autonomy as is consistent with the welfare of the university as a whole. It should elect its minor officers and nominate its professors. The nominations for professorships should be subject to the approval of a board of advisers constituted for each department, consisting, say, of two members of the department, two experts in the subject outside the university and two professors from related departments. The final election should be by a university senate, subject to the veto of the trustees. The same salaries should be paid for the same office and the same amount of work. election should be for life, except in the case of impeachment after trial. The division should have financial as well as educational Its income should be held as a autonomy. trust fund and it should be encouraged to increase this fund.

5. The departments or divisions should elect representatives for such committees as are needed when they have common interests, and to a senate which should legislate for the university as a whole and be a body coordinate with the trustees. It should have an executive committee which would meet with a similar committee of the trustees. There should also on special occasions be plenums of divisions having interests in common and plenums of all the professors or officers of the university. There should be as much flexibility and as complete anarchy throughout the university as is consistent with unity and order.

J. McKeen Cattell.

## SCIENTIFIC NOTES AND NEWS.

Father J. G. Hagen, S.J., professor of astronomy in Georgetown University, and director of the observatory, has been offered the directorship of the Vatican Observatory,

MR. ARTHUR STANLEY EDDINGTON, B.A., B.Sc. (Manchester), of Trinity College, Cambridge, senior wrangler in 1904, has been appointed chief assistant in the Royal Observatory, Greenwich.

DR. PAUL G. WOOLLEY, director of the serum laboratory of the Bureau of Science in the Philippines, has accepted under the govern-

ment of Siam the directorship of the pathological laboratory, which it is proposed to start as soon as Dr. Woolley can reach Bangkok.

Professor James Mills Peirce, Perkins professor of mathematics and astronomy at Harvard University, has presented his resignation to take effect a year hence. Professor Peirce was appointed tutor in mathematics at Harvard in 1854.

Professor C. W. Pritchett has retired at the age of eighty-three, after thirty years' service, from the directorship of the Morrison Observatory at Glasgow, Missouri. He is succeeded by Mr. H. R. Morgan, formerly of the U. S. Naval Observatory.

Dr. WILLIAM OSLER, regius professor of medicine at Oxford University, has been elected a member of the Athenæum Club, under the provisions which empower the annual election of nine persons 'of distinguished eminence in science, literature, the arts, or for public services.'

Professor Percy F. Frankland was elected president of the Institute of Chemistry of Great Britain and Ireland at the twenty-eighth annual meeting held on March 1. Professor Frankland's father, Sir Edward Frankland, was the first president of the institute.

Dr. Hugo de Vries, professor of botany at Amsterdam, will present a paper on 'Elementary Species in Agriculture,' at the meeting of the American Philosophical Society, on April 18.

Dr. E. D. FISHER has been appointed chairman of the committee on the centennial celebration of the Medical Society of the County of New York, which will be held at the Hotel Astor on April 4.

MR. DUDLEY MOULTON, A.B. (Stanford, '04), has been appointed a field agent of the Division of Entomology, U. S. Department of Agriculture.

Dr. W. C. Farabee, instructor in anthropology at Harvard University, took a party of Harvard students to Iceland during the summer. Mr. V. Stefánsson, Hemenway fellow in anthropology, and Mr. J. W. Hastings

(Harvard, '05) explored old Icelandic burial places and made a collection of skeletons of the earliest people of the island. Mr. Hastings also made anthropometric measurements of many of the Icelanders. The caves of Iceland are of volcanic origin and show no indication of having been occupied by man. stone implements have ever been found on the These investigations led to the conclusion that the island was probably not inhabited prior to its settlement by the Norwegians in A.D. 874. Researches and collections were made by members of the party in geology and ornithology.

It is announced that the 'Reale Istituto Veneto di Scienze Lettere ed Arti' has decided to undertake a systematic study of the geophysical phenomena which, directly or indirectly, concern the lagoon of Venice. A special committee has been appointed for the purpose, and preliminary investigations on the subject of the tidal waves of the upper Adriatic, and the rivers flowing into it and the lagoon of Venice have been set on foot. They have been placed in charge of Dr. G. P. Magrini, who will be assisted by Professors L. de Marchi and T. Gnesotto, of the University of Padua.

Dr. Hendrik Antoon Lorentz, professor of mathematical physics in the University of Leiden, will give a course of lectures at Columbia University on the theory of electrons and its application to the phenomena of light and radiant heat. The program is as follows:

Friday, March 23, 4 to 6 P.M.; Saturday, March 24, 10 to 12 A.M.; and Friday, March 30, 4 to 6 P.M.—General principles; theory of free electrons. Saturday, March 31, 10 to 12 A.M., and Friday, April 6, 4 to 6 P.M.—Emission and absorption of heat.

Saturday, April 7, 10 to 12 A.M.; Wednesday, April 11, 4 to 6 P.M.; and Thursday, April 12, 4 to 6 P.M.—The Zeeman effect. Propagation of light in ponderable bodies.

Thursday, April 26, 4 to 6 P.M., and Friday, April 27, 4 to 6 P.M.—Optical phenomena in moving systems.

Professor Alexander Müller, known for his work in agricultural chemistry, has died in Rysby, Sweden, at the age of seventy-eight years. ONE or two computers will be needed in the near future at the Pasadena office of the Solar Observatory of the Carnegie Institution. Their work will consist in the measurement and reduction of photographs of the sun and of solar spectra. Applications may be sent to Mr. W. S. Adams, superintendent of computing division, Solar Observatory Office, Pasadena, Cal.

A BEGINNING has been made with the building of the new Magnetic Observatory at Esk-dalemuir, which is to take the place of the present observatory at Kew. The observations at Kew have been affected by disturbances caused by electric installations, etc. Eskdalemuir is fifteen miles from a railway, in a high-lying pastoral district.

THE daughters of the late Dr. Edward Sang have given his collection of trigonometrical and astronomical calculations in manuscript to the Royal Society of Edinburgh. The gift also includes a collection of scientific manuscripts by Dr. Sang.

THE twenty-third congress for 'Innere Medizin' will take place at Munich from April 23 to 26, under the presidency of Professor von Strümpell. An exhibition of medical preparations, apparatus and instruments will be held.

The Medical Record states that in spite of some opposition on the ground of interference with state rights, the house committee on interstate and foreign commerce has agreed to make a favorable report on a committee substitute for the Williams bill to extend federal control of quarantines. According to the plan proposed the secretary of the treasury is placed in direct control of quarantine, and is to administer it through the Public Health and Marine Hospital Service. The bill carries an appropriation of \$500,000.

A BILL has been introduced into both houses of the New York legislature, which prohibits the manufacture and sale of medicinal preparations containing alcohol or other narcotic or poisonous drugs unless the formula, both qualitative and quantitative, is printed on the label in plain English.

We learn from the Journal of the American Medical Association that arrangements have been completed for the transfer of the medical department of the Newberry Library, Chicago, including the Senn collection on medical history, to the ownership and management of the John Crerar Library. This has been done partly because the natural relation of these books to the chosen field of the John Crerar Library and the lack of such relations to that of the Newberry Library make the transfer in many ways mutually advantageous, and partly because the medical profession of Chicago has urged strongly the desirability of a more central location.

The Boston Transcript states that the Gray Herbarium, connected with the Bussey Institution, has recently received from the Botanical Museum at Copenhagen a valuable collection of some 300 specimens of Scandinavian and Iceland flora. The North American collection has been enlarged by exchanges with the Geological Survey of Canada. Mr. F. S. Mathews has been added to the herbarium staff as artist.

We learn from The Geographical Journal that in consequence of the archeological discoveries made by Professor Grünwedel at Turfan (Eastern Turkestan) in 1903, the German government sent an expedition to the same place in the following year under the direction of Dr. A. von Lecoq, of the Royal Prussian Ethnological Museum. Dr. von Lecoq, assisted by Herr Bartus, arrived at Chugutchak in October, 1904, and thence traveled to Kara Khoja (Dakiyanos), in the vicinity of Turfan, remaining there nine months, and excavating a number of caves and stupas. The finds have been most abundant, some hundred boxes of antiquities having been sent to Europe. These antiquities consist of heads of statues, showing Greek and Indian influence, well-preserved wall paintings from ruined temples, coins, and a large quantity of manuscripts in no less than seven kinds of writings, namely, Uigur, Brahmi, Tibetan, Kük Turki, Manichean (some manuscripts illuminated), Syriac and Chinese. Dr. von Lecoq and Herr Bartus left Turfan for Kashgar in October last, and at Kashgar they have been joined by Professor Grünwedel and Herr Phurt, who have arrived from Berlin  $vi\hat{a}$  Russian Turkestan. The party is now preparing to go to Kuchar, where systematic excavations are to be undertaken.

AT a meeting of the Zoological Society of London, held on February 22, it was announced that it had accepted an interesting and valuable collection of Indian animals. The collection has been made by the government of Nepal for presentation to the Prince of Wales, who had kindly agreed to send it to the society's gardens for exhibition. The Duke of Bedford, the president of the society, had generously promised to defray the cost of transport to England. The council expect the animals to arrive in June of this year, and hope to arrange for their exhibition in the gardens as a separate collection during the coming summer and autumn.

In its annual report to the Carnegie Trustees, the executive committee of the trust stated, as we learn from the London Times, that, under the scheme of allocation for five years of an annual grant of £40,000 among the four Scottish universities, which became operative in January, 1903, sums amounting to £38,860 had been claimed and handed over during the year 1905, making for the past three years a total expenditure of £97,240. On the subject of the scheme of endowment of post-graduate study and research for the academic year 1905-6, the report stated that appointments were made to sixteen fellowships and twenty-seven scholarships; and grants of various amounts were made to forty-three ap-The total expenditure under this scheme was £4,526. In the research laboratory of the Royal College of Physicians, Edinburgh, the superintendent had reported that during the past year thirty-six workers held places and had been engaged in forty-nine investigations. Of these workers, thirty-twowere graduates of Edinburgh University and nine held grants from, or were in other ways beneficiaries under the Carnegie Trust. payment of class fees of beneficiaries had been carried out as in previous years.

number of beneficiaries from the institution of the trust in 1901 until December last was 6,325; and the total amount paid in fees on behalf of students for class attendances for the year 1905 was £47,853, as against £45,903 in 1904, £44,104 in 1903, and £40,285 in 1902.

## UNIVERSITY AND EDUCATIONAL NEWS.

Mrs. W. S. Bullard, of Boston, has given \$50,000 to the Harvard Medical School, to establish a chair of neuro-pathology.

Mr. Andrew Carnegie has offered to give \$75,000 to Amherst College on condition that an equal sum be given by others for the construction and endowment of a building for biology and geology.

Mrs. John C. Whitin, who gave the present observatory and the now practically completed addition to Wellesley College, has added a residence for the members of the observatory staff.

The Clarke School for the Deaf at Northampton, Mass., will receive an annual income of \$1,500 to enlarge the training school facilities from the fund recently received by the Association for Teaching Speech to the Deaf, given to them by Dr. Graham Bell. Dr. Bell became heir to about \$75,000 from the estate of his father, Dr. Melville Bell, the inventor of the system of visible speech, and he made over this sum to the association. His condition was that it should be used as a permanent memorial of his father's connection with the subject, the homestead in Georgetown, D. C., to become the office of the association, for printing, etc., and about half the property to have its income devoted to the training of teachers of the oral method.

THE William H. Baldwin, Jr., Memorial Fund for the Tuskegee Institute amounts to more than \$150,000.

THE Goldsmiths' Company has made a grant of £10,000 to the Institute of Medical Sciences Fund, University of London, on the assumption that a site will be provided for the institute at South Kensington.

THE Association of American Universities held its annual meeting at the University of

California, Stanford University and San Francisco last week. The scientific program was as follows:

Interchange of professors in universities: Papers presented on behalf of the University of California, by President Benjamin Ide Wheeler, and of Harvard University, by Professor William James.

To what extent should professors engaged in research be relieved from instruction: Papers presented on behalf of Leland Stanford Junior University, by President David Starr Jordan, and of Yale University, by Professor Theodore S. Woolsey.

The reaction of graduate work on the other work of the university: Paper prepared by President Jacob Gould Schurman, presented by a representative of Cornell University.

The organization of the American university with especial reference to the changes in the conception of a 'faculty': Paper presented on behalf of Princeton University, by Professor Andrew F. West.

NORTON A. KENT, Ph.D., has been elected to the chair of physics at Boston University and will enter upon his duties at that institution in the fall.

Dr. James Barnes has been elected associate in physics in Bryn Mawr College.

Dr. James Burt Miner, B.S. (Minnesota, '97), Ph.D. (Columbia, '03), has been appointed assistant professor of psychology at the University of Minnesota. Dr. Miner is at present assistant professor of philosophy at Iowa University. He will have charge of the new laboratory now being equipped at Minnesota and also of the work in educational psychology.

Dr. E. C. Moore, professor of education at the University of California, has been appointed dean of the coming session of the University of California Summer School. After the summer session Dr. Moore will go to Los Angeles to assume the duties of superintendent of schools of that city.

PROFESSOR GEORGE H. PALMER, of Harvard University, has been elected lecturer in ethics for next year at Yale University, and Dr. Henry Rutgers Marshall of New York City has been elected lecturer in esthetics and psychology.