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Motes & Queries

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(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.]

Table listing inventions with names and dates. Includes items like Abrading machine, E. J. Fletcher (645,717), Air brake coupling, A. R. Martin (645,823), and others.

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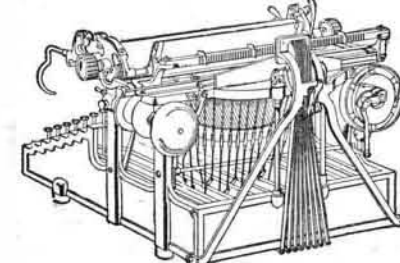
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