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 This is for our information, and not for publication.

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.

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.

(1) J. H. asks how to remove stain, discoloring, or smell, of carbon oil out of wood flooring. A. You might try the effect of spreading a layer of fuller's earth over the wood, but we doubt if a complete removal is possible.

(2) N. S. C. asks how to color water in alcohol so as to obtain the deepest hue (red preferred), suitable for exhibition, in capillary tubes or thin layers. A. Use aniline red, soluble in water.

(3) Librarian asks a recipe for cleaning the leaves of books. A. We know of nothing better than stale bread crumbs. We would recommend you to consult the articles on "How to Clean Old Engravings," in SCIENTIFIC AMERICAN SUPPLEMENT, Nos. 115 and 124.

(4) E. S. asks: Is there any preventive of the disfiguring white incrustation which so often appears on brick work? We have just erected a handsome brick structure, and already there are some signs of its appearance. Can you recommend any application which, while not injuring appearance of brick work, would prevent above trouble? A. The incrustation on your brick wall is sulphate of magnesia. Sometimes a cure may be effected by applying, with a sponge, a solution of common muriatic acid, ½ pound in a pail of water; but, if this fail, nothing can be done excepting to brush it off from time to time as it appears. It will eventually exhaust itself.

(5) W. T. W.—The contrivance for enlarging drawings to which you refer is probably the "pentagraph," an instrument which you can obtain at any store where artists' supplies are sold. In copying such drawings as those you send us, some artistic skill would be necessary, although, with a little practice, you would probably make it answer your purpose. Exact enlargements may also be made by photography.

(6) J. S. B. asks: 1. Can the mixture be left in a bichromate of potash cell one year without injury to the carbon plates or to the mixture? A. The mixture will probably creep up the carbons and corrode the connections. The solution will grow stronger by standing and tend to crystallize, and require to be diluted before use. The best plan is to remove it when not in use for long periods. 2. Will the mixture freeze if subjected to a temperature of 0° Fah.? A. It depends how strong it is in sulphuric acid and salts. Probably it would as ordinarily used.

(7) E. S. L. asks for a remedy to keep the hair from breaking. A. We know of no means except cutting the ends. See article on care of the hair in SUPPLEMENT No. 388.

(8) W. R. asks (1) if it is legal or illegal to hold a court of justice in a public saloon in a country town. A. For some purposes and emergencies seeming to justify such action, there would be nothing illegal in so holding court; we know of no special statute governing the matter, excepting those providing for "proper" places for holding court. 2. If a lawyer is behind time, has he any grace? If any, how long? A. Strictly speaking, no; but he is entitled to be heard as to whether he has a proper excuse for delay, and lawyers are so frequently behind time that they all seem to have a "fellow feeling" in the matter, and readily excuse each other. 3. The address of the British Consul? A. No. 22 State Street, New York city. 4. How many tons of hay are there in a bay? The length is 30 feet, the height is 16 feet, and width 15 feet. A. 25 to 30 tons, according to how closely it is laid.

(9) A. C.—American steel is fully equal to English, and largely used all over the United States. Every grade is now made here.

(10) C. C. C. asks: In heating platinum wire for various purposes, (1) how long will the wire bear a red heat? How long will it bear a white heat? A. Platinum wire will bear a red or a white heat indefinitely. 2. Will it last a greater or less time if the heat be intermittent? A. The intermittent application of heat will not affect its durability. Too high a heat, however, will fuse it. This fact has prevented its use in incandescent lamps.

(11) W. T. F. asks: How many diameters is the sun magnified when it is thrown on a screen enlarged to 4½ feet? The telescope used is 40 inches focus, 3 inches aperture, Huygenian eyepiece, equivalent to 1 inch focus. I caused quite a controversy by asking the question of several astronomers; the answers from a number of them have been received, with but two agreeing. The variation is from 40 to 648 diameters. A. The division of the angular measure of the screen projections as seen from the distances of the eyepiece from the screen, by the actual angular diameter of the sun, is the actual linear measure of the magnification. If the screen is viewed by the eye at a less distance than that of the eyepiece, the angular measure must be multiplied by the distance from the eyepiece to the screen in inches and the product divided by the distance of the eye from the screen in inches, for the magnification.

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