The laboratory is housed in the former State Hatchery building which has been arranged with tables, dark room, aquaria, etc., and is supplied with microscopes and other apparatus from the university. Boats, collecting apparatus, dredges, seines, etc., are well supplied and special attention will be given to the methods of collecting and field work.

The courses of instruction will open July 2d, and run eight weeks. Five days each week will be devoted to regular exercises and one day left open for individual or special excursions.

Following the plan which has been in operation for several years past, the laboratory will be open to properly qualified persons who may desire to engage in investigations of biological problems pertaining to the life of the locality. No fees will be charged and table room, use of ordinary reagents, boats, aquaria, etc., will be supplied, subject only to such provisions as may be necessary to make the facilities equally available to all. Each investigator will be expected to furnish his own microscope, cutting instruments, and special apparatus or reagents needed in his investigation unless otherwise arranged.

The laboratory will be open for investigators from June 15th to September 15th. Applications for table room should be made as early as possible with indication of the time during which space will be desired.

SCIENTIFIC NOTES AND NEWS.

THE bill for the establishment of a government biological station on the coast of North Carolina has become a law. The sum of $12,500 is appropriated for the construction and equipment of the station, which, it is understood, will be located on Beaufort Harbor.

THE Senate Committee has made a report on the Nicaragua Canal bill, favoring the provision by Congress of money to construct the canal after having secured authority from Nicaragua. The proposition to buy the works by the French on the Panama route was rejected.

THE House Committee has submitted a favorable report on the measure now before Congress designed to prevent the adulteration, misbranding and imitation of foods and drugs. The bill would create a chemical bureau under the U. S. Department of Agriculture.

A COMPLIMENTARY dinner was given on May 15th to Professor Wilder D. Bancroft, of Cornell University, by his associates and pupils in the department of physical chemistry. The occasion was the fifth anniversary of the inauguration of the department. Speeches were made by Professor E. L. Nichols, Professor J. E. Trevor, and others; and many messages of congratulation were received from friends and old associates of Professor Bancroft in other universities.

PROFESSOR C. A. YOUNG, director of the Halsted Observatory, Princeton University, will give a commencement oration at Western Reserve University. Professor Young was professor at Western Reserve University before going to Dartmouth and Princeton. During the commencement there is to be an informal opening of the new telescope, which has been given to the university by Mrs. W. R. Warner and Ambrose Swasey, of Cleveland.

DR. EDUARDO WILDE, the new minister to the United States from Argentina, was formerly minister of Public Instruction and is known for his studies in yellow fever.

MR. W. E. D. SCOTT, curator of the ornithological collections of Princeton University, has returned from a visit abroad where he has been studying the ornithological collections in London and Paris with a view to his monograph on the Patagonian birds collected by Mr. J. B. Hatcher.

A DINNER was given in London on April 28th to Sir W. MacCormac and Mr. Trevors to celebrate the occasion of their return from South Africa.

JAMES M. CONSTABLE, Vice-President of the American Museum of Natural History, died on May 12th, at the age of eighty-eight. Mr. Constable was born at Stonington, Sussex, England, but came to New York in 1836.

THE death is announced at the age of 77 years of Professor Wenzel Hecke, formerly a

member of the faculty of the School of Agriculture, at Vienna, and of Dr. Bernhart Nöldeke. assistant in the zoological laboratory of the University of Strassburg.

LIEUTENANT-GENERAL A. H. LANE-FOX PITT-RIVERS, F.R.S., died on May 4th, at the age of 73 years. He had a distinguished military career, but was best known for his work in anthropology and archæology. The London *Times* states that he was only 25 when he began to collect specimens of objects such as weapons, articles of dress, ornament, etc., which were brought to England from various savage countries. In choosing his specimens he was guided by the principle of connection in form, his desire being to illustrate the development of specific ideas among savage peoples and their transmission from one people to another. The result of his patience and scientific enthusiasm was the formation of a collection illustrative of savage life and embryo civilization which is certainly unrivalled in England and probably in Europe also. It was exhibited in 1874 and 1875, in the Bethnal-green Museum, and afterwards General Pitt-Rivers presented it to the University of Oxford, which gave it a home in the new Museum-buildings, opposite Keble College. In 1880 the General, who had up to that time borne his father's name of Lane-Fox, succeeded to the Rivers estates under the will of his great-uncle, the last Lord Rivers, by which also it was provided that he should assume the name and arms of Pitt-Rivers. From the point of view of the interests of science it would have been difficult to find a better heir for these unique estates. Lying in Wiltshire, near the Dorset border, they had remained, for the most part forest land, containing numerous herds of fallow deer, practically untouched until the present century. They thus presented an unique field for excavation under trained archæological guidance, and General Pitt-Rivers made full use of the opportunity which fortune had placed in his hands. His excavations in the barrows, etc., round Rushmore were extensive and continuous, and the results of them he described in several large volumes which are constantly cited by archæologists. He has contributed a good deal of valuable material to the 'Reports' of the British Association and to the *Journal* of the Anthropological Institute, of which body he was president. At the Oxford Encænia of 1886 he received the honorary degree of D.C.L.

DR. FRITZ SHOTTKY, professor of mathematics at Marburg, has been elected a member of the Academy of Sciences of Berlin.

THE Academy of Sciences of Madrid has awarded its mathematical prizes to G. Loria of Genoa, and F. G. Teixeira of Oporto.

DR. KARL E. GUTHE of the department of physics of the University of Michigan, sailed on May 17th for Europe, where he will spend the summer in special study of the coherer and of polarization. He will read a paper on 'The Theory of the Coherer' at the meeting of the International Congress of Physicists in Paris August 6–11th.

MR. H. F. SILL of the chemical department of Princeton University, has been given leave of absence for two years and will study at Heidelberg and Munich.

WE learn from *Nature* that a committee composed of many eminent men of science in France has been formed for the purpose of obtaining funds for the erection of a modest monument at Langres in honor of Auguste Laurent, the renowned chemist. Laurent was born at La Folie, near Langres, in 1808, and in 1831 became assistant to Dumas under whom he acquired a special knowledge of organic chemistry, and carried on his original researches on naphthalene and carbolic acid, together with their derivatives. After filling various posts, the last of which was a chemical professorship at Bordeaux, Laurent became Warden of the Mint at Paris, where he remained in intimate connection with Gerhardt until his death in 1853. Subscriptions for the proposed monument should be sent to the treasurer of the Committee, M. Caublot, 45 rue de Belleville, Paris.

THE German Society for Advancing the Teaching of Mathematics and the Sciences meets this year at Hamburg from June 4th to 7th.

THE Society of Zoology and Botany at Vienna proposes to celebrate the fiftieth anniversary of its foundation in April, 1901, and to prepare

for the occasion a *Festschrift* setting forth the history of the Society and in general the part played by the natural sciences in the advances of the past fifty years.

In 1833 General Arakezeyew bequeathed to the Russian Academy of Sciences the sum of 50,000 roubles which were to accumulate till 1925, when three-fourths of the sum should be given to the best history in Russian of Alexander I.'s reign. The other quarter was to be spent in printing the work, in having it translated into French and German, and for a prize to the second best work. It is said that the fund now amounts to 1,500,000 roubles and would in 1925 consequently be in the neighborhood of $1,500,000.

At a meeting of the members of the Royal Institution on May 7th, thanks were given to Professor F. Clowes for his donation of £20 to the fund for the promotion of experimental research at low temperatures. The following vice-presidents for the ensuing year were announced from the chair: Sir F. Bramwell, Lord Lister, Dr. Ludwig Mond, Sir A. Noble, Mr. A. Siemens, the Hon. Sir J. Stirling, Sir J. Crichton Browne, treasurer, and Sir W. Crookes, honorary secretary.

A society at Gera, Germany, offers prizes for essays calling attention to the need of protection of plants by the young. It is proposed to circulate the essays widely through the schools.

The University of Zurich offers a prize for an essay on the use of alcohol in acute diseases.

Sigmi Xi, the Scientific Society corresponding to Phi Beta Kappa, has established a chapter at Brown University with Professor B. F. Clarke as president.

Under the direction of Captain J. F. Pratt, of the United States Coast and Geodetic Survey, preparations are being made to despatch the United States steamers *Pathfinder* and *Patterson* to Behring Sea early next month, where they will be engaged during the season in surveying the coast of Alaska between St. Michael and Cape Prince of Wales.

Professor Linck, director of the mineralogical laboratory at Jena has undertaken a scientific expedition to the Soudan.

Reuter's Agency learns that Dr. Louis Sambon and Dr. G. C. Low, who, as we have already reported, are about to experiment with a view to proving that malaria is spread by mosquito bites, expect to begin work seriously on June 1st, by which time they would have all their arrangements completed. They were leaving London immediately. They had hit upon a suitable spot in the Campagna, on the line of the railway running from Rome to Tivoli, and there they would begin their work. Their house would be put together at a spot about a mile from the little station of Cervellata, 30 minutes' run by rail from Rome, where a colony of Lombards were trying to reclaim that part of the Campagna. So far as malarial conditions were concerned no place could be worse.

The New York *Evening Post* contains the following note: "Commander Chapman C. Todd, chief hydrographer of the Navy, has been suspended from duty by Secretary Long, pending an investigation by the department into a charge that he had endeavored to influence the action of Congress in a matter affecting the naval service. The suspension grew out of the controversy in Congress over the reduction by the House Committee on Appropriations of the appropriation for surveys to be conducted by the Navy, and the refusal of the committee to agree to turn over the surveys of the insular possessions of the United States to the naval service. Commander Todd is one of the best known officers of the Navy. He commanded the gun-boat Wilmington in the Spanish-American war, and was in charge of the operations at Cardenas in May, 1898, in which Ensign Worth Bagley and some enlisted men of the torpedo boat Winslow were killed. After the war he made a cruise in the Wilmington up the Amazon River, penetrating to regions where no foreign vessel had ever been."

A telegram was received at the Harvard College Observatory, on May 14th, from the Arequipa station of this Observatory, stating that the correction of the ephemeris of Eros. computed by Mr. Daniel N. Jones, Jr., is zero, In the Bulletin issued on April 29th, and published in this Journal, it will be noticed that the correction to this ephemeris is almost exactly

half the diurnal motion of Eros. Professor Kreutz accordingly cabled that so large a correction seemed improbable and that perhaps an error of twelve hours had been made. A cablegram was accordingly sent to Arequipa and in a few hours a reply was received stating that the correction was zero. The error perhaps arose from assuming that the ephemeris was computed for noon instead of midnight. Attempts were made both visually and photographically to verify this conclusion, but without success, owing to the proximity of the sun.

THE orange groves of southern Florida have enjoyed favorable conditions during the past winter and are expected to supply about one million boxes. Should there be no frost next winter the groves will be again in good condition and the abundant supply of oranges of ten years ago may be expected.

THE annual banquet of the Royal Academy, London, took place on May 5th, with the president, Sir E. J. Poynter, in the chair, and as usual on such occasions the company included many of the most distinguished Englishmen. Sir Norman Lockyer replied to the toast on behalf of science and said, according to the report of the London *Times:* It is a very great honor for a student of science to be called upon in such an august assembly as this to say a few words; but if I am to be accepted as the representative of science I do not wish to be fettered by your suggestion, Sir, that I should refer to the dependence of art on science. I am sure that I may frankly say for every man of science that we acknowledge freely the firm brotherhood between art and science—a brotherhood founded upon a common object, the study of Nature, 'the mistress of the masters,' and carried on by a common method, the proper coordination of brain, hand and eye. In every case which a man of science or a man of art has to tackle imagination is required, and so science and art meet upon terms of mutual helpfulness. I think I may also say that this feeling is thoroughly reciprocated by men of art, for many of them honor me with their friendship, and therefore I know their sentiments. I am the more anxious to say this because some twenty years ago, when I was privileged to attend this anniversary dinner, I heard a distinguished representative of literature express a totally different sentiment. He told me that 'before their sister, Science, now so full of promise and pride, was born, there were Art and Literature like twins together,' and it was suggested that the sooner art and literature formed an alliance offensive and defensive against the interloper the better it would be for them. I do not believe in this. For me science is as old as art. They have both advanced together. Let us take the position of things 6000 years ago—to begin at the beginning of things, if we can. Then the priest-mummifiers of Memphis had to be profound anatomists. If you go to the Gizeh Museum you find magnificent specimens in those statues of Chepren in diorite, other statues in wood, and the plaques, veritable Memlings in stone. If you come down to a comparatively modern period, something like 600 B. C., and compare those wonderful metopes of Solinunto with the marbles of the Parthenon, which are of a later date, you will find an enormous advance in the latter. You will find that Hippocrates had lived in the interval. And, carrying the matter down to the introduction of the University system in Northern Italy in the 13th century, we find that the difference between the art of Cimabue and Giotto depends on the fact that anatomy had been introduced in the meantime. Science, then, is no new interloper seeking to detract from the importance of art and literature. What was new 20 years ago was that the work of the late Prince Consort, whose name will always be revered by those who know the benefits he conferred on our country was then beginning to tell. He showed us that in order to secure individual progress we must have a combination of science and art both in teaching and manufacture. Being well assured of the valor and endurance of our soldiers and sailors in war, the chief thing we have to do is to see that they are properly supplied with the engines and munitions of war. For the beauty of a nation's life and a perfect record of it we must look chiefly to the sweetening and ennobling influences of art and the enduring works of its masters; but for a nation's continued welfare and progress both science and art are

necessary. We are in face of industrial struggles, and we must utilize both science and art to supply the wants of our own and other countries, and to provide commodities made in England, besides handling

> "Things of beauty, things of use,
> That one fair planet can produce,
> Brought from under every star."

We are in face of a struggle for existence in which we know full well that only the fittest will survive. How are we going to carry on the struggle? What are our weapons? Our first line of defence in this direction can only consist of our universities and our teaching centers. Have we enough of them? We know already that we have not enough of them, because we have already lost several important engagements in these industrial battles. Are there no means by which we can judge of their sufficiency? In those less peaceful struggles among nations which must sometimes arise we have a first line of defence of another kind—our Navy. In that case we have the well-understood and generally acknowledged principle that our fleet must be equal to the fleets of any two other possibly contending nations. This principle, I think, should be applied to our first line of defence in these industrial conflicts the results of which are more enduring. Do our teaching and research centers at present outnumber in the same proportion, as do our ships, those of any two nations which are actually contending with us in peaceful enterprise? And, also, are they equally efficient in every respect? I believe, and I know that this view is held by many representative men of science, that until our universities, our science schools, our art schools, and our technical institutions bear the same relation both in number and efficiency to those of other nations as do our battleships, cruisers, and small craft, we shall not be justified in regarding the future of the empire with that freedom from care which is the attribute of a strong man armed.

UNIVERSITY AND EDUCATIONAL NEWS.

Mr. James Milliken of Decatur, Ill., has offered $200,000 and land for the establishment of a college under the auspices of the Cumberland Presbyterian Church of that place. It is said that the citizens will give over $100,000 toward the college.

New York University has received $20,000 and Rutgers College $10,000 by the will of the late Robert Schell of New York.

A scholarship in New York University has been endowed with $2500 by Dean and Mrs. Edward R. Shaw in memory of their son, a member of the class of 1900, who died last year.

The Ohio Institute of Mining Engineers has undertaken to defray the cost of a scholarship of $100 annually at the School of Mines of the Ohio State University.

The first meeting of the Court of Governors of the Birmingham University was convened for the 31st inst. The donations to the endowment fund which have already been promised amount to $327,000.

At Harvard University Dr. R. DeC. Ward has been promoted to an assistant professorship of climatology, and Mr. W. C. Sabine to an assistant professorship of physics.

The following promotions have been made in the Philosophical Department of the University of Michigan: Mr. George Rebec, Ph.D. (Michigan), instructor in philosophy, to be assistant professor of philosophy; Mr. W. B. Pillsbury, Ph.D. (Cornell), instructor in psychology, to be assistant professor of philosophy and director of the psychological laboratory.

George H. Ling, now instructor of mathematics at Wesleyan University, has been appointed a professor at the Cincinnati University.

Professor Pierre de Peyster Ricketts has resigned from the chair of analytical chemistry of Columbia University.

Dr. August Töpler, professor of physics at the Technical Institute of Dresden, will retire on the first of October.

Dr. Franz Kossmat, assistant in the Austrian Geological Survey, has qualified as docent in the University of Vienna, and Dr. Paul Ehrenreich as docent in ethnology at Berlin.

Dr. Arthur Wreschner has qualified as docent for philosophy and psychology at Zurich. The subject of his inaugural address was 'The Influence of Leibnitz on pre-Kantian Psychology and Æsthetics.'