"Such a muddle as that respecting the boundary of Alaska, and futile suggestions like those which were made for the boundaries of British Guiana, before the final settlement, could never have been made if the statesmen who were responsible had consulted geographers, and had acted on their advice."

Related to this is the subject of topographical surveys. It ought to be a political axiom that a Government should know its country; but we are all aware how frequently this duty is neglected, and the war in South Africa has brought the deficiency into unpleasant prominence. Even the "man in the street" is now in a state of mind to agree that

"If the survey of British South Africa had been begun years ago, or even as late as 1880, and pushed forward with an ample supply of trained surveyors, the war of 1899-1900 within its borders would have been simpler, safer and immensely cheaper."

In addition to topographical surveys, there should be geological surveys, hydrographic surveys, climatological surveys, biological surveys, and other official determinations of the features, fauna and flora of the country, with a view to possessing trustworthy information for future as well as present service. The fundamental value of a knowledge of rainfall in determining the value of colonisable countries is not often recognised, though so much depends upon it. How important an extensive system of rain measurement is in some new countries is shown by the fact that Australians in their calculations often convert inches of rain into numbers of sheep or even pounds of wool per acre. This and other similar cases justify Dr. Mill's remark that

"in almost every case it will be found that the crux of a new land is the water supply. Water, as rain or rivers, is indeed the very life-blood of the habitable world, and the phenomena of its circulation are often complicated, and require much study to elucidate."

It is unnecessary in these columns to give further instances of the dependence of the success of the colonist upon the scientific information available concerning his adopted country. The difficulty is to relieve practical politicians of the thought that knowledge for which there is no immediate use is useless; they have no sympathy with purely scientific work, therefore they are unwilling to encourage it. Let us hope that in the course of time our statesmen will receive an early training in scientific method and foresight, sufficient to enable them to consider colonisation as a study in anthropogeography instead of a haphazard system of settlement.

OUR BOOK SHELF.

The Child: a Study in the Evolution of Man. By A. F. Chamberlain, M.A., Ph.D. Pp. i—xii + 495. With Illustrations. The Contemporary Science Series. (London: Walter Scott, Ltd., 1900.)

THIS book is intended as a study of the child in the light of the literature of evolution; an attempt to record and, if possible, interpret some of the most interesting and important phenomena of human beginnings in the individual and in the race. Anthropology, as a science embracing many aspects of the human race, is concerned with inquiry as to the evolution of man, and applies fresh knowledge, gained by scientific methods, to the correlation of ascertained facts. The book refers more to the psychological aspect of human development than to the physiological causes of evolution; dealing in a philosophical spirit—not always by strictly scientific processes—with the several subjects dealt with, evidence is afforded by the collection of data and the opinions expressed by many writers rather than based upon the author's own observations and arguments.

In the opening chapter on "the helplessness of infancy" the results that follow from early weakness and the prolonged period of dependency are shown by numerous quotations, while explanation is afforded by reference to Mr. Fiske's view that this has led to the lengthened association of children with their parents and thus developed social habits. The comparative adolescence and longevity of man and animals is shown, and the dictum of Schleiermacher, "Being a child must not hinder becoming a man; becoming a man must not hinder being a child," suggests application to education.

The periods of childhood suggested as distinctive of stages in development are numerous, and definitions from Pythagorus downwards are given. Dr. Chamberlain says, "not only does the child seem to recapitulate physically and mentally the chief points of the race's history, but his own development is fairly teeming with epochs and periods, isolated spots sometimes, the interpretation of which is not yet at hand." The examples given are very interesting, but do not convince us that there is sufficient evidence of any standard by which normal psychological development can be judged. The successive manifestations of mental growth in children form a promising field in child-study; the account given of the linguistic periods in the advance towards speech forms one of the most interesting chapters in this book. Other chapters are explanatory of the relations of the child with the savage and criminal showing certain analogies, but do not afford much guidance in studying child-evolution or explain why the children are such as we find them to be.

The desire to explain the evolution of infancy has sometimes led the author wide of the teaching of scientific views, as when he says, p. 442, "The moment Nature decided that, with man, the struggle for existence was ultimately to be altruistic, rather than selfish, she was forced to make man weak in order to ensure his later strength in the right direction." Such teaching leads the student to neglect the facts of physiology and the effects of physical environment.

The book presents much of interest to the philosophical reader, and maintains the contention that the teaching of evolution and child-study should go hand in hand as mutually instructive.

The value of this volume would be increased by a table of contents; this want is accentuated by the brevity of the index. Eighteen illustrations afford useful explanations of types of manhood and the artistic productions of children.

Sieroterapia e Vaccinazioni preventive contro La Peste Bubonica. Dott Alessandro Lustig. Pp. vi + 150. (Torino: Rosenberg and Sellier, 1899.)

THIS book gives an account of the preparation of anti-plague serum by the author's method.

According to Prof. Lustig, a considerable degree of immunity against plague is obtained by inoculating animals with a nucleo-proteid contained in the bodies of the bacilli. A culture of plague bacilli grown on solid media is scraped off and dissolved in a 1 per cent. solution of caustic potash. After washing and passing through a Chamberland filter, the substance is used for inoculating horses.

After repeated inoculations the horses are bled, and the serum is used for treatment of plague patients.

Or a solution of the nucleo-proteid may be used as a prophylactic, as advocated by Prof. Lustig and Galeotti (*British Medical Journal*, February 10, 1900). The curative treatment was tried for a period at the Arthur Road Hospital, Bombay, but the results were not very