

TO CORRESPONDENTS.

Unsigned Communications are rejected unless there is abundant reason to believe that the writer is ignorant of his duty in this respect.

A. C. R., of N. Y.—You say you do not understand how we can oppose the extension of any patent.

N. G. B., of Ill.—In Vol. 4, page 244, you will find an illustration of a mowing machine identical in principle with the drawing of the one you submit to us.

J. D. W., of Miss.—You will find an engraving of Du Bois' Cotton Gin on page 404, Vol. 4, Sci. Am.

D. B. C., of Ga.—We are afraid your patience will be exhausted before your order for a Hot-Air Engine is filled.

M. P. N., of N. H.—We do not discover any patentable novelty in either of the improvements which you submit for examination.

W. McB., of Ohio—Your views in regard to the Sciences being taught more generally in schools, are correct; more attention should be paid to this subject than has been done heretofore.

J. H. P., of N. Y.—The scale is removed from castings of iron by steeping in warm water slightly acidulated with oil of vitriol for about two hours, then rub them down and wash well in clean water.

A. S. T., of Va.—There is no good work with which we are acquainted on taxidermy.

J. E. H., of New York City—Yours will meet with attention in our next.

J. M., of N. Y. City—We thank you for your attention; we will review J. McPherson's experiments in our next number.

R. B. G., of Pa.—If you write to the Brooklyn Glass Co., No. 20 William st., this city, they may be able to give you the proper information.

A. M., of Ky.—The device described in your letter of the 28th ult. does not appear to have novelty sufficient to justify an application for a patent.

T. P. K., of Pa.—The ball seating we think is new; it appears to be a good improvement in journal boxes.

C. C., of Mass.—The Hayward patent is one of the most important improvements connected with the india rubber business; it is a sort of key upon which the whole is turned, hence the desire for its extension.

E. C., of Ohio—You can make good soap from any kind of oil, if you employ the proper materials.

A. B., of Ct.—We do not know about the machine for splitting felt tapering. Your experiment for conducting the electricity by induction, was just as good as any we could recommend.

J. M. B., of Tenn.—We certainly would like to see an atmospheric railway constructed for Broadway, but there is no prospect of this being attained.

J. O., of N. Y.—Yours about the ear tube and plan of reporting, we do not think can be made serviceable, according to the practice of performing such work.

R. C. B., of Mich.—Yours has been received and we will give it attention.

B. B. H., of Ct.—We have instructed the Commissioner to return your model to you for repairs, and after you have put it in good condition please return it direct to the Patent Office, not forgetting to pre-pay Express charges.

H. H. W., of Mass.—We hope you will cease to experiment upon such an unphilosophical project: hot-air, from its very nature, can never be employed as a substitute for steam in propelling machinery.

R. R. H., of Me.—You can easily measure the power of your lever by calculating the difference between the time of motion at the place where the effect is produced, and the end of the lever where the power is applied.

A. McA., of Texas—The oil made from cotton seed, we believe, burns with a clear and beautiful flame.

H. A. H., of Mich.—A telegraph wire can be enclosed in a non conductor and laid in a groove in the rail; but it would be better to enclose it in a glass tube, and lay it at one side of the rail.

S. K. O., of N. Y.—Such a balloon as that which you have described was illustrated in Vol. 1, Scientific American.

J. B., of Canada—It seems a hard matter; it is true that an inventor cannot have the privilege of using HIS OWN INVENTION, but it is so sometimes, and it will not be safe for you to introduce the article into Canada.

W. W. P., of Va.—Morse's Air Distributor is constructed upon the same plan as you describe. Several unimportant modifications involving no patentable novelty have been made in devices for the same purpose.

C. E. T., of Me.—We do not think your pendulous arrangement for opening and closing doors could be secured by patent. We judge only from your description, which is not very full.

B. W. S., of Pa.—The concern to which you refer as being engaged in the manufacture of reeds for melodeons is Carhart & Needham, 13th street, this city.

W. R. H., of Geo.—The use of springs for propelling cars or any other machinery used in transportation is impracticable.

J. R. L., of Fla.—We cannot see how the oat meal can effect such an object as that which you inform us. How can it excite rapid evaporation, without which ice cannot be produced.

H. McN., of N. C.—The quantity of fuel required for a horse power per hour depends greatly on your boiler, and the way you work your steam—expansively or full pressure during the whole stroke.

J. J. L., of La.—A revolving cannon is not a new invention. It has not been adopted for some cause unknown to us.

W. E., of N. Y.—We think your improvement in hollow mandrels for turning is new and patentable. Send on a model.

L. W. T., of Mass.—Do not trouble yourself about such phantoms as perpetual motion. It is singular that any person should devote any attention to such a question after what we have said on the subject.

E. J., of N. Y.—At five hundred and eighty degrees of heat steel becomes a deep blue.

R. M., of Conn.—As the length of an inclined plane is to its height, so is the weight to the power.

M. McD., of Pa.—One gallon of coal tar boiled with two and a half pounds of the sulphate of zinc makes an excellent paint for outhouses, &c.

T. W., of Va.—A very good cement for turners is made by melting one pound of rosin, and four ounces of pitch together, then thickening the same with brick dust.

R. S., of N. B.—In eighteen years there are usually about seventy eclipses, twenty-nine of the moon and forty-one of the sun.

J. J. T., of Me.—One part of lead and one of tin makes good plumbers' solder.

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

T. R. & G. B., of N. Y., \$30; G. W. F., of O., \$35; E. H. S., of O., \$55; J. H., of N. Y., \$20; F. & R., of Pa., \$55; C. F. P., of N. Y., \$100; J. D., of N. Y., \$28.

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

T. R. & G. B., of N. Y.; D. A. F., of Pa.; J. D., of N. Y.; A. M., of Pa.

LITERARY NOTICES.

LITTELL'S LIVING AGE.—This excellent weekly magazine begins a new volume with the New Year, and has added a new and attractive feature to its other incomparable good qualities.

THE PARLOR MAGAZINE.—Conducted by Jethro Jackson and Alice Carey of Cincinnati, Ohio, is one of the most agreeable publications which we have met with.

PATENT LAW DOCUMENTS.—Rail Road Cars.—We are obliged to W. W. Hubbel of Philadelphia for printed copies of his arguments and those of Mr. Whiting of Boston.

TELEGRAPH.—We are obliged to George Gifford, of this city, for a printed copy of his argument delivered before the Supreme Court, U. S., in the telegraph case of H. O'Reilly et al vs. S. F. B. Morse, F. O. J. Smith et al in the appeal from the decision of the U. S. Court for the district of Kentucky.

A Chapter of Suggestions, &c

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 regulations of the Patent office.

RECEIPTS.—When money is paid at the office for subscriptions, a receipt for it will always be given, but when subscribers remit their money by mail, they may consider the arrival of the first paper a bonafide acknowledgment of the receipt of their funds.

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 Vols. 1, 2, 3, and 4—none.

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.

PATENT CLAIMS.—Persons desiring the claim 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 \$1 for fees for copying.

PATENTERS.—Remember we are always willing to execute and publish engravings of your inventions, providing they are on interesting subjects, and have never appeared in any other publication.

ADVERTISEMENTS.

Terms of Advertising.

Table with 2 columns: Line length and Price per insertion. 4 lines for each insertion, 75 cts; 8 lines, \$1.50; 12 lines, \$2.25; 16 lines, \$3.00.

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 insertion.

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.

THE CRESCENT FOUNDRY MACHINE CO. Bridgeport, Conn., make to order Stationary Steam Engines from 8 to 150 horse power, large double acting Force Pumps for water works, Iron Planers, Engine Lathes built in the most substantial manner and uncommonly heavy.

TO MACHINISTS.—Wanted, a thoroughly practical machinist, well acquainted with the most approved cotton machinery, to take charge of that department in a large machine establishment near New York.

WOOL AND COTTON PICKER.—Reuben Daniels, of Woodstock, Vt., and E. Kellogg & Co., of Pine Meadow, Ct., have the exclusive right to build and sell Daniels & Kellogg's Wool and Cotton Picker.

LOCOMOTIVES FOR SALE.—Two Locomotives, Engines and Tenders, made to order for five foot gauge (but which are not required at present as the road is not ready to receive them); 16 inch cylinder by 20 inch stroke; two pair drivers; one engine 6 feet diameter and 16 feet stroke; 5 1/2 feet dia., outside cylinders—have a large proportion of boiler, and are expected to be economical working engines.

IRON DRILLS.—Portable drills for drilling iron.—They are the most simple and convenient drill in use, having a newly invented feed motion, simple and efficient in its operation.

MINING MACHINERY.—Of most approved construction, furnished by FREDRICK COOK & CO, Hudson Machine Works, Hudson, N. Y.

IRON FOUNDERS' MATERIALS, viz: Pulverized Sea Coal, Black Lead, Soapstone, Anthracite and Charcoal Facings. Also, best imported Fire Bricks, Fire Clay, Fire Sand, and Moulding Sand, for sale by G. O. FORBES, 13 1/2 Bow 135 Water street, corner of Pine.

EUROPEAN PATENTS.—MESSRS. MUNN & CO. pay especial attention to the procuring of Patents in foreign countries, and are prepared to secure patents in all nations where Patent Laws exist.

CLOCKS FOR CHURCHES, COURT HOUSES, &c.—Regulators for Astronomical purposes, Jewellers; also Time Pieces for Session Rooms, Railroad Stations, Offices, &c., which for accuracy of time and durability have proved (it is believed) equal to any made in Europe or this country.

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

1854. WOODWORTH'S PATENT PLANING MACHINES.—Planing, Tonguing, Grooving, Rabbeting, and Moulding. Ninety-nine hundredths of all the planed lumber used in our large cities and towns continues to be dressed with Woodworth's Patent Machines.

WEIGHING AND PACKING MACHINE.—This machine is particularly adapted for the weighing and packing of ground spices, coffee, teas, saleratus, cream tartar, British luster, arrowroot, drugs, prepared flour, farina, starch, cocoa, oat meal, yeast powders, seeds, snuff, ground herbs, or any like material, which may require to be put in packages, from ounces to pounds.

EAGLE FOUNDRY.—Steam Engine and Millwright Establishment for sale.—The subscriber offers for sale his well-known establishment on Gadsden's Wharf, Charleston, S. C., convenient to the river for steamboat work or shipping and receiving machinery, &c.

BAKER'S IMPROVED STEAM BOILER FURNACE, as used at the Crystal Palace, &c. Apply to J. AMORY, 23 State st., Boston, General Agent.

HUDSON MACHINE WORKS and Iron Foundry at Hudson City, N. Y., are prepared to contract for castings for railroads, bridges, buildings, gas pipes and posts, water pipe, cast-iron ornamental flows, cannon, &c.

C. B. HUTCHINSON'S PATENT STAVE CUTTING MACHINES.—The best in use, and applicable alike to thick and thin staves, for barrels, hogsheads, &c.; also his Head Cutting and Turning, and Stave Joining and Crozing Machines.

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.

NICHOLS' PATENT PARAGON SAFETY CANS and Glass Metallic-lined Lamps.—These beautiful glass lamps protect against breakage as well as against explosion.

THE NEW HAVEN MANUFACTURING CO.—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.

NEW HAVEN MANUFACTURING COMPANY Tool Builders, New Haven, Conn., (successors to Scranton & Parshey) have now on hand \$25,000 worth of Machinists' Tools, consisting of power planers, from 5 to 12 feet; slide lathes from 6 to 18 feet long; 8 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.

PLANING, TONGUING, AND GROOVING.—BEARDSLEE'S PATENT.—Practical operation of these Machines throughout every portion of the United States, in working all kinds of wood, has proved them to be superior to any and all others.

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

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.

LOGAN, VAIL & CO., No. 9 Gold st., New York, Agency for Geo. Vail & Co., Speedwell Iron Works, Morristown, N. J., furnish and keep on hand Portable Steam Engines of various sizes; Saw and Grist Mill Irons of various sizes; Planing, Grooving, and Tonguing Machines; Planetary Horse Powers; heating forges and castings for steamboats and rolling mills, Ratchet Drills of superior quality for machinists, Saw Gummers, Hand Drills, Tyre Headers, and shafting and machinery generally.

MCALLISTER & BROTHER.—Opticians and dealers in mathematical instruments, 48 Chesnut st., Philadelphia, Pa. Mathematical instruments, separate and in cases, Protractors, Spacing Dividers, Drawing Pens, Ivory Scales, Tape Measures, Salometers, Spy Glasses, Microscopes, Hydrometers, &c. An illustrated and priced catalogue will be sent by mail free of charge.

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