

THE STORY OF
THE AMERICAN
PATENT SYSTEM

1790

1952

*The issue of patents for new discoveries has given
a spring to invention beyond my conception.*

THOMAS JEFFERSON

*The Patent System added the fuel of interest to
the fire of genius.*

ABRAHAM LINCOLN

*The American Patent System has promoted count-
less applications of the arts and sciences to the
needs and well-being of our people.*

FRANKLIN D. ROOSEVELT

U. S. DEPARTMENT OF COMMERCE

SINCLAIR WEEKS, *Secretary*

PATENT OFFICE

ROBERT C. WARSON, *Commissioner*



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Foreword

ON APRIL 10, 1790, PRESIDENT GEORGE WASHINGTON signed the bill which laid the foundations of the modern American Patent System. Three years earlier, at Philadelphia, the Constitutional Convention had given Congress the power "to promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and inventions."

For a hundred and fifty years the Patent System has encouraged the genius of hundreds of thousands of inventors.

It has protected the inventor by giving him an opportunity to profit from his labors, and it has benefited society by systematically recording every new invention and releasing it to the public after the inventor's limited rights have expired.

The Patent Office has recorded and protected the telegraph of Morse, the reaper of McCormick, the telephone of Bell, and the incandescent lamp of Edison.

It has fostered the genius of Goodyear and Westinghouse, of Whitney and the Wright Brothers, of Mergenthaler and Ives, of Baekeland and Hall.

Under the Patent System American industry has flourished. New products have been invented, new uses for old ones discovered, and employment given to millions.

Under the Patent System a small, struggling nation has grown into the greatest industrial power on earth.

The Patent System is one of the strongest bulwarks of democratic government today. It offers the same protection, the same opportunity, the same hope of reward to every individual. For over a hundred and sixty years it has recognized, as it will continue to recognize, the inherent right of an inventor to his government's protection. The American Patent System plays no favorites. It is as democratic as the Constitution which begot it.

The fundamentals of the modern American Patent System are both simple and brief. In general, any person who has invented any new and useful process, machine, manufacture or composition of matter, or any improvement thereof, may obtain a patent.

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An application must be filed with the Commissioner of Patents, accompanied by the necessary papers describing the invention, and a fee to cover the cost of examination. The Patent Office then searches prior patents and publications to determine whether the application presents something patentable. It must be new, useful, and involve invention.

The patent gives the inventor the right to exclude all others from making, using, or selling his invention for 17 years. In contrast with many foreign governments the United States does not tax patents, nor does it impose other onerous conditions on the inventor.

The Patent Office is one of the most unusual branches of the United States Government. Its examining staff of over 700 is trained in all branches of science and examines thoroughly every application to determine whether a patent may be granted—a task, in these days, involving the most exhaustive research. Not only must the examiners search United States and foreign patents to learn if a similar patent has been issued, but they must study scientific books and publications to discover whether the idea has ever been described. Previous publication, invention or use prevents a patent being issued.

To facilitate this enormous amount of research the examining staff is divided into 70 Patent Examining Divisions, each Division handling one or more branches of industrial activity. Division 12, for example, studies applications concerning machine elements, engine starters, and transmissions.

In addition to issuing patents (including, since 1842, design patents; and, since 1930, plant patents), the Patent Office has since 1870 been in charge of registering trade-marks, of which more than 500,000 have been registered to date. The importance of trade-marks in building up industrial recognition and goodwill cannot be overestimated. In its earlier days the Patent Office had on various occasions the responsibility for administering copyright matters, publishing agricultural information, and even collecting meteorological data, and for some years it was the custodian not only of the famous old Patent Office models—the delight of every visitor to Washington for many years—but of the Declaration of Independence, and other historical documents and relics. By publishing and distributing copies of every United States patent the Patent Office has made available to the public the world's greatest scientific and mechanical library.

The American Patent System is the best, most workable method as yet devised for protecting inventions, fostering industrial and mechanical progress, and ultimately giving to the world the benefits of the individual inventor's genius. It was the first patent system to recognize by law the inherent right of an inventor to limited protection, and it has become the

model for the patent systems of numerous foreign countries. Truly, as Lincoln said, the Patent System has added the fuel of interest to the fire of genius.

PREFACE TO SECOND EDITION

The first edition of this pamphlet, called *The Story of the American Patent System, 1790-1940*, was published in 1940 on the occasion of the celebration of the hundred and fiftieth anniversary of the signing of the first patent act. It has been out of print for some time and numerous calls for copies have suggested the publishing of a second edition. The second edition has retained the style and material of the first, but numerous additions have been made to increase its scope and bring it up to date.

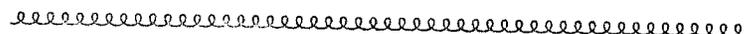
JOHN A. MARZALL,
Commissioner

December 31, 1952

ventors the exclusive right to their respective writings and inventions."

On March 4, 1789, Government under the new Constitution began operations, and on January 8, 1790, President Washington addressed the second session of the First Congress, meeting in New York City, urging the Representatives to give "effectual encouragement * * * to the exertion of skill and genius at home." A week later a committee consisting of Ædanus Burke of South Carolina, Benjamin Huntington of Connecticut and Lambert Cadwalader of New Jersey was instructed to bring in separate bills on patents and copyrights. On February 16 this committee presented the patent bill, and after debate in the House and in the Senate it was passed.

The Story of the AMERICAN PATENT SYSTEM



ACT OF APRIL 10

1790

GEORGE WASHINGTON SIGNS THE FIRST PATENT BILL!

FOR THE FIRST TIME in history the intrinsic right of an inventor to profit from his invention is recognized by law.

Previously, privileges granted to an inventor were dependent upon the prerogative of a monarch or upon a special act of a legislature. Now, if an inventor produces a patentable invention, his *right* to certain privileges is established.

Among the provisions of the Act:

The subject matter of a United States patent is defined as "any useful art, manufacture, engine, machine, or device, or any improvement thereon not before known or used." To apply for a patent a specification and drawing, and—if possible—a model, must be presented.

The responsibility for granting patents is placed upon a Board consisting of the Secretary of State, the Secretary of War, and the Attorney General.

The Board members have the power to issue a patent, "if they shall deem the invention or discovery sufficiently useful and important," for a period not to exceed 14 years. The Board fixes the duration of each patent.

The Board's authority to grant patents is absolute, and there is no appeal from its decisions.

The responsibility for administering the patent laws is given to the Department of State.

Fees for a patent amount to between \$4 and \$5.

The Board in charge of granting patents styled itself the "Patent Board," the "Patent Commission," or the "Commissioners for the Promotion of Useful Arts." Its first members were Thomas Jefferson, Secretary of State; Henry Knox, Secretary of War; and Edmund Randolph, Attorney General.

As Secretary of State, Thomas Jefferson was in effect the first Administrator of the American Patent System—his Department having been assigned the task of administering the patent laws. Jefferson, noted for his opposition to monopolies, none the less became a firm believer in the value of limited monopolies for authors and inventors. "Certainly," he wrote, "an inventor ought to be allowed a right to the benefit of his invention for some certain time. Nobody wishes more than I do that ingenuity should receive liberal encouragement." He was likewise of the opinion that "in the arts, and especially in the mechanical arts, many ingenious improvements are made in consequence of the patent right giving exclusive use of them for 14 years."

Jefferson, besides being the first supervisor of the Patent Office, was in effect the first patent "examiner." As Secretary of the Department of State he became the moving spirit of the Board which decided whether patents were to be granted. Accord-

ing to available records it appears that he made a personal examination of all the applications that came before the board.

Jefferson's interest in patents and inventions was that of a well educated, brilliant man. A mathematician, astronomer, architect, and student of languages, Jefferson was undoubtedly the most accomplished and versatile man in the public life of his time. Not only did he appreciate the value of patents from an intellectual viewpoint, but as an inventor himself he had first-hand knowledge of the problems of creative workers. Although he never took out a patent Jefferson made a number of inventions, one of which—an improvement in the mold board of the plough—had a significant effect on the agricultural development of this country and earned him a decoration from the French Institute. He also invented a revolving chair—which his enemies accused him of designing “so as to look all ways at once”—a folding chair or stool which could be used as a walking stick, a machine for treating hemp, and a pedometer.

Jefferson's appreciation of invention was one of his outstanding characteristics. As Minister to France he continually sent back news of the latest scientific developments in Europe, and he was the first to notify this country of James Watt's great contribution to civilization—the steam engine. Jefferson was ever zealous in encouraging the introduction of new things; no one could have been more ably fitted to administer the first American patent laws.

May 31.—Congress enacts the first Federal Copyright law.

July 31.—Samuel Hopkins of Vermont receives the first United States Patent. The patent is granted for a method of “Making Pot and Pearl Ashes.”

1790-1793.—During these years one difficulty the Board has to face is that the members have insufficient time to spare from their regular duties to devote to patent matters.

Patents granted this year, 3.

1791 Patents granted this year, 33.

January 29.—The fourth patent, for “Punches for Types, etc.” was granted to Francis Bailey of Philadelphia. This is the first patent of which a copy is available. The grant is signed by George Washington, President of the United States, Thomas Jefferson, Secretary of State, and Edmund Randolph, Attorney General.

1792 Patents granted this year, 11.

1793 ACT OF FEBRUARY 21

THE PATENT LAWS ARE SUBSTANTIALLY CHANGED

The Act of 1793, by omitting the requirement that an invention be “sufficiently useful and important,” and making other changes, changes the whole tenor of the patent laws.

The “registration” system is substituted for the “examination” system. An application is no longer examined for novelty and usefulness, but a patent is granted to any one who applies, submits the proper drawings and pays the necessary fee. The issuing of patents becomes little more than a clerical function.

This system remains in effect for 43 years.

Some provisions of the Act:

The Patent Board is abolished and the duty of granting patents placed upon the Secretary of State.

Aliens are forbidden to obtain patents.

The term of a patent remains 14 years.

The application fee is changed to \$30.

In the case of interferences (two or more persons applying for the same patent at the same time) the Secretary of State appoints a Board, consisting of one man chosen by himself and one chosen by each applicant, to determine the issue. The Board's decision is final.

March 14.—Eli Whitney, two years out of Yale, receives a patent **1794** for his cotton gin.

The cotton gin, by replacing the slow cleaning of seeds by hand labor, made possible the great textile industry of later years. Whitney's patent was one of the earliest issued by the Patent Office to have a vital bearing on American civilization.

The Government moves from Philadelphia to Washington, and the **1800** State Department, including the Patent Office, is assigned temporary quarters in the Treasury Office.

April 17.—Aliens are given the right to obtain patents provided they have resided in this country for two years and have declared their intention of becoming citizens.

August 27.—The State Department and Patent Office move to 1901 Pennsylvania Avenue.

May.—The Patent Office is transferred to the Southwest Executive **1801** Building, on the site of the present State, War, and Navy Building.

THE PATENT OFFICE BECOMES A SEPARATE UNIT **1802**

Secretary of State James Madison gives the Patent Office the status of a distinct unit or division within the Department of State by appointing Dr. William Thornton, at a salary of \$1,400 a year, “to have charge of the issuing of patents.” This salary is later increased to \$1,500.

Dr. William Thornton, first chief of the Patent Office, was a man of marked individuality, culture, and intelligence. Born in the British West Indies and receiving his medical degree at Edinburgh, Scotland, he came to the United States in 1786 and two years later became a citizen. He first achieved prominence in this country by designing the original plans for the Capitol in Washington, for which he was given \$500 and a plot of land.

Dr. Thornton was a close personal friend of James Madison. He was intimately acquainted with the prominent men of his time, and as head of the Patent Office devoted himself wholeheartedly to the task of promoting the benefits of the patent system. He even took out a number of patents himself (a step later forbidden to all employees of the Patent Office) and was associated with John Fitch in the development of the steamboat.

Dr. William Thornton, chief and later “Superintendent” of the Patent Office, October 1802 to March 28, 1828.

1808 *Patents granted this year, 158.*

1809 *May 5.*—Mary Kies, of Killingly, Windham County, Conn., is the first woman to obtain a United States patent. Her invention relates to "weaving straw with silk or thread."

Patents granted this year, 203.

1810 The Patent Office is assigned four rooms in the west wing of Blodgett's Hotel, on E Street between Seventh and Eighth Streets NW. The building, purchased and repaired by the Government in 1810, was never used as a hotel, but housed the first theater in Washington.

Congress refers to the "keeper" of patents. No official designation has as yet been given to the head of the Patent Office, but soon afterwards Dr. Thornton adopts the title of "Superintendent." In 1830 this title is officially recognized.

1814 *August 25.*—The British burn Washington. Dr. William Thornton, Superintendent of Patents, saves the Patent Office from destruction by pleading with the British Commander not to "burn what would be useful to all mankind." During the following year Congress meets in the Patent Office building (Blodgett's Hotel), while the Capitol is being restored.

1816 *April 11.*—President Madison, in a special message to Congress, urges that the Patent Office be given the status of a separate bureau.

1824 Daniel Webster, in a speech in Congress, declares that invention is the fruit of a man's brain, that industries grow in proportion to invention, and that therefore the Government must aid progress by fostering the inventive genius of its citizens. He thus expresses the same views of the patent system voiced by his predecessors, Washington, Jefferson, Hamilton, Madison, and Franklin.

1825 *Patents granted this year, 304.*

1828 Dr. William Thornton, first Superintendent of the Patent Office, dies on March 28.

Dr. Thomas P. Jones, Superintendent of Patents, April 12, 1828 to June 10, 1829.

1829 Dr. John D. Craig, third Superintendent of Patents, points out to Congress that "at present the Patent Office is a source of revenue, which, it is presumed, the framers of its laws never intended; and the compensation received by those connected with it is far less, in proportion to their labor and responsibility, than in any other office of the Government within the District." This complaint was to be made frequently in the years to come.

An addition to Blodgett's Hotel, home of the Patent Office and the city post office, is built. The Patent Office is housed in the new structure.

Dr. John D. Craig, Superintendent of Patents, June 11, 1829 to January 31, 1835.

Patents granted this year, 447.

Patents granted this year, 544.

June 21.—Cyrus H. McCormick of Virginia receives a United States patent for his reaper. McCormick's invention, one of America's greatest contributions to agricultural advance, makes the vast grain fields of the West available for full production and assures a sufficient supply of cereals for the world's needs.

Patents granted this year, 630.

December 31.—John Ruggles, newly appointed Senator from Maine, moves that the Senate appoint a committee to study the Patent Office with a view to making changes in the existing laws. The Senate concurs, and appoints Ruggles Chairman.

J. C. Pickett, Superintendent of Patents, February 1, 1835 to April 30, 1835.

Henry L. Ellsworth, Superintendent of Patents, July 1, 1835 to July 4, 1836.

Patents granted this year, 752.

February 25.—Samuel Colt, of Hartford, Conn., receives a patent on a "Revolving Gun." This is the first of the famous "Six-shooters," which are to play such an important role in the winning of the West.

March.—Texas dissolves its ties with Mexico and becomes an independent republic. Article 2, section 3 of its constitution gives its Congress the power "to grant * * * patents and copyrights and to secure to the authors and inventors the exclusive use thereof for a limited time."

April 28.—John Ruggles, Senator from Maine, completes his report on the patent laws, declaring that:

"For more than 40 years the Department of State has issued patents on every application, *without any examination into the merits or novelty of the invention.*

"Many patents granted are worthless and void and conflict upon one another, and a great many law suits arise from this condition.

"Frauds develop. People copy existing patents, make slight changes, and are granted patents.

"Patents have become of little value, and the object of the patent laws is in great measure defeated."

John Ruggles, through whose efforts the patent laws were to be so successfully revised, was born in Westboro, Mass., in 1789. After graduating from Brown University in 1813 he moved to Thomaston, Maine, where he practiced law until elected a member of the

1830

1834

1835

1836

State legislature. He was later appointed to the State supreme court, and in 1835 was elected for one term as United States Senator. On leaving Washington in 1841 he returned to his law practice in Maine. He died at Thomaston in 1874.

1836

ACT OF JULY 4

VITAL CHANGES ARE MADE IN THE PATENT LAWS

The Act of 1836 reestablishes the so-called "American" system of granting patents, and creates the machinery for administering the system properly.

With the exception of the original Act of 1790, this is the most important patent law ever enacted by the United States. The patent laws of today, in broader outline, are based upon the principles set forth in this act.

The Act of 1836 reestablishes the "examination" system in effect before 1793. Once again it becomes necessary to determine the novelty and the usefulness of a patent application. Once again the "prior art"—that which has been invented or used before—must be searched to determine whether a patent may be granted. The personnel for conducting this work is provided, and the Patent Office becomes a separate bureau under its own chief. As a result the patent system functions smoothly, the courts are relieved of countless unnecessary patent cases, and a patent becomes a far more valuable asset to its owner.

Some provisions of the Act of 1836:

The Patent Office is established by law as a distinct and separate bureau in the Department of State.

The Office is placed in charge of a chief to be known as the Commissioner of Patents, appointed by the President by and with the approval of the Senate. The Commissioner's salary is \$3,000 a year.

The Commissioner is to execute and superintend all matters concerning patents, and is to appoint a chief clerk, an examiner of patents, a machinist, two clerks as draftsmen, an inferior clerk, and a messenger.

To obtain a patent an applicant must file a specification, a drawing, and a model. When issued, the patent is good for 14 years, subject to an extension of 7 years upon the approval of a Board consisting of the Secretary of State, the Solicitor of the Treasury, and the Commissioner of Patents. Reasons for requesting an extension must be presented to the Board.

For the first time appeals are permitted. Should the Examiner of Patents refuse to issue a patent the applicant may take his case to a Board of three disinterested persons appointed by the Secretary of State.

The application fee is \$30 for citizens, \$500 for British subjects, and \$300 for all other aliens. This apparent discrimination results from similar treatment of American citizens in foreign patent offices.

The fees collected by the Patent Office are to constitute the Patent Fund, to be used for clerk hire and other expenses.

A register of all patents issued is to be kept.

Employees of the Patent Office are henceforth forbidden to acquire any interest in a patent, except by inheritance or bequest.

The sum of \$1,500 is appropriated for the purchase of a library of scientific works and periodicals.

The Commissioner is to provide for the arrangement and classification of models in galleries where they are to be displayed to the public.

For a great many years this display of models was one of the greatest tourist attractions in Washington. After 1880, however, models were no longer required. In later years the historically most interesting of these models were used for exhibition purposes by the Smithsonian Institution, where they may be seen today.

July 4.—A law enacted the same day as the important Patent Act provides for the erection of a new building for the Patent Office.

Henry L. Ellsworth, Superintendent of Patents, is appointed the first Commissioner of Patents.

Henry L. Ellsworth was born in Windsor, Conn., in 1791, the son of Oliver Ellsworth, one-time Chief Justice of the United States Supreme Court. Before being named Superintendent and subsequently Commissioner of Patents, Ellsworth had been president of the Aetna Insurance Co., Chief Commissioner of Indian Tribes, and mayor of Hartford, Conn.

Ellsworth's interest in agriculture led him to obtain the first governmental appropriation in this field. As Commissioner of Patents he was the first Federal official to collect agricultural information for the benefit of the farmers, and he later became known as the "Father of the Department of Agriculture." His interest in Samuel Morse's telegraph led him to help obtain a \$30,000 grant from Congress for testing the possibilities of that invention.

July 13.—Patent No. 1 is issued to John Ruggles, Senator from Maine, who was so largely responsible for the passage of the Act of July 4. The patent, on a Locomotive Steam-Engine for Rail and Other Roads, is "designed to give a multiplied tractive power to the locomotive and to prevent the evil of the sliding of the wheels."

The present system of numbering patents consecutively begins with the patents issued under the new law. Previously issued patents are not numbered.

THE GREAT FIRE!

December 15.—The Patent Office is completely destroyed by fire. The loss is estimated at 7,000 models, 9,000 drawings, and 230 books. More serious is the loss of all the records of patent applications and grants.

After the fire the Patent Office is given quarters in the old City Hall, now the old District Courthouse.

Henry L. Ellsworth, first Commissioner of Patents, July 4, 1836 to May 6, 1845.

ACT OF MARCH 3

1837

Congress appropriates \$100,000 to replace the records and the most valuable and interesting patent models destroyed in the recent fire.

The act requires that two sets of patent drawings be furnished by the inventor, one to be attached to the patent itself and one to be filed

at the Patent Office. In this manner a double record—a safeguard against future fires—is kept.

One examiner is added to the Patent Office staff.
A few other changes are made.

A committee is formed to help replace the records lost in the fire. With the help of United States court clerks and owners of patents a partial restoration of the records is made in the next few years.

1839 *January 28.*—President Mirabeau Bonapart Lamar of the Republic of Texas signs “An act securing patent rights to inventors.”

Nathaniel Amory, Chief Clerk in the Texas State Department, becomes the first administrator of the act. During his first 11 months in office he grants 6 patents, mostly concerning improvements in machinery.

ACT OF MARCH 3

AGRICULTURE—A NEW JOB FOR THE PATENT OFFICE

The Commissioner of Patents is assigned the duty of collecting and publishing statistics and other information on agriculture.

For 23 years, until the creation of the Department of Agriculture in 1862, the Patent Office continues this work. The annual reports of the Patent Commissioners during these years devote considerable space to agricultural topics. For many years part of the Patent Office fund is used for distributing free seeds to farmers.

The Act of March 3 provides that appeals from the Patent Commissioner may be taken to the Chief Justice of the United States Court for the District of Columbia.

The Act permits an American inventor to use publicly or sell his article for 2 years before applying for a patent, without forfeiting his right to a patent.

Two assistant examiners are added to the Patent Office staff.
A few other provisions are included.

1840 The Patent Office moves into its new home at F and Eighth Streets NW. The building, to which wings are added in 1852, 1856, and 1867, becomes the home of the Patent Office for the next 92 years.

June 20.—Samuel F. B. Morse, of New York, receives Patent No. 1,647 for “Telegraph Signs.” This is the telegraph, which, by making possible instantaneous communication between far corners of the land, plays the first important role in bringing the peoples of the world nearer together.

1842 **ACT OF AUGUST 29**

DESIGNS ARE MADE PATENTABLE

“Any person, who by his own industry, genius, efforts and expense, has invented any new and original design” becomes entitled to a design patent. The term of a design patent is seven years. (By 1952 over 165,000 design patents had been issued.)

The Act of August 29 requires the owner of a patent to mark his article as patented, including the date on which the patent was issued. Any failure to do so results in a \$100 fine—one-half to go to the informer.

A similar penalty is provided for falsely marking any article as patented.

The Act includes a few additional provisions.

The first Commissioner of Patents, Henry L. Ellsworth, states in his annual report for 1843, while commenting on important inventions which have been made, that “the advancements of the arts, from year to year, taxes our credulity and seems to presage the arrival of that period when human improvement must end.” This rhetorical flourish is probably the origin of the unfounded story of the Patent Office official who resigned because everything had been invented.

June 15.—Charles Goodyear of New York receives Patent No. 3,633 for an “Improvement in the Manner of Preparing Fabrics of Caoutchouc or India-Rubber.”

The vulcanization of rubber, which Goodyear’s process makes possible, gives rise to great industries in the years to come.

The Republic of Texas joins the Union. The following year United States Commissioner of Patents Burke urges that steps be taken to validate the patents issued by Texas, but no action appears to have been taken.

The Patent Office technical staff consists of one Commissioner, two examiners, and two assistant examiners. During the year 1,246 applications are filed.

Edmund Burke, second Commissioner of Patents, May 7, 1845 to May 10, 1849.

September 10.—Elias Howe, Jr., of Cambridge, Mass., receives Patent No. 4,750 for an “Improvement in Sewing Machines.” By inventing a “new and useful machine for sewing seams in cloth or other articles,” Howe gives a new stimulus to industry.

ACT OF MAY 27

Congress places in the hands of the Commissioner of Patents the power of extending patents. Since 1836 this power had been vested in a Board consisting of the Secretary of State, the Commissioner of Patents, and the Solicitor of the Treasury.

Two principal and two assistant examiners are added to the Patent Office staff.

A few other changes are made.

The Act of March 3 transfers the Patent Office from the State Department to the newly created Department of the Interior. Not until April 1925, does the Patent Office come under the jurisdiction of the Department of Commerce.

May 22.—Abraham Lincoln, Congressman from Illinois, receives Patent No. 6,469 for "A Device for Buoying Vessels over Shoals."

The invention consists of a set of bellows attached to the hull of a ship just below the water line. On reaching a shallow place the bellows are filled with air, and the vessel, thus buoyed, is expected to float clear. Lincoln whittled the model for his application with his own hands. It can be seen at the National Museum (Smithsonian Institution) in Washington.

When a young man, Lincoln took a boat load of merchandise down the Mississippi River from New Salem to New Orleans. At one point the boat slid onto a dam, and was set free only after heroic efforts. In later years, while crossing the Great Lakes, Lincoln's ship ran aground on a sandbar. The two similar experiences led him to conceive his invention.

Lincoln's appreciation of inventions was later to be of great service to the Nation. John Ericsson's *Monitor*, the ironclad which defeated the *Merrimac*, would never have been built except for Lincoln's insistence, nor would the Spencer repeating rifle have been adopted by the Army.

Thomas Ewbank, third Commissioner of Patents, May 10, 1849 to November 8, 1852.

Patents granted this year, 1,067.

1852

ACT OF AUGUST 30

Appeals from the Patent Office may now be made to the Assisant Justices of the United States Court for the District of Columbia as well as to the Chief Justice.

1854-59.—The Patent Office, in conjunction with the Smithsonian Institution, collects meteorological data from thousands of observers throughout the country. The information is required as part of the agricultural service rendered by the Patent Office before the creation of the Department of Agriculture.

Silas Henry Hodges, fourth Commissioner of Patents, November 8, 1852 to March 25, 1853.

1853

Commissioner Mason, for the first time in Government, employs women clerks to work in a Government office. Prior to this time some women had been employed to do clerical work such as copying in their own homes. A great deal of objection was raised to the innovation in the Patent Office but Commissioner Mason steadfastly adhered to his plans.

Charles Mason, fifth Commissioner of Patents, May 16, 1853 to August 4, 1857.

1855

Clara Barton, later founder of the American Red Cross, is employed as a clerk in the Patent Office, at first on a piece work basis but later at a salary of \$1,400 per year, near the top for a clerical salary. Leav-

ing in 1857 she returned to the Patent Office in 1860 and was employed there until 1865.

Patents granted this year, 2,013.

The Patent Office staff consists of a Commissioner, a chief clerk, 12 examiners, 12 assistant examiners, a draftsman, an agricultural clerk, a machinist, a librarian, and about 50 clerical employees. (In 1952 the total number of Patent Office employees was about 1,800.)

The United States issues 2,910 patents—about 35 percent more than Great Britain, which has a far larger population. Prussia grants 48 patents, Russia 24.

Joseph Holt, sixth Commissioner of Patents, September 10, 1857 to March 14, 1859.

Joseph Holt afterwards becomes Postmaster General, Secretary of War, Judge Advocate General of the Army, and in 1864 refuses the post of Attorney General.

Patents granted this year, 3,695.

February 5.—Copyright matters are transferred from the Department of State to the Department of the Interior. The Secretary of the Interior directs the Commissioner of Patents to take charge of the work.

The Patent Office adds a "Librarian of Copyrights" to its staff.

Abraham Lincoln, in a lecture at Springfield, Ill., pays tribute to the patent system: "The patent system added the fuel of interest to the fire of genius." This statement was to be widely quoted in later years.

William Darius Bishop, seventh Commissioner of Patents, May 23, 1859 to February 15, 1860.

William Darius Bishop is the youngest man ever appointed to this post. He is 31 years old.

Patents granted this year, 4,504.

Philip Francis Thomas, later Secretary of the Treasury, sets aside one of his ablest examiners to hear and determine interferences. An "interference" is a proceeding for determining who is the original inventor when two or more applicants seek a patent for the same invention at the same time. The one who made the invention first is entitled to the patent.

Philip Francis Thomas, eighth Commissioner of Patents, February 16, 1860 to December 10, 1860.

ACT OF MARCH 2

PATENTS NOW GRANTED FOR 17 YEARS

The Act of 1861 increases the term of a patent grant from 14 to 17 years, at the same time withdrawing the power of the Commissioner of Patents to extend patents.

Prior to this time a patent had been granted for 14 years, but had been extendable for an additional 7 years at the discretion of the Commissioner—thus making possible a total term of 21 years. Congress changes the term of a patent grant to 17 years—a compromise between those in favor of retaining the original 14-year period with extensions and those desiring to abolish extensions.

Among the other provisions of the Act:

The penalty for failing to mark articles patented is withdrawn—but unless a manufacturer marks his article patented he cannot obtain damages from a competitor who is illegally copying his product until after notice is given.

The Commissioner of Patents is authorized to appoint additional examiners provided the expense is kept within the income of the Patent Office.

Appeals.—A permanent Board of Appeals, consisting of three Examiners-in-Chief, is created to relieve the Commissioner of much of the burden of hearing appeals. Should an applicant for a patent be unsuccessful before the Board, however, he may still appeal to the Commissioner.

Design patents.—Design patents may now be issued for terms of 3½, 7, and 14 years, according to the wish of the applicant.

Fees.—The fee for obtaining a patent becomes \$35, of which \$15 is to be paid at the time of application and \$20 when the patent is granted.

The Act eliminates all discrimination in the matter of fees, etc., against foreign applicants, except in the case of citizens of foreign countries discriminating against the United States.

Due to the outbreak of war there is a great decrease in the activities of the Patent Office. Receipts fall off, and as the statutes forbid a deficit in the Patent Office, a number of minor employees are dismissed and many examiners are reduced in grade.

1861-65.—The war stimulates the use of a number of comparatively new inventions. The field telegraph has an important influence on tactics, machinery is employed on a large scale to manufacture clothes and equipment for the armed forces, and the breech loading rifle is widely used. The importance of the reaper, mower, and thresher in providing food for the armies cannot be overestimated.

May 21.—The Constitution of the Confederate States of America provides for the establishment of a Patent Office.

Rufus R. Rhodes, of Louisiana, former examiner in the Patent Office at Washington, becomes the first and only Patent Commissioner of the Confederate States. The Patent Office is located in the Mechanics Building at Richmond.

Upon acceptance by the Commissioner, and upon payment of a \$40 fee, patents are granted for a 14-year period. The Commissioner's salary is \$3,000.

August 1.—The first Confederate patent is issued to one Van Houten of Savannah, Ga., for a "Breech Loading Gun." About one-third of the 266 patents issued by the Confederacy concerned implements of war.

The Confederate Commissioner of Patents finds his work seriously hampered by the lack of reference books. "There is not a polytechnic journal for sale at Richmond," he complains, "and the supply of other books of the kind required by the office is exceedingly limited."

David P. Holloway, ninth U. S. Commissioner of Patents, March 28, 1861 to August 16, 1865.

The Federal Congress makes a deficiency appropriation of \$50,000 to keep the Patent Office going. 1862

November 4.—Richard J. Gatling, of Indianapolis, Ind., receives Patent No. 36,836 for an "Improvement in Revolving Battery Guns." This is one of the early successful machine guns.

Patents granted this year, 5,025.

1864

As soon as the war is over there is a noticeable increase in patent applications. This year there are 10,000 applications (almost double the number of 1864); in 1866, 15,000 applications; and in 1867, 20,000. Until 1880 the number of annual applications is approximately 20,000. 1865

Thomas C. Theaker, tenth Commissioner of Patents, August 16, 1865 to January 20, 1868.

Patents granted this year, 6,616.

Patents granted this year, 9,458.

1866

Patents granted this year, 13,026.

1867

ACT OF JULY 20

1868

Congress directs the Commissioner of Patents to turn over to the Treasury the Patent Fund hitherto kept at his disposal for Patent Office expenditures. All money received by the Patent Office for its services is subsequently paid directly to the Treasury, and the expenses of the Office, like those of other Government departments, are met by congressional appropriations.

June 23.—Patent No. 79,265 granted to Christopher L. Sholes and others, for Typewriter.

Elisha Foote, eleventh Commissioner of Patents, August 1, 1868 to April 25, 1869.

ADOPTION OF CIVIL-SERVICE METHODS BY THE PATENT OFFICE

1869

Samuel Sparks Fisher, twelfth Commissioner of Patents, introduces the merit system for selecting appointees to the technical staff of the Patent Office. By requiring candidates to pass rigid competitive examinations, the Patent Office anticipates the civil-service system by a number of years.

April 13.—George Westinghouse, Jr., of Schenectady, N. Y., receives Patent No. 88,929 for an "Improvement in Steam-Power Brake Devices." This is the famous Westinghouse Air Brake, which is to make possible the safe speeding up and lengthening of trains, thus cheapening transportation and enabling the railroads to handle the vast traffic essential to modern industrial civilization.

Commissioner Fisher, on his own initiative, contracts to have 10 copies of each drawing in the Patent Office reproduced by photolithography. The law requires an applicant to furnish one drawing for the use of the Patent Office, but some drawings have been in the Office for 30 years and are almost in tatters due to constant handling.

Fisher then orders all drawings to conform to a uniform standard—to simplify the process of reproduction.

Decisions of the Commissioner of Patents are published.

Since 1869 an annual volume of "Commissioner's Decisions" has been published—containing decisions of the Commissioner and of the courts on matters relating to patent practice.

Samuel Sparks Fisher, twelfth Commissioner of Patents, April 26, 1869 to November 10, 1870.

Commissioner Fisher takes active steps to revise the patent laws and organize Patent Office procedure on sounder lines. As a result of his efforts the important Patent Act of July 1870 is passed.

1870

ACT OF JULY 8

THE MOST IMPORTANT PATENT ACT SINCE 1836

The Act of July 8 consolidates the 25 acts and parts of acts concerning patents passed in the last 34 years, and includes a number of new provisions. The numerous sections of the Act serve to reorganize and revise the patent laws.

Among the more important new provisions in the Act are the following:

Trade-marks.—The Commissioner of Patents is given jurisdiction to register trade-marks and the power to make appropriate rules and regulations concerning them. This is the first law enacted by Congress concerning trade-marks.

Copyrights.—The Librarian of Congress is made custodian of all records and matters concerning copyrights.

Models.—Models are to be furnished, but only when required by the Commissioner.

This was a tremendous aid in simplifying Patent Office procedure. Due to greater technical progress models were in most cases unnecessary—drawings and descriptions were sufficient. The saving in money to applicants was naturally a great advantage. Until about 1830, however, Patent Commissioners continued to require models in many cases.

Appeals.—Appeals from decisions of the Patent Commissioner are to go to the Supreme Court of the District of Columbia sitting as a

body, rather than to individual justices of the court as has been the practice heretofore.

Interferences.—The duties of the Examiner of Interferences are defined, and legal status thus given to an office previously created by the Commissioner.

The Examiner of Interferences determines questions of priority when two inventors apply for a patent for the same invention at the same time.

Other provisions.—The Commissioner of Patents is given the power to make rules and regulations, not inconsistent with law, concerning the conduct of proceedings in the Patent Office—subject to the approval of the Secretary of the Interior.

Authority is granted to the Commissioner to disbar any patent agent from practice for misconduct.

The Commissioner is authorized to print copies of the current issues of patents, and to publish copies of laws, decisions, and rules for the information of the public.

Increases are made in the personnel of the Office and salaries of some of the examiners are raised.

July 12.—John W. Hyatt, Jr., and Isaiah S. Hyatt, of Albany, N. Y., receive Patent No. 105,338 for "Improvements in Treating and Molding Pyroxyline." From this invention springs the great celluloid industry, supplying toilet articles, camera film, and a thousand other articles.

The appropriation for the next fiscal year provides for the appointment of an Assistant Commissioner.

January 11.—Congress orders the discontinuance of the old Patent Office Reports and directs the Commissioner to have copies of patents printed, some for free distribution to libraries and others to be offered for sale to the public. 1871

For the first time printed patent specifications become available to the public at a nominal charge. Hitherto, in order to conduct a search, it had been necessary to study the original drawings and specifications in the Patent Office or have copies made at considerable expense.

December 19.—Mark Twain (Samuel L. Clemens) receives Patent No. 121,992 for "An Improvement in Adjustable and Detachable Straps for Garments." Twain, who later lost a fortune in investing money in the inventions of others, actually took out three United States patents, the second in 1873 on his famous "Mark Twain's Self-Pasting Scrapbook," and the third in 1885 for a game to help players remember important historical dates.

The scrapbook, on which he made a sizable profit, was simply a series of blank pages coated with gum or veneer. Twain's success in selling 25,000 copies during the first royalty period led one of his biographers to remark that this "was well enough for a book that did not contain a single word that critics could praise or condemn."

In his "Connecticut Yankee at King Arthur's Court," Twain's character "Sir Boss" remarked that "a country without a patent office and good patent laws is just a crab and can't travel anyway but sideways and backways."

Gen. Mortimer D. Leggett, thirteenth Commissioner of Patents, January 16, 1871 to October 31, 1874.

1872 *January 3.*—The first number of the Official Gazette of the United States Patent Office is issued. Published weekly thereafter, it has systematically recorded excerpts from patents, the more important decisions concerning Patent Office practice, and related matters.

1873 *January 28.*—Louis Pasteur, of Paris, France, founder of the modern science of bacteriology, receives Patent No. 135,245, for "Improvements in the Process of Making Beer." On July 22 he receives Patent No. 141,072, for "Improvements in the Manufacture and Preservation of Beer and in the Treatment of Yeast and Wort, Together With Apparatus for the Same." These patents involve some of Pasteur's fundamental discoveries.

April 29.—Eli H. Janney, of Alexandria, Va., receives Patent No. 138,405 for "Car Couplings." Janney's automatic car coupler, together with Westinghouse's air brake, makes possible the gigantic railroad industry of the twentieth century. Without the car coupler the toll of railroad accidents would be appalling.

The Appropriation Act of 1873, in its provisions for assistant examiners, states that two of these positions may be held by women.

July 1.—Anna R. G. Nichols, of Melrose, Mass., becomes the first woman patent examiner. (In 1952 there were 33 women examiners in the Patent Office.)

1874

ACT OF JUNE 18

The Patent Office is given charge of the registration of copyrights for prints and labels for articles of manufacture.

November 24.—Joseph F. Glidden, of De Kalb, Ill., receives Patent No. 157,124, for an "Improvement in Wire Fences." His improvement becomes known as barbed wire, and makes possible the cheap and efficient fencing of vast areas of western farm lands, thus saving an immense amount of wood required for other needs.

John Marshall Thacher, fourteenth Commissioner of Patents, November 1, 1874 to September 30, 1875.

1875 The Patent Office staff numbers 351. Of this number 24 are principal examiners, 24 first assistant examiners, 24 second assistant examiners, and 24 third assistant examiners.

Robert Holland Duell, fifteenth Commissioner of Patents, October 1, 1875 to December 31, 1876.

Centennial Exhibition held at Philadelphia. The wonders of the industrial progress of the last century are shown to the public. 1876

March 7.—Alexander Graham Bell, of Salem, Mass., receives Patent No. 174,465 on "Telegraphy." Actually this is the invention in electrical communication known as the telephone.

A Swiss shoe manufacturer and commissioner to the Philadelphia Centennial Exhibition is impressed with the American Patent System. On returning home he tells his countrymen, "We must introduce the patent system. American has shown us how. May our sister republic serve as our model in this." Switzerland subsequently introduces a patent system in 1888. Albert Einstein later becomes an examiner in the Swiss Patent Office.

September 24.—Fire breaks out in part of the Patent Office and destroys many models, but the important records of the Office are saved. 1877

Ellis Spear, sixteenth Commissioner of Patents, January 29, 1877 to October 31, 1878.

February 19.—Thomas A. Edison, of Menlo Park, N. J., receives Patent No. 200,521 for a "Phonograph or Speaking Machine." (During his lifetime Edison received 1,093 patents.) 1878

Gen. Halbert Eleazer Paine, seventeenth Commissioner of Patents, November 1, 1878 to May 6, 1880.

The Supreme Court declares the Trade-mark Law of 1870 unconstitutional, on the ground that the patent provision in the Constitution is not broad enough to cover trade-marks and that the law is not based on the interstate commerce provision in the Constitution. 1879

This year inaugurates one of the greatest decades of invention of all time. The trolley car, the incandescent light, the automobile, the cash register, the dynamo, the pneumatic tire, smokeless powder, transparent film, electrical welding, the cyanide process, the steam turbine, and the electric furnace are all invented or introduced during the next 10 years. 1880

January 27.—Thomas A. Edison, of Menlo Park, N. J., receives Patent No. 223,898 for "An Electric Lamp for Giving Light by Incandescence."

Edgar M. Marble, eighteenth Commissioner of Patents, May 7, 1880 to October 31, 1883.

ACT OF MARCH 3

1881

NEW TRADE-MARK LAW

Provision is made for the registration by the Patent Office of trade-marks used in commerce with foreign nations and with the Indian

- 1898 *June 10.*—Congress authorizes the establishment of a Classification Division to reclassify all patents, foreign patents, scientific publications, etc., to make it easier for the examiners and the public to determine the novelty of an application. This act materially speeds up the work of the Patent Office.
- August 9.*—Rudolf Diesel of Berlin, Germany, receives Patent No. 608,845, for “New and Useful Improvements in Internal-Combustion Engines.”
- August 30.*—Henry Ford, of Detroit, Mich., receives Patent No. 610,040 for “New and Useful Improvements in Carbureters,” “especially designed for use in connection with gas or vapor engines.”
- Charles Holland Duell, twenty-fifth (Commissioner Butterworth's second term being separately counted) Commissioner of Patents February 5, 1898 to March 31, 1901.*
- Charles Holland Duell is the son of Robert Holland Duell, fifteenth Commissioner of Patents.
- 1899 *March 14.*—Ferdinand Zeppelin, of Stuttgart, Germany, receives Patent No. 621,195 for “Improvements in and Relating to Navigable Balloons.”
- 1900 About this time a Japanese commissioner, in Washington to study the American Patent System, states: “We have looked about us to see what nations are the greatest, so that we can be like them * * * We said, ‘What is it that makes the United States such a great nation?’ and we investigated and found that it was patents, and we will have patents.”
- Since 1899 approximately 1 out of every 1,000 patents has been issued to a woman inventor.
- 1901 *November 5.*—Henry Ford, of Detroit, Mich., receives Patent No. 686,016 for “New and Useful Improvements in Motor-Carriages.”
- Frederick James Allen, twenty-sixth Commissioner of Patents, April 1, 1901 to May 31, 1907.*
- 1902 *Patents granted this year, 31,699.*
- 1904 *August 2.*—Michael J. Owens, of Toledo, Ohio, receives Patent No. 766,768 for a “Glass Shaping Machine.” The immense production of glass bottles, jars, etc., owes its inception to this invention.
- 1905 **TRADE-MARK ACT OF FEBRUARY 20**
- TRADE MARKS ACHIEVE A NEW VALUE**
- This act, by authorizing the registration of trade-marks used in interstate commerce (as well as in commerce with foreign nations and with the Indian tribes), becomes of vital importance to American business. Under the protection of this act great industries are built up on the goodwill of a name.
- May 22.*—Orville and Wilbur Wright, of Dayton, Ohio, receive Patent No. 821,393, for certain “New and Useful Improvements in Flying-Machines.” 1906
- Edward Bruce Moore, twenty-seventh Commissioner of Patents, June 1, 1907 to August 14, 1913.* 1907
- Edward Bruce Moore began his career as a Senate page.
- Various changes are made in the Patent Laws. 1908
- December 7.*—Leo H. Baekeland, of Yonkers, N. Y., receives Patent No. 942,809 for “New and Useful Improvements in Condensation Products and Method of Making Same.” Bakelite is the direct result of this invention, and the modern plastics industry—producing thousands of articles for industrial and home use—is greatly indebted to Baekeland’s discoveries. 1909
- Caveats, established by the Act of 1836, are abolished. A caveat was a written notice to the Patent Office from an inventor who was not yet prepared to file his application. It was a sort of “pre-application.” 1910
- August 8.*—Patent No. 1,000,000 is issued. 1911
- Thomas Ewing, twenty-eighth Commissioner of Patents, August 15, 1913 to August 15, 1917.* 1913
- Thomas Ewing is the grandson of Thomas Ewing, first Secretary of the Interior (1849).
- Patents granted this year, 41,850.* 1914
- Various changes are made in the Patent Laws. 1915
- The call to arms and the high salaries paid by private industries cause many members of the Patent Office staff to take up other duties. As a result it soon becomes necessary to dispense with full civil-service requirements in order to induce men to enter the Office. Patent Office salaries remain low while those in private industry reach new heights. 1917
- An Army and Navy Patent Board is organized at the Patent Office to determine the possible military value of new patent applications.
- An Act of Congress gives the Federal Trade Commission, and later the Commissioner of Patents, the power to order kept secret and withhold from publication any invention disclosed in a patent application whose disclosure might “be detrimental to the public safety * * * assist the enemy, or endanger the successful prosecution of the war.”

During the war about 2,100 applications--of which some 1,000 were patentable--were kept secret under these laws.

Thomas Ewing, former Commissioner of Patents, is named Chairman of the Munitions Patent Board of the War and Navy Departments.

The Patent Office Society is formed. Composed principally of members of the examining corps of the Patent Office, its purpose is "to promote and foster a true appreciation of the American Patent System." In 1918 the society begins to publish the Journal of the Patent Office Society, a monthly organ devoted to patent matters, which is still being published.

James T. Newton, twenty-ninth Commissioner of Patents, August 27 1917 to July 19, 1920.

James T. Newton "comes up from the ranks." Entering the Patent Office in 1891, he becomes fourth assistant examiner, third assistant examiner, law clerk, chief clerk, primary examiner, Assistant Commissioner, First Assistant Commissioner, and Examiner-in-Chief prior to his appointment as Commissioner.

1918 The Patent Office is inadequately staffed to handle the immense amount of business which comes in following the Armistice.

1919 One hundred and two patents are issued to John F. O'Connor of Chicago during this year.

Robert Frederick Whitehead, thirtieth Commissioner of Patents, August 10, 1920 to February 5, 1921.

1920 The number of employees of the Patent Office passes 1,000.

1921

ACT OF MARCH 3

The Nolan Act gives foreign inventors desiring United States patents certain benefits in matters regarding time of application, fees, etc., in order to alleviate difficulties caused by the war. The act is reciprocal, granting these benefits only to nationals whose governments give United States citizens similar privileges.

March 1.--Harry Houdini, the magician, receives Patent No. 1,370, 316 for a "Diver's Suit," enabling the wearer "to quickly divest himself of the suit while being submerged and to safely escape and reach the surface of the water." Whether Houdini used this in any of his famous tricks is unfortunately not recorded in the Patent Office.

During the last 15 years approximately 1.5 percent of all United States patents have been issued to women inventors.

Melvin H. Coulston, thirty-first Commissioner of Patents, March 3, 1921 to April 5, 1921.

Thomas E. Robertson, thirty-second Commissioner of Patents, April 6, 1921 to June 25, 1933.

ACT OF FEBRUARY 18

1922

The Commissioner of Patents is given the power to require patent agents and patent attorneys to have certain qualifications before being allowed to practice before the Patent Office. He is also authorized to suspend or disbar such persons for cause.

The salaries of the Commissioner and other officers of the Patent Office are increased, and 49 more positions are created on the technical staff. The fee for filing a patent application is increased from \$15 to \$20.

Other provisions are included.

The Patent Office begins to publish circulars of general information concerning patents, trade-marks, etc.

Some of the Examining Divisions of the Patent Office are moved to the old Land Office Building, which was built on the site of Blodgett's Hotel, one of the earliest homes of the Patent Office. 1923

The Appropriation Act of January 24 allows for 45 additional technical and 40 additional clerical employees.

Congress appropriates \$10,000 for the work of removing some 150,000 old Patent Office models--relics of the days before 1880 when a model was required as part of a patent application. Some are transferred to the United States National Museum (Smithsonian Institution), others are returned to the original inventors or their relatives, and still others are sold at public auction. 1925

April 1.--The Patent Office is transferred to the Department of Commerce by Executive order.

The Patent Office conducts an exhibit at the Philadelphia Sesqui-centennial Exposition. Thousands of visitors see a collection of old Patent Office models and show interest in the patent system. 1926

March 2.--The time for response to Patent Office actions is reduced from one year to six months and the appeal procedure is revised. 1927

Congress passes a special act providing for extending the patents of certain war veterans. Only six mechanical patents are extended. 1928

Patent appeals, which since 1893 have been taken to the Court of Appeals of the District of Columbia, are transferred to the United States Court of Customs and Patent Appeals. This court, in existence for many years as the Court of Customs Appeals, assumes the new duties of hearing patent appeal cases direct from the Patent Office. 1929

The highest number of applications, 94,738 filed this year.

1930 The Patent Office is still a year behind in its work.

ACT OF APRIL 11

Application and issue fees are raised from \$20 to \$25.

One hundred and twenty additional examiners are provided for.

The number of Examiners-in-Chief is raised to nine, and provision is made for another Assistant Commissioner.

Due to the pressure of business, the number of Interference Divisions is increased from one to three.

Other changes are made.

ACT OF MAY 23

PLANTS ARE NOW PATENTABLE

For the first time since 1842, an addition is made to what constitutes patentable subject matter. A patent may now be obtained by anyone "who has invented or discovered and asexually reproduced any distinct and new variety of plant other than a tuber-propagated plant." Designed to help agriculture by stimulating the invention of new types of plants, the act has the approval of such notable men as Luther Burbank and Thomas Edison. Edison, in urging the passage of the bill, had stated that "nothing Congress could do to help farming would be of greater value and permanence than to give the plant breeder the same status as the mechanical and chemical inventors now have through the patent law."

The Department of Agriculture is to help the Patent Office in determining the patentability of a plant. The word "asexual" is included in order to prevent a monopoly on the cereal grains, and the limitation "other than tuber-propagated" to prevent a monopoly on potatoes, etc. No plant already known to the public prior to the passage of the act can be patented.

One supporter of the act states that "the production of a new plant often requires more patience, skill, ingenuity, resourcefulness, knowledge and observation than the making of a mechanical invention."

November 11.—Albert Einstein of Berlin, Germany, receives, with his coinventor, Patent No. 1,781,541 for "An Apparatus for Producing Refrigeration."

1931 As of June 30, the Patent Office has, since 1836, made a total profit of \$5,616,827.78 on its activities. The surplus has been handed directly to the Treasury since 1868.

August 18.—Plant Patent No. 1 is issued to Henry F. Bosenberg, of New Brunswick, N. J., for "a climbing rose * * * characterized by its everblooming habit."

Patents granted this year, 55,103.

Application and issue fees for patents are increased to \$30.

1932

The Patent Office moves to its present home in the Department of Commerce Building, taking up over 8 acres of office space. The task of moving the Patent Office records requires 4 months' time. The old Patent Office building is taken over by the Civil Service Commission.

Conway P. Coe, thirty-third Commissioner of Patents, June 26, 1933– June 15, 1945. 1933

July.—The Secretary of Commerce appoints a Patent Office Advisory Committee to assist him in matters of general policy. Loyd H. Sutton of Washington is the first chairman. The committee members include representatives of industry, general law, and patent law.

Florence E. Allen of Ohio is appointed to the United States Circuit Court of Appeals and becomes the first woman to sit as a judge in patent cases. 1934

In the United States, 1,700 research laboratories are turning out new products and devising new methods of making old ones. Ten years ago there were only about 200 such laboratories.

April 30.—Patent No. 2,000,000 is issued. 1935

June 16.—Design Patent No. 100,000 is issued. 1936

The centennial of the Patent Act of 1836 is celebrated. The Patent Office Society presents the Patent Office with a bronze bust of Thomas Jefferson.

December 7.—Alfred E. Ischinger of Mount Penn, Pa., receives the largest patent heretofore granted by the Patent Office. The patent, on "Uninterrupted Knitting of Shaped Fabrics," includes 170 sheets of drawings and 146 pages of specifications. 1937

July 31.—The registration of copyrights for prints and labels is transferred from the Patent Office to the Library of Congress, effective July 1, 1940. This ends the connection of the Patent Office with copyright matters. 1939

August.—Following the hearings before the Temporary National Economic Committee, when the Commissioner of Patents made various recommendations for changes in the patent laws, five acts designed to expedite the issuance of patents and to simplify the patent laws in certain respects are passed.

One act changed the two year priority period to one year effective August 5, 1940, one year after the date of enactment; one act created a board of interference examiners to decide priority contests; one act authorized the Commissioner of Patents optionally to reduce the time for response to an Office Action to not less than thirty days; and one act abolished renewals and authorized delayed payment of a final fee.

relations with these countries. Nationals of Germany and Japan are also permitted to obtain patents in this country, but qualified to exclude inventions made during the war period.

Lawrence C. Kingsland, thirty-fifth Commissioner of Patents, September 10, 1947 to December 1, 1949.

1948 *June 30.*—Total number of patent applications pending in the Patent Office reaches 233,000, of which 148,000 are awaiting action by the examiner. The Office is far behind in its work, many of the examining divisions being over two years behind in reaching an application for action.

Recruiting of additional staff continues, the number of assistant examiners is brought up to 780 by the end of the year and the total personnel to 1970.

1949 *March 1.*—New Patent Office Rules of Practice take effect. For the first time in over fifty years the rules of practice of the Patent Office have been completely revised. A committee of Patent Office employees produced a draft which was published and the comments and suggestions of the public invited. A public hearing was held in September 1948 and the new rules were promulgated on December 31. Besides changing the arrangement and language of the rules to make them easier to understand, a number of changes in procedure were introduced.

John A. Marshall, thirty-sixth Commissioner of Patents, December 2, 1949 to—

1950 *March 7.*—Patent No. 2,500,000 is issued (to Francis M. Lambert of Narberth, Pa., for a mechanism particularly applicable for use on watertight doors in modern ship construction).

June 30.—An act providing for the extension of the term of patents of veterans of World War II is passed. Under this act, which allowed one year to apply for an extension, 107 patents were extended.

Great progress is made in reducing the number of cases on hand and making the Office more current. At the beginning of the year, 5 of the examining divisions were still over two years behind and 44 of the 70 divisions were over fifteen months behind. At the end of the year not one examining division is over thirteen months behind. At the beginning of the year there were 135,000 applications on hand waiting action by the examiners, which number was reduced to 121,000 at the end of the year.

1951 Progress in catching up on the work continues. All examining divisions are not over 10 months behind in reaching cases for action and the number of applications awaiting action by the examiners is 105,900.

Patents granted this year, 48,719.

1952 *July 19.*—President Truman signs a new act revising and codifying the patent laws. For the first time since 1870, the patent laws are

completely rewritten in one act with changes in arrangement and language making the law comparatively easier to understand; many changes in procedure and substance, primarily of noncontroversial nature, are also made. In January 1950, the Committee on the Judiciary of the House of Representatives published a preliminary draft of a proposed revision of the patent laws, requesting suggestions and comments. This was widely circulated and a bill, formulated after consideration of the response by the public, was introduced July 17. This bill in turn was widely circulated and reintroduced in revised form April 18, 1951. Public hearings were held in June as a result of which the bill was further revised before being enacted. The new law came into effect on January 1, 1953.

Despite some loss of staff, gains on the arrearages continued. The number of applications on hand at the end of the year is 95,000 and no division is over 9 months behind.

December 31.—Up to this time the Patent Office has issued 2,624,045 patents (plus 9,957 before July 4, 1836); 168,526 design patents; and 1,159 plant patents; and has registered 513,424 trade-marks.

APPLICATIONS FILED AND PATENTS ISSUED SINCE 1790

PATENTS GRANTED FROM 1790 TO 1836

[Calendar Years]		[Calendar Years]	
Year	Patents	Year	Patents
1790	3	1814	210
1791	33	1815	173
1792	11	1816	206
1793	20	1817	174
1794	22	1818	222
1795	12	1819	156
1796	44	1820	155
1797	51	1821	168
1798	28	1822	200
1799	44	1823	173
1800	41	1824	228
1801	44	1825	304
1802	65	1826	323
1803	97	1827	331
1804	84	1828	368
1805	57	1829	447
1806	63	1830	544
1807	99	1831	573
1808	158	1832	474
1809	203	1833	586
1810	223	1834	630
1811	215	1835	752
1812	238	1836	599
1813	181		

APPLICATIONS AND PATENTS, 1836 TO 1952—Continued

Year	Total applications	Patents			
		Inventions	Designs	Reissues	Total
1919	80,638	36,872	1,523	203	38,598
1920	86,893	37,164	2,485	233	39,882
1921	93,395	37,885	3,277	239	41,401
1922	89,028	38,414	1,627	256	40,297
1923	80,653	38,634	1,927	226	40,787
1924	80,888	42,594	2,671	235	45,500
1925	84,627	46,450	2,824	266	49,540
1926	86,116	44,750	2,602	275	47,627
1927	92,122	41,731	2,387	326	44,444
1928	92,725	42,376	3,188	335	45,899
1929	94,738	45,284	2,907	374	48,565
1930	94,203	45,243	2,712	367	48,322

Year	Total applications	Patents				
		Inventions	Plant	Design	Reissues	Total
1931	81,423	51,766	5	2,937	395	55,103
1932	71,861	53,473	46	2,944	393	56,856
1933	69,633	48,786	33	2,411	333	51,563
1934	61,572	44,429	32	2,921	371	47,753
1935	64,369	40,638	45	3,866	395	44,944
1936	69,585	39,793	49	4,556	422	44,820
1937	72,984	37,695	55	5,137	384	43,271
1938	75,429	38,076	41	5,027	349	43,493
1939	71,689	43,090	45	5,593	352	49,080
1940	69,857	42,248	85	6,145	372	48,850
1941	59,901	41,122	62	6,486	309	47,979
1942	50,057	38,467	65	3,728	250	42,510
1943	48,724	31,074	47	2,229	173	33,523
1944	59,472	28,073	38	2,916	170	31,197
1945	76,119	25,702	17	3,524	121	29,364
1946	91,972	21,819	56	2,779	121	24,775
1947	83,313	20,149	52	2,102	130	22,433
1948	75,952	23,973	44	3,968	111	28,096
1949	74,810	35,147	93	4,451	118	39,809
1950	74,295	43,072	90	4,718	129	48,009
1951	63,999	44,363	58	4,164	134	48,719
1952	68,381	43,667	101	2,959	163	46,890

Brief Answers to Common Questions About Patents

- Q. What is a patent?
A. A patent is a grant issued by the United States Government giving an inventor the right to exclude all others from making, using, or selling his invention within the United States, its territories and possessions.
- Q. What is the term of a patent?
A. Seventeen years; except for design patents, the terms of which are either 3½, 7, or 14 years.
- Q. May the term of a patent be extended?
A. No; except by special act of Congress.
- Q. After a patent has expired, may anyone make, use, or sell the device which was patented without the permission of the patentee?
A. Yes.
- Q. On what subject matter may a patent be granted?
A. A patent may be granted on any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, or on any distinct and new variety of plant, other than a tuber-propagated plant, which is asexually reproduced, or on any new, original, and ornamental design for an article of manufacture.
- Q. On what subject matter may a patent not be granted?
A. A patent may not be granted on a useless device, on printed matter, on a method of doing business, on an improvement in a device which is the result of mere mechanical skill, nor for a machine which will not operate, particularly for any alleged perpetual motion machine.
- Q. Is an idea patentable?
A. No patent is granted on a mere idea or suggestion.
- Q. Who may obtain a patent?
A. Anyone, as long as he is the inventor. There are no restrictions as to age or sex.
- Q. May a foreign citizen obtain a United States patent?
A. Yes; under exactly the same conditions as a United States citizen.
- Q. If two or more men work together to produce an invention who obtains the patent?
A. A patent is issued to them jointly.
- Q. May a patent be granted if an inventor dies before filing his application?
A. Yes; the application may be filed by the inventor's executor or administrator.
- Q. How does one apply for a patent?
A. By making the proper application to the Commissioner of Patents.
- Q. Of what does a patent application consist?
A. An application fee, a petition, specifications describing the invention, an oath, and in most cases a drawing. Before the patent is issued a final fee must also be paid.

- Q. Are models required as part of the application?
 A. Only in the most exceptional cases. The Patent Office has the right to demand a model, but rarely exercises it.
- Q. What is the best way to prepare an application?
 A. As the preparation and prosecution of an application is a highly complex proceeding it generally cannot be conducted properly *except* by an attorney trained in this specialized practice. The Patent Office therefore advises inventors to employ a competent patent attorney or agent who is registered in the Patent Office. No attorney or agent not registered in the Patent Office may prosecute applications.
- Q. Is it necessary to go to the Patent Office in Washington to transact business concerning patent matters?
 A. No; in general all business with the Patent Office is conducted by correspondence.
- Q. Can the Patent Office give advice as to whether an inventor should apply for a patent?
 A. No; the Patent Office can give no assistance until a case comes regularly before it in the manner prescribed by law.
- Q. Is it advisable to conduct a search of patents and other records before applying for a patent?
 A. Yes; if it is found that the device is shown in some prior patent it is useless to make application. By making a search beforehand the expense involved in filing a needless application is often saved.
- Q. Where may a search be conducted?
 A. The Patent Office has available for use of the public classified and numerically arranged sets of United States patents and also patents of practically every foreign country. Also many large libraries in the United States and abroad have bound volumes of United States patents. In addition, the Patent Office has available copies of over 2 and a half million United States patents which are sold to the public for 25 cents each. In the last fiscal year over 4,000,000 copies were sold.
- Q. May applications be examined out of their regular order?
 A. No; all applications are examined in the order in which they are filed, except under certain very special conditions.
- Q. Is information given about applications pending in the Patent Office?
 A. No; pending applications are preserved in secrecy.
- Q. What happens when two inventors apply for a patent for the same invention?
 A. An "interference" is declared. Testimony may be submitted by each applicant and the Patent Office decides which one made the invention first (not which one made the application first) and grants him the patent.
- Q. What may be done if a patent examiner refuses to grant a patent?
 A. The inventor may take his case to the Board of Appeals (within the Patent Office), and from there to the Court of Customs and Patent Appeals or to the United States District Court for the District of Columbia. From the latter court he may appeal to the Court of Appeals for the District of Columbia.
- Q. Does the Patent Office retain jurisdiction over a patent after it has been issued?
 A. No; any questions arising about the scope or validity of a patent after it has been issued come within the jurisdiction of the United States courts.
- Q. May the owner of a patent assign his interest or part of his interest in it to someone else?
 A. Yes.

- Q. What do the terms "patent pending" and "patent applied for" mean?
 A. They inform the public that an application has been filed in the Patent Office, but they have no effect in law.
- Q. Does a United States patent give protection in foreign countries?
 A. No; a patent must be obtained in each country where protection is desired.
- Q. How does one obtain information as to patent applications, fees, and other details concerning patents?
 A. By writing the Commissioner of Patents, Washington 25, D. C. The Patent Office will send free, on request, a pamphlet entitled "General Information Concerning Patents."