

Dr. Lazear's life has not been altogether thrown away if these experiments lead, as they must, to their repetition under more rigid conditions, and if it be found that yellow fever is conveyed by the mosquito, the important sanitary measures which will result from the discovery will atone, in a measure, for the regrettable sacrifice. Meanwhile the bacillus icteroides of Sanarelli is being discredited, and, like so many of its predecessors, may have to give place to some other microorganism, in this case, possibly, of a protozoal nature.

UNINSULATED CONDUCTORS AND SCIENTIFIC INSTRUMENTS.

In his inaugural address as president of the British Institution of Electrical Engineers delivered on November 8th, and published in *Nature*, Professor John Perry urged the importance of scientific and mathematical training for electrical engineers. He said: "In this address I mean to put before you this simple question: Is electrical engineering to remain a profession or is it to become a trade? Is this Institution to continue to be a society for the advancement of knowledge in the applications of scientific principles to electrical industries, or is it to become a mere trades union?"

Professor Perry, in the course of his address referred to the use of insulated return conductors in connection with electrical transportation, where uninsulated conductors may disturb scientific instruments, saying:

"At Potsdam this sacrilege has been forbidden. At Washington, Toronto, Capetown and most other important places, the magnetic records have already been rendered useless. Professor Rücker and I were asked by the other members of the Committee of the Royal Society which was in charge of the Kew Observatory to defend Kew, and with the help of her Majesty's Treasury we thought we were able to insist upon the use of insulated returns in all undertakings authorized by Parliament where harm was likely to be inflicted on Government observatories. * * * We were, however, mistaken, for the only clause which we have been able to get inserted in all Parliamentary authorizations of undertakings leaves it to the Board of Trade to substitute other methods of protection than

the insulation of the return conductors in cases where these other methods seem to be sufficiently good for the protection of laboratories and observatories, and this is why the Board of Trade appointed the committee which met on October 31st, probably for the last time. * * * I beg to assure you that I have been acting in your best interests. As an electrical engineer I ought surely to regret the use of uninsulated returns, even if we leave Kew Observatory out of account. Suppose we do not now insulate our returns. Electricity will certainly return by gas and water pipes and the amount of harm done to those pipes is merely a question of time. Because of the ignorance of legislators and gas and water companies, nothing is said just now; but will nothing be said at the end of ten or twenty years, when pipes are found to be eaten away everywhere? And if by a slight increase of expense, or rather, as I think, actually no increase of expense, but merely a little increase in inventiveness and common sense on the part of electrical engineers, this evil may be entirely prevented, surely it is in the interests of all of us that insulated returns should be insisted upon. But even if we do not insist on insulating the returns in all systems, surely something may be said for the giving of this protection on lines near such a magnetic observatory as Kew. Even the magnetograph records now being made have been continuous for forty five years, and if Kew is interfered with no sum of money can compensate for the interference; for if the observatory were removed the future observations would have no link with the past."

SCIENTIFIC NOTES AND NEWS.

THE programs of the scientific societies in session during Christmas week at Baltimore, Chicago, New York and Albany show that an interesting series of meeting will be held. We hope to publish in early issues the official addresses and discussions, together with accounts of the meetings.

DR. G. A. MILLER, of the mathematical department of Cornell University, has just been awarded the prize of \$260 offered by the Royal Academy of Sciences of Cracow, for researches in the theory of groups.

PROFESSOR W. G. JOHNSON, state entomologist at the Maryland Agricultural College, has resigned to become editor of the *American Agriculturist*.

Dr. PETER M. WISE has been removed from his office as president of the State Commission in Lunacy by Governor Roosevelt on the charge of soliciting subscription to a mining company of which he was president from his official subordinates. It will be remembered that Dr. Wise was largely instrumental in the curtailment of the work of the New York State Pathological Institute.

Dr. JOHN J. ABEL, professor of pharmacology in the Johns Hopkins University, was injured in an explosion in his laboratory on December 19th. He was taken to the Johns Hopkins Hospital and it is feared that his eyesight may be injured.

PROFESSORS J. W. TYRELL and J. W. Bell, of the Canadian Geological Survey, have returned to Vancouver, after an expedition extending 5,000 miles through the Barren Lands of northern Canada. The party is said to have secured much valuable geological and other scientific information.

ON December 20th, Dr. George Bruce Halsted and Professor Wm. M. Wheeler started from Austin on an expedition into southern Mexico. Professor Wheeler will collect and study Mexican ants. Dr. Halsted is interested in the anthropological exploration of 'La Mesa Cartujanos,' and will also be at Mitla.

THE Academy of Sciences of Vienna will send a botanical expedition to Brazil next year under the direction of Dr. Richard von Wettstein, director of the Botanical Garden of the University of Vienna, and Dr. Viktor Schiffner, professor in the German University at Prague.

OWING to the retirement of Mr. Charles Whitehead, F.L.S., F.Z.S., from the position of technical adviser to the Board of Agriculture, it has been arranged that the scientific and expert assistance required by the Board in connection with these subjects will be furnished respectively by the Royal Botanic Gardens, Kew, and by the Natural History Departments, South Kensington.

THE committee on the trust founded by the late Sir John Lawes for the purposes of scientific investigation and experiments in connection with agriculture held its first meeting since the death of its founder, when the following resolution was unanimously agreed to: "That the Lawes Agricultural Trust Committee desires to place upon record its deep sense of the irreparable loss it has sustained by the sad and unexpected death of Sir John Bennet Lawes, to whose munificence the trust owes its existence, and to whose wise counsels and hearty cooperation any success that may have attended the operations of the committee has been largely due."

THE Huxley Memorial Committee has just issued its final report and donation list. The total sum at the disposal of the committee was £3,405, 10s, 2d. The total cost of the statue, now in the Natural History Museum, London, was £1,813, 18s, 8d. The cost of preparing the Huxley gold medal, to be awarded by the Royal College of Science, was £263, 17s. The surplus of the fund being insufficient to provide a third object of memorial, as originally contemplated, the whole sum of £1,126, 6s, 4d. has been invested as an endowment for the medal. The committee has, however, arranged with the council of the Anthropological Institute to allow them the use of the obverse die, for the production of a presentation medal, of which that body will provide the reverse die and impression, in commemoration of Huxley's labors as an anthropologist. The committee also recalls the generous action of the Hon. J. Collier in painting a portrait of Huxley and presenting it to the National Portrait Gallery. The list of subscribers contains about 750 names, without reckoning individually the many who subscribed through local societies and committees.

Dr. J. BOERLAGE, assistant director of the Botanical Garden in Buitenzorg died recently while on a scientific expedition to Ternate.

THE death is announced of Dr. G. Hartlaub, the eminent German ornithologist, at the age of eighty-seven years.

Dr. A. W. MOMERIE, formerly professor of logic and metaphysics in King's College, London, and the author of numerous books on

philosophical and theological subjects, died on December 6th at the age of 52 years.

WE regret also to record the deaths of the following men of science: Dr. Theodor Adensamer, assistant in the Natural History Museum in Vienna; Dr. August Böttcher, physicist in Berlin; Dr. Adolf Stengel, professor of Agriculture in the University at Heidelberg, and Father Amand Davis, corresponding member of the Paris Academy of Sciences in the section of geography.

It will be remembered that the late Professor Hughes left £4,000 to the Royal Society for the establishment of a prize. The Society has now decided to award annually a gold medal, to be called the Hughes Medal, not exceeding in value the sum of £20, together with the balance of the income, to such person as the president and council may consider the most worthy recipient, without restriction of sex or nationality, for original discovery in the physical sciences, particularly in electricity and magnetism.

At the banquet of the Royal Society on November 30th the Swedish and Norwegian Minister, in replying to a toast, said that the prizes to be awarded by each of the five Noble institutes would amount to about £8,000 annually.

THE Committee of the National Educational Association charged with selecting the place of meeting for the year 1901 has voted in favor of Detroit. The meeting will be held in July. The Association met at Detroit in 1874.

A SCIENCE club has been organized in Las Vegas, New Mexico. At the first meeting held early in December, Mrs. Wilmatte P. Cockerell referred to the tendency of the butterfly *Argynnis nitocri* to develop distinct races on isolated mountain ranges, and exhibited a new race from Sapello Cañon, N. M., which it was proposed to call var. *nigrocerulea*. Mr. Emerson Atkins exhibited some rodents which he had collected in the mountains near Las Vegas, including specimens of *Sciurus fremonti*, which appear to indicate that the subsp. *neomexicanus* of Allen could not be maintained, but must be referred to subsp. *mogollonensis*. He also showed examples of a *Tamias* which served to connect *T.*

quadrivittatus, Say., with *T. cinereicollis*, Allen, indicating that the latter should apparently be regarded as a subspecies of the former. Mr. T. D. A. Cockerell exhibited and discussed some parasites found in the nest of the bee *Anthophora occidentalis*, Cresson, at Las Vegas. These included the metoid beetles *Leonidia neomexicana* (Ckll.) and *Meloe sublævis*, Lec., the former only known heretofore by a single example, and the chalcidid *Monodontomerus montivagus*, Ashm.

PROFESSOR F. H. HERRICK has been invited to give a lecture on 'The Habits and Instincts of Wild Birds' at Trinity, before the Hartford Scientific Society on January 15th. He will give the same lecture at Yale University, before the Scientific Society of Sigma Xi, on January 17th; at Brown University, before the Rhode Island Audubon Society, on January 17th, and at Dartmouth College on January 18th.

THE Hungarian Minister of Education recommends the appropriation of 332,000 crowns for the establishment of a general pathological institute together with a Pasteur institute at Buda-Pesth.

DRS. SAMBON AND LOW have returned to England, after the summer spent in the mosquito-proof hut in the Roman Campagna. They are in excellent health, though it is said that the past summer was exceptionally malarious. For example, fifteen or sixteen police agents were sent to Ostia, and though they only remained a night in the place, they all developed fever.

A CABLE dispatch to the New York *Sun* states that investigations of the causation of yellow fever now being carried on at Marinao have so far confirmed the report of the Surgeon-General's commission. Five soldiers who have kept themselves protected from mosquitoes have been living in infected clothes and sleeping in infected beds for twenty days and have not yet developed any symptoms of the disease.

At its annual meeting on December 14th the American Forestry Association recommended that a national park be established in Minnesota and that the California big trees be preserved so far as possible.

WE learn from the London *Times* that very striking evidence of the shrinking up of Lake Tanganyika was furnished in the paper read recently in Brussels by Captain Hecq, who stated that the post of Karema, founded 20 years ago on the shores of the lake, was now fourteen miles distant from the lake. Captain Hecq also recently visited Lake Kivu, the waters of which are so salt that neither crocodiles nor hippopotami are to be found in it. This lake is given the appearance of being divided into two by a large island, and this may explain some generally accepted errors which are now being definitely solved by a German-Congolese boundary commission.

A RESOLUTION has been adopted unanimously by the French Chamber of Deputies calling upon the government to prohibit the manufacture and sale of all alcoholic liquors pronounced 'dangerous' by the Academy of Medicine. The resolution is especially concerned with the consumption of absinthe, which continues to increase in France.

THE Buffalo Society of Natural Sciences expects to cooperate with the New York State Museum in making an exhibit at the Pan-American Exposition, at Buffalo, in 1901. This exhibit will be held in the New York State building. An especially fine collection from the water-line rocks near Buffalo, consisting of the fossil crustaceans—*Pterygotus*, *Eurypterus*, and *Ceratiocani* will be shown. This collection is being mounted for exhibition at the State Museum.

The London *Times* states that in view of the fact that the Royal Institution of Civil Engineers has, by a decision of the House of Lords, been exempted from payment of the Corporation Tax (1894), it is submitted that the Royal Colleges of Physicians in London and Edinburgh may reasonably claim similar treatment; and an attempt is being made by Sir John Tuke to induce the Chancellor of the Exchequer to concur in this view. The especial hardship in this case is that, notwithstanding the important part played by the two colleges in administering and regulating medical education and examination, and in maintaining laboratories for original research, and the obligation upon each

fellow to pay a stamp duty of £25 on election, there will be five years of arrears to make up if the authorities persist in their intention to levy the tax.

WE learn from the *Electrical World* that the International Conference sitting in Brussels for the Protection of Industrial Property, at which United States Assistant Patent Commissioner, Walter H. Chamberlin, and Lawrence Townsend, United States Minister to Belgium, were the American representatives, adopted the following resolutions: First—The period of exclusive rights, previously fixed at six months for [applications for] patents and three months for industrial designs, models and trade marks, is extended to a year for the first named and four months for the second named. Second—Countries signing the convention enjoy reciprocally the protection accorded by each country to its own citizens against unfair competition. Third—Patents cannot lapse because they are not put in circulation, except after a minimum delay of three years, dating from the first application in countries where the patent is allowed and in cases in which the conditions of the patent do not justify causes of inaction.

At a meeting of the Zoological Society of London, on December 4th, Mr. J. S. Budgett read a paper on 'The Breeding-habits of *Protopterus*, *Gymnarchus*, and some other West-African Fishes,' in which an account was given of a collecting-trip made during last summer to the swamps of the Gambia river in search of the eggs of *Polypterus*. The eggs of *Polypterus* were not discovered, though a very young specimen measuring only one inch and a quarter in length was found. In this small specimen the dermal bones were not developed, and the external gills were of very great size, the base of the shaft being situated immediately behind the spiracle. The dorsal finlets formed a continuous dorsal fin. The secretary read an extract from a letter which had been addressed to the Colonial Office by the West India Committee, concerning the proposed introduction of the English Starling or the Indian Mynah into St. Kitts, West Indies, to check the increase of grasshoppers, which were causing great damage to the growing crops of that island.