Business and Personal.

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☞ *The publishers of this paper guarantee to advertisers a circulation of not less than 50,000 copies every weekly issue.*

Chard's Extra Heavy Machinery Oil.

Chard's Anti-Corrosive Cylinder Oil.

Chard's Patent Lubricene and Gear Grease.

R. J. Chard, Sole Proprietor, 6 Burling Slip, New York.

Important to Users of Steam.—Office of H. W. Johns M'f'g Co., 87 Maiden Lane. Hundreds have been deceived by worthless compounds sold by unscrupulous parties for Asbestos Steam Pipe and Boiler Coverings, which have proven unsatisfactory and have cost from 50 to 100 per cent more than the genuine, which are the most effective and economical non-conductors in the world, and are manufactured only by the H. W. Johns Manufacturing Company, 87 Maiden Lane. Be sure and note the address, and send for samples, prices, and estimates of cost of applying, before making contracts.

NEW YORK, October 11, 1880.

We have this day commenced suit against the United States and Foreign Salamander Felting Co. for infringements of our patents for Asbestos Steam Pipe and Boiler Coverings, and we warn the public against using any materials for such purposes composed of, or which purport to contain Asbestos, as they will be held liable for any infringement of our patents.

☞ All infringements will be prosecuted to the full extent of the law.

Wanted—Foreman for Malleable Iron Foundry, familiar with running of air furnaces. Address 2116 Market St., St. Louis, Mo.

Tyson Vase Engine, small motor, 1-33 H. P.; efficient and non-explosive; price $50. See illus. adv., page 316.

Superior Malleable Castings at moderate rates of Richard P. Pim, Wilmington, Del.

Hoop Iron, Cutting & Punching Co., 8 Liberty St., N.Y.

Baldwin the Clothier is accused of borrowing his motto, C. O. D. Some one has discovered it on one of the Obelisks—not yet imported—and stoutly declares that C O. D. was the watchword of Noe and his followers in the ark. It signified, as used there, C—ome O—ut D—ry!

The proper slope in writing is at an angle of fifty-two degrees, and the proper pen for the purpose is one of Esterbrook's.

For Sale, for $100, the Patent, Models, and Complete Drawings of a Corn Harvester. N. Hospers, Pella, Ia.

The only economical and practical Gas Engine in the market is the new "Otto" Silent, built by Schleicher, Schumm & Co., Philadelphia, Pa. Send for circular.

Wood-Working Machinery of Improved Design and Workmanship. Cordesman, Egan & Co., Cincinnati, O.

We unhesitatingly pronounce Messrs. Boomer & Boschert's Cider Press the best one in daily use at Am. Inst. Fair. New York Office, 15 Park Row.

Jenkins' Patent Gauge Cock; best in use. Illustrated circular free. A. W. Cadman & Co., Pittsburg, Pa.

Mr. Ely, of Afton, N. J., cut thirteen acres of heavy grass in five hours, July 2, with the Eureka Mowing Machine. It is the best mower made. Farmers send for illustrated circular to Eureka Mower Co., Towanda, Pa.

Parties desirous of contracting for the construction of Wells of extra large capacity, may address P. O. Box 1150, New Haven, Conn.

The E. Stebbins Manuf'g Co. (Brightwood, P. O.), Springfield, Mass., are prepared to furnish all kinds of Brass and Composition Castings at short notice; also Babbitt Metal. The quality of the work is what has given this foundry its high reputation. All work guaranteed.

Leather Belting, Cotton Belting, Rubber Belting, Polishing Belts. Greene, Tweed & Co., 118 Chambers St., N.Y.

The "1880" Lace Cutter by mail for 50 cts.; discount to the trade. Sterling Elliott, 262 Dover St., Boston, Mass.

The Tools, Fixtures, and Patterns of the Taunton Foundry and Machine Company for sale, by the George Place Machinery Agency, 121 Chambers St., New York.

Improved Rock Drills and Air Compressors. Illustrated catalogues and information gladly furnished. Address Ingersoll Rock Drill Co., 1½ Park Place, N. Y.

Collection of Ornaments.—A book containing over 1,000 different designs, such as crests, coats of arms, vignettes, scrolls, corners, borders, etc., sent on receipt of $2. Palm & Fechteler, 403 Broadway, New York city.

Packing once tried always used. Phœnix Packing from 1-16 up in spools or on coils. Phœnix Packing Company, 108 Liberty St., N. Y.

Gas Machines.—Be sure that you never buy one until you have circulars from Terril's Underground Meter Gas Machine, 39 Dey St., New York.

Blake's Belt Studs. The strongest and best fastening for leather and rubber belts. Greene, Tweed & Co., N.Y.

Experts in Patent Causes and Mechanical Counsel. Park Benjamin & Bro., 50 Astor House, New York.

Corrugated Wrought Iron for Tires on Traction Engines, etc. Sole mfrs., H. Lloyd, Son & Co., Pittsb'g, Pa.

Malleable and Gray Iron Castings, all descriptions, by Erie Malleable Iron Company, limited, Erie, Pa.

Skinner & Wood, Erie, Pa., Portable and Stationary Engines, are full of orders, and withdraw their illustrated advertisement. Send for their new circulars.

Sweetland & Co., 126 Union St., New Haven, Conn., manufacture the Sweetland Combination Chuck.

Power, Foot, and Hand Presses for Metal Workers. Lowest prices. Peerless Punch & Shear Co., 52 Dey St., N.Y.

Recipes and Information on all Industrial Processes. Park Benjamin's Expert Office, 50 Astor House, N. Y.

For the best Stave, Barrel, Keg, and Hogshead Machinery, address H. A. Crossley, Cleveland, Ohio.

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The Brown Automatic Cut-off Engine; unexcelled for workmanship, economy, and durability. Write for information. C. H. Brown & Co., Fitchburg, Mass.

Gun Powder Pile Drivers. Thos. Shaw, 915 Ridge Avenue, Philadelphia, Pa.

For Sale, ready for instant delivery, 16″ x 42″ Corliss Beam Engine, 16′ x 2′ wheel, thorough repair. Price, f. o. b. at tide water, in New England, $1,250. S. C. Forsaith & Co., Manchester, N. H.

Light and Fine Machinery to order. Foot Lathe catalogue for stamp. Chase & Woodman, Newark, N. J.

Best Oak Tanned Leather Belting. Wm. F. Forepaugh, Jr., & Bros., 531 Jefferson St., Philadelphia, Pa.

Stave, Barrel, Keg, and Hogshead Machinery a specialty, by E. & B. Holmes, Buffalo, N. Y.

Split Pulleys at low prices, and of same strength and appearance as Whole Pulleys. Yocom & Son's Shafting Works, Drinker St., Philadelphia, Pa.

For Patent Shapers and Planers, see ills. adv. p. 284.

Nickel Plating.—Sole manufacturers cast nickel anodes, pure nickel salts, importers Vienna lime, crocus, etc. Condit, Hanson & Van Winkle, Newark, N. J., and 92 and 94 Liberty St., New York.

Presses, Dies, and Tools for working Sheet Metal, etc. Fruit & other can tools. Bliss & Williams, B'klyn, N. Y.

Sheet Metal Presses. Ferracute Co., Bridgeton, N. J.

Wright's Patent Steam Engine, with automatic cut off. The best engine made. For prices, address William Wright, Manufacturer, Newburgh, N. Y.

National Institute of Steam and Mechanical Engineering, Bridgeport, Conn. Blast Furnace Construction and Management. The metallurgy of iron and steel. Practical Instruction in Steam Engineering, and a good situation when competent. Send for pamphlet.

Elevators.—Stokes & Parrish, Phila., Pa. See p. 317.

Reed's Sectional Covering for steam surfaces; any one can apply it; can be removed and replaced without injury. J. A. Locke, Agt., 32 Cortlandt St., N. Y.

For Yale Mills and Engines, see page 316.

For Pat. Safety Elevators, Hoisting Engines, Friction Clutch Pulleys, Cut-off Coupling, see Frisbie's ad. p. 284.

For Mill Mach'y & Mill Furnishing, see illus. adv. p. 284.

C. B. Rogers & Co., Norwich, Conn., Wood Working Machinery of every kind. See adv., page 284.

Mineral Lands Prospected, Artesian Wells Bored, by Pa. Diamond Drill Co. Box 423, Pottsville, Pa. See p. 284.

For Separators, Farm & Vertical Engines, see adv. p. 220.

Rollstone Mac. Co.'s Wood Working Mach'y ad. p. 301.

Machine Knives for Wood-working Machinery, Book Binders, and Paper Mills. Also manufacturers of Soloman's Parallel Vise, Taylor, Stiles & Co., Riegelsville, N.J.

Silent Injector, Blower, and Exhauster. See adv. p. 317.

Fire Brick, Tile, and Clay Retorts, all shapes. Borgner & O'Brien, M'f'rs, 23d St., above Race, Phila., Pa.

Clark Rubber Wheels adv. See page 317.

Machine Diamonds. J. Dickinson, 64 Nassau St., N. Y.

Steam Hammers, Improved Hydraulic Jacks, and Tube Expanders. R. Dudgeon, 24 Columbia St., New York.

4 to 40 H. P. Steam Engines. See adv. p. 317.

50,000 Sawyers wanted to send their full address for Emerson's Hand Book of Saws (free). Over 100 illustrations and pages of valuable information. How to straighten saws, etc. Emerson, Smith & Co., Beaver Falls, Pa.

For Wood-Working Machinery, see illus. adv. p. 317.

Eclipse Portable Engine. See illustrated adv., p. 317.

Tight and Slack Barrel machinery a specialty. John Greenwood & Co., Rochester, N. Y. See illus. adv. p. 317.

Elevators, Freight and Passenger, Shafting, Pulleys and Hangers. L. S. Graves & Son, Rochester, N. Y.

Emery, Solid Walrus Wheels, Leather for Covering wood wheels. Greene, Tweed & Co., 118 Chambers St., N.Y.

Comb'd Punch & Shears; Universal Lathe Chucks. Lambertville Iron Works, Lambertville, N. J. See ad. p. 285.

A profitable business for a person with a small capital. Buy a Stereopticon or Magic Lantern, and an interesting assortment of views. Travel, and give public exhibitions. For particulars, send stamp for 116 page catalogue, to McAllister, Mfg Optician, 49 Nassau St., N.Y.

Penfield (Pulley) Blocks, Lockport, N Y. See ad. p. 316.

Nellis' Cast Tool Steel, Castings from which our specialty is Plow Shares. Also all kinds agricultural steels and ornamental fencings. Nellis, Shriver & Co., Pittsburg, Pa.

For best low price Planer and Matcher, and latest improved Sash, Door, and Blind Machinery, Send for catalogue to Rowley & Hermance, Williamsport, Pa.

Notes & Queries

HINTS TO CORRESPONDENTS.

No attention will be paid to communications unless accompanied with the full name and address of the writer.

Names and addresses of correspondents will not be given to inquirers.

We renew our request that correspondents, in referring to former answers or articles, will be kind enough to name the date of the paper and the page, or the number of the question.

Correspondents whose inquiries do not appear after a reasonable time should repeat them. If not then published, they may conclude that, for good reasons, the Editor declines them.

Persons desiring special information which is purely of a personal character, and not of general interest, should remit from $1 to $5, according to the subject, as we cannot be expected to spend time and labor to obtain such information without remuneration.

Any numbers of the SCIENTIFIC AMERICAN SUPPLEMENT referred to in these columns may be had at this office. Price 10 cents each.

(1) L. T. writes: 1. I have an engine, 4½ inch bore by 6 inch stroke, running about 200 a minute. My boiler will hold about three barrels of water. I also have a windmill that works the machinery when there is a good wind, but the wind power is very unsteady, and I would like to know if I cannot compress air into the boiler with the windmill, and run the engine with it. A. Yes. 2. The boiler is safe at 200 lb. to the inch. How long would I be able to run the engine before the pressure would drop to 30 lb., which is the lowest pressure we can run with? A. Only for a short time; the actual time would depend upon the amount of work or power your engine was giving out.

[OFFICIAL.]

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FOR WHICH

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AND EACH BEARING THAT DATE.

[Those marked (r) are reissued patents.]

A printed copy of the specification and drawing of any patent in the annexed list, also of any patent issued since 1866, will be furnished from this office for one dollar. In ordering please state the number and date of the patent desired and remit to Munn & Co., 37 Park Row, New York city. We also furnish copies of patents granted prior to 1866; but at increased cost, as the specifications not being printed, must be copied by hand.

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