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THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE APPOINTMENT OF DR. WILLARD L. VALENTINE AS EDITOR OF SCIENCE

By Dr. F. R. MOULTON

PERMANENT SECRETARY

At the close of this calendar year Dr. Willard L. Valentine, professor of psychology and chairman of the department of psychology in Northwestern University, will assume full editorial charge of SCIENCE. A psychologist at the noon of life becomes the successor, after an interval of nearly two years, of Dr. J. McKen Cattell, also a psychologist, who was editor of SCIENCE from the time he purchased it in 1895 until his death on January 20, 1944. Since Dr. Cattell's death Mrs. Josephine Owen Cattell and Mr. Jaques Cattell have edited SCIENCE.

There are few positions which offer such favorable opportunities for contributing broadly to the advancement of American science as the editorship which Dr. Valentine is assuming. SCIENCE for nearly 46 years

has been the official organ of the Association, appearing weekly, with its columns open not only to everything pertaining to the work of the Association but also to science in every field. Its influence on American science has been very great and it promises to be greater in the future.

In preparation for the future of SCIENCE, the Executive Committee of the Council last winter appointed a SCIENCE Policy Committee consisting of Drs. Malcolm H. Soule, chairman, Roger Adams and Walter R. Miles. This committee made a survey of the kinds of material published in SCIENCE and the amount of each kind. The war, of course, has affected greatly the offerings to SCIENCE, partly because few meetings of scientific societies have been held since

had their birth and infancy slightly to the south of the 70° annual isotherm." In the section "Climate and History" a map shows an area from Egypt to India, with the course of the 70°-isotherm in rather rough strokes. Inserted names of countries and places indicate the spatial relations between the old high civilizations and the 70°-isotherm.

Starting from this map the essential historic part of the book discusses Egypt and India, Greece and Rome, Arabia and Islam, Spain and Portugal, Early Civilizations in America, China. This chapter is very attractive, full of interesting ideas and items not so well known. There it is demonstrated how close to the band of the 70° annual isotherm the old civilizations were developed. Culture was bound to an ideal climate, "where men neither shiver nor perspire when at rest." This definition of an ideal climate in relation to men is one of the fundamental ideas which run through the pages. As long as mankind was unable to control efficaciously climatic influences by clothing and heating devices colder climates caused a bitter struggle for life, disadvantageous for the development of philosophy, art and science. In hot and humid climates thinking and working are difficult too. Thus, an optimum zone for ancient cultures might exist, although there was not a zone of ideal climate. The Mediterranean climate, *e.g.*, is not at all ideal in summer. There it is terribly hot, low water supply, plenty of mosquitoes at nightfall, malaria (tropica), dysentery, etc. Even Italy has not an ideal climate. Whoever stood on the slopes of Monte Vesuvio in August has "perspired" although "at rest," and Goethe has "shivered" in Rome's winter in spite of braziers.

This brazier, one of the primitive heating devices, leads to the history of climatic controls discussed in the chapter, "The Coal Civilization." When climatic control set in, civilizations shifted to cooler regions. At the end of this chapter the author summarizes: "Throughout history it might be said that civilizations developed where a people enjoy for the moment the best natural climate and have the greatest control over it. . . ." Control over climate is, in the author's opinion, the first and fundamental factor which enables a nation to obtain and hold the hegemony. The reviewer cannot fully agree in this respect. Would it not be more intelligible to assume that a Roman Empire when arrived at hegemony developed intelligent and liberal statesmen who created thousands of artificially heated public baths and other excellent social institutions.

The second section deals with different statistics characterizing, first, the climate itself, second the "energy" of different nations, estimated by various tests. This part contains individual ideas as well

as facts and statements of general interest. For comparison average temperatures and relative humidities for whole countries are needed. For this purpose a sort of settlement-averages are computed. ". . . in assessing the climate of Australia as a factor in human energy, it would be absurd to take one record from the extreme north, and others from the extreme east . . . since the bulk of the population is concentrated on the southeastern seaboard. I have therefore taken the six largest cities. . . ." From these the average temperatures and humidities are taken and an arithmetical mean, weighted according to the population is calculated. Appendix I gives a long valuable list of these country averages. The national energy is tested by means of: (1) death rates, (2) infantile mortality, (3) national income per head, (4) percentage of world trade reduced to ten millions population. The results from these tests yield a ranking list of countries, which is headed by New Zealand and Australia. "This list of leaders is in striking agreement with the list of countries . . . having an almost ideal summer and easily controlled spring, autumn and winter . . . and have sufficient supplies of coal or electricity to make heating methods accessible to their inhabitants at reasonable prices." This is the main result from objective statistics. The "Poor White" problem is also reduced to climatic influences.

Chapters XI, XII, XIII give applications of the methods in question to the British Isles and the United States. A 75°-isotherm divides the United States into a northern portion (including California) and a southern portion. Different maps show that infantile mortality is smaller, intelligence tests are higher, per capita income is greater in the northern portion. Naturally, there are some deviations and exceptions from this distribution, but it is interesting to note that, on the whole, it is possible for the author to give a survey of civilization from a climatological standpoint.

"Air-conditioning" and "What of the Future" conclude the book, which is perhaps not a book in current sense. It is much more an interesting investigation in book form, an investigation with weak and strong sides but always supported by good ideas and much enthusiasm.

V. CONRAD

CAMBRIDGE, MASS.

BOOKS RECEIVED

- COMMITTEE ON POSTWAR TAX POLICY. *A Tax Program for a Solvent America*. Pp. x + 278. The Ronald Press Company. \$3.00. 1945.
- RUSSELL, HENRY NORRIS, RAYMOND SMITH DUGAN and JOHN QUINCY STEWART. *Astronomy; A Revision of Young's Manual of Astronomy; Volume I, The Solar System*. Revised Edition. Illustrated. Pp. xi + 470 + xxi. Ginn and Company. \$3.00. 1945.

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"This book appears to be very well written and thoroughly up to date. The illustrations are particularly good, especially the photographs showing arrangements of atoms in molecules before and after reactions take place. The various line drawings and tables show that much care has gone into their preparation. They add a good deal to the value of the book."

Professor WILLIAM LIGHT, JR.
University of Cincinnati

"I am very much attracted by it, especially the early important chapters, which are very much to the point."

Professor G. H. BENHAM
MacDonald College

"I have examined this text very carefully and am most enthusiastic about it. It seems to me that Professor Timm has succeeded in unfolding the field of chemistry in such a manner that no difficult principles are taken up until the student is fully prepared to understand and appreciate their importance."

Professor ROY B. DAVIS
The University of the South

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