

PATENTS FOR SEVENTEEN YEARS.



The new Patent Laws enacted by Congress on the 2d of March, 1861, are now in full force, and proved 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 in 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.....	\$30
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 it 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. Anyone 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 history 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.



S. W., of Ill.—We understand that the rifles used by Berdan's sharpshooters, were made by Mr. James, the well-known rifle maker at Utica, N. Y.

C. H. R., of Iowa.—A patent could not be obtained for the use of cast iron in the manufacture of slabs and monuments for grave stones. The idea has been frequently suggested to us.

G. W. M., of Pa.—Nature has provided many ways for scattering the seeds of plants, and among them is the attachment to each seed of certain plants, of a wing or fiber by which they may be wafted by the wind. This is called by botanists the ala. The great value of the ala of the cotton plant is due to its extraordinary strength. Since the discussion of providing some substitute for cotton, we have received specimens of the ala of many plants, but all deficient in the essential quality of strength. The sample that you send is from the cottonwood, or *populus canadensis*, and the fiber is as weak as any that we have ever seen.

P. S., of Ind.—No newspapers hold themselves responsible for the assertions of advertisers.

J. P., of Wis.—It seems to us a very poor time to advocate universal peace. Wait till the nations are somewhat wearied with war.

J. K., of Del.—A stand of arms consists of a musket with the usual appendages, bayonet, cartridge box, &c.

B. T., of R. I.—Some bomb shells burst into a hundred pieces, while others break into but few.

A. L. L., of Va.—The American Rifle was formerly sold by Messrs. Appleton and Co. of this city. If you cannot procure it of them we know not where it can be obtained.

J. M. H., of N. Y.—We do not know of any parties engaged in the mackerel fishery, but we presume you could ascertain by addressing the post-master at Gloucester, Mass. We copied the paragraph to which you allude from some Eastern paper, without knowing anything personally about the facts.

J. A. C., of C. W.—An electro-magnet, if its iron is very pure and soft, will not retain one-fourth of its induced magnetism after the circuit is broken. A counter current of electricity in a coil, if it is of sufficient power, will nullify the induced magnetism of a magnet.

F. A. H., of D. C.—Do not use tar for cementing the bottom of your aquarium. Pitch is about the best substance you can use. Allow it to stand for several days full of water, then remove the old and put in clean water before you put in your fish, &c.

L. J., of Mass.—There is no published work on cotton manufactures and cotton machinery, which comes up to the practice of the present day.

D. B. D., of Iowa.—Various remedies have been recommended for the bite of rattle snakes, but we cannot personally endorse the virtue of any one of them. In Ceylon and the East Indies, where the venom of serpents is very fatal, incision and cutting out of the affected part and the application of a hot iron to it, is considered the only probable safe mode of treating snake wounds. In various parts of our own country, persons who are bitten by snakes are treated with copious supplies of whisky until they become drunk, and at the same time an infusion of tobacco and whisky is applied to the wounds. In many cases this treatment is said to be successful. An infusion of snake root taken inwardly, and also applied to the wound, is said to be a cure for the bite of copper heads and rattle snakes.

J. R. G., of Ky.—An enamel of porcelain on large iron sugar rollers, would prevent the cane juice from acting on the metal, but it would perhaps cost too much for your purpose to enamel the rollers you intend to use for crushing cane. We are not acquainted with any cheap cement that will answer the same purpose.

W. H. G., of N. Y.—Modern steel is neither inferior in strength, tenacity, nor temper to ancient steel. It is a well-known fact, however, that steel improves in ductility by keeping it lying in a fixed position for a year or two after it is made. Damascus steel has a high reputation, but it is somewhat scarce. Hussey, Wells & Co., of Pittsburgh, Pa., manufacture good steel, but most of the first quality used by our manufacturers of cutlery, is made in Sheffield, England.

H. G., of Pa.—The pressure of the atmosphere is about 15 lbs. to the square inch. If you compress into a vessel of the capacity of 12 cubic feet, a quantity of air which would be equal to 36

cubic feet, under the ordinary pressure, its pressure, after being compressed, will be 45 lbs. to the square inch, or 30 lbs. above the atmospheric pressure, and if you force 72 cubic feet of air into your vessel, the pressure will be 90 lbs., or 75 lbs. above the atmospheric pressure, &c. From this explanation it will be easy for you to calculate the power of the compressed air. The atmospheric air is one of those gases which do not condense into the liquid state under the heaviest pressure to which the same has been exposed.

H. F., of Bogota.—We do not think the Patent Office will allow a patent for your method of removing freckles from the skin, neither do we know of any one who would purchase it. You had better keep the secret until you are prepared to exhibit to our community the efficacy of your discovery. You might then dispose of it.

J. R. J., of Mass.—The pressure per square inch in a steam boiler is found by the following rule, when the weight, length of lever, diameter and weight of valve, are given: Multiply the number of pounds of the weight by the number expressing the proportion between the distance of the weight and that of the valve stem from the fulcrum, add the weight of lever, taken at the point where the weight is suspended and the weight of valve, all expressed in pounds, divide by the area of valve in square inches, and the result is the pressure of the steam in lbs. to the square inch.

R. S. L., of Ohio.—The quantity of water, in pounds, falling in one minute, multiplied into the perpendicular height of your fall, and divided by 33,000, will give you its horse power, from which it is common to deduct one-third for friction leakage, &c. The water acts upon an overshot wheel by its gravity. If you multiply the area of your open pipe by the square root of its depth in feet, and by 200, it will give the cubic feet of water discharged per minute.

J. H. F., of Kansas.—If you wish to keep steam up in your boiler at a working pressure all night, to start your engine in the morning without kindling a fire, of course you must expect your boiler to wear out somewhat faster than otherwise. We prefer to use a damper in the smoke pipe so as to keep a low fire always under the boiler at night.

J. R. B., of N. J.—Dry loam or charcoal dust is superior to lime for spreading on the floor of a hen house. Old india-rubber shoes may be patched by the use of warm india-rubber cement, and patches of old rubber laid on and pressed down with a flat iron.

SPECIAL NOTICE—FOREIGN PATENT.—The population of Great Britain, is 30,000,000; of France, 35,000,000; Belgium, 5,000,000, Austria, 40,000,000; Prussia, 20,000,000; and Russia, 60,000,000. Patents may be secured by American citizens in all of these countries. Now is the time, while business is dull at home, to take advantage of these immense foreign fields. Mechanical improvements of all kinds are always in demand in Europe. There will never be a better time than the present to take patents abroad. We have reliable business connections with the principal capitals of Europe. Nearly all of the patents secured in foreign countries by Americans are obtained through our agency. Address Munn & Co., 37 Park row, New York. Circulars about foreign patents furnished free.

Money Received

At the Scientific American Office on account of Patent Office business, during one week preceding Wednesday, June 25, 1862:—

- M. C., of France, \$15; J. B. W., of Mass., \$25; W. J., of Wis., \$15;
- E. J. C., of Ill., \$30; J. A. A., of Conn., \$25; J. F. T., of Mass., \$25;
- R. A. G., of Wis., \$50; L. B. F., of Mass., \$15; O. L. B., of Mass., \$15;
- T. & B., of N. Y., \$30; G. & C., of Conn., \$15; C. & P., of Mass., \$25;
- E. S., of Mich., \$20; A. T. P., of N. Y., \$15; J. G. E., of Pa., \$25; R. T. C., of Ill., \$25; J. H., of N. J., \$15; A. C. G., of N. Y., \$15; A. J. H., of Pa., \$35; W. H. R., of N. Y., \$100; S. & H., of N. Y., \$65; G. M. M., of Pa., \$15; J. K., of N. Y., \$15; C. L. G., of Conn., \$25; R. H. G., of Ill., \$15; H. H., of Mass., \$30; A. J., of Conn., \$15; W. M. D., of N. Y., \$25; H. W., of N. J., \$15; H. & F., of Conn., \$25; R. K., of N. Y., \$25; J. W. B., of N. Y., \$15; P. D., of Minn., \$10; G. W. H., of Ill., \$10; H. N. H., of Vt., \$25; S. B. W., of Ohio, \$15; D. L., of Pa., \$30; L. L., of Cal., \$30; J. N. P., of N. Y., \$15; W. H. F., of Mass., \$25; H. S., of Pa., \$10; S. E. P., of Mass., \$15; P. & G., of N. Y., \$15;
- A. & S., of Pa., \$30; H. M., of Mass., \$10; S. & P., of Ill., \$15; E. P. B., of Mich., \$20; C. G. A., of Mass., \$15; M. R., of Mo., \$15; A. R., of Iowa, \$43; H. W., of Cal., \$15; J. W. W., of Mich., \$15; C. C. M., of N. Y., \$25; L. F. D., of N. Y., \$10; I. D. R., of N. Y., \$40; W. S., of N. Y., \$25; J. W. S., of N. Y., \$25; P. A. S., of N. Y., \$25; A. S., of N. Y., \$25; D. L. B., of N. Y., \$25; J. E. T., of N. Y., \$25; W. P., of Md., \$20; J. A. B., of Mass., \$20; B. F. H., of N. H., \$20; A. A. D., of N. J., \$45; E. D. W., of N. Y., \$22; B. B. B., of Nevada Ter., \$10; J. L. McP., of Cal., \$15; L. S. A., of N. Y., \$20; G. E. H., of N. Y., \$20; J. A. F., of Ohio, \$20; N. C. S., of Conn., \$20; D. H., of N. H., \$45; J. C. M., of Ill., \$20; J. A. W., of N. Y., \$45.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from June 18 to Wednesday, June 25, 1862:—

- J. E. T., of N. Y.; E. S., of Mich.; D. L. B., of N. Y.; R. T. C., of Ill.; J. G. E., of Pa.; A. S., of N. Y.; C. E. P., of Mo.; C. L. G., of Conn.; P. A. S., of N. Y.; A. L., of Pa.; E. J. C., of Ill.; W. J., of Wis.; J. F. T., of Mass.; J. A. A., of Conn.; J. B. W., of Mass.; G. & C., of Conn.; P. M., of France (2 cases); W. M. D., of N. Y.; J. W. S., of N. Y.; W. S., of N. Y.; A. R., of Iowa (2 cases); C. C. M., of N. Y.; H. & F., of Conn.; P. D., of Minn.; R. K., of N. Y.; E. F. B., of Mich.; H. N. H., of Vt.; G. W. H., of Ill.; E. D. W., of N. Y.; B. B. B., of Nevada Ter.; I. D. R., of N. Y.; T. E., of England; B. T. B., of N. Y.

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MESSRS. MUNN & CO., PROPRIETORS OF THE SCIENTIFIC AMERICAN, continue to solicit patents in the United States and all foreign countries.



They also attend to various other departments of business pertaining to patents, such as Extensions, Appeals before the United States Courts.

They are very extensively engaged in the preparation and securing of Patents in the various European countries.

They are very extensively engaged in the preparation and securing of Patents in the various European countries.

A pamphlet of information concerning the proper course to be pursued in obtaining Patents through their Agency.

The annexed letters from former Commissioners of Patents we commend to the perusal of all persons interested in obtaining Patents.

Messrs. Munn & Co.—I take pleasure in stating that while I held the office of Commissioner of Patents more than one-fourth of all the business of the office came through your hands.

Messrs. Munn & Co.—It affords me much pleasure to bear testimony to the able and efficient manner in which you discharged your duties as Solicitors of Patents.

Messrs. Munn & Co.—Gentlemen: It gives me much pleasure to say that, during the time of my holding the office of Commissioner of Patents, a very large proportion of the business of inventors before the Patent Office was transacted through your Agency.

MACHINERY.—S. C. HILLS, No. 12 PLATT-STREET New York, dealer in Steam Engines, Boilers, Planers, Lathes, Chucks, Drills, Pumps, etc.

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MESSIEURS LES INVENTEURS.—AVIS IMPORTANT. Les Inventeurs non familiers avec la langue Anglaise qui préféreraient nous communiquer leurs inventions en Français, peuvent nous adresser dans leur langue natale.

Zur Beachtung für deutsche Erfinder.

Die Unterzeichneten haben eine Anstellung, die Erfindern das Verbalten anzeigt, um sich ihre Patente zu sichern, herauszugeben, und verarbeiteten solche gratis an dieselben.

Erfinder, welche nicht mit der englischen Sprache befaßt sind, können ihre Mittheilungen in der deutschen Sprache machen.

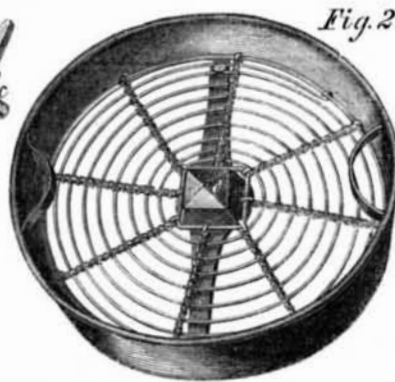
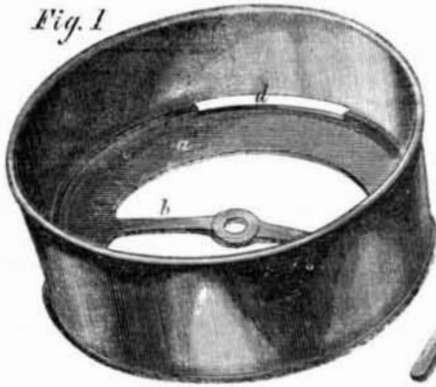
Auf der Office wird deutsch gesprochen. Daselbst ist zu haben: Die Patent-Gesetze der Vereinigten Staaten.

neid den Regeln und der Geschäftsführung der Patent-Office und Anstellungen für den Erfinder, um sich Patente zu sichern, in den Ver. St. so wohl als in Europa.

Improved Coal Sieve.

The handsome profits made on the sale of some patent coal sifters have stimulated inventors to extraordinary activity in this department, and the number of new patents which are being procured, and the ingenuity which is evinced in some of these devices are wonderful. The accompanying engravings illustrate a remarkably simple, convenient and durable coal sifter recently patented by W. B. Wadman, of Boston, Mass.

It consists of three parts which are represented separately in the engravings. Fig. 1 is the external



WADMAN'S COAL SIEVE.

barrel or cylinder, in which the sieve Fig. 2 fits loosely so that it may be shaken; Fig. 3, being the bar or handle for shaking the sieve.

The cylinder, Fig. 1 may be formed of sheet iron or wood, and fitted tightly in the top of an ordinary barrel to hold the ashes. Within the cylinder, and at its lower edge is a cast-iron rim, *a*, flaring downward toward the center to conduct the ashes to the middle of the barrel below. This rim may be of cast iron, and it is crossed by a bridge, *b*, which may be cast in one piece with it. This bridge has a hole through the middle to receive the pivot projection, *c*, Fig. 3, on the rod by which the sieve is shaken. The handle of this rod, when the parts are in place, passes through the slit, *d*, in the side of the cylinder, Fig. 1, and extends outward far enough to afford a convenient hold for the hand of the operator.

The sieve, Fig. 2, is formed of sheet iron or other

Improved Endless Revolving Mattress.

The accompanying engravings illustrate a simple but very novel improvement in mattresses which promises to be of considerable value. It consists merely in making the mattress in the form of an endless belt, as shown in perspective in Fig. 1, and in section in Fig. 2.

The principal object of this invention is to prevent the mattress from becoming compressed and flattened in some portions more than in others; this unequal compression producing an uneven, hard and uncomfortable surface for the sleeper. By having

the mattress folded as shown it is very easy, as the bed is made each day, to roll the mattress so as to bring the fold in a new place, and thus to change all parts of the mattress in their positions in relation to each other and to the bed. This of course prevents any one place from becoming compressed more than another, and preserves all parts in an even, smooth and comfortable condition.

Beside this principal advantage the following are claimed as incidental:—

In consequence of the surface being frequently changed this mattress will last much longer than an ordinary one.

Being folded in a different place every time the surface is changed, has a tendency to loosen up the filling and keep the bed constantly soft and elastic.

Being made of two thicknesses, each thickness about half that of an ordinary mattress, it can be

Fig. 1.

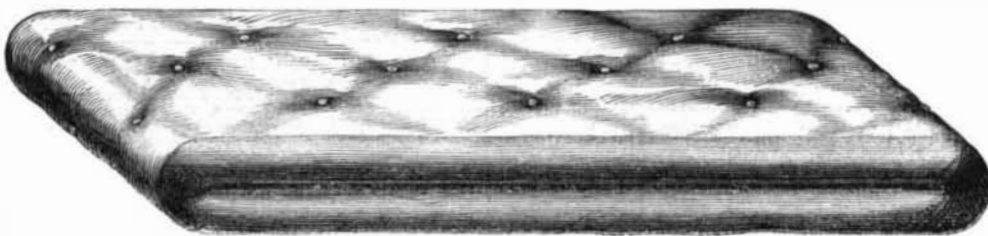
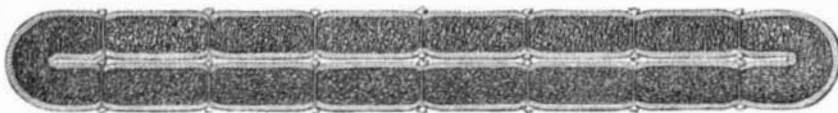


Fig. 2.



BASSETT'S ENDLESS REVOLVING MATTRESS.

suitable metal, and its bottom is covered with a meshwork of iron wire. It is crossed at the bottom by a bar, which has a square projection, *e*, upon its middle. This projection is hollow below to fit upon a corresponding projection, *f*, upon the upper side of the rod, Fig. 3. So that when a reciprocating movement is given to the handle of this rod along the slit, *d*, a corresponding motion is imparted to the sieve.

The sieve is provided with handles upon its inner side, and the whole is closed by a tight cover not shown in the engravings. The projection, *f*, is cut out in the form shown to diminish the weight of metal.

The patent for this invention was granted through the Scientific American Patent Agency, and further information in relation to it may be obtained by addressing the inventor, W. B. Wadman, at 1013 Washington street, Boston, Mass.

more thoroughly aired and therefore is more conducive to health than other mattresses.

The fact that it can be used so great a length of time, without picking over and refilling makes it very durable.

When the ticking is soiled or worn on one side, the mattress can be turned so as to bring the other side out.

The patent for this invention was granted, through the Scientific American Patent Agency, April 15, 1862, and further information in relation to it may be obtained by addressing the inventor, Edward F. Bassett, at Seymour, Conn.

A LARGE pelican was lately shot at Carson Sink on the eastern slope of the Sierra Nevada. It measured 8 feet 7 inches from tip to tip of the wings. It was milk white except the quill feathers in the wings, which were black.



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