

ENGINEERING INVENTIONS.

An operating mechanism for railway switches has been patented by Mr. William B. S. Reed, of Brooklyn, N. Y.

AGRICULTURAL INVENTIONS.

A hand corn planter has been patented by Mr. Seth Hackett, of Bronson, Mich.

MISCELLANEOUS INVENTIONS.

An automatic flushing siphon has been patented by Mr. William B. Parsons, Jr., of New York city.

A carpet stretcher has been patented by Mr. Robert R. Jones, of Blossburg, Pa.

A twine and wire cutter has been patented by Mr. William L. Haas, of Charles City, Iowa.

A draught equalizer has been patented by Mr. John L. Powles, of Goodland, Ind.

A bag holder has been patented by Mr. Walter S. Kendall, of Grand Rapids, O.

A windlass has been patented by Mr. Frederick W. Thomson, of Maitland, N. S., Canada.

A magazine spring gun has been patented by Mr. Stephen D. Engle, of Hazleton, Pa.

A wood sawing machine has been patented by Mr. Samuel P. Dresser, of Pleasant Mount, Mo.

An umbrella or parasol has been patented by Mr. George W. Jones, of Brooklyn, N. Y.

A barrel making machine has been patented by Mr. Josiah J. Philbrick, of Birmingham, Ala.

A pipe vise has been patented by Mr. Andrew L. Rose, of West Troy, N. Y.

A saw has been patented by Mr. George N. Clemson, of Middletown, N. Y.

A device for centering vessels in dry docks has been patented by Mr. Adam Bulman, of Jersey City, N. J.

A funnel has been patented by Mr. Frederick Catlin, of New York city.

The producing of metallic printing plates has been patented by Mr. Cesar Felix Jozs, of Bockenhelm, Germany.

A hose or suction tubing forms the subject of a patent issued to Mr. James Jones, of Dublin, Ireland.

A folding box or crate has been patented by Mr. Edward Harris, of Cambria, Wis.

A ventilator has been patented by Mr. Richard de Logerot, of New York city.

A clothes drier has been patented by Messrs. Charles Goodyear and William Morse, of Warren, Pa.

NEW BOOKS AND PUBLICATIONS.

POULTRY CULTURE. How to Raise Man- age, Mate, and Judge Thoroughbred Fowls.

Poultry culture has heretofore received from the farmer just as much attention as he regarded necessary to keep the flock alive.

Art Age, published monthly, \$2 a year.

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The charge for insertion under this head is One Dollar a line for each insertion; about eight words to a line.

A Profitable Investment can be made in a postal card, if it is used to send your address to Hallett & Co., Portland, Maine.

Dynamo Machines for all purposes.

Industrial Applications of Electricity, including: Electric Lighting, Transmission of Power, Electro Mechanical Machinery, Electro Deposition of Metals.

Don't fail to send for circular of new Laboratory Lamp. Dangler V. S. Co., Cleveland, O.

To Manufacturers.—The undersigned, traveling for the past eight years on the European continent in the interest of eight American firms, solicits catalogues and price lists to be sent to him by manufacturers of all sorts of agricultural and industrial machinery.

The Magic Square.—A novel instrument for solving problems in arithmetic by a mechanical method, without mental labor.

A "Pointer." When Col. Sellers gives you a "pointer" in stocks, my friend, leave them severely alone.

Blake's Belt Studs. The strongest and best fastening for Rubber and Leather Belting.

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For Sale.—One 50 H. P. and one 200 H. P. Corliss Engines, built by Geo. H. Corliss; also one 30 H. P. Portable Engine, built by Erie City Iron Works, nearly new; used only few months.

Modern M'ch. Tools a specialty. Abbe Bolt Forgers, Power Hammers, Lathes, Planers, Drills, and Shapers.

To Manufacturers.—The owner of 260 acres of ground at Pittsburg, on the Allegheny River and Pennsylvania system of railroads, in order to improve the property, offers to donate a number of excellent manufacturing sites.

Order our elegant Keyless Locks for your fine doors. Circular free. Lexington Mfg. Co., Lexington, Ky.

Geo. E. Lloyd & Co., Electrotype and Stereotype Machinery, Folding Machines, etc. Send for catalogue. Chicago, Ill.

Nickel Plating.—Sole manufacturers cast nickel anodes, pure nickel salts, polishing compositions, etc. \$100 "Little Wonder." A perfect Electro Plating Machine.

Grimshaw.—Steam Engine Catechism. A series of thoroughly Practical Questions and Answers arranged so as to give to a Young Engineer just the information required to fit him for properly running an engine.

Woodw'kg. Mch'y, Engines, and Boilers. Most complete stock in U. S. Prices to meet times.

Shafting, Couplings, Hangers, Pulleys, Edison Shafting Mfg. Co., 36 Goerck St., N. Y.

The Knowles Steam Pump Works, 44 Washington St., Boston, and 93 Liberty St., New York, have just issued a new catalogue, in which are many new and improved forms of Pumping Machinery of the single and duplex, steam and power type.

Haswell's Engineer's Pocket-Book. By Charles H. Haswell, Civil, Marine, and Mechanical Engineer. Giving Tables, Rules, and Formulas pertaining to Mechanics, Mathematics, and Physics, Architecture, Masonry, Steam Vessels, Mills, Limes, Mortars, Cements, etc.

Air Compressors, Rock Drills, J. Clayton, 43 Dey St., N. Y.

Machinery for Light Manufacturing on hand and built to order. E. E. Garvin & Co., 139 Center St., N. Y.

If an invention has not been patented in the United States for more than one year, it may still be patented in Canada. Cost for Canadian patent, \$40.

Supplement Catalogue.—Persons in pursuit of information of any special engineering, mechanical, or scientific subject, can have catalogue of contents of the SCIENTIFIC AMERICAN SUPPLEMENT sent to them free.

Presses & Dies, Ferracute Mach. Co., Bridgeton, N. J.

Wood Working Machinery. Full line. Williamsport Machine Co., "Limited," 110 W. 3d St., Williamsport, Pa.

Hercules Lacing and Superior Leather Belting made by Page Belting Co., Concord, N. H.

Planing and Matching Machines. All kinds Wood Working Machinery. C. B. Rogers & Co., Norwich, Conn.

Pat. Geared Scroll Chucks, with 3 pinions, are sold at same prices as common chucks by Cushman Chuck Co., Hartford, Conn.

Curtis Return Steam Trap returns all condensations into the boiler without waste. Curtis Regulator Works, Boston, Mass.

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

Emerson's Book of Saws free. Reduced prices for 1885. 50,000 Sawyers and Lumbermen. Address Emerson, Smith & Co., Limited, Beaver Falls, Pa.

The new Vapor Laboratory Lamp made by Dangler V. S. Co., Cleveland, O., is a grand success.

Rubber Belting, Cotton Belting, Leather Belting, Economy Belting, and Polishing Belting. Greene, Tweed & Co., New York.

Blake's Belt Studs. The strongest and best fastening for Rubber and Leather Belting.

Machinists' Pattern Letters. Pattern Letters to order. Vanderburgh, Wells & Co., 110 Fulton St., New York.

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

Wanted.—Second hand Engine and Boiler, about 8 horse power, to drive yacht. Must be in good condition.

Notes & Queries

HINTS TO CORRESPONDENTS.

Names and Address must accompany all letters, or no attention will be paid thereto. This is for our information, and not for publication.

(1) A. W. C. asks: Will the attachment of the ground wire from telegraph office to a water pipe effect the freezing of the water? A. No.

(2) M. L., Jr., writes: A fire alarm telegraph wire goes over the house I am in. It is held in place by a glass insulator at the ridge of the roof.

(3) E. A. C. writes: I wish to make an electric motor one-half the size of the one described in SUPPLEMENT, No. 161, and I am uncertain about the size wire which should be employed in winding the field magnet and armature.

(4) W. K. asks: What substance could I add to wax (such as used for artificial flowers), in order to render it pliable in cold weather and at the same time preserve its whiteness?

(5) J. McC., Jr., writes: I am making a dynamo-electric machine like one described in SCIENTIFIC AMERICAN SUPPLEMENT, No. 161, with permanent magnets. 1. Does increased speed give increased power, or is there a limit to the speed which gives the best results, and if so, what is it?

(6) J. O.—Propeller wheels are named from their form of the section of a screw, and plow through the water in the same manner that any screw runs in a nut.

(7) C. & D.—Diamond drills are made by setting borts or black diamonds in the ends of iron or steel tubes.

(8) W. A. B.—There are several reckonings of time. The civil year commences at midnight, December 31.

(9) J. L. asks (1) how Fehling's solution is made. A. Fehling's solution is made by dissolving 34.637 grms. pure copper sulphate in water and adding a solution of 173 grammes of Rochelle salts in 480 cubic centimeters of sodium hydrate having a density of 1.14 and diluting to one liter.