

the Public Forest Lands to Grazing; (3) The Lumber Industry and the Forest; (4) Importance of the Public Forest Lands to Mining; (5) Forestry in Relation to Railroad Supplies; (6) National Forest Policy; (7) State Forest Policy.

THE twelfth National Irrigation Congress held its annual session last week at El Paso, Texas, under the presidency of Senator Clark.

At a meeting of the council of the Michigan Academy of Sciences, held on November 12, the date of the next meeting was set at March 31 to April 1, and the place Ann Arbor.

At the 23d annual meeting of the Natural Science Association of Staten Island the following were elected officers for the ensuing year: *President*, Howard R. Bayne; *secretary*, Arthur Hollick; *treasurer*, J. Blake Hillyer; *curator and librarian*, C. A. Ingalls.

THE fourth volume of Professor Moritz Cantor's 'Vorlesungen über Geschichte der Mathematik' will contain the history of mathematics for the period of forty years, from 1759 to 1799. The preparation of the volume is divided up among different authors as follows: (1) 'Geschichte der Mathematik, Klassikerausgaben Wörterbücher,' von S. Günther (München); (2) 'Lehrbücher der Elementargeometrie, Praktische Geometrie (Feldmesskunst), Elementargeometrische Einzeluntersuchungen Parallelenlehre,' von V. Bobylin (Moskau); (3) 'Trigonometrie, Polygonometrie, Tabellen (trigonometrische, logarithmische und andere)' von A. v. Braumühl (München); (4) 'Rechenkunst und Buchstabenrechnung, Algebra (Lehre von den Gleichungen) Zahlentheorie,' von F. Cajori (Colorado Springs); (5) 'Reihen, Kombinatorik, Wahrscheinlichkeitsrechnung Imaginäres,' von E. Netto (Giessen); (6) 'Analytische Geometrie der Ebene und des Raumes,' von V. Kommerell (Reutlingen); 'Darstellende Geometrie,' von G. Loria (Genua); (7) 'Lehrbücher der Infinitesimalrechnung, Einzeluntersuchungen der Infinitesimalrechnung, Bestimmte Integrale Transzendenten,' von G. Vivanti (Messina); (8) 'Totale und partielle Differentialgleichungen, Variationsrechnung Differenzen- und Summenrechnung,' von C. R.

Wallner (München); (9) 'Entwicklung der Mathematik zwischen 1759 und 1799, Geschichte der Ideen in diesem Zeitraume,' von M. Cantor (Heidelberg).

THE statutory annual meeting of the Royal Society of Edinburgh was held in the Royal Institute, Edinburgh, on October 31, Lord M'Laren presiding. The following members of the new council were elected: *President*, Lord Kelvin; *vice-presidents*, Professor James Geikie, Lord M'Laren, the Rev. Professor Flint, Dr. Robert Munro, Sir John Murray and Dr. R. H. Traquair; *general secretary*, Professor George Chrystal; *secretaries to ordinary meetings*, Professor Crum Brown and Professor D. J. Cunningham; *treasurer*, Mr. P. R. D. MacLagan; *curator of library and museum*, Dr. Alex. Buchan; *councilors*, Dr. John Horne, Mr. C. G. Knott, Professor R. Stockman, Professor James Walker, Professor Andrew Gray, Mr. Robert Kidston, Dr. D. Noel Paton, Professor John Chiene, Professor J. Graham Kerr, Mr. William Peddie, Dr. Leonard Dobbin and Professor J. C. Ewart.

#### UNIVERSITY AND EDUCATIONAL NEWS.

THE daily papers state that it is proposed to move the Western University of Pennsylvania from the suburbs of Allegheny to Pittsburgh proper, near the new Carnegie Technical School. About fifty acres of ground, sufficient for twenty large university buildings, is being secured at a cost of about \$2,000,000, and the work of construction will be begun before long. Fifty citizens of Pittsburgh have agreed to give each from \$40,000 to \$100,000 for the school. The contribution of Mr. Carnegie has not been announced.

THE general assembly of the state of Vermont has appropriated \$60,000 for the use of the agricultural department of the university. The money is to be expended in the erection and equipment of a building to be known as Morrill Agricultural Hall, in memory of the father of the agricultural colleges of the country, the late Senator Justin S. Morrill. The building will be devoted to instructional and experimental work in agriculture.

COLUMBIA UNIVERSITY, by a decision of the Court of Appeals, will take possession of real estate bequeathed by Stephen W. Phoenix, of New York, and yielding an annual rental of about \$10,000. The bequest was contested by Mr. Phoenix's family.

A STATEMENT has been issued by the rector of the Catholic University announcing that no part of the \$100,000 collected for the university last year has been lost through the failure of the treasurer. The amount that the university has lost or is liable to lose is not, however, stated. It seems extraordinary that a university should loan its endowment fund at six per cent. interest to an individual who used the money for real estate speculations.

C. P. CHASE, treasurer of Dartmouth College, announces the gift of \$1,000 by the Earl of Dartmouth to the fund for the rebuilding of Dartmouth Hall.

THE preliminary register of the Johns Hopkins University shows the total enrolment to be 740, against 696 at the same period last year. This is the largest enrolment in the history of the institution. The faculty, including assistants and lecturers, numbers 160, a gain of ten over last year. There are 291 candidates for the degree of M.D., compared with 275 last year, the total number of graduate students being 556, an increase of sixteen over the year preceding. Undergraduate students number 186, a gain of 17 per cent. over the enrolment at the same time last year. Candidates for the A.B. degree next June number thirty-three.

THE department of geology, of the University of Chicago, has arranged for the following special courses to be given during the winter and spring quarters of 1905:

*January 2-February 10.*—(1) Courses in Non-metallic Economic Geology, by E. R. Buckley, Ph.D., state geologist of Missouri. (a) An elementary outline course; (b) An advanced course on structural materials.

*February 13-March 24.*—(2) Courses on Pre-Cambrian Geology, by Professor C. K. Leith, University of Wisconsin. (a) The Archeozoic and proteozoic Formations; (b) Laboratory course

on metamorphic rocks, accompanying the above.

*April 3-May 12.*—(3) Courses on Ore Deposits, by F. L. Ransome, U. S. Geological Survey. (a) An elementary course on ore deposits in general; (b) An advanced course on gold, silver, copper and lead (in part) ores.

DR. CHARLES W. DABNEY was installed as president of the University of Cincinnati on November 16. His inaugural address was entitled 'Democracy and the School.'

MR. CLIFTON D. HOWE, assistant in botany in the University of Chicago, has been appointed instructor in botany in the Biltmore Forest School, Biltmore, North Carolina, and will begin his new duties on January 1.

WE learn from the *Electrical World* that Dr. F. A. C. Perrine, chief engineer of the Standard Electric Company, of California, has become a member of the faculty of the Polytechnic Institute of Brooklyn. Dr. Perrine will affiliate with the department of electrical engineering as consulting professor in long distance electric power transmission. Dr. Louis Duncan has been appointed consulting professor of electric traction. Dr. Duncan was the organizer and head of the department of electrical engineering at Johns Hopkins University, and recently reorganizer of the department of electrical engineering at the Massachusetts Institute of Technology.

MR. T. D. A. COCKERELL has been appointed lecturer on entomology in the University of Colorado, Boulder.

PROFESSOR JAMES ROBERTSON, commissioner of agriculture and dairy of the Dominion of Canada, has resigned from the government service and will take charge of the agricultural college to be established near Montreal by Sir William McDonald.

DR. J. F. POMPEČKY, for the last ten years associated with the late Professor Karl von Zittel, at Munich, has been appointed professor of geology in the agricultural school of Hohenheim, near Stuttgart.

DR. KARL EXNER, professor of mathematical physics at Innsbrück, and Dr. A. Bauer, professor of chemistry at the Vienna Polytechnic Institute, have retired from active service.