

fectly preserved casts. In a neighboring locality in the lower Titanotherium beds a fruit-bearing horizon was discovered in which were found the fossil fruits and silicified woods of the various trees and plants which grew in the Oligocene and Miocene forests of this region. From these fortunate discoveries we shall learn something of the invertebrate and plant life of this region in middle Tertiary times, and be the better able to form an intelligent idea of the physical conditions that prevailed here during the deposition of the clays, sandstones and limestones of the White River series.

In his work in this region the writer was very materially assisted by Mr. W. H. Utterback, and in all some ninety boxes of fossils have been packed by this party alone. Taken as a whole, the field work of the Department of Paleontology of the Carnegie Museum for the season of 1900 may be considered as successful, and the friends of the Museum have every reason to be grateful to its founder for the generosity shown in supplying the needed funds, without which the successful accomplishment of the work would have been impossible. The best thanks of the writer, under whose direction the work has been carried on, are due to Dr. W. J. Holland, the Director of the Museum, and to the President and members of the Museum Board for the very great interest they have shown in the work and their ever-ready aid in facilitating its accomplishment.

J. B. HATCHER.

OPENING OF THE ANTHROPOLOGICAL COLLECTIONS IN THE AMERICAN MUSEUM OF NATURAL HISTORY.

On October 30th the new anthropological collections in the American Museum of Natural History were opened to the public. While three years ago the anthropological material gathered in the Museum was installed in a single hall, its increase has

been so rapid that at the present time the collections occupy five halls of the building, and two more halls are being arranged and will probably be opened in the near future.

The accessions to the anthropological collections of the Museum obtained during the last three years have largely been due to extended scientific research undertaken by the institution. In this respect the methods of the American Museum of Natural History differ considerably from those pursued by a number of other institutions. It has not been the policy of the Museum to accumulate rapidly and indiscriminately more or less valuable specimens collected on trading expeditions or purchased from dealers, but an endeavor has been made to build up representative collections, and to obtain at the same time the fullest and most detailed information in regard to specimens, so that each addition to the exhibit of the Museum can be made thoroughly instructive and will represent a material contribution to science.

In South America Dr. A. F. Bandelier carried on researches on the plateaus of Peru and Bolivia. Dr. Bandelier first went to South America for the Museum under the patronage of Mr. Henry Villard, while during later years the expenses of the expedition were borne by the Museum. The results of his work fill one of the new halls. Setting aside the beautiful fabrics, pottery, and other specimens, the collection abounds in skeletons and crania, which will be of great value in determining the physical characteristics of the ancient Peruvians.

Extensive archeological investigations have been carried on in Mexico. These were in charge of Mr. Marshall H. Saville. The work was liberally supported by the Museum and by the Duke of Loubat, to whose interest the Museum also owes a magnificent collection of reproductions of Central American sculptures. It is believed that in no other museum are the monumental works of the ancient inhabitants of Mexico

and Central America so fully represented as in the American Museum of Natural History, where they fill an imposing hall. The Duke of Loubat also sent the renowned Americanist, Dr. Eduard Seler, to Mexico, the results of his labors being divided between the American Museum of Natural History and the Royal Ethnographical Museum of Berlin.

During the year 1898 the Museum employed Dr. Carl Lumholtz and Dr. A. Hrdlička in an ethnological investigation of the present tribes of the Sierra Madre Range, in western Mexico. While there Dr. Lumholtz continued his studies into the customs and religious beliefs of the Huichol Indians, which he had begun on a previous expedition undertaken for the Museum. Part of the results of his expedition have been published by the Museum, and the specimens which form the basis of this publication are now for the first time exhibited. Dr. Hrdlička studied the physical types of these people, but the specimens collected by him have not yet been arranged.

Another inquiry, carried on by officers of the Museum, has been directed towards an exploration of the ruins of the Southwest. This exploration has been undertaken at the expense and under the active supervision of Messrs. B. T. B. and F. E. Hyde, Jr., and has been carried on five years. The material collected includes the archeology as well as the physical anthropology of this area. The extensive series of specimens collected in the Southwestern ruins is at present being arranged, and will be opened to the public in the near future.

A thorough examination of the Trenton gravels with a view to discovering the geological distribution of remains of the early inhabitants of America has been continued during all these years. The means for this work have been provided by the Duke of Loubat for one year and by Dr. F. E. Hyde for the last three years.

Attention has also been paid to problems of local archeology, and a considerable amount of work has been done in exploring the Indian sites in the neighborhood of New York City.

Most important additions have been made to the collections illustrating the cultures of the people of the northern part of our continent. Most of these are due to the work of the Jesup North Pacific Expedition—a great undertaking, made possible by the munificence of Mr. Morris K. Jesup, President of the Museum. The collections obtained by this expedition up to the present time cover the region of the State of Washington, the coast of British Columbia, the interior of that province, Arctic Alaska, and southeastern Siberia, and large additional collections are expected from the Arctic coast of eastern Siberia. Some of the results of this expedition have been published in a large quarto volume, while a second volume is under way. The expedition promises to result in a thorough and exhaustive examination of both coasts of the North Pacific Ocean, and will settle the vexed question of the relations between the peoples of northeastern Asia and northwestern America.

The Museum has also been enabled to undertake work in the difficult field of Californian ethnology. The means of this work was provided by the late Mr. C. P. Huntington. Up to the present time attention has been paid particularly to an investigation of the tribes of central California, and valuable data regarding the distribution of human types and languages have been obtained, as well as an exceedingly interesting collection illustrating the culture of this region.

Farther to the north, work has been taken up in Oregon, where a number of almost unknown tribes exist which are fast disappearing. This work has been provided for by the liberality of Mr. Henry Villard, and has resulted in the acquisition of a

beautiful collection from the tribes living near the boundary between Oregon and the State of Washington. In the course of this work, information has been secured on the customs and languages of the Alsea, a tribe which is on the verge of extinction.

The industries and arts of the Indians of the Great Plains have received their share of attention. The work of the Museum was directed particularly to an investigation of the Arapaho Indians. The funds for this inquiry were given by Mrs. Morris K. Jesup. The work has resulted in a most remarkable expansion of the North American collections of the Museum; and much information of great scientific value, largely referring to the specimens collected, has been obtained.

A favorable combination of circumstances has made it possible for the Museum to collect from several points of the Arctic coast of America interesting scientific data, illustrated by numerous specimens. In this way has been obtained an almost complete series of collections illustrating the life of the Eskimo, extending from Smith Sound in the east, to the west coast of Hudson Bay, and accompanied by notes on the customs and beliefs of the various tribes, which are in process of publication in the *Bulletin* of the Museum.

Besides these collections, which are due to systematic investigation, additional material has come into the possession of the Museum by gift and by purchase. Some of the important gifts of the Duke of Loubat, in connection with Central American and Mexican archeology, have already been mentioned. He also presented to the Museum reproductions of ancient Mexican codices, and archeological specimens from Guatemala and South America. The Museum received as a gift from Mr. J. Pierpont Morgan a beautiful collection of gold, silver and copper objects from Peru. Mr. W. Curtis James donated a collection from the

Aino of Japan. Mr. Morris K. Jesup gave the means for a collection illustrating the domestic life of the Japanese. The Museum is indebted to Mr. James Douglas for an excellent collection of Apache basketry. Mr. Jacob Schiff gave to the Museum a collection illustrating the development of the iron industry among African negroes. A number of beautiful old pieces collected in the early part of our century among North American Indian tribes were given to the Museum, prominent among which is a donation made by Miss E. H. Cotheal.

A rather remarkable addition to the collections of the Anthropological Department was made by the transfer of the missionary exhibit arranged at the time of the 'Ecumenical Council' in April of this year. This collection gives an excellent start for the development of special exhibits illustrating the religions of primitive people. Among the purchases made by the Museum a large archeological collection from Illinois, the valuable Stahl connection from Porto Rico, the Gibbs collection from Turk's Island, and the Finsch collection from Melanesia, are worthy of special mention.

The new exhibits, just made accessible to the public, are proof of lively activity, and of a genuine interest taken by liberal patrons of science in the development of one of the most important scientific institutions of the City.

SCIENTIFIC BOOKS.

Grundlinien der anorganischen Chemie. By W. OSTWALD. 14 x 22 cm., pp. xix + 795. Leipzig, Wilhelm Engelmann, 1900. Price, linen bound, 16; half leather, 18 marks.

The educational importance of this book is so great that it will not be amiss to paraphrase certain portions of the preface, the quotation marks referring to the ideas and not to the words.

"The object was to present the newer theories and their consequences at the beginning