

Dr. W. G. Miller, provincial geologist, Ontario; William Nicol, professor of mineralogy, Queen's University; Dr. Chas. Palache, assistant professor of mineralogy, Harvard University; Dr. Joseph W. Richards, professor of metallurgy and mineralogy, Lehigh University; Walter S. Landis, Lehigh University; Dr. H. Monmouth Smith, professor of chemistry, Syracuse University; J. S. Stanley-Brown, editor Geological Society of America; Dr. Frank R. Van Horn, professor of mineralogy and geology, Case School of Applied Science; Dr. T. L. Walker, professor of mineralogy and petrography, University of Toronto; Dr. Fred E. Wright, Carnegie Institution; Dr. C. W. Wright, U. S. Geological Survey.

#### SCIENTIFIC NOTES AND NEWS

At the Put-in-Bay meeting of the Astronomical and Astrophysical Society of America, the following officers were elected for the ensuing year:

*President*—E. C. Pickering.

*First Vice-president*—G. C. Comstock.

*Second Vice-president*—W. W. Campbell.

*Secretary*—W. J. Hussey.

*Treasurer*—C. L. Doolittle.

*Councilors*—Ormond Stone, W. S. Eichelberger, Frank Schlesinger, W. J. Humphreys.

A committee was appointed with power to determine the time and place of the next meeting.

THE British Ornithologists' Union will celebrate its fiftieth anniversary in December next, when gold medals will be presented to the four surviving original members: Dr. F. Du Cane Godman, F.R.S., Mr. P. S. Godman, Mr. W. H. Hudson, F.R.S., and Dr. P. L. Selater, F.R.S.

DR. JOSIAH ROYCE, of Harvard University, gave one of the principal addresses before the third International Philosophical Congress, which began its sessions at Heidelberg on September 1.

THE First International Moral Educational Congress is being held at the University of London, September 25-29, under the presidency of Professor Michael E. Sadler.

PROFESSOR D. J. HAMILTON, F.R.S., has, in consequence of ill health, resigned the chair of pathology in the University of Aberdeen.

MR. F. B. SMITH, director of agriculture for the Transvaal, is visiting England.

DR. EMIL KRAEPELIN, professor of psychiatry at Munich, who has been visiting this country, has returned to Germany.

DR. J. C. BOSE, professor in the University of Calcutta, India, author of "Response in the Living and Non-living," "Plant Response, as a Means of Physiological Investigation" and of "Comparative Electro-physiology," has been lecturing for the past few months on the continent and in England on the phenomena as brought out by his methods of experimentation. He expects to visit this country during October and November, and wishes to visit the more prominent institutions of the east and middle west. He will be very glad to lecture on his researches free of charge to university audiences or before scientific societies. Any institution that may wish to make arrangements for a series of three or four lectures by Dr. Bose, may address him in care of Mr. R. N. Tagore, Box 135, University Station, Urbana, Ill.

PROFESSOR C. H. HITCHCOCK will leave for Hawaii on the first of October. He goes to complete his book upon the Hawaiian volcanoes, which is to be published by the Hawaiian Gazette Company of Honolulu. Kilauea was never in better condition for study than now. The great pit is gradually filling up, and when the hydrostatic pressure of the column is too great to be maintained in its place the lava will escape into some unseen subterranean caverns, if it does not flow out at the surface on the lower ground.

BRIGADIER GENERAL JAMES ALLEN, chief of the United States Signal Corps, attended the International Electrical Congress at Marseilles, France, from September 14 to 19, as a representative of the United States army. Incidentally he will make a general investigation of what is being done in the development of war balloons and aeroplanes.

PRESIDENT CHARLES W. ELIOT, of Harvard University, is to deliver, on October 15, the ad-

dress to mark the opening of the Brooklyn Institute of Arts and Sciences, on which occasion his subject will be "The Building and Administration of a Modern City."

THE president of the British Local Government Board has arranged for the making of the following additional researches in connection with the annual grant voted by parliament in aid of scientific investigations concerning the causes and processes of disease: 1. A chemical and bacteriological investigation by Mr. C. G. Moor, M.A., F.I.C., and Dr. Hewlett, professor of pathology at King's College, London, as to the influence of softening and of other chemical processes on the purity of water supplies from the chalk, as shown in actual experience and under experimental conditions. 2. An investigation by Professor Sidney Martin, F.R.S., into the powers of production of disease possessed by certain streptococci and by the poisonous substances produced by them, in continuance of previous investigations by him on the same subject.

WE much regret to record here the death of Lieutenant Thomas E. Selfridge and the injury to Orville Wright in the aeroplane experiments, which up to that time had proceeded so auspiciously.

DR. CHARLES HARRINGTON, professor of hygiene in the Harvard Medical School and chairman of the Massachusetts State Board of Health, died suddenly in England on September 11, at the age of fifty-two years.

THE death is announced of the Earl of Rosse, F.R.S., who, like his father, made valuable contributions to astronomy.

M. E. MASCART, since 1871 director of the French Meteorological Office, has died at the age of seventy-one years.

DR. ERNST EBERMEYER, formerly professor of agriculture at Munich, has died at the age of seventy-nine years.

DR. HERMANN VON PEETZ, docent for geology at St. Petersburg, died on July 18, as the result of an accident while engaged in geological explorations.

WE regret also to record the death of M. Auguste Daguillon, professor of botany at Paris, and of Prince Iwan Romanowitsch Tarchanow, professor of physiology at the Military Medical College at St. Petersburg.

THE growth of the American Chemical Society has been so rapid this year that the publications for the early part of the year are exhausted. As new members are still coming in rapidly and are entitled to back *Journals* for this year on payment of their dues the Council has by the force of circumstances been obliged to grant half-year membership with half year dues for the last half of 1908 only. The size of the editions of the *Journal* and the *Abstracts* has been largely increased and the difficulty will probably not arise again.

It is announced that plans have been filed for the main hospital building and isolation annex of the Rockefeller Institute for Medical Research. The main building is to be a seven-story brick edifice, and the isolation wards will be in a two-story building connected with the main building by steel bridges. The estimated cost of the hospital is \$350,000, the isolation annex \$50,000, and the additional power house \$4,000.

It is stated in *Nature* that the herbarium formed by Mr. Duthie, and hitherto quartered at Saharanpur, has been transferred to the Imperial Forest Institute, Dehra Dun; any correspondence in connection with it should be addressed to the imperial forest botanist of that institute.

THE Second Annual Congress of the Playground Association of America met at the American Museum of Natural History, New York, from September 8 to 12. The association endeavors to show that properly supervised playgrounds help to produce good citizens, and an effort will be made to interest every American city in playgrounds.

IN view of the very rapid development and progress of aerial navigation, it is proposed to establish a section at the Royal Polytechnic School of Naples, in which young engineers shall be trained in all that refers to the problems of flight, so far as it is known, both from a theoretical and practical point of view.

THE condition on September 1, with comparisons, of the various crops investigated by the Bureau of Statistics of the United States Department of Agriculture is as follows:

Crops	September 1			Aug. 1, 1908
	1908	1907	10 year Aver.	
Corn.....	79.4	80.2	81.0	82.5
Spring wheat.....	77.6	77.1	77.9	80.7
Oats.....	69.7	65.5	30.7	76.8
Barley.....	81.2	78.5	83.5	83.1
Buckwheat.....	87.8	77.4	86.5	89.4
Tobacco.....	84.3	82.5	83.7	85.8
Flaxseed.....	82.5	85.4	87.0	86.1
Rice.....	93.5	87.0	88.8	94.6
White potatoes.....	73.7	80.2	80.8	82.9
Sweet potatoes.....	88.7	85.7	85.3	88.8
Tomatoes.....	82.5	82.9	.....	84.5
Cabbage.....	80.3	85.2	.....	84.5
Onions.....	85.8	88.0	.....	88.4
Beans.....	82.8	82.7	.....	.....
Apples.....	52.3	34.7	54.7	52.2
Peaches.....	67.5	30.7	53.0	67.1
Grapes.....	84.6	81.1	83.0	87.1
Pears.....	74.1	.....	.....	70.6
Watermelons.....	80.8	76.3	.....	79.5
Cranberries.....	67.7	77.7	.....	.....
Oranges.....	88.2	84.1	.....	89.1
Lemons.....	92.9	91.4	.....	93.0
Sugar cane.....	91.3	94.1	90.4	88.3
Sorghum.....	85.5	82.4	.....	85.4
Sugar beets.....	86.0	92.4	.....	87.3
Broom corn.....	76.6	82.8	.....	80.3
Hemp.....	73.0	85.9	.....	77.4
Hops.....	79.3	88.5	.....	86.4
Peanuts.....	86.0	85.6	.....	85.5
Cotton (August 25).....	76.1	72.7	73.9	83.0
Alfalfa (production)....	90.7	91.8	.....	88.8
Cloverseed (Acreage compared with pre- ceding year, per cent.)	120.0	99.6	.....	.....
Cloverseed (condition)	89.7	76.5	.....	89.7
Millet.....	86.9	84.4	.....	86.3
Kafir corn.....	85.1	83.1	.....	.....
Hay, yield per acre, tons	1.52	1.45	1.44	.....
Hay, yield, tons (000 omitted).....	67,743	63,677	.....	.....
Hay, quality.....	94.5	90.4	.....	.....
Rye, yield per acre, bu.	16.4	16.4	15.8	.....
Rye, yield, bu. (000 omitted).....	30,921	31,566	.....	.....
Rye, quality.....	92.7	91.6	.....	.....
Stock hogs, No. com- pared with preceding year.....	92.5	10.06	.....	.....
Stock hogs, condition...	94.5	19	.....	.....

THE following facts were taken by Vice-

consul James L. A. Burrell, of Magdeburg, from a brochure by Dr. Ernst Friedrich, of the German commercial high school at Leipzig: The world's lumber trade amounts to \$285,600,000 annually, of which the United States furnishes about 20 per cent., Austria-Hungary 19 per cent., Russia 16 per cent., Canada 13 per cent., Sweden 18 per cent., Finland 10 per cent., Norway 4 per cent. and Roumania also a small quantity. The countries importing wood are those on the highest economical plane, which were themselves in earlier times densely wooded, but whose forests have been denuded to a greater or less extent to make room for agriculture, industry, etc. Only 4 per cent. of the territory of Great Britain is covered with forests, and during the year 1906 that country imported lumber to the value of \$135,561,750. Germany has still 26 per cent. of its territory covered by forests, but imported in 1906 lumber valued at \$61,285,000. Belgium and the Netherlands, that have but 8 per cent. forest lands, Denmark, that has 7 per cent., France and Switzerland, with a small percentage of forest land, are compelled to import lumber. Besides these countries, those lands lying on the dry western side of the subtropical zone lacking forests are forced to import wood. Egypt imports wood and coal to the value of about \$16,660,000 annually; Algeria, Tunis, Spain, Portugal (3 per cent. forest land), Italy, Greece (with 9 per cent. forest land), the eastern part of Asia, British South Africa, the western parts of Chile and Peru, the Argentine Republic and Australia, all poor in wood, are dependent upon import.

THE Royal Commission on Sewage Disposal, appointed by the British government in 1898, has issued its fifth report, which deals chiefly with the relative merits of the various methods which are available for the purification of sewage of towns. The commissioners have held 144 meetings and called before them a large number of witnesses. A number of local authorities have carried out experimental investigations in association with the commission, the members of which have personally inspected a large number of sewage

works. The general conclusion of the commissioners is as follows: "We are satisfied that it is practicable to purify the sewage of towns to any degree required, either by land treatment or by artificial filters, and that there is no essential difference between the two processes, for in each case the purification, so far as it is not mechanical, is chiefly effected by means of microorganisms. The two main questions, therefore, to be considered in the case of a town proposing to adopt a system of sewage purifications are: First, what degree of purification is required in the circumstances of that town and of the river or stream into which its liquid refuse is to be discharged? Second, how the degree of purification required can, in the particular case, be most economically obtained? . . . We may state that we know of no case where the admixture of trade refuse with the sewage makes it impracticable to purify the sewage either upon land or by means of artificial processes, although in certain extreme cases special processes of preliminary treatment may be necessary."

#### UNIVERSITY AND EDUCATIONAL NEWS

By the will of the late Mrs. Jane A. Townsend, Yale University received \$50,000 for the endowment of a professorship of history.

MARYVILLE COLLEGE at Knoxville, Tenn., has received \$5,000 from Mrs. William Thaw, of Pittsburgh.

A FIRE on the fourth floor of McCoy Hall of the Johns Hopkins University, on the night of September 17, destroyed valuable manuscripts and archeological collections and damaged a large collection of books and pamphlets.

THERE were 137 students in attendance at the graduate school of agriculture, held this year at Cornell University, in addition to regular students of the university. In the summer session of the university there were 841 students.

ACCORDING to a press cablegram, the chan-

cellor of St. Petersburg University, Professor Ivan Ivanovic Borgmann and the vice-chancellor, Professor Fedor Alexandrovic Braun, have resigned from the institution. The faculty of the university has sent a collective declaration to M. Schwartz, the minister of education, stating that his recent repressive measures against professors and students endanger peace at the university, and declines to accept the responsibility for disorders that may occur.

IN stating that in 1907 there were in Europe 125 universities, which were visited by 228,732 students, Vice-Consul James L. A. Burrell, of Magdeburg, sends details. Of these the university of Berlin had the largest number of students, viz., 13,884; next came Paris with 12,985, Budapest with 6,551, and Vienna with 6,205. The list by country follows:

Country	No. of Universities	Students
Germany .....	21	49,000
France .....	16	32,000
Austria-Hungary .....	11	30,000
England .....	15	25,000
Italy .....	21	24,000
Russia .....	9	23,000
Spain .....	9	12,000
Switzerland .....	7	6,500
Belgium .....	4	5,000
Sweden .....	3	5,000
Roumania .....	2	5,000
Holland .....	5	4,000

The smaller countries—Greece, Norway, Portugal, Denmark, Bulgaria, and Servia—have each one university.

DR. WILLIAM OSLER, regius professor of medicine at Oxford University, has been elected lord rector of Edinburgh University.

DR. HARRY A. GARFIELD will be installed as president of Williams College on October 7.

MR. ROBERT FORSYTH SCOTT, the author of works on mathematics, has been elected master of St. John's College in place of the late Rev. Dr. Charles Taylor.

THE trustees of the University of North Carolina have made the following appointments: Professor Charles H. Herty to be