

TO CORRESPONDENTS.

J. F. N., of N. Y.—We never saw a rudder hung as you have described...

S. M., of New York.—You have been anticipated, both the central wheel and a long revolving set of buckets...

L. C., of N. Y.—The best work upon Architecture is Ranlett's: price \$10, in numbers; \$12, bound.

J. E., of R. I.—The work upon carpet looms has not been issued, and will not be for the present...

A. A. D., of Ala.—The machine you refer to is the best one in use that we know of; we have seen it operate satisfactorily on several occasions...

E. J. U., of Ohio.—Your plan for constructing patterns for mould boards is, so far as we have been able to examine, sufficiently novel to warrant a trial...

F. W. C., of La.—It would cost you \$10 to have us get up a fine descriptive engraving of your machine and publish it in detail in the "Scientific American," which would be the best mode for you to pursue...

H. D. P., of N. J.—Diagrams of the various kinds of sewing machines which have been patented, you will find in the 4th and 5th volumes of the Scientific American; or by perusing the back numbers...

M. D., of Savannah.—By turning to page 137, Vol. 5, you will see an engraving of the machinery used in boring artesian wells, but we shall present engravings of other plans soon.

H. H. P., of Pa.—A furnace for the manufacture of cast steel, was illustrated on page 169, Vol. 3. Vols. 1, 2, 3, and 4 are out of print; Vol. 5 we can send you by mail in sheets, price \$2; bound, \$2.75.

L. & R., of N. Y.—The engravings of your carriage wheel were forwarded by Wells & Co.'s Express, on the 16th inst.

W. D. H., of Miner Sluice.—If you will have the kindness to inform us in what "State" Miner Sluice is located, you will hear from us by Mail.

T. P. S., of Pa.—Your elliptic wheel rotary would not be of any benefit, and could not be patented:—don't waste time nor money on it.

A. H., of Pa.—Your plan is certainly neither so simple nor so quick in its operation as the telegraph we published.

W. P., of Mich.—The principle of applying the power of water, either by re-action, percussion, or gravity, is well understood. No patent could be obtained for any application of these principles. No increase of power can be obtained beyond the actual weight and velocity of the water; weight and velocity is the golden rule of mechanics.

W. W. J., of New York.—We do not believe your car handle is patentable.

D. E., of Ohio.—The mere application of a pump to a bath could not be patented; it has been applied to this purpose before. We do not discover anything new or patentable in your arrangement, and you are advised not to make an application for a patent.

A. W., of Ind.—There appears to be some originality in your contrivance, sufficient to warrant an application for a patent. You had better send us a complete model for further attention.

J. T., of N. Y.—You could probably obtain a patent for your improvement in cars, but the advantages do not appear. The expense must certainly be increased, inasmuch as supplementary wheels and rails would be required, and the necessity of a double track would not be obviated; if you can show any real advantage, we should like to hear it.

W. F., of Mass.—Yours next week.

J. W. N., of Phila.—The engraving will answer. You must give a description to correspond with the curves and figures on it. Let it be simple and clear. Our memorandum is lost.

G. C. B., of Ark.—You speak of obtaining hydrogen from the atmosphere. We should like to have you explain how this is done, as it is beyond our comprehension. We had always supposed that the properties of air were oxygen and nitrogen. It is from the aqueous vapor, we suppose, you derive it.

T. A., of Mass.—The reason why ornamental steel of a purple or lilac color, rusts more readily than polished or white steel, is because the lilac tinge is produced by partial oxidation, and the process which forms rusts has, therefore, already commenced. It can be kept free from rust by keeping it in a dry place.

H. B., of Mo.—Engravings illustrative of Paine's apparatus for producing illuminating gas from water, will appear in the "Sci. Am." in a week or two: have patience.

A. O., of N. Y.—Yes; the two names which you sent will be considered as part of the club, when you forward the balance of the names, with funds. It will be necessary that you remind us of the circumstance of having forwarded names previously when you forward the other names.

J. E. W., of St. Louis.—Your favor of the 24th ult., containing \$13, came duly to hand: the subscriptions we have entered as you directed.

J. W. R., of Pa.—Many thanks for your fine club of subscribers, all of whom have been entered upon our subscription books, as you directed. Your proposals were satisfactory.

D. H., of Ill.—The curve line which a ball describes, if the resistance of the air be taken into consideration, is called a "parabola;" but when the ball is thrown perpendicularly upwards, it will descend perpendicularly, because the force of projection and that of gravity are in the same line of direction.

B. E., of Ohio.—The real discoverer of the magnetic properties of electric currents, was M. Oersted, Professor of Natural Philosophy, and Secretary of the Royal Society of Copenhagen. In a work which he published about the year 1813, on the identity of chemical and electrical forces he had thrown out conjectures concerning the relations subsisting between the electric, galvanic, and magnetic fluids, which he conceived might differ from each other only in their respective degrees of tension.

W. C., of Miss.—There is an error somewhere, in the calculations. The principle is correct.

E. E., of S. C.—The main rope by which a diving bell is supported, ought to be soaked in water before it is used; or it would perhaps be better if a chain were substituted; an instance occurred in the Bay of Dublin, where the rope, in undergoing the contraction water always occasions, caused the diving bell to turn round, by which means the signal strings were entangled, and two men contained in it were suffocated for the want of fresh air.

A. E. B., of N. Y.—We do not think, in fact we know, that the device is not new. See Commissioner's Report for 1848, page 960.

J. A., of Pa.—We know of no machine to raise water above the ground, on a constant stream, by the power of the water itself; we mean where there is no fall. The artesian wells, are an exception to this statement.

A. J., of Wis.—Your plan of the self-regulating sails has been extensively known for a long time.

V. L., of Pa.—We have seen plenty of fruit baskets made of wire. We do not believe you could obtain a patent for making the chair of wire: it is only an application to a different purpose, and is not patentable, but common property. Cast-iron, chilled, cannot be touched by the best files. We have never seen nor heard of such a wheel as you describe. The spiral streakson gun barrels are put on by using weak acid for the light color, and stronger acid for the dark streaking, with a brush.

W. B. B., of O.—Single bands, rivetted, 6 inches wide, sell at 36c. per foot; best quality, double bands, 82c.—20 per cent less for hemlock tanned.

W. D. S., of Cal.—You had better keep your attention turned to the digging of the precious metal, than to inventing. No doubt but your idea of the best form for a paddle wheel are correct, but unless you improve upon the details of it, it will be no go—it is too complicated.

K. E. R., of Ala.—Impure phosphorated hydrogen bursts spontaneously into flame whenever it mixes with air or pure oxygen gas. The luminous appearance which haunts meadows, etc., arises from putrifying animal and vegetable substances.

E. W., of New York.—We have never heard of an electric light for a watch: we do not know how you could do it: it would be valuable, if practicable.

E. A., of Pa.—A most excellent varnish to prevent rust is made of 1 pint of fat oil varnish mixed with 5 pints of highly rectified spirits of turpentine, rubbed on the iron or steel with a piece of sponge. This varnish may be applied to bright stoves and even mathematical instruments without injuring their delicate polish.

E. C., of Tenn.—The carbon of the burning charcoal unites with the oxygen of the air, and forms carbonic acid gas, which is a narcotic poison. This is the reason why persons are killed by having charcoal fires in their rooms.

Money received on account of Patent Office business since April 9:—

B. & B., of Vt., \$20; D. W. E., of N. Y., \$20; G. W. P., of Ct., \$55; E. S. C., of Mass., \$15; G. S., of —, \$5; R. W. A., of Ct., \$30; H. & E., of N. Y., \$20; J. V. S., of O., \$30; W. H., of Wis., \$10.

Specifications and drawings of inventions belonging to parties with the following initials, have been forwarded to the Patent Office since April 9:

D. A., of N. Y.; C. L., of Phila.; C. W. Van V., of N. Y.; G. C. B., of Ark.

New Edition of the Patent Laws.

We have just issued another edition of the American Patent Laws, which was delayed until after the adjournment of the last Congress, on account of an expected modification in them. The pamphlet contains not only the laws but all information touching the rules and regulations of the Patent Office. We shall continue to furnish them for 12-1/2 cts. per copy.

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.

ADVERTISEMENTS.

Terms of Advertising:

One square of 8 lines, 50 cents for each insertion. 12 lines, 75 cts., " " 16 lines, \$1.00 " "

Advertisements should not exceed 18 lines, and cuts cannot be inserted in connection with them at any price.

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 most reasonable terms. All business entrusted to their charge is strictly confidential.

Branches of our Agency have been established in London, under the charge of Messrs. Barlow, Payne & Parken, celebrated Attorneys, and Editors of the "Patent Journal;" also in Paris, France, under the charge of M. Gardissal, Editor of the "Brevet d'Invention." We flatter ourselves that the facilities we possess for securing patents in all countries where the right is recognized, are not equalled by any other American house.

STEAM ENGINES FOR SALE.—A one, two, three, and four horse power engine, of simple construction and substantially made; they may be had separately or with boilers, and can be shipped without taking in pieces to pack.

LAWRENCE SCIENTIFIC SCHOOL.—Harvard University, Cambridge, Mass.—Special Students attend daily, from 9 o'clock, A.M., till 5 o'clock, P.M., in the Laboratories, and under the direction of the following Professors:—Louis Agassiz, Professor of Geology and Zoology; Jeffries Wyman, M.D., Professor of Comparative Anatomy; Henry L. Fustis, A.M., Professor of Engineering and Physiology; Eben Norton Horsford, A.M., Professor of Chemistry.

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.

1851 TO 1856.—WOODWORTH'S PATENT PLANING MACHINE.

Ninety-six hundredths of all the planed lumber used in our large cities and towns continues to be dressed with Woodworth's Patent Machines, which may be seen in constant operation in the steam planing mills at Boston, Philadelphia, New York, Albany, Troy, Utica, Rome, Syracuse, Geneva, Albion, Lockport, Buffalo, Jamestown, Gibson, Banghampton, Oswego, &c. The price of a complete machine is from \$100 to \$1,000, according to size, capacity, and quality.

CLOCKS FOR CHURCHES, PUBLIC Buildings, Railroad Stations, &c.

The undersigned having succeeded in counteracting, effectually, the influence of the changes of temperature upon the pendulum, and introduced a new regulator, by which great accuracy of time is produced, also the retaining power (which keeps the clock going while being wound) are prepared to furnish Clocks superior to any made in the United States.

Glass (Illuminated) Dials of the most beautiful description furnished on. Address SHERRY & BYRAM, Oakland Mills, Sag Harbor, L. I.

"Mr. Byram has established his reputation as one of the first clock makers in the world."—[Scientific American. "Mr. Byram is a rare mechanical genius."—[Journal of Com. 29 120w*

PORTABLE GRIST MILLS.—Of the best construction, at the following prices:—12 inch hand mill, \$40; 16 in. do., \$45; 18 in. Burr stone, power, \$90; 24 inch do. \$100; 30 in. do. \$150. \$15 additional for the gearing of the 18 and 24 inch; the 12 and 16 inch are geared with cranks. The 30 inch is driven from the spindle; 18 in., 2 horse power, will grind 4 bushels per hour; 24 in., 3 horse, 5 bushels; 30 in., 4 horse, from 6 to 8 bushels; speed, 300 revolutions per minute. Address (post-paid) to MUNN & CO., at this Office.

A CARD.—The undersigned beg 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 (Stubs) and Swiss Files and Tools, also his imported and own manufactured Mathematical Drawing Instruments of Swiss and English style, which he offers at very reasonable prices.

WILLIAM W. HUBBELL—Attorney and Counsellor at Law, and Solicitor in Equity, Philadelphia, Penn.

MACHINES FOR CUTTING SHINGLES.

The extraordinary success of Wood's Patent Shingle Machine, under every circumstance where it has been tried, fully establishes its superiority over any other machine for the purpose ever yet offered to the public. It received the first premium at the last Fair of the American Institute—where its operation was witnessed by hundreds. A few State rights remain unsold. Patented January 8th, 1850.—13 years more to run. Terms made easy to the purchaser. Address, (post-paid) JAMES D. JOHNSON, Redding Ridge, Conn., or Wm. WOOD, Westport, Conn. All letters will be promptly attended to. 10tf

GURLEY'S IMPROVED SAW GUMMERS

—for gumming out and sharpening the teeth of saws can be had on application to G. A. KIRTLAND, 205 South st., N. Y. 10tf

TO PAINTERS AND OTHERS.—American Anatomic Drier, Electro Chemical graining colors, Electro Negative gold size, and Chemical Oil Stove Polish.

The Drier, improves in quality, by age—is adapted to all kinds of paints, and also to Printers' inks and colors. The above articles are compounded upon known chemical laws, and are submitted to the public without further comment. Manufactured and sold wholesale and retail at 114 John st., New York, and Flushing, L. I., N. Y., by CLARTERMAN & SON, Painters and Chemists 22tf

MACHINERY.—S. C. ILLS, No. 12 Platt Street, 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; Mortising and Tenoning Machines, Belling 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. 26tf

BAILEY'S SELF-CENTERING LATHE,

for turning Broom and other handles, swelled work, chair spindles, &c.; warranted to turn out twice the work of any other lathe known—doing in a first rate manner 2000 broom handles and 4000 chair spindles per day, and other work in proportion. Orders, post-paid, may be forwarded to L. A. SPALDING, Lockport, N. Y. 21tf

FOREIGN PATENTS.—PATENTS procured in GREAT BRITAIN and her colonies, also France, Belgium, Holland, &c., &c., with certainty and dispatch through special and responsible agents appointed, by, and connected only with this establishment.

Pamphlets containing a synopsis of Foreign Patent laws, and information can be had gratis on application to JOSEPH P. FIRBON, Civil Engineer, Office 5 Wall street, New York. 24tf

RAILROAD CAR MANUFACTORY.—TRAFFIC & 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 be unsurpassed. JOHN R. TRACY, THOMAS J. FALES. 16tf

MANUFACTURERS' FINDINGS and Leather Binding.—The subscriber is prepared to offer a large assortment of manufacturers' Findings for Cotton and Woollen Factories, viz., bobbins, reeds, harness, shuttles, temples, rockers, harness twines, varnish, roller cloth, card clothing, card stripper and clamps, calf and sheep roller, leather, lace, and picker string, potato & wheat starch, oils, &c. Leather Binding, of all widths, made in a superior manner from best oak tanned leather, rivetted and cemented. 283m P. A. LEONARD, 116 Pearl st.

LAP-WELDED WROUGHT IRON TUBES

for Tubular Boilers, from 1-4 to 7 inches in diameter. The only Tubes of the same quality and manufacture as those so extensively used in England, Scotland, France and Germany, for Locomotive, Marine, and other Steam Engine Boilers. THOS. PROSSER & SON, Patentees, 16tf 23 Platt st., New York.

LEONARD'S MACHINERY DEPOT, 116 Pearl st., N. Y.

The subscriber has removed from 66 Beaver st. to the large store, 116 Pearl st., and is now prepared to offer a great variety of Machinists' Tools, viz., engines and hand lathes, iron planing and vertical drilling machines, cutting engines, slotting machines, universal chucks, &c. Carpenters' Tools—mortising and tenoning machines, wood planing machines, &c. Cotton Gins, hand and power, Carver Washburn & Co.'s Patent. Steam Engines and Boilers, from 5 to 100 horse power. Mill Gearing, wrought iron shafting and castings made to order. Particular attention paid to the packing, shipping, and insurance, when requested, of all machinery ordered through me. P. A. LEONARD 283m

IRON FOUNDERS MATERIALS—viz., fine ground and Bolted Sea Coal, Charcoal, Lehigh, Soapstone and Black Lead Faings of approved quality. Iron and brass founders' superior Moulding Sand, Fire Clay, Fire Sand, and Kaolin; also best Fire Bricks, plain and arch shaped, for cupolas &c.; all packed in hogheads, barrels or boxes for exportation, by G. O. ROBERTSON, 4 Liberty Place, near the Post Office, N. Y. 223m*

MATAPAN MACHINE WORKS—Corner of Second and A sts., South Boston.

The undersigned have recently enlarged their business and are now prepared to offer a great variety of Machinists' Tools, viz., Engine and Hand Lathes, iron Planing and Vertical Drilling Machines, Cutting Engines, Slotting Machines, and Universal Chucks; also Mill Gearing and Wrought Iron Shafting made to order. 22 12* GEO. HEPPWORTH & SON.

SASH AND BLIND MACHINE—Patented by Jesse Leavens, Springfield, Mass.

The machine planes, molds, mortises, bores, tenons, copes, franks, cuts off, rips up the stuff, planes the blind, shades, and sets out the sash. The machine is 4 by 5 feet, weighs 800 lbs., requires two horse-power to drive it, and cost \$300 cash—extra charge for the right to use. Shop, town, county, and State rights for sale. Orders from abroad will be promptly attended to by addressing JESSE LEAVENS, Palmer Depot, Mass. 278*