

34,232.—W. H. Furness, of Quincy, Ill., for Improvement in Coach and Furniture Varnish :

I claim the use of coal oil or kerosene and yellow wax, as ingredients in the making of coach or furniture varnish out of the ordinary gums and driers, used for this purpose, and as set forth.

RE-ISSUES.

1,260.—F. E. Sickles, of New York City, for Improvement in Steam Engines. Patented Sept. 19, 1845. Extended Feb. 21, 1860.—No. 910.

I claim imparting a co-existing movement to two reciprocating catch pieces, in the operation of the trip of cut off valves, substantially as described.

DESIGNS.

1,517.—S. D. Arnold (assignor to P. and F. Corbin), of New Britain, Conn., for Design for a Lift or Handle.

1,518.—J. B. Earnshaw, of Cincinnati, Ohio, for Design for a Monument.

1,519-1,520.—E. J. Ney (assignor to the Lowell Manufacturing Company), of Lowell, Mass., for Designs for Carpets, &c. 2 Patents.

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 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 an 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 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 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.

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.

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.

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.



H. B., of Ill.—The Franklin Institute publishes a monthly journal which contains a record of their transactions. The American Institute publishes a yearly volume of its transactions.

B. G., of Iowa.—We have no experimental data respecting the durability of gypsum rock as a building material.

J. A. S., of Colorado Territory.—Probably the best plan for separating gold from iron pyrites is roasting. If fuel is abundant the ore may be piled upon the fuel in the open air. As soon as the ore is sufficiently heated, the sulphur of the pyrites combines with the oxygen of the air to form sulphurous acid, which passes off in the form of gas; leaving both the iron and gold in fine powder. Fuel would be economized by using a reverberatory furnace, such as is employed for reducing iron ores. In any case there should be a free access of air to the ore.

W. G., of Mass.—We have no data which would enable us to form a correct estimate of the velocity imparted to a sledge hammer by a strong man. Assuming that the sledgehammer is brought down with a velocity of 160 feet per second, your 25 lb. weight would have to drop over a distance of 64 feet in order to produce the same effect as a 10 lb. sledge hammer.

L. A. D., of Ohio.—We do not know where you can obtain cast-steel pinions and small wheels. We think they are not made in any foundry. As you state, they would be very strong and durable, and might come into very general use for mill work.

G. W. R., of Mich.—If you warm your plaster molds, you will obtain good stereotype plates. The defects in your plates, in all likelihood, were caused by the metal becoming chilled before entering into the minute spaces of the molds.

Hawley, of Ind.—You will find our views of perpetual motion on page 353, Vol. I. (new series) of SCIENTIFIC AMERICAN. We have heard it stated that offers of rewards have been made for the discovery of perpetual motion, but have never seen the statement on any reliable authority, and do not believe it.

A. N., of Ill.—Supposing the points of the same size we think electricity would pass either into a body or out of it more rapidly by three points than by one.

R. L. H., of Conn.—The power of a turbine wheel with a discharge of 19 inches under a head of 12 feet is 3,739 or nearly 4-horse powers and that of a twelve feet overshoot wheel with 25 inches water drawn under a 4-foot head is 2,827 at nearly 3-horse powers. In both cases the effective power is assumed to be 75 per cent.

A. A. W., of Ill.—Zinc is a volatile metal and when exposed to a high heat it passes off in the form of volatile fumes. By roasting your solder in an open furnace the zinc of it will be driven off, but the lead will be converted into a brown oxide totally useless for any purpose but a drier for paint.

H. W. C., of N. Y.—To make lacquer for brass work, take 2 oz. of shellac, and dissolve in 1 pint of alcohol, colored with turmeric. This imparts a yellow brass hue to the varnish; and, when dry, the metal to which it is applied is protected from becoming tarnished. By adding dragon's blood it becomes suitable for staining various kinds of wood. Articles to which this lacquer is applied should be kept in a warm place until the varnish is dry, or they will be dull and lusterless.

W. H., of C. W.—No recent treatise has been published on water wheels and American milling. There is no published work upon this subject that comes up to the practice of the present day; the back numbers of the SCIENTIFIC AMERICAN contains the latest and best information on the subject.

W. C. D., of D. C.—Send us a full account of the experiments made with your improved rifle having a small bore and a greatly-enlarged charge chamber.

Money Received

At the Scientific American Office on account of Patent Office business, during one week preceding Wednesday, Jan. 29 1862:—

W. H. B., of N. Y., \$20; R. R., of N. Y., \$22; G. McN., of Pa., \$20; L. L. W., of N. Y., \$45; J. B. R., of N. Y., \$110; L. U. S., of N. Y., \$20; J. D. E., of Ill., \$55; J. A. W., of N. Y., \$25; M. and D., of N. Y., \$40; W. T., of Mich., \$25; S. P., of Del., \$15; G. P. and W., of Ill., \$25; D. G., of N. Y., \$25; J. H. of Mass., \$20; J. R. T., of N. Y., \$25; W. H. H., of Conn., \$15; C. C., of Pa., \$15; C. M., of N. Y., \$10; H. K. A., Jr., of Iowa, \$15; E. R. McC., of Iowa, \$15; C. E. B., of Conn., \$50; T. and L., of N. Y., \$10; J. W. E., of Ill., \$25; T. S., of N. Y., \$10; R. H., of Ill., \$20; C. W. H., of N. Y., \$20; J. L., of Mass., \$20; V. and L., of Iowa, \$20; T. J. B., of N. Y., \$20; R. P. W., of N. Y., \$20; S. H. M., of O., \$30; D. J. M., of O., \$15; H. S. W., of O., \$10; R. W. G., of Me., \$15; H. R., of Ill., \$30; A. S. J., of Ill., \$25; J. H. E., of Pa., \$15; C. E. L. H., of Conn., \$35; O. R. B., of N. Y., \$15; W. S. A., of Iowa, \$10; J. H. L., of Pa., \$15; G. T., of N. Y., \$15; C. P. B., of Conn., \$15; A. McN., of N. J., \$15; C. E. S., of Wis., \$10; C. N., of N. H., \$15; R. P. W., of N. Y., \$25; E. and W., of N. Y., \$20; I. C., of N. Y., \$20; J. C., of Mass., \$20; C. M. S., of Conn., \$8; N. A., of N. Y., \$20; E. A. S., of N. J., \$22; W. L. G., of N. Y., \$10; W. H., of Ill., \$40; W. M., of Mass., \$25; C. B. M., of Ill., \$25; C. W. R., of Mich., \$15; M. D., of N. Y., \$15; H. N., of N. Y., \$15; G. and M., of N. Y., \$25; S. and A., of Mass., \$15; R. and H., of N. J., \$10; C. W., of N. Y., \$15; D. and K., of Mass., \$15; C. W. H., of Conn., \$28.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from Jan. 22 to Wednesday Jan. 29 1862:—

R. R., of N. Y.; J. B. R., of N. Y.; R. H., of Ill.; A. S. J. of Ill.; H. S. W., of Ohio; G. B. O., of N. Y.; M. M. and M., of Mass.; B. J. C. H., of N. Y.; J. R. T., of N. Y.; E. C. B., of Conn.; M. and D., of N. Y.; L. L. W., of N. Y.; E. A. S., of N. J.; T. S., of N. Y.; D. G., of N. Y.; J. A. W., of N. Y.; D. B., of Conn.; M. D., of N. Y.; W. L. G., of N. Y.; R. P. W., of N. Y.; L. E. O., of Conn.; C. M. L., of Conn.; J. D. C., of Ill.; G. P. and W., of Ill.; C. B. M., of Ill.; J. W. H., of N. J.; C. E. L. H., of Conn.; J. H., of Mass.; J. W. E., of Ill.; E. P. B., of Conn.; G. and M., of N. Y.; W. H., of N. Y.

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