the end of the first quarter of the present century three chemical societies had been founded in this country, while the first chemical society of Europe, the Chemical Society of London, was not founded till 1841. Forty-nine years before this date, in 1792, the Chemical Society of Philadelphia was instituted. Its first President was Dr. James Hutchinson, and at his death he was succeeded by Dr. James Woodhouse, who was at that time professor of chemistry in the medical department of the University of Pennsylvania. Among the best-known members were Dr. Joseph Priestley and Robert Hare, the inventor of the oxy-hydrogen blowpipe. "The meeting of October 24, 1801, was made memorable by the appointment of a committee for the 'discovery of means by which a greater concentration of heat might be obtained for chemical purposes.'" On this committee was Robert Hare, then only twenty years old, and December 10th of the same year he reported, on behalf of the committee, his great invention. No memoirs were published by this Society, and how much longer it existed is a matter of conjecture. In August, 1811, the Columbian Chemical Society was founded, also at Philadelphia. It numbered sixty-nine 'Honorary' (regular) members, of whom thirty-one were Europeans, and thirteen 'Junior' (associate) members. Thomas Jefferson was patron; James Cutbush, President, and among the more distinguished members were Benjamin Smith Barton, Archibald Bruce, Joseph Cloud, Thomas Cooper, Robert Hare, James Madison, Benjamin Rush, Adam Seybert and Benjamin Silliman. The foreign members included the most distinguished chemists of England and France, and Proust of Madrid. No Germans were on the list, nor Berzelius. One volume of memoirs was published in 1813, now a very rare book. In his article Dr. Bolton gives interesting abstracts of the papers in this volume. September 6, 1821, there was founded at Delhi, New York, the Delaware Chemical and Geological Society, a local society of forty or fifty members, having 'for its object the improvement of the members in literature and science, especially in chemistry and mineralogy.' Considering "the limited facilities for acquiring chemical knowledge in the New World" (chiefly in the medical schools) "and the distance of amateurs from the European head-centers of learning, it is certainly noteworthy that American chemists combined to form associations for mutual improvement and the advancement of their calling at so early a period." The fourth chemical society in this country was the American Chemical Society, founded at New York in 1876, and broadened in its scope in 1892, until it now numbers 1,106 members, working in nine chartered sections, representing forty-seven States and Territories, and several countries of Europe, South America, and even Australia.

J. L. H.

SCIENTIFIC NOTES AND NEWS.

We record, with deep regret, the death at Philadelphia, on November 14th, of Dr. Harrison Allen, emeritus professor of comparative anatomy in the University of Pennsylvania.

The American Psychological Association will meet at Ithaca, in conjunction with 'The Naturalists' and affiliated societies, on Tuesday, December 29th, and the two following days, under the presidency of Professor J. Mark Baldwin, of Princeton University. It is intended to place papers on experimental and physiological psychology on the first day and on the final day papers having closer relations with philosophy. On Wednesday morning there will be a discussion on 'The Psychology of Invention,' which it is expected will be opened by Professor Josiah Royce, Harvard University; Professor John Dewey, University of Chicago, and Professor Joseph Jastrow, University of Wisconsin.

A committee of the American Chemical So-

ciety appointed in 1893 issued a circular letter addressed to foreign chemical societies, with a view to organizing a series of international chemical congresses, similar to the International Congress of Chemists held in connection with the World's Columbian Exposition. This committee has been compelled to report through its chairman, Professor F. W. Clarke, that a few favorable replies were received from minor organizations, but not from any of the great chemical societies, and the committee asks to be discharged, leaving the initiative to other organizations.

DR. B. ENGELHART has given up his observatory at Dresden and presented the instruments and library to the University Observatory at Kasan.

DR. MARK OLIVET, professor of psychiatry in the University of Geneva, and the author of numerous publications on medicine and hygiene, died at Geneva on October 24th, in his seventy-sixth year.

A MONUMENT to Duchenne has been erected in the Saltpétrière. Duchenne began at Bologne by treating nervous diseases with electricity, and after he went to Paris never held any university or hospital position, but to him we owe the first description of locomotor ataxy and many forms of muscular wasting, as well as important advances in the physiology of movement.

PROFESSOR VON KÖLLICKER, Würzburg, has been given the Anders Retzius medal by the Association of Swedish Physicians.

PROFESSOR VON RÖNTGEN, Würzburg, has been elected an honorary member of the Swiss Scientific Society, Berne.

IT is stated in *Nature* that Professor F. Omori, of the Seismological Institute, Tokio, is now in India, for the purpose of investigating the recent Calcutta earthquake and reporting on the same to the Japanese government.

DR. LEHMAN NIETSCHE has been appointed keeper of the anthropological department of the La Plata Museum, succeeding Dr. Ten Kate.

THE Appalachian Mountain Club of Boston gave a reception on Monday of this week, at which were exhibited Harvard Geographical Relief Models, new Sella Photographs and photographs of the mountains along the Great Northern Railway. On November 10th Professor William M. Davis addressed the Club on the Harvard Geographical Models.

DR. KAKICHI MITSUKURI, the eminent zoologist, professor in the University of Tokio and delegate from Japan to the recent conference on seal fisheries, lectured this week at Johns Hopkins University, of which he is a former student.

THE following courses of lectures on natural science are being given at the Philadelphia Academy of Natural Sciences under the Ludwick foundation. They are given at 4:30 in the afternoon and admission is free. The subjects are: 'Malacology,' Professor Henry A. Pilsbry, November 1st, 8th, 15th, 22d, 29th, December 6th; 'Geology,' Professor Angelo Heilprin, November 2d, 9th, 16th, 23d, 30th, December 7th; 'Invertebrate Zoology,' Dr. Benjamin Sharp, November 3d, 10th, 17th, 24th, December 1st, 8th; 'Vertebrate Zoology,' Witmer Stone, M.A., November 5th, 12th, 19th, 26th, December 3d, 10th; 'Hygiene and Sanitation,' Dr. Seneca Egbert, January 7th, 14th, 21st, 28th, February 4th, 11th; 'Botany,' Mr. Stewardson Brown, January 10th, 17th, 24th, 31st, February 7th, 14th; 'Entomology,' Professor Henry Skinner, January 12th, 19th, 26th, February 2d, 9th, 16th.

AT the meeting of the Botanical Club of the University of Chicago, on November 9th, the hour was devoted to a brief review of the life of the late Professor Julius von Sachs. Professor Coulter read a translation of a short history of Sachs' life prepared by his pupil, Dr. Fritz Noll, which will appear in the *Botanical Gazette*. Professor Loeb then gave some personal reminiscences of von Sachs.

COMPLETE plans for the Zoological Gardens in Bronx Park have been prepared by Heins & La Farge, the architects, and were laid before the Park Commissioners on Monday. There has not been much change from the present topography of the Park, which the architects and experts found admirably adapted for the purposes of the Zoological Gardens.

AT the last meeting of the Trustees of the New York Public Library, Mr. Andrew A. Green offered a resolution for the appointment of a com-

mittee to consider and report on the expediency of uniting all the public libraries in the city. Mr. Green, Mr. Lewis C. Ledyard and General Philip Schuyler were appointed members of the committee. The intention of this resolution is to put all the public libraries under one working head and management and systematize the work throughout the city, the New York Free Circulating Library being the library that the the Trustees especially desire to have united with the New York Public Library.

THE corner stone of the new building for the Bellevue Medical College, replacing that destroyed by fire and necessary owing to the failure of the plan for consolidation with New York University, was laid on the afternoon of November 13th. Mr. D. Ogden Mills, President of the Board of Trustees, made an address, and addresses were made in the Carnegie Laboratory by the Rev. Roderick Terry, of the Board of Trustees; Dr. Langdon Gray, representing the Alumni, and Dr. John S. Billings, for the medical profession. The new building, which occupies a plot of ground 75 x 100 feet, will be of granite and brick, five stories in height, and is expected to be ready in the spring.

AT the inaugural meeting of the Röntgen Society, to which we referred last week, after the address by Professor Silvanus P. Thompson, there was an exhibition of apparatus and photographs. In its account the *Times* mentions only two exhibits, both from America: "In the hall a splendid assortment of photographs was exhibited, perhaps the most striking being a life-sized skiagram of the entire skeleton of a full-grown living woman, taken by Dr. W. J. Morton, of New York. Apparatus for the production of Röntgen rays was also on view, the chief novelty being an electric oscillator, made and specially sent by Mr. Tesla, in the construction of which no thin wire is employed. When one of Tesla's own tubes is excited with this machine the emission of Röntgen rays is so intense that, standing 50 feet away from it, one can still obtain on a luminescent screen the shadow of the bones of one's hands."

WE learn from the *Botanical Gazette* that Dr. J. M. Rose returned from his Mexican trip early in October. His work was chiefly confined in the little-known parts of the Sierra Madre. He visited Guaymas, La Paz (L. C.), Mazatlan and Acaporeta, on the western side, crossed the two ranges of the Sierra Madre north of the Acaporeta and made two excursions into them, one from the west at Rosario, and the other from the east at Bolanos, the latter being one of Seeman's stations. The States chiefly explored were Durango, Jalisco, Zacatecas and the Territory of Tepic. The collection contained 2,000 numbers, and is especially rich in umbellifers, agaves and orchids, many living specimens of the two latter groups having been shipped for cultivation.

MR. A. P. MORSE, curator of the zoological museum of Wellesley College, has returned from a collecting expedition to the Pacific coast, planned under the direction of Mr. S. H. Scudder. He has brought back large collections, especially of orthoptera, for class work and for the museum.

A CABLEGRAM from Stockholm states that King Oscar and a number of private persons have contributed sufficient sums of money to insure the despatch of a Swedish Polar expedition in 1898, which will be led by Professor Nathorst, the geologist. The cost of the expedition is estimated at 70,000 crowns.

THE seals caught at sea during the present season are said to be fewer than last year. The figures reported are as follows: Total catch of seals in the north Pacific for the present season, 38,700 against 73,000 last year. The catch in Bering Sea, which is that portion of the north Pacific in which the United States is interested, is 16,650 for the present season, against 29,500 last season, a reduction of about one-half. Of the catch in Bering Sea, British vessels took 15,600, American vessels 1,050.

MR. H. C. MERCER and Professor H. C. Warren have retired from the board of associate editors of the *American Naturalist*. We understand that hereafter anthropology and psychology will not be included in the scope of the journal.

THE *Asa Gray Bulletin*, eidted by Mr. J. H. Hicks, is now being published at Washington as a bi-monthly magazine for popular botany.

BEGINNING with next year, a journal, enti-

tled *Archives de Parasitologie*, edited by Professor Raphael Blanchard, will be published at Paris.

THE current number of Virchow's *Archiv* is the 150th and is published fifty years after the establishment of the *Archiv*, in 1847. It contains a portrait of Virchow and two articles added to the long series contributed by him since he published seven in the first volume, fifty years ago.

THE *Open Court* for the present month has as a frontispiece a portrait of Euler and publishes some biographical notes on the great mathematician. Portraits of other mathematicians will be given in other numbers of the journal.

MESSRS. HOUGHTON, MIFFLIN & CO. have published for the Appalachian Mountain Club, of Boston, a guide book to the region about the city, prepared by Mr. Edwin M. Bacon. It contains 410 pages, with four folding maps and 150 illustrations. The opening chapter quotes President Eliot's characterization of the country round about Boston as the most interesting historical region in the United States, and one of the most beautiful he had ever seen here or in Europe; and his advice to the students is 'to learn the whole region by heart.' For this purpose the book, which pays special attention to the natural history of the region, will be a most useful guide.

IN a recent paper, published in the Transactions of the Edinburgh Field Naturalists' and Microscopical Society, Mr. Symington Grieve brings the history of the Great Auk down to July 31st of this year, noting the new specimens of eggs which have come to light within the past few years as well as the changes that have taken place in the ownership of specimens. It appears that the highest price paid for an egg was 300 guineas by Sir Vauncey H. Crewe, while Mr. Rowland Ward gave 600 guineas for a skin and egg. The article is accompanied by five plates of mounted specimens, three of which are of special interest from the fact that they are from young individuals.

ACCORDING to the *Botanical Gazette* the two important collections left by the late Dr. Edmund Russow, of the University of Dorpat, are to be sold. One is a collection of about 3,750 fully prepared and well preserved microscopical preparations, including the original mounts used for the late owner's classical investigations. The second collection is the Sphagnum collection, of which group Russow was known as one of the foremost students. It consists of 314 fascicles and about 3,000–4,000 microscopical preparations, with outline sketches of the same, especially of the species that have been already worked up. There are, in addition, 300 photographic lantern slides of localities of the different sphagnums. Further information regarding the collections may be obtained from Frau Professor Emma Russow, Schloss Str., 15, Dorpat, Russia.

REUTER'S agency reports that at the headquarters of the Russian Imperial Geographical Society, on the 27th inst., M. Sven Hedin, the celebrated Swedish traveler, delivered an address before a large and brilliant audience upon his recent journey across the Pamirs, Kashgaria and the Lob Nor. He started at the beginning of 1894 for the Pamir military post in Kashgaria, and ascended and mapped the glaciers of Mustagh Ata (20,000 feet). During the autumn he proceeded in the direction of Lake Teschil-Kul to explore it, and also the Alid-Schur Mountain range. He returned to Kashgar to pass the winter, and spent the time in arranging the scientific material which he had collected. In February, 1895, M. Sven Hedin set out to cross the Takla Makhan desert, but was compelled to return to Kashgar. In December, 1895, he went by way of Khotan towards Lake Lob Nor, traversing a desert 300 km. wide. During this journey which occupied four months and a half, M. Sven Hedin discovered the remains of two ancient towns and the ruins of Buddhist monuments. Proceeding as far as the Kiria Daria river he ascertained that this stream ran as far as 39° 30′ N. He found in that region a tribe of half-savage shepherds, unknown even to the Chinese. Pushing on to the Chinese town of Koreia, along the banks of the river Tarim, M. Sven Hedin reached the Chinese, or northern, part of Lake Lob Nor. From LobNor, in the spring of 1896, he came back to Kholan, and then returned to Kipa, in order to undertake a journey in north-

ern Tibet and on the heights in that region. During this expedition the explorer discovered a lofty mountain range, whose highest peak rose about 24,000 feet above sea level. This was named Mount Oscar. He also found in this region twenty-three salt-water lakes. M. Sven Hedin then proceeded *via* Tsaidam, Kuku Nor, Si-ning-fu, Liang-chu, the deserts of Alashan and Ordos to Peking, which city he reached on March 14, 1897, across northern China. The expedition, the cost of which was defrayed by the King of Sweden, M. Nobel and several other rich Swedish gentlemen, was the means of securing botanical, geological and archæological collections, notably several ancient Buddhist MSS., found at Khotan, and about 500 sheets of topographical plans, as well as a large number of photographs.

THE lecture at the annual public meeting of the five Paris Academies was given by M. Moissan, who chose as his subject 'The University of Chicago,' and made use of impressions obtained on his recent visit to America. The address, published in the last number of the *Revue Scientifique*, may be read with profit and amusement. After an introductory paragraph M. Moissan begins: "Il y avait une fois, à l'Université de Yale, près New-Haven, un professeur de langues hébraïques nommé Harper. Cet homme, qui avait beaucoup voyagé et qui connaissait bien les établissements d'instruction de son pays, avait la prétention de fonder la plus grande université des Etats-Unis. Sans cesse il poursuivait cette pensée, s'enfermant en elle et lui donnant le meilleur de son intelligence. Son idée devint une idée fixe, et ce qu'il y avait de plus grave, c'est qu'il raisonnait parfaitement son cas. Il prétendait, ce professeur d'hébreu, qu'une université vraiment digne de ce nom devait présenter certaines qualités particulières. Il voulait, par exemple, la séparation complète de l'enseignement supérieur et de l'enseignement secondaire, ce qui ne se fait pas souvent aux Etats-Unis."

THIS year's experience with yellow fever in the South, which has cost the country more than sixty million dollars, says the Boston *Transcript*, has led to a movement among medical and scientific men to have the disease studied more thoroughly than heretofore and, if it is possible, to control it as they have other infectious and contagious diseases. A committee of seven, which was appointed by the American Public Health Association at the annual meeting in Philadelphia a short time ago, has waited upon President McKinley and laid before him the urgent necessity, as viewed by the Association, for the appointment by Congress of a commission of expert bacteriologists to be sent to Havana for the purpose of making a thorough study of the cause and prevention of yellow fever. This committee consists of Dr. H. B. Horlbeck, Charleston, S. C.; Dr. Samuel H. Durgin, of Boston; Dr. A. H. Doty, of New York; Dr. G. M. Sternberg, U. S. A.; Josiah Hartzwell, Canton, O:; Dr. S. R. Olliphant, New Orleans, La., and Dr. R. M. Swearingen, Austin, Tex.

THE last number of the *Journal of Comparative Neurology* contains the text of four 'Lectures on the Sympathetic Nervous System,' given before the medical students of the University of Michigan in May, 1897, by Dr. G. C. Huber. The newer literature is critically reviewed in the light of the author's own researches, which are also quite fully outlined, and especial attention is devoted to the problem of the relation of the neurons in the sympathetic system. The original figures illustrate the sympathetic endings on striated and non-striated muscle cells, cardiac muscular cells, blood vessels, gland cells, epithelium of the bladder and the cells and pericellular baskets of the sympathetic ganglia of various vertebrates, together with diagrams in colors of the course and distribution of several systems of sympathetic neurous.

THE report of the Engineer-in-Chief of the United States Navy, just issued, includes the statement of the year's work in testing materials for machinery by Chief Engineer E. R. Freeman, who has had charge since the late change of policy, which permitted the assignment of work to engineer officers which had previously often been largely performed by inexpert officers of other departments. The supervising inspector reports that the present system of conducting the inspection of steel has thus

far proved very satisfactory, and has a very decided advantage over the former system in the point of time required to establish understandings between the manufacturers and the Bureau. There are many questions arising in the inspection of steel which can be decided or answered only by reference to the Bureau's plans and specifications, and which now come direct to the Bureau; whereas under the former system of inspection they came through the Steel Inspection Board, and the information desired in connection with them was, of course, returned to that Board for its decision, thus causing much delay. The inspection of steel and the designing of machinery made of that material being now under one head, the plans and specifications for that machinery and the specifications for that steel can be better adapted to the full capabilities of the steel maker, and will not be apt to ask of him anything beyond his capabilites.

THE visitation of Algeria by locusts last year is described in the last report of the British Consul-General, which is quoted in the London *Times*. It seems that Algeria was visited twice during the year, the first flight appearing in the winter as far north as the Mediterranean coast, and a second one, which was normal, in the spring and early summer. There is no record of any flight such as the early one in the history of Algeria, and as they appeared so early it was believed they were sterile; but the females began to lay in the usual way, only several months too soon. But in place of being hatched out in the usual period, they took more than twice as long, which seems to be something wholly new and unexpected in the life history of locusts. The appearance of the insect so far north as the Mediterranean in mid-winter is believed to be due to the drought which in the previous year devastated the southern districts and the Morocco Sahara. There being no vegetation in the Sahara, the locusts were forced to leave the grounds where they spend the winter, and, without making the usual halts, to hurry forward to places where food was obtainable. Up to this it was believed that the *maximum* period for the incubation of the eggs was 45 days; but it has been shown now that it extends in some cases to 70 days, so that the period may vary, according to the time of the year, from 15 days to 70. This unexpected visitation was met by exceptional exertions on the part of the government, the local authorities and trade committees. Oran, the province adjoining Morocco, was the only one invaded. The area over which the eggs were laid is estimated at 424,500 acres, and 270,120 bushels of young locusts were destroyed. The barriers, or lines of defence, made of the Cyprus apparatus, or of zinc, extended over 322 miles, while 27,113 ditches were dug at the foot of these to catch the young locusts. These figures do not take into account the work done by the administration of forests. The number of days' work furnished by natives during the campaign was 90,033. The efforts of the defenders were devoted mainly to saving the crops which were most valuable, such as the vines, and are said to have been very successful.

THE London County Council has adopted the following resolution: "That it be referred to the Parks Committee and to the Technical Education Board to consider and report as to the practicability of laying out plots of ground in certain parks in such manner as will afford assistance to scholars of elementary and secondary schools in the study of practical botany."

UNIVERSITY AND EDUCATIONAL NEWS.

THE report of the Treasurer of Yale University states that the additions to the funds of the institution during the past year amounted to $450,055, largely from the Fayerweather legacy. During the past ten years the funds of the University have been about doubled.

THIRTY scholarships have been established in the department of philosophy in the University of Pennsylvania, ten of which will be available this year, twenty next, and the whole number the following year.

PLANS have been adopted for the new Wilder physical laboratory at Dartmouth College. The building will be of brick, three stories high, 107 feet long by 56 deep, with a wing in the rear. It will front on College street, between the Richardson Hall and the Medical College. The building will provide lecture rooms and