tronomer at Adelaide, had the use at Cordillo Downs of a tower telescope lent by the Lick Observatory for the Einstein problem; the New South Wales astronomers were in Queensland and did some spectroscopic work; they intended also to make Einstein investigations, but the telegrams do not allude to these.

It is well to point out that the test of the Einstein theory does not depend wholly on the results of this eclipse. The plates secured in the 1919 eclipse at Principe and Sobral settled definitely that at least the half-shift was present, while the two cameras with the best definition gave values very close to the Einstein value. Further, the star-field in that eclipse was the best along the whole extent of the ecliptic, the stars in the present eclipse being much fainter. There are, however, two circumstances that should add weight to this eclipse: (1) that some of the observers were pointing directly on the stars, avoiding the use of a coelostat or other mirror; (2) that the plan was being tried of photographing another star-field *during totality,* thus obtaining an independent scale-value for the plates, which gives a much larger coefficient to the Einstein displacement in the equations of condition.

Probably weeks or months must elapse before the Einstein results are to hand. The corona is said to have had four long streamers, one extending to three solar diameters, which is more than the average, though by no means a record. Professor Chant reports that the shadow bands were photographed. Professor Kerr Grant, of Adelaide University, made measures at Cordillo by the photo-electric cell of the relative brightness of the sun and the corona. The results, with this very sensitive instrument, should be more trustworthy than previous determinations.

The next two total eclipses (1923, September, and 1925, January) are visible in the United States; 1926, January, in Sumatra, etc., and 1921 in England and Norway.

THE FIJI-NEW ZEALAND EXPEDITION OF THE STATE UNIVERSITY OF IOWA

THE Fiji-New Zealand party from the University of Iowa arrived in San Francisco on September 4 by the Pacific steamer *Tahiti.* This expedition was organized by Professor C. C. Nutting, head of the department of zoology of the University of Iowa, and included the following additional members from the faculty of that institution: Professor Robert B. Wylie, botanist; Professor A. O. Thomas, geologist; Dr. Dayton Stoner, entomologist, and Mr. Waldo Glock, assistant in geology. Mrs. Dayton Stoner, wife of Professor Stoner, accompanied her husband and assisted in the work with insects. The party left Vancouver on the *Niagara* on May 19, and after spending five weeks in Fiji went on to New Zealand for a like period, working mainly in North Island.

The expedition was greatly aided by the officials of these islands, with whom Professor Nutting as director had made preliminary arrangements by correspondence. Considerable collections were secured by each member of the party in his own field, including both illustrative and research material. Several hundred negatives were secured which will be used as a basis of illustration in lectures and publications. The Dominion Museums, both at Auckland and Wellington, New Zealand, were especially helpful; they extended to the party use of their buildings as temporary laboratories, offered helpful cooperation at all times, and contributed many valuable specimens to the University of Iowa Museum. Their gifts included four living and two preserved Sphenodons.

THE NEW ENGLAND INTERCOLLEGIATE GEOLOGICAL EXCURSION

THE eighteenth annual New England Intercollegiate Geological Excursion was held in the vicinity of Springfield and Northampton, Massachusetts, on the sixth and seventh of October. Professor J. W. Goldthwait, of Dartmouth College, and Dr. Ernst Antevs, of the University of Stockholm, were the leaders. Dr. Antevs, who has continued the work of Baron de Geer since the latter's return to Sweden, demonstrated the field methods which have led him to important conclusions concerning the glacial history of New England. His chief conclusions are (1) that the Wisconsin ice-sheet retreated from Hartford, Connecticut, to the northern border of Vermont in a period of approximately 4,000 years; (2) that this time

interval can not be correlated definitely with the period of 13,500 years which, according to de Geer, is the approximate number of years ago at which the last ice-sheet started to retreat across southern Sweden; (3) that an isostatic bulge made a freshwater lake of Long Island Sound during the last glacial period; and (4) that the axis of post-glacial tilting lies in the vicinity of Hartford, the dam holding back the lake in Long Island Sound between Fisher's Island and Long Island having been submerged approximately 200 feet in post-glacial time, or tilted southward from New Haven approximately eight feet to the mile.

Sixteen New England colleges and institutions, as well as the United States Geological Survey, were represented on the excursion. The list of institutions is Amherst (1), Brown (2), Clark (2), Colby (1), Dartmouth (1), Hartford High (2), Harvard (2), Massachusetts Agricultural (1), Mount Holyoke (3), Smith (6), Springfield Schools (1), Trinity (1), University of Stockholm (1), University of Vermont (1), United States Geological Survey (1), Wesleyan (2), Williams (5), Yale (7), unattached (1). The total attendance was, therefore, 41.

LECTURES OF THE LOWELL INSTITUTE

AMONG seven courses of Lowell lectures to be given during the present season are the following:

A course of eight lectures by Harlow Shapley, Ph.D., Paine professor of astronomy at Harvard Unversity and director of the Harvard College Observatory, on "The Content and Structure of the Sidereal Universe." 1. The Problems of Modern Astronomy. 2. Space, Time and Starlight. 3. Stars and Atoms. 4. Stellar Variation and Evolution. 5. Measuring the Milky Way. 6. Nebulæ and Island Universes. 7. Origin of the Earth. 8. Life and the Physical Universe. Tuesdays and Fridays at 8 o'clock in the evening, beginnng Tuesday, October 24.

A course of eight lectures by Edwin Grant Conklin, Ph.D., Sc.D., professor of biology in Princeton University, on "The Revolt against Darwinism." 1. Evolution, Historical and Experimental. 2. The Materials of Evolution. 3. The Rôle of Selection in Species Formation. 4. The Cellular Basis of Heredity. 5. The Cellular Basis of Development and Evolution. 6. Directions and Rates of Evolution. 7. The Mechanism of Adaptation. 8. Mechanism and Teleology. Wednesdays and Mondays at 8 o'clock in the evening, beginning on Wednesday, November 22, and omitting Wednesday, November 29.

A course of six lectures by A. Hamilton Rice, A.M., M.D., on "Journeys and Explorations in Tropical South America." 1. Physical Outlines of South America. Desiderata in Exploration. Some Notes on South American Hydrography. 2. Historical. Quito to the Amazons by the River Napo, the Route of Pizarro and Orellana. Caracas to Bogota by the Route of Bolivar and the Foreign Legion across the Venezuelan Lianos and the Colombian Andes. 3. Bogota and Exploration of the River Calaro-Uaupes, the Great West Affluent of the Rio Negro. 4. Further Explorations of the N. W. Amazons Valley, including the Sources of the Caqueta and the Rivers Inirida and Icana. 5. The Great Rio Negro (Amazons). 6. The Casiquiare Canal and the Upper Orinoco. Fridays and Tuesdays at five o'clock in the afternoon, beginning on Friday, December 1.

A course of six lectures by W. J. V. Osterhout, Ph.D., professor of botany, Harvard University, on "The Nature of Life and Death." 1. Growth. 2. Reproduction and Motion. 3. Irritability. 4. Constructive Metabolism. 5. Destructive Metabolism. 6. Permeability. Thursdays and Mondays at 8 o'clock in the evening, beginning on Thursday, January 4.

INSTALLATION OF THE CHANCELLOR OF THE UNIVERSITY OF BUFFALO

DR. SAMUEL PAUL CAPEN, director of the American Council on Education since its organization in 1919, resigns this month to become chancellor of the University of Buffalo. This institution more than a year ago conducted an endowment fund campaign in which 26,000 citizens contributed more than $5,000,000. Dr.