

An Apology.

We owe an apology to our 16,000 patrons for the space occupied this week by our advertising friends.

We have endeavored to keep the space appropriated for advertisements limited to two columns, by not admitting any of over 16 lines in length, but our rapidly increasing circulation has proved to advertisers that our columns surpass any other medium in the country for making the public acquainted with every species of business connected with mechanical and inventive pursuits, hence the unsolicited quantity of advertisements that has recently pressed upon our columns.

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

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

Advertisements that are already paid for will be continued until the expiration of the time for which they are paid, at former rates, and then discontinued, unless the parties manifest a desire to have them continued at the advance rate, and remit accordingly.

All advertisements must be paid for before inserting.

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 4 numbers, price, in sheets, \$1, complete sets, bound, \$2.75. Of Volume 6, all; price in sheets, \$2; bound, \$2.75. Of Vol. 7, all back numbers at subscription price.

Persons writing us without signing their names to the communication, are considered as not acting in good faith, or as mistaking the rules which govern all newspaper establishments, and are therefore not attended to.

ADVERTISEMENTS.

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.

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.

IMPROVEMENT IN PIANOFORTES—CHROMATIC KEYS.—The difficulty of effecting rapid movements on the chromatic scale in running the fingers over the keys of the instrument, is well known to every practical musician, and this exercise requires playing many years to become perfect in it. By the invention of the chromatic keys, every pupil playing the piano will learn the chromatic scale and each difficult chromatic passage, in a few hours, with a rapidity of movement equal to the greatest pianists. This invention is simple, cheap, and useful. More information may be obtained by letter addressed to the inventor, W. F. FURGANY, Albany, N. Y., who has taken measures to secure a patent. The price of a set of 1 octave chromatic keys is 75 cts. 24 2\*

TO BLACKSMITHS—Porter's Patent Graduating Forge Tapers, which has been proved to save \$75 per annum to each fire, and which was illustrated and described in the Scientific American of Sept 6, 1851,—is now manufactured in this city, and is offered wholesale and retail at 258 Third st., near Avenue C, and No. 9 Gold st. New York. All orders or letters requesting information, addressed to W. J. & J. H. BURNETT, at the latter place, will meet with prompt attention. 24 2\*

PHILADELPHIA SCHOOL OF CHEMISTRY—Boyd's Avenue, Tenth street, below Market. This Institution is conducted on the plan of the German Laboratories. Gentlemen may enter for the year, quarter, or month, daily, or tri-weekly, during the whole or part of the day, and pursue chemistry practically, in its connection with agriculture, medicine, or the arts. The analysis of ores, organic substances, &c., will continue to receive personal attention. ALFRED L. KENNEDY, M. D. 1\*

DRAUGHTING BOARDS—CHAMBERLIN'S PATENT, 23x29 inches, 28 feet of various scales, arranged for draughting of all kinds with dispatch, and mechanical device for ready adjustments of draught sheets, of thorough made and elegant appearance, approved by the American Institute, N. Y., and various other authority. Price with Trule \$10, can be sent by express. Address, post paid, H. W. CHAMBERLIN, Pittsfield, Berkshire Co., Mass. 24 4\*

\$150 REWARD—One hundred dollars for complete working drawings, with elevation of the same, of the most elaborate and best-proportioned Stationary Horizontal High Pressure Engine; bore 12 inches, stroke 30 inches. The design must combine with ornament, simplicity and cheapness of construction, and yet be susceptible of extreme finish, with as little hand labor as practicable. Fifty dollars reward, also, for the best Upright Engine, with same combinations, bore 10 in. stroke 20. The above are wanted for a special object, and the different designs will be submitted to a competent committee, who will make the awards. Heater, pump, and connections, and fly-wheel must be included.—Refer to W. B. Leonard, 60 Beaver st., N. Y. Open till March. Mail to A. Z. & Co., New York. 24 3

VENTILATION—In reference to the advertisement which I have had in this paper for some time, and also in reference to the reward offered by F. M. Ray "for the best method of excluding dust from cars when in motion," I beg to inform car building companies, railroad companies, and steamboat companies, that my patent includes the Ventilation of all these vehicles, and covers the whole ground of "excluding dust," &c. I expect to be in New York and Boston some time next month, of which notice will be given in some of the daily papers, as also of the place where I may be found. H. RUTAN. Coburg, Canada, Feb., 1852.

TO COTTON MANUFACTURERS AND MACHINISTS—The undersigned having had thirty-five years' experience in the manufacturing and machine business, is desirous of obtaining a situation as foreman or agent in the above branches; would have no objects to go South or West; the best of preference can be given. Letters addressed to CHARLES E. MOORE, Groverville, Mercer Co., N. J., will be attended to promptly. 24 4\*

MORTISING MACHINE.—Dear Sirs: I received the Portable Mortising Machine about 3 weeks ago; I have used it, and am very well pleased with it. It is the best plan of a machine of the kind I have ever seen. W. R. McFARLAND. Nashville, Tenn., 1851. This machine is simple, durable, and effective, and is boxed and shipped for the low sum of \$20. MUNN & CO.

TO ENGINEERS, RAILROAD COMPANIES OR MANUFACTURERS.—The advertiser, who is a thorough Engineer and Machinist, and has been extensively engaged in business (steam engines, and heavy machinery) for several years past, wants a situation as Superintendent, Manager or Draughtsman and Bookkeeper, in any operation requiring such qualifications. No objection to going to any part of the United States. Satisfactory testimonials can be produced as to qualifications and moral character. Communications addressed to THOMAS FRANCIS, No. 30 North Tenth st., Philadelphia, will receive prompt attention. 23 2\*

A CARD—The undersigned begs leave to draw the attention of architects, engineers, machinists, opticians, watchmakers, jewellers, and manufacturers of all kinds of instruments, to his new and extensive assortment of fine English (Stubbs) and Swiss Files and Tools; also his imported and own manufactured Mathematical Drawing Instruments of Swiss and English styles—which he offers at very reasonable prices. Orders for any kind of instruments will be promptly executed by E. A. SIBENMANN, Importer of Watchmakers' and Jewellers' Files and Tools and manufacturer of Mathematical Instruments, 154 Fulton st. 23 13\*

MACHINERY—1 Screw Bolt Cutting Machine nearly new; 2 new Deik's Patent Punches, No. 2, suitable for boiler makers; 2 small ditto, and 1 bank-note or tobacco press, Dick's patent. One steam pump for supplying water to a 50 horse-power boiler, and several second-hand engines, different sizes, for sale at low prices by WM. D. ANDREWS, 187 Cherry and 452 Water sta., N. Y. 23 2\*

IRON FOUNDERS MATERIALS—viz.: fine pulverized Sea Coal, Anthracite and Charcoal, Black Lead and Soapstone Facings. Iron and brass moulding sand; Core sand and flour; English Fire Bricks for cupolas, &c. Fire Sand and Clay—for sale by G. O. ROBERTSON Liberty place, (near the Post Office) N. Y. 23 10\*

1852 TO 1856.—WOODWORTH'S PATENT Planing, Tonguing, Grooving, Rabbeting, and Moulding Machines.—Ninety-nine hundredths of all the planed lumber used in our large cities and towns continues to be dressed with Woodworth's Patent Machines. Price from \$150 to \$700. For rights in Westchester County, and the other unoccupied towns and counties of New York and Northern Pennsylvania, apply to JOHN GIBSON, Planing Mills, Albany, N. Y. 23 1\*

DESIRABLE PROPERTY FOR SALE.—The Dekalb Manufacturing Co. will offer for sale their Cotton Factory, Corn Mill, and Tannery, near Camden, S. C. The situation is pleasant and healthy, offering a very desirable investment for capitalists; the water-power is amply sufficient for all purposes; within one mile of the terminus of the Camden and South Carolina R. R., affording daily opportunity for the shipment of goods. The Cotton Factory is now in operation, making Osnaburgs and Yarns, and contains 1680 spindles, 20 30-inch cards, and 40 looms, in good condition, with machine shop attached, with lathes, cutting engines, &c. The Corn Mill received last year, as toll, 1400 bush. of corn; the Tannery has 36 vats, and bark mill. Will be sold on a credit of 1, 2, and 3 years, at public sale, 1st March; open for private sale until then. Apply to THOS. LANG or WM. ANDERSON, Camden, S. C. 22 3

TO STAIR BUILDERS—The "UNIVERSAL STAIR BUILDER," just published by R. A. Cupper, Architect, New York, is a new treatise on the construction of Stair Cases and Hand-Rails, showing plans of the various forms of Stairs, with a new method of sawing the twist part of any hand-rail and joints square from the face of the plank, and to a parallel width, the same as for any horizontal work—which can be done at the saw-mill for one-sixth of what it cost by hand; the saving of material and labor is from 50 to 100 per cent. This system is now adopted in New York, Philadelphia, and Boston. It is pronounced by the most scientific Stair Builders to be the greatest discovery ever made. Price \$6. For sale by Wm. Gowans, 178 Fulton st., N. Y.; Benj. Greene, 124 Washington st., Boston, and 240 West 26th st., N. Y. Books forwarded to any part of the United States on receipt of the money. 22 3\*

VENTILATION.—Mr. Rutan, of Coburg, Canada, is desirous of an opportunity to direct the erection (for ventilation) of a good dwelling or school house in the city of New York. For particulars inquire at the Scientific American Office. 15 10\*

MACHINIST'S TOOLS.—Marshall, Bement & Colby, (successors to E. D. Marshall & Co.) Calowhill street, west of Schuylkill Third, Philadelphia, Pa., are prepared to make to order, and keep on hand Machinist's Tools, such as Planing and Compound Planing Machines, on a new and improved plan, Slide and Hand Lathes, Upright and Horizontal Drills, Upright Boring Machines, Improved Screw and Bolt Cutting Machines, with P. W. Gates' Patent Dies and Taps, or with the common Dies, Gear Cutting Engines, Slotting and Paring Machines. Also keep on hand Washburn & Whiton's Patent Scroll Chucks, of all sizes. All orders by letter or otherwise will receive their prompt attention. E. D. MARSHALL, WM. B. BEMENT, G. A. COLBY. 21 10\*

CHAS. W. COPELAND, Consulting and Mechanical Engineer, Surveyor of Steam Machinery, &c. No. 68 Broadway, N. Y., superintends the construction of steam vessels and steam engines, and machinery of every description; specifications and contracts prepared; also general plans and drawings in detail furnished. Steam engines surveyed and valued, and condition reported. Mr. C. also acts as agent for the purchase and sale of steam vessels, steam engines, boilers, &c. 21 10\*

MALLEABLE IRON FOUNDRY, EASTON, Mass.—The subscriber continues to manufacture castings of every variety, for machinery and other purposes, of the best quality, at the above establishment. We have facilities for making castings 5 1-2 feet in length. Persons wishing castings can send patterns to Eastern Express, Boston, Mass. All letters will be promptly attended to. DANIEL BELCHER. 21 10\*

CLOCKS FOR CHURCHES, PUBLIC BUILDINGS, RAILROAD STATIONS, &c., and REGULATORS FOR JEWELLERS.—The undersigned having succeeded in counteracting effectually the influence of the changes of the temperature upon the pendulum, and introduced other important improvements in the construction of clocks, are prepared to furnish an article, superior in every respect (the highest grade warranted to vary less than two minutes in a year) to any made in the United States. Ample opportunity will be afforded to test their qualities. Glass (illuminated) dials of the most beautiful description furnished. Address SHERRY & BYRAM, Oakland Works, Sag Harbor, Long Island, N. Y. "At the Oakland Works of Sherry & Byram there are made some of the finest clocks in the world."—Scientific American. "Mr. Byram is a rare mechanical genius."—[Jour. of Commerce. 19th.

THE EXCELSIOR Sand and Emery Papers. These are offered as new and superior articles, being manufactured by an improved process; the paper is made from the best Manila hemp, and consequently is very strong and lasting; the grit is of the sharpest and most enduring kind, and is firmly attached to the paper with a remarkable evenness of surface; their freedom from ridges, stripes, and other imperfections, recommend them to the notice of consumers. These papers have been used by many of our first mechanics, and are pronounced superior to all others. Every sheet is stamped WM. B. PARSONS, and warranted. Samples furnished at the office, No. 187 Water street, New York. WM. B. PARSONS, Sole Proprietor. 14 6m\*

P. W. GATES' PATENT DIES FOR CUTTING SCREWS.—Patented May 8th, 1847.—This Die cuts Screws of any size, V or square thread, by once passing over the Iron. Also, Lead Screws for Lathes, Hoisting Screws, &c. All orders for Dies and Taps, with or without machines, will meet with prompt attention by addressing P. W. Gates, or Gates & McKnight, Chicago; Marshall, Bement & Colby, Philadelphia; Woodburn, Light & Co., Worcester, Mass. References—All the principal machine shops in New York, Philadelphia, and Boston. 13 6m\*

METALLIC LETTERS AND FIGURES FOR PATTERNS.—Price 3cts. 3cts. 3cts. 4cts. 4cts. 4cts. Size, 5-16 3-8 7-16 1-2 9-16 5-8 3-4 6cts., 1 in.; 7cts., 1 1-4 in.; 8cts., 1 1-2 in.; 10cts., 2 in. Also Gothic Style: 3cts., 1-4 in.; 4cts., 1-2 in. Manufactured by COWING & CO., Seneca Falls, N. Y. Orders solicited. They can be sent to any part of the Union, either by Mail or Express, as all packages are weighed and sent the cheapest way. 22 4\*

THE SUBSCRIBER is now finishing four 14 horse engines, with boiler and apparatus all complete—price \$1200 each. Several 6 horse engines extremely low; also, several of smaller capacity, completely; also, several power planers, now finishing. Galvanized chain for water elevators, and all fixtures—price low—wholesale and retail. Orders, post-paid, will receive prompt attention. AARON KILBORN, No. 4 Howard st., New Haven, Ct. 23 10\$

TO ARCHITECTS, SCULPTORS, &c.—The Commissioners of the Greene and Pulaski Monument Lottery Fund, offer Three Hundred Dollars for an approved design for a Monument, to be erected to the memory of Count Pulaski, in Chippewa Square, Savannah. Architects, Sculptors, Designers, &c., are invited to offer plans and specifications for selection, and to evince their own taste and judgment as to design, with no other limit than the cost, which must not exceed \$17,000. Designs will be received until the 1st day of April, 1852, by the subscriber, from whom any further information may be had. WM. P. BOWEN, Secretary. Savannah, Geo., Jan. 13, 1852. 21 6\*

TO INVENTORS.—I beg respectfully to suggest that the establishment of a National Inventor's Institute, with regularly organized branches, would be the best means to assist your efforts to superintend your interests, and protect your patent rights. JAMES NIXON, Potosi, Wisconsin. 21 5\*

ONE DOUBLE ENGINE of six-horse power, second-hand, used about one year; the size of cylinders, 4 inch bore and 12 inch stroke, and furnished with pump, regulator, and all attachments; the boiler is horizontal tubular, 7 feet long, 3 1-2 inches in diameter, and requires no brick to set it, the fire being made inside the boiler. The above engine will be sold for \$400 cash, delivered in New York. MUNN & CO.

TO FELLOE AND SNATH MAKERS.—The undersigned having purchased the entire right of A. W. Johnson, for his machine for bending carriage felloes, &c., are now prepared to sell State or county rights for said machine; having used said machine for several years, we know it to be a saving in timber of 30 per cent, and more expeditious. Persons can see one of the machines at work at the manufactory of W. S. Johnson & Co., St. George's, Del.; also felloes of all kinds. Shafts and carriage stuff always on hand, and at prices to suit dealers in the above. WM. G. JOHNSTON & Co., 22 10\* St. George's, Del.

SCRANTON & PARSHLEY, Tool Builders, New Haven, Conn., have on hand six 12 ft. slide lathes, 28 in. swing; also four 8 ft. do.; 21 in. swing, with back and screw gearing, with all the fixtures; one 5 ft. power planer; 12 drill presses, 4 bolt cutting machines, 30 small slide rests; 5 back geared hand lathes, 21 in. swing; 15 do. not geared; 8 do. 17 in. swing on shears 5 1-2 feet; 25 ditto with and without shears, 13 in. swing; counter shafts, all hung if wanted suitable to the lathes. Scroll chucks on hand; also index plates for gear cutting. Cuts of the above can be had by addressing as above, post-paid. 9t

BEARDSLEE'S PATENT PLANING MACHINE, for Planing, Tonguing and Grooving Boards and Plank.—This recently patented machine is now in successful operation at the Machine shop and Foundry of Messrs. F. & T. Townsend, Albany N. Y.; where it can be seen. It produces work superior to any mode of planing before known. The number of plank or boards fed into it is the only limit to the amount it will plane. For rights to this machine apply to the patentee at the abovenamed foundry—or at his residence, No. 764 Broadway; Albany. GEO. W. BEARDSLEE. 23t

WATTS & BELCHER, Manufacturers of Steam Engines, Lathes, Planing Machines, Power Presses, and Mechanics' Tools of all descriptions. Orders respectfully solicited and punctually attended to. Washington Factory, Newark, N. J. 7 20\*

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. 23t

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 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 1f

WOODWORTH'S PLANING MACHINE.—For sale, the right to use this justly celebrated labor-saving machine in the following States, viz., Pennsylvania west of the Allegheny Mountains, Virginia west of the Blue Ridge, Ohio, Indiana, Kentucky, Tennessee, Wisconsin, Iowa, Missouri, Arkansas, Texas, Louisiana, Florida, Alabama, and Mississippi. For particulars apply to the Proprietor, ELISHA BLOOMER, 208 Broadway. 17 12\*

WOOD'S IMPROVED SHINGLE MACHINE.—Patented January 8th 1850, is without doubt the most valuable improvement ever made in this branch of labor-saving machinery. It has been thoroughly tested upon all kinds of timber and so great was the favor with which this machine was held at the last Fair of the American Institute that an unbought premium was awarded to it in preference to any other on exhibition. Persons wishing for rights can address (post-paid) JAMES D. JOHNSON, New Haven, Ct.; or WM. WOOD, Westport, Ct. All letters will be promptly attended to. 23t

LEONARD'S MACHINERY DEPOT, 109 Pearl-st. 60 Beaver N. Y.—The subscriber is constantly receiving and offers for sale a great variety of articles connected with the mechanical and manufacturing interest, viz.: Machinists' Tools—engines and hand lathes; iron planing and vertical drilling machines; cutting engines, slotting machines; bolt cutters; slide rests; universal chucks &c. Carpenters' Tools—mortising and tenoning machines; wood planing machines &c. Steam Engines and Boilers from 5 to 100 horse power. Mill Gearing—wrought iron shafting; brass and iron castings made to order. Cotton and Woolen machinery furnished from the best makers. Cotton Gins; hand and power presses. Leather Banding of all widths made in a superior manner; manufacturers' Findings of every description. P. A. LEONARD. 10t

MANUFACTURE OF PATENT WIRE Ropes and Cables—for inclined planes, suspension bridges, standing rigging, mines, cranes, derrick, tilters &c.; by JOHN A. ROEBLING; Civil Engineer Trenton N. J. 47 1y\*

RAILROAD CAR MANUFACTORY.—TRACY & FALES, Grove Works, Hartford, Conn. Passage, Freight and all other descriptions of railroad Cars, as well as Locomotive Tenders, made to order promptly. The above is the largest Car Factory in the Union. In quality of material and in workmanship, beauty, and good taste, as well as strength and durability, we are determined our work shall not be surpassed. JOHN R. TRACY, THOMAS J. FALES. 14t

McCORMICK'S PATENT REAPERS AND MOWERS.—1700 of these machines, for which the great Medal of the World's Fair was awarded, are being manufactured at Chicago, Ill, with the intention of supplying the South-eastern States for the next harvest. The gold medal of the Chicago Institute was recently awarded for this Reaper and Mower, tested against two other mowers, in cutting prairie grass; and the first premium of the State Agricultural Societies of Wisconsin, Michigan and Pennsylvania, were also awarded at their late Fairs. Price \$120 at Chicago, and \$122 delivered at Philadelphia; terms otherwise accommodating. 9t

PATENT CAR AXLE LATHE—I am now manufacturing, and have for sale, the above lathes; weight, 5,500 pounds, price \$600. I will furnish a man with each lathe, who will turn and finish axles for 50 cents each, if desired. I have also for sale my patent engine screw lathe, for turning and chucking tapers, cutting screws and all kinds of common job work, weight 1500 lbs., price \$225. The above lathe warranted to give good satisfaction. J. D. WHITE, Hartford, Ct. 7 6m\*

LOGAN VAIL & CO., No. 9 Gold street, New York, agents for George Vail & Co., Speedwell Iron Works, have constantly on hand Saw Mill and Grist Mill Irons, Press Screws, Bogardus' Horse-Powers, and will take orders of Machinery of any kind, of iron and brass; Portable Saw-mills and Steam Engines, Saw Gummers of approved and cheap kind, &c. Gearing, Shafting, large and small, cast or of wrought iron. 11 1y

HAWKIN'S Stave Dressing Machine.—Is now in operation in the city of Milwaukee, Wis., and will dress from 6 to 8000 staves per day, ready for the truss hoops, and at one operation. Rights for States and Counties, and also machines, for sale, apply to WM. HAWKINS, Patentee, Milwaukee, Wis. 15 20\*

A. B. ELY, Counsellor at Law, 46 Washington St., Boston, will give particular attention to Patent Cases. Refers to Munn & Co., Scientific American. 13t