

be extended, and if extended, might prove the source of wealth to their fortunate possessors. Messrs. MUNN & CO. are persuaded that very many patents are suffered to expire without any effort at extension, owing to want of proper information on the part of the patentees, their relatives or assigns, as to the law and the mode of procedure in order to obtain a renewed grant. Some of the most valuable grants now existing are *extended patents*. Patentees, or, if deceased, their heirs, may apply for the extension of patents, but should give ninety days' notice of their intention.

Patents may be extended and preliminary advice obtained, by consulting or writing to 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.

UNCLAIMED MODELS.

Parties sending models to this office on which they decide not to apply for Letters Patent and which they wish preserved, will please to order them returned as early as possible. We cannot engage to retain models more than one year after their receipt, owing to their vast accumulation, and our lack of storage room. Parties, therefore, who wish to preserve their models should order them returned within one year after sending them to us, to insure their obtaining them. In case an application has been made for a patent the model is in deposit at the Patent office, and cannot be withdrawn.

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 1853, 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 remit 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 un- able 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.

Back Numbers and Volumes of the "Scientific American."

VOLUMES III., IV., VII., IX AND X., (NEW SERIES) complete (bound) may be had at this office and from periodical dealers. Price, bound, \$2 25 per volume, by mail, \$3—which includes postage. 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 **VOLS. I., II., V., VI. and VIII.** are out of print and cannot be supplied.



N. D., of N. Y.—Thirty years ago we heard a story somewhat similar to the one you have heard about Whittemore's stealing the invention of the card-setting machine; but on examining the evidence we are satisfied that all of these stories are false. See the report of the Congressional Committee. See also in the last volume of the SCIENTIFIC AMERICAN accounts of recent investigations of the subject of the absorption of gases by water and their expulsion by heat.

J. H. T., of N. Y.—If a cannon were moving breech foremost through the air at the rate of 1,000 feet per second, and should be discharged with a force that would move the ball in relation to the cannon 1,000 feet a second, the ball would fall vertically to the earth.

C. D., of Maine—Asks the following question—"If I patent a machine and dispose of the right, and then make an improvement which I also patent, does that improvement belong to me or to the purchaser of the original patent, and can the purchaser use the improvement without my consent?" We answer—Unless there is a previous agreement by which the patentee stipulates to convey all subsequent improvements made by him, he would have entire control of the patent for the improvement, and no one could use it without his consent.

O. C. M., of N. J.—We have been interested in your statement of your troubles with your small propeller. You say that the boiler is perfectly clean, but although it was once large enough, it will not now make sufficient steam for your engine. The trouble must be in the latter then, for if all the conditions are the same with the boiler, as they were originally it will continue to act well. It is very likely that the engine is in fault. Try the piston and see if it leaks. Examine the valve and see if it sets fair on its seat; see that the eccentric has not shifted. Your exhaust pipe is too small at any rate. It should be one and a half times the area of the steam pipe. Do not narrow it at the mouth; let it be straight. It ought to work quite as well, if not better on a small engine than when contracted. Write and let us know the result.

C. P. W., of Mass.—Very little power is obtained from a Barker-mill steam engine except with high pressure. We should suppose, however, that you could produce sufficient blast for a chemist's fire with an engine similar to the one described but constructed of thicker metal. The arms should be sword-shaped; this might be effected by enclosing the iron tubular arms in sword-shaped sleeves. The openings should be very small, perhaps the 100th of an inch in diameter.

H. C. A., of Ohio.—You will find full instructions for making all the solutions used in electro-plating in "Smees' Electro Metallurgy," published by John Wiley, of this city.

R. F., of Ind.—In the Hecker & Waterman experiments a slide valve is used, worked by an eccentric.

W. L. C., of Md.—The dimensions of the engine in the Hecker & Waterman experiments were stated in our last volume, page 377. The cylinder is ten inches in diameter with two feet stroke. As the object of the experiments is to test the quantity of fuel required to do a given amount of work in a given time with different measures of expansion, the cut-off is fixed at a certain point for each thirty hours run.

P. P., of N. Y.—The specimen you send us is a very good article of plumbago. Most of the mining companies in this city are perfect swindlers. We would suggest to you to advertise a part of the mine extensively and sell it at auction.

E. L., of Pa.—If you ask your druggist for a box of the "Pittsburgh Salt Company's Concentrated Lye," which is sold for twenty-five cents, you will find a number of receipts for making soap attached to the box. They are the best and simplest that we can give you. We make all our own soap for family use with this lye, and it is white, hard, and very emollient.

R. K. L., of Pa.—Chains have been made cast in one entire length. There is no value in them being only specimens of the molder's skill. On page 177 of the "Metal Worker's Assistant," you will find an engraving and full description of such a chain.

C. S. T., of Mass.—Address H. C. Baird, 406 Walnut street, Philadelphia, for a work on malleable iron.

Money Received.

At the Scientific American Office, on account of Patent Office business, from Wednesday, July 13, 1864, to Wednesday, July 20, 1864—

- J. D., of N. Y., \$30; E. M. C., of R. I., \$41; G. M. L., of N. Y., \$41; J. B., of Mich., \$25; E. H., of N. Y., \$15; S. W. P., of Ill., \$15; S. V., of Pa., \$20; R. B. M., of Ohio, \$28; G. McK., of N. Y., \$15; I. W. B., of Mich., \$28; H. P. G., of Pa., \$20; W. G. S., of Pa., \$16; N. S., of Mich., \$15; S. & B., of Conn., \$16; A. P., of N. J., \$25; H. C. II., of Ill., \$100; A. D., of N. Y., \$16; J. C., of N. Y., \$16; W. H. R., of Ky., \$45; J. F. C. P., of N. Y., \$10; G. M. L., of N. Y., \$44; J. F. R., of Ill., \$20; C. V. W., of N. J., \$20; P. H., of N. Y., \$20; W. D. S., of N. J., \$20; A. R., of N. Y., \$250; J. V. C. C., of Conn., \$46; A. W. H., of N. Y., \$92; G. M., of N. Y., \$12; J. D., of N. Y., \$25; H. F., of N. Y., \$25; N. V., of N. J., \$25; W. T. H., of Maine, \$10; J. L. B., of Pa., \$10; H. C. D., of Mich., \$25; W. H., of Conn., \$25; J. R., of Ind., \$16; M. H. B., of Ill., \$15; C. C., of Mass., \$10; G. A., of Oregon, \$41; E. C., of Mass., \$36; C. C. B., of Iowa, \$35; J. B., of N. Y., \$16; J. S., of Cal., \$20; W. & S., of N. Y., \$16; J. S. F., of N. T., \$52; J. B., of N. Y., \$186; J. & B., of N. Y., \$66; E. F. W., of N. Y., \$16; D. W. C. W., of Mich., \$20; J. T. W., of N. Y., \$22; E. B., of N. Y., \$20; J. F. C., of N. Y., \$16; J. G., of Ill., \$45; W. W., of Conn., \$46; J. H. C., of N. Y., \$23; G. H., of N. Y., \$25; D. E. B., of Ind., \$23; E. S., of Pa., \$25; J. A. McC., of Ky., \$10; G. G. P., of Pa., \$25; W. II., of N. Y., \$25; G. W. P., of N. Y., \$25; C. V. S., of Ill., \$30; H. F., of Ill., \$26; S. & B., of Mich., \$31; J. F. B., of Ind., \$18; S. M. B., of Mich., \$35; M. C. B., of Ind., \$15; J. E. T., of Pa., \$25; J. W. P., of Maine, \$15; Mrs. L. A. H., of N. H., \$25; C. S., of N. Y., \$16; T. B. F., of Mass., \$20; W. S., of Mich., \$20; T. II. S., of Va., \$20; G. L., of N. Y., \$45; O. M. P., of Pa., \$45; C. P. B., of N. Y., \$45; G. P. I. C., of N. J., \$20; A. J. P., 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, July 13, 1864, to Wednesday, July 20, 1864—

- J. D., of N. Y.; E. M. C., of R. I.; G. M. L., of N. Y.; I. W. B., of Mich.; G. G. P., of N. Y.; M. C., of Ohio; G. W. P., of N. Y.; M. II. B., of Ill.; W. II., of Conn.; A. P., of N. J.; L. A. H., of N. H.; G. M., of N. Y.; J. D., of N. Y.; J. B., of N. Y., (4 cases); E. M. C., of R. I.; N. S., of Mich.; C. W. & J. B., of Pa.; H. P. G., of Pa.; L. O. C., of Pa.; J. E. T., of Pa.; II. C. II., of Ill.; J. H. C., of N. Y.; II. F., of N. Y.; G. H., of N. Y.; J. T. W., of N. Y.; A. W. H., of N. Y. (2 cases); E. C., of Mass.; W. H., of N. Y.; J. L. B., of Pa.; H. F., of Ill.; H. C. D., of Mich.; S. M. B., of Mich.; S. V., of Pa.

RATES OF ADVERTISING.

SEVENTY-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.

ARMY SUPPLIES.

OFFICE OF ARMY CLOTHING AND EQUIPAGE, 502 BROADWAY, NEW YORK, July 19th, 1864.

SEALED PROPOSALS WILL BE RECEIVED AT this office until 12 M., on Thursday, the 23d instant, for furnishing by contract, at the Depot of Army Clothing and Equipage in this city,—

- Blankets.
Knit Drawers.
Flannel Drawers.
Hospital Tents and Flies.
Hospital Tent Flies.
Shelter Tents, 8 oz. Duck.
Manilla Paper, 36x40.

Samples of which can be seen at this office. Bidders will submit with their proposals, samples of the articles which they propose to deliver or of the materials of which the articles are to be made, in the case of Flannel Drawers and Tents at least one yard of the material to be submitted. Bidders will state the quantity they wish to furnish, the shortest time in which they can make deliveries, and how soon they can complete the delivery of all they bid for.

All proposals must be accompanied by a proper warrant signed by two responsible parties, setting forth that if a contract is awarded to the party named therein he will at once execute the same, and give bonds for its faithful performance. The United States reserves the right to reject all bids deemed objectionable.

Proposals should be endorsed "Proposals for furnishing (here insert the article bid for)" and addressed to LT-COL. D. H. VINTON, Dy. Qr. Mr. Genl.

OFFICE OF ARMY CLOTHING AND EQUIPAGE, PHILADELPHIA, July 20th, 1864.

SEALED PROPOSALS WILL BE RECEIVED AT this Office until 12 o'clock, M., on Tuesday the 26th instant, for supplying the Schuylkill Arsenal with the following articles, viz:—

- Sky-blue Kersey, army standard, 3/4 or 6-1/2 wide, to be made from pure wool, and free from shoddy.
Blue Flannel Sack Coats, lined.
Haversacks, linen, painted.
Blankets, vulcanized India-rubber or Gutta-percha for infantry.
Boots } To be sewed by hand or machinery, but if and } by machinery, to be double-soled, without } welts.
Bootees, }
Drums, artillery, 3/4 and full size.
General Hospital Flags.
Company Order Books.
Company Descriptive Books.
Regimental General Order Books.
Regimental Order Books.
Brigade, Division, and Headquarter Books, viz:—
Brigade Letters received.
Brigade Letter.
Brigade Order.
All the above articles to be of army standard.
Also,
Linen Linings: samples required.
Army Standard samples of each of the above articles can be seen at this Office, to which deliveries must strictly conform.

Bidders must state in their proposals the price which must be given in writing, as well as in figures, and also the quantity and times of delivery.

Each bid must be guaranteed by two responsible persons, whose signatures must be appended to the guarantee, and certified to as being good and sufficient security for the amount involved, by one public functionary of the United States.

Bids from defaulting Contractors, and those that do not fully comply with the requirements of this advertisement, will not be considered.

Blank forms for proposals embracing the terms of the guarantee required on each bid, can be had on application at this Office, and none others, which do not embrace this guarantee, will be considered, nor will they be considered which does not strictly conform to the requirements therein stated.

Bids must be endorsed "Proposals for Army Supplies," stating the article bid for. G. H. CROSMAN, Asst. Quar. Mast. Gen. U.S.A.

PLATINA PLATE AND WIRE.—IMPORTED AND for sale by SAMUEL S. WHITE, Dental Depot, 653 Broadway, New York. 5 4*

HEYER'S POCKET SEWING MACHINE.—ILLUSTRATED in No. 5, current volume SCIENTIFIC AMERICAN. State and County Rights for sale. Address W. D. HEYER, Box 762, New Orleans, La. 5 4*

A GENTLEMAN, WITH 18 YEARS' ENGINEERING experience, desires a re-engagement as Superintendent or Draughtsman. Unexceptionable testimonials and references given. Address W. H., Box 212, Post-office, Baltimore, Md. 1*

STEAM ENGINE WANTED.—FROM 20 TO 35 HORSE- Power, in good condition. And the correspondent will please state whose make, how long it has been in use, also state price. Address JAMES AKEN, Sandlake, Rensselaer county, N. Y. 5 5*

FOR SALE.—A SUPERIOR POWER BOILER Punch and Boiler Former. Price for both, \$210. Inquire of H. MCCOLLUM, Owego, N. Y. 1*

A SPLENDID STORY BY SYLVANUS COBB, JR., in the PRINTER'S DEVIL, this week, at all Newsdealers. It is one of the best this popular author ever wrote. The PRINTER'S DEVIL, a handsome, illustrated, literary, and miscellaneous family paper, will be sent six months to any new subscriber for 25 cents. Address "PRINTER'S DEVIL," 113 Fulton street, New York. 1*

TWIST DRILLS.—ALL SIZES OF STUB'S WIRE Drills; also Twist Drills for machinists' use, varying in diameter from 3/32nds to 1/2 inch, together with sockets to fit them. For sale by the "Manhattan Fire Arms Company," corner of High and Orange streets, Newark, N. J. 5 4*

NEW APPARATUS FOR MAKING NITROUS OX- IDE chemically pure. Needs no watching, and breaks no glass. Pure Nitrous Ammonia, yielding eight gallons per lb. more than the ordinary. Rare Chemicals and Apparatus for experimenters. A. W. SPRAGUE, 59 Washington street, Boston. 5 2*

SOMETHING OF IMPORTANCE.

Having obtained Letters Patent for tanning Leather without Bark, and said patent having been submitted to the severest test, and giving entire satisfaction, as affidavits in my possession will affirm, different persons bought rights who were not tanners, but having strictly adhered to the instructions accompanying such right have been enabled to make the best of leather, in quick time, and at less expense than can be done with bark. The Patentee is a practical tanner, and will send all necessary instructions to any person buying a right. State, County, Town, and Shop Rights for sale. Agents wanted, and good inducement. For further information address ALEXANDER HILL, Patentee, Dubuque, Iowa. 5 3*

ALCOTT'S CONCENTRIC LATHES.—FOR BROOM, Hoe, and Rake Handles, Chair Rounds, &c.—Price \$25; and all other kinds of Wood-working Machinery, for sale by S. C. HILLS, No. 12 Platt street, New York. 1*