

TO CORRESPONDENTS.

J. V. H., of Va.—It is really difficult for us to point out what is proper to claim that could be firmly established and retained. The process is patentable—that is wherein it differs from the old ways; this must be all clearly pointed out, explained, and claimed in the specification; other specimens are required. The government fee is \$30.

S. S., of N. Y.—We will be happy to see you when you come down with your model, and will be able to form a more correct opinion respecting its qualities.

D. S., of Leon—The Sci. Am. will be forwarded to your address for the term of your subscription; subsequent subscriptions must invariably be paid in advance; back numbers sent as per request.

P. & S., of Pa.—A gentle breeze exercises a pressure of about 0.83 of an ounce per square foot; a high wind 1-2 lbs; you can calculate from this what work you want done, and what amount of sail surface to use; it would require no small amount of writing to furnish you with all the data for constructing wind-mills. We do not advise any person to erect a wind-mill where fuel is cheap; get a steam engine.

P. M. H., of D. C.—You mistake the nature of radiation entirely; it is merely an effort of chemical forces to restore equilibrium, and the common thermometer contradicts instead of confirming your theory; the difficulties of using heat over and over again cannot be mechanical, if your theory is true; we cannot divine how you can entertain such an unscientific idea.

E. H., of Iowa—In Vol. 3 of the Sci. Am. we published a hand-carriage for common roads; it has never come into use. Your modification embraces nothing patentable, and we advise you not to spend time and money upon it.

F. S., of Mass.—An electric magnetic passenger index was invented by C. W. Townsend, of England, some four years ago, and was at that time described in the London papers as a very beautiful invention, since that time we have heard nothing about it.

N. C., of Ohio—We do not understand the meaning of the last part of your letter.

J. W., of Md.—If your second tier of springs is above your city, the difficulty can be remedied by bringing your reservoir to that level where the lower springs can enter it. We see no other way to remedy the difficulty. When you can get water from a hill don't dig an Artesian well.

J. Y., of Mo.—Your plan is correct, excepting the string pieces, they should not be very thin. It is well understood that the embankment, if of sand, is the best; it would not answer to have plank roads in our city; the travel is too much for wood. For villages we think they are excellent.

M. B. & Co., of Ohio—To obtain the information you want, copies of the specifications of the two stoves will have to be obtained from the Patent Office (and you will have to pay for them), as it is impossible to tell the patented points otherwise.

J. S., of Ky.—It is utterly impossible for us to give the attention to your last letter, which you have requested.

J. S., of N. H.—Spratt has a patent; his conductor is a very good one. Any person can make a good conductor with a piece of dry, well varnished wood. We do not know about Homer's. The best conductor is a copper rod, the thicker the better; if this is too expensive, get an iron rod, smooth, and of uniform thickness throughout. F. P. is here often. The M. M. P. is still in existence, and may yet do something.

J. B. W., of N. J.—A. B. Wilson, the inventor of the celebrated "Wilson Sewing Machine," resides at Watertown, Ct.

O. H. P., of Phila.—Your article on Water Wheels is too long; we do not wish to open our columns to a controversy upon the subject, we have had one already; a statement of facts was all that was required; Mr. C. is well acquainted with the P. wheel and claims.

W. B. C., of Ill.—Scrapers suspended on an axis are old and well known; we see nothing new or patentable in yours.

J. B., of Pa.—You would see in a late number of our paper that the Atmospheric Telegraph is not new with you.

R. A. S., of Mass.—We do not see what advantage your suggestion would be to Capt. Ericsson, about using a jet of steam with hot air; we consider the advantage would be to use all steam and no hot air.

Money received on account of Patent Office business for the week ending Saturday, May 7:—

J. S. U., of N. Y., \$30; J. A., of Ohio, \$30; W. H. Jr., of Ohio, \$55; S. C., of N. Y., \$30; J. H., of N. H., \$40; J. M., of Del., \$30; G. D., of Ohio, \$3; R. R. F., Jr., of N. Y., \$50

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday May 7:—

C. & S., of N. Y. (5 cases); F. D., of Va.; J. M., of Del.; G. W. F., of Ohio; J. W. H., of R. I.; M. S. B., of N. Y.; R. R. F., Jr., of N. Y.

BACK NUMBERS AND VOLUMES—In reply to many interrogatories as to what back numbers and volumes of the Scientific American can be furnished, we make the following statement—Of Volumes 1, 2, 3 and 4—none. Of Vol. 5, all but six numbers, price, in sheets, \$1; bound, \$1.75. Of Volume 6, all; price in sheets, \$2; bound, \$2.75. Of Vol. 7 all; price in sheets, \$2; bound, \$2.75. Of Vol. 8, all the back numbers subsequent to No. 27, but none previous.

ADVERTISEMENTS.

PATENT HYDRANTS AND COCKS—Bartholomew's Patent Self-acting Double and Single Hydrants and Cocks are in extensive use and much approved, are strong, durable, not likely to get out of order, always shut when not in use, not likely to freeze, avoid waste of water, do not burst pipe. The hydrants are cheaply repaired without digging up; double hydrants supply two lots and sixty tenants. The cocks are adapted for water closets, require no care in using; always shut, being self-stopping, give a good supply; the double valve cock avoids the expense and space of cistern, and gives a uniform supply each time used. One service pipe will supply twenty, do not freeze nor overflow, and make the cheapest and best job. Plumbers only supplied at the factory, 84 Marion st, N. Y. City. All work warranted. 354\*

NEW WORKS ON CIVIL ENGINEERING—The Field Practice of Laying out Circular Curves for Railroads; by John C. Trautwine, C. E.; second edition, in pocket-book form. A New and Rapid Method of Calculating the Cubic Contents of Excavations and embankments, by the aid of Diagrams; by John C. Trautwine, C. E., with 10 copper-plates. Price \$1 each; postage on the Curves, 3 cents, and on the Excavations and Embankments, six cents. For sale by Wm. HAMILTON, Hall of the Franklin Institute, Phila. 35 3m

WOODWORTH'S PLANING MACHINES ON hand and manufactured to order, of superior quality at reduced prices, warranted perfect; also steam engines and other machinery. Also Rotary Stave Dressing Machines, capable of dressing staves with the natural growth of the timber, the only one ever invented capable of accomplishing that purpose. Rights for sale in various States. JOHN H. LESTER, 57 Pearl st, Brooklyn, L. I. 35 10\*

MACHINE FOR MAKING RAILROAD CHAIRS—Having built one of my patent machines for making Railroad Chairs, and operated it in presence of several scientific mechanics, who pronounce it the most perfect machine ever made for the purpose, I am anxious to sell rights upon reasonable terms; 4000 perfect chairs can be made in one day, with only one-third the usual labor. ROBERT GRIF-FITHS, Newport, Ky., opposite Cincinnati. 35 3\*

STAVE AND BARREL MACHINERY—We manufacture Stave and Barrel Machinery for making everything in the cooper line, from the smallest white lead keg up to the largest cask in general use, all of which are warranted to hold the most subtle liquids. Applicants can see the machinery in operation by calling on us at our shop in Elmira, five minutes' walk north of the New York and Erie Railroad Depot, or by applying to us by mail can get all the requisite information respecting machinery and rights. Sample of the work can be seen by calling at the office of this paper. WM. TRAPP & CO., Patentees and Proprietors. 34 4\*

ATMOSPHERIC TELEGRAPH—The English patent (just issued) is now offered for sale at the Company's office, 24 Merchant's Exchange, Boston, Mass. J. S. RICHARDSON, Agent A. T. Company. 25tf

TO IRON FOUNDERS AND MACHINISTS—Great sale of Machinery, Patterns, Cranks, and Foundry Tools, and other articles being disposed of in the machinery department of their business, will offer for sale, at Public Auction, on Wednesday, May 18, at 10 o'clock, A. M., at their Foundry, No. 110 Beaver street, Albany, N. Y., their entire stock of fixtures, necessary for carrying on extensively the steam engine and general machinery business; among which is the largest and best collection of gearing, pulley, and promiscuous patterns that can be found in the country. A large variety of iron lathes, planers, boiler tools, &c., pertaining to machine and smith shops. Several large cranes, ladles and other foundry tools. Planing machines, saws, and lathes for wood-work, and a large variety of miscellaneous articles. The machinery and patterns have been mostly made under the direction of those celebrated mechanics, Wm. V. Many and Ira Jagger, and are all in perfect order. It is seldom that such a collection of patterns and machinery is offered for sale, and it presents an excellent opportunity for parties who are about commencing the machinery business or enlarging that which is already established. Catalogues will be ready on the 16th inst. The sale will be positive and without reserve. TREADWELL & PERRY, late Jagger, Treadwell & Perry. 34 3

TO STOVE MANUFACTURERS—The subscriber would call the attention of stove manufacturers to a new process of obtaining slot for covers for the reception of lifting handles, for which he has just obtained a patent; some of the qualities for which he claims an advantage over the old process of chills, wires, &c., is the preventive of cracking, saving the expense of wire, and on moulding, giving a neater and prettier cover; it is now in use in Southern and New York State Furnaces, and gives universal satisfaction, furnace, county or State rights sold on reasonable terms. All letters addressed to me at Albany, N. Y., will receive prompt attention. THADEUS A. SMITH. 34 4\*

JAMES D. JOHNSON, Bridgeport, Ct., Proprietor of Wood's Patent Shingle Machine. Persons wishing to purchase rights or machines, can address as above. This is unquestionably the best machine in use for cutting shingles. 33tf

WHEELER, WILSON, & Co.—Watertown, Ct., proprietors and manufacturers of Allen B. Wilson's Patent Stitching Machine. Patented June 15, 1852, it can be seen at the Company's Office 265 Broadway, New York. 30 20\*

PIG IRON—American and Scotch, of favorite brands; also Cupola Fire Bricks, Fire Clay, Sand and Foundry Facings of every approved description, for sale by G. O. ROBERTSON & CO., office 135 Water street, (corner of Pine), N. Y. 31 6c0w\*

PALMER'S PATENT LEG—Manufactured by Palmer & Co., at 5 Burt's Block, Springfield, Mass., for New England and New York State, and 376 Chestnut street, Philadelphia; in every instance of competition in the Fairs of the various Institutes of this country, has received the highest awards as "the best" in mechanism, usefulness, and economy. At the "World's Fair," London, 1851, in competition with thirty other varieties of artificial legs (by the best artists in London and Paris), it received the Prize Medal as the best. 25 20\* (16c3w)

PATENT LAWS OF THE UNITED STATES, and information to inventors and patentees; for sale at the Scientific American office. Price 12 1-2 cents.

BEARDSLEE'S PATENT PLANING Tongue and Grooving Machines—These celebrated machines have now been generally introduced in various portions of the United States. More than thirty are now in successful practical operation in the State of New York alone. As an illustration of the extent of work which they are capable of performing, with unrivalled perfection, it is sufficient to state that, within the last six months and a half, over five millions of feet of spruce flooring have been planed, tongued and grooved by one of these machines at Plattsburgh, N. Y., never running to exceed ten hours a day. The claim that the Beardslee machine was an infringement upon the Woodworth patent, has been finally abandoned; and after the proofs had been taken, the suit instituted by the owners of that patent was discontinued, and the whole controversy terminated on the first of November last. Applications for machines or rights may be made to the subscriber, GEO. W. BEARDSLEE, 57 State street, or No. 764 Broadway, Albany. 15tf

PORTABLE FORGES—REMOVAL.—The subscriber (successor to E. Flagler), and sole manufacturer of Queen's Patent Portable Forge and Bellows, respectfully gives notice that he will remove his depot for the sale of said Forges to 210 Water street (directly opposite to present location), on the first of May next, where, by the long attested superiority of this Portable Forge over all others for the use of blacksmiths, machinists, jewellers, dentists, braziers, shipping, quarries, public works, &c. &c. he hopes to retain a continuation of the past patronage. FREDERICK P. FLAGLER, 211 Water st until May 1st. 32 4\*

BARLOW'S UNSURPASSED Planing Tongue and Grooving Machines. Testimonials of the highest character can be given of their superiority over all others in use. For rights or other information. Apply to A. K. Wellington, 184 Twelfth street, New York City. 32tf

THE AMERICAN ENGINEER, DRAUGHTSMAN, and Machinist's Assistant, designed for practical workmen, apprentices, and those intended for the engineering profession, illustrated with 200 wood cuts, and 14 large engraved lithographic plates of recently constructed American machinery and engine work, by Oliver Byrne, 1 Vol., large 4 to. Embracing Mathematical and Drawing Instruments, Geometrical Problems, Brackets and Pillow Blocks, Lubricators, Electric Steam Gauge, Horse Power, Parallel Motions, Indicator, Safety Valves, High Pressure Steam Engines, Steamship Engines and Boilers, Rotary Engines, Locomotives, Screw Propellers, Ericsson's Caloric Engine, &c. &c. price \$5. The work will be sent to any part of the United States, free of postage, upon the receipt of the amount by mail, address C. A. BROWNE, & CO., publishers, N. W. Corner, of 4th and Arch streets, Philadelphia. 31 6\*

STAVE MACHINERY—We manufacture the improved Mowry Stave Machine for slack work, cutting, dressing, and jointing, at one operation, without any handling of the stave until it is finished, after you place the bolt of wood upon the feeding carriage. The machine feeds itself, cutting, dressing, and jointing in a finished and uniform manner 80 to 100 staves a minute. Any kind of timber fit for a stave may be used, even such as could not be rived, as elm, hickory, beech, &c. The cost of running the machine, for cutting, dressing, jointing, and piling up, where a machine is kept steadily at work. For machinery and rights in the State of New York, apply to CHAS. MOWRY, Auburn, N. Y.; for machinery and rights elsewhere, to the subscribers, GWYNNE & SHEFFIELD, Urbana, Ohio. 30tf

WOODBURY'S PATENT PLANING Machines—I have recently improved the manufacture of my Patent Planing Machines, making them strong and easy to operate, and am now ready to sell my 24 inch Surfacing Machines for \$700, and 14 inch Surfacing Machines for \$650 each. I will warrant, by a special contract, that one of my aforesaid machines will plan any boards or plank as two of the Woodworth machines in the same time, and do it better and with less power. I also manufacture a superior Tonguing and Grooving Machine for \$350, which can be either attached to the Planing Machine, or worked separately. JOSEPH P. WOODBURY, Patentee, Border st, East Boston, Mass. 29tf

THE NEW HAVEN MANUFACTURING Company, New Haven, Conn., having purchased the entire right of E. Harrison's Flour and Grain Mill, for the United States and Territories, for the term of five years, are now prepared to furnish said mills at short notice. These mills are unequalled by any other mill in use, and will grind from 20 to 30 bushels per hour of fine meal, and will run 24 hours per day, without heating, as the mills are self-cooling. They weigh from 1400 to 1500 lbs., of the best French burr stone, 30 inches in diameter; snugly packed in a cast-iron frame, price of mill \$200, packing \$5. Terms cash. Further particulars can be had by addressing as above, post-paid, or to S. C. Hills agent N. H. M. Co., 12 Platt st, N. Y. 28tf

ENGINEERING—The undersigned is prepared to furnish specifications, estimates, plans in general or detail of steamships, steamboats, propellers, high and low pressure engines, boilers, and machinery of every description. Broker in steam vessels, machinery, boilers, &c. General Agent for Ashcroft's Steam and Vacuum Gauges, Allen & Noyes' Metallic Self-adjusting Conical Packing, Faber's Water Gauge, Sewall's Salinometers, Dudgeon's Hydraulic Lifting Press, Roebling's Patent Wire Rope for hoisting and steering purposes, &c. etc. CHARLES W. COPELAND, 29 13\* Consulting Engineer, 64 Broadway.

NORCROSS ROTARY PLANING MACHINE.—Decided by the Circuit Court not to infringe the Woodworth Machine—I now offer my Planing Machines at a low price; they are not surpassed by any machines as to amount or quality of work. Tonguing and grooving machines also for sale, doing one or both edges as desired; 80 machines now in operation. Address me at Lowell, Mass. N. G. NORCROSS. 27 10\*

LATHES FOR BROOM HANDLES, Etc.—We continue to sell Alcott's Concentric Lathes, which is adapted to turning Windsor Chair Legs, Pillars, Rods and Rounds; Hoe Handles, Fork Handles and Broom Handles. This Lathe is capable of turning under two inches diameter, with only the trouble of changing the dies and pattern to the size required. It will turn smooth over swells or depressions of 3-4 to the inch and work as smoothly as on a straight line—and does excellent work. Sold without frames for the low price of \$25—boxed and shipped with directions for setting up. Address (postpaid) MUNN & CO. At this Office.

NEW METHOD FOR MAKING WROUGHT-IRON—The proprietors of Alexander Dickerson's and James Renton's Patents for the manufacturing of wrought-iron direct from the ore, are desirous of introducing the invention into general use; and invite parties who may wish to negotiate for rights for States and counties, or for furnaces, to make immediate application, and to examine the furnace which is in successful operation at the American Iron Company's Works, Newark, N. J. The invention is exciting considerable interest; gentlemen from all parts of the country, who are engaged in the manufacture of iron, have examined the furnace in its workings, and give their decided commendation. A circular, giving more minute information, will be sent to those desiring it. The rights for several States and counties have already been disposed of. Applications for rights in the State of New Jersey may address the Hon. J. M. Quinby, President of the American Iron Company. Inquiries or applications for other States may be made to A. H. BROWN, Newark, N. J., Office 107 Market st. 34tf

T. J. SLOAN'S PATENT HYDROSTAT—For the Prevention of Steam Boiler Explosions. The undersigned having made extensive arrangements for the manufacture of these machines, are now prepared to receive orders for the immediate application of the same to boilers of every description. They have endeavored to place the instrument within the reach of all, by selling it at a very low price, the cost of one horse-power being only \$20, five horse-power, \$30, and so on, according to the capacity of the boiler. SLOAN & LEGGETT, Proprietors and Manufacturers, foot of East 25th st, New York. 30tf

W. P. N. FITZGERALD, Counsellor at Law has recently resigned the office of principal Examiner of Patents, which he has held for many years, and is now engaged, professionally, in the preparation of cases for trial before the U. S. Courts in the various States, and before the Supreme Court of the United States. He also acts as Counsel in cases before the Patent Office, and on appeals therefrom. He will prepare applications for Patents, in the various States, and 8th sts., Washington, D. C. 14tf

MACHINERY—No. 12 Platt-st. N. Y. dealer in Steam Engines, Boilers, Iron Planers, Lathes, Universal Cutters, Drills, Knives, Von Schmidt's and other Pump, Johnson's Shingle Machines; Woodworth's, Daniel's and Law's Planing machines; Dick's Presses, Punches and Shears; Mortising and Tenoning machines; Belting; machinery oil, Beal's patent Cob and Corn mills; Burr mill and Grindstones; Lead and Iron Pipe &c. Letters to be noticed must be post-paid. 27tf

A. B. ELY, Counsellor at Law, 52 Washington st., Boston, will give particular attention to Patent Cases. Refers to Munn & Co., Scientific American. 16tf

LEONARD'S MACHINERY DEPOT, 109 Pearl-st. and 60 Beaver, N. Y.—Leather Banding Machinery, N. Y.—Machinists' Tools, a large assortment from the "Lowell Machine Shop," and other celebrated makers. Also a general supply of mechanics' and manufacturers' articles, and a superior quality of oak-tanned Leather Belting. P. A. LEONARD. 27tf

Painting Colors, Anti-friction Paste, Gold Size, Zinc Drier, and Stove Polish. QUARTERMAN & SON, 114 John st., Painters and Chemists. 27tf

BOSTON BELTING COMPANY—No. 37 Milk street, Boston, Manufacturers of Machine Belting, Steam Packing, Engine and Conducting Hose, and all other articles of Vulcanized India Rubber, used for mechanical and manufacturing purposes. 28tf

COTTON MACHINERY—Of the most approved plans, from the best shops in the country;—drawings, specifications, and general arrangements for the machinery, furnished at the lowest rates, by W. B. LEONARD, and E. W. SMITH, 75 Merchants' Exchange, New York. 23tf

THE TROY IRON BRIDGE CO. are prepared to erect Iron Bridges or Roofs, or any kind of bearing trusses, girders, or beams, to span one thousand feet or under, of any required strength, in any part of the country. Their bridges will be subjected to severe tests, and can be built for about the price of good wooden ones. Address BLANCHARD & FELLOWS, Troy, N. Y. 30 10\*

FALES & GRAY (Successors to TRACY & FALES), RAILROAD CAR MANUFACTURERS—Grove Works, Hartford, Connecticut. Passenger, freight, and all other descriptions of railroad cars and locomotive tenders made to order promptly. 1tf

C. B. HUTCHINSON'S PATENT STAVE Cutting Machines, the best in use, and applicable alike to thick or thin staves; also his Head Cutting and Turning, and Stave Jointing Machines. For machines or territorial rights, apply to C. B. HUTCHINSON & CO., Syracuse, N. Y. 9tf

J. D. WHITE'S PATENT CARAXLE LATHES—also Patent Engine Screw Lathes, for boring and turning tapers, cutting screws, &c. We manufacture and keep constantly on hand the above lathes; also double slide Chuck and common Hand Lathes, Iron Planers, S. Ingersoll's Patent Universal Ratchet Drill, &c. Weight of Axle Lathe, 5,500 lbs; price \$600; Engine Screw Lathe, 1,400 to 7,000 lbs; price \$225 to \$675. BROWN & WHITE, 27tf Windsor Locks, Conn.

COCHRAN'S CRUSHING MACHINE—Can be seen in daily operation in Thirteenth street, between 9th and 10th avenues. Parties in want of a machine for crushing and pulverizing quickly and cheaply Quartz Rock, Iron, Lead, Copper, and Silver Ores, and other mineral substances equally hard, are invited to witness the operation of these powerful and simple, but yet effective machines. For further particulars apply to E. & J. BUSSING & CO., No. 52 Cliff st., Y. N. 23tf

THE NEW HAVEN MANUFACTURING CO. No. 2 Howard st, New Haven, Ct., are now finishing 6 large Lathes, for turning driving wheels, and all kinds of large work; these lathes weigh 9 tons, and swing 7 1-3 feet, shears about 16 feet long. Cuts and further particulars can be had by addressing as above, post-paid, or to S. C. Hills, agent N. H. M. Co., 12 Platt st, N. Y. 28tf

LEE & LEAVITT—Manufacturers of every description of Cast Steel Saws, No. 53 Water street, between Walnut and Vine, Cincinnati, O. 27 6m\*