

Ohio State (386). Last year there were seven institutions that showed a gain of over three hundred students, California and Columbia being among the number. Omitting the summer session attendance, the largest gains have been made by Cornell (307), Ohio (282), Illinois (241), Columbia (223), Michigan (132), New York University (118) and Virginia (116). It will thus be seen that this year only four institutions exhibit an increase of over two hundred students in the fall attendance, as against seven in 1910 and eleven in 1909.

According to the figures for 1910, the twenty-seven universities included in the table ranked as follows: Columbia, Chicago, Michigan, Harvard, Pennsylvania, Cornell, Minnesota, California, Wisconsin, Illinois, New York University, Nebraska, Northwestern, Yale, Syracuse, Ohio State, Missouri, Texas, Kansas, Indiana, Tulane, Iowa, Stanford, Princeton, Western Reserve, Johns Hopkins, Virginia. Comparing this with the order for 1911, and leaving Minnesota and Nebraska out of consideration, we find that Columbia continues to maintain its long lead, that California has passed from the eighth to the second place, that Cornell has passed from the sixth to the third place, that Michigan and Harvard have each dropped down one place, Pennsylvania two places, and Chicago four, and that Wisconsin and Illinois have advanced a place owing to the change in the Minnesota figures. The balance of the institutions now rank in the following order: New York University, Ohio State, Northwestern, Syracuse, Yale, Nebraska, Missouri, Texas, Kansas, Indiana, Tulane, Iowa, Stanford, Princeton, Western Reserve, Johns Hopkins, Virginia. California is the seventh and Wisconsin the eighth institution to pass the five thousand mark. If the summer session enrollment be omitted, the universities in the table rank in size as follows: Columbia, Cornell, Michigan, Harvard, Pennsylvania, Illinois, Minnesota, California, Wisconsin, New York University, Northwestern, Yale, Syracuse, Ohio State, Chicago, Nebraska, Missouri, Kansas, Texas,

Iowa, Stanford, Princeton, Indiana, Western Reserve, Tulane, Virginia and Johns Hopkins, the order of the first ten institutions last year on this basis being Columbia, Minnesota, Michigan, Pennsylvania, Harvard, Cornell, Illinois, California, Wisconsin, New York University.

The detailed statistics by faculties will hereafter be given in the spring, in order that the final figures for the year may be provided instead of the preliminary registration only. The number of students entering in the second term at the larger institutions is growing constantly, and as a result the final enrollment frequently shows a considerable increase over that of November first. The changes in attendance, equipment, etc., will also be submitted at that time.

The fall enrollment at a number of prominent colleges (for men and for women) and schools of technology is given in the following table:

Institution November 1	1911	1910	1904
Amherst.....	464	502	412
Brown (incl. graduate school)...	933	930	988
Bryn Mawr (incl. graduate school).....	440	409	441
Dartmouth (incl. eng., med., grad., stud., and commerce)...	1,385	1,229	926
Haverford.....	164	150	146
Lehigh	599	616	609
Massachusetts Institute of Technology.....	1,610	1,506	1,561
Mount Holyoke.....	771	743	674
Purdue	1,762	1,611	1,359
Smith	1,508	1,618	1,067
Wellesley	1,433	1,378	1,050
Wesleyan	395	365	305
Williams.....	533	541	443

RUDOLF TOMBO, JR.

COLUMBIA UNIVERSITY

SCIENTIFIC NOTES AND NEWS

PROFESSOR EDWARD C. PICKERING, director of the Harvard College Observatory, has been elected president of the American Association for the Advancement of Science, to preside at the meeting to be held at Cleveland, Ohio, beginning on December 30, 1912.

PROFESSOR E. L. THORNDIKE, of Teachers College, Columbia University, was elected

president of the American Psychological Association at the recent Washington meeting.

COLONEL WM. P. GORGAS has been elected president of the ninth Congress of American Physicians and Surgeons, which meets in Washington in May, 1913.

PROFESSOR H. L. FAIRCHILD, of the University of Rochester, has been elected president of the Geological Society of America.

THE following have been elected foreign members of the Royal Society: Dr. Johann Oscar Backlund, of Pulkowa, imperial astronomer of Russia; Dr. Heinrich Ritter von Groth, professor of mineralogy in the University of Munich; Heinrich Kayser, professor of physics in the University of Bonn; M. Joseph Achille Le Bel, of Paris, the chemist, and Klement A. Timiriacheff, professor of botany in the University of Moscow.

LORD CROMER and the Hon. Lionel Walter Rothschild have been elected fellows of the Royal Society under the statute which empowers the council once in every two years to recommend to the society for election not more than two persons who in their opinion have rendered conspicuous service to the cause of science.

DR. CARLOS FINLAY, of Havana, has been elected a corresponding member of the Paris Academy of Medicine.

It is stated in *Nature* that Professor G. Elliot Smith, F.R.S., professor of anatomy in the University of Manchester, has been awarded by the Paris Anthropological Society the Prix Fauvelle, of one thousand francs, for his researches in the anatomy and physiology of the nervous system.

GOVERNOR DIX has requested the resignation of Dr. Alva H. Doty as health officer of the Port of New York. Two weeks before a largely attended meeting of physicians of the New York Academy of Medicine, presided over by Dr. Abraham Jacobi, had passed resolutions requesting the reappointment of Dr. Doty, and referring to the admirable manner in which he had filled the position for the past sixteen years.

PROFESSOR VON WASSERMANN, the bacteriologist, has been appointed honorary professor at Berlin.

PROFESSOR ZIEMANN has resigned the charge of the public health service in Cameroon, Africa, on account of his health.

E. W. RUST, A.B. (Stanford), formerly at the Southern California Laboratory, has contracted with the Peruvian government for eighteen months as first assistant entomologist. He arrived in Peru early in December.

MR. L. H. WORTHLEY, assistant state forester of Massachusetts, in charge of the moth work, has accepted a position in the Bureau of Entomology. He will proceed to Europe to study the conditions on the continent.

MR. FLOYD B. JENKS, assistant professor of agricultural education in the Massachusetts Agricultural College, has accepted an appointment in the Bureau of Education.

PROFESSOR FINKLENBURG, of Bonn, has assumed the direction of the hydrotherapeutic institute, Berlin, as successor to Professor Strasburger.

Nature states that the presentation of a testimonial to Mr. Henry Keeping on his retirement from the post of curator of the Geological Museum, Cambridge, took place in the Sedgwick Museum on Saturday, December 2, when Professor T. McKenny Hughes handed him a purse subscribed by old friends and students in recognition of his long and valuable services. Mr. Keeping entered upon his duties as curator fifty years ago under Professor Sedgwick in the old Woodwardian Museum, where the geological department was located until its removal into the Sedgwick Museum in 1904.

PROFESSOR W. E. CASTLE, of Harvard University, who has left Cambridge to visit a number of countries of South America, chiefly Peru, wishes to obtain certain rodents for experimental work in genetics at the Bussey Institution. Part of the expenses of Professor Castle's trip are borne by the Carnegie Institution. He expects to return to Cambridge about February 1, although his trip may be prolonged until the first of March.

HIRAM BINGHAM, professor of Latin-American history at Yale University, has returned from a six months' journey of exploration in Peru.

It is stated in *The Condor* that Mr. W. Leon Dawson spent a portion of the field season in out-door work contributory to his projected "Birds of California." The Farallone Islands and the Mount Whitney region were visited.

MR. W. BATESON, F.R.S., director of the John Innes Horticultural Institution at Merton, Surrey, has been appointed the next Herbert Spencer lecturer at Oxford. The subject of the lecture, which will be given on February 28, is "Biological Fact and the Structure of Society."

WE learn from *Nature* that the dean of Westminster, with the full concurrence of the chapter, offered to the family to permit the interment of Sir Joseph Hooker's ashes in the abbey, on the condition that his remains were previously cremated. The family has felt obliged to decline the offer as it was Sir Joseph's express wish that he should be buried by the side of his father at Kew. The funeral took place at Kew Parish Church on December 15.

MR. WILLIAM THYNNE LYNN, formerly assistant in the Royal Observatory, Greenwich, and the author of various contributions to astronomy, especially on its history, died on December 11, aged seventy-six years.

DR. DAVID STARR JORDAN, of Stanford University, one of the vice-presidents of the first international eugenics congress to be held at the University of London from July 24 to 30, 1912, has accepted the presidency of the consultative committee for the United States. The officers of the congress hope that it will result in a far wider recognition of the necessity for an immediate and serious consideration of eugenic problems in all civilized countries. The proof of this necessity must be based on the laws of heredity, on the history of the changes in racial characteristics in the past, and on what is known concerning the effect of all the many biological and social factors which tend either to improve or de-

teriorate the innate qualities of mankind. If this field should be covered in a wide and comprehensive manner in the papers presented to the congress, including an adequate discussion of the general nature of the reforms, moral and legislative, necessary for insuring the progress of the race, the records of the proceedings would form a presentment of the case for eugenic reform which would assuredly be of great value to both the legislator and the social reformer. To achieve such a result should be the main object, rather than the attempt to make the congress an arena for the discussion of academic questions mainly of interest to scientific investigators.

THE Society for Biological Research of the University of Pittsburgh held the first of its special meetings for the year 1911-12 on December 14, at which time Dr. George Neil Stewart, professor of experimental medicine and director of the Cushing Laboratory at Western Reserve University, presented to the society the results of some of his recent work on the rate of the blood-flow in man. This plan of special lectures was inaugurated during the year 1910-11, by addresses on the "Hypophysis," by Dr. Harvey K. Cushing, of Johns Hopkins University, and on "Habit," by Dr. J. George Adami, of McGill University.

THE President of Venezuela has issued a decree creating a National Bureau of Sanitation. Under its auspices will be inaugurated an Institute of Hygiene, which will be composed of a laboratory of bacteriology and of parasitology, a veterinary department, and a central station of disinfection. The staff of the bureau will be composed of a director, a subdirector, a bacteriologist, an engineer, a biologist, a veterinary surgeon, an inspector general, two technical aids, a secretary and two laboratory assistants.

THE Boston *Transcript* states that a bill intended to give effect to the convention between the United States, Great Britain, Japan and Russia for the preservation and protection of the fur seals in the waters of the North Pacific Ocean will be considered by the house committee on foreign affairs very soon after

congress reconvenes. The treaty was concluded here last July and the final exchanges of ratifications between the governments ended two weeks ago. It now remains necessary only for the required legislation to be enacted. The bill to put the terms of the treaty into effect declares that no citizen of the United States shall kill or capture fur seals in the Pacific Ocean or seas of Bering, Kamschatka, Okhotsk or Japan north of the thirteenth parallel of north latitude, or kill sea otter in any of the waters beyond three miles from the United States shore line. Further, it is recited that no citizen of the United States shall equip or aid in equipping vessels to be used in pelagic sealing in these waters; that the importation of fur seal skins taken in those waters be prohibited except such as have been taken under authority of the respective governments parties to the convention to which the breeding grounds belong. Heavy penalties are provided by the bill for violations of its provisions.

THE value of the total mineral output of Alaska in 1911 is estimated at \$20,370,000, compared with \$16,883,878 in 1910. The gold output in 1911 is estimated to have a value of \$17,150,000; that of 1910 was \$16,126,749. It is estimated that the Alaska mines produced 22,900,000 pounds of copper in 1911, valued at about \$2,830,000; in 1910 their output was 4,241,689 pounds, valued at \$538,695. The silver production in 1911 is estimated to have a value of \$220,000, compared with \$85,236 for 1910. The value of all other mineral products in 1911, including tin, marble, gypsum and coal, was about \$170,000, an increase over that of 1910. By using the above estimates for the output of 1911, the total value of Alaska's mineral production since 1880, when mining first began, is found to be, in round numbers, \$206,600,000, of which \$195,950,000 is represented by the value of the gold output. The total production of copper in Alaska since 1901, when systematic mining of this metal began, is about 56,700,000 pounds, valued at about \$8,170,000.

MR. N. HOLLISTER, assistant curator of the division of mammals, U. S. National Museum,

announces the discovery of four new animals from the Canadian Rockies, in a paper just published by the Smithsonian Institution. During last summer a small party of naturalists from the Smithsonian Institution accompanied the expedition of the Alpine Club of Canada, to the Mount Robson region, where they made the first natural history collection ever taken in that vicinity. The paper mentioned above is the first publication issued by the institution on this expedition, although Mr. J. H. Riley, a member of the party, has written a description of two new species of birds discovered on the trip, which has recently been published in the *Proceedings* of the Biological Society of Washington; both of the birds are of the sparrow family, one a song sparrow, and the other a fox sparrow. The natural history work of the expedition was under the charge of Mr. Hollister. He paid especial attention, however, to the mammals, four of which he describes, a chipmunk, a manted ground-squirrel and two bats. All the specimens come from the neighborhood of Mount Robson, which lies in one of the wild and unexplored parts of British Columbia, at about 14,500 feet elevation.

THE Bureau of American Ethnology is preparing a new work which will form a "Handbook of Aboriginal Remains in the United States, and will have to do with the ancient abodes, camps, mounds, workshops, quarries, burial places, etc., of the Indian tribes. In connection with this work, Mr. F. W. Hodge, ethnologist in charge of the Bureau of American Ethnology, is sending letters of inquiry to all persons thought to have any knowledge of the subject of this undertaking, as well as to all institutions and societies interested in American archeology and ethnology. The letter requests all information respecting the location, character and history of the remains left by the Indians, or other indications of their former occupancy. In 1891 a catalogue of prehistoric works east of the Rocky Mountains was published, but that work is both out of date and out of print. It was compiled by Dr. Cyrus Thomas and

several collaborators. A large territory was covered in the first book and judging from the large map of the eastern United States, the parts of this country most densely populated by the aborigines must have been the basins of the Mississippi and Ohio rivers and the southern shores of the Great Lakes, although there are indications of many settlements on the Atlantic coast, especially in Florida. A large map showed all the locations, and smaller maps, of which there was one for each state, indicated the nature of each site by a special symbol. In the cartographic list, one found the meanings of the symbols readily; a single house drawn in outline represented a wooden lodge, while two houses represented a village; a grave was indicated by a special figure; a mound by the same figure reversed, and so on; enabling one, with a little study, to see at a glance exactly what was located at a certain point. It is not expected that the prospective work on Indian antiquities will be issued for many months. Following the precedent of the old report, the new one in completion, will show, to even a greater and more extensive end, all available information. It is proposed to classify the former Indian remains by states and counties, and to illustrate the publication with maps, photographs and drawings.

UNIVERSITY AND EDUCATIONAL NEWS

THE University of Edinburgh has received from the trustees of the estate of Mr. Robert Irvine the sum of £30,000, to establish a chair of bacteriology.

THE Cambridge council has voted the closing of the streets which cross the fifty acres of land fronting on the Charles River which the Massachusetts Institute of Technology proposes to purchase.

A NEW plan for the administration of the College of Agriculture, Cornell University, has been enacted by the university board of trustees to go into effect on January 1, 1912. The management of the college will be subject to the general supervision and control of the full board of trustees, and the immediate

supervision, instead of being in the hands of the executive committee of the board, as now, will be entrusted to a special committee of eleven persons to be known as the Agricultural College council. Director Bailey has consented to remain at the head of the college long enough to put the new plan in substantial operation.

THE Annual Farmers' Short Course at the University of Missouri will be given this year beginning January 8 and continuing throughout the week. It is planned to give six short courses on soils and farm crops, animal husbandry, farm management, dairy husbandry, horticulture and poultry husbandry. The class rooms and laboratories of the Agricultural College will be thrown open during this week to the farmers of Missouri. The entire teaching force of the college, consisting of more than forty men, will, by lecture and demonstration, give instruction in the subjects and will describe the experiments conducted by the Experiment Station. The state board of agriculture, cooperating with the college, has provided for the evening lectures. President K. L. Butterfield, of Massachusetts; Dean H. L. Russell, of Wisconsin; Jos. E. Wing, of Ohio; A. N. Abbott, of Illinois; Herbert Krum, of Kentucky; Uriel W. Lamkin, of Missouri, and many others will address the farmers. The annual Farmers' banquet, given by the College of Agriculture and consisting largely of products grown on the college farm, will be given Friday night, January 12. The beef will be from an international prize winner, the cream and butter from the Dairy Department and fruits and vegetables from the Department of Horticulture. Governor Herbert S. Hadley will be present during the week.

THE minister of education has laid before the Hungarian parliament a bill which provides for the erection of two new universities in Hungary, in the cities of Pressburg and Debreczin.

PROFESSOR E. G. MONTGOMERY, of Nebraska University, has been appointed professor of