

proximity of their Washington Agency to the Patent Office affords them rare opportunities for the examination and comparison of references, models, drawings, documents, &c. Their success in the prosecution of rejected cases has been very great. The principal portion of their 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 MUNN & CO., on the subject, giving a brief history of the case, inclosing the official letters, &c.

FOREIGN PATENTS.

Messrs. MUNN & CO., are very extensively engaged in the preparation and securing of patents in the various European countries. For the transaction of this business they have offices at Nos. 66 Chancery lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eperonniers, Brussels. They think they can safely say that THREE-FOURTHS of all the European Patents secured to American citizens are procured through their 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 MUNN & CO'S Agency, the requirements of different Government Patent Offices, &c., may be had, gratis, upon application at the principal office, No. 37 Park Row, New York, or any of the branch offices.

SEARCHES OF THE RECORDS.

Having access to all the official records at Washington, pertaining to the sale and transfer of patents, MESSRS. MUNN & CO., are at all times ready to make examinations as to titles, ownership, or assignments of patents. Fees moderate.

INVITATION TO INVENTORS.

Inventors who come to New York should not fail to pay a visit to the extensive offices of MUNN & CO. They will find a large collection of models (several hundred) of various inventions, which will afford them much interest. The whole establishment is one of great interest to inventors, and is undoubtedly the most spacious and best arranged in the world.

MUNN & CO. wish it to be distinctly understood that they do not speculate or traffic in patents, under any circumstances; but that they devote their whole time and energies to the interests of their clients.

COPIES OF PATENT CLAIMS.

MESSRS. MUNN & CO., having access to all the patents granted since the rebuilding of the Patent Office, after the fire of 1836, can furnish the claims of any patent granted since that date, for \$1.

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 so solicited. For further particulars address MUNN & CO., No. 37 Park Row New York.

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

TO OUR READERS.

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 enclosing \$1 as fee for copying. We can also furnish a sketch of any patented machine issued since 1833, to accompany the claim, on receipt of \$2. Address MUNN & CO., Patent Solicitors, No. 37 Park Row, New York.

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 are required to accompany the petition, specification and oath, except the Government fee.

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

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 better please a large portion of our readers, we commenced on the expiration of Volume VII., 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 is 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, No. 37 Park Row, New York.



W. L. L., of N. Y.—In charging the general acceptance of Newton's philosophy to undue reverence for his authority you forget that his theory of light is generally rejected. It seems to us that the positions of the "Principia" are either self-evident truths or absolute demonstrations. After the most candid and respectful examination in your power, your statement that a body may have an orbital motion under the influence of a single force, appears to us absurd, we therefore do not publish your article.

A. S. H., of Maine.—When a clean plate of iron precipitates copper from a solution of sulphate of copper, an equivalent quantity of iron is dissolved in its stead. Why a person cannot have a contagious disease more than once is one of the many unsolved mysteries of physiology. Shot are sometimes confined in cartridges to make them scatter less. The eye-stone is the operculum or mouth-piece of a certain shell. It is the carbonate of lime, and when put in acid the evolution of carbonic acid gas causes it to move about.

N. C. S., of N. C.—Your engine is what is known as the "atmospheric" steam-engine, and has been discarded for a century. The use of steam on both sides of the piston was the principal feature of the invention of James Watt, and was the greatest step ever made in advance in the progress of the steam engine.

J. W. H., of Iowa.—If the party purchased the patent live of the rightful owner of the county at the time of purchase, he would have a right to continue its use in the absence of a deed. Having once paid for the live, his right to use it would be undisturbed by any subsequent purchaser of the territorial right.

G. W. S., of Conn.—A propeller wheel 7 feet in diameter ought to make as many revolutions as it can. Theoretically there is a limit at which the speed of a screw is too great, but no such velocity can possibly be attained in practice. Run your wheel 150 turns per minute if you can.

W. W. B., of N. Y.—The description of the new mode of engraving contained all of the details received by us. We have since seen a remark that crayons were used in making the drawings. Perhaps the lithographers might give you instructions in regard to the transfers.

C. H. R., of Va.—We agree with you that in a republic like this, all officials should treat citizens who suggest valuable improvements with courtesy.

C. W., of Minn.—Pitch is gathered by chopping a box-like receptacle in the trunk of the tree, and scooping out the gum as it collects.

E. D., of Mass.—Lenoir's gas engine was described in the SCIENTIFIC AMERICAN, Sept. 20, 1860—Vol. III. page 193. One precisely similar had been previously exhibited at the Crystal Palace, by Dr. Drake of this city. The practical objections to it were the jerks of its motion, and the accumulation of heat.

A., of N. Y.—It must be a satisfactory reflection to know that you have so convincingly settled the cause of boiler explosions. If you could only reduce your principle to practice and prevent the dangerous gases you mention from exploding the boiler, you would achieve an undying fame and a colossal fortune. Instead of being purely a chemical result one would think that the mightiest mechanical force known could scarcely cause the ruin that a regular steam boiler explosion does.

B. F. S., of Ill.—In reply to your question, "Does any insoluble matter remain at rest in still, deep water, and neither sink or swim, such as sunken ships or any other hard substance that has a specific gravity of water?" We should say that theoretically, of course, it would remain stationary. In practice it may be doubted whether any body ever did thus continue without motion for any considerable length of time, as a movement in the water, however slight, or any change in the specific gravity of the body would produce a motion.

J. C. H., of Ind.—You say that you have two flue boilers 25 feet long and 42 inches in diameter, and intend using another of the same diameter two feet shorter, but do not like the arrangement. If you will tell us what your objections are we can answer your question; we do not give information at hap-hazard, and it is impossible for us to know what the difficulty is without further information.

J. L. J., of Mo.—The subject of target practice in the Navy has already been fully discussed in our paper, and we do not wish now to re-open it. If you had written to us at an earlier date your communication would have been acceptable.

B. J. H., of N. Y.—You write to us complaining of the omission of an s before the word "tables" in our paper, and yet you spell "Scientific American"—Scientific. You should be more careful when criticizing others, and be sure that you are not hypercritical. Common sense is a great virtue.

J. L., of Ky.—We cannot suggest any relief in the case to which you refer, but Dr. Charles F. Taylor, of 159 Fifth avenue, this city, treats shortened limbs by mechanical means. We have some doubt about a cure in the case, but it will be no harm to correspond with Dr. Taylor on the subject.

J. McK., of Ind.—There are no architectural journals published in this country. You can get English journals devoted to this subject by addressing Willmer & Rogers, 47 Nassau street, this city.

E. L., of Ohio.—The only way to get into the navy is to make your application and present your credentials to the Secretary of the Navy, Hon. Gideon Welles. Any one who advertises to get you a place in the navy for a certain fee you may safely regard with suspicion.

J. B.—The first steamship which crossed the Atlantic was an American vessel "The Savannah," Captain Rogers. This ship was built in New York, but sailed from Savannah, Ga., direct to Liverpool, where she arrived in July, 1819, after a passage of 18 days. She had paddle-wheels with an inclined e

Money Received.

At the Scientific American Office, on account of Patent

Office business, from Wednesday, April 13, 1864, to Wednesday, April 20, 1864:—

B. & S., of N. J., \$25; C. A. S., of N. Y., \$41; B. W., of N. Y., \$45; Mrs. S. A. M., of N. Y., \$20; D. & K., of Cal., \$20; A. T., of Pa., \$60; J. H., of Maine, \$22; S. G., of N. Y., \$18; J. G., of N. Y., \$16; W. A. O., of N. Y., \$16; H. L., of N. J., \$16; W. B., of N. Y., \$20; J. B., of N. Y., \$12; E. S. J., of Mich., \$25; T. & J. W. W., of Ill., \$16; B. B. & Co., of Conn., \$41; E. W., of N. Y., \$25; E. H. C., of Mich., \$16; L. C., of Minn., \$26; R. & C., of Ill., \$16; J. B. W., of N. J., \$10; S. H., of Mass., \$25; J. M. G., of Ill., \$16; W. H. S., of Conn., \$16; Z. W., of Cal., \$20; A. A. H., of Pa., \$16; J. C. O., of Wis., \$15; J. N., of Ill., \$25; H. B., of N. Y., \$30; J. T., of N. H., \$16; J. H. S., of N. Y., \$25; L. S. M., of N. Y., \$16; I. G., of R. I., \$20; A. W., of Scotland, \$25; J. K. U., of N. Y., \$25; D. H., of N. Y., \$16; S. & A., of N. Y., \$16; F. J. T., of Conn., \$20; J. L., of N. Y., \$16; J. B., of N. Y., \$20; J. E., of N. Y., \$10; C. R., of N. J., \$16; M. B. D., of N. Y., \$20; J. W., of Canada, \$500; W. M., of N. Y., \$25; S. & A., of N. Y., \$25; F. & T., of Del., \$30; W. B. S., of Ill., \$16; D. C. H., of Pa., \$25; A. W., of N. Y., \$25; W. S. N., of Conn., \$16; D. K., of Pa., \$20; B. F., of Maine, \$25; J. S. B., of N. J., \$25; T. D., of N. Y., \$16; W. B., of Iowa, \$16; R. K., of Tenn., \$17; C. H. S., of Mass., \$16; R. G., of Mo., \$15; E. C., of Iowa, \$15; W. H. R., of Ky., \$16; L. P. & N., of Pa., \$16; S. D., of C. W., \$25; H. & R., of Ohio, \$25; A. W., of N. J., \$15; H. M., of N. Y., \$20; C. H. H., of N. Y., \$25; J. B., of N. Y., \$25; E. B. R., of N. J., \$16; G. W. W., of N. Y., \$16; J. A. H., of Vt., \$20; W. W., of N. Y., \$20; C. F., of N. Y., \$41; G. R., of N. Y., \$20; W. E. R., of Iowa, \$20; J. T. W., of N. J., \$20; J. S. C., of N. Y., \$16; G. V. B., of N. Y., \$43; S. B., of Ind., \$16; J. Y., of Maine, \$25; J. H. M., of N. Y., \$16; C. M. J., of Ill., \$25; J. S., of Ohio, \$25; A. P. K., of Mass., \$16; A. P. A., of Ill., \$16; J. L., of Pa., \$25; S. J. F., of Cal., \$20; A. B. B., of N. Y., \$10; W. L., of Md., \$25; W. & F., of Pa., \$16; J. P., of Canada, \$30; J. F., of Pa., \$20; P. C. R., of Mass., \$16; J. J. A., of Mich., \$16; J. G. T., of N. Y., \$16; H. & B., of Conn., \$31; A. H., of Conn., \$16; H. P., of N. Y., \$20; C. A., 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, stating 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 Wednesday, April 13, 1864, to Wednesday, April 20, 1864:—

B. & S., of N. Y.; J. K. U., of N. Y.; C. F., of N. Y.; A. McP., of N. Y.; S. D., of Conn.; C. A. S., of N. Y.; J. R. J., of N. Y.; H. & R., of Ohio; S. G., of N. Y.; S. & A., of N. Y.; J. B. of N. Y.; W. M., of N. Y.; G. W. B., of N. Y.; C. H. H., of N. Y.; S. H., of Mass.; J. N., of Ill.; S. L. S., of Ohio; S. K. K., of Pa.; J. C. J., of Mass.; J. H., of Maine; E. W., of N. Y.; A. W., of N. Y.; J. L., of Pa.; J. S., of Ohio; D. E. B., of Ohio; L. C., of Minn.; C. M. J., of Ill.; D. G. H., of Mass.; B. F., of Maine; A. A., of N. J.; D. C. H., of Pa.; Z. W., of Cal.; A. W., of Scotland; P. & J., of Maine; J. S. B., of N. J.; J. B. H., of N. Y.; E. S. J., of Mich.; H. B., of N. Y.; W. L., & T. W., of England (9 cases); H. J. V., of Germany.

RATES OF ADVERTISING.

TWENTY-FIVE 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 they may deem objectionable.

UNITED STATES AUCTION SALE.—S. H. DRAPER, Auctioneer.—SIMEON DRAPER will sell, by order of the Secretary of War, on Saturday, April 24th, 1864, at 12 1/2 o'clock, at the New York Arsenal, Governor's island, N. Y., the following Ordnance Stores—445,576 pounds of 12, 24, 32, and 42 powder and 8 and 10-inch shot; 407,940 pounds of 12, 24, 32, and 42 powder and 8 and 10-inch shells; 72,245 pounds of Old Iron (scraps). Terms of sale, cash on delivery of the property. S. CHRISTIAN, Captain of Ordnance Commanding. New York Arsenal, April 18th, 1864. 18 2

THE CELEBRATED CRAIG MICROSCOPE, COMBINING instruction with Amusement, is mailed, prepaid, for \$2 25; or with 6 beautiful Mounted Objects for \$3; with 24 Objects, \$5; by HENRY CRAIG, 140 Centre street, New York.

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PAGE'S PATENTED LIME KILN WILL BURN 300 bushels lime per day, with three cords wood or 1 1/2 iron coal, hard or soft. Address C. D. PAGE, Cleveland, Ohio. 17 cent

BAKER'S ONE DOLLAR BAROMETER OR Weather Indicator sent by express on receipt of \$1. Agents wanted. BENJAMIN MOORHOUSE, Providence, R. I. 18 2

THE IRON-CLAD QUESTION.—A LARGE AMOUNT of interesting and valuable information in regard to the character and operations of our Monitor Fleet may be obtained from the Official Reports of Admirals Dahlgren, Dupont, Goldsborough, and Forter; and the letters of Major-General Hunter and Brigadier-General Barnard, published exclusively in the "ARMY AND NAVY JOURNAL." See Nos. 34, 35, and 36 of the JOURNAL. For sale by all news-dealers, or sent by mail postpaid. Price 10 cents a copy. Subscription \$5 a year. Address "ARMY AND NAVY JOURNAL," 122 Broadway, New York.

AN EXPERIENCED DRAUGHTSMAN AND MACHINIST wants a situation as Master Mechanic or Draughtsman in a Railroad or Machine Shop. Address X, Box 435, Detroit, Mich. 18 4

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