are well wooded. The cliffs are vertical and fringed at their base by the usual talus, which, however, is made up of blocks of unusual size. The cavern is formed by several huge rocks overhanging the water so as to form a comparatively dark hole, and the space between the under side of the sloping rocks and the water varies from about two feet to not more than two inches. The cavern faces the southwest; it is very irregular in shape, and at one point the roof and walls reverberate in response to a deep bass note. The water just at the entrance to the cavern is 33 feet deep, and two or three feet away 40 feet; it is very transparent at considerable depths. As the rocks overhang so close to the water the optical effects can only be seen by a swimmer, and it was while swimming along the shore that I discovered the American Blue Grotto three years ago. As one approaches the mouth of the cavern the bluish color of the water is noticeable, but the beautiful effects are best seen by entering the opening and looking outwards towards the light. The water varies in color from Nile green through turquoise blue and sky blue to deep indigo blue, and in all these shades exhibits the silvery appearance, when agitated, characteristic of the grotto at Capri. A body immersed in the water has a beautiful silvery sheen, similar to the reflection of moonlight. The water has these colors at all hours, but they are strongest when the sun is in the zenith; late in the afternoon the slanting rays of the sun enter the opening and light up the cavern, greatly diminishing the optical effects.

The water retains the characteristic color (but without the silvery sheen) on cloudy days, and even during rain, being especially strong when fleecy white clouds bar direct sunlight. The relation between the different hues, green and blue, to the aspects of the sky, whether clear or overcast, is not evident.

Another pleasing phenomenon must be mentioned. Just below the water line, where the rocky sides are lapped by the waves, the white quartzite exhibits a brilliant siskin-green hue; this bright color is limited to a space about three or four inches below the level of the lake and to certain walls of the cavern. The bare arm immersed in the water partakes of the green color when the light is reflected at one angle, and of the silvery blue color at another angle. The interior size of the cavern is not easily given, but the face of the overhanging rocks measures about 40 feet and they project about 15 to 20 feet, and it is surprising that so small a cavern can produce such a variety of fine effects.

The writer would like to learn, through the columns of SCIENCE, whether similar blue grottos are common at other American lakes.

H. CARRINGTON BOLTON.

LAKE MINNEWASKA, August, 1898.

'THE DELUSION OF ATAVISM.'

DR. BRINTON'S recent remarks on the 'Delusion of Atavism' recall Dr. Thomas Dwight's paper on the 'Range and Significance of Variation in the Human Skeleton,' a paper which may be read with much profit by those who are bound to find some reversional character in every anatomical abnormality. As Dr. Dwight says, "if all animal resemblances are reversions, the primitive ancestor must have been a very curiosity shop of peculiarities."

F. A. L.

SCIENTIFIC LITERATURE.

Technical Mycology. By DR. FRANZ LAFAR. With an introduction by DR. E. CHR. HANSEN. Translated by CHAS. T. C. SALTER. Vol. I., Schizomycetic Fermentation. London, Chas. Griffin & Co., Ltd.; Philadelphia, J. B. Lippincott Co. 1898. Pp. 405, with 1 plate and 90 figures.

The appearance last year of the first volume of Dr. Lafar's *Technische Mykologie* relating to fermentations induced by Schizomycetes marks the gradual development of bacteriological science along other than medical lines. The interest that is attached to the study of these micro-organisms in other than their pathological relations is rapidly increasing, and we may hope that such works as these will stimulate investigation and study in a very promising field of research. The translation of this work into English by Salter will unquestionably be welcomed.

The scope of the work is the utilization of micro-organisms in the arts and manufactures.

The present volume includes those processes that are induced by bacterial organisms. A prospective volume will take up such changes as are caused by the higher fungi.

While the general purpose of the present text is to consider bacteriology in its applied phases (other than medical), still the general biological student will find much that will interest him. The exceedingly well-proportioned and thoroughly digested chapters on the historical development of bacteriology, as well as the general biology of bacteria, will be appreciated by all biologists. Technical chemists, fermentation physiologists and students of agricultural bacteriology will also find the book a great help in their work.

One striking feature of the work is the thoroughness with which the literature has been sifted. Dealing as it does with such a diversity of subjects, the labor of gathering the data from a multitude of technical as well as scientific journals has been very considerable, and the successful manner in which this has been accomplished adds materially to the value of the work.

It seems incredible, however, that the translator should allow the book to be presented to English readers without an index, even though the original lacked this necessary adjunct to usefulness. Another undesirable feature is that the copious bibliographical references are not to appear until the second volume is published, thus handicapping the utility of the book for a considerable time at least.

H. L. Russell.

The Story of Extinct Civilizations of the East. By Robert E. Anderson, M.A., F.A.S. New York, D. Appleton & Co. 1897. 12 mo. Pp. 213.

We have here a useful little book, compiled with more knowledge and discretion than are usually discoverable in such pot-boilers. The author takes up in turn Babylonia, Egypt, the Hittites, Phenicians, Arabs and ancient Persians. He chooses his authorities judiciously, not being either tedious or frivolous.

The introductory chapter on the 'Origin and Races of Mankind' is the least satisfactory of the volume. He prefers Cuvier's classification into three races, on the color line, which has never been accepted outside of France and is inadequate to our present knowledge. He uses 'race' in the loosest senses, 'white race,' 'Aryan race,' Slavic race,' etc. But these are slight blemishes, and inappreciably mar the merit of the whole.

D. G. Brinton.

Nests and Eggs of North American Birds. By Oliver Davie. Fifth Edition, Revised, Augmented and Illustrated. Columbus, 1898.

The first edition of this book, issued in 1885, comprised but 77 pages of pica type; the present issue contains over 500 closely printed pages. While devoting particular attention to the nesting habits and eggs of North American birds, the book contains a large amount of information concerning the distribution and life histories of birds and includes a chapter on ornithological and oological collecting. Although current ornithological literature has been freely drawn upon by the author, he has also availed himself of the work of a large number of active field ornithologists who have placed at his disposal their notes on the eggs, nests and nesting habits of various species. The full citation of the numerous authorities adds greatly to the value of the work, which should retain the popularity accorded it since its first appearance.

F. A. L.

NEW BOOKS.

Psychology for Teachers. C. Lloyd Morgan. With a Preface by Henry W. Jameson. New York, Charles Scribner's Sons. 1898. Pp. xi+240. $1.00.

Proceedings of the Society for the Promotion of Engineering Education. Vol. V. Published by the Society. 1898. Pp. xxii+337.

New York State Museum.—Fiftieth Annual Report of the Regents. 1896. Vol. I., Report of Director, Botanist and Entomologist. Albany, The University of the State of New York. 1898.

Special Report of the U. S. Department of Agriculture on the Beet Sugar Industry in the United States. Washington, Government Printing Office. 1898. Pp. 230.