"Dreams as Retrostructive Interpretations," by W. B. Smith.

"The Master Motive in a Theory of Knowledge," by John G. Harrison.

"Rational Psychotherapy," by Robert S. Carroll.

"Concluding from Negatives," by W. B. Smith.

"Concerning the Psychological Origin of Creation Stories," by W. T. Shepherd. (By title.)

"A Test for Adolescents," by Eleanor D. Keller.

"Avocational Education," by W. C. Ruediger.

"The Correlation of Abilities in High School Girls," by E. F. Buchner.

"Experiments with Free Association Method," by R. M. Ogden.

W. C. RUEDIGER,
Secretary

SOCIETIES AND ACADEMIES

THE ANTHROPOLOGICAL SOCIETY OF WASHINGTON

A SPECIAL meeting of the Anthropological Society of Washington was held at 4:30 P.M., December 9, 1913, in Room 43 of the new museum building, the president, Mr. Stetson in the chair. About fifty persons were present.

Dr. Charles B. Davenport, of the Carnegie Institution, director of the laboratory at Cold Spring Harbor, Long Island, addressed the society on "Man from the Standpoint of Modern Genetics." He said that the problem of the origin of species has now become largely reduced to the problem of the origin and survival of the characters of the species. Since groups differentiated by a single hereditary character are called biotypes, the question of the origin of species is now that of the origin of biotypes. Man is a congeries of biotypes. If these do not exist as distinct elementary species it is because of the tremendous hybridization that is taking place between biotypes. These biotypes are most nearly realized in islands, peninsulas and out-of-the-way places. The most distinct of the human races exist to-day in such places as Australia and Ceylon, the Japan Islands (Ainos), Cape Horn and inside of the Arctic circle within the old and new world. But in small islands of the coast, where people have been long settled and little disturbed, they tend to approach a pure race or biotype.

Under the shelter of this isolation, incidentally, opportunity has been afforded for an adjusted race to spring up; but there is danger of deterioration through too close interbreeding. Hybridization, as stated, is constantly preventing the complete development of these biotypes. This hybridization has gone on with man since early times so that few biotypes are now actually realized. It is now going on faster than ever and even the rare fairly pure biotypes are fast disappearing from the globe. The work of the anthropologist of the future must be largely with these hybridized biotypes; his principal study will be the inheritance of the various differential traits.

The method of inheritance of some of these traits has already been studied. Thus we know that the brown iris is dominant over its absence, as seen in blue eyes. The skin color of the negro is complex, being due to two double (or four) factors; and these may work independently of one another, so that we have one, two, three or four pigment factors in the skin, producing the typical quadroon, mulatto, Sambo and full negro skin coloration. Dark brown hair is dominant over blond hair; so that when both parents have only blond hair the children are all blonds. Two red-haired parents have only red-haired offspring. But two glossy black-haired parents may carry red hidden and so have red-haired children, as we so often see among the Irish. Kinky or curly hair is dominant over straight. Two straight-haired parents have, typically, only straight-haired children.

Many "hereditary diseases" depend on a "diathesis," a non-resistance that is clearly inherited and if matings of like or of relations occur extensively, we have the elements necessary for the production of a biotype. Among such diseases are Huntington's chorea, presenile cataract and night blindness. Other diseases are inherited as sex-linked characters—such are color blindness and the "bleeding" tendency. Very striking is the tendency to produce a real biotype of the imbecile class, because imbeciles tend to segregate themselves and to intermarry. This is the reason why we get such histories as the Nams of New York, the Hill Folk of Massachusetts, the Pineys of New Jersey and the Jukes of New York. Any condition that favors consanguineous matings, or matings of likes, favors the formation of a variety of the human race, as Dr. Alexander Graham Bell (the Francis Galton of America) long ago pointed out. Thus most institutions which do not provide permanent custodial care tend to promote such marriages; for example, among the deaf-mutes, tubercular, nervous, paupers and even alcoholics and users of narcotics. On the other hand, in consequence of social stratification fine near-biotypes, like the Lowells of Boston, the

Dwight-Woolseys of Connecticut, the Bayard-Jay-Livingston Complex of New York, and the first families of Virginia have arisen. Actors tend to marry each other and so rapidly produce nearly pure strains of histrionic talent. This nation owes more than it recognizes to its strains of inventors, surgeons, commanders, statesmen, authors, artists and financiers that have made her famous and given her the high standing she has attained in the family of nations.

Thus biotypes in man prove to be real things and their study is quite as much within the proper field of research of the anthropologist as are the commonly recognized races of men.

The paper was discussed by Dr. Hrdlička.

Daniel Folkmar,
Secretary

THE ENTOMOLOGICAL SOCIETY OF WASHINGTON

At the 223d regular meeting of the society, held January 7, Mr. August Busck gave his retiring presidential address entitled, "Notes on the Classification of the Microlepidoptera." In this address Mr. Busck reviewed the characters which have been used in classifying the Microlepidoptera, telling how the venation is now used most extensively and emphasizing this as the most important character in judging the phylogenetic relationships of superfamilies, families and genera. He presented his views on the phylogeny of the Microlepidoptera arranged graphically in a phylogenetic tree. This address, as well as some of the discussion which it called forth, will be published in an early number of the *Proceedings of the Entomological Society of Washington.*

The meeting was very well attended by members and visitors. The most distinguished visitor was the Canadian entomologist, Dr. C. Gordon Hewitt.

THE PHILOSOPHICAL SOCIETY, UNIVERSITY OF VIRGINIA, MATHEMATICAL AND SCIENTIFIC SECTION

The fourth meeting of the year 1913–14 was held January 20, 1914.

Professor T. L. Watson and Mr. J. H. Cline presented a paper entitled "Some Examples of the Intercision Type of Stream Piracy in Western Virginia."

Professor W. A. Kepner and Mr. W. H. Taliaferro presented a paper entitled "The Organs of Special Sense of *Prorhyncus.*"

L. G. Hoxton,
Secretary

THE SCIENCE CLUB OF THE UNIVERSITY OF WISCONSIN

Dr. Frederic E. Wright, petrologist of the Geophysical Laboratory of the Carnegie Institution of Washington, gave an account of "Some Phases of the Work of the Geophysical Laboratory" before the Science Club of the University of Wisconsin at its 127th meeting on December 10, 1913.

The scope of the Geophysical Laboratory of Washington is restricted to the field of experimental geology, and particularly to the quantitative investigation of the chemical, physical and physico-chemical phenomena of minerals. Artificial minerals are prepared from pure substances under known conditions, and are studied and compared with natural minerals. A great deal of preliminary work has been done by the laboratory in devising, making and standardizing apparatus.

Dr. Wright described and illustrated with color photographs projected on the screen the laboratory, its equipment and methods of work; performed experiments showing phenomena of crystallization, eutectic fusion, recalescence and other inversion phenomena; and showed by means of projected color photographs the polarization, and other, phenomena employed in the microscopic analysis of minerals. Dr. Wright exhibited a model of a fusion-equilibrium surface in trilinear coordinates representing the properties of all possible mixtures of lime, magnesia and silica, the result of six years' research in the laboratory. He also gave an account of the work of Dr. Day and Dr. Shepherd, in collecting and examining volcanic gases, and projected on the screen color photographs taken during the descent into the crater of Kilauea, showing in the most vivid way the phenomena of an active volcano at close range. The work of the expeditions to Kilauea has shown that water is present in the magma of volcanoes, at least of Kilauea; that this water is not of atmospheric origin, since no argon accompanies it; and that the heat of recombination of the dissociated gases is sufficient to keep the lava molten.

In response to a question by Dr. C. K. Leith, Dr. Wright gave a brief account of the present state of his research on the internal forces of crystals by determining the changes of form and other properties of crystals in response to change of temperature and pressure.

Eric R. Miller,
Secretary