



**A. J., of Vt.**—The new lubricating substance to which you refer is described on page 376, Vol. IV, new series of the SCIENTIFIC AMERICAN. It is obtained from india rubber purified at a high temperature.

**C. W. R., of Minn.**—All metals, when heated with a charge of electricity, expand in proportion to their temperature.

**A. W. B., of Ohio.**—A patentee has the right to obtain, by re-issue, at any time during the life of his patent, claims for any devices shown in his original model. The foregoing, we believe, covers all of your inquiries.

**H. W., of N. Y.**—Sulphate of copper, 1 oz.; gum arabic, 2 oz.; coppers, 8 oz.; nut galls, in powder, 32 oz.; extract of log-wood, 32 oz.; make a very good ink powder.

**M. V., of Brooklyn, N. Y.**—If you add a very minute quantity of sugar to the flour which is to be raised by the effervescence of bicarbonate of soda and muriatic acid, its taste will be improved. Bread which is raised by fermentation (especially when malt is used in making the yeast) has a more sweet and pleasant taste than that which is raised by effervescence. This is due to a small quantity of grape sugar developed during the fermenting process.

**W. W. D., of Mass.**—Our experience has led us to conclude that it is impossible to give general directions for extinguishing fires that will be suitable for all cases.

**I. F. D., of N. Y.**—The names of the engineering firms who are building the engines for the new gun-boats are published on page 39, present volume of the SCIENTIFIC AMERICAN.

**D. B., of Vt.**—Some magnets will lift their own weight, others will not. Their attractive power is inversely as the square of the distance. The "induction of magnets" is a very intricate question. The only exact method of ascertaining the power of a number of magnets is to test them with an electrometer. It is very seldom that we can find two magnets of the same size exhibiting equal power. The quality of the metal—flaws, scoria and temper—all influence the properties of a magnet.

**S. D. W., of Iowa.**—If the invention to which you refer has been in public use for more than two years previous to an application for a patent, then you can use it freely, and the patent, if granted, would be invalid.

**W. H. K., of N. H.**—There is an excellent account in Rees's Encyclopedia of the construction of church organs, showing the state of the art at the date of that publication. To obtain all the details of the manufacture, with the latest improvement, we know of no better plan than a visit to a manufactory.

**S. G., of Ohio.**—The idea that there is any rod which will detect mineral hid in the earth is simply a delusion founded in ignorance. There is no such rod.

**L. M. S., of N. J.**—You can get Dr. Weinland's pamphlet on tapeworms of L. M. Dornbach, 244 Canal street, this city.

**F. W. B., of Mass.**—You must apply to the Secretary of the Navy for information how to obtain the appointment of engineer in the navy. You cannot fit yourself for such a position by the study of books. You must off with your coat and go into the business practically. Thus only can your services be made available and useful.

**A. H. S., of Mich.**—We should give the preference to the American Encyclopedia over Chambers. Our reason for this is, that the former is more complete in all matters that relate to this country.

**J. M. M., of Mass.**—The California steamer to which you refer as getting in her engines, in this city, is the Constitution. You will find a description of this vessel on page 106, this volume, of the SCIENTIFIC AMERICAN, where you will also obtain information respecting parties with whom you can communicate about the business to which you refer.

**A. W. L., of Me.**—We have seen plate glass manufactured. The materials of which it is made consist of sand (silica) and a reducing flux, composed of an alkali, generally crude carbonate of soda and a little lime. These are placed in a "melting pot" of fire clay, and subjected to a most intense heat in a furnace. When it is melted, a sufficient quantity to make a plate of glass of a certain size is first poured upon a large smooth iron table, then a huge roller of polished iron is moved over it, which rolls it out as a baker would roll a flat cake of dough. The iron table has a raised edge on each side, on which the roller moves; this edge gages the thickness of the plate. When the plate is rolled out it is pushed off the table upon a large receiving flat-iron pan and placed in an annealing oven, where it remains several days. It is introduced at a high heat and cooled very slowly. Some plates are used rough for skylights, vault covers, &c., but for looking-glasses they require to be polished. When the pots of melted glass are poured upon the iron table, and the huge iron roller is moved over the fiery fluid mass, bright flashes of light dart from floor to roof of the glass manufactory. We have seen plates made nine feet in length by five in breadth. It is almost needless to say that from a mere description no one can make plate glass. Practical knowledge is necessary.

**M. K., of Ill.**—An arrangement of reflectors and lenses which would send a focus of light and heat two or three miles, without diminishing its intensity, so that it would set objects on fire with the same facility as an ordinary sun glass, would be novel. We suppose of course you mean to bring the rays to a focus first and then send them off.

**S. N. C., of Conn.**—The petroleum or coal oils are all hydrocarbons, and will consequently entirely burn up without leaving any ashes or soot; the products of combustion being wholly water and carbonic acid. Of course, a sufficient supply of air must be furnished, and the heat and temperature must be high enough for combustion.

Money Received

At the Scientific American Office on account of Patent Office business, during one week preceding Wednesday, Sept. 11, 1861:—

E. F., of Cal., \$15; J. L. R., of Wis., \$15; E. C., of Ohio, \$15; J. M. P., of Ohio, \$15; F. & L., of N. Y., \$15; C. Van N., of N. Y., \$15; S. G. M., of Pa., \$15; M. J. K., of N. Y., \$15; B. S. C., of N. Y., \$15; B. G. H., of Pa., \$15; J. B., of Ill., \$15; M. A. F., of N. Y., \$15; J. R. G., of Ky., \$80; Mrs. J. R., of Pa., \$20; J. F. D., of N. Y., \$43; D. McK., of N. Y., \$20; M. & C., of Pa., \$20; J. H. S., of N. Y., \$20; C. L. G., of N. Y., \$25; J. R., of N. Y., \$25; C. W. and others, of —, \$15; M. G., of Pa., \$15; L. F., of Ohio, \$15; P. B., of R. I., \$15; J. A. U., of Iowa, \$15; L. M. D., of N. H., \$15; A. F. W., of Pa., \$25; C. E. S., of Md., \$15; M. F., of N. Y., \$10; S. S., of Mass., \$25; P. & L., of Mich., \$25; J. W. L., of N. J., \$15; E. K., Jr., of N. Y., \$15; W. D., of R. I., \$45; G. D. W., of Mich., \$10; H. Q. H., of N. Y., \$20; F. & W., of Iowa, \$20; W. M., of N. Y., \$25; L. T., of N. Y., \$25; C. L. N., of N. Y., \$25; E. W., of N. J., \$15; E. B., of Mass., \$15; W. W. F., of Iowa, \$15; R. R. G., of Ill., \$20; J. W. S., of N. Y., \$25; J. & T., of Wis., \$28; F. H. B., of N. Y., \$15; M. & N., of Mich., \$25; J. A. G., of Conn., \$22; C. F. F., of N. Y., \$10; T. H. G., of Wis., \$50; A. H. B., of N. Y., \$45; S. R., of N. Y., \$20; J. M., of Iowa, \$20; A. A. L., of Iowa, \$20; W. J. P., of N. Y., \$25; H. S. C., of N. Y., \$25; V. & N., of N. Y., \$25; S. & R., of N. Y., \$50; E. F., of N. Y., \$15.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from Sept. 4 to Wednesday, Sept. 11, 1861:—

D. & G., of Ill.; C. L. G., of N. Y.; H. S. C., of N. Y.; S. S., of Mass.; M. & N., of Mich.; J. F. D., of N. Y.; H. C., of England; W. M. of N. Y.; B. F. S., of Wis.; P. & L., of Mich.; C. L. N., of N. Y.; J. & T., of Wis.; E. F., of N. Y.; J. E., of Conn.; W. J. P., of N. Y.; J. H. S., of N. Y.; L. T., of Y. Y.; J. R., of N. Y.; A. F. W., of Pa.; V. & N., of N. Y.; S. G. M., of Pa.; S. & R., of N. Y., two cases.

INSTRUCTIONS ABOUT EUROPEAN PATENTS, With a Synopsis of the Patent Laws of the Various Countries.

**AMERICAN INVENTORS SHOULD BEAR IN MIND** that, as a general rule, any invention which is valuable to the patentee in this country is worth equally as much in England and some other foreign countries. Four patents—American, English, French and Belgian—will secure an inventor exclusive monopoly to his discovery among 100,000,000 of the most intelligent people in the world. The facilities of business and steam communication are such that patents can be obtained abroad by our citizens almost as easily as at home. The majority of all patents taken out by Americans in foreign countries are obtained through the Scientific American Patent Agency. We have established agencies at all the principal European seats of government, and obtain patents in Great Britain, France, Belgium, Prussia, Austria, Spain, &c., with promptness and dispatch.

It is generally much better to apply for foreign patents simultaneously with the application here; or, if this cannot be conveniently done, as little time as possible should be lost after the patent is issued, as the laws in some foreign countries allow patents to any one who first makes the application, and in this way many inventors are deprived of valid patents for their own inventions.

Many valuable inventions are yearly introduced into Europe from the United States, by parties ever on the alert to pick up whatever they can lay their hands upon which may seem useful.

**GREAT BRITAIN.** Patents for inventions under the new law, as amended by the act of Oct. 1, 1852, and now in operation, include the United Kingdom or Great Britain and Ireland in one grant, which confers the exclusive right to make, use, exercise or vend. This is conceded to the inventor, or the introducer, for a period of fourteen years, subject, after the patent is granted, and the first expenses paid, to a government tax twice during its existence—once within three years, and once again within seven. The purchaser of a patent would assume the payment of these taxes.

There is no provision in the English law requiring that a patented invention shall be introduced into public use within any specified limit. Under the Patent Act of October, 1852, the British government relinquished its right to grant patents for any of its colonies, each colony being permitted to regulate its own patent system. If a patent has been previously taken out in a foreign country, the British patent will expire with it.

**FRANCE.** Patents in France are granted for a term of fifteen years, unless the invention has been previously secured by patent in some other country; in such case, it must take date with and expire with the previous patent. After the patent is issued, the French government requires the payment of a small tax each year so long as the patent is kept alive, and two years time is given to put the invention patented into practice. It should be borne in mind that, although the French law does not require that the applicant should make oath to his papers, yet if a patent should be obtained by any other person than the inventor, upon proof being adduced to this effect before the proper tribunal, the patent would be declared illegal.

**BELGIUM.** Patents in Belgium are granted for twenty years, or if previously patented in another country, they expire with the date thereof. The working of the invention must take place within one year from date of patent; but an extension for an additional year may be obtained on application to the proper authorities. Inventors are only legally entitled to take out patents.

**THE NETHERLANDS.** Patents are granted by the Royal Institute of the Netherlands to natives or foreigners represented by a resident subject, which extend to a period of about two years, within which time the invention must be brought into use, and upon payment of an additional tax, a patent will be granted to complete its whole term of fifteen years. Unless these conditions are complied with, the patent ceases.

**PRUSSIA.** Applications for patents in Prussia are examined by the Royal Polytechnic Commission, and unless there is novelty in the invention, the applicant's petition will be denied; and if it is granted, the invention must be worked within six months afterward. A respite, however, of six additional months may be obtained, if good and sufficient reasons for it can be shown.

**AUSTRIA.** Austrian patents are granted for a term of fifteen years, upon the payment of 1,000 florins, or about \$500 in American currency. This sum, however, is not all required to be paid in advance. It is usual to pay the tax for the first five years upon the deposit of the papers, and the patent must be worked within its first year. The Emperor can extend the patent and privilege of working by special grant. In order to obtain a patent in Austria, an authenticated copy of the original Letters Patent must be produced.

SPAIN.

The duration of a Spanish patent of importation is five years, and can be prolonged to ten years; and the invention is to be worked within one year and one day. To obtain a Cuban patent requires a special application and an extra charge.

RUSSIA.

Since the close of the Crimean war, considerable attention has been given to Russian patents by Americans. Russia is a country rich in mineral and agricultural products, and there seems to be a field open for certain kinds of improvements. The present Emperor is very liberally disposed toward inventors, and as an evidence of the interest which he takes in the progress of mechanic arts, we may state that we have had visits from two distinguished Russian savans, specially sent out by the Emperor to examine American inventions. As Russian patents are expensive, and somewhat difficult to obtain, we do not take it upon ourselves to advise applications; inventors must judge for themselves; and this remark applies not only to Russia, but also to all other foreign countries.

CANADA.

Patents of invention are granted only to actual residents of Canada and British subjects. Under the general Patent Law of Canada, an American cannot procure a patent for his invention there. The only way in which he can do so is by virtue of a special act of Parliament, which is very difficult, uncertain, and expensive to obtain. Several zealous friends of reform in Canada are working earnestly to bring about a reciprocal law, but their efforts have thus far proved fruitless.

BRITISH INDIA.

The date of the law, Feb. 28, 1856; duration of a patent, fourteen years. Invention must be worked within two years from date of petition. Privilege granted only to the original inventor or his authorized agent in India.

SAXONY.

Duration of patent, from five to ten years. Invention must be worked within one year from date of grant. Careful examination made before granting a patent.

HANOVER.

Duration of patent, ten years; and in case of foreign patent having been previously obtained, an authenticated copy of said patent must be produced. Invention must be worked within six months from date of grant.

SARDINIA.

Duration of patent, from one to fifteen years. Patents for five years or less must be worked within one year, and all others within two years.

NORWAY AND SWEDEN.

Duration of patent, three years, at least; fifteen at most, according to the nature and importance of the invention. Patents for foreign inventions not to exceed the term granted abroad, and to be worked within one, two or four years.

AUSTRALIA.

Date of law, March 31, 1854. Careful examination made by competent persons previous to issue of patent, which, when granted, extends to fourteen years. Imported inventions are valid according to duration of foreign patent. It would require from twelve to eighteen months to procure a patent from the Australian government. Parties holding foreign patents secured through our agency will be notified from time to time of the condition of their cases.

GENERAL REMARKS.

While it is true of most of the European countries herein specified, that the system of examination is not so rigid as that practised in this country, yet it is vastly important that inventors should have their papers prepared only by the most competent solicitors, in order that they may stand the test of a searching legal examination; as it is a common practice when a patentee finds a purchaser for his invention for the latter to cause such examination to be made before he will accept the title.

It is also very unsafe to entrust a useful invention to any other than a solicitor of known integrity and ability. Inventors should beware of speculators, whether in the guise of patent agents or patent brokers, as they cannot ordinarily be trusted with valuable inventions.

Messrs. MUNN & CO. have been established fifteen years as American and Foreign Patent Attorneys and publishers of the SCIENTIFIC AMERICAN, and during this time they have been entrusted with some of the most important inventions of the age; and it is a matter of pardonable pride in them to state that not a single case can be adduced in which they have ever betrayed the important trust committed to their care. Their agents in London, Paris, and other Continental cities, are among the oldest and most reliable Patent Solicitors in Europe, and they will have no connection with any other.

**CAUTION.**—It has become a somewhat common practice for agents located in England to send out circulars soliciting the patronage of American inventors. We caution the latter against heeding such applications, or they may otherwise fall into the hands of irresponsible parties, and thus be defrauded of their rights. It is much safer for inventors to entrust their cases to the care of a competent, reliable agent at home.

**FEES.**—The fees required by us for the preparation of foreign applications are not the same in every case; as, in some instances, when the inventions are of a complicated character, we are obliged to charge a higher fee. Applicants can always depend, however, upon our best terms, and can learn all particulars upon application, either in person or by letter.

Parties desiring to procure patents in Europe can correspond with the undersigned, and obtain all the necessary advice and information respecting the expenses of obtaining foreign patents.

All letters should be addressed to Messrs. MUNN & CO., No. 37 Park-row, New York.

CHANGE IN THE PATENT LAWS.

NEW ARRANGEMENTS—PATENTS GRANTED FOR SEVENTEEN YEARS.

The new Patent Laws, recently enacted by Congress, are now in full force, and promise 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.....	\$20
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, except in 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 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.

**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 their case, inclosing the official letters, &c.

**Testimonials.**

The annexed letters, from the last three 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. I have no doubt that the public confidence thus indicated has been fully deserved, as I have always observed, in all your intercourse with the Office, a marked degree of promptness, skill and fidelity to the interests of your employers.  
Yours, very truly,  
CHAS. MASON.

Immediately after the appointment of Mr. Holt to the office of Postmaster-General of the United States, he addressed to us the subjoined very gratifying testimonial:—

Messrs. MUNN & Co.:—It affords me much pleasure to bear testimony to the able and efficient manner in which you have discharged your duties of Solicitors of Patents while I had the honor of holding the office of Commissioner. Your business was very large, and you sustained (and, I doubt not, justly deserved) the reputation of energy, marked ability and uncompromising fidelity in performing your professional engagements.  
Very respectfully,  
Your obedient servant,  
J. HOLT.

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, and that I have ever found you faithful and devoted to the interests of your clients, as well as eminently qualified to perform the duties of Patent Attorneys with skill and accuracy.  
Very respectfully,  
Your obedient servant,  
WM. D. BISHOP.

**The Validity of Patents.**

Persons who are about purchasing Patent property, or Patentees who are about erecting extensive works for manufacturing under their Patents, should have their claims examined carefully by competent attorneys, to see if they are not likely to infringe some existing Patent, before making large investments. Written opinions on the validity of Patents, after careful examination into the facts, can be had for a reasonable remuneration. The price for such services is always settled upon in advance, after knowing the nature of the invention and being informed of the points on which an opinion is solicited. For further particulars, address MUNN & CO., No. 37 Park-row, New York.

**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 acts, 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. Over 1,500 of these examinations were made last year through this Office, and as a measure of prudence and economy, we usually advise Inventors to have a preliminary examination made. 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 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 No. 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.

**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.

**Interferences.**

We offer our services to examine witnesses in cases of interference, or prepare arguments, and appear before the Commissioner of Patents or in the United States Court, as counsel in conducting interferences or appeals.

For further information, send for a copy of "Hints to Inventors." Furnished free. Address MUNN & CO., No. 37 Park-row, New York.

**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 is composed, for the Patent Office. These should be securely packed, the Inventor's name marked on them, and sent, with the government fee, 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 the risk in sending bank bills by mail, having the letter registered by the postmaster. Address MUNN & Co., No. 37 Park-row, New York.

**Extension of Patents.**

Valuable Patents are annually expiring which might be extended and bring fortunes to the households of many a poor inventor or his family. We have had much experience in procuring the extension of Patents; and, as an evidence of our success in this department, we would state that, in all our immense practice, we have lost but two cases, and these were unsuccessful from causes entirely beyond our control.

It is important that extension cases should be managed by attorneys of the utmost skill to insure success. All documents connected with extensions require to be carefully drawn up, as any discrepancy or untruth exhibited in the papers is very liable to defeat the application.

Of all business connected with Patents, it is most important that extensions should be intrusted only to those who have had long experience, and understand the kind of evidence to be furnished the Patent Office, and the manner of presenting it. The heirs of a deceased Patentee may apply for an extension. Parties should arrange for an application for an extension at least six months before the expiration of the Patent.

For further information as to terms and mode of procedure in obtaining an extension, address MUNN & CO., 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.

**TO OUR READERS.**

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.

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.

BACK NUMBERS AND VOLUMES OF THE SCIENTIFIC AMERICAN.—Volumes I., II. and III. (bound or unbound) may be had at this office and from all periodical dealers. Price, bound, \$1.50 per volume, by mail, \$2.—which includes 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.

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.

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 to this office. Address MUNN & CO., No. 37 Park-row, New York.

**RATES OF ADVERTISING.**

Thirty Cents per line for each and every insertion, payable in advance. To enable all to understand how to calculate the amount they must send when they wish advertisements published, we will explain that ten words average one line. Engravings will not be admitted into our advertising columns; and, as heretofore, the publishers reserve to themselves the right to reject any advertisement sent for publication.

SNOW WHITE ZINC.—WANTED, A PRACTICAL Man accustomed to making the above from the Ores and Spelter, as Foreman to some works in England. Testimonials as to efficiency and salary required, to be addressed, post paid, to O. Z. COWLE'S, No. 2 St. Ann's-lane, St. Martin's le Grand, London.

A MESSIEURS LES INVENTEURS—AVIS IMPORTANT. Les Inventeurs non familiers avec la langue Anglaise et qui préféreraient nous communiquer leurs inventions en Français, peuvent nous adresser dans leur langue natale. Envoyez nous un dessin et une description concise pour notre examen. Toutes communications seront reçues en confidence. MUNN & CO., SCIENTIFIC AMERICAN Office, No. 37 Park-row, New York.

WEBSTER'S PATENT, FEBRUARY, 1860.—NEW PATENT REVOLVING GRIDIRON.—THOS. JOYCE, Sole Agent for all except New England States, 193 Pearl street, New York City; or corner of Joralemon and Furman streets, Brooklyn. Agents wanted in all the principal cities.

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