

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.