branch of scapula somewhat longer than inner branch (endo-scapula), but not so long as in *T. major;* digits not so much webbed as in *T. major;* number of phalanges of fore-limb, 2, 3, 3, 3, 2; shell not so elongated.

Terrapene ornata L.— Quadrato-jugal absent; cervicals very short; upper branch of scapula of the same length as inner branch (endo-scapula); digits without distinct web; number of phalanges of fore-limb, 2, 2, 2, 2, 2; shell rounded.

I have had no opportunity yet to examine fully *Terrapene cinosternoides* Gray (*triunguis* Ag.) and *Terrapene mexicana* Gray. *T. cinosternoides* is near *T. ornata.* It may perhaps show a rudimentary quadrato-jugal and a slight reduction in the number of the phalanges. I have only seen the two stuffed types of *Terrapene mexicana* Gray in the British Museum. They also resembled *T. ornata.* It would be very interesting to study the osteology of these forms. Besides, it is important to examine specimens from the intermediate localities, like Florida and South Carolina, to see how these forms agree with *T. major* and *T. carolina.*

I should be very much obliged to anybody who would send me specimens from different States of the country.

Terrapene is one of the plastic genera, and the examination of a great number of specimens from different localities doubtless will show some interesting results. G. BAUR.

Cla k Universty, Worcester, Mass., March 27.

BOOK-REVIEWS.

The Theory of Light. By THOMAS PRESTON. London and New York, Macmillan. 8°. $3.25.

EVERY one who has attempted to look up the literature of any scientific subject knows how laborious is the search through endless volumes of the Transactions and Proceedings of learned societies and of scientific periodicals. With some branches of science it may be impossible to make a book occasionally that shall give the existing state of the science; but with physical science this is from time to time attempted, and it was the object which Professor Preston had in view in producing his "Theory of Light"

It was his hope, and we think it has been realized, to furnish an accurate and connected account of the most important optical researches, from the earliest times up to the most recent date. Complicated mathematical theories have been avoided; yet the mathematical theory, which is so essential, has, in an elementary form, as well as the experiments on which it is founded, been given in sufficient detail to enable the student who has the necessary knowledge of the higher mathematics to take up with profit the original papers recently elaborated by various English and foreign writers.

All physicists are acquainted with the important researches, carried out in the last few years by Professor Hertz, which have proved experimentally the long-suspected close connection between light and electricity, and many will be glad to find in this volume a concise account of the results of these researches.

Outlines of General Chemistry. By WILHELM OSTWALD. Tr. by James Walker, Ph.D. London and New York, Macmillan. 8°. $3.50.

PROFESSOR OSTWALD is professor of chemistry in the University of Leipzig; and the translator of this work, Dr. Walker, is assistant in the chemical department of the university of Edinburgh. The author undertook to write a book which would meet the requirements of the student who, while not intending to devote himself to the detailed study of general chemistry, still wishes to follow intelligently the progress recently made in this important branch of science. The progress to which the author refers might be said to be that in the physics of chemistry.

The book is divided into two parts, — the first, on the chemical laws of mass; and the second, on the chemical laws of energy. In the first part we are told of what we know about mass, of the properties of gases, of the properties of liquids, of solutions, of the properties of solids, and of the theory of chemical compounds. It will be seen that nearly all these are subjects which are on the border-line between physics and chemistry; for instance, in the chapter on the properties of liquids, the author treats of their general properties, of the relations between the gaseous and liquid states, of boiling-points, of volume relations of liquids, of refraction in liquids, of rotation of the plane of polarization, of surface tension, of internal friction, and of the specific heat of liquids. In the second part, under the general heading of "The Chemical Laws of Energy," the subjects treated are, thermo-chemistry, photo-chemistry, electro-chemistry, chemical dynamics, and chemical affinity.

The amount of progress that has been made of late years in these physico-chemical researches is considerable, and we are fortunate in having the results brought together and summarized in so good a book. The author is to be commended for having avoided one error which many a writer is induced to make. Few chemists have had much mathematical training, so that they would find it difficult or impossible to follow the mathematical discussion of physical problems. In such cases Professor Ostwald has not sought to introduce a laborious proof based on elementary mathematics, but has chosen to give simply the result.

Die Kosmologie der Babylonier. By P. JENSEN. Straasburg, 1890.

Die Fluthsagen. By RICHARD ANDREE. Braunschweig, 1891.

THE study of comparative mythology is constantly teaching us how wide spread over the earth's surface are the same infantile explanations of natural phenomena. As soon as a tribe reaches a certain stage of intellectual culture, — and that by no means a high one, — it is sure to frame some theory, under the guise of a narrative or story, to account for the existence of the world about it.

One of the most ancient, and for that reason most interesting, of these stories of creation, is that of the Babylonians, of which we have a new and very accurate rendering by Jensen. It is a part of his general work on the cosmology of the Babylonians, the whole of which is characterized by great learning and acuteness. He refutes satisfactorily the opinion of those who have maintained that the creation legend of Babylon was derived from the "Sumerian" column of the inscriptions, though their opinion would have amounted to little if Halévy's suggestion is correct, that the Sumerian script is merely an esoteric alphabet of the general Semitic language of the country.

Jensen's comparison of the Babylonian creation myth with that contained in the first part of the Book of Genesis illustrates with additional force how closely the biblical text follows the older and more detailed Euphrates myth. "In both narratives (Babylonian and biblical) the sequence of events is absolutely the same. A greater similarity would deserve the name of a translation. The Bible has taken up the Babylonian creation legends, suppressing what was specifically Babylonian, and transforming what was mythologic and polytheistic into a monotheistic form" (p. 306).

In the Babylonian legend the Creator appears as *Marduk,* who is probably a personification of the morning sun (the light-bringer), who rises over the boundless ocean (*tiamat*), conquers the chaos of night, and separates the heavens above from the earth beneath.

Jensen also supplies a more accurate translation of the Babylonian flood-myth, correcting a number of errors in Professor Haupt's rendering, and adding valuable suggestions concerning the original text. Thus, the hero of the myth, referred to by Haupt and others as *Samas-napistim* (the "Sun of Life"), is transliterated by Jensen *Sit-napistim* ("he whose life was saved"), a much more appropriate appellation. The biblical story of Noah and the Flood is, as is well known, merely a version of the Babylonian myth.

The origin, distribution, and affiliation of the flood myths all over the world are the topics discussed by the well-known ethnologist, Dr. Richard Andrée, in his "Fluthsagen." It is an interesting collection of material, but scarcely up to what we might expect from so widely read an authority. The portions on America are particularly weak. He depends for the Algonquin flood myth on Squier's inaccurate reproduction of the "Walum-Olum," evidently not knowing Brinton's elaborate reproduction and translation of that unique record. Nor does he refer to the