SCIENCE

FRIDAY, MARCH 17, 1911

CONTENTS

MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

THE BASIS AND OBJECT OF ARCHEOLOGICAL RESEARCH IN MEXICO AND ADJOINING COUNTRIES[1]

BY the mutual agreement between the government of Mexico and other governments and scientific societies of Europe and America, it has been decided to establish an International School of American Archeology and Ethnology in the City of Mexico; and as the honor of being the first director of the school has fallen to my share, I beg leave to place before this illustrious assembly the reasons which determined the patrons and protectors of the school to found it, and to dwell a little more fully on the ends that we hope to achieve in this new institution.

We call our school the "International School of American Archeology and Ethnology;" that is to say, we wish to treat two sciences, the importance of which is more and more clearly recognized in our day, and which are in reality sisters—for what we call archeology is but a branch of ethnology, from which it differs rather in method than in aim. Archeology has reached its highest development and

[1] Inaugural address of the director at the opening of the International School of American Archeology and Ethnology in Mexico City on January 20. Porfirio Diaz, president of the Mexican republic, opened the school in the presence of the ministers of state and public instruction of the republic, of the ambassadors of countries that participate in the establishment of the school, and of many prominent citizens. After the inaugural address by Professor Seler and an address by Señor Ezequiel A. Chávez, subsecretary of public instruction, who dwelt on the importance of international cooperation in the establishment of the school, the president declared the school opened.

sincere endeavor to elucidate the problems connected with this disease.

One of the most interesting features of this very extensive and laborious piece of work is the discovery of a constantly low respiratory quotient in patients suffering from severe diabetes, which accords with theoretical expectations.

On page 211, the authors state that after giving beefsteak to a diabetic, "the excretion of sugar in the urine . . . was not sufficient to indicate the excretion of a large part of the non-nitrogenous portions of the steak in the urine." But the sugar rose from 3.1 grams per hour to 8.6, an increase of 5.5 at the same time that the nitrogen elimination rose from 0.57 to 1.25, an increase of 0.68 grams per hour, which corresponds to increased protein destruction of 4.3 grams! According to this computation, 5.5 grams of dextrose might have arisen from 4.3 grams of protein which certainly does not support the negation quoted above.

The reviewer is forced to disagree with the main contention of the book, that the heat production in severe diabetes is 15 per cent. higher than the normal. The error of Benedict and Joslin is twofold. In the first place, their group of normal individuals, nine in number, include three weighing respectively 74, 80 and 83 kilograms. These are not fairly comparable with diabetics weighing between 45 and 65 kilograms. In the second place, the high metabolism obtained from a diabetic individual weighing 45 kilograms who was "extremely highstrung, nervous and apprehensive," and "not an ideal subject," plays quite a part in the average results upon the diabetic patients. If the heavier, normal individuals be excluded, then six weighing between 48 and 67 kilograms produce 1.27 calories per kilogram per hour, and if the excitable diabetic be excluded, it is found that five individuals with severe diabetes and weighing between 49 and 65 kilograms, show an average heat production of 1.34 calories per kilogram, which is an increase of 5 per cent. above the normal, or about that obtained by other observers.

Graham Lusk

SCIENTIFIC JOURNALS AND ARTICLES

The contents of *Terrestrial Magnetism and Atmospheric Electricity* for March, 1911, are as follows:

"Two New Types of Magnetometers made by the Department of Terrestrial Magnetism of the Carnegie Institution of Washington," J. A. Fleming.

"The Peculiar Magnetic Disturbances of December 28–31, 1908," R. L. Faris.

"On a Variation in the Intensity of the Penetrating Radiation at the Earth's Surface Observed May 19 and 21, 1910," A. Thompson.

"Le Projet du Levé Magnétique de l'Empire Russe et les Travaux Magnetiques," M. Rykatchew.

"The Physical Theory of the Earth's Magnetic and Electric Phenomena. No. III. The External Electric Currents and the Earth's Magnetization," L. A. Bauer.

"Magnetic Storms Recorded at the Cheltenham Magnetic Observatory, October 1 to December 31, 1910."

"Atmospheric Electricity Observations on the *Belgica* in 1907," H. F. Johnston.

SPECIAL ARTICLES

NOTE ON A CONGLOMERATE DIKE IN ARIZONA

While mapping the surface geology of Silverbell, Pima County, Ariz., in connection with a study of the ore deposits of that district, the writer found a conglomerate dike which seems to differ enough from the majority of clastic dikes previously described to justify a short note on its occurrence and probable origin.

On a claim known as C. M. C. No. 4, about a mile north of the town, one of the many intermittent streams of the region has cut a gulch in a dark-colored quartz-porphyry. In the bottom of this gulch and running parallel to it is a vertical fissure from six to eight inches in width filled with a hard compact mass of fragmental material. The fragments are generally angular and vary in size from grains of exceeding fineness to pieces of rock two inches or more in diameter. The greater part of the material is the quartz-porphyry that forms the walls, but a variety of other igneous rocks known to occur in the hills beyond the head of the gulch is also notice-