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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.

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Correspondents sending samples of minerals, etc., for examination, should be careful to distinctly mark or label their specimens so as to avoid error in their identification.

(1) F. S. D. asks: How does the winding of the magnets in a magneto call bell differ from that in ordinary electro magnets? I wish to make one so that the magnets draw alternately. A The winding is the same in both cases.

(2) A. W. W. asks whether sulphurous acid can be administered to any one with bronchial catarrh. A. Sulphurous acid can be made and taken anywhere. As it is somewhat dangerous, we should recommend its use only under a physician's guidance.

(3) H. E. F. asks for a good receipt for making "treer's blacking," that which is most generally used by "treer's" in the boot and shoe manufactories. A. Dissolve gum tragacanth in water, then add a little ink to make it black, and finally add a small quantity of neatsfoot oil. It must be quite thin, or else, if thick, it is liable to cake.

(4) C. A. B. asks: We have a melting kettle of cast iron, holding about five tons of metal (lead), which has a slight crack in it, through which the molten lead finds its way. Can this be repaired, and how? A. If the crack in the melting kettle is where the fire touches it, you cannot mend it by patching with rivets, as it will not be reliable. If the crack is very small, it might be drilled out, tapped with a taper pipe thread, and plugged. If the crack is directly over the fire, this will not save the kettle. A foundryman could "burn" the crack out, if you can take out the kettle and send it to him. Otherwise you will have to procure a new kettle, which is probably advisable.

(5) T. S. C. writes: I want an anti-friction metallic piston for packing a three inch steam or water cylinder. I am using lead for the rings. Can I mix it with any other metals so as to make it harder and be elastic too? If so, please state the component parts. Can a small cylinder, as described above, be made tight with exclusive metallic ring packing? If so, please state how. A There is no way of making it perfectly tight; if the cylinder is for cold water, use a cup leather packing; for steam, you can add tin to your lead and get a harder packing. Try good Babbitt metal.

(6) G. B. M. asks why hot air can be seen coming up from a hot stove, while we cannot see the wind blow. A. The refractive power of hot air differs from that of cold air, and when in circulation, mixed with cold air, as in a column rising from a hot stove, it produces a vibratory effect upon objects seen through it. You also see particles of dust floating in the upward current, but you do not see the air itself. The circulation of air is indicated by the floating dust when a beam of sunshine enters a dark room.

(7) E. M. writes: 1. I have an engine, 4 inches bore and 6 inches stroke; I also have a boat model, built 21 feet long by 5 feet beam, 2 feet in depth, draught of water, 18 inches, including 6 inches keel; can also get 14-inch propeller wheel. Will this be large enough, or too large? A. Your wheel should be 18 inches diameter. 2. Will this run her direct-acting frame engine to wheel? A. Yes. 3. What speed upstream will she make, current three miles an hour? A. Speed depends on power applied; probably not more than 3½ to 4½ miles. 4. How many revolutions a minute will the engine be required to make. A. 360 to 400 revolutions per minute. 5 What sized boiler will it take for engine to make plenty of steam? A. 80 to 90 square feet heating surface.

(8) A. J. H. asks: 1. How much power will a 12 foot windmill generate in an ordinary wind? A. Average about 1½ horse power? 2. Will the dynamo electric maching described in SUPPLEMENT, No. 161, produce twice as much electricity if it is built twice as large? A. Yes. 3. Will you please mention the name of a good firm of which to procure cotton and silk covered copper wire. A. See our advertising columns.

(9) A. P. C. asks how to polish the blades of knives and scissors after sharpening. I have a small lathe, if that would be of any service. A. For a small lathe a buff made of two or three disks of thick sole leather 3 inches or 4 inches diameter, placed upon a spindle of wood or iron, pressed together with nuts and washers, or glued if on wooden spindle. Turn off true, and use the finest flour emery and a little oil to hold the emery. If a higher polish is required, use tripoli or rotten stone or crocus, as you may find best by trial.

[OFFICIAL.]

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January 30, 1883,

AND EACH BEARING THAT DATE.

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Veneering or covering articles with pyroxyline or other plastic material, mould for, J. A. McClelland 271,496
Vent or vent bung, J. P. Gruber 271,236
Vise, D. Davis 271,316
Wagon running gear, T. B. Mackey 271,487
Washtub support, J. Reid 271,516
Washer. See Composite washer.
Washer, J. Ringen 271,275
Washer, S. H. Shively 271,373
Washing machine, A. K. De Good 271,317
Washing machine, J. B. Faucette 271,230
Washing machine, A. Scharnweber 271,369
Washing machine, C. N. White 271,335
Water closet, C. F. Pike 271356
Water closet and other traps, cleansing, C. F. Pike 271,358
Water closet bowls and their traps, cleansing and disinfecting, C. F. Pike 271,357
Water closet splash board, W. Welch *et al* 271,557
Wheel. See Car wheel. Vehicle wheel.
Whip connection, W. J. Morand 271,504
Whips, machine for rolling buttons on, W. J. Morand 271,503
Window shade roller, W. F. Edwards 271,438
Wood, ornamenting, J. P. Jamison 271,469
Wrench. See Carriage wrench.

DESIGNS.

Card, C. A. Wright 13,567
Carpet, J. Nell 13,565
Carpet, P. Pignot 13,563
Carpet, T. J. Stearns 13,566
Chain, H. Untermeyer 13,558
Harness bit, G. F. Eberhard 13,547, 13,548
Harness bit, A. A. Pope 13,549
Harness bit, J. L. Pope ..... 13,550 to 13,555
Harness trimming, F. Crane 13,561
Harness trimming, E. N. Crane 13,562
Harness trimming, C. F. Waldron 13 559
Mirror frame, G. L. Garrigues 13,564
Type, J. A. St. John 13,556, 13,557
Type, font of printing, C. E. Heyer 13,560

TRADE MARKS.

Beer, lager, J. Ruppert 10,004
Beer, lager, Williamsburgh Brewing Company 10,012
Biscuits, crackers, jumbles, snaps, cakes, wafers, and kindred articles, Hetfield & Ducker 9,986
Blues, laundry, Fickett & Beals 10,002
Boiler cleaning compound, T. Baker & Co 9,984
Books, letter-headings, envelopes, paper wrappers, advertising circulars, pamphlets, etc., F. A. Davis 9,998
Cod-liver oil, Ansar, Harford & Co 9,983
Flour, D. De Castro & Co 9,999
Glass table ware and fancy articles, F. S. Shirley 10,011
Implements, certain agricultural, Collins Company 10,006
Inks, lithographic, R. Mayer & Co 9,988
Lozenges, T. Keating 9,987
Paints and dyes, A. M. Meincke 10,009
Paper, wrapping, J. A. Dushane 9,985
Phenol, H. Clostre 9,996
Sleds and sleighs, B. F. & H. L. Sweet 9,992
Soap, laundry and toilet, Schultz & Co 9,990
Stoves, ranges, and heaters generally, Michigan Stove Company 10,007, 10,008
Tea, Catherwood & Co 9,994
Tea, E. A. Schoyer & Co 10,010
Tobacco, smoking, B. Leidersdorf & Co 10,003
Tobaccos, cigars, and cigarettes, fine-cut, plug chewing, and smoking, B. Leidersdorf & Co 10,005
Tools or implements for agricultural and mechanical purposes, H. W. Peabody & Co 9,989
Velveteen, Shaen & Christie 9,991
Whisky, J. Cotter 9,997
Wind and reed instruments, violins, and guitars, C. Bruno & Son 9,998
Wines, sparkling, Chandon & Co 9,995
Yeast, compressed, Gaff, Fleischmann & Co., 10,000, 10,001