

TO CORRESPONDENTS.

L. G., of N. Y.—We think favorable of your improved method of preventing car axles from breaking, but may change our views after examining a sketch and description which you had better send us.

W. M. L., of La.—We have ordered the machine you want, but shall not be able to obtain it until about four weeks; the delay is unavoidable on our part.

M. M., of La.—We think favorable of your ideas in regard to boxwood, but there is no chance for a patent.

W. W., of L. I.—No patent could be obtained for the article you mention, and we advise you not to make an attempt.

S. C. H., of Ohio.—You ask if a single engine with a fly-wheel, will give as steady a motion to stones as a double engine with the cranks set at right angles. If the engine is worked up to its limit of power it will not. It has been found that for milling purposes it is difficult to get a steady motion from steam power. The engine or engines must be powerful and there must be plenty of steam so as to allow them to work easy. You state that two thirty feet boilers of three feet diameter do not drive any more than two run of stone. Have you fire bridges under them—do you burn coal or wood? Boilers that use coal should never be more than six times the length of their diameter. In every case we advise the employment of tubular boilers, and the use of pure water in them. There should be nine square feet of heating surface for each horse power; by making your calculations you can determine whether your boilers are correct or not.

D. B., of N. J.—You may rest assured that lime will never supersede coal; a pound of coal will convert far more water into steam than a pound of lime, this is the test.

E. L. N., of Mass.—Guess you have discovered the article by this time without the aid of those spectacles.

E. S., of Me.—We are the agents of Mr. Avery for procuring his foreign patents, and think we know what we are about when we pronounce it a first-rate machine for the price.

J. M. B., of Del.—We have shipped several concentric Lathes to Philadelphia, but the names of the parties who purchased were entirely forgotten.

J. T., of Phila.—The "Mechanic" we referred to died three or four years ago.

S. S., of N. Y.—If we understand your drawing, we believe your invention to be patentable; the claim you suggest would have to be greatly modified however.

J. Y., of Ohio.—The error you speak of was corrected before the papers were sent to the Patent Office. An engraving of your invention would cost \$10.

G. W. H., of N. Y.—We fail to discover any thing patentable in your Match Safe, although they are a very pretty article of manufacture.

D. R., of N. C.—Your subscription will expire at No. 26, Vol. 9. It was a mistake of ours in receiving the price of binding twice.

H. Van de W., of N. Y.—Your wheel so closely resembles the one illustrated in the 14th number, present volume Sci. Am., that it would not afford sufficient interest to our readers to warrant our publishing an engraving of it.

R. S., of Ill.—We have duly examined the sketch of your alleged improvement in Rotary Engines, and recognize in it an old acquaintance: we have been familiar with the same plan for some years; see Vol. 4, Sci. Am.

I. H. G., of Iowa.—We did not answer your inquiry because we were unable to do so. The first question is a "poser," and we know what you mean but know of no one who can approximate to anything like a true estimate; we think there is no machine which does the work you speak of.

H. G. R., of Tenn.—We have examined the sketch of your alleged improvement in Churns, and cannot discover anything new or patentable in it; we have seen the same plan before.

F. V. D., of Mich.—Machines to be operated by the action and re-action of waves is well known and have been variously modified; you may have some new contrivance, but it is doubtful.

G. R. Selkirk, of Michigan City, Ind., wishes to purchase a suit of Submarine Armor of the most approved construction.

J. F. J., of N. C.—We have handed over your letter to an engine builder.

S. F. H., of Boston.—You can send us a full and complete description of your Car Seat for examination.

H. & R., of N. H.—We never publish engravings entirely devoid of letters of reference to enable us to explain the operation of the invention.

R. L. O., of Pa.—We do not see the advantages you claim for the device mentioned in your former letter; you might make an experiment and fully satisfy yourself.

G. C., of N. Y.—It is no easy matter to arrive at your meaning from the brief description and sketches you have presented. The idea presented is that of a double tier of buckets on the wheel, the upper the percussion, the lower the re-action; this form of wheel is not new, and so far as percussion and re-action is concerned the application is an anomaly.

C. L., of Ct.—You may perhaps have seen accounts of thus allowing the exhaust to escape into a cold water tank; we have so used it ourselves; but the extract showed how far they were behind in Europe; it is the same with the gas patent; it will never benefit the patentees where coal can be purchased.

E. A. W., of N. Y.—Mason and Dixon's Line acquired its name from the surveyors. Any work on Natural Philosophy will give you the information about the atmosphere; the answer would be too long for us to give.

W. R. R., of N. Y.—The hollow shaft, for the weight of metal, is the strongest, but certainly a solid cast-iron shaft is as strong as a hollow one of the same diameter.

J. C., of N. J.—Brass is the best metal that wears acquainted with for counters for store advertisements.

Money received on account of Patent Office business for the week ending Saturday, Jan. 8:

G. D., of N. Y., \$30; N. C. T., of N. Y., \$35; J. E., of N. Y., \$25; J. C. S., of Pa., \$30; H. L. F. G., of Mich., \$25; E. W., of N. H., \$30; P. J. T., of N. Y., \$30; C. W. G., of N. Y., \$10; J. & C. D., of Pa., \$30; D. W. K., of Va., \$25; D. M., of N. Y., \$20; J. H., of N. Y., \$37.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Jan. 8:

J. E., of N. Y.; D. M., of N. Y.; O. S., of R. I.; W. F., of Pa.; J. H., of N. Y.; N. C. T., of N. Y.

A Chapter of Suggestions, &c.

PATENT CLAIMS—Persons desiring the claims of any invention which has been patented within fourteen years, can obtain a copy by addressing a letter to this office—stating the name of the patentee, and enclosing one dollar as fee for copying.

PATENTERS—Remember we are always willing to execute and publish engravings of your inventions, provided they are on interesting subjects, and have never appeared in any other publication. No engravings are inserted in our columns that have appeared in any other journal in this country, and we must be permitted to have the engraving executed to suit our own columns in size and style. Barely the expense of the engraving is charged by us, and the wood-cuts may be claimed by the inventor, and subsequently used to advantage in other journals.

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 and 3—none. Of Volume 4, about 20 Nos., price 50 cts. Of Volume 5, all but four numbers, price, in sheets, \$1. 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 to January 1st (No. 16), but none previous.

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.

PATENT LAWS, AND GUIDE TO INVENTORS.—We publish, and have for sale, the Patent Laws of the United States. The pamphlet contains not only the laws but all information touching the rules and regulation of the Patent Office. Price 12-1-2 cts. per copy.

ADVERTISEMENTS.

Terms of Advertising.

Table with 2 columns: Number of lines and Price. 4 lines, for each insertion, 50 cts. 8 " " " " 1.00. 12 " " " " 1.50. 16 " " " " 2.00.

Advertisements exceeding 16 lines cannot be admitted; neither can engravings be inserted in the advertising columns at any price.

All advertisements must be paid for before inserting.

American and Foreign Patent Agency

IMPORTANT TO INVENTORS.—The undersigned having for several years been extensively engaged in procuring Letters Patent for new mechanical and chemical inventions, offer their services to inventors upon the most reasonable terms. All business entrusted to their charge is strictly confidential. Private consultations are held with inventors at their office from 9 A. M., until 4 P. M. Inventors, however, need not incur the expense of attending in person, as the preliminaries can all be arranged by letter. Models can be sent with safety by express or any other convenient medium. They should not be over 1 foot square in size, if possible. Having Agents located in the chief cities of Europe, our facilities for obtaining Foreign Patents are unequalled. This branch of our business receives the special attention of one of the members of the firm, who is prepared to advise with inventors and manufacturers at all times, relating to Foreign Patents. MUNN & CO., Scientific American Office, 128 Fulton street, New York.

TO MECHANICS—A RARE CHANCE—FOR sale or to let, a building 60x90, with a 15 horse engine, shafting and pulleys, 5000 feet yard room, near the depot of the Kennebec and Boston R. R., in Brunswick, Me., 6 hours from Boston; is one of the best locations in the States for building freight cars or making furniture, or any other manufacture of lumber, being in the heart of a ship-building and lumber country; will be sold a bargain, the owner not being in circumstances to manage it. Also, the right to Woodbury's planing machine for Brunswick and Bath. Apply by letter, post-paid, or in person, to 18 2eow\* NARCESSA STONE.

SURFACE CONDENSERS—Having built and used at our machine shop and foundry one of J. M. Miller's Surface Condensers for the last 14 months, we are now prepared to receive orders for building and putting up said condensers on either high or low pressure engines now in use, and warrant the same against expansion and contraction of the metals, also the injurious effects of oil in the tubes, which alone has caused the failure of condensers heretofore used. We have also found, in the use of our Condenser a net saving of 30 per cent. of fuel, the water being kept pure and regular in the boiler by the condensation of the steam. In our judgment this Condenser is the perfecting of the Steam Engine. COBB, MASON & HILL, North Point Foundry and Machine Works, 18 4 Jersey City, N. J.

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 ready to assist, professionally, in the preparation and trial of patent causes before the U. S. Courts in any of the 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, but does not prepare applications for Patents Office corner of E and 8th sts., Washington, D. C. 18 tf

PREVENTING OF INCRUSTATION in Steam Boilers—The inventor of a never-failing and extremely cheap remedy, which has been tried successfully for two years, with the most different qualities of water, offers to communicate it for the benefit of the public at a moderate price. Post-paid letters, enclosing \$5, will receive prompt answer if directed to the undersigned, who is prepared to give the best of references. A. SCHELLEK, 1\* box 1276, St. Louis, Mo.

FLOURING AND GRIST MILL FOR SALE—Three miles north-west from Salem, Columbia Co., Ohio; the mill is furnished with three run of stone, driven by steam and water, both at once or separately; there are 2 dwelling houses, orchard and ten acres of land; the mill and machinery are all new and in fine running order, in an excellent section for wheat, 3 miles from the railroad. The above can be had low and on favorable terms. For further particulars address or call upon the subscriber. HODGSON KIDD. 1\*

FOR SALE—A second-hand Locomotive Boiler, 10 or 12 horse-power, with safety-valve, grate-bar, &c., in complete order; will be sold cheap. Also, four largest size Mott's Furnace Kettles, 150 gallons. ROBINSON & WINANT, 18 2\* 105 Freeman st, Brooklyn.

PORTER'S PATENT GRADUATING VALVE FORGE TUYERE (illustrated in this paper Sept. 6th, 1851) is unequalled for durability and economy, and warranted to save full 25 per cent. Hundreds have recently been introduced in this city and elsewhere, all of which work like a charm. Address J. H. BURNETT, 308 Broadway, N. Y. 15 4\*

PATENT DRAFT BOARDS—With extension scales, sheet fasteners, and T rule. See Reports of Worcester Fair, Maryland State Fair, &c. &c., with their awards. \$10 complete. Sent by express. Address, post-paid, CHAMBERLIN & CO., Pittsfield, Mass. 16 tf

A RARE OPPORTUNITY FOR MECHANICS The advertiser is anxious to secure a good Partner, in the person of a skillful mechanic, who has a cash capital of from \$3000 to \$5000, to assist in carrying on an extensive establishment in one of the most flourishing cities of the South, erected for a Planing Mill and Sash and Blind Factory. It has been but very recently put into operation, with entirely new and valuable machinery, driven by a 50 horse-power engine, also new. The machinery combines all of the latest improvements, and is believed to be as perfect as any ever put up at the South. The want of practical knowledge of machinery is the only motive for seeking a partner. For information apply to MUNN & CO., office of the Scientific American. 15 4

J. D. WHITE'S PATENT CAR AXLE 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, 1400 to 7,000 lbs; price \$225 to \$375. BROWN & WHITE, 15 tf Windsor Locks, Conn.

WANTED—A good DYER and FINISHER of woollens. We are most particular about the former qualification. For further particulars address us by mail or otherwise. TEST & MENDENHALL, 15 4\* Richmond, Ind.

STEAM ENGINES FOR SALE—We offer for sale two Engines and Boilers, as follows: one 8 horse, horizontal, cylinder 7 inches bore, 16 inch stroke, on a cast-iron bed, fly wheel, driving pulley, governor, pump, pipes, &c.; has never been used. The Boiler has been used by the maker about one year. It is cylinder, horizontal, 16 feet long, 30 inch diameter, has a steam chamber, try-cocks, check and safety valves; price, \$600. One 7 horse Horizontal Engine, 6 inch bore, 16 inch stroke, cast-iron bed-plate, driving pulley, etc. Boiler horizontal, tubular, and has everything complete for putting it in operation. The engine is new, the boiler has been used, but is in good order. Price \$500. They are rare bargains, and will give satisfaction to the purchaser, being much less than new ones can be obtained. Address MUNN & CO.

E. HARRISON'S UNEQUALLED FLOUR AND GRAIN MILLS—Their frames and hopper are cast-iron, and the stones French Burr, 30 inches to four feet diameter. Thirty inch mill grinds 20 bushels an hour, weighs 1400 lbs.; cash price \$200. These mills, constructed upon a new principle, have become widely known, and are producing a revolution in milling. Cash orders promptly supplied, and the mills warranted to work in the best manner. The patentee offers \$500 reward for any mill which will do an equal amount of work with the same power and dressing. Made and for sale at the corner of Court and Union streets, New Haven, Conn., by 13 6\* ELWARD HARRISON.

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. 7 20\*

BEARDSLEE'S PATENT PLANING Tongueing 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. 15 tf

EXHIBITION OF WORKS OF AMERICAN Industry at Washington City.—The first exhibition of the Metropolitan Mechanics' Institute will be opened on Thursday, the 24th of February, 1853, in the new and splendid hall of the east wing of the Patent Office, one of the largest and most magnificent rooms in the United States, being 275 feet long by 70 feet wide. To this exhibition the manufacturers, mechanics, artists, and inventors, from all portions of the Union, are cordially invited to contribute. The hall will be opened for the reception of goods on Monday, the 14th of February, and the exhibition will positively close on or before Thursday night, March 17. Circulars, containing detailed instructions, will be forwarded and any further information given, on application (post-paid) to the Corresponding Secretary, Charles F. Stansbury, to whom all communications on the business of the Institute should be addressed. 8 tf

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 plane as many 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. 13 tf

MACHINERY.—S. C. HILLS, No. 12 Platt-st. N. Y. dealer in Steam Engines, Boilers, Iron Planers, Lathes, Universal Chucks, Drills; Kase's, Von Schmidt's and other Pumps; Johnson's Shingle Machines; Woodworth's, Daniel's and Law's Planing machines; Dick's Presses, Punches and Shears; Morticing 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. 13 tf

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

LEONARD'S MACHINERY DEPOT, 169 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. 7 tf P. A. LEONARD.

PAINTS, &c. &c.—American Atomic Drier Graining Colors, Anti-friction Paste, Gold Size, Zinc Drier, and Stove Polish. QUARTERMAN & SON, 114 John st., Painters and Chemists. 1 tf

LATHES FOR BROOM HANDLES, Etc.—We continue to sell Alcott's Concentric Lathe, 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 (post-paid) MUNN & CO. At this Office. 1 tf

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. 1 tf

SHINGLES, SHINGLES, SHINGLES—WOOD'S latest improvement in Shingle Machines is becoming more generally used than any other ever invented, and is unquestionably the best machine now in use; it produces shingles from all kinds of timber in a very perfect and rapid manner. Machines and rights for sale. Apply to JAMES D. JOHNSON, Bridgeport, Ct. 9 tf

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. 9 tf

POSTAGE STAMPS.—Post Office Stamps, of the denomination of 1, 3, or 12 cents, may be had at par by addressing MUNN & CO., Scientific American Office.

NEW HAVEN MANUFACTURING COMPANY, Tool Builders, New Haven, Conn., (successors to Scranton & Parshley) have now on hand \$25,000 worth of Machinists' Tools, consisting of power planers, to plane from 5 to 12 feet; slide lathes from 6 to 18 feet long; 3 size hand lathes, with or without shears; counter shafts, to fit all sizes and kinds of universal chuck gear cutting engines; drill presses, index plates, bolt cutters, and 3 size slide rests. The Co. are also manufacturing steam engines: All of the above tools are of the best quality, and are for sale at 25 per cent. less than any other tools in the market. Cuts and list of prices can be had by addressing as above, post-paid. Warehouse No. 17 Platt st., New York, S. C. HILLS, Agent N. H. Man'g Co. 45 tf