

HINTS TO OUR READERS.

VOLUME I, BOUND.—Persons desiring the first volume of the New Series of the SCIENTIFIC AMERICAN can be supplied at the office of publication, and by all the periodical dealers. Price, \$1.50; by mail, \$1.60. The volume in sheets, complete, can be furnished by mail. Price \$1.

BINDING.—We are prepared to bind the volume, just closed (Vol. I., New Series) in handsome muslin covers, with illuminated sides, and to furnish covers for other binders. Price for binding, 50 cents. Price for covers by mail, 50 cents; by press, or delivered at the office, 40 cents.

GIVE INTELLIGIBLE DIRECTIONS.—We often receive letters with money inclosed, 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.

INVARIABLE RULE.—It is an established rule of this office to stop sending the paper when the time for which it was prepaid has expired, and the publishers will not deviate from that standing rule in any instance.

Rates of Advertising.

THIRTY CENTS per line for each and every insertion, payable in advance. To enable all to understand how to calculate the amount they must send when they wish advertisements published, we will explain that ten words average one line. Engravings will not be admitted into our advertising columns; and, as heretofore, the publishers reserve to themselves the right to reject any advertisement sent for publication.

JAGGER'S PATENT TURBINE WATER WHEEL

Patented Oct. 19, 1852.—Several hundreds of these wheels have been put in operation during the past seven years; no water wheel that has been offered to the public during that period has given greater satisfaction, taking into consideration their cheapness, durability, simplicity of construction and economy. In the use of water they are by far the best wheels in use. They are manufactured only at the Machine Shop of Franklin Townsend, Albany, N. Y. All communications addressed to IRA JAGGER, the patentee, at Albany, will meet with prompt attention.

MACHINISTS' TOOLS FOR SALE.—ONE BOLT-

cutting machine, with taps and dies up to 1 1/2 inch diameter. Planing machines.—One plans 30 feet long, 5 feet 2 inches wide, and 5 feet 2 inches high; weight about 24 tons. Two do. (Wilmuth's pattern) plans 16 feet long, 3 feet 6 inches wide and 3 feet 5 inches high. One do. (Mason's pattern) plans 6 feet long, 31 inches wide and 35 inches high. Slide lathes.—one 16 feet long and turns 31 inches diameter; one do, 15 feet long, and turns 26 inches diameter; one do, 23 feet long, and turns 25 inches diameter, can do 6 feet long, and turns 16 inches diameter. Two more lathes are all back-geared and screw-cutting, with counter shafts and pulleys complete. One hand lathe 8 feet long, turns 15 inches diameter; back-geared, with counter shafts, &c. One small boring mill and two shop cranes complete. All the above machines are first class and in perfect order. Apply to CHARLES W. COPELAND, No. 123 Broadway, New York.

FOR THE DEAF.—FOR THE DEAF.—ARTIFICIAL EARS; entirely concealed. Call at, or address, HASLAM BROS., No. 423 Broadway, New York, for a descriptive and illustrated circular.

STEAM HAMMERS.—THE UNDERSIGNED, makers of the celebrated Nasmyth hammers, having a full assortment of patterns, continue to furnish them at reduced prices, and of any size, from 5 cwt. upwards. The large number hitherto made by them, and in successful operation, precludes the necessity of presenting any recommendations. They are also patentees and exclusive makers, for this country, of what is generally known as the "Condor" or inverted hammer, one of which of six tons, falling six feet, has been in operation at the Franklin Forge, New York, since 1849.

MACHINERY.—S. C. HILLS, NO. 12 PLATT streets, New York, dealer in Steam-engines, Boilers, Planers, Lathes, Chucks, Drills, Pumps; Mortising, Tenoning and Sash Machines, Woodworth's and Daniel's Planers, Dick's Punches, Presses and Shears; Cob and Corn Mills; Harrison's Grist Mills; Johnson's Shingle Mill; Belting, Oil, &c.

DUDGEON'S PORTABLE HYDRAULIC JACKS for raising heavy weights, boilers, locomotives, cars, stone, stowing cotton, pulling, &c. Frames and platens for stationary pressing, of different sizes, made to order. Dudgeon's portable hydraulic punches for punching or shearing iron, die-sinking and other purposes, where, with a limited movement, great power is required. Send for a circular. DUDGEON & LYON, No. 465 Grand-street, New York.

PLANT & BROTHER, NO. 14 NORTH MAIN-street, St. Louis, Mo., dealers in seeds and agricultural implements; also agents for the sale of iron and wood-working machinery, pumps, scales, engines, belting, hose and manufacturer's supplies.

NEW SHINGLE MACHINE—THAT WILL RIVE and Shave 24,000 Shingles in a day, for sale by S. C. HILLS, No. 12 Platt-street, New York.

PATENT MACHINERY AGENCY.—PATENTS and articles purchased and sold on commission. THOMAS J. SPEAR & CO., box S 137, or 177 Canal-street, New Orleans, La.

WROUGHT IRON PIPE, FROM ONE-EIGHTH of an inch to six inches bore; Galvanized Iron Pipe, (a substitute for lead), Steam Whistles, Stop Valves and Cocks, and a great variety of Fittings and Fixtures for Steam, Gas, and Water, sold at wholesale and retail. Store and Manufacturing, No. 76 John-street, and Nos. 29, 31 and 33 Platt-street, New York.

C. L. GODDARD, AGENT, NO. 3 BOWLING Green, New York. Only Manufacturer of the Steel Ring and Solid Packing Boring Machines and Feed Rolls for Wool Cards, &c.

WOOLEN GOODS!—SOUTHERN MANUFACTURE.—Cassimeres, tweeds and plaids; also, negro clothing, all wool filling. Will manufacture cloth for planers furnishing their own wool.

500 AGENTS WANTED—TO ENGAGE IN AN honorable business, which pays from \$3 to \$6 per day. For particulars, address M. M. SANBORN, Brusher Falls, N. Y.

MACHINE BELTING, STEAM PACKING, ENGINE HOSE.—The superiority of these articles, manufactured of vulcanized rubber, is established. Every belt will be warranted superior to leather, at one-third less price. The Steam Packing is made in every variety, and is warranted to stand 300 degs. of heat. The Hose never needs oiling, and is warranted to stand any required pressure; together with all varieties of rubber adapted to mechanical purposes. Directions, prices, &c., can be obtained by mail or otherwise at our warehouse. NEW YORK BELTING AND PACKING COMPANY. JOHN H. CHEEVER, Treasurer, Nos. 37 and 38 Park-row, New York.

BOILER FLUES FROM 1 1/4 INCH TO 7 INCH—Bore outside diameter, cut to any length desired, promptly furnished by JAMES O. MORSE & CO., No. 76 John-street, New York.

TO MECHANICS AND MANUFACTURERS.—To Let—A two-story Stone Building, 60x40 feet, with a good steam engine, at Eagleswood, Perth Amboy, N. J., two hours' ride from New York; situated on the steamboat landing. For a manufacturer or mechanic having a neat and desirable business, liberal terms will be offered, and some capital furnished, if required. Apply to MARCUS SPRING, No. 27 Park-place, New York.

\$30 A WEEK IS ACTUALLY MADE BY many females now acting as agents for the MAMMOTH FAMILY PICTORIAL, the largest and best illustrated family paper in the world, at only \$1 a year. Also, for THE WOMAN'S FRIEND, a periodical of pure morality and common sense, exclusively for the female sex, at only 50 cents a year. For "confidential terms" and specimen copies, inclose a three-cent stamp to MARIE LOUISE HANKINS & CO., Nos. 346 and 348 Broadway, New York City.

MOORE'S RURAL NEW-YORKER HAS booked tens of thousands of subscribers during the past two months, from all parts of the Union, Canada, &c.; and "still they come." Reason: It's the best Agricultural, Horticultural, Literary and Family Newspaper extant. The "Rural" is taken by all useful classes—farmers, horticulturists, mechanics, merchants, professional men, &c.—while many who have no better business than modern politics and statecraft, find it indispensable. Only \$2 a year; specimens, &c., sent free. Address D. D. T. MOORE, Rochester, N. Y.

PLASTIC CARBON FILTERS—THE MOST simple, effective and reliable means of purifying water without trouble or loss of time; may be used for all domestic and manufacturing purposes, and will be furnished in various sizes, by A. G. SCHEFFLER, No. 36 Beekman-street, New York.

NEW INVENTIONS IN THE STATIONERY OR Hardware line wanted (patented or not patented), by a cash subscriber. Address, with particulars, WILLIAM BURNETT, Station D, New York City.

SITUATION WANTED—BY AN ENGINEER and draughtsman, with several years' experience in designing and constructing stationary steam engines, turbinizing boilers, mill machinery, &c. Best reference, &c. G. W., York, Pa.

WATER WHEELS.—SMITH'S AMERICAN Turbine patented June, 1859; superior to any wheel now in use. Those desiring wheels, or to purchase rights in any part of the United States, can do so by addressing the subscriber and patentee.

THE AMERICAN PUMP.—THIS VALUABLE invention has now been in operation one year, and gives universal satisfaction. Drawings and prices sent free. Patent rights, and rights to sell in limited territory, for sale on good terms. Address JAMES M. EDNEY, No. 147 Chambers-street, New York.

SOLID EMERY VULCANITE.—WE ARE NOW manufacturing wheels of this remarkable substance for cutting, grinding and polishing metals that will outwear hundreds of the kind commonly used, and will do a much greater amount of work in the same time, and more efficiently. All interested can see them in operation at our warehouse, or circulars describing them will be furnished by mail.

NEW YORK BELTING AND PACKING CO., Nos. 37 and 38 Park-row, New York.

\$1200 A YEAR MADE BY ANY ONE WITH \$10.—Stencil tools; silver medal awarded. Samples free. Address A. J. FULLAM, Springfield, Vt.

GUILD & GARRISON'S STEAM PUMPS FOR all kinds of independent Steam Pumping, for sale at 55 and 57 First-street, Williamsburgh, L. I., and 74 Beekman-street, New York.

IRON PLANERS, ENGINELATHES, AND OTHER Machinists' Tools, of superior quality, on hand and finishing, and for sale low; also Harrison's Grain Mills. For descriptive circular, address New Haven Manufacturing Co., New Haven, Conn.

ALEX. STOCKMAR, MACHINIST, NO. 161 Duane-street, New York. Inventors' models and sewing-machines.

WHEELER & WILSON'S SEWING MACHINE. "They have no rival."—Scientific American. Office, No. 595 Broadway, New York. Send for a circular.

GRAY & WOODS' PATENT IMPROVED Planer; a combination of the Woodworth and Daniels' planers, particularly adapted for shop work, and for which we have obtained three patents and six medals. (See description and illustration in No. 6, present volume, SCIENTIFIC AMERICAN.) Also for sale, all kinds of wood-working machinery. Send for a circular. Address GRAY & WOODS, No. 69 Sudbury-street, Boston, Mass.

PORTABLE STEAM-ENGINES, COMBINING the maximum of efficiency, durability and economy with the minimum of weight and price. They received the large gold medal of the American Institute, at their late fair, as "the best Portable Steam-engine." Descriptive circulars sent on application. Address J. C. HOADLEY, Lawrence, Mass.

Zur Beachtung für Erfinder. Erfinder, welche nicht mit der englischen Sprache bekannt sind, können ihre Mittheilungen in der deutschen Sprache machen. Stützen von Erfindungen mit kurzen, deutlich geschriebenen Beschreibungen beliebe man zu adressiren an Dr. H. C. Co., 37 Park Row, New York. Auf der Office wird deutsch gesprochen.

OIL! OIL! OIL!—FOR RAILROADS, STEAMERS, and for Machinery and Burning. Pease's Improved Machinery and Burning Oil will save fifty per cent., and will not gum. This Oil possesses qualities vitally essential for lubricating and burning, and found in no other oil. It is offered to the public upon the most reliable, thorough and practical test. Our most skillful engineers and machinists pronounce it superior to and cheaper than any other, and the only oil that is in all cases reliable and will not gum. The SCIENTIFIC AMERICAN, after several tests, pronounces it "superior to any other they have ever used for machinery." For sale only by the Inventor and Manufacturer, F. S. PEASE, No. 61 Main-street, Buffalo, N. Y. N. B.—Reliable orders filled for any part of the United States and Europe.

SEVERAL BOUND VOLUMES OF THE SCIENTIFIC AMERICAN, from its commencement to the present time, can be had at \$1.50 per volume by addressing A. VAN F. Lawrence, Kansas.

BRYANT'S COPYING INSTRUMENT—FOR ENLARGING or reducing pictures from two to nine times the original size with positive accuracy, such as engravings, photographs, amphotypes, &c., and copying from nature. Price \$1, and 24 cents extra for postage. Address E. K. BRYANT, Ballard Vale, Mass.

THE "STEAM ENGINE"—HAND-BOOK FOR locomotive engineers; by Septimus Morris. Illustrated, 12mo., \$1.50. The "Locomotive Engine," by Zerah Colburn. Illustrated, 75 cents. "Practical Examination on Steam and the Steam Engine," by William Templeton, 12mo., 75 cents; by mail, free of postage. HENRY CAREY BAIRD, Publisher of practical books, Philadelphia, Pa.

J. A. FAY & CO., WORCESTER, MASS., MAKE an improved Suricor; the clipper with wrought iron head and steel bearings. Fitt's patent Knife Adjuster and feed works; Sash and Door Machinery, as usual. Send for circulars.

MAPES' AGRICULTURAL IMPLEMENT AND Seed Warehouse, Wholesale and Retail. All improved and standard varieties of Agricultural Machinery and Implements. Orders from correspondents promptly attended to, and special attention given to low contracts for freight. CHARLES V. MAPES, 24 tf 128 and 130 Nassau and 11 Beekman-streets, New York.

W. M. WHITTEMORE (SUCCESSOR TO John Whittemore & Co.), No. 91 Maiden-lane, New York, Commission Merchant and dealer in Cotton and Woolen Machinery and manufacturer's supplies.

PAGE'S LIME AND CEMENT KILN (PATENTS 1854-57-58)—Burns 100 bbls. with 2 1/2 cords of wood or one ton of anthracite coal, not mixed with the stone; will also burn rock marl or shell. Rights for sale by C. D. PAGE, patentee, Rochester, N. Y.

CHARLES W. COPELAND, CONSULTING AND Superintending Engineer, No. 123 Broadway, New York. Plans and specifications prepared. Steam vessels and steam engines, both new and second-hand, for sale. Also, wire rope, steam and air gages, indicators, &c., &c.

APPEALS BEFORE THE JUDGES OF THE U. S. District Court, from the final decisions of the Patent Office, in Rejected Cases, Interferences, &c., are prosecuted by the undersigned on moderate terms. MUNN & CO., Solicitors of Patents, No. 37 Park-row (Scientific American Office), New York.

VALUABLE MACHINERY—TO GUN MANUFACTURERS and others; Hartford, Conn.—To be sold, by private sale, until the end of March, unless sooner disposed of, the following valuable machinery, late in use by Messrs. Robbins & Lawrence for the manufacture of Minnie rifle barrels (Eaton's pattern), under contract with the British government, viz.: one steam engine, 40 horse-power; 14 trip-hammers, 28 milling machines, 12 rifling machines, together with a prodigious number of lathes, power and hand; reaming, boring and polishing machines; machines for other purposes, and drill and over presses. A set of tools and cutters, adapted to the above manufacture, belongs to each machine. For sale, likewise, a large assortment of tools for general purposes. The above machinery is in excellent order, and much of it adaptable for general manufacturing purposes. May be seen at the Sharp's Rifle Manufactory, Hartford, on application to Mr. LAWRENCE, on the premises. A catalogue is being prepared. For particulars, apply to R. S. Lawrence, Esq., as above; John Hooker, Esq., State Bank Building, Hartford; or Henry Whittaker, Esq., No. 11 Wall-street, New York.

FOR SALE—ONE 8-HORSE UPRIGHT STEAM engine with boiler and fixtures; all in running order. Price, \$300. Address E. I. CAMP, New Milford, Conn.

INSTRUMENTS.—CATALOGUE (6TH EDITION), containing over 250 illustrations of Mathematical, Optical and Philosophical Instruments, with attachment of a large sheet representing the Swiss Instruments in their actual size and shape, will be delivered, on application, to all parts of the United States, by sending 12 cents in postage stamps. C. T. AMSLER, 635 Chestnut-street, Philadelphia. Catalogues, without the large sheet of Swiss Instruments, furnished gratis, on application.

PECK'S PATENT DROP PRESS IS THE MOST perfect machine in use for the manufacture of copper, brass or tin-ware, jewelry, spoons, &c.; and for the purpose of forming (with dies), it is superior to any other machine yet invented. All sizes of the above machines on hand or made to order, on short notice, by the patentee, MILO PECK & CO., New Haven, Conn.

WOODWORTH PLANERS—IRON FRAMES TO plane 18 to 24 inches wide, at \$90 to \$110. For sale by S. C. HILLS, No. 12 Platt-street, New York.

THE FOLLOWING VILLAGE GAS-WORKS ARE now erecting under the Aubin system, viz.:—For the city of San Antonio, Texas; for the villages of Bath, N. Y.; Plattburgh, N. Y.; Gloversville, N. Y. (changed from rosin works); Rutland, Vt.; Dover, Del.; Jersey Shore, Pa.; Flemington, N. J.; Greensboro, N. C.; and Port Levi, Canada. For reference to the Aubin village works erected last year and this spring, where both consumers and stockholders are satisfied, apply to the Aubin Company, No. 44 State street, Albany, N. Y.

MESSEURS LES INVENTEURS—AVIS IMPORTANT.—Les inventeurs non familiers avec la langue Anglaise, et qui prefereraient nous communiquer leurs inventions en Francaise, peuvent nous adresser dans leur langue natale. Envoyez nous un dessin et une description concise pour notre examen. Toutes communications seront recuees en confiance. MUNN & CO., Scientific American Office, No. 37 Park-row, New York.