

outcrops in many areas where erosion has worn through the ancient cover, and whose intrusive history covers a long period of time in the upper Paleozoic.

The age relations of the Quincy succession are limited by the facts that the igneous rock cuts the Cambrian sediments and is covered by Carboniferous conglomerates which rest upon the eroded surface of the porphyry. The age is regarded by the leaders as probably Devonian or Mississippian.

In the unavoidable absence of the permanent secretary, Professor Cleland, this record of the excursion is made at his request by the secretary *pro tem*.

JOSEPH BARRELL

YALE UNIVERSITY

CLEVELAND ABBE

It fell to the lot of this modest man, a distinguished representative of American science, to initiate the national systems of weather forecasting which are to-day maintained by nearly every civilized nation of importance. With the science of meteorology Abbe's name will be associated through the coming ages.

With the death of Cleveland Abbe, chief meteorologist of the United States Weather Bureau, terminated the original phase of national meteorological work in America, for he was the sole surviving active official of the bureau in which he had served forty-six years.

As one of his associates, I accepted the invitation of SCIENCE to pay a tribute to his memory, which adheres to personal relations, and not to the evolution of that great idea which took possession of his soul in the small astronomical observatory in Cincinnati, an idea which was to blossom forth in practical form throughout the world.

When in 1870, at the invitation of Chief Signal Officer A. J. Myer, Abbe entered the signal office of the army to undertake the work of predicting the weather of the United States, he found his position and his duties most onerous and embarrassing. The environment was military, and the young officers had been drafted into scientific work that was tentative

and unknown. Besides initiating a novel service Abbe was to cooperate with civilian scientists and to train in the new work officers fresh from the western frontier, from the military academy and from remote artillery seacoast stations. He entered on these manifold duties with the same equanimity and devotion as had marked his astronomical work in Russia and at home. The original scientific force engaged in weather and flood forecasts were nine in number. Besides the civilians, Abbe, T. B. Maury and William Ferrel, there were Chief Signal Officer A. J. Myer, Lieutenants R. Craig, H. H. C. Dunwoody, A. W. Greely, C. E. Kilbourne and J. P. Story. All are dead except Craig, Dunwoody and Greely, who are on the retired list of the army.

Through all the changes, from military to civic control, from one weather bureau chief to another, Abbe continued steadily at his scientific work under six separate administrative chiefs, active along lines of study and research to the last. It is interesting to note that the scientific bodies of the country have not contributed more than half a dozen officials of prominence to the bureau—though it has been under civil control 26 years—to the present force which has grown up under lines initiated by the practicality of Myer and the theories of Abbe.

During twenty years of his service I was intimately associated with Abbe as his subordinate and pupil, as a coworker, and as his administrative chief. During this term of years there inevitably developed situations which were complex, annoying and embarrassing to the scientific force. Yet in all such conditions I never knew him to display bad temper, to unduly prolong discussions, to advance personal interests, nor to abate his most strenuous efforts to carry out such policies as were judged needful for the good of the service—even though they had not originally met with his approval.

As a student in various subjects, such as light, heat, meteorology, etc., as a lieutenant I taxed for months his amiability and temper, for his very serious and methodical methods often excited my amusement and led to jocose

and sarcastic comments, which he always met with gentleness and sorrow.

His weather forecasts, from which he gained deserved fame, were always deduced by strictly considering the effects that should follow certain observed conditions. An amusing instance of that practise gained wide circulation among the office force. At 10 A.M. it suddenly began to rain in Washington, and at 10:15 A.M. Abbe predicted that there would be no rain in the city for the 24 hours beginning at 8 A.M. that day. When taxed with it he simply said: "There was nothing in the conditions shown by the map that scientifically indicated rain." He was equally true to his beliefs in all other directions. Fidelity and loyalty marked his long public career, and in Browning's words Cleveland Abbe could truthfully say that of his life, he "learned to love the true."

A. W. GREELY

THE AMERICAN SOCIETY OF NATURALISTS

THE American Society of Naturalists, in affiliation with the American Association of Anatomists, the American Society of Zoologists, and the Botanical Society of America, will hold its thirty-fourth annual meeting at New York, under the auspices of Columbia University, on Friday, December 29, 1916, and, by invitation of the Carnegie Station for Experimental Evolution, at Cold Spring Harbor on Saturday, December 30.

The Botanical Society of America will place the genetical papers of its program on Thursday morning December 28, and the American Society of Zoologists will group its genetical papers in a program for Thursday afternoon. By this arrangement there will be sessions of genetical interest on the day preceding the meetings of the Naturalists and continuing with the Naturalists' programs for Friday and Saturday.

The Friday morning session of the Naturalists will be open for papers on evolution, genetics, and related subjects from members or invited guests, titles of which with estimated length of delivery must be in the hands of the secretary by December 1. Requests for micro-

scopes or for space for demonstrations should also be sent to the secretary.

The program of Friday afternoon will be a symposium on "Biology and National Existence," with papers by Stewart Paton, W. J. Spillman, V. L. Kellogg, Jacques Loeb and E. G. Conklin.

The annual dinner, in which members of the affiliated societies are invited to participate, will be held in the evening of Friday at the Hotel Manhattan, which has been selected as the headquarters of the Naturalists.

There will be a joint smoker for members of the Naturalists and of the affiliated societies at the Columbia University Commons, Wednesday evening, December 27.

Members of the American Society of Naturalists are invited by the Carnegie Station for Experimental Evolution to spend Saturday, December 30, at Cold Spring Harbor. A morning session from 10.30 to 1 will be held in Blackford Hall for the presentation of genetical papers. After a lunch there will be opportunity to inspect the equipment of the station, the activities of which will be explained by the staff. Arrangements for trains will be announced in the final program.

BRADLEY M. DAVIS,
Secretary

THE ENDOWMENT OF THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF CHICAGO

THE General Education Board and the Rockefeller Foundation have appropriated \$2,000,000 (each \$1,000,000) for the establishment of a medical department in the University of Chicago. It brings Mr. Rockefeller's contributions to the university up to nearly \$37,000,000.

The university will set aside at least \$2,000,000 for the same purpose, will give a site on the Midway valued at \$500,000, and will raise a further sum of \$3,300,000. The medical school will therefore start with an endowment of almost \$8,000,000.

Rush Medical College, established seventy-five years ago, will go out of existence. The Presbyterian Hospital which Rush College