

stitute for the idea of a single Creator, orders of angelic beings, each charged with the task of originating and exercising supervision and control over special evolutionary processes! Everyone must feel how incongruous are such incursions into the realms of the unknown and the unknowable with the really valuable and suggestive discussions of the first part of the book. But however much we may regret the intrusion by the author of these wild speculations, and greatly as we may dissent from his social and political panaceas, as hopelessly impracticable, we all recognise that they are inspired by the author's love of humanity and all living things, by a desire to ameliorate the sorrows and sufferings he sees around him, and by a hope—ill-founded though it may be—that such teachings may be of service to his fellow-men.

#### NATIVES OF THE ARGENTINE REPUBLIC.

*Los Aborígenes de la República Argentina. Manual adaptado á los programas de las Escuelas Primarias, Colegios Nacionales y Escuelas Normales.* By Prof. F. F. Outes and Prof. C. Bruch. Pp. 149. (Buenos Aires: Angel Estrada y Cia., 1910.)

THIS neat little book, well printed and illustrated, far surpasses its modest subtitle: a manual adapted to the teaching in primary and secondary schools. It is really a condensed account of what is known of the natives of the Argentine Republic, of those who are quite prehistoric, those who were found at the time of the conquest by the Spaniards, and those who "still survive precariously in some far-off districts."

A rapid survey of the earth's history as told by the sedimentary strata and their leading fossils is made the occasion for explaining the meaning of the many indispensable technical terms. Since much of the evidence of the existence of prehistoric man rests upon his primitive implements, the theory of artificially chipped stones is explained and illustrated, and how, at least in Europe, the evolution through polished and carved implements of stone to those of metal can be traced. A roll-call of scientific work in Argentina, from Pigafetta, Magellan's companion in 1520, to the Princeton University expedition, concludes this introduction of twenty-eight pages.

The palæontological account is greatly helped by a coloured diagram. Besides the mystical Tetrarprothomo, the pliocene Monte hermoso level has yielded pieces of rock which enthusiasts have taken for examples of intentionally fire-baked clay, whilst others refer their condition to volcanic action. In short, the earliest undoubted human remains and traces date from the Enseñada Loess, lowest pleistocene. The *Homo pampeanus*, of the early American type, seems to have used the carapace of the contemporary Glyptodonts for shelter. Post-pampean man was clearly neolithic, and he continued in this state until his discovery by the Spaniards, with the sole exception of the Diaquita in the north-western mountains, which had advanced to the use of bronze. These interesting people are described in the second chapter.

To facilitate the account of the various tribes, each chapter has a little map, and stress is laid upon the

prevailing climate, as influencing man through the fauna and flora. Each chapter begins with a description of the physical aspect of the respective district, whether forest, mountain, or plain, with frequent photographs; the tribes are grouped as much as possible according to their relationship. Each group, or tribe, or race, is tersely characterised physically; as a linguistic point the personal pronouns have been selected. Sociologically: the kind of food and how it is prepared, especial attention being paid to the mode of kindling of fire. Then follow the kind of shelter, dress, ornamentation, dances, creeds, and superstitions, family and funeral rites, weapons, and wars. To each chapter is attached a carefully selected and apparently well-nigh exhaustive bibliography, and 146 illustrations, comprising maps, scenery, implements, pictographs, and portraits enhance the text, which in a small compass manages to impart an astonishing amount of information.

#### OUR BOOK SHELF.

*Solectrics: a Theory Explaining the Causes of Tempests, Seismic and Volcanic Disturbances, and how to Calculate their Time and Place.* By Alfred J. Cooper. Pp. iv+100; illustrated by over 100 diagrams. (London: J. D. Potter, 1910.) Price 10s.

THE "solectric theory" postulates a force which in some sense corresponds to the sun's radiant energy, giving rise to light, heat, chemical action, and magnetism, but the author also inserts gravity and vital force. Having introduced such a force, the author is able to explain the rotation of the earth, the obliquity of the ecliptic, and many other things. This solectric energy penetrates the whole solar system, and there is a constant adjustment of this force according to the configuration of the planets and moon. The sum is constant, the whole passing continually from and to the sun; only local disturbances have to be considered. At intervals the earth becomes charged with solectric energy, both directly from the sun and indirectly from the planets and moon. According to the length of time that the earth is submitted to this force, so its manifestation will vary. If the accumulated energy is spread over a large flat country or an ocean, a storm occurs; if the energy has been gathering for ten or twelve days, and is concentrated in a mountainous district, an earthquake takes place; if the earth has been surcharged for a month or more, volcanic eruptions follow. But whatever the form of the disturbance, it is necessary that the sun or moon should be  $57\frac{1}{2}^{\circ}$  or  $88^{\circ}$  from the position affected at the critical moment.

If we have correctly interpreted the author, this expression means that the place must lie on a circle  $57\frac{1}{2}^{\circ}$  or  $88^{\circ}$  from the position in which the sun or moon is vertical. We have not been able to follow the process by which the position on either of these circles is definitely located, but evidently the operation is not a simple one, for the author intimates that a body of expert calculators will be required in order to apply the theory. But if the instructions are pursued rigorously, it will be possible to issue warnings to any state threatened by an earthquake, or to ships likely to be overtaken by a tempest.

Differing from many theories, the aim here is eminently practical, but if the author entertains any hope that it will be tested, we are afraid he is doomed to disappointment. Though we cannot agree with his conclusions, we should wish to treat Capt. Cooper