

Correspondents

S. J. S., of Miss.—The best brass solder is composed of six parts of brass, one of tin, and one of zinc; the brass is first melted, then the tin, then the zinc, the whole being well stirred with a stick, to incorporate them thoroughly. Gold solders depend on the carat of the metal to be joined; one for \$15 gold is this: 1 dwt. of \$15 gold, 10 grains of silver, 8 gra. of copper, and 4 gra. of brass. This is a good and useful receipt. For silver, 2 parts of fine silver and 1 part of brass wire will answer every purpose, and will be improved by the addition of three-fourths of a part of arsenic. These will all fuse before the mouth of a blow-pipe.

T. T., of N. Y.—The proportions for the so-called Babbitt's metal is 24 parts of copper, 24 parts of tin, and 8 of antimony, by weight. The application of the spring balance to the cable, to indicate the strain, is not patentable. The spring balance being a well known device for indicating strain, tension, or pressure, its application to any particular or specific purpose is not an invention.

E. H. L., of Ga.—The shaking of your house when a train of cars passes, is only due to the concussion of so great a weight passing by. Electricity has nothing to do with it.

W. R. T., of Pa.—The best solvent for india rubber is coal tar naphtha; nothing will restore it to its original elasticity. Slow evaporation at low temperatures does not much influence its qualities.

J. H. P., of Me.—The best method of bleaching your yacht sails is to wash them in fresh water, with a very little lime, and let them dry in the sun.

W. R. B., of Mo.—Your explanation of the gyroscope paradox is old. We only published the explanation of Mr. McCarroll because of its novelty, and not because we had any great faith in it ourselves.

J. N., of Texas, G. B., of N. Y., S. S., of Pa., and D. H. P., of Texas.—Your suggestions concerning the Atlantic cable are impracticable; and were they of real value, there would be no occasion for their use, as it has been decided that with an alteration of the paying-out machinery it will sink very well, unaffected by ocean currents or any other source of disturbance. However, although your ideas are this time of little practical worth, yet they demonstrate great ingenuity on the part of their authors, and on some other subjects we shall be happy to hear from you again.

H. H., of Pa.—We do not know where the leaves of the *cannabis indicus* can be procured. Write to the physician "whose sands of life have nearly run out." He will probably survive until you can get his reply.

J. D., of Conn.—Your inquiry why we are unwilling to advertise your patent medicine. We reply that we cannot admit this class of advertisements into our columns, for, as a general thing, we regard advertised medicines as humbugs. The public are drugged too much already, and we cannot consent to help on the business.

J. N. R., of N. Y.—You will find an engraving and description of Page's electro-magnetic engine in No. 9, Vol. 7, Scientific American.

J. M. C., of N. Y.—Use thick hair felt, over which place a covering of canvas. By this means you can carry steam through metallic pipes to a great distance.

T. McK., of Mass.—We have heard that copies of daguerotypes have been taken from the plate by the galvanic battery for printing, but have never seen a copy of the picture, with all its lights and shades, taken by a battery, as you have done. Will you send us a description of the process? It must be interesting in a scientific point of view.

J. F. W., of Vt.—Good sand for melling contains 91 parts of silica, from 3 to 6 parts of clay, and a little oxyd of iron in every 100 parts by measure. In practice, however, different castings require different kinds of sand—some coarse, and some fine. A sign of good melling sand is, that when squeezed in the hand, it assumes the finest impressions of the hand without adhering to it. Very fine emery is employed for fine polishing wheels. The surface of the wheels are coated with glue or copal varnish, and the emery then dusted on and allowed to dry.

M. J. H., of N. Y.—The idea of driving ship's pumps by means of a screw like a propeller, having a rotary motion imparted to it by the vessel's motion through the water, is an old one. We cannot recollect who was the first inventor. We know of no life preserver constructed as you propose, of one or more hollow canisters filled with a number of smaller canisters; but it has been proposed to make hollow metal life rafts in compartments, which is almost, if not quite equivalent, to your invention. It is probable, however, that if you can show an advantage in the use of separate canisters inside the larger one, a patent might be obtained.

J. A. B., of Fla.—We wrote to you on the 11th of September in reference to your lock improvement.

W. & S., of Pa.—You say you employ a wind mill for grinding corn, which has arms, with sails of thin boards hinged and adjusted to the action of the wind by weights. You are surprised that there is no perceptible increase in speed when the mill has run out of corn, and ask an explanation. You seem to overlook the fact that the weights referred to act the part of a governor, and thus prevent an increase of speed. There is no other explanation which can be given of it.

Money received at the Scientific American Office on account of Patent Office business, for the week ending Saturday, October 10, 1857:—

C. R. B., of N. Y., \$32; W. W. D., of Cal., \$200; J. M., of S. C., \$30; S. T. W., of Ohio, \$10; B. M., of N. Y., \$30; H. W. B., of N. J., \$50; G. H. C., of R. I., \$20; J. C., of N. Y., \$30; F. G., of N. Y., \$30; J. W., of Pa., \$30; W. De G., of N. Y., \$30; J. B. E., of Pa., \$30; S. P., of Ill., \$25; N. W. H., of N. Y., \$30; D. G.,

of R. I., \$25; J. H., of Ill., \$55; J. P. B., of Conn., \$25; N. J. S., of Ala., \$25; S. C., of S. C., \$20; U. B. V., of Pa., \$55; G. C., of N. Y., \$35; D. B., of N. Y., \$57; S. D. C., of Wis., \$30; J. E. N., of N. Y., \$30; J. L. A., of N. J., \$12; and \$30 in gold from Massillon, O. The party who made this remittance will please send us his name, that we may credit the amount.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Oct. 10, 1857:

C. & N., of N. C.; McC. & C., of N. Y.; E. D., of La.; C. & W., of N. Y.; C. R. B., of N. Y.; N. J. S., Ala.; S. P., of Ill.; J. E. N., of N. Y.; J. P. B., of Conn.; N. W. H., of N. Y.; D. G., of Ky.; J. L. A., of N. J.; S. D. C., of Wis.; D. B., of N. Y.

Literary Notices.

A MANUAL OF LINEAR PERSPECTIVE. By R. S. Smith, Professor of Mathematics and Civil Engineering in the Brooklyn Collegiate and Polytechnic Institute. New York: Wiley & Halsted. This work must have been the result of much study, and shows that the author has a thorough knowledge of his subject, and, moreover, that he is able to convey it to the reader. It is arranged in problems, and has many good illustrations; it will do much toward giving Perspective a place among the branches of mathematical science which it has never occupied before. To the artist, mathematician and student, it will be a valuable book.

HYDRATIC TREATMENT OF SCARLET FEVER. By Chas. Munde, M. D., Ph. D. Published by William Rudde, New York. This is more especially addressed to the public, and is an able exposition of the treatment of scarlet fever by water. It has one merit, and that is that the author has discarded the quack wording of an ordinary popular medical treatise, and writes plain common sense. We do not approve, however, of any specific and patent method of curing disease, for we believe that each disease is differently developed in each case, and requires a treatment peculiar to itself, and to discover this is the object of the true physician.

ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS AND CULTIVATOR ALMANAC FOR 1858, containing practical suggestions for the farmer and horticulturist, embellished with 130 engravings, including houses, farm buildings, implements, domestic animals, fruits, flowers, &c. By J. J. Thomas. Luther Tucker & Son, Albany, N. Y., Publishers. For sale by Fowler & Wells, 308 Broadway, New York. This is a capital work for the household, containing much useful and interesting matter. To farmers and gardeners it is invaluable.

THE ILLUSTRATED FAMILY GYMNASIUM.—By R. T. Trail, M. D., Fowler & Wells, New York, is a little book treating of the subject of its title in a masterly and complete manner; and were its precepts to be followed by every family, we should not see so many old-young men and women, nor so many deformities and so much disease in our population.

THE YOUNG MEN'S MAGAZINE for October, published at 345 Broadway, New York, is very good. The two articles on "Fashionable Amusements" and "Science in America," being especially worthy of attention, as they are well written, and on popular subjects.

THE ECLECTIC MAGAZINE for this month, W. H. Bidwell, New York, has a beautiful portrait of Charlotte Byrnie, better known as "Currer Bell," and authoress of *Jane Eyre*, &c., and also has some excellent selections from foreign periodicals.

THE KNOCKBOCKER.—A monthly magazine for October, Samuel Houston, New York, has some very good articles, and a portrait of John T. Irving. The reviews are very impartial and correct.

We have also received the *Wisconsin Farmer*, published by Powers & Skinner, of Madison, Wis.; also *Hall's Journal of Health*.

TO OUR SUBSCRIBERS.

GIVE INTELLIGIBLE DIRECTIONS.—We often receive letters with money enclosed, requesting the paper sent for the amount of the enclosure, but no name of State given, and often with the name of the Post Office also omitted. Persons should be careful to write their names plainly when they address publishers, and to name the Post Office at which they wish to receive their paper, and the State in which the Post Office is located.

RECEIPTS.—When money is paid at the office for subscription, 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.

SUBSCRIBERS TO THE SCIENTIFIC AMERICAN who fail to receive their papers regularly, will oblige the publishers by stating their complaints in writing. Those who may have missed certain numbers can usually have them supplied by addressing a note to the office of publication.

EVERY SUBSCRIBER would do well to try and get one or more of his neighbors to send their names with his own, even if he has no wish to avail himself of our club rates. The larger the package of papers sent to one address, or the same Post Office, the greater is the certainty of getting the paper regularly. A single paper is sometimes mislaid or overlooked in sorting the mails at some one of the intermediate post offices through which it has to pass; while, on the contrary, we have noticed that a large package seldom fails to reach its proper destination.

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.

SASH, BLIND AND DOOR FACTORY FOR SALE.—For particulars address D. A. STEVENS, Beaver Dam, Dodge Co., Wis.

HONEY, HONEY, HONEY, HONEY.—Every family should have GARDNER'S way for making honey—costs only six cents a pound. Read his advertisement.

CHESTER'S PORTABLE STEAM RADIATOR.—For heating parlors, dining-rooms, railroad cars, &c., with gas, wood, or coal; patented June 30, 1857. For rights in the United States and Europe apply to the undersigned, enclosing stamps. No agents will be appointed. I. H. CHESTER, Cincinnati, Ohio.

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. The long experience we have had in preparing specifications and drawings has rendered us perfectly conversant with the mode of doing business at the United States Patent Office, and with most of the inventions which have been patented. Information concerning the patentability of inventions is freely given, without charge, on sending a model or drawing and description to this office. Consultation may be had with the firm, between nine and four o'clock, daily, at their principal office, 128 Fulton street, New York. Our branch offices are corner of F and Seventh streets, Washington, D. C.; No. 66 Chancery Lane, London; 29 Boulevard Saint Martin, Paris, and 3 Rue Therienne, Brussels. 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 to the principal office or either of the branches. Communications and remittances should be addressed to MUNN & CO., No. 128 Fulton st., 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.,—Take pleasure in stating that while I held the office of Commissioner of Patents, many of the most important of all the business of the office 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. Yours, very truly, CHAS. MASON. August 14, 1857.

EXCELSIOR STEAM PUMPS, DIRECT and Double-Acting, manufactured and sold at 55 and 57 First st., Williamsburgh, N. Y., and 301 Pearl st., New York. May be seen in operation at J. O. Morse & Co., 79 John st., New York. GUILD, GARRISON & CO.

A NEW AND SCIENTIFIC INVENTION.—Dr. Cheever's Galvano-Electric Regenerator.—Patent issued January 15, 1856. A circular relating to the use of the instrument, embracing a general treatise of anatomy of the spermatic organs, the result of which tends to soften the medullary substance of which the brain is composed, may be had gratis, and will be sent to any address by mail by their indicating a desire to receive it. All letters should be directed to Dr. J. CHEEVER, No. 1 Tremont Temple, Boston.

STEAM PUMPS, BOILER FEED PUMPS, Stop Valves, Oil Cups, Cocks, Steam and Water Gages, sold by JAMES O. MORSE & CO., No. 79 John street, New York.

NOW OPEN AT THE CRYSTAL PALACE.—Day and Evening, from 9 A. M., until 10 P. M.—the Twenty-ninth Annual Fair of the American Institute. This unequalled display of the products of our National Skill and Industry is now permanently open. Dodworth's Cornet Band will be in attendance every evening, and on Tuesday and Friday evenings of each week will perform a grand Instrumental Concert by programme. Champey's moving Panorama of the Rhine will be exhibited each day at noon, at 4 P. M., and on Monday and Saturday evenings at 8 o'clock.—Members can procure their tickets at the Palace.

WASHINGTON IRON WORKS.—MALLERY, RAINS & CO., and HIGHLAND IRON WORKS.—STANTON, MALLERY, RAINS & CO., of Newburg, N. Y.—Are extensively engaged in manufacturing all kinds of Steam Engines, Machinery and General Mill Work. They are also partners of the firm of STANTON, SNOW & CO., Car Wheel Manufacturers, Newburg, N. Y., and are prepared to furnish Railroad Cars and Car Wheels of superior construction. From the cheapness of real estate and reasonable price of labor, as well as their great facilities of transportation by two railroads and the Hudson river, they are enabled to fill orders at the lowest prices and on the most reasonable terms.

MACHINERY.—STEAM ENGINES, ENGINE Lathes, Iron Planers, Woodworth Planers, Saw Mills, and a variety of other machinery, for sale very low for cash, to close consignments, by A. L. ACKERMAN, 163 Greenwich st., New York.

LAP-WELDED IRON BOILER TUBES.—Prosser's Patent.—Every article necessary to drill the tube-plates and set the tubes in the best manner. THOS. PROSSER & SON, 28 Platt st., New York.

PATENT SHUT MACHINE.—THE SUBSCRIBER would call the attention of Farmers and Millers to his recently patented Shut Machine, believing it to be the best machine out. For description of the machine see No. 4, Vol. 13, Scientific American. For rights or machines address J. R. GATES, Eckmansville, Ohio.

HARRISON'S 30 INCH GRAIN MILLS.—Latest Patent.—A supply constantly on hand. Price \$300. Address New Haven Manufacturing Co., New Haven, Conn.

BALLS OHIO MOWER.—WITH OR WITHOUT the Reaping Attachment. For territory or shop rights apply to SAXTON & ROFF, Canton, Ohio.

WROUGHT IRON PIPE.—PLAIN AND GALVANIZED, sold at wholesale, by JAMES O. MORSE & CO., No. 79 John street, New York.

RECIPE FOR MAKING ARTIFICIAL HONEY.—As good in looks and taste as that made by bees, and which does not cost over six cents per pound—sent for \$1. Address N. R. GARDNER, Peace Dale, R. I.

MECHANICAL ENGINEER, OF MUCH experience in building and running machinery, especially cotton, wishes for situation; one of much responsibility preferred. Address GEORGE COPELAND, North Gray, Me.

FOR "SAWYER'S COMPANION," APPLY TO S. E. PARSONS, Wilkesbarre, Pa., or to MUNN & CO., New York City. Price \$1 by mail.

1,000 AGENTS.—FOR NEW, SURE, UNPARALLELED INDUCEMENTS. Send stamp to M. J. COOK, Detroit, Mich.

SAWING AND PLANING IN COMBINATION.—An invention by which sawing and planing is performed in one operation, may be seen working at the Crystal Palace. Patented March, 1857, by G. F. WOOLSTON, of Washington, D. C. State rights for sale on moderate terms.

HARRISON'S GRIST MILLS.—30, 36 AND 48 inches diameter, at \$100, \$200, \$300 and \$400, with all the modern improvements. Also, Portable and Stationary Steam Engines of all sizes, suitable for said Mills. Also, Bolters, Elevators, Belting, &c., &c. Apply to S. C. HILLS, 12 Platt st., New York.

FORBES & BOND, ARTISTS, 89 NASSAU street, New York, Mechanical and General Draughtsmen on wood stone, &c.

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.

WEST PHILADELPHIA CHEMICAL WARE Pottery.—Acid and fire-proof ware of all shapes and sizes, up to 200 gallons, made to order; warranted to resist acids of all kinds, and stand changes of temperature, from extreme heat to cold. MORO PHILLIPS, 27 North Front st.

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.

WOODWORTH'S PATENT PLANING MACHINES, of every kind and all prices. A large assortment on hand; and I am prepared to construct any machine to order, from ten days to two weeks, and guarantee each machine to be perfect in its construction, and give purchasers entire satisfaction. The patent has expired and will not be renewed. I make this business exclusive, manufacturing nothing but the Woodworth Machines, and for that reason can make a better article for less money; and with my fifteen years' experience I fully guarantee each machine to come up to what I am willing to recommend, that is, that each machine shall be more than equal to any other manufactured for the same price. JOHN H. LESTER, 67 Pearl street, Brooklyn, N. Y., three blocks above Fulton Ferry.

ENGRAVING ON WOOD AND MECHANICAL DRAWING, by RICHARD TEN EyCK, Jr., 128 Fulton street, New York, Engraver to the Scientific American.

SAWS.—HOE & CO.'S PATENT GROUND SAWS, Plastering Trowels, &c., can be had, wholesale and retail, at the principal hardware stores, at the sales-rooms of the manufacturers, 29 and 31 Gold street, or at the works corner of Broome, Sheriff and Columbia sts., New York. Illustrated catalogues, containing prices and information interesting to sawyers generally, will be sent by post on application.

BOILER FIJES.—ALL SIZES, AND ANY length desired, promptly furnished by JAMES O. MORSE & CO., No. 79 John street, New York.

TO MANUFACTURERS.—ALLEN & OSMOND'S Improved Patent Shuttle Loom for Weaving Checks, Plaids, Gingham, Handkerchiefs, Shawls, &c.—The advantage of this Loom over all others heretofore in use, is, that it can be woven, almost with the facility of plain print cloth, all kinds of cross-barfancy goods, of any device or pattern, which can be woven by hand; the lift and drop motion being so constructed that it will skip from shuttle to shuttle, and may be run either by hand or by power, and operate both the right one; thereby preventing the possibility of mistake (by the weaver) in the pattern. These looms may be seen in operation in the Franklin Factory, Wilmington, Del., where orders for them will be received and promptly attended to by A. P. OSMOND, Assignee.

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.

SCREW BOLTS WITH SQUARE, CARriage or Counter-sunk Heads, Bolt Ends, Square Head Wood Screws, Set Screws, Machine Screws, Hatchet and Breast Drills, Standard Steel and Shrinkage Files, for sale, by CHAS. MERRILL & SONS, 556 Grand street, New York.

PEARSON CROSBY'S PATENT RE-SAWING MACHINES.—The Crosby patent for re-sawing lumber, having been re-issued April 23, 1857, and having purchased the right to the same for the State of New York and Northern Pennsylvania, the subscriber is prepared to sell rights to use the machines in the greater portion of the above named territory, and also to furnish the public with these machines. Having re-built my machine manufactory—which was destroyed by fire on the 9th of February last—I continue to manufacture and have on hand for sale, Woodworth's Patent Planing Machines, from \$150 to \$1,500, and of a quality unequalled by any other manufacturer. Also the separate parts of the machine, namely, planing knives, side tools, side cutter heads, cylinders, &c., as well as the above named Crosby Re-sawing Machines. JOHN GIBSON, Planing Mills, Albany, N. Y.

INCrustation in STEAM BOILERS.—A late patent for removing and preventing incrustation in steam boilers. It has been thoroughly tested, and in every instance has given full satisfaction, by removing all old scale, and preventing the formation of new, keeping the boilers entirely free from incrustation, without injury to the iron. Satisfactory proof of its good effects will be given to any one wishing to purchase. For sale in individual or State rights. All persons will please enclose letter stamps to pay return postage, and prompt attention will be given to letters. Address JAMES M. CLARK, Lancaster, Pa., Sole Agent for the United States.

MACHINE BELTING, STEAM PACKING, ENGINE HOSE.—The superiority of these articles, manufactured of vulcanized rubber, is established. Every belt will be warranted superior to leather, at one-third less price. The Steam Packing is made in every variety, and warranted to stand 200 degs. of heat. The hose never needs oiling, and is warranted to stand any required pressure; together with all varieties of rubber adapted to mechanical purposes. Directions prices, &c., can be obtained by mail or otherwise, at our warehouse. NEW YORK BELTING AND PACKING COMPANY, JOHN H. CHEEVER, Treasurer, No. 6 Dey street, New York.

WELCH & GRIFFITHS.—ESTABLISHED 1830.—Manufacturers of Improved Patent Ground and Warranted Extra Fine Cast Steel Saws, of the various kinds now in use in the different sections of the United States and the Canadas, and consisting of the celebrated Circular Saw, Graduated Cross Cut and Tenon, Gang, Mill, Pit, Segment, Billet and Felice Saws, &c., &c. For sale at their warehouse, No. 43 Congress street, Boston, Mass.

OIL! OIL! OIL!—FOR RAILROADS, STEAMERS, and for machinery and burning. Pease's Improved Machinery and Burning Oil will save fifty per cent., and will not gum. This oil possesses qualities vitally essential for lubricating and burning, and found in no other oil. It is offered to the public upon the most reliable, thorough and practical test. Our most skillful engineers and machinists pronounce it superior and cheaper than any other, and the only oil that is in all cases reliable and will not gum. The Scientific American, after several tests, pronounced it "superior to any other they have ever used for machinery." For sale only by the inventor and manufacturer, P. S. PEASE, 61 Main st., Buffalo, N. Y.

N. B.—Reliable orders filled for any part of the United States and Europe.