prepared. It will be published in an early issue of Science.

H. C. Bumpus, Secretary.

BROWN UNIVERSITY, PROVIDENCE, R. I.

SCIENTIFIC NOTES AND NEWS.

THE meeting of the American Society of Naturalists at Ithaca, reported above, was unusually well attended, owing to the large number of affiliated societies meeting with it. In addition to the Physiological Society, the Morphological Society and the Psychological Association, which met last year at Boston, there was not only the Association of Anatomists, which last year postponed its meeting till the spring, but there were also two new societies—the Association for Botanical Morphology and Physiology, and Section H., Anthropology, of the American Association. The proceedings of all these societies, which will be fully reported in this JOURNAL by the Secretaries, were crowded with excellent papers. The meeting at New York next winter will undoubtedly be the most important in the history of the American Society of Naturalists and affiliated societies.

The Royal Society has received, through Professor Anderson Stuart, telegraphic information that the expedition sent out to bore a coral reef at Funafuti has returned to Sydney, having carried the bore down to 698 feet, without reaching the bed rock.

AT a meeting of the Board of Managers of the National Geographic Society on December 31, 1897, Alexander Graham Bell was elected President of the Society. This election fills the vacancy occasioned by the death of Mr. Gardiner G. Hubbard.

THE Parkin Prize of the Paris Academy of Sciences has been awarded to Dr. A. D. Waller, of London, for his investigations on the relations of nervous activity and carbon dioxide. The prize is of the value of about \$600.

M. RAMBAUD, French Minister of Education, Senator, and professor of contemporary history at the Sorbonne, has been elected a member of the Academy of Moral Sciences, in the room of the late Duc d'Aumale. THE Berlin Academy of Sciences has appropriated three thousand Marks for the publication of a map of the Arabian desert of Egypt.

The office of Astronomer Royal of Ireland, and the professorship of astronomy in the Univer sity of Dublin, has been conferred upon Mr. C. J. Joly, fellow of Trinity College.

WILLIAM HARPER, Chief of the Bureau of Information of the Philadelphia Commercial Museums, has returned to Philadelphia after a triparound the world taken in the interest of the Museums.

THE death is announced of Dr. Friedrich A. T. Winnecke, who some years ago made important contributions to the astronomy of position at the observatories at Bonn, Pulkova and Karlsruhe. On the establishment of the University of Strassburg, at the end of the Franco-German War, he was made director of the observatory, but his health broke down, and since that time he has been unable to accomplish any scientific work.

WE regret also to record the deaths of the following men of science: M. Imbault Huart, the French Consul at Canton, at the age of forty years, who was a high authority on the languages and geography of the Far East, especially of Formosa, on which he published an elaborate work; Dr. Giacomo Sangalli, professor of pathological anatomy in the University of Pavia, and Senator of the Kingdom of Italy, aged 76; Dr. Franz Ritter von Schneider, professor of chemistry in the University of Vienna.

GROUND was formally broken for the Museum Building of the New York Botanical Garden by President Samuel MacMillan, of the Department of Public Parks, on December 31st, with a nickel-plated pick and shovel presented to him at the site for the purpose by Messrs. Parker and Parshley, of the John H. Parker Co., contractors, in the presence of Messrs. Fallows and Ward, representing Mr. R. W. Gibson the architect, and Dr. Britton, Mr. Henshaw and Mr. Nash, of the Garden staff. and others. Appropriate remarks were made by President MacMillan and by Dr. Britton. The contract for the construction and equipment of the Museum Building, Power House and minor buildings has been awarded by the

Commissioners of Parks to the John H. Parker Company for \$347,019.00. The plans for the great range of horticultural houses have been completed, and specifications for them have been printed. We hope to publish illustrations and descriptions of these and of the Museum Building in an early issue. The sum of \$15,000.00, in addition to the funds provided by the Act of Incorporation, has been made available for the building of portions of the driveway system. During the past season about 2,900 species of plants have been obtained, together with large quantities of Museum, Library and Herbarium material.

The trustees of the British Museum have decided to discontinue the opening of the exhibition galleries on week-day evenings from 8 to 10 p. m. after the close of the year, and, instead, to keep them open (in alternate sections) until 6 p. m. all the year round. The evening opening commenced in February, 1890, on the installation of the electric light, but the attendance has been too small to warrant the continuation. The arrangements for opening on Sunday afternoon have not been altered.

The schooner 'Prosper' has arrived at San Francisco with about 240 fur-seal skins from the Galapagos Islands. It is a pity that Ecuador has taken no steps to protect what is left of the once valuable rookeries on these islands, which, with proper care, might have been brought in time to a paying basis. Of course, every catch like that of the 'Prosper' lessens the possibility of so doing and increases the length of time it would require. The species, Arctocephalus townsendi, is only known to science through a few skulls obtained by Mr. Townsend some years ago when the seals were not on the rookeries.

THE Secretary of the Treasury has issued regulations under the Act of Congress prohibiting the taking of seals by American citizens, except on the Pribyloff Islands, and forbidding the importation into this country of pelagic sealskins. The regulations provide that no sealskins, raw, dressed, dyed or otherwise manufactured, shall be admitted to entry in the United States, except there be attached to the invoice a certificate signed by the United

States Consul at the place of exportation that said skins were not taken from seals killed within the waters mentioned in said act, specifying in detail the locality of such taking, whether on land or at sea, and also the person from whom said skins were purchased in their raw and dressed state, the date of such purchase and lot number. Consuls shall require satisfactory evidence of the truth of such facts by oath or otherwise before giving any such certificate.

A NEW laboratory for physical chemistry at the University of Leipzig was formally opened on January 3d, if the program was carried out.

MR. JOHN MILNE writes to Nature that arrangements have been made for the establishment of horizontal pendulums, with photographic apparatus to record unfelt movements. at Toronto, Harvard, Philadelphia, Victoria, B. C., New Zealand (two), Batavia, Madras, Calcutta, Bombay, Mauritius, the Cape, Argentina, San Fernando and Kew, while a number of other stations are under consideration. Seismograms have already been received from Toronto. At his station on the Isle of Wight, for purposes of comparison, Mr. Milne has also two horizontal pendulums writing on smoked paper, and very shortly a Darwin bifilar pendulum is to be established. To this will be added later a von Rebeur-Paschwitz apparatus, with which type of apparatus Mr. Milne worked for many years in Japan.

In 1889 the late Francis B. Hayes placed all his property in trust, providing that at his death it might be willed to such charitable corporations as he might select. He made the Massachusetts Horticultural Society his residuary legatee, and as there was some doubt as to whether this could be regarded as a charitable organization the matter was brought before the Court. Judge Allen has decided that the bequest was permissible, and the Horticultural Society will receive \$300,000, as well as \$10,000 left to it directly.

THE Massachusetts Board of Agriculture has authorized an inspection of the spread of the brown-tail moth, which was first discovered in Cambridge and Somerville last spring, and it has been found that it has spread greatly to

the northeast. The Board has no means at its disposal for exterminating the pest, but has notified the owners or managers of some 1,900 estates of the law of 1897, which says that "it shall be the duty of the owners and managers of premises infested with this moth to exert themselves persistently to confine and suppress it," and have furnished them with a bulletin describing the pest and giving directions for its destruction.

THE nomenclature of the new New York City parks, relative to which there has been much discussion, was fittingly determined at a recent meeting of the Park Commissioners by the selection of the following: Alexander Hamilton Park, John Jay Park, De Witt Clinton Park, William H. Seward Park and Hamilton Fish Park. It had been suggested, as we noted in a recent issue, that the name of the late W. A. Stiles, a former Park Commissioner, should be associated with one of the new pleasure grounds, but the precedent of naming a park in honor of any Park Commissioner was wisely deemed a bad one. The fostering care of science and art, and the distinguished services rendered the city and the nation by the eminent men whose names have been chosen, make the decision one which will meet with universal approval. All lovers of nature will be particularly gratified by the graceful recognition of De Witt Clinton.

THE Astley-Cooper prize of the value of £300, awarded biennally by Guy's Hospital, will again be given at the beginning of 1901, the subject being the 'Physiology of the Pancreas.'

The United States Civil Service Commission announces that, on February 7, 1898, an examination will be held to establish an eligible register from which a selection may be made to fill a vacancy in the position of keeper of aquarium at the National Zoological Park at a salary of \$75 per month. The examination will consist of a light educational test, together with practical questions on the habits, distribution and classification of fishes, including translations of descriptions of fishes from German and Latin into English.

THE Friday evening meetings of the Royal Institution will begin on January 21st at 9 p. m.,

when the Right Hon. Sir John Lubbock, Bart., M. P., will give a discourse on 'Buds and Stipules.' Succeeding discourses will probably be given by Professor C. Lloyd Morgan, Mr. Alan A. Campbell Swinton, Dr. John Hall Gladstone, Professor L. C. Miall, Captain Abney, Professor T. E. Thorpe, Mr. James Mansergh, the Very Rev. the Dean of Canterbury, Professor Dewar and others. To these meetings members and their friends only are admitted. Lord Rayleigh will deliver lectures after Easter.

THE fifth annual lecture course of the Linnean Society of New York City, in cooperation with the American Museum of Natural History, will be given in the large lecture hall of the Museum, Seventy-seventh street and Eighth avenue, as follows:

January 6th, 'Cats and the Lands they Inhabit,' by DANIEL GIRAUD ELLIOT, F. R. S. E., Curator of Zoology, Field Columbian Museum. February 3d, 'From Vera Cruz to Mexico City,' by Frank M. Chapman, Assistant Curator, Vertebrate Zoology, American Museum of Natural History. March 17th, 'The Mammals of North America,' by Ernest Seton Thompson; illustrated by views from nature and from original drawings by the lecturer. April 7th, 'Protective and Directive Coloration of Animals,' by C. Hart Merriam, M. D., Chief of Biological Survey, U. S. Department of Agriculture.

THE Garden and Forest Publishing Company announce that with the last issue, which completes the tenth volume, the publication of Garden and Forest will be suspended. They state that "For ten years the experiment has been tried of publishing a weekly journal devoted to horticulture and forestry, absolutely free from all trade influences, and as good as it has been possible for us to make it. This experiment, which has cost a large amount of time and money, has shown conclusively that there are not persons enough in the United States interested in the subjects which have been presented in the columns of Garden and Forest to make a journal of its class and character self-supporting. It is useless to expend more time and money on a publication which cannot be made financially successful, and must, therefore, sooner or later cease to exist."

M. BRUNETIÈRE has retired from the editorship of the Revue des deux Mondes, the great French literary journal. This is a matter of some scientific interest, as M. Brunetière had changed the journal from a liberal to a clerical organ, and while professing to use scientific methods in literary criticism had adopted an attitude somewhat hostile to modern science.

Professor O. Taschenberg has retired from the editorship of *Die Natur* and has been succeeded by Professor Willi Ule. The journal, published weekly by the Schwetschke'sche Verlag at Halle, was founded forty-six years ago, under the editorship of Dr. Otto Ule and Dr. Karl Müller. It maintains an excellent standard of popular science, being neither technical nor trivial.

THE publication department of the *Progrés Medicale* offers the complete works of Charcot, in thirteen vols. for 50 fr., reduced from 188 fr.

Messrs. Studer Bros. announce 'Chapters on the Natural History of the United States,' by Dr. R. W. Shufeldt. The pictures are reproduced from a series of photographs, made from life by the author.

A NEW monthly periodical, Archives de Médicine des Enfants will hereafter be edited by Dr. J. Comby and published by Masson, Paris.

Mr. Jonas Stadling, who contributed to the November *Century* an account of Andrée's expedition, sends to the January number a facsimile of a message from Andrée, sent by the aëronaut by carrier pigeon.

In Nature for December 7th an article on the beaver park of Sir Edmund Loder gives interesting information regarding the beavers of Sweden. It appears that they are mainly confined to the Stifts of Christiania and Christiansand, although a few remain in Bratsberg Amt and Slavanger Amt. They feed on the bark of deciduous trees, not touching the firs. As they are unable to dam the swift streams of Sweden, they make their burrows at right angles to the bank, running inward and upward for some distance, so that when the rivers rise the beavers go higher up in their burrows. In 1880 there were about 60 animals left, but being protected they increased to 100 by 1883. Since 1894 a law has been passed protecting them for a period of ten years.

A SKELETON of the moa, Dinornis or Euryapterix emeus crassus, the extinct giant bird of New Zealand, was purchased recently at auction in London by Dr. Hutchinson for 48 guineas. It is said that most of the skeletons exhibited in museums are made up from different species. The present specimen was set up by Captain F. W. Hutton, F.R.S.

THE United States Coast and Geodetic Survey will send the steamship 'McArthur' to the waters of Alaska to make, when spring opens, a thorough survey of the coast, especially about the mouth of the Yukon River. A small steamer will also be taken to aid in the surveying work and to serve for the navigation of rivers too shallow for the 'McArthur.'

At the recent international congress of publishers, held at Brussels, a recommendation was made that is of special interest to men of science, and should be insisted upon by them in arrangements with their publishers. The resolution was to the effect that a mere new printing of a book should be called a *tirage*, and not a new edition, unless it has been revised by the author.

The metric system of linear measurement has now been in use in the English engine building works of Messrs. Williams & Robinson four years. Captain Sankey reports in the London Engineer that the draughtsmen are unanimously pleased with its working, and that the workmen, at first strongly opposed to its introduction, now greatly favor it. The manager finds it easier to teach the new than the old system.

AT an extra meeting of the Chemical Society, London, held at Burlington-house on December 15th, Professor Francis R. Japp, F.R.S., delivered a memorial lecture in honor of the distinguished German chemist, Friedrich August Kekulé, whose death occurred last year. After giving a sketch of Kekulé's life, Professor Japp said, according to the report in the London Times, that his supreme merit lay in his contributions to theoretical chemistry. His greatest achievements in this department were the doctrine of the linking of atoms in terms of their valency, and, growing out of this, the theory of the structure of organic molecules, both in open-chain and in closed-chain compounds. These were not recondite theories, hidden

away in the depths of the science; on the contrary, they were organic chemistry itself, and learnt by students on their first introduction to the subject. The lecturer proceeded to give an account of the genesis of some of Kekulé's theories and their relation to the work of other investigators. His memoir on the benzene theory, which was referred to as the crowning achievement of the doctrine of the linking of atoms, was the most brilliant piece of scientific prediction to be found in the whole range of What Kekulé wrote in organic chemistry. 1865 had since been verified in every particular, and not only had the various substitution derivatives been discovered in the number and with the properties required by the theory, but various observations that appeared to contradict it had been proved erroneous. Moreover, it had shown itself capable of boundless development, and there seemed no limit to the fruitfulness of Kekulé's conception of closed chains. Even in the undeveloped state of the subject prior to this theory, the facts were apparently so intricate and so unconnected that few chemists could claim to have mastered them. The theory appeared; the previously unmarshalled facts fell into their proper places, and, further, it became possible to say whether in any given section of the subject the facts were complete or only fragmentary. The debt which both chemical sciences and chemical industry owed to Kekulé's benzene theory was As regards the former, threeincalculable. fourths of modern organic chemistry was directly or indirectly the product of the theory, and as to the latter the industries of the coaltar colors and the artificial therapeutic agents in their present form and extension would be inconceivable without the inspiration and guidance of Kekulé's fertile idea. By the accuracy of his predictions he had done more to inspire chemists with a belief in the utility of legitimate hypotheses in chemistry, and had, therefore, done more for the deductive side of the science than almost any other investigator. His work stood preëminent as an example of the power of ideas. A formula, consisting of a few chemical symbols jotted down on paper and joined together by lines, has supplied work and inspiration for scientific chemists for an entire generation and afforded guidance to the most complex industry the world had yet known.

THE scientific work accomplished by the Prince of Monaco, in the Hirondelle up to 1889, and since then in the Princesse Alice, has developed so greatly that the last named vacht has been found too small for the proper carrying out of these researches. As we learn from Industries and Iron, a larger vacht will be built for the continuation of the work. It will be a fast vessel, propelled by engines of 1,000 indicated horse-power, and designed to ensure a speed of 12 knots. She has a length between perpendiculars of 225 feet, with 34 feet beam, a depth of 20 feet, and her tonnage is 1,270 tons. The hull is built of steel, divided into seven water-tight compartments extending the upper deck. The cabin accommodation will be extensive, there being separate cabins for the scientific staff and a large laboratory.

The British Central Africa Gazette states that reports from the West Shiré and Ruo districts give reason to believe that rinderpest has made its appearance among the game in both those districts. Game is said to be dying in numbers in the Elephants' Marsh—one of the game preserves formed by the administration of the Protectorate for the purpose of preventing the extermination of wild animals in this part of Africa. Prompt measures, it is said, have been taken to endeavor to prevent the introduction of the disease into the Shiré Highlands.

UNIVERSITY AND EDUCATIONAL NEWS.

THE Executive Committee of the Board of Trustees of the New York City College have accepted the plans of the new buildings presented by Mr. George B. Post. The estimated cost is about \$1,200,000. The plans include provision for a chapel with a seating capacity of over 2,000, a library that will hold 70,000 books, a museum of natural history, laboratories, etc. The building, which will be of the English Collegiate Gothic style of architecture, will stand on a high elevation. It will be on Convent Avenue, St. Nicholas Terrace and 138th and 140th streets.

Mr. LEVI BARBOUR, of Detroit, one of the regents of Michigan University, has donated