

spondence' Dr. Geo. M. Dawson presents a note on 'Interglacial Climatic Conditions.' This number includes the usual reviews of recent geological literature, list of recent publications, and personal and scientific news.

THE MONIST, JULY.

THE opening article by Professor Joseph Le Conte, *The Theory of Evolution and Social Progress*, reviews broadly the history of the development-idea and finds that there are four grades or planes of evolution—physical, chemical, biotic and human. To each there is a limit, and the evolutionary process can continue only by being transferred to a higher grade with new factors. The first three have already reached their goals; only the last, rational evolution, remains. Here the significance and character of the new factor—voluntary rational coöperation—which differentiates the new grade from the rest, must be considered in sociological applications. Professor Le Conte emphasises the beneficent and encouraging features of the Lamarckian factors, and counsels strict subordination to wise empiricism in all practical applications of scientific principles.

In *The Present Problems of Organic Evolution*, Professor E. D. Cope, after stating *ipsisimis verbis* the views of Lamarck, Darwin, Wallace, Spencer, Haeckel, Weismann and others, contrasts the doctrines of the two opposed schools of epigenesis and preformation, and sketches the main features of his own theory of the origin and inheritance of variations as based on independent studies, to be developed in full in a forthcoming book.

*The Metaphysical X in Cognition*, a long and exhaustive article by Dr. Paul Carus, examines and aims to refute the theory of knowledge, now almost universally accepted, which rejects scientific explanation as the ultimate term of cognition, and which finds in science an unknowable metaphys-

ical residuum which the human mind can never hope to compass. Dr. Carus also examines the view of Professor Ernst Mach that ultimate explanations in physics are not necessarily mechanical explanations.

Professor A. E. Dolbear, in *Materialism Untenable*, points out that the possibilities of matter as an active agent are not yet limited. In *The Unseen Universe* Sir Robert Stawell Ball develops in a popular but elegant manner the truth that the objects which we can see in the heavens very probably constitute not a millionth part of the material universe.

In *The Science of Mentation*, Mr. Elmer Gates propounds 'some new general methods of psychologic research.' Mr. Gates lays stress on the results which he has reached by the *artificial* variation (1) of the organic structures and (2) of the mentation of organisms. His color experiments with dogs kept in the dark from their birth and with dogs compelled to distinguish between colors by electric shocks consequent upon certain actions, with the structural results shown by cerebral dissection, are ingenious. The educational inferences of this article, although sweeping, are suggestive.

Mr. E. Douglas Fawcett writes on monadology, and Mrs. Emilia Digby in refutation of the onomatopic theory of music. M. Lucien Arreat's letter on the philosophical literature of France, with reviews of the best and most recent philosophic, scientific and religious works published in America, England, Germany and Italy, constitute the rest of the contents.

NEW BOOKS.

*Biological Lectures delivered at the Marine Biological Laboratory of Wood's Holl.* Boston, Ginn & Co. 1895. Pp. vii+287.

*Analytical Chemistry.* N. MENSCHUTKIN. Translated by JAMES LOCKE. London and New York, Macmillan & Co. 1895. Pp. xii+512. \$4.00.