

Correspondents

We are often annoyed by the receipt of letters, very properly done in all respects, with the exception that the Post-office address is omitted.

G. T. and others, of Conn.—You ought to be aware that it would require a considerable amount of printing space, illustrated with engravings, to give you the desired information regarding the arrangement of parts in a beam engine, and the construction of eccentrics.

T. B. J., of Mass.—We are much obliged to you for the useful information you have forwarded to us. E. T. Q., of Mass.—Your idea of allowing the warm air to circulate under the floor to warm the lower part of a building or apartment, is an excellent one, though not new.

J. C. S., of Ohio.—The oil of rhodium is made from rhodium wood by distillation, and is chiefly brought from the Levant. J. R. B., of N. Y.—We do not know where you can obtain an illustrated work on old coins.

W. A. M., of Ohio.—There are a great number of patents on combined corn planters and cultivators. You are as liable, if you make a machine for your own use which infringes upon an existing patent, as if you made and sold it to another to be used.

J. P., of Mich.—Your remittance of \$15 to pay foreign-graving your ore-washer, came safely to hand. D. D. C., of N. Y.—If you have an order to build an improved machine, and furnish it to other parties, it does not prevent you from securing a valid patent for it afterwards.

L. P. S., of Conn.—The arrangement which you have made in the magneto-electric machine, by presenting the same poles of the magnet to the same ends of the helix, is not an improvement, but the reverse. Each pole of the magnet must be successively brought near to either end of the helix, to magnetize the soft iron of the armature with opposite polarity.

W. S. R., of Ohio.—If you boil ground glass, or fine white sand, in a strong solution of caustic soda, you will obtain the soluble silicate of soda. You can make the caustic ley by adding fresh slacked lime—half and half—to the soda solution.

J. A., of Ohio.—The pressure on a slide valve of the construction commonly used in the steam engine is as the whole area of the valve, if the face fits perfectly steam tight to its seat.

J. R., of N. Y.—The article on back-lash in grist mills, in our last number, contains all the information you desire.

C. A. C., of Pa.—Wire rope is not so strong as bar iron of the same diameter, but we do not know the exact difference. A good wire rope, four inches in diameter, and six feet long, has sustained a strain of 29 tons. We do not know anything more about Cornwell & Brothers than that they paid for their advertisement.

S. P., of N. J.—Roman cement, clean sand, and some linseed oil boiled with coal tar to the proper consistency makes a very good cement for the roofs of outhouses. Its surface should be covered with sand or fine gravel. See an excellent article on cements on page 366, Vol. 11, Sci. Am.

F. G. W., of Mass.—You ask, "Will the cohesiveness of iron be impaired in one direction by its being subjected to a separating force at right angles to that direction?" Certainly it will. It must rupture in that direction, and no other.

J. T. & Co., of Me.—India rubber buttons are manufactured exclusively by one company, under the Good-year patent. We do not know the exact proportions of the materials employed in their composition, but shell lac, the carbonate of magnesia, and lampblack are mixed with the india-rubber.

J. A. B., of Minn.—Throw some potatoes or Indian corn meal into your boiler, which will stop the leaks in its seams. We have also seen horse manure used successfully for the same purpose. A good cement for iron joints is made with two ounces of sal ammoniac, one of sulphur, and sixteen of cast iron filings pounded in a mortar and made into a thick paste with water.

F. T., of Minn.—We are unacquainted with any substance that will restore gray hair to its natural color. We advise you not to try anything for this purpose. Cultivate your health, do good continually, and snap your fingers at those who despise gray hairs. The nitrate of silver, 20 grains, dissolved in an ounce of soft water and a little ammonia, will dye white hair a dark brown color.

J. L. M., of Texas.—Your project of reclaiming the land now covered by the Gulf of Mexico is gigantic and splendid, but have you taken into account the immense capital required for building the wall before the waters can be pumped out? Here is the greatest and most difficult work. Instead of employing small 20-inch pumps, we would use pumps of 100-inch caliber.

J. W. of N. Y.—Saws have been "so set and filed" as to saw and plane at the same time.

C. D., of Ill.—Hail is not produced by the meeting of two clouds or currents of air, but rain is produced in this way, and frozen into hail by passing afterwards through a colder stratum of air. We do not think you can apply the same principles artificially to a meat safe. There are railroad cars now used for bringing carcasses from the West to our city, which carcasses are cooled artificially by ice and evaporation.

C. L. P., of Va.—The arms of wooden axles for wagons are made very slightly conical in form, and with a strip of iron flush with the wood on the upper and under sides; this renders them stronger, and more durable. A carriage with low wheels can be drawn up a steep hill with greater ease than one with high wheels, because the relative gravity of the wagon is increased with the incline of the plane.

J. A. S., of N. Y.—Make the secondary coil of your helix one-fourth the length of your primary coil. Some have employed primary and secondary coils of the same length.

J. R., of Pa.—We do not think a patent has ever been granted for a quilting machine. Some of our ingenious inventors are, no doubt, capable of inventing such a machine.

C. C., of Pa.—We think there is sufficient encouragement to warrant an application for a patent on your bullet-molding machine. You had better not delay your application. We have seen the sad results of such delays so often in our experience that we cannot advise a postponement.

Money received at the Scientific American Office on account of Patent Office business, for the week ending Saturday, February 13, 1858.—

J. M., of R. I., \$25; J. G. B., of N. J., \$35; D. H., of Ky., \$30; S. & W., of Wis., \$30; E. B. W., of N. H., \$50; T. A. D., of N. Y., \$25; A. H. G., of Ind., \$30; J. J., of S. C., \$30; B. Y., of N. Y., \$55; W. A. S., of Mass., \$30; G. T., of N. Y., \$55; H. B., of N. Y., \$95; A. & Bro's., of Conn., \$30; E. S., of La., \$30; L. J., of Mass., \$25; J. R., of N. Y., \$10; J. H., of N. Y., \$30; D. O. DeW., of N. Y., \$30; G. H., of R. I., \$30; J. McI., of N. Y., \$30; A. M., of N. Y., \$30; H. M., of N. Y., \$30; R. P., of L. I., \$30; J. L. R., of S. C., \$30; W. Y. G., of Ky., \$30; I. S. S., of Conn., \$25; H. G. B., of Mich., \$30; W. & J. D., of Conn., \$30; C. W. H., of Mass., \$30; A. S., of N. Y., \$30; S. C., of N. Y., \$30; G. L. D., of N. Y., \$3; J. L. R., of N. Y., \$27.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, February 13, 1858:—

A. S., of N. Y.; J. P. M., of R. I.; J. J., of S. C.; I. J., of Mass.; K. & Bro's., of Mass.; S. C., of N. Y.; J. G. B., of N. J.; E. S. S., of Conn.; E. R. B., of Conn.; G. L. D., of N. Y.; J. L. R., of N. Y.

Literary Notices.

A DICTIONARY OF MEDICAL SCIENCE.—By Robley Dunglison, M. D., L. L. D. Blanchard & Lea, Philadelphia.—A new edition of this valuable book has just appeared, having about six thousand new subjects and terms added, and the whole has been carefully revised. This is one of the most gigantic works that was ever produced by a single individual, and under each medical word or term will be found exactly the information the medical man or technologist requires. It is a most valuable contribution to the number of lexicons at present extant.

IMPERIAL CYCLOPEDIA OF MACHINERY.—Parts 11 and 12 of this truly imperial production have just been issued by C. B. Russell & Bros., Tremont street, Boston. They contain excellent drawings of one of Stephenson's express locomotives; warping machinery for factories; screw propellers, and their engines. This publication is got up in a superior manner.

MESSENGER'S CHEMISTRY.—Parts 33 and 34 of the admirable work have just been published by C. B. Russell & Bros., of Boston. They contain a full treatise on the manufacture of glass in all its branches. It is got up in excellent style, and deserves an extensive patronage.

We have received the ATLANTIC MONTHLY for February, containing several interesting articles by distinguished authors.

TO OUR SUBSCRIBERS.

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 the receipt of their funds. The Post Office law does not allow publishers to enclose receipts in the paper.

BACK NUMBERS.—After the 1st of January, we shall commence sending the SCIENTIFIC AMERICAN to new subscribers from the time their names are received, unless the person ordering expresses a desire to receive the back numbers, in which case complete sets will be furnished from the commencement of the volume.

TERMS OF ADVERTISING.

Twenty-five cents per line each insertion. We respectfully request that our patrons will make their advertisements as short as possible. Engravings cannot be admitted into the advertising columns. All advertisements must be paid for before inserting.

STEREOSCOPES AND STEREOSCOPIC VIEWS.—Stereoscopes of various patterns. Views on paper and glass of all places of note in Europe and America. A large assortment, colored and uncolored, prepared by Laugenheim, and other eminent artists. MOALLISTER & BROTHER, No. 728 Chestnut street, Philadelphia. A priced and descriptive Catalogue of stereoscopes and stereoscopic views furnished gratis, and sent by mail, free of charge, to all parts of the United States.

IMPORTANT TO INVENTORS.

AMERICAN AND FOREIGN PATENT SOLICITORS.—Messrs. MUNN & CO., Proprietors of the SCIENTIFIC AMERICAN, continue to procure patents for inventors in the United States and all foreign countries on the most liberal terms. Our experience is of twelve years' standing, and our facilities are unequalled by any other agency in the world.

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 New, 65 Chancery Lane, London; 29 Boulevard Saint Martin, Paris, and 3 Rue Thiers, Brussels. We think we may safely say that three-fourths of all the European patents secured to American citizens are procured through our Agency.

Circulars of information concerning the proper course to be pursued in obtaining patents through our Agency, the requirements of the Patent Office, &c., may be had gratis upon application at the principal office or either of the branches.

Communications and remittances should be addressed to MUNN & COMPANY, No. 128 Fulton street, New York.

The annexed letter from the late Commissioner 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, and during the period of my administration, a large portion of the money 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.

PAPER MILL FOR SALE, OR TO LEASE.—The subscribers offer for sale or to rent their Mill, situated in North Bennington, Vt., and on the railroad, thirty miles east of Troy, N. Y. Said mill was built four years ago, is now running in complete order, and has all the fixtures for making hanging, printing or book paper. To any one wishing to purchase, it will be sold on terms of payment made easy. A large portion of the money can remain on bond and mortgage. For further particulars address the subscribers at North Bennington, Vt. THUTCHER & WELLING.

TWO VALUABLE PATENTS FOR SALE OR EXCHANGE.—Can be sold in every family. One costs 60 cents, sells for \$3 50; the other, 10 cents, sells for 20. Address, (with stamp) E. BURNS OLCOTT, New York City.

TURKEY YELPERS.—A TURKEY CALL OF my own make and pattern can be mailed to any State in the Union by enclosing \$1 to S. SUTHERLAND, Gun-maker, Richmond, Va.

NOW IS THE TIME TO PURCHASE ONE-fourth of the patent right of a machine for \$1,000 cash, which will realize a fortune, and will prove no failure. Machinists could do with less capital. Such an opportunity rarely occurs. Address A. B. FLITCRAFT, No. 314 Union street, Philadelphia, Pa.

ANOTHER WONDER.—BALDWIN'S TURBINE Water Wheel (represented in No. 51, Volume XII, Sci. Am.) gives from 75 to 97 per cent of power, according to the size of wheel and head employed. Usual sizes, with 4 to 25 feet fall, give 80 to 90 per cent. For information address S. K. BALDWIN, Laconia, N. H.

SOD CORN PLANTERS.—PERSONS WISHING to purchase territory or an interest in my Sod Corn Planter, (which was patented January 26, 1855,) can address me at Homer, Champaign county, Ill. P. C. MOSIER.

SWISS DRAWING INSTRUMENTS.—A full stock of these celebrated instruments always on hand. Catalogue, 4th edition, with 250 illustrations of Mathematical, Optical and Philosophical Instruments, and attachment of illustrated sheet representing the Swiss instruments in the actual size and shape, will be delivered, on application, to all parts of the United States, by sending 12 cents in postage stamps. Address C. T. AMSLER, 635 Chestnut st., Philadelphia, Pa.

L. D. JONES & CO., WESTERN PATENT Right and Machinery Exchange, 44 North Second st., St. Louis, Mo. Agents for the purchase, sale, and exhibition of patent rights, patented machinery, &c.

SQUIRE'S SELF-DISHCHARGING HORSE RAKE.—Patented December 27, 1856. The most simple, durable, effectual, and only labor-saving rake invented. Rights for sale. Send for a circular. JOHN J. SQUIRE, Bunker Hill, Ill.

ARTESIAN WELLS.—THE SUBSCRIBER IS engaged in compiling information relating to Artesian Wells, and respectfully requests of parties throughout the United States who have bored, or are boring for water, (or who propose to do so,) that they will communicate with him, giving, so far as they are willing, detailed statements of their progress and success, the mode of boring, implements used, strata encountered, depth reached, character, flow and temperature of water, with the amount of labor and expense incurred, difficulties met with or surmounted, and any other item of interest. Parties who make it their business to bore for water or explore for minerals, are requested to furnish their address. T. H. LEAVITT, No. 1 Change avenue, Boston, Mass.

WOODWORTH PLANERS.—IRON FRAMES, to plane 18 to 24 inches wide—at \$90 to \$110. For sale by S. C. HILLS, 13 Platt street, New York.

WOODWORTH IMPROVED.—TWO GOLD Medals have been awarded to me for my patented improvements upon the celebrated Woodworth Planing Machine. The above awards, and the large number of these machines now in operation, fully demonstrate their great superiority over all others. Machines of all sizes constantly on hand. JAMES A. WOODBURY, 69 Sudbury st., Boston, Mass.

BOILER FLUES.—ALL SIZES, AND ANY length desired, promptly furnished by JAMES O. MORSE & CO., 79 John st., New York.

PORTABLE STEAM ENGINES.—S. C. HILLS, 13 Platt street, New York, offers for sale these Engines, with Boilers, Pumps, Heaters, etc., all complete, suitable for printers, carpenters, farmers, planters, &c. A 2 1/2 horse can be seen in store; it occupies a space 5 by 3 feet; weight, 1,500 lbs.; price \$340. Other sizes in proportion.

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STEAM ENGINES, STEAM BOILERS, Steam Pumps, Saw and Grist Mills, Marble Mills, Rice Mills, Quartz Mills for gold quartz, Sugar Mills, Water Wheels, Shafting and Pulleys. The largest assortment of the above in the country, kept constantly on hand by WM. BURDON, 102 Front street, Brooklyn, N. Y.

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WARP KNITTING LOOMS FOR SALE.—Three or four warp knitting Looms, suitable for weaving Peatfield's double and single Bay State jackets, Gurnsey frocks, shirts, drawers, and fancy warp-work in general. For particulars, inquire of JAMES PEATFIELD, Ipswich, Mass.

C. M. CRESSON'S CELLULAR GAS RE-TORT.—Patented October 3, 1854.—adapted to the manufacture of gas from wood, and other vegetable substances, and now in use at the Philadelphia Gas Works. Patent rights for sale. For information apply to HENRY S. HAGERT, attorney for patentee, at the south-east corner of Walnut and Sixth sts., Philadelphia, Pa.

ALCOTT'S CONCENTRIC LATHE.—THIS Lathe is capable of turning under 8 inches in diameter with only the trouble of changing the dies and patterns to the size wanted. It will turn smooth over swells or depressions of 3/4 to the inch, and works as smoothly as on a straight line, and does excellent work. Price \$25, (without frames,) boxed, and shipped with directions for setting up. For sale by MUNN & CO., 128 Fulton street, New York City.

SECOND-HAND MACHINISTS' TOOLS.—Consisting of 20 Engine Lathes, 9 Iron Planers, 4 Upright Drills, Hand Lathes, Chuck Lathes, Gear Cutters and Vices, all in good order, and for sale low for cash. For particulars, address FRANKLIN SKINNER, 14 Whitney avenue, New Haven, Conn.

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NEW HAVEN MANUFACTURING CO.—Machinists' Tools, Iron Planers, Engine and Hand Lathes, Drills, Bolt Cutters, Gear Cutters, Chucks, &c., on hand and finishing. These tools are of superior quality, and are for sale low for cash or approved paper. For cuts giving full description and prices, address "New Haven Manufacturing Co., New Haven, Conn."

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