

and a State College for Girls. It is required that the university be located at some central point in the state, both geographically and as to population, and with due consideration for the lands, grounds and buildings already in the possession of the state; and that the girls' college be located on the site of some one of the abolished institutions. The actual selecting of sites for these two institutions is left in the hands of the board of control in joint action with the state board of education. The organization and future management of the two institutions is left to the board of control, subject to the approval of the board of education.

Both institutions have been organized and it is announced that they will open to receive students on September 27. The girls' college has been located at Tallahassee, on the site of the former Florida State College. The city of Gainesville was selected by the boards in joint session as the permanent location of the university. It has been decided, however, that the new university shall continue on the site of the abolished university for one year, or until the grounds at Gainesville are ready for its reception.

The state university, as established, consists of: A department of agriculture, mechanical and industrial arts; a science and classical department; a normal department; and 'such other departments as may from time to time be determined upon and added at any joint meeting of the state board of education with the board of control.' The state experiment station retains its connection with the university.

The Buckman bill carries an appropriation of \$150,000 for the maintenance of the four institutions, under the management of the board of control for the ensuing two years. The city of Gainesville has donated a tract of five hundred acres of land as a site for the university and experiment station, and \$40,000 to be used in the erection of buildings, and has offered \$30,000 to the state for the buildings formerly occupied by the East Florida Seminary. The agricultural department and the experiment station receive the

benefit of the government funds accruing to them from the Morrill and Hatch acts.

Dr. Andrew Sledd, Randolph-Macon College, Harvard and Yale Universities, and president of the former University of Florida, has been secured as president. The heads of the science departments, all of whom occupied their respective positions in the abolished University of Florida, are as follows: Edward R. Flint, Massachusetts Agricultural College and Göttingen, chemistry; Karl Schmitt, Berlin and Marburg, mathematics; C. M. Connor, Michigan Agricultural College and University of Missouri, agriculture; F. M. Rolfs, Iowa State College and Colorado Agricultural College, botany and horticulture; M. T. Hochstrasser, Georgia School of Technology, mechanical engineering; J. R. Benton, Trinity College and Göttingen, physics and civil engineering; E. H. Sellards, University of Kansas and Yale University, zoology and geology.

STATIONS FOR THE DETERMINATION OF THE VARIATIONS OF LATITUDE.

SINCE the plan to make observations to determine the variations of latitude in the southern hemisphere in addition to those being made in the northern hemisphere was announced in SCIENCE, the Central Bureau of the International Geodetic Association has definitely selected the two stations to be occupied and the observations will begin on January 1, 1906.

One station is in South America, at Oncoativo, a village in the Argentine Republic, on the Argentine Central Railway, 72 kilometers from Cordova and 622 kilometers from Buenos Ayres. It is located on a plain with favorable topographic and climatic conditions. The temperature ranges from -6° to $+40^{\circ}$ (Centigrade) and the mean cloudiness during the year is expressed by 4 on the customary scale. The rainy season occurs in summer, when the rainfall amounts to 700 mm. Dr. Luigi Carnera has been appointed observer.

The other station is in Australia, at Bayswater, a town 6 kilometers northeast of Perth, the capital of West Australia. There the annual range of temperature is between 0°

and $+40^\circ$ and the mean cloudiness varies from 2 in summer to 5 in winter. The annual rainfall amounts to 870 mm. Dr. Curt Hessen will be in charge of the observatory.

Both these stations are in latitude $-31^\circ 55'$.

At the Observatory of Pulkowa, in latitude $+59^\circ 46'$, a series of observations is in progress to supplement the observations at the stations of the International Geodetic Association and it is expected that the observatories at Leyden (latitude $+52^\circ 09'$) and at Tokyo (latitude $+35^\circ 39'$) will cooperate in this work.

PROFESSOR BJERKNES'S LECTURES.

THE lectures which Professor V. F. K. Bjerknes, of the University of Stockholm, will give at Columbia University during December are as follows:

FIELDS OF FORCE.

Friday, December 1, 1905, 4 to 6 P.M.: 'Elementary Investigation of the Geometric Properties of Hydrodynamic Fields' (with experiments).

Saturday, December 2, 1905, 10 to 12 A.M.: 'Elementary Investigation of the Geometric Properties of Hydrodynamic Fields' (with experiments).

Friday, December 8, 1905, 4 to 6 P.M.: 'Geometric Properties of Electromagnetic Fields According to Maxwell's Theory.'

Saturday, December 9, 1905, 10 to 12 A.M.: 'The Dynamic Properties of Electromagnetic Fields according to Maxwell's Theory.'

Friday, December 15, 1905, 4 to 6 P.M.: 'Transformation of the Hydrodynamic Equations to Forms which prove the Analogy of Hydrodynamic and Stationary Electromagnetic Fields.'

Saturday, December 16, 1905, 10 to 12 A.M.: 'Further Development and Discussion of the above Analogy.'

Friday, December 22, 1905, 4 to 6 P.M.: 'General Conclusions: Remarks on Methods of Research and of Instruction in Theoretical Physics.'

Saturday, December 23, 1905, 10 to 12 A.M.: 'Supplementary Lecture: The Hydrodynamic Fields of Force in the Atmosphere and the Sea; Discussion of the Fundamental Problem of Meteorology and Hydrography.'

The lectures will be open without charge to teachers and advanced students of physics.

PERMIAN GLACIATION IN SOUTH AFRICA.

THE following note of greeting has been addressed to Professor T. C. Chamberlin, of the University of Chicago:

Members and guests of the British Association in South Africa, returning from a geological excursion, provided by the hospitality of the Natal government, send you greetings and wish you might have been with us to-day to see the Dwyka glacial formation (Permian) lying on a glaciated surface of Barberton (Archæan?) beds. The evidence of extensive glaciation, with *southward* movement of the vast ice sheet, is not to be doubted.

J. LOMAS, Liverpool.

G. N. MOLENGRAAFF, Johannesburg.

A. PENCK, Vienna.

B. HOBSON, Manchester.

DR. PR. BECK, Freiberg.

WILLIAM ANDERSON, Natal.

A. P. COLEMAN, Toronto.

F. G. KATZENSTEIN, Vryheid, Natal.

W. M. DAVIS, Cambridge, Mass.

VRYHEID, DISTR. NATAL,

Aug. 26, 1905.

SCIENTIFIC NOTES AND NEWS.

WE regret to learn that the condition of Dr. William R. Harper, president of the University of Chicago, is now very serious.

PROFESSOR EBERTH, director of the Pathological Institute in Halle and discoverer of the bacillus of typhoid fever, celebrated his seventieth birthday on September 21.

PROFESSOR FRANKLIN C. ROBINSON, head of the department of chemistry of Bowdoin College, has been elected president of the American Public Health Association, which will hold its annual meeting in January in the city of Mexico.

PROFESSOR WILHELM OSTWALD, of Leipzig, who, as we have already announced, will give courses in physical chemistry and philosophy at Harvard University during the first half of the present academic year, arrived at Cambridge on the second instant.

PROFESSOR J. A. HOLMES, of the University of North Carolina, is in Germany to investigate for the U. S. Geological Survey the use of brown lignite briquettes for fuel and methods of protecting railway ties.