

below us on the mountain slope and that the apparent motion was caused by the actual motion of the stage. At any rate there can be no doubt that the fireflies were flashing in unison.

FREMONT MORSE

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MANILA, P. I.

SCIENTIFIC BOOKS

The Passing of the Great Race. By MADISON GRANT. New York, Charles Scribner's Sons. 1918. Pp. 296.

It is rare that an author of a scientific work which is not a text-book has the pleasure of seeing a second edition within two years. Mr. Madison Grant's recent success is sufficiently justified, since he has written both boldly and attractively, and has produced a work of solid merit. Even the title, "*The Passing of the Great Race*," is of the sort to make a popular appeal, for there always seems to be an eagerness to read of some horrible future in store for mankind. Hence the success of books on degeneracy, race suicide, cessation of intellectual evolution, disgenic influence of war, and the elaborations of obvious pessimism—books and articles usually written by persons blind to the complexity of the problems and to the optimistic significance of facts and arguments on the other side.

Mr. Grant believes in the inborn value of the Nordic race, that tall, fair-haired, long-headed breed which started from the shores of the Baltic some three thousand years ago, formed the ruling classes in Greece, Rome, northern Italy, Spain, northern France, England and parts of the British Isles, and then, in the southern countries, passed away either through its inability to stand the climate in competition with brunette types, or through dilution and pollution of its blood by mixture with inferior peoples.

The present reviewer accepts, in the main, this racial theory of European historical anthropology. This theory rests upon two chief factors. The first is that so well elaborated by Mr. Grant in his book, namely, that it is supported by the facts of history. In other

words, if we start with an extreme "hereditarian" hypothesis as to the special value of the Nordic race, we do write a good ethnological and anthropological history of European and Asiatic culture. The broad panoramic changes are systematically and reasonably explained by such an hypothesis. There is no shifting about—something relying on a theory and then having constantly to resort to some involved explanation because the theory has failed to work. In all this Mr. Grant's book is admirable; but it is open to criticism at the hands of opponents. The author rarely if ever discusses disputed points. For instance, he alludes frequently to the fact that in all European literature and art, the heroes, saints and madonnas have always been depicted as blondes, but he ignores the fact that its significance has often been questioned. In this matter, antagonists to the doctrines of heredity and to the native superiority of the blonde race usually say that the blonde type was admired because of its rarity. How is this to be answered? It is an affair of the author, not the reviewer.

In the last pages of his book, Mr. Grant gives a bibliography; but nowhere does he insert a footnote or give a reference to the sources of his information. While this may in some slight degree make the text more readable, it is a great pity that a reader can not more easily trace to their origins or further investigate many of the interesting and novel statements met with in this provocative book.

The second good reason for believing in the importance of inborn native mental differences, and consequently in the truth of most of what Mr. Grant asserts, is that there is a mass of carefully finished statistical research on the problem of human heredity which tends to support the whole theory of race as against environment. If adult human differences within a single family and within a single class are largely the result of pre-formed differences in the chromosomes of the primary germ cells, then there is at least a good hypothesis that the same is true for racial differences.

However, it requires further proof in the case of race, since the children of the same

families have a comparatively uniform environment, but different races necessarily carry with them each to some extent its own peculiar *milieu*. We can not in our present knowledge assert how far this goes. Certainly races and indeed nations can be at least temporarily modified by an education and training imposed in the interests of, and by the will of, a very few persons, as for instance, Germany during the last half century.

This factor of leadership in the rise and decline of races is generally overlooked by Mr. Grant, as is the problem of the formation of upper classes. Mr. Grant fears that the Nordic race is passing away. There is much to be said in substantiation for this unpleasing prospect, and if there is much to be said, certainly Mr. Grant has said it. The present reviewer does not take such a gloomy view. There are internal forces silently and continuously working towards the improvement, not of the whole race, but of a part of it, and this part tends further to improve with its own improvement. Some of the tendencies or correlations working towards melioration are assortative mating (*i. e.*, tendency of like to mate with like), general truth as far as results at present indicate of desirable traits within an individual to be correlated with other desirable traits, general tendency of long-lived people with a tough resistance to leave more offspring than the average, besides other recently discovered correlations bringing an encouraging outlook.

There are some of the phases of human evolution that ought to be more generally recognized and incorporated into all discussions on the rise and decline of races and of nations.

In spite of such criticism, "The Passing of the Great Race" is an interesting and valuable pioneer attempt at an interpretation of history in terms of race. The origins and migrations of the three primary European races, Nordic, Alpine and Mediterranean, are here instructively and graphically portrayed. The colored charts make it easy to grasp the outlines of the author's theory. This is a book that will do much to widen the rapidly expanding interest in eugenics and help to dis-

seminate the ever-growing conviction among scientific men of the supreme importance of heredity.

FREDERICK ADAMS WOODS

War Bread. By ALONZO E. TAYLOR. New York, The Macmillan Co. 1918.

Almost since the outbreak of the war Dr. Taylor has been engaged in the study of the food problem, at first in Germany in the interest of British prisoners in German camps, then in Holland, making a survey of Dutch food resources, and he has later served as chief scientific adviser of the Food Administration of Washington and has made frequent trips to Europe. This little book, presenting as it does the cereal situation of the Allied countries in the spring of 1918, bids fair to become a classic. Reading it, one can realize how a fortunate wheat crop this year will allow us to send wheat to Europe directly without involving the increased number of ships necessary to transport it from far-away Australia or the Argentine. The book clearly shows how failure to conserve wheat plays into the hands of the enemy and tells of the methods employed for its conservation.

GRAHAM LUSK

A STUDY OF ENGINEERING EDUCATION

THE Carnegie Foundation for the Advancement of Teaching has just issued its Eleventh Bulletin, *A Study of Engineering Education*, which has been in process of development during the past four years in cooperation with the joint committee on engineering education of the national engineering societies.

Engineering education was established on a large scale only fifty years ago on the basis of the experience of foreign countries, particularly France. Since then, applied science has made marvelous progress, and in order to meet that progress, the original curricula of the schools have been modified here and there and from time to time in a haphazard way. The result is that modern engineering curricula lack coherence and unity and have for a number of years been the object of criticism by the engineering profession.