ard species. If the type species selected in accordance with the rules of the type-basis code result in changing the application of the name which it is desired to retain, another of the original species, called the standard species, is chosen, which will retain the name. By the use of the standard species the type method can be incorporated in the International Rules without disturbing other parts.

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WILLIAM S. VALIANT

THE late William S. Valiant was curator of the Geological Museum at Rutgers College from the year 1903 until his death on March 27, 1927, except for a short interval in 1919, when he retired and removed to Rome, New York. His paramount interest was in the work of the museum which he had learned to love and he returned to New Brunswick and continued actively until the year 1923, when no longer strong enough to attend to his duties.

Born at Rome, New York, in 1846, he was educated in the schools there and later served as a special teacher for classes in natural history in the Free Academy of his native city for many years before going to Rutgers. He possessed unusual keenness of observation and ability, which enabled him, without the advantage of a university training, to excel in his chosen field of mineralogy. An expert collector, and good correspondent, he added to the collections of the museum and was ever ready to give information to visitors, and was widely known among his fellow workers. An outstanding result of his work was the discovery, of fundamental importance to both biology and geology, of Ordovician trilobites with their ventral appendages attached. A chance find in 1884 led him to search at every opportunity and at the end of eight years in 1892 he was rewarded by finding a layer less than half an inch thick in the Utica shales at Rome, New York, in which numerous fossils occurred, including the well-known form of *Triarthrus becki*, with the ventral anatomy beautifully preserved, even including the antennae.

A large amount of the material was collected and studied by the late Professor Charles E. Beecher, of Yale University, who devoted the last ten years of his life mainly to the preparation and study of the significance of the appendages, but died in 1904 before he had prepared his final manuscript. Professor Percy E. Raymond, of Harvard University, who had studied under Professor Beecher's guidance, then took up the work and published the results of their combined efforts in 1920 as a memoir of the Connecticut Academy of Sciences entitled, "The Appendages, Anatomy and Relationships of Trilobites." In a foreword of this memoir, Professor Charles Schuchert points out the importance of the discovery which made possible studies in the evolution of the Crustacea, which bear also on that of most of the Arthropoda, and gives Mr. Valiant the credit due to his untiring efforts to locate the original material.

Mr. Valiant published scientific articles from time to time. In 1896 he read a paper entitled "Appendaged Trilobites" before the New Jersey State Microscopical Society, of which he was a member. The manuscript was published in the Mineral Collector of Volume 10, No. 3. Two articles on the geology of the Rutgers College campus appeared in the Rutgers *Targum* of April and May, 1898. His unpublished records of the history of the museum and the results of his work point to a life of usefulness and devotion to science, which can not be adequately indicated in this brief sketch.

ALBERT O. HAYES

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SCIENTIFIC EVENTS

THE ESTABLISHMENT OF AN INTERNATIONAL BUREAU OF METEOROLOGY[1]

AT the sixth session of the International Committee on Intellectual Cooperation, held at Geneva from July 27 to July 29, 1925, the chairman communicated to the committee a proposal submitted by M. van Everdingen, director of the Netherlands Meteorological Observatory and chairman of the International Meteorological Committee (I. M. C.), with regard to the creation of an International Bureau of Meteorology (I. B. M.) (Annex 4 to document C. 445, M. 165, 1925).

After a brief discussion, the committee requested the undersigned to consider, together with M. van Everdingen and several other experts, how the committee might assist in establishing this bureau.

The present report sets out our conclusions:

M. van Everdingen's proposal was defined in a letter which General Delcambre, director of the French Meteorological Service and chairman of a special committee set up by the International Meteorological Committee, addressed officially to the International Institute for Intellectual Cooperation on November 23, 1925.

The International Meteorological Committee is composed of the directors of the meteorological services of thirty countries (including Germany and Austria), who meet once every three years to discuss scientific

[1] Report by the subcommittee appointed at the meeting of the International Committee on Intellectual Cooperation on July 29, 1925, submitted to the committee on July 26, 1926.

problems of international importance—a definition which covers almost every meteorological problem. The members of this committee are not official representatives of their countries, and the committee possesses no financial resources.

After a preliminary interview with M. van Everdingen, it was decided that the sub-committee should co-opt as experts the members of the special committee appointed by the International Meteorological Committee. With a view to achieving a satisfactory result as soon as possible, a meeting of the sub-committee and the experts was held directly after the meeting of the experts to discuss a draft prepared by General Delcambre.

These two meetings took place on March 27 and March 29, 1926, at Paris. At the first meeting, the technical side of the question was discussed and General Delcambre's draft was approved with certain alterations. Finally, the experts drew up a restricted program, on the basis of which a start could be made, and prepared, in the order of their importance, the following list of the various desiderata to be attained:

(*a*) Administration of the archives of the national Meteorological Committees and a secretariat of the committee to maintain relations with international organs interested in meteorology.

(*b*) Bibliography and retrospective international publications (maps of the Northern Hemisphere, experimental balloons, aeronautical climatology).

(*c*) Organization of the ocean meteorological system; assistance in radio-meteorological centralization and preservation of extracts from ships' logs.

The experts estimate that the minimum cost of carrying out points (*a*) and (*b*) of the restricted program would be 100,000 to 150,000 gold francs.

These were the conclusions submitted at the meeting on March 29, at which were present: M. Lorentz, Mme. Curie, M. Einstein, M. Luchaire; the experts Messrs. Delcambre, van Everdingen, Simpson, Carvalho, Brandao, J. Bjerknes, Werhlé, M. Roper, representing the International Commission for Air Navigation (I. C. A. N.), and M. de Vos van Steenwyck, whom the Committee of Experts had co-opted to maintain relations with the International Institute for Intellectual Cooperation. M. Lorentz presided over the meeting.

The chairman proposed that they should not deal with the technical questions, which has been fully discussed at the former meeting. The experts, he pointed out, were unanimous in endorsing the utility of the proposed organization, and it would not therefore be necessary to go into details. It would be sufficient for them to consider the relations to be established between the future Bureau and the League of Nations through the International Committee on Intellectual Cooperation. The moral support of this committee might already be regarded as assured. The most urgent question was that of obtaining the material resources necessary for the creation and working of the International Bureau of Meteorology.

The discussion which followed this statement showed that the International Committee on Intellectual Cooperation might take action in two ways simultaneously:

1. The International Committee on Intellectual Cooperation might recommend the League of Nations to invite governments to accord subsidies to the International Bureau of Meteorology.

2. The International Committee on Intellectual Cooperation might avail itself of the facilities it possessed in the form of the International Institute for Intellectual Cooperation and place at the disposal of the International Bureau of Meteorology provisionally a few rooms in which the Bureau could instal its secretariat and archives. The cost of installation would thus be diminished and the Bureau might begin work almost at once. It would be understood that, as soon as the International Bureau of Meteorology became firmly established and had proved its value, it would have to obtain its own premises and could no longer remain a charge on the Institute, which must be in a position to offer similar hospitality to any other scientific organization created in similar circumstances. The director of the Institute does not see any objection to such an arrangement.

There will be some difficulty, however, in the way of carrying out the first proposal. It would not only be desirable to establish the International Bureau of Meteorology, but the matter is, indeed, an urgent one. Several meteorological undertakings are about to be abandoned owing to lack of means, and this would create gaps which it would be impossible to fill later.

It therefore seems essential that the International Committee on Intellectual Cooperation should submit its conclusions to the next (September) Assembly of the League. Unfortunately, the Committee of Experts is not empowered to make any official proposal, as it is merely a Committee of Enquiry instructed by the International Meteorological Committee to submit a report to the committee at its next meeting on September 20.

The International Committee on Intellectual Cooperation will not be able to take a decision before its January session, and any action on the part of the League would be deferred for a whole year.

With a view to obviating such delay—which, in the opinion of the experts, would be highly unde-

sirable—the undersigned have the honor to propose the following line of action:

The International Committee on Intellectual Cooperation might forthwith decide in *principle* to cooperate with the International Meteorological Committee for the creation of an International Bureau of Meteorology in accordance with the suggestions set out above. It might authorize the present subcommittee to act on its behalf as soon as the International Meteorological Committee has formally approved the scheme drawn up by the experts, so that the recommendations in question may be submitted to the Council of the League at its December session.

As regards the question of premises, a decision might be taken by the Committee of Directors of the Institute.

The representative of the International Commission for Air Navigation has promised to see that, at the next (October) meeting of the committee, that organization takes action on the same lines to secure the creation of the International Bureau of Meteorology.

(*Signed*) M. CURIE
H. A. LORENTZ
A. EINSTEIN

A LABORATORY FOR THE STUDY OF ROCKY MOUNTAIN SPOTTED FEVER

THE state of Montana, in a bill approved by Governor Erickson on March 16, has appropriated $60,000 for the erection of a laboratory at Hamilton for the State Board of Entomology, to be used for the further study of Rocky Mountain spotted fever. The state has also appropriated approximately $25,000 per year for the next biennium to provide for carrying on the work on this problem. Ten thousand dollars per year of this sum is for the study, breeding and colonizing of the French tick parasite (*Ixodiphagus caucurtei* DuBuysson) recently introduced into America by Dr. S. B. Wolbach, of the Harvard Medical School, from the laboratories of the eminent parasitologist, Dr. Brumpt. Dr. F. Larrousse, who is associated with Dr. Brumpt, brought a stock of the parasites to Massachusetts last summer for the purpose of colonizing them on the American dog tick (*Dermacentor variabilis* Say) in Massachusetts.

In addition to the usual features of such laboratories, the building will provide facilities for the rearing of large numbers of infected and non-infected ticks and for the care of large numbers of caged wild rodents. The building will also be provided with rooms and chambers with automatically controlled temperatures and humidity.

The work on spotted fever in Montana is being conducted under an informal plan of cooperation between the United States Public Health Service and the Montana State Board of Entomology. The Public Health Service on U. S. government funds is occupied chiefly at present with a further study of the Spencer-Parker vaccine. The vaccine, made from the bodies of infected ticks (*Dermacentor andersoni* Stiles), was originated two years ago at the laboratory at Hamilton, Montana, and at the Hygienic Laboratory in Washington, D. C., by the two workers from the Public Health Service, and was used last year on about one thousand persons in Montana and Idaho with encouraging results. The Public Health Service is also giving attention to the following: the organism of spotted fever (*Dermacentroxenus rickettsi* Wolbach) and other organisms found in ticks; characteristics of the virus of spotted fever, with particular reference to differences in ticks and in various laboratory and wild animals; relationships of the rabbit tick (*Haemaphysalis leporis-palustris* Packard) in the spotted fever complex; tularaemia, and tick paralysis in man and in domestic animals. The state of Montana, in cooperation with the United States Bureau of Entomology, had previously worked out the life-history and host relationships of the woodtick vector, and the State Board of Entomology is at present concerned mainly with the French tick parasite and with the destruction of ticks by killing the rodent hosts and the dipping of domestic animals. The biology and thermal constants of the parasite are being studied by the entomologist of the board and experiments in colonizing the parasite on ticks in nature are being started this season. The thermal constants of the tick are also being determined and will be correlated with those of the parasite.

The United States Public Health Service is represented at the Montana laboratory by Dr. R. R. Spencer, officer in charge, and entomologist R. R. Parker, special expert. The State Board of Entomology is made up of Dr. W. F. Cogswell, secretary of the State Board of Health, *chairman;* Dr. W. J. Butler, state veterinary surgeon, *member,* and R. A. Cooley, state entomologist, *secretary.* The work of tick destruction is being conducted by Mr. F. J. O'Donnell.

R. A. COOLEY

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ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION

THE seventy-eighth annual session of the American Medical Association will be held in Washington, D. C., from May 16 to 20. Eight thousand physicians are expected to attend and be officially welcomed by President Coolidge at the first general evening session, Tuesday, May 17.