the whole result the demand for labor is enlarged and wages raised by such inventions.\(^3\)

\(^1\) The production of woolen goods in Massachusetts in 1865 was 46,008,141 yards, the number of employees 18,753; the production in 1875 was 98,208,280 yards, number of employees 19,036; an increase in proportion of 96\(\frac{1}{4}\) per cent., and in employees of 1\(\frac{1}{4}\) per cent. The number of pairs of boots and shoes made in Massachusetts in 1865 was 31,870,581, and in 1875 was 59,762,866, with no increase in the number of employees. The production of carpeting in Massachusetts in 1875 was four-fold the production of 1865, while the number of employees only doubled. Patented labor-saving machinery was the chief agent in all this increased production. Massachusetts Census of Manufactures, 1875.

In twenty years after Hayward of Connecticut discovered the use of sulphur in rubber the annual sale of goods made under the invention was over $2,500,000 in Boston alone, a vast industry created by one invention. The profits of the Lowell Company on carpets made upon the Bigelow loom from 1859 to 1863 were nearly $700,000, the profits of the Hartford Company from the same source from 1855 to 1863 were over $1,000,000. Rep. Com. Pats. 1863, Vol. 1.

\(^2\) The average value of the boots and shoes, mentioned in the last foot note, was $1.80 per pair in 1865 and $1.50 per pair in 1875. The value of the carpets mentioned was $2.00 per yard in 1865 and less than 73 cents per yard in 1875. Massachusetts Census of Manufactures, 1875.

\(^3\) In 1850 there were 52,069 tailors in the United States in a population of 33,191,876, or one tailor to 445 inhabitants. In 1870,
The patent laws promote the progress of useful arts in different ways, prominent among which are: first, by stimulating inventors to constant and persistent effort in the hope of producing some financially valuable improvement; second, by protecting the investment of capital in the development and working of a new invention from ruinous competition till the investment becomes remunerative; and third, by accustoming large numbers of mechanics to the use of machinery requiring more than ordinary intelligence, thus educating them not only in mechanical knowledge but also in practical skill and deftness.

notwithstanding the introduction and use of many thousands of sewing machines, there were 106,679 tailors in a population of 38,558,571; or, one tailor to 361 inhabitants. Meanwhile, the manufacture and sale of sewing machines had practically given profitable employment to about fifty thousand persons—that industry employed 17,372 mechanics in the sewing machine shops in 1870. The following table shows the hands employed in the factories of the United States in the years named.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>HANDS</th>
<th>WAGES</th>
<th>POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1850</td>
<td>958,079</td>
<td>$236,759,464</td>
<td>23,191,876</td>
</tr>
<tr>
<td>1860</td>
<td>1,311,246</td>
<td>378,878,966</td>
<td>31,443,321</td>
</tr>
<tr>
<td>1870</td>
<td>2,053,996</td>
<td>775,584,343</td>
<td>38,558,371</td>
</tr>
</tbody>
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An innumerable number of labor saving machines were introduced between 1850 and 1870, but the number of laborers employed more than doubled, and the wages nearly quadrupled, while the population only increased about 67 per cent.—Census Reports.

1 The Bigelow loom before referred to in a foot note, required the investment of a million dollars in one instance before it could be remunerative. The scarcity of capitalists who would make such an investment experimentally with a certainty that competition would ensue the moment the invention was taken to be a practical success exceeds computation; it must be left for the imagination.—Rep. Com. Pat. 1863, Vol. 1.

2 Again and again full sets of American labor-saving machinery, notably watch machinery, boot and shoe machinery and gun machinery, have been set up abroad and put under the attendance of the
The efficacy of our patent laws in all these directions is not only well understood by native observers but is admitted, understood and acted upon by prominent foreign manufacturers, journals and governments.\(^1\)

A Patent is a Contract between the inventor and the government representing the public at large.\(^2\)

The consideration moving from the inventor is the production of a new and useful invention and the full disclosure thereof to the public—which disclosure is embodied in the application for patent—whereby the public is enabled to freely practice the invention when the patent expires. The consideration moving from the government is the grant of an exclusive right, for a limited time, which grant the government allows the inventor to protect and enforce through its courts.

It is necessary to a clear understanding of the patent law and the decisions of the courts that it should always be remembered that an inventor is not entitled to a patent giving him an exclusive right to the use of his invention as a matter of natural right but that the govern-

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\(^1\)An article to this effect in the *London Times*, of August 21, 1878, is a sample of a number which have appeared in that journal on our patent system. See also the address of M. Edouard Favre-Perret at Chaux-De Fonds, Nov. 14, 1876, Swiss Commissioner to the Centennial Exposition, printed in—among other papers—the *Hartford Daily Times*, of January 2, 1877. The German patent law and German patents are obviously modeled after those of the United States. Switzerland deliberately adopted the policy of not granting patents and is now agitating for a law like ours.

ment acting in behalf of the public, grants the patent only on condition that the applicant produces a new and useful invention and makes a full disclosure of it to the public.

It is not uncommon, when this topic is under consideration, for the inquiry to be made why the government does not protect inventors in their exclusive rights at its own expense. There are many answers to such a question. The government does not protect any right of property in a citizen at its own expense. The law gives a man the right to have debts due him paid, but it does not collect those debts at its own expense. A practical answer to the question is that if the government were to attempt to carry on, at its own cost, all suits for infringement that patentees should request, it would require such a number of courts and such a host of advocates that the whole national revenue would hardly suffice to pay them, and the whole patent system would break with its own weight. Another practical answer is that the government would find in many such suits that the alleged inventor had not given the consideration demanded for his patent, in that his invention was not new; and the public would be unjustly taxed to pay the expense of suits which the patentee had no right to have brought. There are other answers of equal force.

The government provides the machinery of the courts to enforce the rights of inventors. This machinery can be set in motion by the patentee; and by the provision of this machinery the government practically does its whole duty in the premises.

The method followed by the United States in the granting of patents for new and useful inventions seems,
in the light of experience, to be the best in the world. Foreign journals freely admit this; so do foreign governments, in assimilating to our system in greater or less degrees.

Few of the foreign governments make an examination into the novelty of an alleged invention presented as subject matter for a patent; none of them make the thorough and systematic examination that is made here.

The small sum of money paid by the applicant for a patent is not a payment for the franchise—regarded in that light the fee is absurdly small—but it is money paid to support trained experts kept to examine into the novelty of alleged inventions and to prevent inventors from going away from the Patent Office with clearly invalid patents. Were it not for this governmental examination no one would purchase a patent or risk capital in working under it, except after a thorough and expensive search and vindication by a private professional expert. The government really does a large amount of expert work for a small sum of money.

That the examination made is not always perfect is not surprising when the vast number of applications acted on is taken into account, there being about twenty thousand applications per year. The matter for surprise is not that so many mistakes are made by the Examiners of the Patent Office but that they make so few.
CHAPTER II.

PATENTABLE SUBJECT MATTER.

The statute enacts that:—"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, not known or used by others in this country and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof, and not in public use or on sale 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, obtain a patent therefor."¹

He who understands each and every part of the foregoing section, as the same is construed by the courts, has a good knowledge of a large part of the patent law; but it is not likely that the English language contains another collocation of the same number of words upon the construction of which the amount of skill, acumen, research and learning has been expended that has been lavished upon these paragraphs. The section requires—

1. That a patentable thing must be "invented or discovered" by the patent taker.

¹ Title LX. Chap. 1, Sec. 4886, Revised Statutes.
2. That it must be "new," a matter or topic hereinafter treated in a subsequent chapter upon "Novelty."

3. That it must be "useful," a topic treated in a subsequent chapter entitled "Utility."

4. That it must be an "art, machine, manufacture or composition of matter" or an "improvement thereof," a topic treated in this present chapter under the head of "Patentable Subject Matter."

5. That it must be "not known or used by others in this country before his invention or discovery thereof," a topic treated in a subsequent chapter entitled "Novelty—Prior Use."

6. That it must be "not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof," a topic hereinafter treated in the chapter entitled "Novelty—Prior Patent or Publication."

7. That it must be "not in public use or on sale for more than two years prior to his application," a topic hereinafter treated in the chapter entitled "Public Use—Two Years."

8. That it must not "have been abandoned," a topic hereinafter treated in the chapter entitled "Abandonment."

The words "invented" and "discovered" are for the purposes of the patent law synonymous.¹

An invention to be patentable in these United States must be original with the applicant therefor. Some countries, notably Great Britain, allow the first introducer of an invention to take a patent therefor, holding

such an introducer to be the first inventor *within the realm*. Under our law the applicant must be really the inventor—the invention must be original with him. Although the statute specifies "any person" this is construed to permit joint inventors, no matter how many in number, to apply for and take a patent for a joint invention. Minors can take patents as well as adults; likewise married women as well as single persons.

The patent law does not protect every new and useful invention or discovery: a discovery in mathematics, such as a new method of squaring a circle, or computing the area of an irregular figure, is not a patentable invention; neither is an invention in finance, such as a new method of banking; nor an invention in the science of government, such as a new method or principle of laying taxes; and it was held by a really learned judge that the art of producing insensibility in the human frame by means of inhalation of etheric vapors, although the discovery of the anaesthetic powers of ether was original with the patentee, is not a patentable invention.

He said:—"a discoverer of a new principle, force, or law, operating, or which can be made to operate, on matter, will not entitle the discoverer to a patent. It is only when the explorer has gone beyond the domain of discovery and has laid hold of the new principle, force, or law and connected it with some particular medium or mechanical contrivance by which or through which it acts on the material world, that he can secure the exclusive control of it under the patent laws. He then controls his discovery through the means by which he has brought it into practical action or their equivalent and only
through them. It is then an invention although it embraces a discovery.”¹

The inventions (aside from matters of design) specified as patentable, are:
1. An art, or an improvement of an art.
2. A machine, or an improvement of a machine.
3. A manufacture, or an improvement of a manufacture.
4. A composition of matter, or an improvement thereof.

An Art in the sense of the patent law is substantially the same thing as a process or method: a patent for an art is for a way or manner of doing something in distinction from the means made use of in the process, and in distinction from the product of a process. That which is substantially a single invention, not rarely presents subject matter for patentability as an art, a machine and a manufacture; for instance, there is at this writing a patent in existence for an improvement pertaining to the manufacture of car-wheels; the body of the wheel is of cast-iron and the tire of steel both poured while molten into the same mold, at or about the same time, the two metals being kept separate by an annular gate of sheet iron put into the matrix of the mold.

In this case the inventor had his choice to patent the process, the mold or the wheel, all being new; or he might patent all three, thus covering an art, a machine and a manufacture in what is really a single invention.

He chose to patent the art, claiming the process of casting a wheel having a body of one kind or quality of metal and a tire of another kind or quality of metal by pouring both metals into the same mold at or about the same time, the two metals being kept apart while molten by a circumferential band in the mold.

It may be remarked here that when a new principle in nature has been discovered and a way devised of practically applying the principle—probably in all those cases which admit of it—it is advisable to claim the invention as a process or art if it is susceptible of being thus claimed; for then the use of any agencies involving the application of the principle will be an infringement of the patent, while if only the particular means—as the machine made use of—are patented, another person may devise some other means which are not legal equivalents therefor, to accomplish the same result, and thus avoid infringement while really making use of the invention.

A process may be put in practice by means of mechanical or chemical agencies according to its nature; in either case new agents may be employed to produce a new result, new agents may be employed to produce an old result, or old agents may be used in new relations to reach an old or a new result, and in either case the process will be patentable.

It is of little or no importance to specify an invention in a patent as an art, machine, manufacture or composition of matter so far as any requirements of law are concerned, provided the description is full and clear and the claim unambiguous, for courts voluntarily take notice whether the invention be one or the other. It might, however, be a serious error to plainly claim an invention
as one of these when it is clearly another; in a British case a man invented a *process* for spinning flax, the essential feature of which was the maceration of the flax, whereby it could be spun at a shorter "reach"; he claimed his invention as "new and improved machinery for macerating flax," etc., when in fact his invention was not a machine but a *process*. The patent was held invalid for this defect.¹

**A Machine** is defined by Webster to be "in general, any body or assemblage of bodies used to transmit and modify force and motion, as a lever, pulley, wedge, screw, etc.; especially a construction more or less complex consisting of a combination of moving parts," etc.,; and perhaps no better definition can be given.

It will be observed that this definition is broad enough to include a thing of fixed and immovable parts as a lever, a hammer or a wheel, as well as a combination of moving parts and the connecting or supporting frame work thereof; such for instance as a sewing machine.

It is altogether likely that the idea of a *machine* moving in the mind of the legislature who drafted the patent law was that of a combination of moving parts and the supporting framework thereof, for producing or working on some tangible product, and this in distinction from a tool of fixed and immovable parts, as a hatchet or gimlet; for the law immediately after its mention of a machine specifies a *manufacture* as patentable and that word has a more appropriate application to these latter objects.

A Manufacture in the sense of the patent law is a product, in distinction from a process or a machine of moving parts, which are ordinarily agencies for the creation of products, and in distinction also from products of a chemical nature which are more correctly comprehended under the specification "composition of matter."

The word or term "manufacture" includes most of the ordinary and vendible articles of trade, such as textile fabrics, articles of personal attire, general hardware, house furnishing goods and the like. As above suggested it comprehends the simpler forms of machines, like saws, hammers and gimlets.

As understood by the Patent Office—and no reason is seen for dissenting from the understanding—an article does not need to be a finished product in order to enable it to be an "article of manufacture"; the term fairly covers such products as are complete in themselves, or are so far complete as to be subject to independent manufacture and sale. Thus in a community of boot and shoe manufacturers, certain shops make and sell only certain parts of a boot or shoe, and in such case these parts are "articles of manufacture." Again in a community of clock-makers, certain manufacturers produce but a certain part, clock-springs for instance, and in that case a clock-spring is an "article of manufacture."

Composition of Matter comprises medicinal and chemical preparations and new compounds intended as articles of food; however, in some cases a new article of

food, as a new and agreeable cracker or biscuit is as
well comprehended under the term "manufacture." Pol-
ishing powders, plating solutions, artificial stone, artificial
ivory, celluloid and the like are familiar instances of
"composition of matter."

**Improvements.** The law not only makes an art, a
machine, a manufacture and a composition of matter
patentable, but it makes any "improvement" of one of
these patentable as well; and it is important that this is
so, for it would be difficult to find a patented improve-
ment that is new in all its parts as an entirety or that is
not simply an improvement of something that had prior
existence. It is very rare that an invention is in an en-
tirely new field and is entirely novel; that is not the way
or manner in which invention commonly proceeds. It
travels step by step: these steps follow one after the
other in rapid succession so that a very short time suffices
to push the advance line over a wide interval; still the
march is step by step.

In considering the patentability of an improvement
upon some existing device it matters not whether that
existing device be or be not patented or whether the im-
provement when embodied and put to use will infringe
an existing patent. The Patent Office has no authority
to decide and does not attempt to decide any question of
infringement. The main question before the Patent
Office in acting upon an application for patent is whether
the alleged invention is novel. Matters that impeach its
novelty may be found in one place or another; in an ex-
pired patent, in an existing patent, in a printed publica-
tion or in common and public use in this country. Such
impeaching matters have precisely the same force in this regard whether found in one or another of the places mentioned, in an existing patent the same as in an expired patent, and with no other force.

Whatever points of novelty the invention presented for patent has, as compared with existing things, patented or otherwise, may—when rightly claimed—be patented; but the thing which embodies such points of novelty may also embody the invention claimed in some earlier patent, and thus be an infringement of the earlier patent. The Patent Office has no jurisdiction of the question of infringement, and the grant of a patent for a device settles nothing, as to whether that device infringes existing prior patents.

**Can a Principle be Patented?** This is a question not unfrequently asked; and minds of the first order have been found arguing in the affirmative, although the Supreme Court has twice, at least, answered it in the negative, and this, in one instance, when one of the most important inventions of all ages—that of the electric telegraph—was under consideration.

A principle, in the sense of the patent law, is an elementary physical truth or law; a confusion results in discussing the question whether a principle is patentable unless there is kept in mind just what question is to be answered. A principle is certainly patentable in one sense; that is, when a man has invented a new machine and properly patented it he is entitled to treat as infringements all other machines operating on the same principle.
The customary and proper way of ascertaining whether two machines operate on the same principle is to enquire if both make use of the same mechanical parts, or equivalents therefor, acting in substantially the same way, to accomplish substantially the same result; and by mechanical equivalents is meant such substitutes for other mechanical parts as are within the knowledge of a person skilled in the matters to which the invention pertains, for producing results similar to the results produced by such other mechanical parts.

In this sense a principle is patentable, but the question now under discussion has, usually, quite another meaning. It usually means: Can all ways of producing a certain result be covered and claimed in a single patent, or can all ways of producing a certain result, by means of a certain agent, be covered and claimed in a single patent? To the question, as put in this shape, a negative answer is given by the Supreme Court, our highest authority.

A patentee claimed as an improvement in looms: "The connection of the reed with the yarn-beam, and the communication of the motion from the one to the other, which may be done as above specified."

In a suit brought on this patent, the defendants contended that this was a claim to an abstract principle. Judge Story held it was a claim to the specific mechanism shown in the patent, and said: "We hold this opinion the more readily because we are of opinion that if it be construed to include all other modes of communication of motion from the reed to the yarn-beam, and for the connection of the one to the other, generally, it is utterly void, as being an attempt to maintain a patent for
an abstract principle or for all possible and probable modes whatsoever of such communication."\(^1\)

In a later case, tried by the same Judge, in the same year, the following excerpt from the decision gives both the law and the facts: "Now, what is the language in which the patentee has summed up his claim and invention? The specification states: 'It is claimed as new to cut ice of a uniform size, by means of an apparatus worked by another power than human. The invention of this art, as well as the particular method of the application of the principle, is claimed by the subscriber.' It is plain, then, that here the patentee claims an exclusive title to the art of cutting ice by means of another power other than human power. Such a claim is utterly un-maintainable, in point of law. It is a claim for an art or principle in the abstract and not for any particular method or machinery by which ice is to be cut. No man can have a right to cut ice by all means or methods, or by all or any sort of apparatus, although he is not the inventor of any or of all such means, methods, or apparatus."\(^2\)

This question came in some sort before the Supreme Court in an action upon a patent for a machine for making lead pipe. The patentee claimed as his invention:— "The combination of the core and bridge or guide-piece, with the cylinder, the piston, the chamber and the die, when used to form pipes of metal under heat and pressure in the manner set forth or in any other manner substantially the same."

\(^1\) Stone v. Sprague, 1 Story, 271.
\(^2\) Wyeth v. Stone, 1 Story, 285.
The Supreme Court took occasion to say that a claim for all ways of doing a thing is not sustainable and that no one can maintain an exclusive right to the new power, such as steam, electricity or any other power of nature should such be discovered.¹

In 1853 the early patent of Morse for his electric telegraph came before the Supreme Court. One claim in the patent reads:—"I do not propose to limit myself to the specific machinery or parts of machinery described in the foregoing specification and claims; the essence of my invention being the use of the motive power of the electric or galvanic current which I call electro-magnetism, however developed, for marking or printing intelligible characters or signs at any distances, being a new application of that power, of which I claim to be the first inventor or discoverer."

It is hardly possible that a case could arise presenting a fairer chance or greater inducement than this one for an endorsement of such a claim. The court fully found that Morse was the first inventor of the art of conveying intelligence through an electric conductor as to all the world; the court fully realized the vast importance of the invention; and the specification and claims were drawn with care and skill. These are arguments which appeal to any properly constituted mind with great force, yet the court flatly condemned the claim. Said a learned Chief Justice:—"It is impossible to misunderstand the extent of this claim. He claims the exclusive right to every improvement where the motive power is the electric or galvanic current and the result is the marking or printing

¹*LeRoy v. Tatham*, 14 How. 175.
intelligible characters, signs or letters at a distance. If this claim is maintained, it matters not by what process or machinery the result is accomplished. For aught that we now know some future inventor in the onward march of science may discover a mode of writing or printing at a distance by means of the electric or galvanic current without using any part of the process or combination set forth in the plaintiff's specification. His invention may be less complicated, less liable to get out of order, less expensive in construction and in its operation, but yet if it is covered by this patent the inventor could not use it, nor the public have the benefit of it, without the permission of this patentee. Nor is this all: while he shuts the door against inventions of other persons, the patentee would be able to avail himself of new discoveries in the properties and power of electro-magnetism which scientific men might bring to light. * * * The court is of opinion that the claim is too broad and not warranted by law."

While a patentee cannot claim all ways of accomplishing the result he arrives at, or even all ways of accomplishing that result by the use of the agent he makes use of, yet it makes a vast difference with the breadth and strength of a patent whether the invention covered by the patent be in a new field or whether it be a mere step forward, behind which there are other steps tending in the same general direction; for, where an inventor is the pioneer in the field to which his invention appertains, the court will give the claims the broadest possible construction; but when an inventor is only an improver in mat-

1 O'Reilly v. Morse, 15 Howard, 62.
ters of detail then a court will give his claims narrow con-
struction and only treat, as infringers those who use iden-
tically the patentee's improvement or other things which
are simply evasions thereof: the Supreme Court in one
of McCormick's reaper cases, laid down this rule thus:—
"If he be the original inventor of the device or machine
called the divider he will have the right to treat as in-
fringers all who make dividers operating on the same
principle and performing the same functions by ana-
lousous means or equivalent combinations, even though the
infringing machine may be an improvement of the origin-
al and patentable as such. But if the invention claimed
be itself but an improvement on a known machine by a
mere change of form or combination of parts the patent-
tee cannot treat another as infringer who has improved
the original machine by the use of a different form or
combination performing the same functions."¹

Conclusions.

First. A claim in terms to all ways of effecting a
certain result, or a claim to all ways of effecting a certain
result by means of a certain agent, is void.

Second. When one makes an invention in a new field,
one that is not a mere improvement on some prior thing,
the court will give the claim therefor the broadest possi-
bile construction; will give the broadest possible scope to
the term "equivalent," and will generally, if not always,
construe as an infringement any other thing which makes
use of the vital and essential characteristics of the inven-
tion, even though the mechanical parts or other tangible

¹ McCormick v. Talcott, 20 Howard, 402.
agencies may appear to be widely different; but when an invention is only an improvement on some prior thing then only plain, palpable, and known substitutes will be held to be equivalents.

Third. Where an invention is susceptible of being claimed as a process, that is generally the strongest and most comprehensive form of claim, as, by its nature, it approaches nearest to a claim for an abstract principle.
CHAPTER III.

NOVELTY—IN GENERAL.

The law requires that an invention, in order to be patentable, must be "new." It is not sufficient that it be original with the applicant for patent. It must be new as compared with all prior patents of this and foreign countries, as compared with all prior printed publications of this and other countries, and as compared with all things in prior and common use in this country;¹ prior common use abroad is not regarded by our law.

The reason of this requirement of novelty is not obscure. The law offers the monopoly of a patent to an applicant only on the condition that he adds something to the knowledge—as regards patentable improvements—possessed by or accessible to this people.

The patents and printed publications of this and foreign countries, and matters and things in common and public use in this country, are all supposed, by the law, to be known to all our people: it is true that in a majority of cases the contents of foreign patents and printed publications are not known to our people but such contents are readily accessible, if any one cares to

¹ Title LX. Rev. Stat. Chap. 1, Sec. 4886.
make a search therefor, and the law, not unreasonably, counts the accessibility of this information as its possession.

By a parity of reasoning the law supposes what is simply in use abroad not to be known to our citizens. If the applicant for patent does not put the public in possession of something—in this regard—that it did not possess before, he does not give the consideration which the law demands for the grant of the patent. The use in this country, or the patent or printed publication anywhere, which will bar an inventor's claim to a patent must be *previous to his invention*; such use, patent or publication will not affect an inventor's right to a patent if it be merely prior to his application for patent and not prior to his invention.¹

**Invention.** The change made by the inventor from prior existences must, in order to be patentable, amount to an *invention*, a thing defined by Webster to be "contrivance of that which did not before exist." Not every change amounts to invention: almost all mechanics and artisans, not employed in mere routine duplication, daily and constant, vary the application of their art, as common sense and judgment dictate, in the production of structures of different sizes and shapes; and substitute

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¹A statutory exception to this otherwise universal rule is that the invention must be "not in public use or on sale for more than two years prior to his application," which refers solely to a use in this country and is intended to prevent the grant of a patent if the inventor or any one else puts the invention into common and public use—this as distinguished from an *experimental* use—, or on sale, for more than two years, prior to the application. This subject is discussed hereinafter under the head of "Public Use—Two Years,"
materials appropriate to the purpose in hand, the product of which acts is that which, in exactitude and detail, "did not before exist," and yet neither the acts nor the products are inventions. For instance, if lifting handles had long been applied to boxes and chests, but not to trunks, he who should first apply them to trunks but does a thing that the commonest judgment dictates, and not an act that amounts to the dignity of invention.

Mere Mechanical Skill. He who does an act like that last described is deemed by the law to have exercised nothing more than mere mechanical skill, and the courts deny the right to a patent therefor.

The Patent Office, at different times, has decided that mere reversal of the operation of a device,\(^1\) passage tickets with advertisements thereon,\(^2\) changing parts from horizontal to vertical operation,\(^3\) substituting one form of spring for another,\(^4\) omitting parts of a device, while the other parts remain unchanged,\(^5\) substituting one well-known joint for another,\(^6\) putting up articles for market in sealed packages,\(^7\) attaching an advertisement to an anchored balloon,\(^8\) a mirror in front of a car driver,\(^9\) a

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\(^1\)Blake, ex parte, C. D. 1869, p. 9.
\(^2\)Towne, ex parte, C. D. 1869, p. 39.
\(^3\)Stevens & Power, C. D. 1869, p. 63.
\(^4\)Jones, ex parte, C. D. 1870, p. 87.
\(^5\)Schemerhorn, ex parte, C. D. 1870, p. 122.
\(^6\)Wilber & Velie, C. D. 1872, p. 77.
\(^8\)Gould, ex parte, C. D. 1873, p. 172.
\(^9\)Stephenson, ex parte, C. D. 1874, p. 33.
rigid fastening between two plow beams,\(^1\) substituting one old form of cutting edge for another,\(^2\) putting up belt lacing for market on spools,\(^3\) increasing the curve of a metallic lath,\(^4\) and using the sand-blast for cleaning scale from iron,\(^5\) do not amount to anything more than the exercise of mere mechanical skill.

These decisions of the Patent Office are not, of course, of equal authority with court adjudications but they serve to illustrate a variety of cases where the question under consideration becomes pertinent.

In a case which came before the United States Supreme Court, a man had taken a patent for an iron wagon reach, in the place of the previous wooden ones; the court in declaring the patent void said:—"The use of one material instead of another in constructing a known machine is, in most cases, so obviously a matter of mere mechanical judgment, and not of invention, that it cannot be called an invention unless some new and useful result, an increase of efficiency, or a decided saving in the operation, is clearly attained." * * *

Axe helves made of hickory may be more durable and more cheap in the end than those made of beech or pine but the first application of hickory to that purpose would not be therefore patentable."\(^6\)

In a later case before the same court, a patentee had claimed two tanks—for conveying oil and the like—

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\(^1\) Slemmons, ex parte, C. D. 1874, p. 115.
\(^2\) Cutting, ex parte, C. D. 1877, p. 9.
\(^3\) Cook ex parte, C. D. 1877, p. 124.
\(^4\) Carter, ex parte, 14 O. G. 201.
\(^5\) Spear, ex parte, 16 O. G. 1052.
\(^6\) Hicks v. Kelsey, 18 Wallace, 670.
placed and cleated upon a railway car. The court said: "There is no novelty and no utility. It does not appear, to use the language of appellant's brief, that there was a 'flash of thought' by which such a result as to either was reached, or that there was any exercise of the inventive faculty, more or less thoughtful, whereby anything entitled to a patent was produced. It strikes us that the entirety, and all the particulars of the summary and the claim, are frivolous and nothing more."¹

Double Use. The mere application of an existing machine, manufacture or process to a purpose to which it had never before been applied is not patentable. It is a general rule that if the prior device is a patented one, the patentee has the exclusive right to it for all the uses to which it is applicable, no matter whether he knew of those uses or not, and no matter what the use for which he deemed it specially applicable. All the uses that are afterward discovered for the invention are his property.²

Such a new use of an existing thing is known to the patent law as double use. Upon this topic of double use a learned judge said: "It requires no commentary to establish that the application of an old thing to a new use, without any other invention, is not a patentable contrivance. A man who should use a common coffee-mill for the first time to grind peas could hardly maintain a patent for it. A man who should, for the first time, card wool on a common cotton-carding machine would find it

¹ Densmore v. Scofield, 19 O. G. 289.
difficult to establish an exclusive right to the use of it for such a purpose."

In a subsequent case before the same judge, Elias Howe brought suit for an infringement of a patent owned by him for a process of preparing palm-leaf or brub-grass for stuffing for beds. It appeared at the trial that the same process had been previously applied to the preparation of hair for the same purpose. The judge said of the patented process: "It is therefore the mere application of an old process or old machinery to a new use. It is precisely the same as if a coffee-mill were now for the first time used to grind corn. The application of an old process to manufacture an article to which it had never before been applied is not a patentable invention.

There must be some new process or some new machinery used to produce the result. If the old spinning machine to spin flax were now first applied to spin cotton, no man could hold a new patent to spin cotton in that mode; much less the right to spin cotton in all modes, although he had invented none. He who produces an old result by a new mode or process is entitled to a patent for that mode or process; but he can not have a patent for a result merely without using some new mode or process to produce it." The patent was held invalid. It may not be inappropriate to remark in this connection that the claim was not so drawn as to present the real points of novelty; the claim was for a process which clearly was old and for a strictly analogous purpose; if the claim had been made to the prepared brub-grass as a new article of manufacture it might have

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1 *Ames v. Howard*, 1 Robb's Pat. Cas. 689.
been possible to show that the new manufacture had such different properties from, and advantages over, the old manufacture as to support a patent. The closing sentence of the last quotation may seem to make against such a proposition. It does not. The judge was talking about a process and all language used by judges in rendering decisions in patent causes must be taken in connection with the facts of the case in hand and allowed no application beyond that.

In a still later case before the Supreme Court the improvement claimed in the patent was the making of door and other knobs of clay or porcelain, fitted upon a shank in a common manner.

It was shown that knobs of clay and porcelain, apart from the particular application in hand, were old, and that the mode of fastening the shank into the cavity of the knob was old when metallic knobs were used. The only new thing was the substitution of the clay or porcelain knob in place of the metallic one. The court said: "The difference is formal and destitute of ingenuity or invention. It may afford evidence of judgment and skill in the selection and adaptation of the materials in the manufacture of the instrument for the purposes intended, but nothing more"; and the patent was declared void.¹

The Patent Office has, at one time and another, decided the following to be non-patentable examples of double use:—transferring a latch from a wooden to a sheet metal frame,² taking a device from a wheeled land

²*Platt ex parte*, C. D. 1869, p. 42.
conveyance and similarly employing it on a paddle-wheel boat, placing in a wind-mill a construction which is old in a paddle-wheel, plating metals for special purposes, printing a label directly on the end of a wooden spool, the application of paper bags for sacking brooms, printing an envelope after a mode old as to other papers, adapting a packing box of peculiar but old construction for a new article, using for jellies, wooden cans that were old for butter, preserving fruits by a process that was old for eggs.

Before leaving this topic of double use it seems necessary to call attention to some fine distinctions presented mainly in cases later than those cited heretofore.

In one case the patented invention was for "an improvement in steam fire-engine pumps, whereby such an engine, having constant power for discharging several streams of water through lines of hose of various lengths, may be made to throw fewer streams, or the same number through longer lines where the resistance to discharge would be greater, without varying the power or causing undue strain upon the working parts or hose, by means of a passage from the discharge to the suction side of the

1 *Biedler exparte*, C. D. 1869, p. 91.
3 *Osborne & Dayton exparte*, C. D. 1870, p. 149.
4 *Hall & Averill exparte*, C. D. 1871, p. 194.
5 *Toll exparte*, C. D. 1873, p. 149.
6 *Orr exparte*, C. D. 1874, p. 74.
7 *Young exparte*, C. D. 1874, p. 91.
8 *Sherwood exparte*, C. D. 1874, p. 93.
pump, regulated by a valve, for the surplus water on the discharge side caused by the restriction upon the discharge." The court found that prior to the patentee's invention a manufacturing firm "made and put into rotary steam fire-engines manufactured by them a passage for water leading from the suction to the discharge side of the engines, which could be opened and closed by a valve, for the purpose of having water carried through it, and past the pumping apparatus, and discharged through the hose by hydrant pressure, when the pumps were not operating, which was used at places where there was hydrant pressure for that purpose"; and that another manufacturer "made and put into steam-piston fire-engines, tubes leading from the suction and discharge parts of the engine towards each other until they met, and in one tube, from the place of meeting to the boiler, which could be opened and closed by valves, one in each branch, for the purpose of taking water from either the suction or discharge side into the boiler,—the two branches leading from the suction and discharge sides constituting a passage controlled by two valves, through which water could be taken from the discharge to the suction side to relieve pressure on the discharge side; but it does not appear by that measure of clear proof, beyond any fair and reasonable doubt, which is necessary to defeat a patent, that either of these devices was ever before that time used for the purpose of passing water from the discharge to the suction side of the engines to relieve undue pressure on the discharge side, caused by reducing the number of discharge openings, or increasing the difficulties of discharge by lengthening the hose; nor that the utility of these passage-ways for that purpose was before
that time known, neither does it at all appear that Knibbs' (the inventor) "derived any aid from either of these devices."

The court proceeded:—"This presents the question, on this part of the case, whether such prior knowledge and use of a like device, as is found to have been had, will defeat a patent." * * * "The statutes providing for defences to suits upon patents require defendants to set forth the names and residences of persons having prior knowledge of the thing patented, and where and by whom it had been used. * The proof must, of course, correspond with and support these allegations. The proofs in this case do not support the allegation that the persons knowing of and using the Amoskeag engines and the engine Philadelphia, as these persons are found to have known and used them, knew of and used Knibb's invention. * * They had brought together all the parts necessary to accomplish the result he accomplished, but did not know how to use them. This is not the known use required to defeat a patent." The following and still later case by the Supreme Court¹ should be read in this connection. The patentee said: "The nature of my invention relates to that class of wooden pavements in which the blocks are laid directly upon the sand foundation; and it consists in laying the blocks in rows with spaces between the rows and in filling or partially filling said spaces with sand or gravel and driving or swaging the same into the sand foundation below in order to pack or compress the sand under the blocks for the purpose of sustaining the weight of heavy vehicles passing over the

pavement"; the claim was in accord with this statement. Of a prior pavement the court said:—"It was made with similar wooden blocks placed in rows on an earth foundation, with spaces between the rows. The spaces were filled with gravel, which was rammed with an iron rammer made expressly for the purpose. We have here every part of the invention described in the letters-patent under consideration, except that it does not appear that the gravel in the spaces between the rows was so completely rammed as to drive it below the under surface of the pavement into the earth foundation. * Can this be called invention?"

In this last case, as in the one just preceding it, the user had no knowledge of the peculiar utility of the patented invention, yet the Supreme Court treats that fact as of no moment, while it was the very point upon which the former case turned. The two cases are not, however, in any real conflict; on the other hand, taken together, they limit and define the application of the doctrine of double use in a class of otherwise close and doubtful cases. The principle to be deduced is this:—where the prior use was for the same, or clearly analogous purpose—as in the cases of the two pavements—and the peculiar utility of the patented device was actually attained in the prior device—as in the cases of the two pavements, then the prior use is a bar to the later patent even though the prior user did not know of such special utility. But where—as in the cases of the two engines—the prior use did not attain the special utility of the patented device, then a lack of knowledge of such utility, on the part of the prior user, prevents the prior device from being a bar to the later patent.
Form, Number and Size. As a general rule, an alteration of the form, size or proportions of an existing device, or the multiplication or division thereof, is not such a change as gives patentable novelty.\(^1\) Enlarging or diminishing any or all of the parts of a machine or manufacture does not alter or change the machine or manufacture in matter of substance and hence is not patentably novel. But there are exceptions to this rule, cases in which form is of the essence of the invention, and then change in form is change in substance. The shares, mold-boards and land-sides of plows, the buckets of water wheels, the sails of wind-mills, and the fans of rotary meters, motors and pumps are examples of things changes in the form of which may amount to substantial change.

In a case which came before the U. S. Supreme Court, where the invention was an improvement in plows, Chief Justice Marshall said: "It is not every change of form and proportion which is declared to be no discovery but that which is simply a change of form or proportions, and nothing more. If, by changing the form or proportions, a new effect is produced, there is not simply a change of form and proportion, but a change of principle also."\(^2\)

In a later case a learned judge said: "There are instruments invented in which the particular form is a material part of the discovery, and then a departure from the form would be a substantial departure, because the form is essential to the invention. But there are many manufactures where the particular form of the thing is not

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\(^1\) *Reutgen v. Kanour*, 1 Wash. 171; *Park v. Little*, 3 Wash. 198.

\(^2\) *Davis v. Palmer*, 1 Robb. 518.
essential to its utility, and there may be a departure from that form and still a valuable instrument be constructed. Take the plaintiff’s wheel for an illustration. The curved form is given to the plates in casting the chilled rim. But, for the purpose of making allowance for contraction, any other form involving the principle of that allowance may be used, and there would obviously be no substantial change in the thing manufactured, because the particular form given by the first inventor is not essential to the production of the instrument. If the form is a part of the thing invented, and is essential to its value, then a change from the form is a substantial change and may be the means of producing a new manufacture."\(^1\)

The Patent Office has, at one time and another, decided the following to be cases of unsubstantial and unpatentable change: a damper, new only in the shape of its opening,\(^2\) a machine new only in the number of intermediate gears used,\(^3\) changing the size of an article and making it portable where before it had been fixed,\(^4\) duplication of parts to attain strength,\(^5\) mere addition to the number of marks on a ticket,\(^6\) increasing the size of lamp wick and wick tube.\(^7\)

\(^1\) *Many v. Jagger*, 1 Blatchford, 372.
\(^2\) *Fenno ex parte*, C. D. 1869, p. 9.
\(^3\) *Webster ex parte*, C. D. 1869, p. 9.
\(^4\) *Woodward v. Reist*, C. D. 1869, p. 34.
\(^5\) *Perkins ex parte*, C. D. 1872, p. 234.
\(^6\) *McNaughton ex parte*, C. D. 1873, p. 158.
\(^7\) *Atwood ex parte*, C. D. 1874, p. 79.
Sufficiency of Invention. Although it is a settled principle of law that a new device in order to be patentable must involve the exercise of something more than mere mechanical skill, be something more than the mere double use of an already existing contrivance, and more than a mere alteration in form, number or size; that is, must amount to an invention, it often happens that the application of that principle to practical cases is extremely difficult. Not infrequently it is a task of rare difficulty to determine where mere judgment and skill terminate and invention begins. Between the portions of these two domains that are well defined there is a border land of some breadth within which many improvements lie, seemingly belonging as much to one domain as the other.

The courts attempt the practical solution of this difficulty in particular cases by resolving all genuine doubts in favor of the patentee, only condemning those improvements about which no reasonable question can be raised as to whether or not they are the products of skill or invention; in all cases of real doubt the improvement is relegated to the domain of invention.

The amount of labor or thought expended upon an invention is, for the purposes of this discussion, immaterial. It may be "a simple but happy conception which, when reduced to practice, produced surprising results both in the quality of the article manufactured and the rapidity with which it is turned out. A subject-matter to be patentable must require invention, but it is not necessarily the result of long and painful study, or embodied alone in complex mechanism. A single flash of thought may reveal to the mind of the inventor the new idea, and a frail and simple contrivance may embody it.
Some inventions are the result of long and weary years of study and labor, pursued in the face of abortive experiments and baffled attempts, and finally reached after the severest struggles, while others are the fruit of a single happy thought."¹

It may sometimes become pertinent to inquire whether an alleged invention is not so absurd or so frivolous as to exclude the possibility of any thought having been exercised upon it, but in all other cases the amount of thought or labor exercised is unimportant.

As courts cannot look into the minds of men and determine the kind and quality of their mental processes in originating an improvement, all inquiry in that direction, except as to absurdity or frivolity, has been abandoned; and the result arrived at through the improvement—this sometimes coupled with the amount of apparent change—has been taken as the test of the exercise of sufficient invention to support a patent.

"Where the utility of a change and the consequences resulting therefrom (in a machine) are such as to show that the inventive faculty has been exercised—though, in point of fact, the change was the result of accident,—the requisite test of a sufficient amount of invention may exist."²

"Whenever the change in the arrangement of a machine or invention, and its consequences, taken together, are considerable, there is sufficiency of invention to support a patent. When the change, however minute, leads to consequences and results of great practical importance,

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² Everson v. Ricard, Law's Digest, 422, par. 20.
this condition is satisfied; but not when the consequences are inconsiderable, and the change also inconsiderable."

In one case the claim was:—"As a new article of manufacture, pantaloons or other garments having their pocket-openings secured at the edges by means of rivets or their equivalents, substantially in the manner described and shown," and the judge said:—"On the point that there is no invention in the thing patented the defendants contend that the want of patentability consists in the fact that the invention is nothing more than the employment at the corners of the pocket opening of the old and well known rivet, and that no new function is performed by the rivet in that place from what is performed by it in any other place." * * *

"The result of them was new and useful. The case is not one of mere double use or of the use of an old rivet in a new place. It is not merely the usual through-and-through binding or uniting function of the rivet that is availed of."*

In another case the improvement consisted in change in the proportions of a spinning spindle and its bobbin. The defendant attacked the patent on the ground that the change did not amount to invention. The judge said:—"No more difficult task is imposed upon the court in patent cases than that of determining what constitutes invention, and of drawing the line of distinction between the work of the inventor and the constructor. The change from the old structure to the new may be one which one inventor would devise with the expenditure of but little thought and labor and

1 Waish ex parte, Appeal Cases Law's Dig. 423, par. 31.
2 Strauss et al. v. King et al., 17 O. G. 1450.
another would fail to accomplish after long and patient
effort. It may be one which one whose mind is fertile in
invention will suggest almost instantaneously when the
skilled hand of the constructor will fail to reach the ap-
parently simple result by the long and toilsome process
of experiment. It may be one which viewed in the light
of the accomplished result, may seem so simple as to be
obvious almost to an unskilled operative and yet the proof
may show that this apparently simple and obvious change
has produced a result which has for years baffled the
skill of the mechanical expert, eluded the search of the
discoverer, and set at defiance the speculations of inven-
tive genius. The change described in the specification
of Pearl is a change in the form of the spindle and a
change in the form of the bobbin. * * * * Without
a knowledge of the results accomplished by these
changes they might, at first glance, appear to be merely
structural changes. Nothing has a greater tendency to
prove that these changes involve some fundamental dif-
ference beyond mere mechanical perfection and adjust-
ment than the greatly improved result attending the
change when viewed in connection with the failure of
the many experiments previously made to accomplish
similar results by mere structural changes like those, for
example, of diminishing the weight of the spindle in all
its parts. It does seem impossible to reconcile the great-
ly improved results attained by the invention of Pearl
with the theory that no functional but only a mere struc-
tural change was effected.”¹

In a case which came before the Supreme Court the
claim was:—“The plate of hard rubber, or vulcanite, or

¹ Pearl v. Ocean Mills et al., 11 O. G. 2.
its equivalent for holding artificial teeth, or teeth and gums, substantially as described." The patent was attacked by the defence on the ground that such a product involved the exercise of nothing more than mere mechanical skill and the mere double use of a well known material, vulcanite; the court said:—"The process of forming a plate by the use of such molds was well known, and so was the process of converting a vulcanizable compound into vulcanite by heating it and allowing it to cool in molds" * * * * .

"A new product was the result differing from all that had preceded it, not merely in degree of usefulness and excellence but differing in kind, having new uses and properties. It was capable of being perfectly fitted to the roof and alveolar processes of the mouth. It was easy for the wearer and favorable for perfect articulation. It was light and elastic yet sufficiently strong and firm for the purposes of mastication. The teeth, gums and plate constituting one piece only, there were no crevices between the teeth and their supporters into which food could gather, and where it could become offensive, and there could be no such crevices so long as the articles lasted. They were unaffected by any chemical action of the fluids of the mouth.

Besides all this they were very inexpensive as compared with other arrangements of artificial teeth. To us it seems not too much to say that all these peculiarities are sufficient to warrant the conclusion that the device was different in kind or species from all other devices."1

The principle to be drawn from all these decisions is

that—in cases where this question of sufficiency of invention is likely to arise—the test of the presence of such sufficiency of invention as will support a patent is the answer to the question whether the change made from the pre-existing things results in any palpable and positive advantage not of the perfectly obvious sort, not of the kind that the mechanic knows in advance, and from his stock of common knowledge, will result from the change in question, such for instance as the attainment of additional strength by the duplication of parts; and it is to be remembered in this connection that however obvious an improvement may seem, after it is once made, if it brings about any marked advantage, that is pretty good evidence that it was not obvious or the improvement would have been made before.

A notable instance of marked and important advantages flowing from a slight change is found in the sewing-machine needle, which differs from the common hand-used needle mainly in the location of the eye, but without that slight change the sewing machine in its present shape would not be possible.

An instance of a non-obvious advantage flowing from a common process is that of plating the pulp strainers of paper making machines with nickel; by increasing the thickness of the plating, which can be done at will, the orifices in the strainers can be made very small, very regular and very smooth, more so than it is possible to attain in any other way; a patent was properly granted therefor.

An instance of a non-obvious advantage flowing from what was apparently the use of an old material for an old purpose was the use of copper for making moulds
wherein to cast steel. The use of the copper for this purpose gave the castings improved soundness and homogeneity; a patent was properly granted for it.

It follows that improvements which may seem, at first glance, to be merely the result of the exercise of mechanical skill, or mere double use of an existing device, or process, or mere change in form or number or size, must be adjudged to necessitate the exercise of a sufficiency of invention to support a patent if the change involved gives a positive advantage of some sort that is not a perfectly obvious one.

This test rule holds good even if the change made be to substitute for some part of a machine or device another part which in general would be deemed an equivalent for the part removed, but which in its new place gives an advantage that the removed part lacked.¹

**Combination and Aggregation.** Many inventions consist in bringing together into one structure a number of either new or old parts or elements, and when the union is such that the function, office or purpose of one element is influenced or modified by the presence of the other elements the union is a patentable combination. A combination may be composed of all new elements and then generally, each element will be susceptible of being claimed singly as well as in the combination.

A combination may be composed of elements some of which are old and some of which are new and in this

case also the new elements will generally be susceptible of being claimed specifically and singly as well as in the combination.

A combination may be a valid and proper one though all the parts or elements which compose it are old when separately considered.¹ When the invention under consideration is a combination its novelty is not impugned by showing that any one or more of its elements less than the whole had been used together before. The novelty of a combination can only be destroyed by showing that all the elements thereof had been used together before, and in the same relation to each other as in the combination under consideration. It is not, however, every union of different things that constitutes a patentable combination. Thus, if one takes a common hammer, puts an awl into one end of the handle and a screw driver into the other, the result is not a combination having patentable novelty. The hammer, the awl and the screw driver each serves its own peculiar office and function precisely as it would if the other tools were not present in the structure: the action of one of the tools is nowise modified or influenced by the presence or action of either of the other tools, so that no new action has been brought about. The law denominates such an assemblage of parts a mere aggregation and not a patentable combination.

The elements of a patentable combination must coact; the action of one element must influence and modify the action of the other elements, and all must work

toward a common end, the result of their combined action must be something different from the sum of the results of their separate action. "A combination in mechanism must consist of distinct mechanical parts having some relation to each other, and each having some function in the organism."¹ All the parts of a combination must "co-act in producing the result claimed for a combination."²

In a case which came before the Supreme Court the patented thing was a stove and the patentee had made claim to a combination which included the fire-pot, coal-reservoir, revertible flues, direct draft and illuminated openings all of which singly considered were old, but their union in one structure gave the stove many desirable qualities.

The court said thereof:—"It must be conceded that a new combination, if it produces new and useful results, is patentable though all the constituents of the combination were well known and in common use before the combination was made. But the results must be a product of the combination and not a mere aggregate of several results, each the complete product of one of the combined elements. Combined results are not necessarily a novel result nor are they an old result obtained in a new and improved manner. Merely bringing old devices into juxtaposition, and then allowing each to work out its own effect without the production of something novel, is not invention. No one by bringing together several old devices without producing a new and

² Swift & Whisen, 3 Fish. Pat. Cas. 343.
useful result, the joint product of the elements of the combination and something more than an aggregate of old results, can acquire a right to prevent others from using the same devices either singly or in other combinations, or, even if a new and useful result is obtained, can prevent others from using some of the devices, omitting others in combination."

1Hailes et al. v. Van Wormer et al., 5 P. O. G. 89.
CHAPTER IV.

NOVELTY—PRIOR USE.

The statute prescribes\(^1\) that an invention, in order to be patentable, must be "not known or used by others in this country * * * before his invention or discovery thereof." The statute, further specifies\(^2\) as a defence to a suit on a patent:—"Third. That he was not the original and first inventor or discoverer of any material and substantial part of the thing patented; * * * And in notices as to proof of previous * *, knowledge, or use of the thing patented, the defendant shall state * * * the names and residences of the persons alleged * * * to have had the prior knowledge of the thing patented, and where and by whom it had been used." Such a knowledge or use of the invention is technically known as "prior use."

It will be observed from a reading of the foregoing that the knowledge or use in question must be a knowledge or use by another than the inventor, occurring prior to the making of the invention and not merely prior to the date of the patent or the application therefor; also

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\(^1\) Title LX., Rev. Stat., Chap. 1, Sec. 4886.

\(^2\) Section 4920.
that it must be a knowledge or use in this country. A mere prior *use* of the invention abroad will not invalidate a patent subsequently granted here for the same thing. If it could be shown that the alleged inventor derived his knowledge of the patented device from the foreign use, that would destroy the validity of the patent for it would show the patentee not to be an *inventor* of the patented thing: and our law grants patents to inventors only. A prior patent and a prior publication abroad,—matters treated of in the next chapter—stand on a different footing from a mere foreign use and effectually invalidate a patent granted here for a subsequent invention.

An interesting question, as to whether a knowledge by persons resident in this country of a prior use abroad is such prior knowledge and use as will bar a patent here has been raised in a late case[^1] but not decided: as it is the settled policy of the courts to construe the law liberally in sustaining patents, and as no reason would exist for declaring a patent invalid on the ground of prior knowledge or use unless that knowledge or use were accessible to the American public, it does not seem possible that the court of final resort will see fit to declare a patent invalid because of a knowledge of a prior foreign use locked or latent in the minds of one or two persons resident here. If the case should ever happen where a number of persons should possess such a knowledge, a question of more gravity might arise.

The topic of *prior use* is to be distinguished from that of *prior invention*, which is treated in a subsequent chapter: in discussing prior use it is not of consequence

whether the alleged prior thing was ever patented or intended to be patented, while in discussing prior invention it is of the essence of the question that the prior thing was patented or intended to be patented with reasonable diligence, or that the invention was put into public use with diligence. When prior use is set up as a defence, to a suit upon a patent, the use to be effectual must have been an actual reduction to practice (not conception and experiment merely though the same ultimately proceed to a patent prior in date to the patent sued on) prior to complainant's conception.¹

**Prior Abandoned Experiments.** The novelty of a practical and successful invention can not be destroyed by the exhibition of prior abandoned experiments tending in the same direction. Nothing short of a practically successful prior invention, actually reduced to practice and (unless the question arises in connection with the topic of prior invention, a subject hereinafter considered) in public use, can destroy the patentable novelty of an invention which has been perfected, and made practical and successful.

In the case of *Cahoon v. Ring* (Vol. 1 Fisher's Patent Cases, p. 409), the judge said to the jury, of an alleged prior machine like Cahoon's seed-sower, said to have existed prior to Cahoon's invention: "Should you find that it was made and completed prior to the Cahoon invention, and that it does embody the improvements in the Cahoon patent, as already defined and explained, you will then inquire whether it was in point of fact, a ma-

chine completed and reduced to practice, in con-tradis-
tinction to an experimental machine, or a machine
made by the supposed inventor, in the prosecution of
experiments and inquiries; and that, unless it appears to
your satisfaction, that such machine was actually used as
a seed-sower in sowing seed for agricultural purposes,
you are warranted in presuming that it was a mere ex-
periment; and, if so, you are instructed that it would
not invalidate the plaintiff's patent."

In the celebrated case of Goodyear v. Day (Vol. ii.
Wallace, Jr. p. 298) upon Goodyear's rubber patent, the
judge said: "The testimony shows that many persons
had made experiments—that they had used sulphur,
lead and heat—before Goodyear's patent, and probably
before his discovery. But to what purpose? Their ex-
periments ended in discovering nothing, except, perhaps,
that they had ruined themselves. The great difference
between them and Goodyear is, that he persisted in his
experiments, and finally succeeded in perfecting a valu-
able discovery; and they failed.

It is usually the case, when any valuable discovery is
made, or any new machine of great utility has been in-
vented, that the attention of the public has been turned
to that subject previously; and that many persons have
been making researches and experiments.

Philosophers and mechanicians may have in some
measure, anticipated, in their speculations, the possibility
or probability of such discovery or invention; many
experiments may have been un成功fully tried, coming
very near, yet falling short of the desired result. They
have produced nothing beneficial. The invention, when
perfected, may truly be said to be the culminating of
many experiments, not only by the inventor, but by many others, and he may have profited indirectly by the unsuccessful experiments and failures of others; but it gives them no right to claim a share of the honor or the profit of the successful invention. It is when speculation has been reduced to practice, when experiment has resulted in discovery, and when that discovery has been perfected by patient and cautious experiments,—when some new compound, art, manufacture, or machine has been thus produced, which is useful to the public, that the party making it becomes a public benefactor, and entitled to a patent."

In a subsequent case, the learned judge quoted the above decision in the case of Goodyear v. Day and then said: "So I say in reference to this case: it does not matter how many experiments have been tried by different inventors, if they failed, if their experiments were never perfected, if they were never brought into use,—and, by that, I do not mean general use, put to perform the functions of the plaintiff's machine or any of the perfected machines of the day,—if they rested in experiment alone, they were not of such a character as to deprive subsequent inventors of the benefit of their inventions, if they brought them into use. The man who brings his invention before the country, and into actual use, is the one to be protected: for he is the one who confers a benefit upon the country."¹

This doctrine is fully settled and not subject to dispute.

¹ Singer v. Walmsley, 1 Fish. Pat. Cas. 576.
Prior Use Must be Successful Use. In defending against a suit brought on a patent the defendant in his search for anticipatory structures often happens on devices not used for the purpose of the patented device nor for an analogous purpose, which have all the parts of the patented thing in substantially the same relation; and which appear to meet the terms of the claim in the patent and to substantially anticipate the patented invention.

But a closer examination, trial and comparison of the patented structure with the prior device often develop the fact that the prior device can not be actually and practically used for the purpose in hand because of some difference in shape, size, number or location of parts. The difference may be such an one as in some instances and for some purposes would be merely formal and unsubstantial. In such a case, unless the difference is too trivial for serious consideration, where the purpose and office of the prior structure was not the same as that of the patented structure, and the prior structure will not actually and practically perform the purpose in hand, the courts are likely to hold that such prior structures do not anticipate the patented invention.\(^1\)

"The rule is familiar, that where it is claimed that a patented device is anticipated by another, and that there has been a prior use, it is necessary to show not, perhaps, that the anticipatory device has been actually used, but certainly that it was capable of practical and successful use.\(^2\)

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Accidental Prior Existence. There are cases where a patented device or structure is found to have existed prior to the invention which led to the patent, but is not adjudged by courts to anticipate the patented invention.

Such a case is where the prior device or structure was not used for the purpose or office of the patented invention, nor for any use analogous to, or suggestive of the patented use, and where the prior users had no knowledge of the patented use.

Such a subsequent patented use might at first thought seem a mere double use of the prior structure which, it is well settled, is not patentable.

Such a case is that already discussed under the head of double use, in the preceding chapter, where the patented machine was a steam fire engine having a valved duct leading from the discharge end to the suction end for the purpose of permitting the passage of water from the discharge to the suction end, in the case of any sudden increase in pressure such as might result from shutting off one or more of several streams, or the like. It was found that the patented structure had existed in two different prior instances, the use in one case being to permit water under pressure from a hydrant to flow into the suction end and thence into the hose without passing through the pumping apparatus, and the use in the other case being to permit the boiler to take feed water from either the suction or discharge ends. Precisely the question now under discussion arose and was decided in that case to the effect that such a prior existence and use was not the prior knowledge and use required to defeat a patent under the statute, for the reason that the users
had no knowledge of the patented use, that the patented use was never attained in the prior structures, and that the prior use was not analogous to the patented use. On principle this decision was correct for the prior users did not give to the public that knowledge of the use in question which would have rendered the patentee's subsequent invention of no value to the public.

Such a case as that just presented should not be confounded with other cases where the patented use was actually put in practice in the prior instance, though with no special knowledge of its presence on the part of the users, or where the prior instance of use though not for the exact purpose of the patent was for a use analogous to, and suggestive of the patented use, as where the patentee fastened a plug into the hollow butt of a whipstock that he might, by “turning,” finish the butt, and then saw off the plug, and the prior structure had such a plug for another but analogous purpose.

Prior Use Must Be Public. An effectual prior use may be very limited in extent, amounting to nothing more than a single instance of use by a single person, but it must be a public use, a use in a way and manner accessible to the public.

The first of the following line of cases has, perhaps, been as often misunderstood and misapplied as any case found in the reports.

2 Stow v. City of Chicago, 21 O. G. 790.
Judge Story on this point\(^1\) used the following language: "It has been argued by the plaintiff, that the defence set up by the statute does not apply, except in cases where the invention, or (as the statute expresses it) the thing originally discovered, has been before generally known, and in general use, among persons engaged in the art or profession to which it properly belongs. But I do not so understand the language of the statute.

To entitle a person to a patent as a first inventor, it is certainly not necessary for him to establish that he has put his invention into general use, or that he has made it generally known to artisans engaged in the same business. And yet, upon the argument we are considering, unless it were so generally known and in use, he would be defeated by a patentee who was a subsequent independent inventor. The intent of the statute was to guard against defeating patents by setting up of a prior invention which had never been reduced to practice. If it were the mere speculation of a philosopher or mechanic, which had never been tried by the test of experience, and never put into actual operation by him, the law would not deprive a subsequent inventor, who had employed his labor and talents in putting it in practice, of the reward due his ingenuity and enterprise. But, if the first inventor reduced his theory to practice, and put his machine or other invention into use, the law never could intend that the greater or less use, in which it might be, or the more or less widely the knowledge of its existence might circulate, should constitute the criterion by which to decide upon the validity of any subsequent patent for the same invention.

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\(^1\) *Bedford v. Hunt*, 1 Mason, 302.
I hold it, therefore, to be the true interpretation of this part of the statute, that any patent may be defeated by showing that the thing secured by the patent had been discovered and put in actual use prior to the discovery of the patentee, however limited the use or the knowledge of the prior discovery might have been."

It is not surprising that the case had been misunderstood.

The question at issue before the court was prior use; it was discussed and decided as an issue involving the question of prior invention which was not really present in the case. No reflection on the eminent judge who made this decision is intended in the last remark: posthumous wit and knowledge is easy, and it does not, at the present day, require a tithe of the discernment to properly label this case that it required in Judge Story's day to make his luminous decisions.

The fact is, however, as stated and the proper bearings of the case should be understood.

In a subsequent (A. D. 1848) case Judge Woodbury said: "Was the use public in these cases, is one chief ingredient under this head? Was such a safe as Conner's used by the community? Was it actually sold in the stores? * * But if one man, alone, kept it—made it for himself, kept it in his counting room or in his cellar—it would be a private use."

Judge Sprague said (A. D. 1849):
"The article must be completed for public use and the result must be known." 2

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1 Adams v. Edwards, 1 Fish. Pat. Cas. 1.
2 Many v. Sizer, 1 Fish. Pat. Cas. 17.
Judge Kane said (A. D. 1849.):
"It is not enough for the defendant to show that wheels like the patented ones were made, but he must also show that they were used, before the plaintiff's invention."  

Judge Woodbury said (A. D. 1851):
"It is no matter whether those prior inventions were patented or not, if they existed, if they were discovered, if they were used."  

Judge Clifford said (A. D. 1859.):
"Upon this same subject you are also instructed, that, as a single specimen only of such a machine was made, if you find from the evidence, that the same was kept in his own possession, from the knowledge of the public, and was subsequently broken up, so that the public could not derive the knowledge of it from the machine itself, that would not affect the subsequent inventor's right to his patent.

The patent franchise is given to an inventor because he is the first to give the knowledge of his invention to the public, and if some one else has not given the public this knowledge before him, there is no reason why he does not give to the public that thing which the public values, and rewards by the grant of a patent.

Keeping this principle and the decisions just quoted in view, the conclusion is plain that a prior use, to avail against a subsequent inventor, must be a public use,—a use that the public knew of, or from the conditions of the use, had full liberty to know of, as to which point it is well to read in this connection the chapter on "Public Use—Two Years."

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1 Parker v. Hulme, 1 Fish. Pat. Cas. 44.
Prior Use Requires Full Proof. "A patentee is entitled to the presumption of priority which his patent affords, and this presumption is only overcome by clear and satisfactory proof to the contrary.

Some of the cases hold that the defence that the patentee was not the original and first inventor of the patented subject matter can only prevail when shown beyond any reasonable doubt."

"When the defence of want of novelty is made, it is the duty of the tribunal, whether court or jury, to give it effect; but such proof or testimony should be weighed with care, and never be allowed to prevail where it is unsatisfactory, nor unless its probative force is sufficient to outweigh the prima facie presumption arising from the introduction of the patent."

In one case the judge held that the unsupported testimony of a single witness to the minor details of a few structures he made fifteen years before, none of which were produced, could not overcome the presumption that belonged to the patent; and in another case the same judge said:—

"The testimony of all these witnesses is merely from recollection of the shape of a few articles made from twenty-three to twenty-five years before they testified, and is not sufficient to destroy the presumption of a patent upon an article which has been long and extensively used. * In the absence of specimens of the work

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made at the time, such testimony is an unsafe foundation upon which to rest a finding that the patent had been anticipated."

In another case another judge said:—"We do not intend to be understood as intimating that the witnesses who have testified to the various instances of the use of barbed wire for fencing purposes have been guilty of intentional false swearing, but simply to say that this proof which is almost wholly made up of the recollections of witnesses revived after the lapse of many years, and contradicted as it is in most instances, by the testimony of other equally credible witnesses, leaves so much doubt as to the actual existence of these various barbed wire fences, or any of them, as to make it at least unsafe ground on which to defeat a patent."  

While it is well settled that prior use, to be effectual, must be supported by clear and satisfactory proof, and that negative testimony—that is testimony of persons favorably circumstanced to have seen the alleged prior use if it had occurred, to the effect that they did not know thereof—has rather unusual weight given to it on this question, yet the testimony of single witnesses has, in exceptional instances, sufficed to prove prior use.

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CHAPTER V.

NOVELTY—PRIOR PATENT OR PUBLICATION.

The statute\(^1\) requires that a patentable invention shall be "not patented or described in any printed publication in this or any foreign country, before his" (the inventor's) "invention or discovery thereof."

The statute\(^2\) also specifies as a defence to a suit upon a patent: "Third. That it" (the patented thing) "had been patented or described in some printed publication prior to his" (the patentee's) "supposed invention or discovery thereof."

The prior patent or publication, in order to void the later patent must precede the patentee's invention; it is not sufficient to simply precede the patent, or the application therefor.\(^3\)

So far as a prior patent is concerned it makes no difference what the claims of that patent are, or whether the device of the later patent would, if made, infringe the prior patent; infringement is not a factor in the consideration of this topic. In this regard the prior patent

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\(^1\)Title LX. Chap. 1, Sec. 4856, Rev. Stat.

\(^2\)Title LX. Chap. 1, Sec. 4920.

\(^3\)Bartholomew v. Sawyer, 1 Fish Pat. Cas. 520; Judson v. Cope, 1 Fish. Pat. Cas. 615; Elizabeth v. Pavement Co., 7 Otto, 126.
stands on precisely the same footing as a prior printed publication, the question in either case being,—what does the prior patent or publication show or describe?

The prior patent may be expired or unexpired, and may claim anything or nothing; the only question, in this regard, is,—what does it show or describe?

In discussing the topic of "prior use" it was seen that the mere fact of the use and practice of an invention in a foreign country prior to a subsequent inventor's production thereof here, has no bearing or effect on his right to a patent provided he did not know of such foreign use. The case is different with reference to a prior patent or prior publication. If a device has been patented or described in a printed publication, either in this or a foreign country, prior to the invention of the American patentee, such prior patent or publication is fatal to the subsequent American patent.

The reason for this distinction between prior use and prior patent or publication is clear. The mere fact of a prior use in a foreign country raises no presumption that a knowledge of such use is accessible to the American public; on the contrary the natural presumption is that the knowledge of the use is confined to the locality of the use; but patent records and printed publications of one country find their way over the civilized world and the presumption is that a foreign patent or publication is known to the American public. The presumption is in close accord with the fact; any person who sets out to ascertain whether a certain thing has been patented abroad or described in a foreign publication can almost always accurately settle the question at some one of our libraries.
"If the foreign invention had been printed or patented, it was already given to the world and open to the people of this country, as well as of others, upon reasonable inquiry. They would therefore derive no advantage from the invention. It would confer no benefit upon the community, and the inventor therefore is not considered to be entitled to the reward."¹

It is not pertinent to inquire whether or not the prior patent or publication has been seen or read. "Because of the difficulty of ascertaining the amount of knowledge which may have been derived from the exhibition, publication or use of the invention, it has always been held that when the public have had means of knowledge, they have had knowledge of the invention. Thus, if a book has been published describing the invention, it is not important that no one has read it."²

When it is attempted to anticipate the novelty of an invention by a prior patent or prior publication, the description contained in such patent or publication must, in order to be effective as an anticipation, be so full, clear, exact, and precise that a person skilled in the art to which the invention appertains can, working by such description, and without any inventions, trials, experiments or substantial additions of his own, construct or put in practice the invention; and it, when so constructed or put in practice, must embody the same mode of operation and produce the same result as the thing under consideration.

¹ Gaylor v. Wilder, 10 Howard, 477.
Mere hints at the result in question, or statements to the effect that such a thing can be done or such a result effected, without showing how it can be done, or how the result can be effected, will not answer.

"Where the defence that a mechanical process claimed to be essentially similar to the process of the plaintiff's claim, is set up, and the process relied on is a description of such structure, contained in a printed publication, such description must have been sufficiently full and precise to have enabled a mechanic to construct it, and must also have been, in all material respects, like that covered by or described in the plaintiff's patent."\(^1\)

In one case it was held that a book of plates or drawings, without any printed description of the plates, is not such a "printed publication" as the law contemplates;\(^2\) in another case it was held that an unprinted book does not fulfill the requirements of the law;\(^3\) in another case the invention under consideration being a lifting apparatus attached to a steam-boiler injector, the prior patent stated that a lifting apparatus might be combined with the injector but did not state how it was to be done, and the prior patent was held insufficient as an anticipation.\(^4\)

Rejected applications for patents are not prior patents or prior publications.\(^5\)

In a case, brought upon a patent to one Clark, for a steam-regulator, the defendant set up that the same thing was shown in a prior patent to one Brunton. In his

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3 *Keane v Wheatley*, 9 Am. Law Reg. 65.
charge to the jury, the judge said: "You will then look at Brunton's description, and see if you find there substantially described the invention of Clark; to wit: a mechanism so organized and connected to a steam-generator, that, when properly set by the engineer or operator, at a given pressure in the boiler or generator, it will automatically, by force of the pressure in the boiler or generator, open and shut the damper, as the pressure in the boiler or generator rises above or falls below the figure at which the mechanism is set. If you find in Brunton's patent such a mechanism, so organized, then, of course, Clark's invention is not new. But, if you do not find such a mechanism, not only substantially the same in its particular parts, but so organized as that, when set in operation, it will produce substantially the same results in substantially the same way, then Clark's patent is valid, unless the change made by Clark is so obvious that it required no invention or labor of thought to make that change."¹

While the device shown in the prior patent or publication must be capable of effecting the purpose of the device of the later patent without changes or additions, a prior patent is not rendered nugatory as a bar to subsequent patents by the fact that the machine or structure described therein has defects in working that mere mechanical skill would remove;² and a description without drawings, of mechanical device, has been held sufficient to enable a mechanic to work by it.³

¹ Clark P. S. R. Co. v. Copeland, 2 Fish. Pat. Cas. 227. See also Roberts v. Dickey, 4 Fish. Pat. Cas. 544.
² Pickering v. McCullough, 21 Of. Gaz. 73.
In attempting to anticipate a patent by a prior patent the Patent Office model appurtenant to the application for the latter can not be made use of to show something different from what is described in the prior patent,¹ neither can the file wrapper of the application for the prior patent be put in evidence,² neither is proof as to the date of making the invention described in the prior patent admissible.³

A foreign patent kept secret is not a bar to a later American patent,⁴ for the public can not derive a knowledge of the invention from such a patent; and in considering all foreign patents, for the purpose now in hand, the date of the publication of the patent is the date of the patent.

In the chapter on "Prior Use" it was shown that the accidental prior existence of an afterward patented structure, never used for the patented purpose in hand, nor for an analogous purpose, and with no knowledge of the patented purpose on the part of the users, does not constitute a bar to a patent subsequent in date thereto. On principle this would be as true of a prior patent or publication as of prior use.

CHAPTER VI.

NOVELTY—PRIOR INVENTION.

The statute provides that, "whenever an application is made for a patent which, in the opinion of the Commissioner, would interfere with any pending application, or with any unexpired patent, he shall give notice thereof to the applicants or applicant and patentee, as the case may be, and shall direct the Primary Examiner to proceed to determine the question of priority of invention. And the Commissioner may issue a patent to the party who is adjudged the prior inventor unless the adverse party appeals from the decision of the Primary Examiner or of the Board of Examiners in Chief, as the case may be, within such time, not less than twenty days, as the Commissioner shall prescribe." ¹

In section 4909 and 4910, of the same statute, these interference proceedings in the Patent Office are made appealable as far as to the Commissioner of Patents in person. Section 4911, of the same statute expressly omits interferences from the cases which are appealable from the Commissioner of Patents to the Supreme Court of the District of Columbia but they are made practically

¹ Title LX, Chap. 1, Sec. 4904, Rev. Stat.
appealable to an United States court by a proceeding *de novo* as follows:—"Sec. 4915. Whenever a patent on application is refused either by the Commissioner of Patents or by the Supreme Court of the District of Columbia, upon appeal from the Commissioner, the applicant may have remedy by bill in equity; and the court having cognizance thereof, on notice to adverse parties and other due proceedings had, may adjudge that such applicant is entitled, according to law, to receive a patent for his invention as specified in his claim or for any part thereof as the facts in the case may appear. And such adjudication if it be in favor of the right of the applicant, shall authorize the Commissioner to issue such patent on the applicant filing in the Patent Office a copy of the adjudication and otherwise complying with the requirements of law. In all cases where there is no opposing party a copy of the bill shall be served on the Commissioner; and all the expenses of the proceeding shall be paid by the applicant whether the final decision is in his favor or not."\(^1\)

The United States Circuit Courts have exclusive jurisdiction of suits of this kind, and as "no law of the United States makes provision for the service of any process outside of the district,"\(^2\) it follows that the party seeking a patent in this manner must bring the suit in that United States Circuit Court which has jurisdiction of the person of his opponent.

Interference proceedings between patents are provided for by the statute as follows: "Whenever there are interfering patents any person interested in any one of them

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1 Title LX. Chap. 1, Sec. 4915, Rev. Stat.
or in the working of the invention claimed under either of them, may have relief against the interfering patentee, and all parties interested under him, by suit in equity against the owners of the interfering patent; and the court, on notice to adverse parties and other due proceedings had, according to the course of equity, may adjudge and declare either of the patents void, in whole or in part, or inoperative or invalid in any particular part of the United States, according to the interest of the parties in the patent or in the invention patented. But no such judgment or adjudication shall effect the right of any person except the parties to the suit and those deriving title under them subsequent to the rendition of such judgment.\(^1\)

The statute in Section 4920, provides as one defence to an action for infringement of a patent:—“Second. That he (the inventor,) had surreptitiously and unjustly obtained the patent for that which was in fact invented by another who was using reasonable diligence in adapting and perfecting the same.”

The question, the determination of which is provided for by these portions of statute, is priority of invention; and it is to be understood that the defence of prior invention made to a suit brought for infringement of a patent is a distinctly different defence from that of prior use. When the latter is made a defence it is of no consequence whether or not the prior user invented the thing he used or whether he ever sought or intended to seek a patent for it. When the former defence is set up it is of the very essence of the defence that the alleged prior thing

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\(^{1}\) Title LX. Chap. 1, Sec. 4918, Rev. Stat.
was an invention, and it is generally important that the inventor took or intended to take a patent for it, although reasonable diligence in perfecting the invention and bringing it into public use, will take the place of the procurement of a patent.

When *prior use* is set up as a defence it is essential that the prior thing should have been reduced to practice, and put into actual and successful use which use must have been in public or accessible to the public. When *prior invention* is a defence it is not essential that the prior thing should be anything more than a well evidenced conception, provided that conception be followed up to successful reduction to practice and application for patent—or to introduction into public use—with due diligence. It was seen in discussing the topic of *prior patent* that the character of the model accompanying the application for that patent and the date of the application for that patent are not pertinent facts; both are pertinent facts when *prior invention* is under discussion.

These remarks about the differences between *prior invention* and *prior use* are necessitated by the fact that the courts have not always made the distinction.

In *Bedford v. Hunt*,¹ the defence being prior use, the most eminent judge of his day, so far as patent causes were concerned, proceeded to discuss the question of prior invention so well as to make the case forever a prominent one. In *Coffin v. Ogden*,² the Supreme Court said:—"The answer alleges that the thing patented, or a material and substantial part thereof, had been prior to the supposed invention thereof by Kirkham, known and

¹ Mason, 302.
² 18 Wallace, 120.
used by divers persons," etc. This is the accepted and settled mode of pleading the defence of prior use. The court proceeded to say:—"The appellees insist that Erbe was the prior inventor and that this priority is fatal to the patent." This is language applicable to the topic of prior invention. The court proceeded further:—"The invention or discovery relied upon as a defence must have been complete and capable of producing the result accomplished * . If the question relates to a machine the conception must have been clothed in substantial forms which demonstrates at once its practical efficacy and utility." This is language applicable to the topic of prior use.

One of the earliest, and perhaps the first, of the judicial statements of a difference between prior invention and prior use, was made thus:—"Here the reliance is not on prior use; therefore it is of no consequence whether it (the invention) is abandoned or not, but whether it was the prior invention."1

Contests, wherein priority of invention is the subject matter of dispute, are very common in the Patent Office—one or more being always in progress there—but are of much rarer occurrence in the courts. Interferences in the Patent Office are sometimes between two or more applications for patent and sometimes between an application for patent (one or more) and a patent, (one or more,) for though the Commissioner of Patents has no power to cancel a patent once issued, he may, if he finds that another person than the patentee was the prior inventor, give such other person a patent also, and thus

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place both parties on an equal footing before the courts and with the public.

Under Section 4915 of the statute the contest is usually between an application and a patent; under Section 4918 it is between patents.

The following is a resumé of court cases which have distinctly discussed prior invention, near enough complete to give a practical knowledge of the law as construed by the courts.

In the case of Reed v. Cutter,¹ Judge Story said:—"In a race of diligence between two independent inventors he who first reduces his invention to a fixed, positive and practical form would seem to be entitled to a priority of right to a patent therefor. The clause * now under consideration seems to qualify that right by providing that in such cases he who invents first shall have the prior right, if he is using reasonable diligence in adapting and perfecting the same, although the second inventor has in fact perfected the same and reduced the same to practice in a positive form."

The principles set forth in this case just cited were recognized and followed in the case of Colt v. Mass. Arms Co.,² where two patents were in conflict. Judge Woodbury instructed the jury that they might go back and find who made the prior invention saying:—"The date of the invention is the date of the discovery involved and the attempt to embody that in some machine—not the date of perfecting the instrument *. If the invention was made—if it was set forth in a machine which would and

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¹ 1 Story, 590.
² 1 Fisher's Patent Cases, 108.
did discharge a fire—that is all which is necessary to constitute the invention."

In the case of *Ransom v. New York*,¹ Judge Hall said: "If the plaintiffs did not use reasonable diligence to perfect the invention patented, after the idea of it was conceived, and in the meantime other persons not only conceived the idea but perfected the invention and practically applied it to public use before the invention of the plaintiffs had been so far perfected that it could be applied to practical use, the plaintiffs' patent is void because they were not the first and original inventors of the thing patented."

In the case of *Johnson v. Root*,² Judge Sprague said: "If, gentlemen, the invention was perfected,—if Mr. Johnson used reasonable diligence to perfect it: then he had a right to have it incorporated into his patent, and to supersede those who had intervened between his first invention or discovery and his subsequent taking out of his patent. If he had not perfected it and did not use due diligence to carry it into effect and in the meantime before he got his patent somebody else had invented and used and incorporated into a useful practical machine that mode of feeding, then he could not by a subsequent patent appropriate to himself what was embraced in the former machine."

The case of *Ellithorpe v. Robertson*,³ was an interference case carried to the United States court: therein Judge Ingersoll said:—"To defeat a patent which has been issued, it is not enough that some one before the

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¹ Fisher's Patent Cases, 252.
² Fisher's Patent Cases, 351.
³ Fisher's Patent Cases, 83.
patentee conceived the idea of effecting what the patentee accomplished. To constitute such a prior invention as will avoid a patent that has been granted it must be made to appear that some one before the patentee not only conceived the idea of doing what the patentee has done but also that he reduced his idea to practice and embodied it in some practical and useful form. The idea must have been carried into practical operation. The making of drawings of conceived ideas is not such an embodiment of such conceived idea into practical and useful form as will defeat a patent which has been granted."

In order to comprehend the exact force of the words just quoted it must be taken into consideration that the later applicant for patent did not allege in his bill of complaint to the court that he had used reasonable diligence in adapting and perfecting his invention so that this decision applies only to that case where one party has a patent and the other cannot show, in addition to prior conception on his part, that he used reasonable diligence in adapting and perfecting his invention.

In Cox v. Griggs,¹ Judge Drummond said:—"It is the right and privilege of a party, when an idea enters his mind in the essential form of invention—inasmuch as most inventions are the result of experiment, trial, and effort and few of them are worked out by mere will—to perfect, by experiment and reasonable diligence, his original idea so as not to be deprived of the fruit of his skill and labor by a prior patent, if he is the first inventor."

In *Reeves v. Keystone Bridge Co.*, complaintants' patent was dated in 1862 and defendant's in 1865; defendant's inventors, Linville and Piper, were shown to have sketched the invention in 1860, prior to complaintants' conception. Of these facts Judge McKennan said: "It must therefore be considered as an established rule that illustrated drawings of conceived ideas do not constitute an invention, and that unless they are followed up by a seasonable observance of the requirements of the patent laws they can have no effect upon a subsequently granted patent to another. Applying this rule to the present case the conclusion is unavoidable that Linville and Piper had not 'perfected and adapted' an invention in 1860, and that by reason of their subsequent and long continued remissness they lost any inchoate right they might have had to priority over Reeves."

In *Smith v. O'Connor*, Judge Sawyer said:—"The next objection is that one Carr, for whom the defendants sold, first made a model in 1854, which is prior to the making of the machine by the plaintiff. There is testimony here tending to show that he did make some progress toward making a model; but the testimony also shows that he never reduced it to a practical working machine until sometime after making the model and laying it aside. The party having gone to Europe, in the meantime, and returned, it was afterward taken up. In the meantime the plaintiff had perfected his machine and had made a practical working machine. I think on that score he is in advance of the defendants and entitled to the patent as between the two."

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1 Official Gazette, 466.
2 4 Official Gazette, 633.
In *Pelton v. Waters*,¹ it was held that defendants accidental production of the invention, a peculiar cast metal bottle, prior to complainants' invention, with no knowledge how to make another, did not affect complainants' rights as prior inventor.

In the *Electric Railroad Signal Co. v. Hall Railroad Signal Co.*,² Pope (complainant's patentee) conceived the invention during the week prior to November 6, 1872; after April 25, 1873, prepared his application for patent; filed his application May 15, 1873, and took patent July 1, 1873. Previous to taking the patent he made neither tests, models or experiments; after his patent was granted he set up a working model in 1875 or 1876. Hall (respondent's patentee) conceived about Dec. 21, 1872; in the latter part of April, 1873, attached a signal, set up in his shop, to a railroad track and let it remain in operation for months; in December, 1873, he attempted to attach it regularly to a railroad and found a practical difficulty which he surmounted February 14, 1874; his patent was granted July 13, 1875. The respondent was held not to infringe and as a necessary consequence Hall was found to be the meritorious inventor. The inventor's shop was in Meriden, Conn., not far from the N. Y. & N. H. R. R.; he attached his signal apparatus to the "down" track and had it operate the signal in his shop; this was held to be a reduction to practice. The court in its discussion of the case said:—"He is the first inventor who has actually perfected the invention; the qualification being that if the one first to conceive of the invention was at the time using reasonable diligence in

¹ 7 Official Gazette, 425.
adapting and perfecting the same, he is recognized as the first inventor although the second to conceive may have been the first to reduce to practice." And further: "It is also true that the determination of the fact of diligence is not to be reached by a comparison of the diligence of the two inventors.

If Pope (the first to conceive) was reasonably diligent in perfecting his idea it does not matter that Hall was exceedingly diligent and made more rapid advance." In this case the court held that time spent upon other inventions is not the exercise of reasonable diligence as to the invention in hand.

In the case of the Union Metallic Cartridge Co. v. United States Cartridge Co., 1 Judge Lowell practically held that in attempting to defeat a patent under the defense of prior invention such prior invention must have "reached a practical result" before the patentee made his invention.

In the case of the United States Stamping Co. v. Jewett, 2 the patentee conceived of the invention, as evidenced by a sketch shown to his brother, in the fall of 1869; that same fall or the subsequent spring he experimented at making the invention, a cuspidor, and in 1870 made a large number experimentally; sometime in the summer or fall of that year he made one substantially in the afterward patented shape. It then took about a year to get the necessary machinery to make them for market; he applied for a patent June 3, 1871, which was granted October 10, 1871; the court held that the date of the

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invention was the fall of 1869 or early in 1870, and that the inventor had exercised reasonable diligence in embodying and perfecting the improvement.

Judge Blatchford—in the case last cited—took occasion to say that where it is sought to anticipate a patent upon a defence of prior invention the case must be made out for the prior invention "beyond all reasonable doubt" in order to succeed: and the testimony of a number of persons to circumstances was not received as proof, they being shown to be mistaken as to other dates incidentally brought in.

In the case of the *Siebert Cylinder Oil Cup Co. v. Phillips Lubricator Co.*,¹ Judge Lowell said:—"I * do not find that Parshall completed and reduced to practice the invention in question before Gates made it. The idea was probably conceived by the two inventors nearly at the same time. Which was the earlier to conceive it I cannot say, but Gates fully tested and proved and adapted it to use while Parshall was trying to overcome a practical difficulty of construction which the particular form of his machine required him to overcome and he did not succeed until years after Gates' machine had been in general use"; Gates' patent antedated Parshall's six years and priority was awarded to Gates.

There is little difficulty about the rule of law to be deduced from these cases, but the application of the rule is fraught with great difficulties. The rule is that he who first conceives of an invention and reduces it to practice with reasonable diligence is the true and first inventor against all other persons, but that the title of one first to

¹ *To Fed. Rep. 677.*
conceive and afterwards not duly diligent in reducing to practice must give way to the title of another subsequent to conceive but first to reduce to practice.

The grant of a patent to either or both contestants does not alter this rule. There are intimations in two of these cases just cited to the effect that when a patent has been granted to one of the contestants and not to the other that such other in order to prevail must show a reduction to practice before the patentee's conception—which would put the defence of prior invention on much the same footing as prior use—but such intimations are opposed to the principles of the great majority of cases and opposed to the general principles on which the patent law is based. Suppose $A$ be the first to conceive an invention and the first to reduce it to practice in public and that $B$, who conceives subsequently to $A$, reduces to practice subsequently to $A$, and then takes a patent, $A$ taking none and intending to take none; in such a case the public derives its first knowledge of the invention from the reduction to practice made by $A$, he being also the first to conceive and duly diligent in reducing to practice; and $B$ does not give that valuable consideration—that is, the first knowledge of a new and useful invention—that the policy of the law demands as the price of a patent. It must be observed, however, in this connection with this supposed case, that the reduction to practice by $A$ must be a public matter to have the effect of preventing $B$ from giving to the public its first knowledge of the invention, from which it follows that the requirement of due diligence must extend either to making the reduction to practice public or making an application for patent on the invention and prosecuting the
same to issue, the patent being in that case the full disclosure of the invention to the public.

The application of the simple rule of law to be deduced from the statute and the cases is not a simple matter; it raises a question of fact the decision of which is hardly ever dependent upon the same or even similar sets of circumstances in any two different cases.

A great many cases involving the question of priority of invention have been decided in the Patent Office and they may be not unprofitably studied in this connection with the understanding, however, that these decisions are not all in harmony with each other and are not of equal authority with court decisions.

Conception of an Invention. The two things necessary to the completion of an invention are its conception and its reduction to practice.

Judge Lowell has defined the conception of an invention as follows:—"Neither does it mean the first moment at which he (the inventor) conceived the idea that it would be a good thing to do that. It means not only when he conceived that such a thing would be a desirable thing to do, but when he had conceived the idea of how to do it substantially as he has done it." The result to be effected must not only be in the inventor's mind but he must have in his mind's eye substantially the means by which that result is to be effected.

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1 One hundred and thirty-two of these cases can be found digested in Simonds' Digest of Patent Office Decisions under the title Prior Invention.
The date of such conception an inventor is allowed to prove by sketches or models he made at the time, or even by declarations or descriptions he gave to other persons.

Reduction to Practice. We have seen that conception consists in a distinct apprehension in the inventor's mind of the result to be attained and of the means by which that result is to be reached. The step which completes the invention is reduction to practice and this consists in the embodiment of the principles previously conceived in tangible materials—the making of a machine, manufacture or composition of matter or the actual trial of a process—in accordance with such principles.

The Supreme Court of the District of Columbia held in a series of decisions that the making of drawings is sufficient reduction to practice, and in one case at least that a merely oral description is sufficient even if unaccompanied by a drawing. But there is no need of hesitation in saying that, as affecting claims of rival inventors, an oral or written description or a drawing is not in the sense of the patent law a reduction to practice. In El-lithorpe v. Robertson, Judge Ingersoll said:—"The making of drawings of conceived ideas is not such an embodiment of such conceived ideas into practical and useful form as will defeat a patent which has been granted," and the spirit of this decision is in perfect accord with the other cases.

1 2 Fisher's Patent Cases, 83.
NOVELTY—PRIOR INVENTION

In discussing the question of prior use it was seen that when that defence was set up against a patent the alleged prior machine or other device must have been completed and put into actual use; and that this use must have been a public use, in order to have such a defence prevail. The case last cited shows that drawings alone cannot constitute a reduction to practice in any case, so that reduction to practice requires at least the production of an operative machine or process. That is all that is required by the Patent Office and it is all that a court is likely to require. The reason, and perhaps the only reason, for requiring that an invention (supposing it to be a machine) shall be embodied in an operative mechanism in order to constitute the whole of an invention, is that it may be made certain that the new machine will work practically, a thing that cannot be known till an operative mechanism is constructed; for many an invention that seems entirely feasible in a drawing develops some practical and oftentimes insurmountable difficulty in the effort to put it into actual construction. A reduction to practice (supposing the invention to be a machine or the like) consists in an actual making of the machine in full size for actual work, and—if from the nature of the case there is any doubt about its operativeness—an actual and successful trial of the machine.

It is not necessary to constitute a reduction to practice that the tangible embodiment thereof should be made public; but it is perfectly clear that the invention must either be put into public use with due diligence or a patent must be applied for and procured with due diligence, in order to make it available as a defence against the patent of another.
Reasonable Diligence. The one important qualification of the diligence required is that it shall be reasonable. Sickness, poverty or other circumstances beyond the control of the inventor may excuse his laying it by for a time but he cannot lay the invention by merely because it is pleasanter, more profitable, or more convenient to attend to something else. The inventor is required to devote himself to the development of the invention with all the continuity of effort compatible with the discharge of the duties properly incumbent upon a man in his station, occupation and general situation. The plea of poverty is the one that is perhaps oftenest set up, but it is a plea that requires great scrutiny.

"The measure of property which one must possess before he is required to exercise any diligence to prosecute his right, is not to be found in the statute. It is an excuse very readily made, which yet should not be too readily listened to. If a man be utterly destitute of money, without friends and incapable thereby of prosecuting an enterprise, much indulgence may be shown him; but where he has the means of carrying on enterprises of a kindred sort, equally demanding money and friends, and does carry them on, his election to pursue his other enterprises will not be regarded in the law as an excuse of the delay in the one when valuable rights of others, meritorious as himself and in the outset of their struggle equally poor, are to be prejudiced. An election thus made for his supposed advantage or gratification at the time, according to the plainest principles of equity, must not be invoked to the detriment of another innocent party."¹

¹Wickersham v. Singer, Supreme Court District of Columbia.
NOVELTY — PRIOR INVENTION.

There is no limit to the time within which an inventor must perfect and mature his invention; that is, there is no limit to which he may not carry back the date of his conception provided he can show that he exercised due diligence afterwards in perfecting and adapting it. A machine may be so complicated that a long series of years may not suffice wherein to perfect and mature it; but of course such cases are rare. The simplicity or complexity of the invention will generally give a criterion upon this point though an exception to this rule will at once occur to any one at all conversant with the history of important American inventions,—the case of Good-year, inventor of hard rubber.

The Patent Office has not unfrequently contrasted the relative diligence of inventors struggling before it for priority; but the courts are agreed that this is not a correct process. He who is first to conceive, if he follows up his conception with reasonable diligence, is entitled to the patent against all the world even though one subsequent to conceive followed up his conception with a greater degree of diligence.

Patent Office Procedure. The mode of taking testimony for use in interference cases before the Patent Office is regulated by statute and by rules made by the Commissioner of Patents.¹

An interference in the Patent Office is usually brought about by a request to that effect by an applicant for an

¹ On request the Commissioner of Patents will forward to an applicant a copy of the Rules of Practice of the Patent Office.
original or reissued patent, when the desired claim is refused to such applicant upon reference to some prior patent, and the applicant has reason to think that he may be the first inventor of the device in question; but the Patent Office not rarely takes the responsibility of putting into interference two or more applications, pending at the same time, which show or claim the same patentable subject matter.

The first step taken by the Office looking toward the declaration of an interference, is the issue of a requirement to each of the parties to file what is called a "preliminary statement," on or before a day fixed by the Office, giving, under the oath of the party, the date of the original conception of the invention in controversy, the facts and dates of subsequent steps toward reduction to practice, the date of reduction to practice, and the extent of use after reduction to practice. This "preliminary statement" must be sworn to, sealed up, and sent to the Office, where it is kept secret till the day set for the filing of such statements by all the parties, on which day they are opened to the inspection of all the parties concerned. In subsequent testimony, a party is not permitted to substantially depart from dates given in his preliminary statement or to contradict its allegations.

The burden of proof is upon the party whose application, showing or claiming the device in issue, was last filed in the Office; and, if such party fails to file a preliminary statement, or, in filing it, fails to overcome the prima facie case made by the date of filing an application by another party, or if it shows that he has abandoned his invention, or that he allowed the invention to
be in public use or on sale for more than two years prior to his application, the case will be adjudged against him at this point, unless the public use appears to affect the rights of other parties, in which latter case the interference will proceed. If the earlier applicant for a patent fails to file a preliminary statement, he will not be allowed, subsequently, to prove the invention by him at an earlier date than the date of filing his application.

If the interference proceeds beyond the filing of preliminary statements, the Office sets a time during which the latest applicant for patent must finish taking of his testimony-in-chief, or his direct evidence, and the other parties have similar times set, in the reversed order of the dates of their respective applications; and after this a time is set for rebutting evidence.

Postponement or extension of these times can be procured upon proper cause being shown by affidavit, a copy of which, together with a copy of the notice of the motion for further time, must be served upon the adverse parties or their attorneys.

An interference properly declared will not be dissolved without judgment of priority being given in favor of one or the other of the parties; but an interference improperly declared,—as if, for instance, the devices shown by the different parties are not really the same,—will be dissolved upon motion to that effect.

Specifications can not be amended during the progress of an interference, except that, if an applicant has clauses of claim not involved in the interference, they can be withdrawn from the interfering application and made the subject of another and new application.
When the evidence is all in (and this is now usually required to be printed) the case is considered upon oral, written, or printed argument.

If it should appear that one of the parties had pirated or copied from another, that would destroy all his rights to a patent.

The office does not recognize the grant of a patent more than two years before the application of another party as necessarily constituting a two years' public use against the subsequent applicant. Where one of the parties was both first to conceive the invention and the first to reduce it to practice, there can be no comparison of diligence between him and subsequent inventors. Only abandonment or more than two years' public use will defeat the right to a patent.\(^1\)

If it should happen to appear, clearly and unmistakably, that an invention was joint while applied for as sole, or *vice versa*, that would compel the Office to decide against this application as made; but that would be solely a question between the Office and the applicant, with which the adverse parties have nothing to do.

There is no limit to the number of interferences to which an application or patent may be subjected, and a patent without going through an interference ordered by the Commissioner is void.\(^2\)

Interference cases are appealable from the interference examiner to the board of examiners-in-chief, upon payment of a fee of ten dollars, and from them to the Commissioner in person, upon payment of a fee of twenty

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\(^1\) *Rice v. Winchester*, 3 Official Gazette, 348.

dollars. They are not appealable to the Supreme Court of the District of Columbia; but the applicant who is denied a patent may prosecute his claim by a bill in equity before a United States Circuit Court having jurisdiction, and the case is appealable from this court to the United States Supreme Court.
CHAPTER VII.

UTILITY.

THE statute requires that an invention, in order to be patentable, must be "useful." The topic of utility has two phases or aspects,—one absolute, and the other comparative.

The absolute phase is: What utility must an invention have to render it patentable? The comparative phase is: when an alleged invention is being compared with some prior thing in order to ascertain if the two are apparently identical, does the alleged invention possess such superior utility over the prior thing as to show that some new mode or means of operation, use or result has been arrived at?

Absolute Utility. The statute, in requiring that a patentable invention shall be useful does not require that it shall possess any high degree of utility; if it is not positively noxious, immoral, hurtful or frivolous and possess any utility, that suffices. It need not be more useful than other things of its class, it need not be as useful even, and it is of no moment that an invention will not accomplish all that a sanguine inventor claimed for it.¹ The only question is: Does the invention possess any utility?

¹Eames v. Cook, 2 Fish. Pat. Cases, 146.
Entire and absolute failure to accomplish any useful purpose will render the patent granted for such an invention void, but if it will accomplish the intended purpose in any degree, that is sufficient.

In a suit brought for the infringement of a patent on a pump, the defendant claimed that the plaintiff's pump, in order to be patentable, must be better than other pumps so as to supersede the pumps before in use. The judge said: "I do not so understand the law * * *, all that the law requires is that the invention should not be frivolous, or injurious to the well-being, good policy or sound morals of society. The word useful, therefore, is incorporated into the act in contradistinction to mischievous or immoral * * *. Whether it be more or less useful is a circumstance very material to the interest of the patentee, but of no importance to the public."\(^1\)

In a later case the judge said: "All that the law requires is that the invention shall not be frivolous or dangerous. It does not require any degree of utility; it does not exact that the subject of the patent shall be better than anything invented before or that shall come after.

The invention shall not be frivolous; if it is useful at all that suffices."\(^2\) The same doctrine is fully enunciated in many other cases and is nowhere contradicted.\(^3\)

But an entire and absolute lack of utility will render a patent void.\(^4\)

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\(^1\)Lowell v. Lewis, 1 Mason, 186.
\(^2\)Haffheirs v. Brandt, 3 Fisher's Pat. Cases, 236.
Comparative Utility. The utility of a device as compared with that of a prior device is often a question of great importance.

In setting forth what constitutes a test of sufficiency of invention in the chapters, which treat of patentable novelty, it was shown that it is a settled rule of law that however slight and insignificant a change may seem, if that change gives a positive advantage of other than the perfectly obvious sort, the result is conclusive evidence that sufficient invention was exercised in making that change to support a patent, so far as the question of patentable novelty is concerned.

The point is stated simply and concisely here; it is elaborated in the chapter on "Novelty—In General."

The question of superior utility is of similar importance when the topic of infringement is under discussion. The courts hold that where it is doubtful whether a patented device and another device complained of as an infringement of the patent are not substantially identical, their comparative utility may be taken into consideration. If, as compared with the patented device, the defendant's device possesses superior utility that is evidence going to show that the latter involves a different principle of operation from the former; and in this case there are two things to be taken into consideration, first, the amount of apparent change and, second, the amount of superior utility. If the change is small and the increase of utility small, that is weak evidence toward establishing a substantial difference; if the change is small and the utility largely increased that is stronger evidence of substantial difference; and if the change is considerable and the increased utility considerable that is generally
conclusive evidence that the two things under comparison are not substantially identical.

In a case where this question was under discussion the judge said: "If one machine which is alleged to be an infringement of another produces a different result, or, in other words, is of greater utility than the preceding machine, it may be some evidence of a difference, a substantial difference between them; and the utility of the one over the other may be so great as to be satisfactory evidence that some new principle is involved, and that it is not substantially the same. This is sometimes coupled, too, in considering the evidence with the mechanical differences. The mechanical differences may be sufficient to show that the two machines are not substantially the same. The difference of result and utility may be so great as to be satisfactory to the jury.

They may be authorized to receive it as satisfactory if it is of so very high a nature.

And it may be that neither of these alone would be satisfactory; yet the mechanical difference and the difference of utility, taken together, may be sufficient to satisfy the mind."\(^1\)

The same doctrine runs through many other cases.\(^2\)

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\(^1\) Johnson v. Root, 1 Fisher's Patent Cases, 362.

CHAPTER VIII.
PUBLIC USE—TWO YEARS.

The statute requires that an invention, in order to be patentable must have been "not in public use or on sale for more than two years prior to his (the inventor's) application," for patent therefor,¹ and provides as one of the defences to a suit for infringement that the defendant may prove as to the alleged invention: "that it had been in public use or on sale in this country for more than two years before his application for a patent."²

History of the "Public Use" Statute. The original statute of 1790 contained the following: "Upon the petition of any person or persons to the Secretary of State, the Secretary for the war department and the Attorney General of the United States, setting forth that he, she, or they hath or have invented or discovered any useful art, manufacture, engine, machine or device or any improvement therein not before known or used, and praying that a patent may be granted therefor, it shall

¹ Rev. Stat. Title LX. Chap. 1, Sec. 4886.
² Rev. Stat. Title LX. Chap. 1, Sec. 4920.
and may be lawful * * * to cause letters patent to be made out," &c.\(^1\)

The phrase to which attention is particularly directed in this connection is "not before known or used." At the first reading of the section, a doubt arises as to whether the forbidden knowledge or use must be previous to the making of the invention or only previous to the presentation of the "petition," or—in our later parlance—the "application" for patent. As the constructors of this statute, built in the main upon the English patent law, which forbade knowledge or use prior to the application, it is reasonable to infer that this was the meaning intended by the American legislature, and the United States Supreme Court so decided.\(^2\)

The next act, that of 1793, contained the following section: "That when any person or persons, being a citizen or citizens of the United States, shall allege that he or they have invented any new and useful art, machine, manufacture, or composition of matter or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used before the application, and shall present a petition to the Secretary of State signifying a desire of obtaining an exclusive property in the same and praying that a patent may be granted therefor, it shall and may be lawful for the said Secretary of State to cause letters patent to be made out" &c.\(^3\)

Here it will be observed that the matter is made clear by the use of the words "not known or used before the application."

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\(^1\) Act of 1790, Sec. 1.

\(^2\) Pennock v. Dialogue, 2 Peters, 1; Shaw v. Cooper, 7 Peters, 29.

\(^3\) Act of 1793, Chap. 2d, Sec. 1.
Under this statute the courts concurred in holding that the invalidating use must be a public use, and also that when the use was by others than the inventor it must be with the consent and allowance of the inventor; thus: "The meaning of the words 'not known or used' in paragraph 1 of the Act of 1793 is, that the invention for which the patent is sought must not have been known or used by others *. If before his application his invention should be pirated by another or used without his consent, such knowledge or use will not invalidate the patent." 2 This was a decision by the Supreme Court and of course settled the matter, but there are numerous decisions of the Circuit Courts to the same effect. 3

Then came the Act of 1836, to the following effect:

"Sec. 6. And be it further enacted, That any person or persons having discovered or invented any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used by others before his or their discovery or invention thereof and not, at the time of his application for a patent, in public use, or on sale with his consent or allowance as the inventor or discoverer; and shall desire to obtain an exclusive property therein may make application in writing to the Commissioner of Patents expressing such desire, and the Commissioner, on due proceedings had, may grant a patent therefor. * * *" 4

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1 Pennock v. Dialogue, before cited.
3 Whitney v. Emmet, 1 Baldwin, 309; Ryan v. Goodwin, 3 Sumner, 518.
4 Act of 1836, Chap. 537.
The part to which attention is directed in this connection is: "not at the time of his application for a patent in public use or on sale with his consent or allowance." It will be readily understood that this did not at all change the law in substance, and that it simply expressed in terms what the law had come to be by construction of the courts.

Next came the Act of March 3, 1839, containing the following: "Sec. 7. And be it further enacted, That every person or corporation who has or shall have purchased or constructed any newly invented machine, manufacture or composition of matter prior to the application by the inventor or discoverer for a patent, shall be held to possess the right to use and vend to others to be used the specific machine, manufacture or composition of matter, so made or purchased, without liability therefor to the inventor or any other person interested in such invention; and no patent shall be held to be invalid by reason of such purchase, sale, or use prior to the application for a patent as aforesaid except on proof of abandonment of such invention to the public; or that such purchase, sale, or prior use has been for more than two years prior to such application for a patent."

The only change that this statute made in the matter now under consideration was that it changed the date after which the public use or sale was allowable; it did not change the character of the invalidating use or sale.

Prior to the passage of this Act, public use or sale was not allowable till after the application; after the passage of this Act public use and sale was allowable at any time subsequent to a date two years prior to the application.

The next statute mentioning the matter was the Act of July 8, 1870—the same in substance as the present law—.
which contained the following: "Sec. 24. And be it further enacted, That 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 not known or used by others in this country and not patented or described in any printed publication in this or any foreign country before his invention or discovery thereof and not in public use or on sale for more than two years prior to his application, unless the same is proved to have been abandoned, may, upon payment of the duty required by law and other due proceedings had, obtain a patent therefor."

It will be observed that this statute differs from its predecessors, the Act of 1836 as modified by the Act of 1839, in omitting to say in terms that the invalidating use must be with the "consent and allowance" of the inventor; but as the Supreme Court, in construing the statute of 1793, which had the same omission of "consent and allowance," held that such consent and allowance was constructively a part of the law, no reason is seen why a court should not say the same thing of the present statute. But Judge Clifford, one of the justices of the Supreme Court, while presiding in a Circuit Court, said: "The better opinion is that the provision in the present Act is in the nature of a statute of limitations and that it is sufficient to defeat the right of an applicant for a patent if it be shown that his invention had been in public use or on sale more than two years prior to his application without proving that it was with his consent and allowance."

1Kelleher v. Darling, 14 Official Gazette, 673.
This is not the only instance in which a Circuit Court has held that under the existing statute the inventor's consent and allowance is not necessary to an invalidating use or sale,¹ but until the Supreme Court, after a proper presentation of the question, has clearly held the same way, the weight of its authority would seem to be with the opposite view."

Qualities of Public Use. Does "public use" mean a use by the public, that is a use both open and general, or does it mean a use in public, that is a use, perhaps, limited to a single person and a single instance but accessible to the public? This question soon arises in the study of the statute; it is, however, one that is clearly answered by the courts. "Public use" means a use in public, not necessarily a use by the public.²

It is not essential to an invalidating use that any particular portion of the public should have had actual knowledge of the use; the law counts accessibility of information to the public the same as its possession by the public.

In one instance an inventor made a machine containing his invention in 1857; in 1863 he substituted another differing in form but not in mode or purpose of operation and applied for his patent in 1876. Meanwhile, he used the machine "in the ordinary way of his business" in a room where there was other machinery, also workmen, all of whom had keys to the shop which was kept locked. None of the workmen appeared to have divulged a knowledge of the invention till 1876. This

was held to be a public use fatal to the patent, and the court said: "Because of the difficulty of ascertaining the amount of knowledge which may have been derived from the exhibition, publication, or use of the invention, it has always been held that when the public have had means of knowledge they have had knowledge of the invention. Thus, if a book has been published describing the invention, it is not important that no one has read it. If a pier has been placed in the bed of a river or a pipe under ground it is conclusively presumed to be known to all men."  

Thus the Supreme Court: "If an inventor, having made his device, gives or sells it to another, to be used by the donee or vendee without limitations or restrictions, or injunctions of secrecy, and it is so used, such use is public within the meaning of the statute even though the use and knowledge of the use may be confined to one person,"  

This was said in a case in which the Supreme Court went to the extremest limit it probably will ever go in this direction: an inventor of corset steels took his patent in 1866; in 1855 he gave one pair to a woman to use and another pair in 1858; they were so used under no obligation of secrecy and without any condition or restriction; the use was not for experiment nor to test the quality of the steel, and the Supreme Court held this to be a public use. On the other hand a use in public is not necessarily the "public use" of the statute. In one case it was alleged and proved that the inventor had allowed the public use of his invention, an eight-wheeled

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car, upon the Baltimore and Ohio Railroad. Of this the learned Judge Nelson said: "If the use be experimental to ascertain the value, or the utility, or the success of the thing invented, by putting it into practice by trial, such use will not deprive the patentee of his right to the product of his genius. The plaintiff, therefore, in this case had a right to use the cars on the Baltimore and Ohio Railroad by way of trial and experiment, and to enter into stipulations with the directors of the road for this purpose without any forfeiture of his rights." 1

In a later case it was held that keeping a pavement for six years on a public street, not for profit but for trial, was not an invalidating public use. 2

In a still later case the inventor of an improvement in steam fire engines permitted the city of Troy to use the improvement upon two of its engines, and the use was held to be merely experimental. 3

From these decisions it is to be seen that the use of an improvement in public is not necessarily an invalidating public use.

It would hardly be possible to give a thing greater publicity than that of a railway car on a great public thoroughfare; or than that of a pavement laid in a city street; or than that of a steam fire engine regularly used in city service; yet none of these were held to amount to the public use which bars a patent. The motive with which the act is done is all important here: if the use, however public or long continued, is for the purpose of

3 Campbell v. New York City, 20 O. G. 1817.
trial, test, or experiment, it is allowable; and on the other hand however short and however limited as to the number of persons having knowledge thereof, it is fatal if such use is not for trial, test, or experiment.

As it is for the public's interest that new inventions should be perfected, the law looks with toleration and leniency on efforts that tend in that direction.

"If it were necessary for the inventor to employ others to assist him in the original structure or use by himself * such use will not invalidate the patent."¹

"The patentee may make experiments with his invention or disclose it to others he may wish to consult, or employ others to assist him in making and using it * without impairing his patent. The time during which the thing patented had been known or used is not material; the criterion is its public, not its private or surreptitious use.²

"If the use be merely experimental to ascertain its value or utility, or the success of the invention by putting it in practice, that is not such a use as will deprive the inventor of his title."³

"The use * must be either generally allowed or acquiesced in, or at least unlimited in time, extent, or object. A mere occasional use by the inventor in trying experiments, or a temporary use by a few persons as an act of personal accommodation or kindness for a short and limited period, will not away a right to a patent."⁴

An invalidating public use must be a use of the perfected invention. Thus Judge Lowell: "The sale or

² Whitney v. Emuet, 1 Baldwin, 309.
³ Ryan v. Goodwin, 3 Sumner, 518.
⁴ Wyeth v. Stone, 1 Story, 281.
use to defeat the patent must have been of the thing patented; and we are of opinion that in order to defeat the patent it is not enough to prove that the inventor has sold an earlier and less perfect article; that is, less perfect in the sense of the patent law.

In other words, the test is not necessarily, whether the article sold would infringe the invention by embodying a part of it, but whether it is the invention,—that is embodying the whole of it. The law does not intend to say that a patentee dedicates to the public whatever he sells more than two years before he applies for a patent and that he dedicates his invention if he sells it before that period.

Of course, a mere formal or colorable change, to escape the consequences of his own acts, would not protect him, nor could he enjoin the use of any specific thing which he had sold; but we are unprepared to say that he might not prevent the general public from using the same sort of thing if it is included in his new and completed machine or other invention.”

Generally if a use is in public for profit that is conclusive evidence that it is a fatal public use. The inventor, in such a use, “is not allowed to derive any benefit from the sale or use of his machine without forfeiting his right, except within two years prior to the time he makes application.”

“If the machine was completed when it was constructed * and if the patentee put it into public use or put it into operation himself publicly, deriving profit from it, and having no view of further improvements, or

\[1\text{Draper v. Wattles, 16 O. G. 629.}\]
of ascertaining its defects, then, this use having occurred anterior to the two years, the effect would be to work a forfeiture."¹ But a use for profit, which is not a use in public, does not work such a forfeiture. "Inventors may, if they can, keep their inventions secret, and if they do it is a mistake to suppose that any delay to apply for a patent will forfeit their right to the same or present any bar to a subsequent application."² In one case there is an intimation that a use for profit of an imperfect invention will not amount to a public use when a similar use of a perfect invention would; thus: "It is not true that the inventor cannot safely use for profit such a machine, in its imperfect state, lest two years should elapse during the experimental period before the invention is completed and the patent is applied for."³

**Definition of Public Use.** The invalidating public use of the statute is a use, other than for trial or experiment, of the perfected invention under conditions that permit any portion of the public, however small—not under obligations of secrecy—for however a limited time, to have access thereto.

**Public Use Not Proved by Prior Patent.** The defence of public use cannot be made out by showing that a patent granted more than two years before the application for the patent in dispute shows the invention in question.⁴

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¹ *Pitts v. Hall*, 1 Fisher's Pat. Reports, 447.
Continuity of Applications  It not infrequently happens that the inventor makes more than one application for the patent in question, the former of which have been rejected, and in such a case the question often arises as to whether the two years allowed by law shall run from the date of the last application or from the date of the previous application: in such case if there is a reasonable continuity in the applications so that a change of abandonment meanwhile cannot be successfully maintained—as to which, see the chapter on Abandonment—then the two years will date from the last application, otherwise not.\(^1\)

In this connection it is pertinent to consider what constitutes an application for patent. The law means thereby a legal application filed with the Commissioner of Patents, and if anything is lacking, under the law or under the lawful rules established by the Commissioner in the premises, to the completeness of the application it is not the application for patent intended by the law. "Neither filing the model nor writing the paper commonly called an application, gives the date of the application from which the two years are to be reckoned. 'Application' in this connection includes the paper or some written paper, and its presentation to the Commissioner."\(^2\)

Under the present law and rules an application consists of a petition asking for the patent, a specification describing and claiming the invention, accompanied by drawings when the case admits of them, an oath of invention, a government fee of $15.00—and a model, if

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required by the Commissioner: if any one of these is lacking the application is incomplete and a court is not likely to hold that a legal application is made till it is made in its proper completeness.

Public Use Requires Clear Proof. "It is proper to say * that this ground of forfeiture is not favored in law but is regarded as being somewhat harsh in its operation on individual rights. The evidence, therefore, should be quite clear that the use was not by way of experiment or for the purpose of perfecting the machine, in order to justify the conclusion that the patentee had forfeited his rights to the improvement.¹

¹Pitts v. Hall, 1 Fisher's Pat. Reports, 447.
CHAPTER IX.

ABANDONMENT OF INVENTION TO THE PUBLIC.

The statute\(^1\) excepts from patentability an invention "proved to have been abandoned," and elsewhere\(^2\) provides as a defence to an action for infringement proof that the patented improvement "had been abandoned to the public."

The term "abandonment" has, in a general way, different applications in the patent law.

When it is attempted to anticipate a patent by a prior thing, which was never matured and never followed up, with reasonable diligence, such prior thing is known to the patent law as an "abandoned experiment"; that topic was discussed in the chapter on Novelty—Prior Use.

The Two Years Public Use treated in the last chapter is otherwise known as "statutory abandonment." The statute in one place prescribes what shall be deemed an "abandoned application" for a patent.\(^3\)

None of these are meant by the ordinary use of the

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1 Section 4886, Chapter 1, Title I.X. Rev. Stat.
2 Section 4920, Chapter 1, Title I.X. Rev. Stat.
3 Section 4894, Chapter 1, Title I.X. Rev. Stat.
word "abandonment," the accepted meaning thereof being that abandonment of an invention to the public provided for in the two sections of the statute quoted from in opening this chapter.

The first time that this abandonment of an invention to the public was mentioned in an U. S. statute, was in Section 7 of the Act of March 3, 1839, which is as follows:

"Section 7. And be it further enacted, That any person or corporation who has, or shall have purchased or constructed any newly invented machine, manufacture, or composition of matter, prior to the application by the inventor or discoverer for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture or composition of matter, so made or purchased, without liability therefor to the inventor, or any other person interested in such invention; and no patent shall be held to be invalid by reason of such purchase, sale, or use prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public; or that such purchase, sale, or prior use has been for more than two years prior to such application for a patent."

But long prior to the passage of this Act the courts had agreed that such a thing as abandonment of an invention to the public was known to the law; thus in Pennock v. Dialogue, (4 Wash. 544): "If an inventor makes his discovery public, looks on, and permits others to freely use it, without objection, or assertion of claim to the invention, of which the public might take notice, he abandons the incohate right to the exclusive use of the invention."
This construction by the courts was based, originally, on that part of the first section of the Act of 1793, which provides that an invention, in order to be patentable must have been "not known or used before the application" for patent.

The Act of March 3, 1839 somewhat radically affected the law—in some respects—as regards abandonment and public use. Whereas, prior to that Act no public use whatever of an invention was permissible prior to application for patent, this Act expressly permits such a public use for two years prior to application.

As regards abandonment the change effected by the Act was quite as considerable; abandonment, as constructively created by the courts, consisted mainly in allowing a public use of the invention before application for patent however short, the judicial language being in substance to the effect that he who looked on and saw his invention go into public use, without immediately asserting his rights, must be held to abandon his invention to the public: as the law, since the statute of 1839, expressly allows a certain specified public use, the adjudications, making an abandonment of an allowed public use, cease, in a great measure, to be pertinent to questions of abandonment arising subsequent to, and under, the Act of 1839, such prior adjudications generally having more pertinence to the question of Public Use,—occurring more than two years prior to application for patent.

Abandonment of an invention to the public, (aside from an abandonment or dedication to the public in set terms, as by a written instrument,) consists in such wilful or negligent delay by an inventor in asserting his
rights to his invention, after the public—or some portion of the public—has acquired a knowledge thereof, as evidences, or reasonably ought to evidence, an intention by the inventor not to further pursue his rights to the invention.

Since the Act of March 3, 1839, expressly permitting two years public use, legitimate questions of abandonment of invention occurring prior to the application for patent, are not likely to arise; for, if the use in question occurs more than two years prior to the application, usually the vital question is, whether the use was a public use without any regard to the subsequent delay or to the inventor's intention in the premises, such a public use being fatal; and if the use in question occurred within two years of the application for patent, the surrounding circumstances must be very extraordinary to work abandonment, for the laws expressly permits two years' delay in making application for patent. This question of abandonment oftenest arises in respect to a delay in prosecuting an application for patent to a successful termination. In all cases it is to be remember that delay has no effect whatever toward working abandonment until after some portion of the public acquires a knowledge of the invention for "the inventor may, if he can, keep his invention secret, and if he does, no length of delay will bar his rights."  

Abandonment is always a question of fact, that is, of opinion based upon all the circumstances of the particular case under consideration, and it is profitable in this connection to see what the decisions of courts have been in the following selection of cases.

"In one case, the inventor made an application in 1836, rejected in 1837; he renewed in 1837 and had a second rejection; he applied a third time and failed; he continued further efforts in 1839; afterward amended and finally obtained his patent, on appeal, in 1843. This state of facts was held not to constitute an abandonment."¹

In *Pitts v. Hall*, ² 1858, Judge Nelson said: "An abandonment or dedication, may occur within two years (allowed by the Act of March 3, 1839), and at any time down to the procurement of the patent. The mere use or sale, however, of the machine, within the two years, will not alone or of itself work an abandonment. * * The use or sale must be accompanied by some declaration or acts going to establish an intention on the part of the patentee to give to the public the benefit of his improvement."

In a suit upon a sewing machine patent, the jury were instructed "that if they found that the plaintiff, after having taken the machinery out of the frame, * * laid the machinery aside, as something incomplete and requiring more thought and experiment, and never intending to reconstruct the machine, or to restore the needle-feed in the form of an operative sewing machine, without material modification or alterations, but only to preserve the parts to be used in other inventions as circumstances might arise, then the jury were instructed that they would be fully warranted in finding that he deserted and

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² ¹ Fisher's Patent Reports, p. 441.
abandoned the invention, so far as respects the needle-feed; provided they also found that he did nothing to restore the needle-feed in the form of an operative machine, from November 7, 1848, to the last of December 1852, or the first of January, 1853."\(^1\)

In a later case the patentee invented his improvement in 1849, and continued to experiment and perfect his invention until 1852, but did not apply for his patent till 1855; but he was all the time in the employ of one who held a prior and controlling patent, which prevented the use of his improvement, and he delayed his application on this account.

The court held that this did not constitute abandonment, notwithstanding a patent for the same thing was granted to other parties in Belgium, June 16, 1853.\(^2\)

In the case of the *American Hide and Leather Splitting and Dressing Machine Company v. The American Tool and Machine Company*, (vol. iv. Fisher's Patent Cases, p. 284), 1870, it was held that an inventor might so freely allow the use of his invention within two years immediately preceding his application, as to have his acts amount to an abandonment of the invention.

In another case, the original application was filed in 1850, but was finally rejected by the Commissioner of Patents. An appeal was taken to the Circuit Court, and not decided till 1856, and then the decision of the Commissioner was affirmed. A new Commissioner, coming into office, granted a patent February 24, 1857. Held, that this delay did not constitute abandonment, and that

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\(^1\) *Johnson v. Root*, 2 Fisher's Pat. Cases, 305.

an applicant cannot be prejudiced by the laches of the government officers.\(^1\)

In the case of *Savles v. The Chicago and Northwestern Railway Company*,\(^2\) 1865, a similar delay of five years occurred, but was held not to constitute abandonment.

Excerpt from a later case: "The next objection to be noticed is, that the inventor abandoned his invention because his application for a patent, which was made April 12, 1855, was rejected February 6, 1856, and because he did not appeal at all or make any new application until March 25, 1864, \(* \ast \ast \) it is not possible to hold that any use of the invention, without the consent of the inventor, while his application for a patent was pending in the Patent Office, can defeat the operation of the letters-patent after they are duly granted."\(^3\)

In another case where the delay was less than two years and that was by a mechanic who waited in order to find a manufacturer who would put the improvement on the market, the court said: "Lapse of time does not *per se* constitute abandonment. It may be a circumstance to be considered. The circumstances of the case, other than the mere lapse of time, almost always give complexion to delay, and either excuse it or give it conclusive effect. \(* \ast \ast \) We do not mean that an abandonment to the public may not be made \(* \ast \ast \) within less than two years. No particular time is necessary, but the fact must be proved, and the lapse of two years does not establish it. There may be sufficient reasons why a de-

\(^1\) *Adams v. Jones*, 1 Fisher's Pat. Cases, 527.
\(^3\) *Dental Vulcanite Co. v. Wetherbee*, 3 Fisher's Pat. Cases, 97: 1866.
lay of a much greater number of years will not so operate. On the question of abandonment, in either aspect, time and circumstances, the acts and contemporaneous declarations of the party are all to be considered."

The inventor of the driven well did not apply for his patent for more than four years after he made his invention. He was in serious personal trouble meanwhile and it was held to excuse his delay. Cochran, patentee of a fire-arm, delayed eight years between his first rejected application and the second and successful application, during which interval he took out twenty-two other patents on fire-arms; two or three years before he filed his second application, patents were granted to two others for same subject-matter. Cochran's delay was held fatal and the court said: "If there was no purpose on the part of Cochran to withhold his improvement from the public, there was a negligent postponement of his claims until after the other inventors had acquired equities which it seems unjust to destroy."

In another case the court said: "If an inventor, without substantial reason or excuse, abandons the use of his invention, and for nine years sleeps upon his rights, and in the mean time others in good faith employ their industry, skill, and money in producing the same thing and give the public the benefit thereof, putting it into extensive use and sale, such a state of facts not only warrants the inference of abandonment by the first inventor, but it also creates, as between him and the

others, the same equity as would arise if such others had gone further and taken out a patent. Whether the device be patented or had 'gone into use without a patent,' should make no difference.\(^1\) This is not because lapse of time, \textit{per se}, deprives an inventor or his rights, but because the circumstances giving character to the delay indicate abandonment, and also because the intervening rights of others makes it inequitable that he should thereafter be permitted to assert any such exclusive title to the invention.\(^2\)

The same learned judge that rendered the decision last quoted, excused a delay of ten years in presenting an application on the ground of poverty.\(^3\)

Woodbury, in taking out his patent on his planing machine, allowed an interval of more than twenty years to elapse between the rejection of his first application and the filing of his second and successful application, and thereupon the U. S. Supreme Court said:

"It has sometimes been said that an invention cannot be held to have been abandoned unless it was the intention of the inventor to abandon it. But this cannot be understood as meaning that such an invention must be expressed in words."

"An inventor cannot \textit{without cause} hold his application pending during a long period of years, leaving the public uncertain whether he ever intends to prosecute it, and keeping the field of his invention closed against other inventors. It is not unfair to him, after his application

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\(^1\)\textit{Kendall v. Winsor, 21 Howard, 322.}

\(^2\)\textit{Consolidated Fruit Jar Co. v. Wright, 12 Blatch. C. C. R. 149.}

\(^3\)\textit{Colgate v. W. U. Tel. Co. 14 O. G. 943.}
for a patent has been rejected, and after he has for many years taken no steps to reinstate it, to review it, or to appeal, that it should be concluded that he has acquiesced in the rejection and abandoned any intention of prosecuting his claim further. Such a conclusion is in accordance with common observation. Especially is this so when during those years of inaction he has seen his invention go into common use, and has uttered no word of complaint or remonstrance, or been stimulated by it to a fresh attempt to obtain a patent. When, in reliance upon his supine inaction, the public has made use of the result of his ingenuity, and has accommodated its business and its machinery to the improvement, it is not unjust to him to hold that he shall be regarded as having assented to the appropriation, or in other words, as having abandoned the invention.

There may be, it is true, circumstances which will excuse delay in prosecuting an application for a patent after it has been rejected, such as extreme poverty of the applicant or protracted sickness. * * * It is of little importance that from time he expressed a hope * * that he should some time and in some way obtain a patent. Such was not his language to the public. His inaction, his delay, his silence under the circumstances, were most significant. Though not express avowals of abandonment, 'to reason's ear they had a voice' not to be misunderstood. They spoke plainly of acquiescence in the rejection of his application for a patent.

They encouraged the manufacture and sale of his invention."¹

"Abandonment, or dedication to the public may be made as well after patent granted as before; but where the patent has actually been granted, it would undoubtedly require a strong case to prove abandonment." ¹ In a case where abandonment was urged against a patent because the complainant had delayed to sue infringers, the court said: "Neither does mere delay or acquiescence establish abandonment or dedication of the patent; there must be an acquiescence in the appropriation of the right of such character as reasonably to induce the belief that the owner intended to relinquish it to the public use." ²

The Evidence of Abandonment must, in any case, be very clear and cogent. Abandonment, or dedication is in the nature of a forfeiture of a right which the law does not favor, and should be made out beyond all reasonable doubt. It must be proved, never presumed. ³

The conclusion is that abandonment may occur at any stage, before application, during application, or after grant of patent; that abandonment may take place in a short time under circumstances clearly showing an intention to abandon and may not occur through the delay of many years’ duration when sickness, poverty or other matter of gravity really constrains the delay; and that in any case it must be proved—never being presumed—beyond all reasonable doubt.

¹ Bell v. Daniels, 1 Fisher’s Pat. Cases, 378: 1578.
CHAPTER X.

CAVEATS.

The statute enacts that: "Any citizen of the United States who makes any new invention or discovery, and desires further time to mature the same, may on payment of the fees required by law, file in the Patent Office a caveat setting forth the design thereof, and of its distinguishing characteristics, and praying protection of his rights until he shall have matured his invention. Such caveat shall be filed in the confidential archives of the office and preserved in secrecy, and shall be operative for the term of one year from the filing thereof; and if application is made within the year by any other person for a patent with which such a caveat would in any manner interfere, the Commissioner shall deposit the description, specification, drawings and model of such application in like manner in the confidential archives of the office, and give notice thereof, by mail, to the person by whom the caveat was filed. If such person desires to avail himself of his caveat, he shall file his description, specification, drawings and model within three months from the time of placing the notice in the post-office in Washington, with the usual time required for transmitting it to the cavetor added thereto; which time shall be endorsed
on the notice. An alien shall have the privilege herein granted, if he has resided in the United States one year next preceding the filing of his caveat, and has made oath of his intention to become a citizen.”

The statutory governmental fee upon the filing of a caveat is ten dollars.

The United States grants patents to citizens of all countries upon the same terms; but caveats can only be filed by citizens and aliens who have resided here one year next preceding the filing and taken the oath of intention to become citizens.

A caveat is only a notice of an inventor's intention to ultimately apply for a patent, and it prevents another inventor from getting a patent without the knowledge of the caveator while the caveat is in force. It is the practice of the Patent Office to revive a caveat from year to year, so long as the government fee is regularly paid for each year, and to renew a caveat upon the payment of the fee after the caveat has once lapsed or expired. So long as the caveat is in force, no one but the inventor or his attorney can have access to it, or get any information from the Office about it; and after a caveat has lapsed it is still preserved in secrecy.

A caveat does not prevent other parties than the inventor from making, using, and selling the invention. Any invention can always be freely made, used, and sold by others than the inventor, without liability, until the inventor's patent issues from the Patent Office.

Although the filing of a caveat is a very strong assertion of an intention to procure a patent for an invention,

1 Rev. St. Title L.X. Chap. 1, Sec. 4902.
yet an inventor may abandon the invention afterward, or allow it to go into public use for more than two years before application, and thereby lose his right to a patent.\(^1\)

The specification or description for a caveat does not need to be drawn with the same care and skill as the specification for a patent, and it needs to have no "claim."

A caveat can properly cover the same number and kind of distinct and separable inventions as a patent, and no more; and we have seen that a patent may cover and include as many distinct and separable inventions as are capable of co-operating toward some one result or end. The Patent Office proposes to restrict caveats, in this regard, the same as patents.\(^4\) No models or specimens of ingredients need to be filed with a caveat.

A caveat does, however, require a petition, specification, or description, and an oath; and, when the nature of the invention permits it, drawings executed upon tracing muslin, or paper that can be folded.

A caveat may be legally filed on a complete or an incomplete invention; the filing of a caveat is not conclusive evidence that the invention which forms its subject-matter is incomplete. The invention may be complete or incomplete, and in either case it is equally proper subject-matter for a caveat.\(^2\)

In case the Commissioner of Patents omits to inform a caveator of an interfering application the caveator's rights will not be prejudiced thereby.\(^3\) When an appli-

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\(^1\) *Bell v. Daniels*, 1 Fisher's Pat. Cases, 372, Leavitt, 1858.

\(^2\) *Johnson v. Root*, 1 Fish. Pat. Cas. 351.

\(^3\) *Phelps v. Brown*, 1 Fisher’s Pat. Cases, 479.
cation interferes with a caveat no notice is sent to the caveator until the invention is found patentable. Though the caveat has expired before the affirmative decision of patentability the notice is to be sent and the regular proceeding had.\textsuperscript{1} When a caveat and a conflicting application are filed the same day the caveator will be notified.\textsuperscript{2} One of joint inventors may lawfully file a caveat on the joint invention.\textsuperscript{3}

\textsuperscript{1} Kenney's Case, C. D. 1869, p. 97.
\textsuperscript{2} Essex ex parte, C. D. 1876, p. 58.
\textsuperscript{3} Gray ex parte, C. D. 1877, p. 44.
CHAPTER XI.

APPLICATION FOR PATENT.

Statutory Requirements as to Applications.—The following are the chief sections of the statute giving the requirements in the matter of applications for patents.

Section 4888.¹ “Before any inventor or discoverer shall receive a patent for his invention or discovery, he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a written description of the same, and of the manner and process of making, constructing, compounding and using it, 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 make, construct, compound, and use the same; and in 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. The

¹ Chapter 1, Title LX. Rev. Stat.
specification and claim shall be signed by the inventor and attested by two witnesses."

Section 4889. "When the nature of the case admits of drawings, 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 drawing, to be furnished by the Patent Office, shall be attached to the patent as a part of the specification."

Section 4890. "When the invention or discovery is of a composition of matter, the applicant, if required by the Commissioner, shall furnish specimens of ingredients and of the composition sufficient in quantity for the purpose of experiment."

Section 4891. "In all cases which admit of representation by model the applicant, if required by the Commissioner, shall furnish a model of convenient size to exhibit advantageously the several parts of his invention or discovery."

Section 4892. "The applicant shall make oath that he does verily believe himself to be the original and first inventor or discoverer of the art, machine, manufacture, composition or improvement for which he solicits a patent; that he does not know and does not believe that the same was ever before known or used; and shall state of what country he is a citizen. Such oath may be made before any person within the United States authorized by law to administer oaths, or when an applicant resides in a foreign country, before any minister, charge d'affairs, consul or commercial agent, holding commission under the government of the United States, or before any notary public of the foreign country in which the applicant may be.
Section 4894. "All applications for patents shall be completed and prepared for examination within two years after the filing of the application and in default thereof, or upon failure of the applicant to prosecute the same within two years 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."

The government fees prescribed by law are fifteen dollars, payable when the application is filed, and twenty dollars more payable when the patent is ordered to issue.

In order to constitute an application for a patent which the Commissioner will recognize and act upon there is required a petition, a specification, an oath, drawings when the nature of the invention admits of them, a model if called for by the Commissioner, and the fee of fifteen dollars: if the invention is a new compound, or composition of matter, specimens of the ingredients and of the compound must be furnished if required by the Commissioner.

If an inventor dies before the patent is applied for the application can be made by his executor or administrator, on behalf and for the benefit of the heirs, or devisees of the deceased.¹

The Petition. No particular form of words is prescribed for a petition, and any form will be held sufficient which respectfully and clearly sets forth the desire of the

¹ Section 4896, Chap. 1, Title LX. Rev. Stat.
petitioner for the grant to him of a patent. If a patent issues upon a defective petition or upon an application entirely lacking a petition, it is not at all likely that such an irregularity or omission will affect the validity of the patent; for it is obvious that the oath of invention called for by the statute is a more important matter than the petition and it is held, as will be seen in that part of this chapter specially relating to the oath, that the statute calling for the oath is merely directory in its nature and that a patent issued on an application containing an irregular or defective oath, or having the oath entirely lacking, is not void for that reason.

The Drawings. The drawings form a part of the specification and can be consulted to explain it, make it clear, or make it certain. The drawings should be referred to in the specification by letters of reference;

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1 As to all such matters it is best to follow the forms prescribed in the rules of practice issued by, and to be had gratis of, the Patent Office.

2 Patent Office drawings are now required to be upon paper stiff enough to stand in the portfolios, the surface of which must be calendared and smooth. The size of the sheet is ten by fifteen inches with a marginal line just one inch from the edge all around. Nothing but the drawings and signatures are permitted on the face of the sheet and these must all be within the marginal line. One of the ends of the sheet is taken as the top and a space of one and one-fourth inches downward from the marginal line must be left blank for Patent Office purposes.

The signature of the inventor and witnesses are to be at the bottom of the sheet. As many sheets can be used as are necessary. Drawings must be rolled, and not folded for transmission to the Patent Office. The care required by the Office is necessary in order to make the drawings reproducible by photo-lithography: a lithographed copy is inserted in the patent when issued.
but if the drawing can be understood without them their omission will not render the patent invalid.¹

The drawings need not be to an exact scale, but it is not safe to make a gross mistake in the relation of the parts; in one instance where the patent was for a grain separator, the deflector was shown in the drawing so near the shaker that it could not operate if so made in practice, and the court held the patented device to be “inoperative and without value.”²

Though the specification, considered alone and apart from the drawings, may be somewhat obscure and defective, yet, if by the aid of the drawings the defect or obscurity is removed, the specification will be held sufficient; and courts go some length in this regard, Judge Wheeler saying: in such a case: “To understand these patents it is necessary to examine the drawings in this connection with, and as a part of, the specification, and to rely upon them to some extent to ascertain the exact form and composition of some of the parts.”³

On the other hand while “the 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, * it cannot supply an entire want of any part of the specification or claim in a suit upon a patent.”⁴

The Oath. The inventor is required to make oath, not that he is the original inventor or discoverer, but that he believes himself to be such; that he does not know or believe that the same was ever before known or used, and he must state of what country he is a citizen. Joint inventors must make oath that they believe themselves to be the original, first and joint inventors.

The executor or administrator must make oath that he believes the deceased to have been the original and first inventor, etc.

The statute directing the taking of the oath is held to be merely directory, so that if it is irregular in form or is omitted altogether the patent granted upon the application with such an oath would not be invalid.¹

A party sued for infringement who wishes to show that the oath on which the patent issued is irregular, defective, or lacking, cannot do so simply by offering in evidence a certified copy of the application on which the patent issued, for it would still remain that a proper oath might have been made outside such record.²

The Model. For many years it was the uniform practice of the Patent Office to require a model in all cases admitting thereof and an application was not considered complete without it; but at this time the Office rarely calls for one, the rule being not to furnish one unless specially called for. The principal use of a model is to afford a basis for proper corrections in the reissue of a defective patent, the law permitting the model and

drawings to be amended in a reissue "each by the other."¹ And when a reissued patent is in question in court the character of a model filed with the application for the original patent is a matter for proof.² Where, in court, it is attempted to defeat or narrow a patent by reference to a prior patent the model of such prior patent, if differing from the patent to which it is appurtenant, cannot affect the patent in suit.³

The Specification is the important thing about a patent, and the highest care and skill are often requisite in its preparation.

Specifications may, and often do, have faults which render the patents, of which they form a part, void and worthless. If, however, the patentee has made an honest effort to clearly describe his invention, and to accurately claim it and nothing more, a court, before which his patent may come for consideration and adjudication, will sustain its validity, if it can be reasonably done.

"It is now a principle, settled by the concurrent opinions of some of the most enlightened jurists of this country, that patents securing to inventors the just rewards of their labor and industry, are to be construed liberally, and with a fair purpose of carrying out the object of the constitutional provision on this subject and the legislation of Congress based upon it.

It is now held, that these exclusive rights are not to be viewed in the light of odious monopolies, but as the result

¹ Section 4916, Chap. I, Title LX. Rev. Stat.
of a policy at once beneficent and wise. The Constitution of the United States (Art. 1 Sec. 8) has conferred on Congress, among other delegations of power, the right to pass laws 'to promote the progress of science and the useful arts, by securing, for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries.' And Congress, in the exercise of the power thus granted, has, from time to time, passed laws on this subject, designed to give practical effect to the constitutional provision. At this day, there are probably few who doubt the justness and the wisdom of this policy. That it has been followed with good results, in stimulating our countrymen to intellectual effort, and has thereby contributed essentially to our rapid national advance in 'science and the useful arts,' is too clear for controversy."

The law, however, requires that a specification shall describe the invention which forms its subject-matter, 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 make, construct, compound, and use the same, * * and he shall particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery"; and, while the courts are bound to construe a patent liberally, they will not permit a patentee to couch his specification in such ambiguous terms that it cannot be worked by, or so that its claim may be expanded or contracted to suit different exigencies.

1 Parker v. Stiles, 5 McLean, 44, 1849.
2 Parker v. Sears, 1 Fisher's Pat. Cases, 93.
It will be observed that the requirements of the statute in this respect, are twofold: first, that the invention shall be fairly and clearly described; and, second, that it shall be accurately claimed.

The object of the first requirement is, that the public may be enabled to practice the invention when the patent has expired.¹

Pains were taken to point out, in the first chapter, explaining the nature of a patent privilege, that a patent is in the nature of a bargain between the inventor and the public, and that the public requires, as a consideration for its grant, of an exclusive right to the inventor, that he shall fully disclose his invention to the public, so that the public may freely use it when the patentee's exclusive right is at an end. The specification of which the drawing is a part, is the paper wherein the patentee undertakes to make his disclosure; and, if he does not do so fully and clearly, he does not give the consideration which the public demands, and the public, acting through its courts, declares the bargain (that is, the patent) null and void. This defect is known, in legal phrase, as ambiguity in the description—or insufficiency of description.

The object of the requirement that the patentee shall accurately claim his invention is, "that, while the patent is in force, others may be informed of the precise claim of the patentee, and may not ignorantly infringe his exclusive right."²

The defect arising from not accurately claiming an invention is known as ambiguity in the claim.

¹Parker v. Stiles, 5 McLean, 44,
²Ibid.
The question as to whether there is ambiguity in a claim is always a question of law, and for a judge to decide; while the question as to whether there is ambiguity in a description is a question of fact, and may be decided by a jury.

Sufficiency of Description. A description in a specification is insufficient when a person skilled in the art or science to which the invention appertains, or with which it is most nearly connected, can not, when working by the specification and drawings, and without invention or experiment of his own, put the invention in practice. 1

The law does not suppose a specification to be addressed to persons of the very highest skill in the art or business to which the invention relates, but to persons fairly skilled in such art or business. If, for instance, the invention is a machine such as finds its proper use in a machinist's shop, then a fairly skilled machinist is the person to whom the specification is supposed to be addressed; and if such machinist cannot, from the specification and drawings, construct the machine, without invention or experiment of his own, then the specification is ambiguous and uncertain.

The specification might be thus faulty, and yet a person of unusual mechanical and scientific attainments, as a thoroughly educated and experienced mechanical engineer, might be able, by his own skill and wide range of knowledge to remedy the defects of the specification.

and construct from it the machine intended to be patented, and yet the specification might be insufficient. On the other hand a specification is not directed to the general reader but to him skilled in the art, and it is not a valid objection to a specification that it is incomprehensible to the former; nor need a specification describe any more of a machine than suffices to show the application thereto of the improvement in question. The inventor "may begin at the point where his invention begins and describe what he has made that is new and what it replaces of the old."  

It is not necessary that an inventor should understand or be able to state the scientific principles underlying his invention. "Some person not skilled in chemistry and not very well learned in mathematics will invent a process in one instance or a mechanical contrivance in another, without being able to state the chemical or mathematical rules with accuracy in the light of which learned men would solve the underlying principles scientifically considered. It is sufficient if his description will enable one skilled in the business to accomplish the desired result. Whether the inventor could stand a successful examination as to the speculative ideas involved is immaterial."  

Even if the inventor undertakes to state the theory of his improvement and mistakes it, the patent is not invalidated.

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To suggest that a new article can be made without disclosing how to make it does not warrant the grant of a patent for such an article.¹

The question as to whether a specification is ambiguous is generally attempted to be settled in patent suits by means of the evidence of experts, who are persons of more than ordinary skill and experience; the question, when put to such a person, is solely a matter of opinion, and this is probably the reason why the evidence of experts upon the opposing sides of a case is so often contradictory and conflicting upon this point. The expert is unable to place himself just in the position of the ordinary workmen, and hence his evidence is a mere matter of opinion.

If there are drawings attached to the patent, they form a part of the specification, and if the invention can be put in practice by means of the drawings and specification that is sufficient.² What was said under the head of "Drawings" is to be read in connection with the present topic.

A specification is not ambiguous simply because the name or title given to the invention is not strictly correct. We are to look into the whole description to find what the invention is, and the title given to it signifies but little.³ If, however, the name or title were to be one thing, as a sewing machine, and the real invention were

quite another thing, as a steam engine, that would probably be a fatal repugnancy.¹

If it is necessary to describe the whole of an old machine in order to show the operation of some new part or improvement which forms the invention, then the whole machine should be described;² but a patentee is not required to describe in detail things which are old, well-known and within the knowledge of a person fairly skilled in the art to which the invention appertains. It is not necessary that the drawings should be to a scale, unless the exact relative size of the parts is absolutely essential to the working of the invention, nor need the exact dimensions of common mechanical elements, such as wheels, levers, racks, and pulleys, be given, if these are things which an ordinary mechanic can readily determine.³

The elements of form, size, and number, though ordinarily unimportant, become important when form, size, and number are of the essence of the invention.⁴ An invention in plow-plates furnishes an instance where form may become important; a small rotary cutter for cutting glass furnishes an instance where both form and size may become important; and some varieties of grinding-mills furnishes instances where number or duplication of parts may become essential.

An inventor is required to specify and describe the best mode he knows of putting his invention in practice

² Wintermute v. Redington, 1 Fisher’s Pat. Cases, 239.
³ Brooks v. Jenkins, 1 Fisher’s Pat. Reports, 43.
when several modes may be employed, and, if he describes an inferior mode when he knows and himself practices a better one, that creates an ambiguity in his description.¹

A patentee must not say in his specification that a whole class of substances, as acids, will answer a certain purpose, when, as a matter of fact, only some ones of that class will answer; and he must not make use of terms designed to mislead those who attempt to work from his specification.

The patentee must make a disclosure as open, full, clear, and honest as possible, of the best method he knows of putting his invention in practice. He is not entitled to the protection of a patent, if he does less than this.

If a patentee makes a mistake in a trivial matter, and the mistake is one that a properly skilled person would readily see and overcome, that does not create an ambiguity. If an invention were of so high an order and so intricate in its construction as to require a very highly skilled or scientific person to comprehend it and put in practice, then the specification must be taken to be addressed to such persons and not to mere mechanics of any grade. Babbage's calculating machine and the House and the Hughes printing-telegraph instruments furnish instances of such inventions; and it is always a thing of importance to determine to what class of persons a specification must be held to be addressed. Having determined to whom a specification is properly held to be addressed, the question then is, can such a person, working by the specification, and drawings, if any, put the

¹Page v. Ferry, 1 Fish. P. Cases, 298.
invention in practice without invention, or experiment of his own?

It must always be remembered, that to adjudge a specification ambiguous creates a forfeiture that the law does not favor, and it must be quite clear that a specification is ambiguous, insufficient, and uncertain, before a court will thus hold it.

It is well settled by the court that in the effort to ascertain the intention and meaning of the specification and claims that they are to be viewed in a liberal spirit, that, if possible, the object of the inventor or patentee may be carried out. Mere technicalities are to be set aside unless there is a clear legal necessity for sustaining them.

A glance at the following cases is not unprofitable in this connection.

In one case the inventor of a hard rubber packing described the ingredients of his compound as follows: "I mix the filings with the mass simultaneously with the sulphur and black lead or clay or other ingredients which are usually mixed with the crude rubber, and when the composition is made I vulcanize or cure the same in the ordinary manner. The quantity or proportion of filings to be mixed with the rubber is variable according to the nature of the work for which the rubber is to be used": the patent was held invalid for insufficiency of description.¹

In another case where the annealing of chilled car wheels was under consideration the patent stated as to the degree of heat applied in the annealing chamber, that the temperature of all parts of the wheels "may be raised

to the same point (say a little below that at which fusion commences.)" The court held that a person skilled in the art would know that the degree of heat needed was that which would raise the temperature of the thin parts of the wheel to the degree at which the hurtful strain commences when the casting was cooling in the mold; and sustained the patent

In another case the following language of the court makes the facts of the case and the court's action thereon fairly intelligible: "The objection that the specifications of the Rice patent are so imperfect that a working machine could not be made from them has given us much trouble. Various criticisms of the experts which assert the impracticability of the described machine, without certain readily perceived additions, are not among those which created doubt. The necessity for a spring, a weight, a slight difference of mere dimensions, or other quite obvious modifications which practical use may suggest to make the machine more efficient, would not render invalid otherwise sufficient specifications; certainly not if it would work without them. Here, however, an important device, without which it could not operate at all, is wholly omitted. An intelligent assistant and expert are unable to find it in either the specification or the photo-lithographic copies of the Patent Office drawings.

To this precise defect complainant's counsel directed the attention of neither of his expert witnesses, nor has he referred to it in argument.

It is rested upon the general unreasoned assertion of

1Mowry v. Whitney, 1 Of. Gaz. 492.
Renwick and Morgan, that from the specifications and drawings they could make an operative machine.

Four cams on the main shaft are indispensable. Stated in the order in which they occur, the first moves the presser-bar; the second the pasting-knife; the third gives the reciprocating motion to the pasting rollers and the devices connected with them; and the fourth, the severing-blade.

That which is required to give this motion to the pasting-rollers is wholly omitted. This error is accompanied by another, which refers to the cam which moves the presser-bar, as the one which is to perform the function of that which is not described at all. Such an office by it is impossible; another cam on the main shaft for this purpose is necessary. The specifications and drawings are to a scale. The exact reciprocating movement required for these bottom pasting-rolls and accompanying devices is given, and the location of the cam on the main shaft to impart it is in no degree doubtful. A hundred intelligent mechanics would all, necessarily, from data given, locate it in the same place. Its shape and dimensions result from mathematical calculations, well understood by all educated mechanics. The arms and connecting-rod, in order to enable it to perform its office, are among the most familiar devices, and we cannot agree with the experts who have sworn so pointedly that invention would be necessary to supply the omitted features. There is no other instrumentality, except this cam, arms, and connecting-rod, which would suggest themselves to a builder by which this omission could be supplied. They are so common and obvious they would be inserted by a
mechanic as readily as a driver would put the fourth wheel on the naked axle of his coach."1

In another case where the patent was for a machine for making pills, it was objected that glycerine, one of the coating materials mentioned, would not answer; this fact was held immaterial and the word "glycerine" was rejected as surplusage.2

Ambiguity in the Claim. This is a very different thing from ambiguity in the description. An invention may be fully, clearly, and perfectly described, so that a properly skilled person might, from the description, be able to put the invention into practice without any invention or experiment of his own, and yet in the summary at the end, technically called the claim, he may, by inadvertence or design, so loosely and inaccurately specify what he claims to be his invention, that there cannot be gathered from it what he means to claim; and, in this case, there is an ambiguity in the claim. A patentee is required to specify clearly and exactly in what his invention consists, that the public may be informed of the extent of his exclusive right, and may therefore know what infringes the patent and what does not.3

The courts have laid it down, in numerous cases, that the patentee must distinctly point out what is old or well known before, and then distinguish the old from the new; but it is now held that this is done by a properly worded claim, even if the patentee do not, in set terms,

1 Union P. Bag Co. v. Nixon & Co., 4 O. G. 31
say that such and such things are old; and that every part and thing not included in the technical claim, is, by the act of such omission, impliedly admitted to be old. This is the method now generally followed in drawing specifications, and it is legal and sufficient in this particular. If form, size, number, or quality are material and of the essence of invention, then it will not be sufficient to simply mention, in the claim, the thing having one of these attributes without the additional mention of such attribute; as, for instance, if it is material that a certain part shall be made of steel of a certain hardness or temper, then that part must be mentioned, in its place, in the claim, as of such hardness or temper: for if the part were mentioned simply as of steel, then the patent would seem to cover such part made of steel of any and all degrees of hardness; and the public would not be informed of what degree of hardness such part might be made without infringing the patent.

A claim is, however, to be construed in connection with the description in the specification; and if it is clear, from the claim and description, taken together, what the patentee intends to assert an exclusive right to, that is sufficient.  

The claim is ambiguous when there can not be gathered from it, in connection with the description, what it is to which the patentee intends to assert an exclusive right. For instance, in a patent for a horse-rake the patentee claimed: "The arrangement of the rake-head E and

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foot-treadles $H J$, and $G K$, or either of them in relation to each other, and the axle $B$,' and the claim was held void for ambiguity.¹

It is to be remembered in this connection that a court will not declare a claim fatally ambiguous where there is any reasonable way of escaping such a conclusion for no rule is better settled than that courts will construe patents liberally and with all reasonable endeavor to sustain them; mere technicalities and slight obscurities will be disregarded.

Nature of the Claim. It is required that, somewhere in the specification, the patentee shall state and define the extent and nature of that to which he means to assert an exclusive right. The statute says: "he shall particularly point out and distinctly claim the part, improvement or combination which he claims as his invention or discovery."² This is usually done in a short summary at the end of the specification, and this summary is technically called the "claim," in distinction from the descriptive part of the specification. The claim is, so to speak, the vital part or soul of the patent.³ It must be confined to the patentee's exact invention, and include no more.

If the invention is a machine which is wholly new, a claim to the machine as such would be valid; but, if the invention be a new combination of old parts, then it must be claimed as such, and not otherwise. If the

²Section 4888, Chap. 1, Title LX. Rev. Stat.
combination be composed of elements some of which are new and some of which are old, the patentee may make a claim to each of the new parts specifically, and to the combination of the whole. ¹

If the invention is only an improvement on some prior thing, then it should be so claimed. There is no limitation to the number of different clauses of claim in a patent, and the patentee may make as many clauses of claim as are necessary to fully protect and cover the invention. The rights of the patentee are measured by his claim; and, though he may have invented several different parts or combinations, another person does not infringe the patent who makes or uses or sells the parts or combinations which are not claimed,—so that, if the claim is not as broad as the invention, the patentee has to bear the consequences.² Defects of this kind can be cured by a speedy reissue, a subject hereinafter treated.

This defect is one that affects the patentee, and does not make the patent void; for the patent may be perfectly valid as to the claims it has, while the patentee may be entitled to make much broader claims.

If, however, the patentee claims as his invention more than he is legally entitled to, and if his claim is broader than his real invention, then the patent is void as to such claims or clauses of claim,³ though if there are different clauses of claim, the patent will be held valid as to those clauses which are not too broad, unless the defect is one

that was caused willfully by the patentee, and with the express design, to mislead and deceive the public as to the extent of his exclusive right. Where there are different clauses of claim, some of which are too broad, the defect may be cured by filing a disclaimer, of which more hereafter.

Although a patentee is not held to any technical forms in making his claim, the person who draws the claim should determine, in his mind, before drawing the claim, whether the invention is an art,—that is, a process,—a machine, a manufacture, or a composition of matter, and the claim should be drawn to correspond with the invention; for if he clearly claims a machine when the real invention is a process, or a process when the invention is a machine, the patent will be invalid. In an English case, where the real invention was a process for preparing flax for spinning, the patentee claimed the machine he made use of, which was old, and the patent was declared void. A claim cannot be made to an abstract principle or for the discovery of a natural property of substance; but it must be for the principle as applied, or for a mode or manner of application. It cannot be for all ways of doing a thing, or for a result, no matter how produced.

Courts will support a claim, if it is possible to do so without doing violence to the meaning of language, but will do no more.

1 Ibid.
2 Key v. Marshall, 2 Webster's Pat. Reports, 34–84.
Joinder of Inventions. It is important to know how many and what different inventions may be properly covered and claimed in a single patent.

This question came up for discussion and decision before Judge Story in 1840. The patent under discussion covered two distinct machines,—one for marking ice into blocks of suitable size for cutting, and the other a machine for cutting the ice. The point was made by the defendants, that two machines could not be covered and claimed in one patent. With reference to this the judge said: "I agree that, under the general patent acts, if two machines are patented, which are wholly independent of each other, and distinct inventions, for unconnected objects, then the objection will lie in its full force, and be fatal. The same rule would apply to a patent for several distinct improvements upon different machines, having no common object or connected operation. *

* Construing, then, the present to be a patent for each machine, but for the same purpose, and auxiliary to the same common end, I do not perceive any just foundation for the objection made to it."¹

In the case of Emerson v. Hogg, tried in 1845, this question came up again. The plaintiff claimed, in his patent, three distinct and separable machines for use in propelling "either vessels in the water or carriages on the land."

He claimed (1) "substituting for the crank in the reciprocating engine a grooved cylinder, operating in the manner described, by means of its connection with the piston-rod," (2) a certain "spiral propelling wheel," and

¹ Wyeth v. Stone, 1 Story, 273.
(3) "the application of the revolving vertical shaft to the turning of a capstan on the deck of a vessel." The machine first claimed was not confined, in its use, to a boat or sailing vessel; it could be made use of in any steam engine. It was objected, that these distinct inventions could not be covered in the same patent. The judge said, after reviewing former cases, on this point: "The principle seems to be, that the inventions should be capable of being used in connection, and to subserve a common end, though their actual employment together does not seem to be required to sustain the validity of the patent in which they may be united.

Accordingly, the wrongful use of either separate machine is a violation of the patent right pro tanto. We think the specification in this case shows that these three separate machines were contrived with the view of being used conjointly, and as conducing to a common end, in the better propelling and navigating a ship; and, in our opinion, their capability of being used separately and independently of each other, does not prevent their being embraced in one patent."

This patent came before the Supreme Court in 1859, and, with reference to the objection made, "that one set of letters-patent for more than one invention is not tolerated in law," the court said: "But grant that such is the result when two or more inventions are entirely separate and independent, though this is doubtful on principle, yet it is well settled, in the cases formerly cited, that a patent for more than one invention is not void, if they are connected in their design and operation. This

1Emerson v. Hogg, 2 Blatchford, 1.
last is clearly the case here. They all, here, relate to the propelling of carriages and vessels by steam, and only differ, as they must on water, from what they are on land; a paddle-wheel being necessary in the former, and not in the latter, and one being used in the former, which is likewise claimed to be an improved one. All are a part of one combination when used in the water, and differing only as the parts must when used to propel in a different element. 1

In a later case a claim for a feed-cup for a bird cage and a claim for a mode of sustaining the bands of the cage were permitted to be embraced in one patent. 2

It is clear, that any number of separable inventions, capable of co-operating toward a common end, as well as several improvements of different parts of a machine, manufacture, or composition of matter, are claimable in one and the same patent; 3 and it is equally clear, on principle, that a process, a machine, and a product, concurring to a common result, are properly claimable in the same patent.

The Patent Office, however, for the sake of convenience in examining inventions by classes, at the time of this writing, refuses to grant such patents. It requires that a separate patent shall be taken for each distinct machine, process, manufacture, or composition of matter, even for distinct improvements upon the same structure or machine.

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1 Hogg v. Emerson, 11 Howard, 587.
The Patent Office has held that improvements in a post-office box and also in a lock for the box cannot be joined;¹ that a machine and its product cannot be joined;² that a die and its product cannot be joined;³ that a cut-off and mechanism for operating it cannot be joined,⁴ etc.

It would seem from the cases already cited that a United States court would hardly sustain such actions of the Office. The Office does not always and steadily adhere to the line of action indicated in the Office cases just cited, for there are many different Examiners of applications and each Examiner is a law unto himself in the first instance in this regard.

Though different inventions may be joined in the same patent such joinder is not required by law. "Separate patents for several parts of the same invention may be granted although the whole invention is fully described in each of them to explain the purpose and mode of operation of the parts covered by the claims in such patents."⁵

Joinder of Inventors. Whenever an invention is the joint product of different minds, a joint patent must be applied for by all the inventors, and if a patent for such an invention is taken by any number of such inventors less than the whole number, such patent is void. An invention is essentially a product of mind and not of hands, and he who suggests an essential feature or fea-

¹ Yale ex parte, C. D. 1869, p. 110.
² Murray & Wuterich ex parte, C. D. 1873, p. 96.
³ Birun ex parte, C. D. 1874, p. 52.
⁴ Gillies ex parte, C. D. 1876, p. 195.
tures of an art, machine, manufacture, or compound, is the inventor thereof, although another person may embody such suggestions in tangible materials.

It is often difficult to determine whether an invention is joint or single; but, when two or more persons are engaged together in the making of an invention, and an invention results as the effect of their joint consultations, such invention is joint, and the courts will not go into all the minutiae of the case, although, and of course, one or the other of the persons must have been the first to specify this or that part, or the whole of the invention, in words, or by drawings, or by a model, or by actual reduction to practice.

When, however, one person is clearly the inventor of a distinct part of a device, and another person is clearly the inventor of another distinct part of such device, distinct patents may be taken by each for his part, though a joint patent would, probably be valid.

When a patent has been granted for an invention alleged to be joint, no evidence short of that which is conclusive and indisputable, will be held to prove such invention to be other than joint.

"To overthrow the presumption of joint invention created by the filing of a joint application upon a joint oath the evidence should be clear and unequivocal. It is true that where a device or combination is claimed to have been the joint invention of two or more parties and the question arises for determination upon evidence, it must appear that it was the product of their mutual suggestions and joint efforts, for joint invention is the result of the mutual contributions of the parties; and if one suggests an idea in a general way and the other falls in
with it and by his aid develops it and gives it definite practical embodiment, the two may be considered joint inventors."\(^1\)

"To constitute two persons joint inventors it is not necessary that exactly the same idea should have occurred to each at the same time, and that they should work out together the embodiment of this idea in a perfected machine. Such a coincidence of ideas would scarcely ever occur to two persons at the same time. If an idea is suggested to one and he even goes so far as to construct a machine embodying this idea, but it is not a completed and working machine, and another person takes hold of it, and by their joint labors, one suggesting one thing and the other another, a perfect machine is made, a joint patent may properly issue to them. If, upon the other hand, one person invents a distinct part of a machine and another person invents another distinct and independent part of the same machine, then each should obtain a patent for his own invention."\(^2\)

In a case where a patent had been granted as for the joint invention of Jordan and Smith, the latter being dead, the former made affidavit that he was the sole inventor and furnished slight corroborating evidence, but the court held the evidence insufficient to overthrow the patent:\(^3\) in this same case, the patent to joint inventors being for a nut under the step-plate of a monkey-wrench, it was shown that before the two inventors came together one of them made a wrench wherein the step-plate was

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\(^3\)Collins Co. v. Coes, 8 Fed. Rep. 517.
supported by a lateral set-screw. The court held that such a wrench was within the patent and if it had been made and successfully used it would have limited the scope of the claim just that much, but that it was a mere "experiment on the way to the completed invention and has no effect at all."

In another case evidence of certain loose statements and admissions tending to impeach the joint nature of the invention was held insufficient to overcome the patent.¹

In another case the taking of a caveat as for a sole invention afterward patented to the caveator and another, as their joint invention, was held not to impeach the patent.²

CHAPTER XII.

DISCLAIMERS.

THE statute enacted: "Sec. 4817. Whenever, through inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, a patentee has claimed more than that of which he was the original or first inventor or discoverer, his patent shall be valid for all that part which is truly and justly his own, provided the same is a material or substantial part of the thing patented; and any such patentee, his heirs or assigns, whether of the whole or any sectional interest therein, may, on payment of the fee required by law, make disclaimer of such parts of the thing patented as he shall not choose to claim or to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent. Such disclaimer shall be in writing, attested by one or more witnesses and recorded in the Patent Office; and it shall thereafter be considered as part of the original specification to the extent of the interest possessed by the claimant and by those claiming under him after the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing it."
Sec. 4922. Whenever, through inadvertence, accident, or mistake, and without any willful default or intent to defraud or mislead the public, a patentee has, in his specification, claimed to be the original and first inventor or discoverer of any material or substantial part of the thing patented, of which he was not the original and first inventor or discoverer, every such patentee, his executors, administrators, and assigns, whether of the whole or any sectional interest in the patent, may maintain a suit at law or in equity, for the infringement of any part thereof, which was bona fide his own, if it is a material and substantial part of the thing patented, and definitely distinguishable from the parts claimed without right, notwithstanding the specifications may embrace more than that of which the patentee was the first inventor or discoverer. But in every such case in which a judgment or decree shall be rendered for the plaintiff no costs shall be recovered unless the proper disclaimer has been entered at the Patent Office before the commencement of the suit. But no patentee shall be entitled to the benefits of this section if he has unreasonably neglected or delayed to enter a disclaimer."  

The government fee for filing a disclaimer is ten dollars.

Who May Disclaim. A disclaimer may be filed by the owner or owners of the whole patent, or the grantee of a sectional interest. Licensees cannot, probably, disclaim, though it would seem, on principle, that an assignee of an undivided part of the patent might. A disclaimer affects the rights only of those who join in it,

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1 Rev. Stat. Title LX. Chap. 1.
though an assignee or grantee would take the rights and position of his assignor or grantor. The disclaimer must state the interest in the patent held by the party disclaiming.

Unreasonable Delay in Filing. If a party, entitled to file a disclaimer, unreasonably neglects or delays to file a disclaimer, when the same is necessary, his patent is void, so far as his interest in it is concerned; and it makes no difference, in considering this question, whether the disclaimer is filed before or during the pendency of a suit brought upon the patent. The delay commences when knowledge of the need of the disclaimer is first brought home to a party entitled to file it, though a patentee could hardly be expected to take any opinion other than that of a judge having jurisdiction, as satisfactory evidence of the invalidity of a part of his patent, although, if the fault were a very glaring one, it might be held otherwise. The Supreme Court has said, that, where a claim has received the sanction of the Patent Office, and has been held valid by a Circuit Court, the patentee has the right to insist on the validity of the claim till the Supreme Court has passed upon it. In another case, the Supreme Court held, that, where a patent was obtained in 1845, and there were numerous suits on

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2 Brooks v. Bicknell, 4 McLean, 70; Silsby v. Foote, 14 Howard, 221.
3 Wyeth v. Stone, 1 Story, 295; Reid v. Cutter, 1 Story, 600; Brooks v. Bicknell, 4 McLean, 70.
5 O'Rielly v. Morse, 15 Howard, 62.
the patent up to 1854, when a question arose as to whether a clause of the claim in the patent was not invalid for want of novelty, but such question was not an issue in the case on trial; and such case coming, in 1856, to a higher court, the clause in question was declared void, yet there had been no unreasonable delay in filing a disclaimer.¹

In a later case, where the patent had been allowed by the examiners-in-chief on appeal, and the questions involved in construing the claims in issue, were questions of law, and not of fact, the court held that complainant was entitled to repose upon the claims as valid "until the decisions of a court holding otherwise."²

Again: "When a patent contains several claims, and the invention covered by one of them is not new, or is absolutely void, the patentee may maintain an action for the infringement of the patent, so far as it regards the valid claims, although he did not make or record a disclaimer of the invalid or void claim before the commencement of the action."³

The Supreme Court held, in the case last referred to, as being in that court, that the question of unreasonable delay in filing a disclaimer, is a question of law, and this decision has been followed in other cases,⁴ though it had been formerly held that such question is a mixed question of law and fact,⁵ and in another case it has been held to

¹Seymour v. McCormick, 19 Howard, 106.
²Burdett v. Estey, 15 O. G. 877.
³Carhart v. Austin, 2 Fisher's Pat. Cases, 549; See Hall v. Wiles, Blatchford, 194; Vance v. Campbell, 1 Black, 429.
⁵Brooks v. Bicknell, 4 McLean, 70.
be a question of fact,\textsuperscript{1} which it would seem to be, though the opinion of the Supreme Court is not to be gain-said. If a party defendant would avail himself of an unreasonable delay to file a disclaimer, he must set up the charge in his answer.

**Disclaimer During Suit.** Although a party entitled to file a disclaimer may not have unreasonably delayed in filing the same, yet, if he has occasion to file one during the pendency of a suit brought by him on the patent, he cannot recover the costs in the suit, though it will not affect his recovery of damages.

A disclaimer that did not affect the finding was held not to deprive the complainant of his costs, the court saying: “As the plaintiff filed his disclaimer after suit brought, he would not ordinarily be entitled to any costs in the suit.

But in this case disclaimer was not necessary to sustain the patent to the extent it is held valid, was inoperative in the view taken of it upon the patent, and has had no effect in maintaining the suit. Under these circumstances, it does not come within the provision of the statute denying costs.”\textsuperscript{2}

When costs are cut off by a disclaimer filed during suit, the costs accruing after the filing of the disclaimer as well as those accruing before, are affected alike.\textsuperscript{3} And this is a somewhat serious matter where a long accounting in damages is had afterward. It was held, in

\textsuperscript{1}Burden v. Corning, 2 Fisher’s Pat. Cases, 477.


one case, that a perpetual injunction would not be granted, if a necessary disclaimer had not been filed previous to the commencement of the suit;\(^1\) but it has since been held differently,\(^2\) and the later decision is now followed.

Courts now agree in requiring a disclaimer where the same is called for, before an injunction will issue, or an accounting be ordered,\(^3\) and interest will not run on defendant's profits till after disclaimer filed.\(^4\)

**Nature of a Disclaimer.** A disclaimer is, when filed, to be considered as a part of the specification, in considering the rights of the party filing it. It may strike out one or more clauses of claim, or it may modify all or a part of the claim, and, when there is but a single clause of claim, it may modify that.

There is no limitation to the number of disclaimers which may be filed. After a disclaimer is filed the party filing it is bound by it, though it may embody a mistake in fact. A disclaimer in the body of the patent may embody an error in fact as to prior use, which error makes against the complainant, but: "the courts have no authority to disregard such a disclaimer."\(^5\) A claim first made in a reissue may be disclaimed.\(^6\)

The correction of a mistake in the description is not

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\(^1\) *Wyeth v. Stone*, 1 Story, 295.
\(^4\) *Burdett v. Estey*, before cited.
the office of a disclaimer, but of a reissue.¹ Perhaps the most difficult question connected with disclaimers is to determine to what extent a disclaimer may modify, change, or re-state the claim in distinction from blotting it out. In one case the claim in a patent was for “the use and application of glue or glue composition in the tubing substantially as described for the purpose of making flexible tubing gas tight, whether of cloth or rubber or other gums.”

Pending a suit for infringement of this patent, a disclaimer was filed to that part of the claim “which claims as an improvement in flexible tubing for illuminating gas, the use and application of glue, thereby limiting the claim to the use and application of glue-composition in the tubing.” Held to be a valid disclaimer.²

In another case the claim covered: “The employment or use of the deflecting plates, one or both,” etc. While suit was pending, and prior to the hearing the complainants filed a disclaimer; “to amend the first claim by striking out the words ‘one or’ before the word ‘both’ * * *.” Complainants also made a corresponding amendment in the specification. The court said: “Authority to make such a disclaimer is beyond question if it be made in writing, and is duly attested and recorded in the Patent Office * * *.” Pending suits may proceed, but the disclaimer when recorded becomes a part of the original specification and must be taken into account in considering the patent and in ascertaining the rights of the parties to the suit unless it appears that the

¹ Schillinger v. Gunther, 14 O. G. 713.
effect of the disclaimer is to enlarge the nature of the invention, and prejudice the rights of the respondents. Where the effect of the disclaimer is to diminish the claims of the patent without prejudicing the rights of the respondent, the suit may proceed * * *. Matters properly disclaimed cease to be a part of the invention, and it follows that the construction of the patent must be the same as it would be if such matters had never been included in the description of the invention or the claims of the specification.”

In another case the claim of the patent in suit was: “A concrete pavement laid in detached blocks or sections substantially in the manner shown and described.” The disclaimer was to the effect that it “disclaims the forming the blocks from plastic material without interposing anything between their joints while in the process of formation.” Of this the court said: “The sole claim of the patent left under the disclaimer is this: ‘the arrangement of tar paper or its equivalent between adjoining blocks of concrete substantially as and for the purpose set forth.’ Unsound is the view urged by the defendant, that the disclaimer takes out of a patent the entire first claim of the reissue. It takes out of that claim only so much thereof as claims a concrete pavement made of plastic material laid in detached blocks or sections, without interposing anything between their joints in the process of formation. The first claim originally included concrete pavement made of plastic material laid in detached blocks or sections without interposing anything between their joints in the process of formation.

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1 *Dunbar v. Myers,* 11 O. G. 35.
DISCLAIMERS.

The first claim as amended by the disclaimer, claims a concrete pavement made of plastic material laid in detached blocks or sections, when free joints are made between the blocks by interposing tar paper or its equivalent * * *. In the present case, a proper disclaimer was entered after the suit was commenced. It disclaims certain words in the body of the specification, but it also disclaims a part of what was claimed in the first claim of the reissued patent. What is disclaimed in the body is the foundation of so much of the first claim as is disclaimed * * *. What is not disclaimed is definitely distinguishable from what he claimed without right. * * *. It is true that strictly section 4917 contemplates only a disclaimer of some claim, or part of a claim, but in connection with a disclaimer of some claim or part of a claim, it is not improper to eliminate or withdraw by the same writing the parts of the body of the specification on which the disclaimed claim or part of a claim is founded * * *.

The reissued specification is to be thereafter read as if the disclaimer were incorporated in it."

Excerpt from another case: "While the causes were pending in the court below, and after the testimony in chief of the defendants had been taken, to wit: on October 26, 1880, the patentee and the complainants filed in the Patent Office a disclaimer, disclaiming the word "preferably" where inserted in the specification of the reissued patent, and also any process described and claimed by which meat is to be compressed into the packages in any other than a warm or heated condition.

1 Schillinger v. Gunther, 14 O. G. 713; See 16 O. G. 905.
On the same day the patentee and complainants filed another disclaimer, whereby they disclaimed any interpretation or legal construction of the words of the specification of the reissued patent broader than is conveyed by the words 'the meat is first cooked thoroughly by boiling it in water, so that all the bone and gristle can be removed and the meat yet retain its natural grain and integrity.' The effect of this disclaimer was to restore the claims of the reissued patent to what they were in the original patent, except that the claim of the original patent is limited by the second disclaimer to the packing of meat cooked by boiling."¹

It would seem from these cases that while a brand new claim cannot be made by disclaimer, yet a claim may be modified and practically restated when the effect of the disclaimer is to diminish and narrow the breadth of the claim.

CHAPTER XIII.

REISSUES.

The Reissue Statutes. "Sec. 4895. The statute enacts: Patents may be granted and issued or reissued to the assignee of the inventor or discoverer; but the assignment must first be entered of record in the Patent Office. And in all cases of an application by an assignee for the issue of a patent, the application shall be made and the specification sworn to by the inventor or discoverer; and in all cases of an application for a reissue of any patent, the application must be made and the corrected specification signed by the inventor or discoverer, if he is living, unless the patent was issued and the assignment made before the eighth day of July, eighteen hundred and seventy." ¹

"Sec. 4916. Whenever any patent is inoperative or invalid, by reason of a defective or insufficient specification, or by reason of the patentee claiming as his own invention or discovery more than he had a right to claim as new, if the error has arisen by inadvertence, accident, or mistake, and without any fraudulent or deceptive intention, the Commissioner shall, on the surrender of

such patent and the payment of the duty required by law, cause a new patent for the same invention, and in accordance with the corrected specification, to be issued to the patentee, or, in the case of his death or of an assignment of the whole or any undivided part of the original patent, then to his executors, administrators, or assigns, for the unexpired part of the term of the original patent. Such surrender shall take effect upon the issue of the amended patent. The Commissioner may, in his discretion, cause several patents to be issued for distinct and separate parts of the thing patented, upon demand of the applicant, and upon payment of the required fee for a reissue for each of such reissued letters-patent. The specification and claims in every such case shall be subject to revision and restriction in the same manner as original applications are. Every patent so reissued, together with the corrected specification, shall have the same effect and operation in law, on the trial of all actions for causes thereafter arising, as if the same had been originally filed in such corrected form; but no new matter shall be introduced into the specification, nor in case of a machine patent shall the model or drawings be amended, except each by the other; but when there is neither model or drawing, amendments may be made upon proof satisfactory to the Commissioner that such new matter or amendment was a part of the original invention, and was omitted from the specification by inadvertence, accident, or mistake, as aforesaid."

The government fee required by law is thirty dollars which must be paid with the application for the reissue: in case the reissued patent is to be separated into different divisions this fee must be paid for each of such divisions.

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1Rev. Stat. Title LX. Chap. 1.
A reissue is for the purpose of correcting any actual *bona fide* mistake in either the specification or drawings of a patent, or both.

Ambiguity in the description or claim may be cured by a reissue; also clerical mistakes and wrong dates; the claim in a reissued patent may be broader than it was in the original patent, provided that the original lacks in breadth through a genuine mistake; also provided that the application for the reissue is made without any unreasonable delay after the issue on the original patent; and that the expansion by reissue is not made for the purpose of bringing within the scope of the reissued claim, modifications and improvements which were not covered by the original claim, and which have been originated by others than the patentee since the issue of the original patent. As a rule, a claim may at any time be narrowed by a reissue, subject to the qualification that the reissued patent must in all cases be for the same invention as the original patent; it is not probable that courts will permit the ground of invention to be changed, even though the claim be technically narrowed. A patentee cannot include in his reissue improvements he has made since his application for the original patent. The wording of the description and claim in a specification may be altered at will in a reissue, subject to the qualification that the reissued patent be for the same invention as the original, and subject to the further qualification that no new matter be interpolated. New matter is that which is not contained or shown in either the original specification, model, or drawings,¹ and, in the case of a

machine patent, the model and drawings cannot be amended by the original specification, but only by each other.

The rule formerly was, that the patentee is entitled to describe, show, and claim in his reissued description and drawings, anything that he might have legally shown, described and claimed at the time he made his original application,¹ such rights to be based upon the model and drawings filed with his original application; but such is not the present rule, as will be shown more at length in a coming part of this chapter. A patent may be reissued with proper intent any number of times,² and may be re-issued as well during an extended term as during an original term.³

Where the inventor is also the owner of the original patent, he, of course, signs and makes oath to the application for the reissue; in the case where the original patent has been assigned away since July, 1870, the inventor must, if living, sign and make oath to the application for reissue; but in the case where a patent was assigned prior to July 8, 1870, the owner of the patent can make the application for reissue without any action by the inventor: where the patent has been assigned, and the application is made by the inventor, the owner of the patent must assent to the application for reissue, and all owners of undivided interests in the patent must join in a surrender.

It is not in the power of a patentee, by a reissue of his patent, to affect the rights of other parties, to whom an

¹ Stoif v. Whisen, 3 Fisher's Pat. Cases, 343.
³ Gibson v. Harris, 1 Blatchford, 167.
interest in the whole or a part of the patent has previously passed, without their consent; but such consent can be given before or after the reissue. A person to whom an interest in the original patent has passed, as a licensee or a grantee, is entitled to the same rights under a reissue that he had under the original; but he may choose to retain his rights under the old patent, and the law gives him the right so to do, but he can not have different rights under both the original and the reissue.\(^1\)

It was formerly held that although a patentee did not reissue his patent for years, yet when he did so reissue it, and claimed in the reissue things not claimed in the original patent, or which were shown in the original specification, drawings, or model, he could not be held to have forfeited his right to the things thus newly claimed under a charge of public use and abandonment;\(^2\) but the rule is now otherwise.

The action of the Commissioner in reissuing a patent is *prima facie* evidence that the original and reissue patents are for the same invention; but if the two patents are clearly upon their faces for different inventions, that overcomes the force of such evidence.\(^3\)

It is said in different cases, and not very clearly, that the Commissioner's action in reissuing a patent is conclusive as to this thing, and as to that thing, and not re-examinable elsewhere: the true rule as to this doubtless is, that the Commissioner's action is conclusive as to all matters which are mere formalities, such as the presentation of a proper petition and legal oath or the like; that

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\(^{1}\) *Potter v. Holland*, 1 Fisher's Pat. Cases, 327.


\(^{3}\) *Graham v. Mason*, 5 Fisher's Pat. Cases, 1.
in no event can the reissued patent be impeached in a collateral proceeding, but it may be impeached in a proceeding brought for that purpose by reason of fraud, and it may be held invalid in an action for infringement because of non-identity of invention in the original and reissued patents.\(^1\)

Patents can only be reissued to cure defects which happened by accident, inadvertence, or mistake, but if defects were introduced designedly into the original patent, with fraudulent and deceptive intention, that destroys the right to a reissue.

The law of reissues had constructions given to it by the United States Supreme Court early in 1882, which are practically new and of very great importance. The first of the cases entering upon these practically new constructions was that of Edward Miller and Co. v. Bridgeport Brass Co., decided January 9th, 1882;\(^2\) prior to that time it was accepted law that a patentee might at any time during the life of his original patent reissue it, and not only amend mistakes in the drawings and specifications or ambiguity in the claim, but he might broaden the claim and cover anything which was shown or described in the original patent, or in the model accompanying application, even though he had not indicated in his original patent that the matter claimed in the reissue was his invention. It was all this while, however, well settled that a reissue could not be for a different inven-

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\(^2\) 21 O. G. 201.
tion from that described in the original patent; for instance, a patentee invented an automatic lubricator, in which the active agent was hydrostatic pressure, assisted to a slight extent by steam pressure; the inventor supposing the latter to be the active agent, so described it, and subsequently discovering his mistake, he took a reissue, describing the true action of the device, and practically claiming the hydrostatic pressure, which reissue was held invalid as being for a different invention from that described in the original patent.\textsuperscript{1}

Again: "The original Miller patent made the invention to consist of a stopper with a handle or bail hinged or jointed to the top of the stopper. * * * . The reissue covers a device in which the bail is attached to the stopper in any manner." Reissue was held void.\textsuperscript{2}

Again: An original patent covered the combination of nitro-glycerine with any explosive, porous absorbent, but its reissue covered the combination of nitro-glycerine with any porous substances explosive or in explosive, and was held void.\textsuperscript{3}

Again: An original patent describing printing upon sheet tin with metallic paints, afterwards fixed by heat, but the reissue made the process applicable to cans, boxes, and other articles; it omitted the limitation to the use of "metallic" colors, and the reissue was held void.\textsuperscript{4} And again: An original patent claimed a series of dies, with a disclaimer of individual dies, while the


reissue claimed the individual dies, omitting the disclaimer, and was held void.¹

Up to the time of the decision made by the Supreme Court in the case of Edward Miller and Co. v. Bridgeport Brass Co., early in 1882, while reissued patents had not rarely been set aside on the ground that the reissue claimed a different invention from that set out in the original patent, it had never been held that a patentee might not enlarge his claim at any time by reissue, or that he abandoned to the public any features of the invention described, and not claimed in his original patent.

The following resumé of reissue decisions rendered by the Supreme Court, made by a learned judge,² who is now a member of that court, fully illustrates the position of the Supreme Court upon this question, prior to the decision in the case of Edward Miller and Co. v. Bridgeport Brass Co.

"In Batten v. Taggart, 17 Howard, 74, a patentee invented an apparatus for breaking coal, and combined it with an apparatus for screening coal, which he did not invent, and took a patent for the combination only. Afterwards he took a patent for the said breaking apparatus. Afterwards he surrendered both patents and took a reissue of the first one for the breaking apparatus alone. It was held that, although he had in the first patent described the breaking apparatus without claiming it by itself, and although he had surrendered the second patent the reissue was valid. The reissue described essentially the same machine as the first patent, but claimed,

²Judge Blatchford.
as the thing invented, the breaking apparatus only. The court said: 'And this the patentee had a right to do. He had a right to restrict or enlarge his claim so as to give it validity, and to effectuate his invention.' In that case the description in the specification of the first patent was sufficient for the claim of that patent, and that claim was sustainable in a suit on that patent; yet that claim did not effectuate the real invention, which was the breaking apparatus alone, out of combination with the screen: and the case was held to be one proper for a reissue.

"In Burr v. Duryee, 1 Wall. 531, it was held that the Boyden machine did not infringe the Wells reissue, and that if it did, the reissue was void. The claim of the reissue claimed 'the mode of operation, substantially as herein described, of forming bats of fur fibres of the required varying thickness, from brim to tip, which mode of operation results from the combination of the rotating picking mechanism, or the equivalent thereof, and the means for directing the fur-bearing current, or the equivalent thereof, as set forth.' The court held that the invention of Wells was an improvement in a machine having certain peculiar devices, and that the Boyden machine had none of those peculiar devices, nor any substantial identity with them; and that the original patent claimed the whole of Wells' invention—no more, no less."

"In Seymour v. Osborn, 11 Wall. 516, 544, it is said that the Commissioner of Patents may, on a reissue, 'allow the patentee to re-describe his invention and to include in the description and claims of the patent not only what was well described before, but whatever else was suggested or substantially indicated in the specification or drawings which properly belonged to the invention as
actually made and perfected. Interpolations of new features, ingredients, or devices which were neither described, suggested, nor indicated in the original patent or Patent Office model are not allowed, as it is clear that the Commissioner has no jurisdiction to grant a reissue unless it be for the same invention as that embodied in the original letters-patent. *

Corrections may be made in the description, specification, or claim, where the patentee has claimed as new more than he had a right to claim, or where the description, specification, or claim is defective or insufficient; but he cannot under such an application, make material additions to the invention which were not described, suggested, nor substantially indicated in the original specifications, drawings, or Patent Office model.' These remarks were made in regard to section 13 of the Act of 1836, and they recognize that an insufficient description, or an insufficient claim, or both, may be amended in particulars substantially indicated in the original specification, or drawings, or model. They give no countenance to the view that this cannot be done if the claim of the original patent is a good one, on a description sufficient to sustain it."

"The case of Gill v. Wells, 22 Wall. 1, arose under the Act of 1836, on a reissue in 1868, of the same patent that was involved in Burr v. Duryee. In that case the specification of the reissue differed from that of the original in leaving out the whole description of the chamber or tunnel, and its appendages, and substituting a full description of other devices different from the chamber, in form at least, to perform the functions of the chamber and its appendages, as described in the original. Material matters were left out of the specification of the reissue, when compared with the original, and
new features were introduced in the description of the devices to be employed in guiding the fibres of the fur when taken from the feeding mechanism by the rotating brush or picker, such devices being different in form and with different names from those described in the original specification as to the means to accomplish the same end. It was held that this made the reissue invalid. Much is said in the opinion of Gill v. Wells that was unnecessary to the decision in that case, and what was so said, seems to have been disregarded by the same court in the subsequent case of The Corn Planter Patent, 13 Wall. 181, which there sustained reissued patents on the sole ground that the reissues were for things contained within the machines and apparatus described in the original patents, against the dissenting opinion of the judge who delivered the opinion of the court in Gill v. Wells, and who sought to apply to the corn planter case the views he had set forth in Gill v. Wells. These cases are commented on in Herring v. Nelson, 14 Blatchf. 293, and in Christian v. Rumsey, 17 Blatchf. 148."

"In Russell v. Dodge, 93 U. S. 460, the original specification as appears from Klein v. Russell, 19 Wall. 433, made it essential that the fat liquor should be heated to or near the boiling point, and then compounded with the other substances named, and then applied to the skins. The description to that effect was clear. The claim claimed 'the process substantially as herein described of treating bark-tanned lamb or sheepskin by means of a compound composed and applied essentially as specified.' The specification of the reissue stated that it was desirable to heat the fat liquor to or near the boiling point, and that it was preferred to use the same in connection
with other ingredients, which other ingredients were named. The mode of application was set forth, and was to be by applying either the fat liquor or the compound to the skin. The claims of the reissue were these: '(1) The employment of fat liquor in the treatment of leather substantially as specified. (2) The process, substantially as herein described, of treating bark-tanned lamb or sheepskin by means of a compound composed and applied essentially as specified.' In *Russell v. Dodge* the court held that the reissue was (1) for the use of fat liquor in any condition, hot or cold, in the treatment of leather, and (2) for a process of treating the skin by means of a compound in which fat liquor is the principal ingredient; that thus the reissue covered the use of the fat liquor, hot or cold, and when used alone or in a compound with other ingredients; that the reissue omitted important particulars, so as to enlarge the scope of the invention; and that the change made, by eliminating the necessity of using the fat liquor in a heated condition, and by making its use in that condition a mere matter of convenience, enlarged the character and scope of the invention, and make the reissue a patent for a different invention. This decision may well be a precedent for a case like it in its facts. General observations by a judge or a court, in deciding a case, must always be read in view of the facts of the case that was *sub judice*, and are not necessarily authoritative, *ex vi termini*, in another case where the facts are not the same, although entitled to consideration as are the views of a text-writer of experience and repute. This case of *Russell v. Dodge* is often cited, as it has been in the present case, as authority for the proposition that where the claim of a patent
is valid, and the descriptive part of a specification is sufficient to support it, the patent cannot be reissued. The reissue in that case was invalid for other reasons assigned, and the case does not lay down the above proposition, nor does any case yet decided by the Supreme Court announce such a proposition to be the law. It will be a sad day for inventors and patentees when the highest tribunal does make an authoritative decision to that effect in those terms. Large numbers of patents have been reissued and sustained in suits, and vast sums of money have been invested and expended in reliance on the reissues, where they were worthless if the fact that the claims of the original patents were valid and sustainable, on the descriptions and drawings appended to them, rendered the reissues invalid."

"In Powder Co. v. Powder Works, 98 U. S. 126, the original patent was for different processes and appliances for exploding nitro-glycerine, while the reissues were for compositions of matter. The Supreme Court held that the processes described in the original had no connection with the compounds patented in the reissues; that they were not processes for making these compounds; that, in describing the processes, the compounds were not mentioned; and that the invention of the one did not involve the invention of the other."

"In Ball v. Langles, 18 O. G. 1405, recently decided by the Supreme Court, the original specifications and drawings showed an oven so constructed that the products of combustion did not and could not pass directly into it. In the reissue the oven was made a part of the passageway for the products of combustion, and it was held bad."¹

The position taken by the United States Supreme Court in the case of the Edward Miller and Co. v. The Bridgeport Brass Co., and other cases of like import which have followed it, is a long stride in advance of its previous position. The present position of the Supreme Court is, in substance, that a patentee shall not broaden his patent by a reissue unless the application for reissue is made with diligence, and with no unreasonable delay after the issue of the original patent, and before other parties are in the field with modifications or improvements which the reissue will cover; that such improvements as a patentee describes in his original patent, and does not claim, he must claim in a separate application, or else he abandons them to the public; and that after the lapse of years a patentee may not change the ground of his invention by reissue, even though he technically and literally narrows his claim.

In the case of Miller v. The Brass Co., the Supreme Court said: "Nothing but a clear mistake or inadvertence and a speedy application is admissible when it is sought merely to enlarge a claim." "The right to have it corrected is abandoned and lost by unreasonable delay." "An omission to claim other devices and combinations apparent on the face of the patent are in law a dedication to the public of that which is not claimed." "It is competent for the courts to decide whether the delay was reasonable, and whether the reissue was therefore contrary to law and void." In the case of James v. Campbell, 1 which immediately followed the case last referred to, the Supreme Court proceeded as follows upon the

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1 21 O. G. 337.
same topic: "If he was the author of any other invention, than that which he specifically describes and claims, though he might have asked to have it patented at the same time and in the same patent, yet if he has not done so, and afterwards desires to secure it, he is bound to make a new and distinct application for that purpose and make the subject of a new and different application."

"When a patent fully and clearly, without ambiguity or obscurity describes and claims a specific invention complete in itself so that it cannot be said to be inoperative or invalid by reason of a defective or insufficient claim, a reissue cannot be had for the purpose of expanding and generalizing the claim, so as to make it embrace an invention not described and specified in the original."

"If by actual inadvertence, accident, or mistake, innocently committed, the claim does not fully assert and define a patentee's right in the invention specified in the patent, a speedy application for its correction before adverse rights have accrued, may be granted." In the case of Race v. Matthews, 21 O. G. 349, which followed soon after the case last mentioned, the Supreme Court said: "It was not necessary for the patentees, Race and Matthews, to enumerate all the known functions of these frost jackets in their original patent, and as no claim was based upon them it could not be hurtful to enumerate them in the reissued patent. But the complainants in their reissued patent have split up and divided the elements of their invention and claimed them separately, and not as a combination. Of course this enlarges the scope of their patent; the separate claims embracing fewer elements in combination than were embraced in the claim of the original patent. No one could infringe