

Correspondents

C. G. W., of La.—You cannot procure a patent for making signs of glass. They are used quite extensively in this city. T. F., of Ohio.—It is supposed that the vegetable cell is similar in its action to the galvanic cell, but it is a mere supposition. The brown precipitate formed by immersing a zinc plate in a solution of blue vitriol, is a sub-sulphate of copper. J. S. M., of N. Y.—The composition you mention for brass fixtures is lacquer. It is made with shellac dissolved in alcohol, and colored yellow with tumeric. B. B., of Ohio.—It is our opinion that the white lead and not the turpentine is the cause of painter's colic in painting with lead pigments. A portion of the lead may evaporate with the turpentine, and be inhaled by the painter; this action has been suggested. A. S. W., of N. Y.—A steam boiler will evaporate about as much water under sixty pounds pressure as under atmospheric pressure. If your boiler evaporates nine cubic feet of water per hour, it is nine horse power. J. H., of Ala.—You cannot freeze water by forcing condensed air into it. Dr. Gorrie applied refrigerating liquids for absorbing the heat from water to produce ice in his machine. As far as we have been able to obtain accurate information, no profitable ice-making machinery has hitherto been constructed. You may yet become the successful inventor. J. R. M. of — You have given us no data for calculating the quantity of water which falls per minute therefore we cannot tell you the horse power of your water fall. State your question correctly, and we will answer it. L. A., of N. Y.—We have had a host of communications on the gyroscope, none containing anything of practical usefulness. We are acquainted with all the experiments related in your letter. B. M., of N. Y.—Practically we know that water wheels do more work, and furnaces draw better during night than day, but we have not yet satisfied ourselves as to the reason why. Water will flow as fast over a nine foot as over a twelve foot fall. H. G. W., of N. Y.—We understand that pipes are used upon several lake boats for carrying steam from boilers into the holds of the vessels for extinguishing fires. This method has been recommended as a safety adjunct by the supervising inspectors of steamboats. The idea of employing steam for extinguishing fires is old and well known. S. A., of Iowa.—Mere static pressure cannot raise water in tubes, as you suppose. As there are 2.3 lbs. of water in an inch tube 20 feet high, the total pressure of 3 lbs. on a piston in a four foot stroke pump making 40 strokes per minute, will raise water 20 feet high through the tube, and discharge its whole contents eight times every minute. E. A. D., of N. Y.—You cannot successfully heat water in a vat by placing the steam pipe upon its surface. Water will not conduct heat downwards; so that if you wish to accomplish your object, you should place the heating pipes at the bottom of the vat. A steam jacket when applied to an engine, is a casing filled with steam, for keeping the steam in the interior of the cylinder hot. It is known to be an economizer of fuel. Watt discarded it for a while, but resumed its use again for the above reason. J. W. S., of Ohio.—You are mistaken in supposing that telegraph companies could not use several wires twisted together for conductors, on account of their too great conducting powers. They have found that when one wire can do the work it is absurd to use more; just as it would be an erroneous policy to build and use three or four tracks of railroad to do work that can easily be accomplished on a single track. A lightning rod is efficient according to its solid section; this is the opinion of Professor Faraday. S. & M., of Ky.—If you own a town, county, or State right in a patented invention, and any one should introduce the same improvement within your territorial limits, he is liable to you for damages, and you can sue and recover from him. It would be ridiculous indeed if the purchaser of a patent right to a specific locality could be interfered with by the mere introduction of the invention from some other market, and have no remedy. G. H., of Del.—Constructing diaphragm pumps in the manner you describe has been done before, and is not, therefore, patentable. S. U. S., of Ill.—By taking a common pencil, and holding it vertically to the eye, and observing how much of its length is necessary to cover the figure of a man at any known distances, say one hundred and two hundred yards, and then cutting notches in the pencil at the exact points, you will be able at any time, by this simple means, to approximate closely to the distance a person may be from you. A knowledge of this simple fact may prove of service in many cases. We know nothing of a bass viol operated by horse-power. It must be a curious affair. J. C. C., of Tenn.—We have never published an engraving of Halsted's turn-table. Wm. Howe has had three patents granted to him on bridges. Two were issued in 1840, and have expired, and one was granted in 1848, and will not expire, therefore, until 1860. C. C., of Pa.—Models sent to us without the name of the inventor attached, are liable to be mislaid and forgotten. The law requires the applicant's name to be put on his model. W. W., of N. J.—To preserve your boiler from rusting while it stands idle, introduce some oil into it just before it is stopped, and then run off all the water. A thin coat of oil will thus be left upon the metal to protect it. F. G. S., of Mass.—Build your small boiler of a cylindrical form, like that of a locomotive. Insert the steam

pipe into its top when you have no dome. The power of an engine does not depend on the length of its stroke, but the pressure of steam, and the velocity and area of the piston. Cement for cast iron is composed of twenty pounds of iron filings, one ounce of sal ammoniac, and half an ounce of the fower of sulphur, made into a paste with water. Money received at the Scientific American Office on account of Patent Office business, for the week ending Saturday, June 12, 1858:— L. H., of La., \$24; J. R., of Ohio, \$25; U. T. S., of Tenn., \$30; T. G. Y., of N. Y., \$25; G. W. S., of Ill., \$30; J. H. Q., of Mich., \$24; A. S. L., of N. Y., \$100; A. R., of N. Y., \$30; W. T., of Me., \$55; R. H. C., of Ala., \$30; G. W. B., of N. Y., \$25; E. B., of Mo., \$30; F. M., of Ill., \$30; W. H. B., of N. Y., \$55; A. D., of Mich., \$25; J. A. A., of Texas, \$30; B. & P., of Mass., \$55; S. S., of L. I., \$57; S. N. L., of N. Y., \$30; J. F., of Mass., \$81; C. W. & W. W. M., of Ill., \$15; H. N., of N. Y., \$45; S. B. S., of Mo., \$30; P. M., of Ill., \$30; J. J. W., of L. I., \$30; M. D., of Conn., \$250; O. D. W., of N. Y., \$25; G. F. D., of Pa., \$30; W. S., of Mo., \$10; J. D., of Ohio, \$30; W. W. H., of Texas, \$30. Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, June 12, 1858:— J. R., of Ohio; L. H., of La.; J. H. B., of R. I.; E. B., of Mo.; F. B. N., of N. Y.; J. H. Q., of Mich.; T. G. Y., of N. Y.; J. L. S., of Tenn.; A. D., of Mich.; T. E. McN., of Pa.; O. D. W., of N. Y.; W. H. B., of N. Y.; G. W. B., of N. Y.; D. H., of N. Y.; J. D., of Ohio; H. N., of N. Y.; (2 cases); S. L.; of L. I.; J. F., of Mass., (3 cases); T. E. P., of N. Y. Literary Notices. Trow's NEW YORK CITY DIRECTORY. Compiled by H. Wilson. We have just received this valuable Directory for the years 1858-9, containing 139,804 names, all of which have been collected, arranged, printed and bound in one month. To praise a Directory would indeed be a work of supererogation as its value and usefulness are appreciated by every one. It is published by J. F. Trow, 377 and 379 Broadway, New York, for \$3 50. WILSON'S BUSINESS DIRECTORY for 1858-9—published by J. F. Trow—contains the names and addresses of all the business men of this city, classified under their respective occupations. The price is only \$1, and no office or store should be without it. AMERICAN VETERINARY JOURNAL.—G. H. Dadd, V. S. Boston, Mass.—This periodical which is so full of information on all subjects relating to the veterinary art, and the treatment of cattle generally, is so cheap (only \$1 per annum) that the owner of any quadruped, equine or bovine, must really be neglecting his own interests if he does not take it. THE AMBROTYPE by Chas. Seeley, A. M. This practical treatise upon the art of producing collodion positives has attained a second edition. It is a very complete and correct manual, and should be in the hands of every photographer. THE MUSICAL WORLD.—R. S. Willis, Editor.—The number for this week contains a beautiful piece of music, by R. Goldbeck, composed to the words, "Let me Weep," by Anna Freeman. It is also full of interesting matter for the home circle or the desultory hour. THE AMERICAN JOURNAL OF PHOTOGRAPHY.—Published at 424 Broadway, New York.—This periodical has just commenced a new series, and there are many improvements with the new volume. It is an excellent magazine and very cheap. THE ECLECTIC MEDICAL JOURNAL.—Published by R. S. Newton, M. D. Cincinnati.—The June number contains some excellent articles upon medical subjects and hygiene, all, however, treated according to the theories of the so-called eclectic school. 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, 139 Fulton street, New York. We have lately established a Branch Agency on the corner of F. and Seventh streets, Washington (opposite the United States Patent Office). This office is under the general superintendence of one of the firm, and is in daily communication with the Principal Office in New York, and personal attention will be given at the Patent Office to all such cases as may require it. 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 Nos. 66 Chancery Lane, London; 29 Boulevard St. Martin, Paris; and 26 Rue des Eperonniers, 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, MORE THAN ONE-FOURTH 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 customers. Yours, very truly, CHAS. MASON. WOOD-WORKING MACHINERY.—LANE & BODLEY, Cincinnati, Ohio, manufacturers of all kinds of wood-working machinery. Morris' patent Wood-Benders, for any shapes or purposes—more effective and economical than any other in use. ARTESIAN WELLS.—WANTED TO EMPLOY immediately, a practical artesian well-borer. Address WM. STICKNEY, Washington, D. C.

SPECIAL EXTRAORDINARY OFFER.—The great fifty-cent Pictorial Monthly. The United States Journal commences its tenth volume with the July number; and determined, regardless of any outlay, to give it an immediate introduction into every neighborhood, we make the following special offer.—To any person who will send us two subscriptions (\$3), we will present either a beautiful copy of Fleetwood's Life of Christ, containing about 500 pages, elegantly bound, and profusely illustrated, or we will present a splendid copy of Livingston's Travels in Africa, superbly bound and illustrated; or a copy of the magnificent steel-plate engraving, "Signing of the Death Warrant of Lady Jane Grey." The postage on the books is 24 cents each, and on the engraving 12 cents, which must accompany the order. If anybody is fearful that the above offer will not be carried out, they can deposit the amount and postage with their postmaster, to be forwarded by him on receipt of the premium and first number of the paper. We will also send our catalogue of rich offers. J. M. EMERSON & CO., 406 Broadway, New York. FOR SALE AT A BARGAIN.—ONE NEW 13 ft Iron Planer, weight 10,000 lbs. One new 18 ft. Engine Lathe, swing 30 inches. One second-hand Engine Lathe, swing 21 inches. One Upright Drill, six Shaft Straighteners, six Bolt Headers. For particulars address or inquire of WM. T. SCRANTON, New Haven, Conn. S. D. BARNETT, MALLEABLE AND GREY Iron Foundry, Hamilton, corner of McWhorter st., Newark, N. J. Orders promptly attended to. PATENT GRATE BARS.—FOR STEAMBOAT and Stationary Engines—manufactured and supplied by the Salamander Grate Bar Co., office 80 Pearl st., New York. REED'S PATENT PORTABLE AND STATIONARY STEAM ENGINES, unequaled for simplicity, durability, and economy. Brinkbeck's improved Steam Pumps, Portable Steam Saw and Grist Mills; second-hand engines and boilers. Most improved machinery of all kinds, furnished by JOHN A. REED, No. 173 Broadway, corner of Maiden Lane, New York City. These machines have no rival.—[Scientific American.] WHEELER & WILSON'S SEWING MACHINES, 343 Broadway, New York, received the highest premiums awarded in 1857 by the American Institute, New York; Maryland Institute, Baltimore; and at the Maine, Connecticut, Illinois, and Michigan State Fairs. Send for a circular containing editorial and scientific opinions, testimonials from persons of the highest social position, &c. MACHINISTS' TOOLS FOR SALE AT HALF PRICE.—I will sell the remainder of the tools belonging to the estate of John Parsley at half price, if called for soon. Said tools are new, and in good order. They consist in part as follows:—One 16 foot planer, 10 hand lathes, 2 spliner drills, 13 No. 1 drills, 1 bolt header, 1 shaft straightener, plane centers and jaws, chucks, all sizes; also 8 of Foster's building block machines. N. D. SPERRY, Trustee, New Haven, Conn. BELTING AND PACKING.—Niagara Falls Paper Manufacturing Co., Niagara Falls, April 20, 1858. United States Patent Office. We hereby received the Gutta Percha Belting ordered from you, and after giving it a thorough test the past winter, on our heaviest engines, constantly exposed to water, ice and oil, and making 140 to 160 revolutions per minute; and again on two of our largest "Gwynne Pumps," making from 600 to 700 revolutions per minute, they have given us entire satisfaction, and we think it decidedly the best belting we ever used, and you may look for our future orders as required. S. PETIBONE, Treasurer and Superintendent. For sale by the UNITED STATES VULCANIZED GUTTA PERCHA CO., No. 66 Liberty street, New York. CIRCULARS WITH CUTS, ILLUSTRATING steam engines and machinery for making lumber, shingles, staves, heading chairs, bedsteads, and wheat-cleaning machinery, bran dusters, &c., sent for a postage stamp, by applying to L. A. SPALDING, Lockport, N. Y. WOODWORTH PLANING MACHINES, Mortising, Tenoning, and Sash Machines, and a full assortment of wood-working machinery, at greatly reduced prices. Address CHARLES H. SMITH, 135 North Third st., Philadelphia, Pa. FIFTH EDITION.—CATALOGUE CONTAINING 250 illustrations of Mathematical, Optical and Philosophical Instruments, with attachment of a large sheet representing the Swiss Instruments in their actual size and shape, will be delivered, on application, to all parts of the United States, by sending 12 cents in postage stamps. C. T. AMSLER, No. 625 Chestnut st., Philadelphia. WOODWORTH PLANERS.—IRON FRAMES to plane 18 to 24 inches wide—at \$90 to \$110. For sale by S. C. HILLS, 12 Platt street New York. PHILADELPHIA RIVET WORKS.—MANUFACTURERS of the celebrated P brand. Boiler, tank, and gasometer rivets, of every diameter, length, and head. PHILLIPS & ALLEN. EMPLOYMENT.—TO SELL A NEW AND novel invention to defeat pickpockets. Write to DICKINSON & BATE, Hudson, Mich. CLARK'S REGULATOR.—FROM TEN TO twenty-five per cent saving in fuel is guaranteed in the use of Clark's Patent Steam and Fire Regulators; besides giving the most perfect regularity of power at any desired pressure, and no fear of explosions. Send for circular at 229 Broadway, New York City. E. R. PRATT, Secretary. FIRST-RATE TENON MACHINES FOR SALE LOW.—Medal awarded by the American Institute, New York. C. P. S. WARDWELL, Lake Village, N. H. HARRISON'S GRIST MILLS.—20, 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. 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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, 103 Front street, Brooklyn, N. Y. HARRISON'S 30 INCH GRAIN MILLS.—Latest Patent.—A supply constantly on hand. Price \$300. Address New Haven Manufacturing Co., New Haven, Conn. THE WORKS OF THE AUBIN GAS CO., (General Office, No. 44 State st., Albany, N. Y.) as now perfected, are adapted to all materials and localities, and are in successful operation in villages, factories, and private dwellings. For full information as to cost, probable income of public works, &c., apply as above. For plans, &c., see SCIENTIFIC AMERICAN of March 13th. SECOND-HAND MACHINISTS' TOOLS.—Consisting of 20 Engine Lathes, 9 Iron Planers, 4 Upright Drills, Hand Lathes, Chuck Lathe, Gear Cutters and Vices, all in good order, and for sale low for cash. 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