

ments, &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.

#### 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.



J. W. R., of Ill.—There is no good work published on milling and millwrighting according to American practice. There is a great variety of opinion among millers respecting the best dress and the speed of stones. We advise you to visit some of the best mills and examine all the machinery. The information you would thus acquire would be of immense benefit to you.

C. H., of N. Y.—Jordan almonds are the bitter almonds which are natives of Syria. The common bitter almonds will answer your purpose in making cosmetics.

W. R. B., of N. H.—We have no data at hand from which we can give you reliable figures for the frictional grooved wheels in question. The dimensions in question will be readily supplied by the makers of such machinery—the Novelty works in this city.

J. F., of Wis.—Wm. Gates, of Frankfort, N. Y., is a reliable manufacturer of friction matches. We cannot answer your other inquiries satisfactorily; there is no accounting for the whims and conceits of men. \$1 received for four months' subscription.

L. V. R., of N. Y.—You can obtain pistol-saving metallic cartridges of J. W. Storrs, No. 256 Broadway, in this city.

J. E., of C. W.—We do not think you could employ any method, practically valuable, more advantageously than your present one. There are several methods of making carbonic acid gas known to science, but the quality most suitable for your use is made by sulphuric acid and marble dust.

W. M., of N. Y.—We do not care to discuss the currency question at any length in our columns. We devote but little space to such subjects and therefore must decline your article. We do not undertake to preserve contributions sent to us for publication. Parties should keep copies if they wish to preserve their papers.

J. W. M., of N. Y.—There are certain kinds of powder on sale at druggists, which are good to drive away roaches. Get something of this kind and use it thoroughly and you may succeed in getting rid of the pest. We know of nothing better.

L. L., of Pa.—Your suggestion to divide postage-stamps in the center by a series of holes so as to allow one-half the stamp to be torn off is a good one, but it is not new. The same thing has been suggested to us before.

R. V. DeW., of N. Y.; L. K., of Ohio, and several others.—Your interesting communications have been received and will appear as soon as possible.

A. W., of Mass.—The Ruhmkorff coil is the most powerful electrical apparatus for decomposing water. Mr. Ritchie, of Boston, manufactures a superior apparatus of this character.

H. A. G., of Mo.—If you wish to become an engineer you must serve an apprenticeship until you are twenty-one years of age. Apply to any steam-engine builder, and if he wants your services he will give you the conditions under which you will be accepted.

J. B., of Cal.—It affords us pleasure to know that the chemical information published in our columns has been the source of so much pleasure and profit to you. The aniline colors which have so interested you may be those which are eliminated in nature's laboratory in embellishing the flowers of the field, but man knows very little about the forces which govern the functions of plants in secreting their colors.

H. S., of Ill.—You could undoubtedly boil the liquid at a much lower pressure of steam by increasing the amount of radial surface through which it passes; precisely how much less would depend wholly upon the increased radiation. You will not experience any difficulty, we think, from the cause you apprehend, unless you wire-draw the steam by crowding it through narrow tubes; none less in diameter than  $\frac{3}{4}$ ths of an inch should be used. These are the size of those which are inserted in the condensers of our ocean steamers.

D. C. S., of Iowa.—Magnesium wire cannot be obtained here.

D. S., of Wis.—Smee's work on electro-metallurgy is published by J. Wiley, of this city. Napier's work on the same subject is of more recent date. It is an English publication. We do not know its price. Electro-plating, if well executed, and a good thick coating put on, is said to be as permanent as fire-plating for carriage irons. We have not heard of any experiments being made however, to test the comparative durability of the two systems.

D. S., of N. Y.—Every speck of mold or mildew upon a sail or other cloth injures the cloth beyond recovery, because the mildew is really a decay of the fabric caused by fungi. Every spot of mildew should be brushed off the moment it is noticed. Fungi or mildew generally appears when sail-cloth is reefed or folded up damp.

A. P. T., of Mass.—The information which we can give you respecting the preparation of dry collodion-paper for artists has been published in our columns. Many artists state that they have never seen good pictures produced with dry sheets.

M. & S., of Pa.—Light iron patterns can easily be coated with wax, but shellac varnish is the best that can be applied to wooden patterns. The shellac is dissolved in alcohol, and three coats of varnish should be put on. We have been informed that a coating of bees' wax mixed with turpentine is easily applied and is excellent for both iron and wood patterns as a priming for a second coating with shellac varnish.

G. B. F., of Conn.—The fiber of the milk-weed is beautiful and silky, but it appears to be too weak even for the manufacture of paper. Some experiments however, should be made to test its capabilities for this object. Your torpedo is original so far as it relates to its mode of propulsion by rockets, but we think it would be difficult to control. Thus far submarine torpedoes have, in most instances, proved failures.

D. W. W., of N. Y.—We are not in possession of practical information received from any of our correspondents as to the relative merits of the diamond and the steel pick in dressing millstones. Most all our correspondents who are millers use the steel pick.

A. M., of Wis.—Parallel shafts generally run easier when connected with small than large cog gearing. We would prefer a wheel of one foot in diameter to one three feet, when the distance between the shafts is of no consequence and the speed of the shafts is equal.

C. C., of D. C.—The chloride of calcium and the chloride of lime are two very different things. You have been using the latter to make artificial stones and no wonder you failed. The chloride of calcium is made with hydrochloric acid (muriatic) and chalk, or carbonate of lime. The common chloride of lime is made with hydrate of lime and chlorine gas. Harding's process for making the silicate of soda is patented.

T. S. S., of Va.—It has been proposed to us several times to arm gunboats with a submarine gun on the bow of each, which is a more plausible application than furnishing them with a percussion shell each, because the submarine gun embraces a mode of loading and firing under water. The muzzle of the submarine gun was also to be used as a ram.

#### Money Received

At the Scientific American Office on account of Patent Office business, from Wednesday, December 17, to Wednesday, December 24, 1862:—

W. H. W., of R. I., \$25; A. H. E., of N. Y., \$150; P. & G., of N. Y., \$30; C. D., of Min., \$30; H. L. C., of N. Y., \$15; T. N. D., of Ind., \$20; M. R. S., of N. Y., \$45; T. D. L., of N. H., \$25; J. C. C., of Pa., \$25; J. W. L., of N. Y., \$22; D. I. S., of N. Y., \$15; G. F. J. C., of N. J., \$35; W. H. F., of Mass., \$20; L. S., of N. Y., \$25; J. A. L., of N. Y., \$45; J. E. S., of Me., \$20; S. W., of N. Y., \$20; A. M., of N. Y., \$12; W. J. D., of N. Y., \$25; E. B., of N. Y., \$15; A. B. H., of Pa., \$35; S. L., of O., \$10; S. T. S., of Mass., \$15; J. B. McC., of Mo., \$40; W. T. M., of Ill., \$25; S. W., of Mass., \$30; R. B., of Cal., \$30; F. B., of Conn., \$45; A. L., of N. Y., \$20; G. J., of N. Y., \$20; J. A., of Pa., \$45; C. W. P., of N. Y., \$20; W. H. S., of N. Y., \$15; J. T. B., of Ill., \$10; D. D., of O., \$20; T. W. B., of N. J., \$25; A. S. L., of N. Y., \$136; L. O. C., of Pa., \$30; C. C. W., of Pa., \$25; W. F. G., of Pa., \$25; G. W. F., of N. Y., \$15; C. B., of Me., \$25; L. C., of Mass., \$15; J. H., of Iowa, \$15; P. & C., of N. Y., \$25; A. C., of N. B., \$40; A. M., of N. Y., \$22; P. McG., of Iowa, \$20; W. R. G., of N. Y., \$20; H. B. F., of N. Y., \$15; W. P., of N. Y., \$35; H. H. S., of N. Y., \$20.

Persons having remitted money to this office will please to examine the above 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.

Specifications and drawings and models belonging to parties with the following initials have been forwarded to the Patent Office from December 17, to Wednesday, December 24, 1862:—

P. & C., of N. Y.; J. W. L., of N. Y.; A. M., of N. Y.; W. H. W., of R. I.; G. F. J. C., of N. J.; A. B. H., of Pa.; W. J. D., of N. Y.; W. F. G., of Pa.; C. C. W., of Pa.; E. J. M., of N. Y.; F. C. G. H., of N. Y.; W. T. M., of Ill.; H. F., of O.; C. D., of Min.; A. H. C., of N. Y.; L. S., of N. Y.

#### 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.

#### Binding the "Scientific American."

It is important that all works of reference should be well bound. The SCIENTIFIC AMERICAN being the only publication in the country which records the doings of the United States Patent Office, it is preserved by a large class of its patrons, lawyers and others, for reference. Some complaints have been made that our past mode of binding in cloth is not serviceable, and a wish has been expressed that we would adopt the style of binding used on the old series, *i. e.*, heavy board sides, covered with marble paper and morocco backs and corners.

Believing that the latter style of binding will please a large portion of our readers, we shall commence on the expiration of this present volume to bind the sheets sent to us for the purpose in heavy board sides, covered with marble paper and leather backs and corners.

The price of binding in the above style will be 75 cents. We shall be unable hereafter to furnish covers to the trade, but will be happy to receive orders for binding at the publication office, 37 Park Row New York.

#### RATES OF ADVERTISING.

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