Chemical.—(2) Charles E. Fawsitt, B.Sc., Edinburgh (second year); (3) James C. Irivine, B.Sc., D.Sc., St. Andrews (second year); (4) William Maitland, B.Sc., Aberdeen (second year).

Biological.—(5) John Cameron, M.B., Ch.B., Edinburgh (second year); (6) Francis H. A. Marshall, B.A., Cambridge, D.Sc., Edinburgh; (7) Henry J. Watt, M.A., Aberdeen.

Pathological.—(8) Carl H. Browning, M.B., Ch.B., Glasgow; (9) John C. G. Ledingham, M.A., B.Sc., M.B., Ch.B., Aberdeen; (10) S. A. K. Wilson, M.A., M.B., Ch.B., Edinburgh:

Historical.—(11) Richard Bell, M.A., B.D., Edinburgh; (12) Duncan MacKenzie, M.A., Edinburgh (second year).

Grants for research are made as follows:

Physical.—(1) George A. Carse, M.A., B.Sc., Edinburgh; (2) Professor MacGregor, Edinburgh University; (3) Thomas Oliver, B.Sc., Edinburgh; (4) William Peddie, B.Sc., lecturer in natural philosophy, Edinburgh University.

Chemical.—(5) Professor G. G. Henderson and Dr. Gray, Glasgow and West of Scotland Technical College (second year); (6) A. N. Meldrum, D.Sc., assistant in chemistry, Aberdeen University (second year).

Biological.—(7) James H. Ashworth, D.Sc., assistant in zoology, Edinburgh University (second year); (8) John Beard, D.Sc., lecturer in embryology and invertebrate zoology, Edinburgh University (second year); (9) Cyril Crossland, B.A., B.Sc., assistant in zoology, St. Andrews University; (10) Professor J. Cossar Ewart, M.D., Edinburgh University (second year); (11) Professor Paterson, West of Scotland Agricultural College, Glasgow; (12) John Rennie, D.Sc., assistant in zoology, Aberdeen University (second year); (13) William G. Smith, B.Sc., St. Amdrews: (14) David Waterston, M.A., M.D., assistant in anatomy, Edinburgh University (second year); (15) John H. Wilson, D.Sc., St. Andrews (second year); (16) Professors R. Patrick Wright and A. N. M'Alpine, West of Scotland Agricultural College, Glasgow.

Anatomical.—(17) Edward B. Jamieson, M.B., Ch.B., demonstrator of anatomy, Edinburgh University.

Pharmacological.—(18) Professor R. Stockman, Glasgow University.

Pathological.—(19) James Kerr Love, M.D., Glasgow (second year); (20) Edwin Bramwell, M.B., F.R.C.P.E., Edinburgh; (21) Professor Carstairs C. Douglas, B.Sc., M.D., Anderson's College Medical School, Glasgow (second year); (22) Alexander H. Edwards, M.B., C.M., Edinburgh

(second year); (23) Alexander Goodall, M.D., Edinburgh (second year); (24) J. M. Kirkness, M.B., Ch.B., Edinburgh; (25) Professor Robert Muir, M.D., Glasgow University (second year); (26) Peter Paterson, M.B., assistant in surgery, Glasgow University; (27) W. B. Inglis Pollock, M.B., Ch.B., Glasgow; (28) Benjamin P. Watson, M.B., Ch.B., Edinburgh; (29) John M. Bowie, M.D., Edinburgh; (30) James Scott, M.D., Edinburgh (second year); (31) Douglas Chalmers Watson, M.B., F.R.C.P.E., Edinburgh.

Historical.—(32) William Cramond, M.A., LL.D., Aberdeen (second year); (33) Professor W. M. Ramsay, M.A., D.C.L., LL.D., Litt.D., Aberdeen University (second year).

Economical.—(34) William R. Scott, M.A., D.Phil., lecturer in political economy, St. Andrews University.

Linguistic.—(35) Kenneth MacKenzie, M.A., Glasgow.

## SCIENTIFIC NOTES AND NEWS.

Dr. Hermann Knapp, emeritus professor of ophthalmology in Columbia University, has celebrated at Giessen the fiftieth anniversary of his doctorate, when the diploma was renewed.

Albert von Reinach, the geologist of Frankfort on Maine, has been made an honorary doctor of philosophy by the University of Marburg.

Professor V. M. Spalding has resigned the chair of botany in the University of Michigan. His address after October 15 will be Tucson, Arizona, where he will continue his work begun last year at the Desert Laboratory.

Professor W. H. Pickering, of Harvard University, is at present at Mt. Lowe Observatory, California, continuing his observations on the moon.

Dr. J. Wesley Hoffmann is here studying the cultivation of cotton on behalf of the British government.

Professor Melville T. Cook, of the department of biology at De Pauw University of Indiana, has been made chief plant pathologist by the Cuban government.

Dr. Sidney D. Wilgus, of New York City, has been appointed by the State Commission in Lunacy as chief examiner, under the law passed by the last legislature creating a state board of alienists.

SCIENCE.

Dr. George F. Shrady, who has been editor of the *Medical Record* since its establishment thirty-eight years ago, has retired and is succeeded by Dr. Thomas L. Stedman.

The Middlemore prize of the British Medical Association for the best original work on ophthalmology during the past two years has been awarded to Mr. J. H. Parsons.

The Academy of Sciences, Berlin, has made a number of subsidies including 2,300 Marks to Professor Adolf Engler for the continuation of his work, 'Das Pflanzenreich'; 1,020 Marks to Dr. Emil Warburg for his investigation on the specific heat of gases at high temperatures, and 1,000 Marks to Professor Walter Kaufmann for investigations on electrons.

Dr. Judson F. Clark, of the Bureau of Forestry and instructor in the New York State College of Forestry at the time of its discontinuance, has been appointed provincial forester of Ontario.

Dr. Hans Battermann, astronomer at the Berlin Observatory, has been made director of the observatory and professor of astronomy at Königsberg.

Captain Arthur Mostyn Field, R.N., has been selected for the appointment of hydrographer of the British navy on the retirement of Rear-Admiral Sir William J. L. Wharton, K.C.B., F.R.S.

A COMMITTEE has been formed in Bourg to erect a monument in memory of the astronomer Jerome Lalande.

The British Medical Journal reminds us that July twentieth was the hundredth anniversary of the birth of Sir Richard Owen at Lancaster, where an inscription on a house in Thurnham Street records the place of his birth.

Dr. Franz Hilgendorf, curator in the Museum of Natural History of Berlin, died on July 6, at the age of sixty-four years.

By the will of the late Frances Skinner Willing, of Chicago, the Mark Skinner Library at Manchester, Vt., will receive \$40,000 as an endowment fund.

THERE will be a civil service examination on September 7, to fill a vacancy in the position

of laboratory assistant in pharmacology in the Bureau of Plant Industry, Department of Agriculture, at \$750 per annum.

Representatives of the principal South American states met at Rio Janeiro from June 5 to 12, to consider measures of sanitary prophylaxis.

Seventy-four members of the British Institution of Electrical Engineers have signified their intention of attending the Electrical Congress at St. Louis. Among them are the president, R. J. Gray Esq., Professor John Perry and Dr. R. T. Glazebrook.

The American Neurological Association will hold its next annual meeting at St. Louis, on September 15, 16 and 17, 1904, under the presidency of Dr. James W. Putnam, of Boston.

Nature states that arrangements have been made which will make it unnecessary to close the Museum of Practical Geology, Jermyn Street, for a month in autumn as heretofore; the museum will therefore remain open to students and visitors daily.

THE Ziegler relief expedition arrived at Vardo, Norway, on board the *Frithjof*, on July 3, on its return from the north. Owing to ice and fog it did not succeed in reaching the *America*, having on board the Ziegler-Fiala arctic expedition. The *Frithjof* will sail north again as soon as possible.

We learn from *Nature* that the following excursions have been arranged in connection with the Cambridge meeting of the British Association which opens on August 17:

Audley End and Saffron Walden.—Audley End House will be visited by permission of the Lord Howard de Walden; the church and museum in Saffron Walden form other items in the program.

Brandon and Didlington Hall.—The most attractive features of this excursion will be the flint knapping industry at Brandon, Lord Amherst's Egyptian collections, rare books and illuminated MSS. at Didlington Hall.

Cromer.—Mr. Clement Reid, F.R.S., has arranged an attractive itinerary for those interested in the geology of the Norfolk coast.

Dykes of Cambridge.—This excursion includes an inspection of the well-known Fleam Dyke and Devil's Ditch, under the guidance of Professor Ridgeway; opportunity will also be afforded for botanizing on the dykes. By the invitation of Mr. Richard Marsh, trainer to H. M. the king, tea will be provided at Egerton House, Newmarket.

Ely.—A visit to the cathedral, a building of exceptional architectural interest, under the guidance of the dean, forms the most important feature of this excursion.

Wicken Fen and Upware.—Members will travel from Cambridge to Upware in steam launches. This excursion is likely to be of considerable interest to geologists, entomologists and botanists.

Hatfield and St. Albans.—A visit to Hatfield House, by permission of the Marquis of Salisbury, visits to St. Albans Abbey, the site of Verulam, the sites of the battlefields of St. Albans, and the orchid houses of Messrs. Sanders, form the chief attractions.

Lincoln.—The exceptional architectural and archeological features of Lincoln seemed to the committee sufficient justification for arranging an excursion to this city, in spite of its distance from Cambridge. The mayor of Lincoln invites members to tea in the Castle grounds.

Norwich.—The cathedral, the hospital of St. Giles, and St. Andrew's Hall are the most important buildings to be visited. Hospitality is offered by the mayor of Norwich, and by Mr. and Mrs. James Stuart.

Sandringham, Lynn and Castle Rising.—This excursion, which is likely to prove one of the most popular, includes visits to the Lynn churches, the castle and church at Castle Rising, also the grounds, kennels, stables and dairy at Sandringham. Tea will be provided by invitation of H. M. the king.

Wisbech.—The lord lieutenant of Cambridgeshire has kindly invited members of the association to visit the old-world town of Wisbech, and facilities will also be afforded for inspecting the word works.

According to *Nature* the new hall of the Royal Horticultural Society in Vincent Square, Westminster, was opened on July 22. The building, which includes a library, offices, council chambers, and a lecture room, in addition to the large hall in which the society will hold its fortnightly exhibitions, has been built to celebrate the centenary of the society. In the address which Sir Trevor Lawrence read to the King and Queen the work of the Royal Horticultural Society was reviewed, and in

regard to the efforts of the collectors sent out by the society in the nineteenth century, it was said, in the words of Mr. Andrew Murray, that "the results have affected the appearance of all England. Nowhere can a day's ride now be taken where the landscape is not beautified by some of the introductions of the Royal Horticultural Society." Perhaps nothing indicates more clearly the way in which the society has promoted the science and art of horticulture than the fact that whereas there were one thousand three hundred fellows in 1887, there are now eight thousand, one hundred and fifty. Baron Sir Henry Schroeder presented the report of the building and appeal committees, in which it was stated that twenty-six thousand pounds had been subscribed towards the cost of the hall, which will amount in the end to forty thousand pounds. It is the intention of the society to provide scientific instruction as well as practical training in connection with the gardens at Wisley.

We learn from Forestry and Irrigation that a new classification of technical grades in the Bureau of Forestry went into effect July 1. This change was made in order to provide a set of generic titles that would tell more clearly what its men are doing. The titles are more easily distinguished, are more dignified, and mean more to the men themselves. The new grades with the yearly salaries they carry are:

Forester, \$3,500.

Associate Forester, \$2,700 to \$3,000.—Chief of the ranking division and assistant to the Forester.

Assistant Forester, \$2,100 to \$2,600.—Ćhiefs of divisions and men occupying positions of similar responsibility.

Forest Inspector, \$1,800 to \$2,000.—Chiefs of the ranking sections of divisions and men in charge of independent lines of work of similar importance.

Assistant Forest Inspector, \$1,500 to \$1,700.—Chiefs of sections of divisions, except of the ranking section, and men occupying positions of similar responsibility.

Forest Assistant, \$900 to \$1,400.—Men who enter the Bureau through the examination for Forest Assistant and have not yet been given charge of independent lines of work.

Forest Agent, \$700 to \$900.—Men without civilservice standing, in charge of subordinate lines of work Forest Student, \$300.—Men whose service is temporary and educational in character and whose training in forestry is incomplete.

Nature learns from the Bulletin of the Russian Society of Naturalists of St. Petersburg that the biological station which has been established near Alexandrovsk, on the Norman coast of the Kola peninsula, is now in working order. It is provided with all the necessary apparatus for pumping sea-water to a basin and an aquarium, as well as with a special sailing boat and all apparatus required for fishing and dragging.

On the occasion of the meeting of the British Medical Association, Oxford University conferred the degree of D.Sc. on a number of visiting physicians, including Professor William Osler, of the Johns Hopkins Univer-Professor Love, Sedlian professor of sity. natural philosophy, presented the recipients, making remarks in Latin. According to the translation in The British Medical Journal, he said of Professor Osler: "Among those who apply the results of modern science to the investigation of the causes and the cure of diseases, few have attained greater distinction than William Osler. By his professional teaching, first in Montreal and afterwards in Baltimore, by his writings, which deal partly with questions of abstract science and partly with questions concerning the practise of medicine, by his skill as a physician, he has been for many years a leading exponent of the principle that the art of medicine should be based upon the most exact scientific knowledge of the day. For his work in exemplifying this principle, as well as for the merit of his contributions to science, he was elected a fellow of the Royal Society. In him also we welcome a representative of one of those daughter states which are the pride of the mother country—the Dominion of Canada and also of that great republic of the west whose people, bound to us by the closest ties of kinship, are also among our best friends."

## UNIVERSITY AND EDUCATIONAL NEWS.

THE New York Evening Post states that the College of Physicians and Surgeons, Columbia University, has received a bequest of \$10,000 by the will of Mrs. Eleanor Cooper.

Dr. Brown Ayres, professor of physics in Tulane University, has been elected president of the University of Tennessee.

Professor George M. Duncan has, according to the daily papers, resigned his professorship of philosophy at Yale University. Professor G. T. Ladd, it will be remembered, presented his resignation last spring, to take effect at the end of the next academic year. Professor Hershey E. Sneath, who has hitherto held the chair of ethics, has been transferred to the department of pedagogy.

Dr. Henry J. Prentiss, professor of practical anatomy, University and Bellevue Hospital Medical College, has accepted the chair of anatomy at the University of Iowa, made vacant by the death of Dr. J. W. Harriman.

MISS D. L. BRYANT, S.B., of the department of geology, '91 of the Massachusetts Institute of Technology, received the degree of Doctor of Philosophy, June 30, 1904, at Erlangen, with the distinction of magna cum laude. After graduating from the institute she taught geology at Greensboro, N. C., and before leaving for Europe she took a course in petrography with Dr. Van Hise, at Madison, Wisconsin. She has since studied at Heidelberg, and for the past two years at Erlangen. Her graduating dissertation was upon 'The Petrography of Spitzbergen.'

Miss Marion Stopes, Ph.D., has been appointed junior professor of botany in the University of Manchester.

Dr. WILLIAM PALMER WYNNE has been elected professor of chemistry in University College, Sheffield.

Dr. L. Gerlach, professor of anatomy at Erlangen, has been made rector for the coming academic year.

Dr. Hippolyt Haas, professor of geology at Kiel, has retired from active service.

Professor L. Busse, of Königsberg, has been called to a professorship of philosophy at Münster, in succession to Professor E. Addickes, who has been appointed professor at Tübingen.