that conserve and prize at their proper value their priceless treasures of carbon.

Allerton S. Cushman,
Assistant Director
Office of Public Roads,
U. S. Department of Agriculture

MAGNETIC ROCKS

While in southern Arkansas recently, studying the northern outcrops of the oil-bearing horizons of Louisiana, I took occasion to ascertain whether the peridotite eruptives about Murfreesboro, Arkansas, were as magnetic as similar rocks in central New York. They prove to be so; hence it seems that if a somewhat detailed magnetic survey of the region thereabout were made the tens of thousands of dollars now expended in worthless options might practically all be saved. Naturally in searching for diamonds the first information desired is the whereabouts of the volcanic necks bearing the diamond dirt. Though these are covered by plateau gravel or alluvial sands and clays they can be detected as readily as the dikes in central New York can be located though under many feet of glacial till.

G. D. Harris,
Geologist to Louisiana

A NEW PHENOMENON IN ELECTRIC DISCHARGE

During last May the writer used a wire of platinum having a diameter of 0.005 cm., in some work in electric discharge around a right angle in a wire. The discharges were made non-oscillatory in character, by introducing into the circuit a couple of strips of cloth such as is used for surgical bandages. These strips, which were in multiple, connected two tumblers containing salt solution, one of which was about 20 cm. above the other.

During about three weeks of use, a system of wavelets formed along the whole length of the wire. They were very uniform in dimensions. The wave-length was 0.090 cm., and the amplitude from crest to crest was 0.015 cm. The wire was under tension of four grams weight, by means of silk threads passing over pulleys.

The writer is under the impression that the irregular bending of wires traversed by a continuous current has been observed, but is unable to find a reference to it.

Francis E. Nipher

THE DATING OF PUBLICATIONS

To the Editor of Science: Through accident or policy, the Carnegie Institution has not dated many of its recent publications. In bibliographical citations, where dates are used to designate publications, it is difficult to dispose of papers where the time of publication is not given. Moreover, is it not desirable to date articles, to protect the writers in priority?

Max Morse
The College of the City of New York,
February 2, 1909

SCIENTIFIC BOOKS

Die Metamorphose der Insekten. Von P. Deegener. Pp. 56. Leipzig u. Berlin, B. G. Teubner. 1909.

This little book, by one who has written several valuable articles on the development of the alimentary tract of insects, is one of the most thoughtful and suggestive of a number of recent general accounts of Hexapod metamorphosis. The author adopts the now usually accepted view, advanced by Fritz Müller in 1864, that the larvæ and pupæ of insects represent cœnogenetic adaptations, the result of a tendency, so to speak, on the part of an originally monomorphic form, to become strongly trimorphic during its ontogeny. In other words, the more specialized insects (Holometabola) have found it increasingly advantageous to assume three successive forms during their metembryonic development: the first, or larva, being devoted to alimentation and growth, and often exhibiting peculiar modifications to suit the highly specialized environment in which it lives, the third, or imago, being devoted to the reproduction and dissemination of the species, and the second, or pupa, providing for the transformation necessitated by the two other very different stages.

Deegener's work is divided into three parts: an analysis of the organization of the larva, a consideration of the phylogeny of metamorphosis and of the significance of the pupal stage. He recognizes three kinds of larvæ: