through the influence of the lakes, which cover one third of the total area within a radius of six miles from the university, the growing season at Madison is appreciably lengthened. It was shown by comparisons with the average data for four neighboring stations, which have strictly continental temperature conditions, that there is an average departure from local continental types of from 0 to -3 degrees in the mean maximum temperature during the various months of the year, of 0 to $+4$ degrees in the mean minimum temperature, and an increase in summer and autumn in the mean monthly temperature, and a decrease in spring.

The subject of the second paper of the evening, by Professor C. S. Slichter, was 'The Underflow of the Arkansas River.' The speaker presented the results of an investigation conducted last summer under the auspices of the United States Reclamation Service of the region covering the drainage basin of the Arkansas River from Garden, Kans., westward to the state line. The work done indicates that the water of the Arkansas underflow has its origin in the rainfall upon the sand hills to the south of the river and upon the bottom lands and plains to the north of the river. The rate of movement of the underflow was found by the electrical method to vary between eight and eleven feet for twenty-four hours. It was shown that the Arkansas River contributes water to the underflow in time of flood. When the river was high a movement of the ground water away from the river channel was measured and found to be about eight feet for twenty-four hours.

The following members were elected officers of the club for the year 1905-6:

President—Professor Louis Kahlenberg.

Vice-President—Professor C. K. Leith.

Secretary-Treasurer—Professor Richard Fischer.

F. W. WOLL,
Secretary.

THE SAN FRANCISCO BIOLOGICAL CLUB.

A MEETING of the recently organized San Francisco Biological Club was held on April

22, 1905. The following papers were presented:

PRESIDENT DAVID STARR JORDAN: 'Actual Origin of Species.'

PROFESSOR JACQUES LOEB: 'On Artificial Parthenogenesis.'

PROFESSOR G. J. PEIRCE: 'Irritability in Algæ.'

PROFESSOR J. B. MACCALLUM: 'On the Diuretic Action of Certain Hæmolytics.'

DR. F. W. BANCROFT: 'On the Validity of Pflüger's Law for the Galvanotropic Reactions of Paramecium.'

DR. P. OLSSON-SEFFER: 'Seed-transport by Oceanic Currents.'

DR. HAROLD HEATH: 'The Development and Significance of the Body-cavity in Certain Invertebrates.'

PROFESSOR J. C. MERRIAM: 'Adaptive Radiation in the Early Reptilia.'

PROFESSOR C. A. KOFOID: 'On the Structure of some Pelagic Ciliata.'

PROFESSOR W. A. SETCHELL: 'Regeneration in Kelps.'

PROFESSOR W. J. V. OSTERHOUT: 'Polarity in Plants.'

W. J. V. OSTERHOUT,
Secretary.

THE PSYCHOLOGICAL CLUB OF CORNELL UNIVERSITY.

THE session of 1905 has been devoted to the consideration of experimental studies of memory and economical learning. The following papers have been read:

PROFESSOR TITCHENER (two papers): 'The Work of Ebbinghaus.'

PROFESSOR BENTLEY (two papers): 'The Work of Mueller and Schumann.'

MR. H. C. STEVENS (two papers): 'The Work of Mueller and Pilzecker.'

MISS E. MURRAY: 'The Importance of Repetition.'

MR. J. H. COFFIN: 'Learning by Whole and Part.'

DR. T. DE LAGUNA: 'The Distribution of Repetitions.'

MR. R. B. WAUGH: 'Economy of Learning, I.'

MR. S. P. HAYES: 'Economy of Learning, II.'

MR. A. C. MUHSE: 'Economy of Learning, III.'

MR. G. H. SABINE: 'The Trend of Investigation: Problems and Methods.'