

Business and Personal.

The charge for insertion under this head is One Dollar a line for each insertion...

For mining engines. J. S. Mundy, Newark, N. J. "U. S." metal polish. Indianapolis. Samples free. Stave machinery. Trevor Mfg. Co., Lockport, N. Y.

Fruit stoner patent for sale. See illus. notice page 357. Bookbinding.—All classes of work. Magazines a specialty. Haddon & Co., 139 Center St., New York.

Microbe Killer Water Filter, McConnell Filter Co., Buffalo, N. Y. Distance Reading Thermometers.—See illus. advertisement, page 319. Ward & Doron, Rochester, N. Y.

Steam Hammers, Improved Hydraulic Jacks, and Tube Expanders. R. Dudgeon, 24 Columbia St., New York. Cheapest Water Power.—See top of 1st column, page 176.

Screw machines, milling machines, and drill presses. The Garvin Mach. Co., Laight and Canal Sts., New York. Centrifugal Pumps. Capacity, 100 to 40,000 gals. per minute.

Inventors wishing to bring their inventions to the public notice should confer with H. Pittock, Room 61, 1 Beacon St., Boston, Mass. Guide & Garrison, Brooklyn, N. Y., manufacture steam pumps, vacuum pumps, vacuum apparatus, air pumps, acid blowers, filter press pumps, etc.

The best book for electricians and beginners in electricity is "Experimental Science," by Geo. M. Hopkins. For the original Bogardus Universal Eccentric Mill, Foot and Power Presses, Drills, Shears, etc., address J. S. & G. F. Simpson, 26 to 36 Rodney St., Crooklyn, N. Y.

Patent Electric Vise. What is claimed, is time saving. No turning of handle to bring jaws to the work, simply one sliding movement. Capital Mach. Tool Co., Auburn, N. Y. Patent for Sale.—Newly patented machine for cutting toothpicks, match sticks, kindling wood, etc., from veneer.

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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 This is for our information and not for publication. References to former articles or answers should give date of paper and page or number of question.

(6063) M. L. R. asks: 1. Should it be made a point, when putting wire in a house for a telephone, to keep it away from the roof? How near may it come without danger? A. No special care need be taken. A foot or two is ample distance.

(6064) W. G. M. asks: 1. Can I connect a small sewing machine motor on to electric wire in place of the potential of the circuit? A. Not unless wound for the potential of the circuit. 2. Will the telephone spoken of in query No. 5985 of April 28, 1894, operate successfully in a city among electric wires, and for how long a distance could it be used? A. It will work fairly well up to a distance of several miles.

(6065) A. F. W. writes: 1. I have removed the copper plating from electric light carbons by placing them in their for three-quarters or a half an hour. I have then used them for a bichromate battery. A. We are glad to give our readers this suggestion. 2. In a Brush lamp are there two arcs or one? A. One arc. 3. How often do the carbons have to be renewed? A. Every day. 4. Do you know of any book that tells fully how to do sleight of hand tricks? A. We can supply the following books: "Sleight of Hand," by Sachs, London, price \$3; "Modern Magic," by Professor Hoffman, price \$2.50; "Art of Modern Conjuring," price \$1.50, mailed.

(6066) G. L. C. asks: How much will it take of ammonia at 26° Baume to neutralize 1 ounce of tartaric acid (crystal). A. For 1 part tartaric acid 0.09 of ammonia solution is needed, all parts by weight.

(6067) C. B. S. asks: 1. What kind of wood would be best to burn for potash manure? A. Elm and vine. 2. Would the ashes from pine wood sawdust be good? A. They are very poor. 3. How is sulphate of potash made? A. By neutralizing the carbonate with sul-

phuric acid, evaporating and crystallizing. 4. Will you name a good book on the above subject? A. We can supply "Chemistry of Acids, Alkalies, and Salts," by Richardson & Watts, 3 large volumes, price \$20. Also Wagner's "Chemical Technology," price \$7.50.

(6068) F. A. asks: I have dynamo No. 600. The armature is wound with No. 18 B. & S. wire. Can I wind fields to generate a current to light six or eight 16 candle power 110 volt lamps, and if so, how much of what size wire? A. The armature will need rewinding, as well as the field, for change of voltage. No. 18 wire is too large.

(6069) F. R. B. asks: Would an incandescent lamp that requires 1/2 ampere of current on a 110 volt circuit have 220 ohms of resistance? If so, would the candle power be about 16? A. Yes.

(6070) J. O. L. asks: Will you inform me how to make copper wire flexible? A. If you mean to make copper wire springy, it can be done by drawing from a larger size and not annealing.

TO INVENTORS.

An experience of forty-four years, and the preparation of more than one hundred thousand applications for patents at home and abroad, enable us to understand the laws and practice on both continents, and to possess unequalled facilities for procuring patents everywhere.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Granted

May 29, 1894.

AND EACH BEARING THAT DATE. (See note at end of list about copies of these patents.)

Table of inventions with patent numbers and names. Includes Acid proof composition, J. A. Just, 520,600; Advertising wagon, J. N. Russell, 520,541; Air compressor, Birner & Messing, 520,405.

Continuation of invention table. Includes Board, See Talking board, 520,423; Boiler, See Steam boiler, Wash boiler, 520,569; Book holder, A. A. Ambler, 520,627; Book stapling machine, E. T. Greenfield, 520,734.

Continuation of invention table. Includes Desk support and binze, combined, F. W. Tobey, 520,492; Disinfecting apparatus, R. A. Rosenblatt, 520,540; Distilling water, method of and apparatus for, 520,525; Door check, T. Curley, 520,437.

Continuation of invention table. Includes Saw, drag, J. A. Geselus, 520,640; Scalpel, J. W. Jones, 520,435; Scarf pin, C. W. Partridge, 520,510; Screws, tool, G. Bunell, 520,478.

TRADE MARKS.

Table of trademarks with names and patent numbers. Includes Axes and other tools, Collins Company, 24,802; Belts and wearing appliances, electric, Owen Electric Belt and Appliance Company, 24,778.

DESIGNS.

Table of designs with names and patent numbers. Includes Bowl or similar article, H. Berry, 23,313; Box, S. W. Babbitt, 23,312; Clothes line holder, Hoffmann & Hoffman, 23,321.

A printed copy of the specification and drawing of any patent in the foregoing list, or any patent in print issued since 1833, will be furnished from this office for 25 cents. In ordering please state the name and number of the patent, and remit to Munn & Co., 361 Broadway, New York.