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Notes & Queries

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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 This is for our information and not for publication.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.

Special Written Information on matters of personal rather than general interest cannot be expected without remuneration.

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Books referred to promptly supplied on receipt of price.

Minerals sent for examination should be distinctly marked or labeled.

(4707) F. L. asks: Can you tell me the weight of the heaviest steam hammer in the world? By this I mean the hammer alone, with nothing connected, such as ram or piston rod. I should also like to know if the power is only used to raise the hammer when working, or is it used also to strike the blow as well? A. The weight of the head alone of the 100 ton Creusot hammer, the largest, is said to be 60 tons, the whole weight of piston rod and piston bringing the weight up to 100 tons. The hammers of this class are rated by the total weight of the moving mass. See interesting details of the great hammers in SCIENTIFIC AMERICAN SUPPLEMENT, Nos. 488 and 703.

(4708) C. M. C. says: If we anneal cast steel several times, it will not harden. This I know by experience. Do we add carbon, or diminish? A. In the ordinary method of heating steel many times, enough carbon is supposed to be lost from the surface layer to prevent hardening. There is also a change in the crystalline structure of the steel by which the combined carbon becomes graphitic and thus prevents hardening.

(4709) C. S. asks: Will you please give me information as to cost of patching of shaft of steamship Umbria, as I had a dispute as to its cost. A. The repairs made in New York are estimated to have cost about $4,000.

(4710) G. B. E. writes: Can you tell me the size, and where the largest telescope lens is? You will confer a very great favor if you can and will answer this for me. A. The largest telescope lens is 40 inches diameter, now in process of finishing at Alvan Clark's Sons, Cambridge, Mass.

(4711) G. F. asks: Will a twist drill cut better with or without oil, and which is the most economical; (through cast steel)? A. Twist drills cut best with oil in wrought iron and steel. Dry in cast iron.

(4712) L. M.—The berries of the Phytolacea are not exactly poisonous, but they possess emetic properties that render them unfit for human food.

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