

that on almost any soil some grasses may be grown with profit. On the Great Plains, although the region is so vast, the problems are less varied, since the conditions are more nearly similar throughout. Here to a great extent the problem is the preservation of the natural pastures and meadows, and their renovation where they have been injured by overpasturing or by the plow. Over a great part of this region the natural meadows should be allowed to remain, and the plow should not be permitted to disturb the well-set sod. In the Rocky Mountains the conditions are extremely varied, and the problems are accordingly more numerous. In many places the natural meadows must be preserved, while in others, as under irrigation, grasses especially suited to the new conditions must replace the scanty growth which preceded them. A new problem obtrudes itself here, viz., that of forage plants for the 'alkali soils.' The problems in the Northwest include the last mentioned (apparently solved by the growth of species of *Atriplex*), and the renovation of the natural pastures which have been overstocked. In the Southwest some interesting facts are brought to light, as that as soon as the prairie fires are stopped the mesquite tree (*Prosopis*) and the prickly pear cactus (*Opuntia*) increase very rapidly, while at the same time the extermination of the coyotes allows the rabbits and prairie dogs to increase to such a degree as to make them most serious pests. On the Pacific coast the work has included the problem of the control of shifting sands in addition to studies of pasture and meadow grasses.

In the course of these investigations much valuable material for scientific study has been obtained, and great quantities of seeds of the more important species have been secured for distribution and trial elsewhere in the country. Above forty bulletins have been issued by the division, ranging from quite popular to technically scientific. No one can look over the work done, as indicated in this bulletin, and not feel that Secretary Morton did a good thing when he established the Division of Agrostology, and that it has fully justified its existence.

CHARLES E. BESSEY.

THE UNIVERSITY OF NEBRASKA.

THE SOUTH AFRICAN MUSEUM.

THE report of the South African Museum for 1900 may be styled a record of good work performed under adverse conditions, for the war in South Africa has affected the museum in more ways than one, lessening not only the number of contributors to the collections, but the number of visitors. This falling off is the first break in a steady increase that has been going on for a considerable period. The accessions of vertebrates have been principally of birds, but one example of the young of the rare cat *Felis nigripes* was obtained in a rather curious way, it having run into the trenches at Zand River during a hot engagement.

Two of the contributors to the museum, Mr. Walter Francis and Dr. A. C. Stark, have been killed during the war; the latter was engaged in the preparation of a work on the birds of South Africa, the first volume of which had appeared. The second volume has been completed by the director, Dr. W. L. Sclater, and is now in press. Dr. L. Peringuey has sent to the printer the first part of a descriptive catalogue of the *Scarabeidæ*, and states that the manuscript of the second part is well advanced. The second volume of the *Annals* of the museum is well along and all the collections are said to be in good shape, and we hope with Sir David Gill that the time may soon come when it will be possible to increase the small appropriation made for the maintenance of this museum.

F. A. L.

SCIENTIFIC NOTES AND NEWS.

DIRECTOR W. W. CAMPBELL, of the Lick Observatory, was elected a foreign associate of the Royal Astronomical Society at the meeting of November 9.

MR. ALEXANDER AGASSIZ, accompanied by Mr. W. McM. Woodworth, has undertaken an expedition to the Maldive Islands in the Indian Ocean, in order to study the coral formations. A steamboat for this purpose has been chartered at Ceylon.

PROFESSOR F. LAMSON SCRIBNER, chief of the Division of Agrostology of the United States Department of Agriculture, has been given charge of the Bureau of Agriculture which is to

be organized in the Philippines. Professor Lamson-Scribner will sail for the Philippines with his family on February 1.

MR. EDWIN REYNOLDS, of Milwaukee, has been elected president of the American Society of Mechanical Engineers.

DR. JOSEPH LARMOR, lecturer in mathematics in Cambridge University, has been nominated by the council as junior secretary of the Royal Society.

PROFESSOR WILLIAM B. SCOTT, Blair professor of geology at Princeton University, has returned from his visit to the Argentine Republic, where he spent six months in investigations preparatory to his work in publishing the reports of the Princeton Patagonian expeditions.

PROFESSOR E. W. MORLEY, professor of chemistry in Adelbert College, has returned from Paris, where he went to be present at the International Conference of Weights and Measures during October.

DR. MAXWELL SOMMERVILLE, professor of glyptology in the University of Pennsylvania, has returned from an expedition to the Orient. He has brought with him valuable collections, which will soon be added to the great collection which he presented to the museum several years ago.

D. I. BUSHNELL, JR., has returned from St. Louis, where he explored a number of small mounds in that part of Forest Park that is to be occupied by the Fair in 1903. A knowledge of them is thus secured before their total destruction.

AN oil portrait of Dr. Edward G. Janeway was unveiled at the anniversary meeting of the New York Academy of Medicine on November 26. An address was given by Dr. R. H. Fitz, of Harvard University, whose subject was 'Some Surgical Tendencies from a Medical Point of View.'

DR. HERMAN STRECKER, a sculptor and entomologist, died at his home at Reading, Pa., on November 30, aged sixty-five years. Dr. Strecker was the author of a work on 'Native and Exotic Butterflies and Moths,' and owned a collection, said to contain 375,000 specimens.

THE little son of Professor T. D. A. Cockerell died at East Las Vegas from diphtheria on November 25. Though only eight years old, he had made a number of little discoveries of his own. Thus he discovered the larva of *Picris occidentalis*, and raised the butterfly. He also found the first psocid recorded from New Mexico, and collected at least three new insects: a new bee of the genus *Epeolus*, described by Professor Cockerell; a new meloid beetle, now in the National Museum, not yet described; and a new grasshopper of the genus *Melanoplus*, described by Mr. Scudder, and about to be published.

SIR WILLIAM MACCORMAC, the eminent British surgeon, died on November 4, at the age of sixty-five years.

M. GUILLAUME TIBERGHIEU, for fifty years professor of philosophy in Brussels University, died on November 28, aged eighty-two years.

THE death is also announced of Dr. Federico Horstman y Cantos, for forty years professor of anatomy in, and for a long time dean of the Medical Faculty of, the University of Havana.

AN examination will be held on January 21, to fill the position of assistant in the Division of Entomology, U. S. Department of Agriculture, at a salary of \$1,200 a year. The chief subject is the economic entomology of the orchard.

THE executive committee of the trustees of the Washington Memorial Institute met at Washington on December 7.

AT a meeting of the council of the Royal Society on November 7, the following resolution was passed: "That in the opinion of this council it is desirable that the secretaries should not be so re-elected as to hold office for a period exceeding ten consecutive years, this resolution not to apply to the present holders of office." A memorial supporting this resolution was signed by 130 fellows, a counter-memorial having the support of less than thirty.

THE twenty-fifth general meeting of the American Chemical Society will be held at Houston Hall, University of Pennsylvania, Philadelphia, Pa., December 30 and 31, 1901. The opening session will be called to order at 10 a. m., Monday, December 30. The visiting

chemists will be welcomed by Dr. J. Merritt Matthews, chairman of the Philadelphia Section; the provost of the University of Pennsylvania, and a representative of the City Government. President F. W. Clarke will address a few words in response. The remainder of the forenoon will be devoted to the reading and discussion of papers and general business. In the afternoon there will be visits to points of special interest under the direction of the local committee. In the evening the address of the retiring president will be delivered at the Acorn Club, 1618 Walnut Street, after which a reception will be given to the members of the Society and their ladies. On Tuesday, a session of the Society will be held in the forenoon. The afternoon will be devoted to visits and excursions, and in the evening there will be a subscription banquet. A meeting of the council will be held at such time and place as may be appointed by the president. The local committee expects to arrange a 'smoker,' if there is opportunity to do so. The committee has not been able to secure special transportation rates, but those who expect to attend may avail themselves of the regular holiday rates which prevail on some of the roads during this season.

DIRECTOR W. W. CAMPBELL, of the Lick Observatory, made public the following report on December 6: "On account of unfavorable conditions observations of the interesting nebula surrounding the new star in Perseus were not obtained for several weeks. The clear sky of last night, just preceding to-day's storm, was taken advantage of by Professor Perrine to secure a photograph of it with the Crossley reflector, exposure five and a half hours. The extraordinary motion in the nebula, discovered by him on November 10 and confirmed by Ritchie, of Yerkes Observatory, on the day following, continues unchanged for the two principal condensations. They have moved outward certainly more than half a minute of an arc in the last three weeks. The third condensation has greatly changed its form, but nevertheless its motion outward appears to continue. The strong mass of nebula nearest the star seems to remain unchanged, both in position and appearance."

A PEARSON CLUB has been organized recently by members of the faculty of the University of California for the discussion of fundamental problems of science suggested by Karl Pearson's 'Grammar of Science.' The membership of sixteen includes representatives from the departments of biology, geology, mathematics, philosophy and physics.

A DESPATCH to the London *Times* from Littleton, New Zealand, states that the National Antarctic Exploration ship *Discovery* arrived here November 29. All on board were well and in good spirits. They state that they entered the pack-ice in lat. 63.5 and long. 141 E., but pressure of time prevented a thorough investigation of the ice. Interesting collections were, however, made during the voyage. A party landed on Macquarie Island for a few hours, obtaining some live penguins, some eggs and some seals. The *Discovery* has been dry-docked for caulking, having sprung a leak, though not a serious one. When the *Discovery* continues her voyage, which will probably be in a fortnight, she will take with her a supply of meat presented by the Canterbury stock farmers.

THE Liverpool School of Tropical Medicine has sent a special expedition under Dr. Charles Balfour Stewart, to the Gold Coast and to the gold-mining districts of that colony, to conduct a series of operations there with a view to improving the conditions of health and sanitation.

THE Russian Pharmaceutical Society, Moscow, has celebrated with appropriate ceremonies the two-hundredth anniversary of the opening of the first free pharmacy in Russia.

THE courts have decided in favor of the ruling of the Treasury Department, which excluded an Irish immigrant suffering from tuberculosis.

THE egg of the great auk continues to bring a large price whenever chance brings one into the market, and the last was sold at the noted auction rooms of J. C. Stevens, London, for 240 guineas. This egg was the last of four owned by the late Baron D'Hamonville, and was peculiarly marked with inky lines and blotches. It was purchased by Mr. Massey, who some years ago paid the record price, 315

guineas, for what is thought to be the best egg of the great auk extant.

THE large tusk of an African elephant, recently noted in SCIENCE as having been purchased by the British Museum, is said to be one of the two shown by Messrs. Tiffany & Company at their rooms in New York. These tusks, whose measurements and weight were given in SCIENCE and have also been noted in Mr. Lucas's 'Animals of the Past' will probably continue to hold the record for elephant tusks.

PRESIDENT FRANCIS, of the Louisiana Purchase Exposition Co., states that the "Washington University site will be enclosed within the limits of the fair grounds, and all the new buildings will be used for the purposes of the exposition. The university grounds comprise about 110 acres, and upon them have been erected during the past two years educational buildings which have cost approximately \$1,000,000. None of these buildings is yet completed, but all now in course of construction will be finished within the next six months. The exposition company will give liberal compensation to the University for the use of its grounds and buildings, but the entire consideration for such use will be put into the erection of additional buildings, and into the embellishment of the grounds for the use of the exposition, thus affording unparalleled advantages for an educational exhibit."

At the meeting of the Zoological Society of London on November 19, Professor E. Ray Lankester, F.R.S., read a memoir on the new African mammal *Okapia johnstoni*. After an account of the history of the discovery of this remarkable animal by Sir Harry Johnston, Professor Lankester gave a description of its skull and skin, based upon the specimens forwarded to the British Museum by the discoverer, and compared its structure with that of the giraffe and the extinct member of the same family, *Helladotherium*. The nearest living ally of the Okapi was undoubtedly the giraffe. Mr. Oldfield Thomas read a paper on the five-horned giraffe obtained by Sir Harry Johnston near Mount Elgon. It was shown that, although the horns were unusually developed, the animal could not be specifically separated from the North-African giraffe, *Giraffa camelopardalis*.

This latter was believed to grade uniformly in the development of the horns and other characters into the South African form, which would therefore be only a subspecies, *G. c. capensis*. On the other hand, de Winton's *G. c. reticulata* (from Somaliland) seemed to be sharply separated, and therefore to be worthy of recognition as a distinct species, *G. reticulata*. With regard to the accessory horns, it was shown that they, or rudiments of them, existed in all male giraffes, even in the southern subspecies.

THE Davenport Academy of Sciences has arranged a course of popular scientific lectures as follows:

January 4—'The Snake Dance of the Mokis': DR. J. WALTER FEWKES, Bureau of Ethnology, Washington, D. C.

January 11—'The Degenerates of Animal Society': PROFESSOR HENRY B. WARD, The University of Nebraska.

January 18—'The Glacial Period in Iowa': PROFESSOR SAMUEL CALVIN, The State University of Iowa.

January 25—'Some Remarkable Members of an Ancient and Highly Distinguished Family': PROFESSOR THOMAS H. MACBRIDE, The State University of Iowa.

February 1—'The Aztecs of Ancient Mexico': PROFESSOR FREDERICK STARR, The University of Chicago.

— 'The Bottom of the Sea': PROFESSOR C. C. NUTTING, The State University of Iowa.

UNIVERSITY AND EDUCATIONAL NEWS.

MR. ANDREW CARNEGIE has offered to give \$10,000,000 to the United States for the purpose of establishing in Washington a national university.

MRS. JANE L. STANFORD completed the transfer to Leland Stanford Junior University, on December 9, of property, consisting of stocks, bonds and real estate, said to be worth approximately \$30,000,000.

MR. JOHN D. ROCKEFELLER has offered to give Bryn Mawr College \$230,000 for the erection of a new dormitory building and a central heating and electric light plant, conditional upon the trustees of the College being able to secure by commencement day, in June, 1902, pledges for the additional sum of \$250,000 needed for a library building. The authorities of the College are taking steps toward raising