

PATENTS FOR SEVENTEEN YEARS.



The new Patent Laws enacted by Congress on the 2d of March, 1861, are now in full force, and prove to be of great benefit to all parties who are concerned in new inventions.

The duration of patents granted under the new act is prolonged to SEVENTEEN years, and the government fee required on filing an application for a patent is reduced from \$30 down to \$15. Other changes the fees are also made as follows:—

On filing each Caveat.....	\$10
On filing each application for a Patent, except for a design.....	\$15
On issuing each original Patent.....	\$20
On appeal to Commissioner of Patents.....	\$20
On application for Re-issue.....	\$30
On application for Extension of Patent.....	\$50
On granting the Extension.....	\$50
On filing Disclaimer.....	\$10
On filing application for Design, three and a half years.....	\$10
On filing application for Design, seven years.....	\$15
On filing application for Design, fourteen years.....	\$30

The law abolishes discrimination in fees required of foreigners, excepting reference to such countries as discriminate against citizens of the United States—thus allowing English, French, Belgian, Austrian, Russian, Spanish, and all other foreigners except the Canadians, to enjoy all the privileges of our patent system (except in cases of designs) on the above terms.

During the last sixteen years, the business of procuring Patents for new inventions in the United States and all foreign countries has been conducted by Messrs. MUNN & CO., in connection with the publication of the SCIENTIFIC AMERICAN; and as an evidence of the confidence reposed in our Agency by the Inventors throughout the country, we would state that we have acted as agents for more than FIFTEEN THOUSAND Inventors! In fact, the publishers of this paper have become identified with the whole brotherhood of Inventors and Patentees at home and abroad. Thousands of Inventors for whom we have taken out Patents have addressed to us most flattering testimonials for the services we have rendered them, and the wealth which has inured to the Inventors whose Patents were secured through this Office, and afterward illustrated in the SCIENTIFIC AMERICAN, would amount to many millions of dollars! We would state that we never had a more efficient corps of Draughtsmen and Specification Writers than are employed at present in our extensive Offices, and we are prepared to attend to Patent business of all kinds in the quickest time and on the most liberal terms.

The Examination of Inventions.

Persons having conceived an idea which they think may be patentable, are advised to make a sketch or model of their invention, and submit to us, with a full description, for advice. The points of novelty are carefully examined, and a reply written corresponding with the facts, free of charge. Address MUNN & CO., No. 37 Park-row, New York.

**Preliminary Examinations at the Patent Office.**  
The advice we render gratuitously upon examining an invention does not extend to a search at the Patent Office, to see if a like invention has been presented there, but is an opinion based upon what knowledge we may acquire of a similar invention from the records in our Home Office. But for a fee of \$5, accompanied with a model or drawing and description, we have a special search made at the United States Patent Office, and a report setting forth the prospects of obtaining a Patent &c., made up and mailed to the Inventor, with a pamphlet, giving instructions for further proceedings. These preliminary examinations are made through our Branch Office, corner of F and Seventh-streets, Washington, by experienced and competent persons. More than 5,000 such examinations have been made through this office during the past three years. Address MUNN & CO., No. 37 Park-row, N. Y.

How to Make an Application for a Patent.

Every applicant for a Patent must furnish a model of his invention if susceptible of one; or if the invention is a chemical production, he must furnish samples of the ingredients of which his composition consists, for the Patent Office. These should be securely packed, the inventor's name marked on them, and sent, with the government fees by express. The express charge should be prepaid. Small models from a distance can often be sent cheaper by mail. The safest way to remit money is by draft on New York, payable to the order of Munn & Co. Persons who live in remote parts of the country can usually purchase drafts from their merchants on their New York correspondents; but, if not convenient to do so, there is but little risk in sending bank bills by mail, having the letter registered by the postmaster. Address MUNN & Co., No. 37 Park-row, New York.

Caveats.

Persons desiring to file a Caveat can have the papers prepared in the shortest time by sending a sketch and description of the invention. The government fee for a Caveat, under the new law, is \$10. A pamphlet of advice regarding applications for Patents and Caveats, in English and German, furnished gratis on application by mail. Address MUNN & CO., No. 37 Park-row, New York.

Foreign Patents.

We are very extensively engaged in the preparation and securing of Patents in the various European countries. For the transaction of this business, we have offices at Nos. 66 Chancery-lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels. We think we can safely say that THREE-FOURTHS of all the European Patents secured to American citizens are procured through our Agency.

Inventors will do well to bear in mind that the English law does not limit the issue of Patents to Inventors. Any one can take out a Patent there.

Circulars of information concerning the proper course to be pursued in obtaining Patents in foreign countries through our Agency, the requirements of different Patent Offices, &c., may be had gratis upon application at our principal office No 37 Park-row, New York, or either of our Branch Offices.

Rejected Applications.

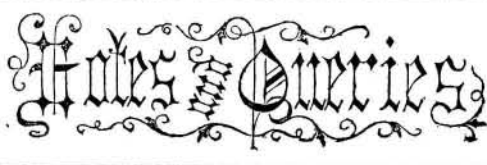
We are prepared to undertake the investigation and prosecution of rejected cases, on reasonable terms. The close proximity of our Washington Agency to the Patent Office affords us rare opportunities for the examination and comparison of references, models, drawings, documents, &c. Our success in the prosecution of rejected cases has been very great. The principal portion of our charge is generally left dependent upon the final result.

All persons having rejected cases which they desire to have prosecuted are invited to correspond with us on the subject, giving a brief story of the case, inclosing the official letters, &c.

Assignments of Patents.

The assignment of Patents, and agreements between Patentees and manufacturers, carefully prepared and placed upon the records at the Patent Office. Address MUNN & CO., at the Scientific American Patent Agency, No. 37 Park-row, New York.

It would require many columns to detail all the ways in which the Inventor or Patentee may be served at our offices. We cordially invite all who have anything to do with Patent property or inventions to call at our extensive offices, No. 37 Park-row, New York, where any questions regarding the rights of Patentees, will be cheerfully answered. Communications and remittances by mail, and models by express (prepaid), should be addressed to MUNN & CO., No. 37 Park-row, New York.



**P. S. & Co., of Ohio.**—You generate steam in a boiler and raise the pressure to 110 pounds to the square inch. You wish to take steam from this boiler into a vessel which will bear safely only 50 pounds to the square inch, and you propose to introduce a check valve in the pipe which leads from the boiler to the vessel, loading the valve 60 pounds to the square inch. We see no reason why this plan should not work; of course you will have a safety valve in the vessel to allow of the escape of any steam which might leak past the check valve.

**J. W., of Ohio.**—We rank ourselves among the admirers of Bacon, still, in reading the "Novum Organum" the idea with which we were most impressed was the improvement in the method since his day.

**S. W. W., of Iowa.**—The sun being larger than the aperture in the window, each point in the area of the aperture corresponds to the minute opening in the camera obscura, forming an image of the sun; and these images are so nearly superposed one over the other that the resulting figure is circular.

**H. I. W., of N. Y.**—Cream of tartar is obtained from the settlements of wine in the inside of wine casks. The crude tartar separates from the wine and adheres to the sides of the cask in the form of a dark-brown scale called argol, resembling sandstone. It is afterward purified, decolorized and converted into cream of tartar.

**C. C., of N. H.**—It is impossible for us to judge of the patentability of your several inventions without a description and drawing of them. You are certainly experimenting in a good line of invention. You had better send us for a circular of information, and at the same time be preparing models of the different inventions.

**L. C., of Mass.**—An extension for a patent must be applied for by the original patentee if he is living. The assignees under the first term of the patent have no rights under the extension.

**J. C. P., of Ohio.**—The idea of a steam battery to operate on common highways and railroads has been suggested to us a number of times. Your mode of constructing such a battery may be new but the idea is not.

**R. S., of Conn.**—You can stain both brass and copper and render them nearly black with a strong solution of nitrate of silver containing a little free acid to bite into the metal. Wash the copper or brass, after the stain is obtained, with a little dilute ammonia to neutralize the free nitric acid.

**J. W., of N. J.**—We have never been able to obtain the account of any set of experiments made with springs to test their power according to their thickness, breadth, temper and shape. We hope you will make a careful and extended set of experiments and present the results of your labors to the public for the benefit of science.

**R. W. T., of Pa.**—The water blower consists of a shower of water falling within a vertical cylinder or case, with holes in its sides. The water carries a current of air down with it, which is expelled through a nozzle near the bottom of the cylinder. It has been used for the blast of a forge.

**K. T. B., of Mass.**—One cubic foot of ideal steam weighs 0.050220. This is calculated from the known weights of hydrogen and oxygen. One cubic foot of hydrogen weighs 0.005592; half a cubic foot of oxygen weighs 0.044628. These two combine together, collapse and form one cubic foot of steam.

**J. J. R., of N. Y.**—High pressure steam is certainly the most economical to use. We advise to use as high pressure steam as your boiler will stand. Be sure and get a strong boiler.

**E. S., of N. J.**—You will find just the articles you want on the spectroscopy and spectrum analysis on pages 292, 298 and 299, Vol. V. (new series) SCIENTIFIC AMERICAN. Kirchhoff has recently published a work on the subject which has been translated in England. It could probably be had through Balliere Brothers, of this city. Wells's "Annual of Scientific Discovery" is published by Gould & Lincoln, of Boston. The price we presume is about one dollar.

**H. W., of N. Y.**—The product of the speed of a machine per minute and the resistance in pounds is the rate of its work per minute in foot-pounds, and so on for an hour. It is usual to express the speed of machines in feet per minute, such as 330 pounds lifted 100 feet per minute is a horse power. The rate of work of a machine means the quantity of work which it performs in a given interval of time. The unit of a horse power is 33,000 foot-pounds per minute. The horse power of an engine in France is 4,500 kilogrammes per minute or 32,549 foot-pounds.

**Z. Van K., of Wis.**—You will find an illustrated description of a hard india-rubber Boehm flute on page 284, Vol. I. (new series) SCIENTIFIC AMERICAN. The peculiarity of this flute consists in its having keys for stopping all the holes, instead of having some holes open and others closed with keys, as in the common flute.

**G. H., of N. Y.**—A suit on a patent must be brought in a United States court; State courts have no jurisdiction over patent cases.

**W. McK., of C. W.**—All steel tools are liable to become temporarily magnetized, if the atmosphere is very dry, when they are rubbed upon steel surfaces. They will also become permanently magnetized when rubbed in the right direction upon permanent magnets.

Money Received

At the Scientific American Office on account of Patent Office business, from Wednesday, Aug. 28, to Wednesday, Sept. 3. Persons having remitted money to this office will please to examine this list to see that their initials appear in it, and if they have not received an acknowledgment by mail, and their initials are not to be found in this list, they will please notify us immediately, and inform us the amount, and how it was sent, whether by mail or express.

A. L. F., of N. Y., \$15; D. M. A., of Me., \$50; L. D. B., of N. J., \$25; J. A., of Pa., \$25; G. T., of Mass., \$15; J. A. P., of N. Y., \$43; L. K., of Mass., \$15; T. H. R., of N. J., \$15; C. L. R., of Wis., \$15; W. F., of Mich., \$25; H. B. M., of N. Y., \$25; G. C., of Mich., \$40; D. R. W., of Iowa, \$15; I. B., of Ky., \$28; T. R., of N. Y., \$40; N. P., of N. Y., \$15; G. M. C., of Me., \$15; W. P. B., of Mich., \$30; Z. G. H., of Iowa, \$25; J. N., of England, \$40; J. M. D., of N. Y., \$15; N. R., of N. Y., \$15; I. D., of Mo., \$25; W. F., of R. I., \$15; M. G., of Pa., \$15; E. D., of Mass., \$12; M. I. H., of Ill., \$10; H. S., of Pa., \$25; T. H., of N. Y., \$15; J. S., of Pa., \$15; J. L., of Iowa, \$40; J. W., of Ky., \$10; J. D. W., of N. Y., \$15; T. & R., of Wis., \$25; J. A. O., of N. Y., \$30; R. M., of N. Y., \$20; J. McK., of N. Y., \$20; A. C., of N. Y., \$20; A. R., of N. Y., \$45; J. A. P., of N. Y., \$20; C. H. P., of N. Y., \$20; J. B., of Ill., \$20; J. McK., of Ohio, \$40; B. R., of Mass., \$40.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from August 28 to Wednesday, September 3, 1862:—

H. B. M., of N. Y.; Z. G. H., of Iowa; W. F., of Mich.; J. B., of Ky.; W. P. B., of Mich.; L. D. B., of N. J.; D. M. A., of Me.; J. A., of Pa.; E. D., of Mass.; C. E. S., of Wis.; J. N., of England; T. R., of N. Y.; H. I. H., of Ill.; H. S., of Pa.; I. D., of Mo.; J. A. O., of N. Y.; T. & R., of Wis.; J. McK., of N. Y.; J. McK., of Ohio.

Back Numbers and Volumes of the Scientific American.

VOLUMES I., II., III., IV., V., VI. (NEW SERIES) COMPLETE (bound or unbound) may be had at this office and from all periodical dealers. Price, bound, \$1 50 per volume, by mail, \$2—which include postage. Price, in sheets, \$1. Every mechanic, inventor or artisan in the United States should have a complete set of this publication for reference. Subscribers should not fail to preserve their numbers for binding. Numbers 3, 4, 6, 8, 9, 10, 11, 12 and 15, of Vol. VI. are out of print and cannot be supplied.

Binding.

We are prepared to bind volumes in handsome covers, with illuminated sides, and to furnish covers for other binders. Price for binding, 50 cents. Price for covers, by mail, 50 cents; by express, or delivered at the office, 40 cents.

TO OUR READERS.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given; but when subscribers remit their money by mail, they may consider the arrival of the first paper a bona fide acknowledgment of our reception of their funds.

INVARIABLE RULE.—It is an established rule of this office to stop sending the paper when the time for which it was pre-paid has expired.

Models are required to accompany applications for Patents under the new law, the same as formerly, except on design patents when two good drawings are all that is required to accompany the petition, specification and oath, except the government fee.

PATENT CLAIMS.—Persons desiring the claim of any invention which has been patented within thirty years, can obtain a copy by addressing a note to this office, stating the name of the patentee and date of patent, when known, and inclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1853, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

NEW PAMPHLETS IN GERMAN.—We have just issued a revised edition of our pamphlet of Instructions to Inventors, containing a digest of the fees required under the new Patent Law, &c., printed in the German language, which persons can have gratis upon application at this office. Address MUNN & CO., No. 37 Park-row, New York.

THE CHEAPEST MODE OF INTRODUCING INVENTIONS.

INVENTORS AND CONSTRUCTORS OF NEW AND useful Contrivances or Machines, of whatever kind, can have their Inventions illustrated and described in the columns of the SCIENTIFIC AMERICAN on payment of a reasonable charge for the engraving.

No charge is made for the publication, and the cuts are furnished to the party for whom they are executed as soon as they have been used. We wish it understood, however, that no secondhand or poor engravings, such as patentees often get executed by inexperienced artists for printing circulars and handbills from, can be admitted into these pages. We also reserve the right to accept or reject such subjects as are presented for publication. And it is not our desire to receive orders for engraving and publishing any but good Inventions or Machines, and such as do not meet our approbation in this respect, we shall decline to publish.

For further particulars, address—

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