

TO CORRESPONDENTS.

J. H. F., of Vt.—You will find Prof. Wright correct when you make careful experiments. Not being acquainted with your plan, we could not give you an answer.

J. G. J., of Ill.—It is a mistake which we have often seen made, to suppose that one part of a machine rotating, but to work in combination with another main part having a reciprocating motion, does its work quicker than a machine wholly reciprocating. Your platten has a reciprocating motion, and your cylinder cannot be made to work faster than it. Your press, however, appears to be a good one; but you know that many mechanical combinations really require experiments to determine their superiority; some combinations, however, are so plain that we can at once point out their virtues or defects.

A. C., of Conn.—It is our opinion that your boiler is a good one; we judge this by your description and sketch, the latter being very imperfect. A model should be made as soon as possible. The Air Condenser will not answer; air is not a suitable medium for taking up the heat rapidly; it is a bad conductor.

J. P., of Miss.—Your letter asking information about Camp's invention is received, we cannot furnish any information respecting it not found in the Sci. Am., to which you refer, therefore we have passed the \$1 to your credit on account of subscription.

A. W. Z., of N. Y.—For taking photographs on glass, a solution of gun cotton, called collodion, is employed.

R. M., of Me.—It is a mooted point whether there is such a substance as ozone in the air, or whether it is only oxygen modified or changed by electricity.

W. B. S., of Ga.—A substitute for the American cotton gin has been attempted in the East Indies, but has not succeeded. The English East India Co. have offered a large reward for an improved cotton gin that will suit cotton grown in the East Indies, for which the one now in use is not altogether suitable.

R. B., of La.—A centrifugal refrigerator has been lately patented in England.

R. S. T., of Me.—"Hydrated" signifies containing moisture, and "anhydrous" deprived of the same.

W. L., of N. H.—Sulphuric acid and oil of vitriol are the same.

I. M. P., of Tenn.—We do not think your plan will interfere with any other in use; so far as we understand it the plan seems to be good.

W. S., of Me.—We think your device possesses novelty sufficiently to warrant an application for Letters Patent. You had better send us a model.

W. McB., of Ohio.—The sketch of your "Choir Time Keeper" has been carefully examined, and is believed to possess novelty of a patentable character. We apprehend, however, that a patent would be of little or no pecuniary value. We see little in it which is valuable as an article of merchandise.

J. C. C., of Ind.—All right.

L. D. H., of Vt.—We think if you should use the fire box and chimney you would infringe one of the patents issued, but perhaps not the one referred to by you.

P. B., of Schenectady.—As yet we have had no tidings from the Patent Office, concerning your case since the papers and model were acknowledged. Hope to hear soon: should think it was time it had been examined.

M. C. R., of Ohio.—The plan you offer as a substitute for the crank is old and useless; it has been re-invented hundreds of times, and we have now in our office several models of it.

T., of N. Y.—The glass is French; we have seen no other. Cannot you get the chemicals pure from E. N. Kent, in John street? We believe you can. You are right about the Hillotype, but it would not do to use such strong language as you do.

J. S., of Ky.—Yours will receive its place.

H. S. H., of N. Y.—When an individual advertises the sale of a valuable invention as low as a dollar, for a right to use it, we are apprehensive there is some humbug about it, and don't like to be accessory to such schemes by inserting their advertisements in the Scientific American. The money you sent us is subject to your order.

E. Van C., of Pa.—You are at liberty to introduce your invention on any of the railroads that will adopt it. Engravings of your apparatus would cost \$15; no charge made for publishing.

P. D., of Pa.—We have no desire to publish your article, others beside yourself entertain the opinion that light is a subtle matter, and we must say, that we have seen the subject more ingeniously treated.

O. Y., of N. Y.—O. B. T.'s claim could not extend farther than its application to the felt for the specific purpose mentioned, or any like purpose that he could certainly claim.

L. L. M., of N. C.—The undulatory theory, or that light moves in waves, has been very ingeniously propounded by Fresnel, a French writer on the subject.

M. A., of N. H.—By the wheel and axle any one continued rectilinear motion may be made to produce another in any other direction, and with any other velocity.

S. W. T., of S. C.—The place to be assigned to a fly wheel relatively to the other parts of the machinery is determined for the purpose for which it is used.

R. A., of Ala.—By the term "latent heat," is meant that which is insensible to the touch, or cannot be discovered by the thermometer.

B. W., of Mass.—The theory of mechanics is founded upon mathematical science, and consequently a knowledge of geometry is necessary to understand it thoroughly.

R. L. T., of S. C.—Bodies that radiate heat best, likewise absorb it best.

A. M., of Miss.—Wintergreen grows abundantly in some parts of New Jersey, its extract is highly esteemed for many purposes.

S. P., of N. Y.—We do not know of a wood planing machine like yours, but the same principle is embraced in Eays' stone dressing machine published in our last volume.

R. I., of Va.—We do not know the plow by the name mentioned. You had better offer something, say \$50, for the best plan for a furnace—we know of no one who would undertake it, although there are many.

B. L. W., of Miss.—The best writer to consult on the application of manures is Sir H. Davy, in his Agricultural Chemistry.

Money received on account of Patent Office business for the week ending Saturday, Jan. 15:

W. R., of Mass., \$15; G. R., of N. Y., \$35; J. O., of Ct., \$20; W. S. P., of Ct., \$30; W. M. W., of Ct., \$20; G. N. L. D., of N. Y., \$20; B. B., of N. Y., \$30; F. O. L., of Pa., \$30; J. B. T., of N. Y., \$25; I. H., of O., \$45; G. B. S., of N. Y., \$25; C. & R., of Mass., \$25; F. J. T., of N. Y., \$20; A. C., of N. Y., \$35.

Specifications and drawings belonging to parties with the following initials have been forwarded to the Patent Office during the week ending Saturday, Jan. 15:

W. P., of Mo.; G. N. L. D., of N. Y.; J. B. T., of N. Y.; A. C., of N. Y.; I. H., of O.; G. B. S., of N. Y.; F. J. T., of N. Y.; C. & R., of Mass.

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 121-2 cts. per copy.

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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.

BACK VOLUMES OF THE SCIENTIFIC AMERICAN for sale—Vols. 2, 5, 6, and 7, complete, price \$2.50 per volume; Vol. 3, less 10 or 12 numbers, and Vol. 4, less 4 or 5 numbers; price \$1.50 each; all bound and in good order. Address, post-paid, F. S. BURRELL, Albany, N. Y. 19 4*

ENAMELLED IRON—A man with a thorough practical knowledge of enamelling iron hollow ware in the most durable and brilliant manner, as performed in the celebrated enamel works of Gleiwitz, in Silesia, wants to get employment or to sell his improved process. Address A. SCHELLER, box 1276, St. Louis, Mo. 1*

NEW BRICK MACHINE—For a full description see Sci. Am., No. 49, and engraving No. 52, last Vol. A six-mould machine, driven by steam, makes 15,000 a day; cost, \$500 without engine. A 5-mould by two horses attached to a sweep, worked by two men and five boys, makes 10,000 a day; cost, \$300. A 4-mould, by one horse, one man and five boys, makes 8000 a day; cost, \$250; may be mounted on wheels and moved about. Persons remote may be supplied with model, drawings, and set of patterns or castings. Maryland Institute, Nov. 23.

To the Committee on Awards—By your request we have made a re-examination of the Brick Machine of Mr. F. H. Smith. The work is now done in the most efficient manner and by the slightest improvement imaginable. A further improvement is in the method of delivering the bricks from the moulds, which goes far to facilitate the entire operation. We are of opinion that the machine will prove a great acquisition to those engaged in the business, especially in country places where they have not the benefit of experienced hands, as the whole is performed by ordinary labor. The bricks made by it are well formed, substantial, and all that can be desired.—Wm. Slicer, L. P. Clark, John C. W. Thos. Williams, C. Reeder. December 15th. By unanimous vote Gold Medal awarded. Address, FRANCIS H. SMITH, 17 3eow* Baltimore.

IRON FOUNDERS MATERIALS—viz.: Scotch Land American Pig Iron, of favorite brands; Scotch patent Fire Bricks—square, arch, and circular. Fire Clay and Fire Sand; Moulding Sand for Iron and Brass Founders; Core Sand and Flour. Pulverized Black Lead, Soapstone, Sea Coal, Anthracite, and Charcoal Bolted Facings of approved quality, for sale by G. O. ROBERTSON, & CO., office 135 Water street, (corner of Pine), N. Y. 19 Geow*

CLOCKS FOR CHURCHES, COURT HOUSES, AND OTHER PUBLIC BUILDINGS. Time-Pieces for Session and Vestry Rooms, Hotels, Railroads, etc.; Regulators for astronomical purposes, Jewellers, and others, when the most perfect time is desired. The improvements introduced by the subscribers, enable them to warrant an accuracy of time-keeping, unequalled (so far as they can learn) in Europe or America. Glass dials, for illuminating and other kinds, furnished. Address SHERRY & BYRAM, Oakland Works, Sag Harbor, Long Island. "At the Oakland Works of Sherry & Byram there are made some of the finest clocks in the world."—[Scientific American. 19 13eow

SURFACE CONDENSERS—Having built and used S 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 cases 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. 15 tf

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, 105 Freeman st, Brooklyn. 18 2*

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

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 Serew Lathe, 1,400 to 7,000 lbs; price \$225 to \$675. BROWN & WHITE, 15 tf Windsor Locks, Conn.

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, etc.; 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.

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 Machine; 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; Barr mill and Grindingstones; 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 Munn & Co., Scientific American. 16 tf

LEONARD'S MACHINERY DEPOT, 109 Pearl-st. and 60 Beaver, N. Y.—Leather Banding Manufactory, 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. 11 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. 11 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. 11 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

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NEW HAVEN MANUFACTURING COMPANY, Tool Builders, New Haven, Conn., (successors to Seranton & Parshey) have now on hand \$25,000 worth of Machinists' Tools, consisting of power planes, 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. 12 Platt st., New York, S. C. HILLS, Agent N. H. Munn & Co. 19 11