

Business and Personal.

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Chard's Extra Heavy Machinery Oil. Chard's Anti-Corrosive Cylinder Oil. Chard's Patent Lubricine and Gear Grease.

Requests for samples for steel pens from firms and the professions will meet with prompt attention by addressing the Esterbrook Steel Pen Co.

Magic Lanterns, Stereopticons, and Views of all kinds and prices for public exhibitions. A profitable business for a person with small capital.

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

Mr. Ely, of Afton, N. J., cut thirteen acres of heavy grass in five hours, July 2, with the Eureka Mowing Machine.

Palmer's Computing Scale Wanted. Address J. R., Box 773, New York.

Blake's Belt Studs. The strongest and best fastening for leather and rubber belts.

Wanted.—A first-class Corliss Engineer wants a situation. Is a machinist by trade.

Caution to Manufacturers and Others.—The attention of those interested is called to the fact that materials for covering hot air and steam pipes, boilers, etc., which purport to contain asbestos, should bear the name of H. W. Johns.

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

For Sale, on account of increase of power, one 20 x 48 Corliss Engine, with three boilers and equipment complete.

Wanted.—A Practical Mechanic to take charge of Pruning and other Shears Manufacturing. Address A. Flesher, Leesburg, O.

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

The E. Stebbins Mfg. Co. (Brightwood, P. O.), Springfield, Mass., are prepared to furnish all kinds of Brass and Composition Castings at short notice.

Saw Mill Machinery. Stearns Mfg. Co. See p. 269.

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.

For Sale, on account of increase of power, one 24 x 48 Corliss Engine, with three boilers and equipment complete.

Improved Rock Drills and Air Compressors. Illustrated catalogues and information gladly furnished.

Collection of Ornaments.—A book containing over 1,000 different designs, such as crests, coats of arms, vignettes, scrolls, corners, borders, etc.

The Boomer & Boschert Press Co. have in daily operation, at the Am. Inst. Fair, a complete cider mill and cider jelly manufactory.

Packing once tried always used. Phoenix Packing from 1-16 up in spools or on coils.

Blake "Lion and Eagle" Imp'd Crusher. See p. 269.

Gas Machines.—Be sure that you never buy one until you have circulars from Terri's Underground Meter Gas Machine.

Experts in Patent Cases 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., Pitts'b'g, Pa.

Peck's Patent Drop Press. See adv., page 268.

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

National Steel Tube Cleaner for boiler tubes. Adjustable, durable. Chalmers-Spence Co., 40 John St., N. Y.

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

Eclipse Portable Engine. See illustrated adv., p. 252.

Nickel Plating.—Sole manufacturers cast nickel anodes, pure nickel salts. Importers Vienna lime, crocus, etc.

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

Hydraulic Jacks, Presses and Pumps. Polishing and Buffing Machinery. Patent Punches, Shears, etc.

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

Wright's Patent Steam Engine, with automatic cut off. The best engine made.

National Institute of Steam and Mechanical Engineering, Bridgeport, Conn. Blast Furnace Construction and Management.

Read's Sectional Covering for steam surfaces; any one can apply it; can be removed and replaced without injury.

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

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

50,000 Sawyers wanted to send their full address for Emerson's Hand Book of Saws (free).

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

Tight and Slack Barrel machinery a specialty. John Greenwood & Co., Rochester, N. Y.

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

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

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

Catechism of the Locomotive, 625 pages, 250 engravings. The most accurate, complete, and easily understood book on the Locomotive.

C. B. Rogers & Co., Norwich, Conn., Wood Working Machinery of every kind.

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

Elevators.—Stokes & Parrish, Phila., Pa. See p. 284.

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.

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.

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

(1) W. M. asks: 1. What is the best method of washing a pair of common working pants that is tolerably greasy so as not to discharge the color?

to color or otherwise affect the distillate. 4. Would wrought iron pipe do for a worm for distilling whisky? A. Spirit could be distilled in such a vessel.

(2) G. G. G. writes: 1. In directions for making an induction coil in SUPPLEMENT No. 160, it says the secondary coil is made of No. 36 copper wire.

(3) F. R. R. asks (1) how to remove and replace the substance inside the porous cup of a Leclanché cell. What is the substance? A. Remove the cement at the top of the cell, take out the carbon and remove the filling of the cell, soak both carbon and cell in warm water.

(4) C. M. D. writes: I have about 600 feet No. 40 silk insulated wire and desire to make an induction coil. What size shall I make my spool, and how much wire shall I use for my primary, to get good results with one small bichromate cell?

(5) J. W. W. asks: 1. What is the cause of the heat produced in the armature core (iron) of a dynamo-electric machine? Is it not largely due to the rapid reversal of the magnetic polarity of the iron?

(6) W. S. asks: 1. Is the Siemens-Halske as strong as the chromic acid battery? A. No. 2. How long will either of the above batteries work without attention, if run constantly for eight hours per day on a circuit with a resistance of about two ohms?

(7) F. R. R. asks: Does the improved Prud'homme battery have the same substance in the porous cup as the Leclanché? A. We believe the porous cell contains granulated carbon.

(8) A. R. asks: 1. Will a magnet give more attractive force than its weight? If so, what are the proportions? A. A good magnet will lift several times its own weight; but the amount lifted depends on the form of the magnet, on the quality of steel from which it is made, and on the degree of magnetization.

Notes & Queries

HINTS TO CORRESPONDENTS.

COMMUNICATION RECEIVED. On the Tin Mines of Maine. By C. W. H.

INDEX OF INVENTIONS FOR WHICH Letters Patent of the United States were Granted in the Week Ending October 5, 1880, AND EACH BEARING THAT DATE.

Table listing inventions granted in the week ending October 5, 1880. Includes entries like Aerator, H. Kupfer; Air compressors and water pumps, automatic balance attachment for delivery valves of, Connor & Do; Air-tight can, C. L. Betts; Ammonia, method and apparatus for obtaining, H. P. Lorenzen; Animal shears, J. Clough; Annunciator, electric, J. I. Sabin; Asparagus buncher, J. & F. H. Weeks; Awning, shutter, J. Carey, Jr.; Axle box, car, G. F. Gear; Barrels or churns, head for, J. McDermaid; Bedstead, wardrobe, M. Crosby; Birds, manufacture of artificial, C. H. Bogurtha; Boiler tubes, apparatus for securing, W. Tully; Boot treeing machine, Crisp & Copeland; Boring bit gauge, W. F. Rutter; Brake shoe, G. A. Bullock; Broom, Gallagher & Douglas; Building, fireproof, J. J. Schillinger; Bung, barrel, T. Powers; Burial casket, J. W. Brasure; Capsule machine, gelatine, V. E. Mauger; Car attachment for elevated railways, C. E. Powers; Car brake, railway, W. Gill; Car brake, W. P. Smith; Car coupling, J. P. Easley; Car coupling, W. L. Everitt; Car coupling, A. B. Miller; Car coupling, W. S. Sampson; Car roof, A. P. Winslow; Car stock, S. R. Karis; Car wheel, J. Rigby; Cards, etc., making colored edged, O. B. Hastings; Carpet lining, manufacture of, J. R. Harrington; Cartridge assembling machine, G. P. Salisbury; Cartridge loading implement, J. Brown, Jr.; Cartridge shells, method and apparatus for annealing, T. G. Bennett; Chain, bead, T. Granbery; Cigar cutter, J. Wienhold; Cigarette, B. Baron; Clod cutter and harrow, combined, W. Wimpee; Cloth stretching and drying machine, J. Sinnamon; Clothes pin, A. C. Aslaid; Clothes pounder, D. C. Jordan; Coal shovel or scoop, C. M. Seguire; Coffee pot, T. H. Harrison; Cooking vessel, H. C. White; Cord making machine, C. E. Barnes; Corn sheller, M. F. Remington; Corn sheller, C. E. Whitman; Corner stone for boundary lines, J. C. Isaac; Cornice, extension, M. Murphey; Corset, W. J. Miller; Corset steel, A. Bluntach; Creaming can, C. L. Betts; Crown sheet support, J. E. Jerrold; Cultivator, J. H. Bailey; Cultivator, A. Lupton; Cultivator tooth, J. S. Rowell; Cultivator tooth, L. S. Wood; Curtain fixture, W. H. Harrison; Curtain fixture, P. Osgood; Cutlery handle, pocket, B. McGovern; Damper regulator for steam boilers, H. Lyons; Dashes, machine for the manufacture of, Peters & Standish; Dental compound for preventing pain, H. E. Denett; Dish, butter, T. J. Pairpoint; Door hanger, C. Johnson; Door hanger, C. W. Pierce; Double gate or valve, P. Giovannini; Electric machine, dynamo, E. Thomson; Electric machine, dynamo, Thomson & Houston; Eyeglass, S. Levin; Farm and garden tool, W. S. Rabb; Faucet, W. S. Cooper; Faucet, C. H. Koetzner; Faucet, J. Quintenz; Fence material, device for cutting barbs on, T. V. Allis; Fence post, iron, Rainnie & Robinson; Fence wire, machine for barbing, A. Henley; Fertilizer distributor, J. W. Spangler; Firearm, breech-loading, T. D. Bartley; Firearm, breech-loading, G. W. Hadley; Firearm, breech-loading, C. Slotterbek; Firearm, magazine, B. Burton; Fire extinguisher, A. J. Sparrow; Foot bath, H. D. Partridge; Fuel economizer, R. Newton; Game board, D. L. Wilcox; Gas engine, I. Durand; Gas engine, C. Linford; Gas regulator, J. B. Cox; Gas regulator, J. B. Tiffany; Glassware, manufacture of handled, W. Fox; Glove fastener, E. Wright; Governor, D. F. Milne; Grain drill feed regulator, Outcalt & Kissner; Grain scouring apparatus, J. N. Knox; Grain scouring apparatus, Leas & Hanson; Grain scouring device, D. M. Richardson; Grate, R. Newton; Grinding mill, domestic, Parker & Chapman; Hame hook, M. C. Hargrave; Hat pouncing machines, attachment for, E. B. Taylor; Hauling clip or griper, J. Hanson; Heel, rubber, H. Pennie; Hoe, R. G. S. Austin; Hood, S. N. Burridge; Horseshoe nails, making, J. M. Laughlin; Hub, vehicle wheel, S. Mitchell; Ice house, Lederle & Oberlein; Incased can, H. Sangster; Ironing machine, J. K. O'Neil; Jewelry ornament, F. Diffany; Knitting machine, M. Marshall; Knob, register, G. W. Lewin; Ladder, telescopic, F. W. Hofele; Lamp, C. R. Harrison; Lamp burner, Lotz & Lemon; Lamp, hydrogen, Rhind & Farthing; Lantern, E. P. Follett; Lantern, W. S. Rogers; Lasting machine, G. Hawkes; Level, spirit, W. Langdon; Life raft and settee, combined, E. Harding; Liquids, device for purifying, A. C. Humphreys; Lock strike, H. Fellows; Locomotive exhaust apparatus, E. Longstreth; Loom shuttle, J. A. Bergan; Loom temple, J. B. Stamour; Lubricating apparatus for steam engine cylinders, J. Wheelock; Mangle, A. V. Semrad; Metal from ores, apparatus for extracting, T. G. Hall; Metal shearing machine, J. Kinhart; Milk cooler, J. G. Smith; Mill for crushing and grinding grain, etc., C. S. Wenger; Millstone dressing machine, A. T. Teetor; Moulding machine, G. Sebold; Mower, E. Smith; Mucilage or paste vessel, C. Sabin; Musical instrument reed, H. Smith; Net for horses, fly, G. R. Ayres; Numbering or paging machine, G. Lautenschlager; Nut roaster, P. J. Rumsey; Oil cans, nozzle stopper for, J. H. Noyes; Oiler nozzle, S. S. Newton; Oven, H. McConnell; Package, tight, J. Naylor, Jr.; Packing for engines, etc., J. C. Febiger, Jr.; Paddlewheel, T. G. Stritter; Paper bag, J. Bower; Paper bag machine, W. C. Cross.

