## SCIENTIFIC BOOKS

The Dawn of the World, Myths and Weird Tales told by the Mewan Indians of California. By C. HART MERRIAM. Pp. 273. Cleveland, The Arthur H. Clark Company. 1910.

This work of a well-known American biologist resembles Jeremiah Curtin's "Creation Myths of Primitive America" in that it endeavors to acquaint the general public with a body of aboriginal American myths, further in the fact that the tribe selected for the purpose is Californian. Mr. Merriam's book, however, has not only a popular appeal, but is of distinct scientific value and as such is worthy of careful perusal and study on the part of those interested in American Indian mythology and The greater part of the Califorethnology. nian mythologic material hitherto published (Hupa, Kato, Wishosk, Lassik, Shasta, Achomawi, Atsugewi, Yana, Wintun, Maidu) belongs to the smaller half of the state lying north of San Francisco Bay. Besides some material, mostly San Luiseño and Diegueño, from the extreme southern part of the state, practically nothing, if we except Dr. Kroeber's "Myths of South Central California," which are chiefly Yokuts, has been published specifically referring to the folk-lore of the Indians between San Francisco Bay and the Mexican "The Dawn of the World," as exborder. plained by its subtitle, is devoted to the tribes variously known as Miwok (Merriam's Mewuk) and Moquelumnan. These tribes, of whom hardly anything beyond fragmentary notes have been published, include the Miwok proper of the San Joaquin valley and the foot-hills of the Sierra Nevada to the east, the Coast Miwok just north of Golden Gate nearly to Russian River, and the small group of Clear Lake Miwok northeast of the Coast Miwok.

The body of the book consists of a set of over thirty myths in the ordinary sense of the word, called "ancient myths" by Mr. Merriam, and a series of beliefs or "present-day myths" respecting animals, ghosts and the sign of death, natural phenomena, witches, pigmies, giants and other fabulous beings; an introduction on the general characteristics of Miwok mythology prefaces these two parts.

Many of the myths proper are very short and are evidently but fragments of what must originally have been fuller narratives. "During the few years that have passed since the tales were collected," says Mr. Merriam, "several of the tribes have become extinct." Hence even a fragmentary myth is of positive value and thanks are due Mr. Merriam for having rescued what in some cases would very soon have become irretrievably lost. Several points of interest come out when the main facts of Miwok mythology are considered in comparison with those of other Californian tribes. In the first place, the creation of the world from out of a watery waste, a myth that is characteristic of the Maidu, Wintun and Achomawi of northern California, is conspicuous by its absence here; the creation of man from feathers is characteristic of the tribe. Secondly, Coyote, who in most American Indian mythologies is, if not always entirely, yet generally to a considerable extent, looked upon as a "trickster," meddlesome and obscene, is among the Miwok a consistently benevolent being and is, somewhat vaguely, looked upon as the creator. The great rôle played in Miwok mythology by the falcon, to a less extent also the "condor," is further noteworthy; this feature is paralleled also in the mythology of the Yokuts, who live to the south of the Miwok. Not a few of the myths published by Mr. Merriam find ready analogues among other Californian tribes, some even outside of California. Such, to mention but a few, are the theft of fire, of which quite a number of versions are found in the book, the making of hands for man by the lizard, and the "bear and deer "story (pp. 103-112), a widely spread myth found also in the Columbia River region and among the Shoshone of the Great Basin. The second part of the book, the "present-day myths," contains much of ethnologic interest and many of the beliefs listed could be paralleled among other tribes. That it is necessary for a person before he dies to have his nose perforated (p. 218) is, for instance, a belief shared also by the Yana of northern California as well as by other tribes of the state.

The myths are told in a rather agreeable

style and seem to reproduce the spirit of the original as well as could be expected of narratives not based directly on Indian texts. The practise adopted by Mr. Merriam, as before him by Curtin, of speaking of the animal, or better, pre-animal, characters by their Indian names instead of by the English translations of these names is hardly to be commended. Nothing is gained thereby. The Indian names are not really proper nouns, but merely the ordinary words for the animals referred to, so that their use not only taxes the memory of the reader, but, to some extent, gives him a mistaken idea of the character of the mythology. Yet it would be mere carping to dwell on so small a matter. It is to be hoped that this contribution to California folk-lore will be followed by others from the pen of Mr. Merriam. EDWARD SAPIR

GEOLOGICAL SURVEY, OTTAWA, ONTARIO

The Simple Carbohydrates and the Glucosides. By E. Frankland Armstrong, D.Sc., Ph.D., Associate of the City and Guilds of London Institute. Pp. ix + 112. New York, Longmans, Green and Co. 1910.

This monograph, one of the series on Biochemistry, edited by R. H. Aders Plimmer and F. G. Hopkins, presents an up-to-date summary of the chemistry of the subject, particular emphasis being placed upon those carbohydrates which have a biochemical significance. It would be a matter of no little labor for a physiologist to acquire from the scattered literature a conception of the present status of the subject comparable in any degree with Dr. Armstrong's excellent review. As an illustration of the interesting incidental suggestions which have been introduced appropriately, the following paragraph may be quoted:

From the biological point of view, the fact that glucose exists in solution not as a single substance but as an equilibrated mixture of stereoisomeric  $\gamma$ -oxidic forms, readily convertible into one another, is of fundamental and far-reaching importance. If one of the stereoismerides is preferably metabolized in the plant or animal, in the course

of either synthetic or analytic processes, the possibility of controlling the equilibrium in the one or other direction, so as to increase or limit the supply of this form, places a very delicate directive mechanism at the disposal of the organism. This question is undoubtedly one which demands the close attention of physiologists (p. 20).

The recent views regarding the structure of sugars are introduced in a way that is logical rather than dogmatic, and without rehearsing all the details of the evidence bearing on the points involved. The mono- and disaccharides are considered at some length, glucose being selected as the typical sugar for discussion. There are further included chapters on The Relation between Configuration and Properties, Hydrolysis and Synthesis, and The Natural and Synthetic Glucosides. The attempt of the author to present the subject by a stimulating method has resulted in a commendable success. A useful bibliography of 17 pages is appended.

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Mineralogie de la France et de ses Colonies. Tome Quatrième, l° partie. A. Lacroix. Librarie Polytechnique, Ch. Béranger, Editeur. Paris, Rue des Saints-Pères, 15. 1910.

The fourth and last volume of Lacroix's "Mineralogie de la France" is now being published, the first part having just appeared and the second, or final part, being promised before the year is out. The second part of the third volume, which appeared in 1909, was reviewed in Science, Vol. 32, No. 816, August The present part starts in with the manganites and plumbites, braunite, hausmannite and minium. Under the psilomelane group, romanéchite is described as a distinct species with the formula H<sub>2</sub>(Mn, Ba)Mn<sub>3</sub>O<sub>5</sub> or (Mn, Ba)O·3MnO<sub>2</sub> + H<sub>2</sub>O. It is near hollandite in composition, but differs from it in that hollandite is much richer in iron, and has all the H replaced by metals. Romanéchite forms compact or concretionary masses with fibrous structure. Psilomelane is described