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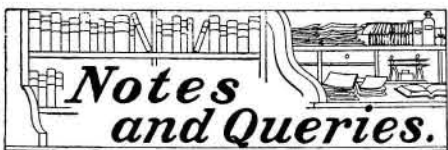
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Names and Address must accompany all letters or no attention will be paid thereto. This is for our information and not for publication. References to former articles or answers should give date of paper and page or number of question. Inquiries not answered in reasonable time should be repeated; correspondents will bear in mind that some answers require not a little research, and, though we endeavor to reply to all either by letter or in this department, each must take his turn. Buyers wishing to purchase any article not advertised in our columns will be furnished with addresses of houses manufacturing or carrying the same. Special Written Information on matters of personal rather than general interest cannot be expected without remuneration. Scientific American Supplements referred to may be had at the office. Price 10 cents each. Books referred to promptly supplied on receipt of price. Minerals sent for examination should be distinctly marked or labeled.

(8672) M. P. C. asks: 1. Please give the formula of a solution for a carbon-zinc battery that is suitable for running a small motor. One in which the zincs may remain in when not in use. A. There is no cell using zinc and carbon in which the zinc ought to remain when not in action, excepting the sal-ammoniac cells, and these are not adapted for running motors. The best battery for the purpose is the plunging bichromate battery described in SUPPLEMENT No. 792, price ten cents by mail. 2. How many inches of zinc should there be to one of carbon? A. The best mode of arranging the zinc and carbon is to place two carbon plates with a zinc plate between them, all to be of the same size. Both surfaces of the zinc are then active. There is no rule to determine the number of inches of zinc to one of carbon. In the Le Clanche cell a rod of zinc, 3/8 inch in diameter, is used for a large surface of carbon.

(8673) G. R. R. asks: 1. How to preserve eggs, so as to keep them good, a length of time. A. A good method of storing eggs is the following: Having selected perfectly fresh eggs, put them, a dozen or more at a time, into a small willow basket, and immerse this for five seconds in boiling water containing about 5 pounds of common brown sugar per gallon of water. Place the eggs immediately after on trays to dry. The scalding water causes the formation of a thin skin of hard albumen next the inner surface of the shell, the sugar effectually closing all the pores of the latter. The cool eggs are then packed, small end down, in an intimate mixture of one measure of good charcoal, finely powdered, and two measures of dry bran. Eggs thus stored have been found perfectly fresh and unaltered after six months. 2. Can you give a recipe for a cheap and modern stove polish? A. Stove Polish.—Mix 2 parts copperas, 1 part powdered bone black, and 1 part black lead with enough water to give proper consistency, like thick cream. Two applications are to be recommended.

(8674) L. C. R. asks: 1. What is the composition of the enamel used to insulate the wires in electric heating apparatus and rheostats and how can I prepare and apply it? A. Clean and brighten the iron before applying. The enamel consists of two coats—the body and the glaze. The body is made by fusing 100 pounds ground flint, 75 pounds borax and grinding 40 pounds of this frit, with 5 pounds of potter's clay in water, until it is brought to the consistency of a pap. A coat of this being applied and dried, but not hard, the glaze powder is sifted over it. This consists of 100 pounds Cornish stone in fine powder, 117 pounds borax, 35 pounds soda ash, 35 pounds niter, 35 pounds sifted slaked lime, 13 pounds white sand, 50 pounds of powdered white glass. These are all fused together, the frit obtained is pulverized. Of this powder 45 pounds are mixed with 1 pound of soda ash in hot water, and the mixture dried in a stove is the glaze powder. After sifting this over the body coat the cast iron article is put into a stove, kept at a temperature of 212 deg. to dry it hard, after which it is set in a muffle kiln to fuse it into a glaze. The inside of pipes may be enameled (after being cleaned) by pouring the above body composition through them while the pipe is being turned around to insure an equal coating. After the body has become set the glaze is poured in in the same manner. The pipe is then fired in the kiln. 2. What kind of cells should I use when necessary to add an extra battery to a Queen acme bridge and how should they be connected? A. We cannot tell. We advise you to consult the makers of the bridge.

(8675) J. D. S. asks for a stove blacking or varnish that will give a black gloss and not burn off. Brunswick black gives the gloss but burns off when applied to top of stove. A. Take plumbago, make into a thin paste with sodium silicate or water glass. This makes an excellent stove polish and should be brushed thoroughly.

(8676) J. B. asks: What is the composition on back of postal cards to reprint upon? A. It is a special composition of clay. The government will not now accept these postal cards.



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