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Motes & 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 This is for our information and not for publication.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.
Buyers wishing to purchase any article not advertised in our column 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.
Illustrations sent for examination should be distinctly marked or labeled.

(7848) G. E. C. writes: On page 26 of "Hawkin's New Cat chism of Electricity," an account of an experiment made in London, by Dr. Watson, is given, wherein it is stated that a current of electricity was sent through the water of the River Thames from one shore to the other without a connecting wire. Has there been much experimenting on this line, and how far have currents of electricity been sent and received thus through water? If a subterranean stream were known to exist 10, 20 or 50 miles long and electrical connections were made with both ends, could dispatches be sent and received through it? A. The return current is always sent through the earth in telegraphing to any distance, if the wires are properly grounded. We do not know any way in which a current can be sent through the earth unless there is a wire between the two points through the air also, insulated from the earth.

(7849) S. C. B. says: 1. In your issue of March 10, in the article "A Chemical Growth," I find it impossible to obtain "sodium amalgam" at the drug store. Please inform me of what parts this solution consists of. A. Sodium amalgam is a compound of mercury and the metal sodium. That the amalgam is liquid would seem to indicate that the mercury is in a large excess. We do not know the proportions for making it. Care should be exercised in mixing the two substances, since heat will be evolved as they combine. 2. Please give a good definition of electricity? A. Electricity is the cause of a large number of phenomena, including shocks, sparks, heat, light, and chemical effects.

(7850) F. M. asks: Please tell me to what letter the banjo should be tuned on the mandolin to chord perfectly together? A. The strings of a banjo are tuned from lowest up to the following notes, C, G, B, D, G. These are not the names of the strings to which they are tuned.

(7851) E. C. B. asks: Does an oil lamp, with a flat wick, give more light when turned with the wick flat (broad side toward the object) or with its edge toward the object? A. An oil lamp gives nearly half as much again light in a line perpendicular to its flat side (broad side toward the object), than it does with its edge. The light is emitted by white hot solid particles of carbon in a solid state. These are opaque to light as they are when cold. Hence they cut off the light in the direction of the edge of the flame.

INDEX OF INVENTIONS

For which Letters Patent of the United States were Issued for the Week Ending

MARCH 20, 1900,

AND EACH BEARING THAT DATE.

[See note at end of list about copies of these patents.]

- Abbrading machine, E. J. Fletcher. 645,717
Abbrading machine, J. R. Thomas. 645,578
Abrasive tool, G. Boxley. 645,617
Advertisements, stamping device for street, T. W. Wright. 645,655
Aerial apparatus, J. Kaiser. 645,845
Air brake coupling, A. R. Martin. 645,823, 645,824
Alarm. See Fire alarm. Low water alarm. 645,589
Animal trap, J. Erickson. 645,589
Bag. See Mail bag.
Bag holder, J. L. Herr. 645,595
Bag holder for grain weighing machines, J. C. Bissell. 645,544
Ball guard or handle for palls or other receptacles, detachable, A. W. Orlinon. 645,670
Bale detaching and staying device for presses, G. A. Lowry. 645,734
Bale holding device, G. A. Lowry. 645,735
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Basin, wash, W. Bunting, Jr. 645,639

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