is really to test the accuracy of formulæ, mostly arrived at by theoretical considerations; the work is therefore purely deductive, and not inductive. Yet it is difficult to see how to make the work covered by these notes anything but deductive; certainly no better system of teaching practically the elements of electrical engineering has so far been developed.

By means of Dr. Fleming's notes and a little oral assistance now and then, the student will be able to perform instructive experiments, and will be taught to observe closely, and to record his results neatly. The method followed facilitates the work of the demonstrator and the student, and enables a large amount of practical work to be carried out in a comparatively short time.

Microbes and Disease Demons. By Dr. Berdoe. Pp. 93. (Swan Sonnenschein and Co., 1895.)

UNDER the above sensational title the writer discusses, or rather attacks, the anti-toxin treatment of diphtheria. It is difficult to understand what has prompted the production of so prejudiced and, we regret to say, unscientific comment upon this subject. We most emphatically take exception to such expressions as "scientific quackery," and others of a similar character, being applied to investigations of which, although the therapeutic value may be as yet a question of opinion, undoubtedly mark a new step forward in our endeavour to unravel the problems surrounding disease.

We have no intention of discussing Dr. Berdoe's views in detail, but we feel ourselves called upon to refer to one statement, because the writer has used it as a vantage ground for his most savage attack upon this method of treating diphtheria. We refer to the death in Brooklyn alleged to have resulted from the injection of some of the anti-toxin. Several pages are devoted to a detailed account of the incidents of the case, and Dr. Berdoe does not hesitate to designate it as "sudden death from anti-toxin." This, however, is not the view of the Brooklyn Health Department, or of authorities in the Bacteriological Laboratory of the New York City Board of Health, in both of which institutions the anti-toxin used was submitted to a very careful and exhaustive examination, and the official opinion given that it was not responsible for the death of the patient.

The case for or against the anti-toxin treatment of diphtheria is not one which should be approached from a party point of view, and such prejudiced, vaporous effusions as Dr. Berdoe has permitted himself to indulge in, will never take any part in deciding the question of its efficiency. To arrive at any such positive conclusion is of necessity a matter upon which time and experience can alone give the final verdict, and its discussion should only be entrusted to those who are capable of approaching the subject in a scientific and judicial spirit.

Men-gu-yu-mu-tsi; or, Memoirs of the Mongol Encampments. Translated from the Chinese by P. S. Popov, Russian General Consul at Peking. 580 pp. (*Memoirs of the Russian Geographical Society*, vol. xxiv.; Russian.) (St. Petersburg, 1895.)

THIS is the work of two Chinese men of science, Chjan-mu, or Shi-chjou, author of a history of Jinghiz khan's conquests, and Khe-tsyu-tao, author of several geographical works, of which the description of the northern borderlands is best known. It was published in China in 1867, and consists of two parts: a description of the different tribes and confederations into which the Mongols are divided, with short notes on the extent of the territories they occupy, and short historical notices—the whole covering only about 160 pages of the Russian edition—and a great number of most interesting footnotes, which cover more than two-thirds of the volume, and contain a great variety of miscellaneous geographical and historical information.

LETTERS TO THE EDITOR.

[*The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of* NATURE. *No notice is taken of anonymous communications.*]

University of London Election.

I HAVE read the letters which Mr. Bennett, Mr. Thiselton-Dyer, and Prof. Ray Lankester have addressed you on the subject of the University of London, and much regret that my friends, whose opinion I value so much, take exception to one paragraph in my letter to Prof. Foster. I do not wish to seem to treat their views with any want of respect, and perhaps, therefore, you will allow me to send a few lines in reply.

They all criticise the sentence in which I state that I should endeavour to maintain the right of Convocation given in the Charter, which expressly provides that no alteration should be made in the constitution of the University without the assent of Convocation.

Prof. Ray Lankester says that "Sir John Lubbock has adopted and made himself the leader of this extraordinary and fantastic policy." Whether it is extraordinary and fantastic or not, is of course a matter of opinion, but, at any rate, it is the law at present.

I am satisfied that my constituents highly value this right, and I fail to understand how Mr. Thiselton-Dyer has been able to persuade himself that in endeavouring to maintain it I am taking a line "not courteous to Convocation," or have given "Convocation the severest slap in the face it has ever received."

Prof. Ray Lankester also says that I "have shown an unfavourable estimate of the intelligence" of my constituents. This is such an extraordinary version (not to say perversion) of what I said, that I trust you will allow me to quote my own words. What I said was—

"Feeling that Convocation ought to be consulted on a matter so vitally affecting the University, I should strongly urge, and would do my best to secure, that the scheme when arranged should be submitted to Convocation for their approval, to be signified as at a senatorial election, and would oppose the Bill unless this were conceded."

Why should this proposal appear to my friends as being, in Mr. Bennett's words, fatal to "all hopes of bringing our University into line with the requirements of the age"? The Commissioners will either propound a wise scheme or an unwise one. My critics believe that it will be wise. Why, then, should they assume that Convocation will reject it? At any rate it is an extraordinary reason for attacking me as a Member of Parliament, that I have faith in the good sense and sound judgment of my constituents.

JOHN LUBBOCK.

High Elms, July 30.

Metrical Relations of Plane Spaces of n Manifoldness.

PLANE spaces of n manifoldness are assumed to have the following properties:—

(1) Given a S_{n-1} (a plane space of $n-1$ manifoldness) and a point P outside the same, then a certain S_n will exist which contains both the S_{n-1} and P.

It follows therefore that a S_n is determined by $n+1$ of its points, unless these points have that special situation to each other by virtue of which they are contained in a plane space of minor manifoldness.

(2) If a plane space S_n contains $n+1$ points, which have not the special situation to each other above mentioned, then it will contain the plane space S_n, determined by these points.

It therefore appears that $n+1$ points determine a S_n uniquely.

Given a straight line L and any point P upon the same: through L any number of planes can be constructed, each of which contains a certain line L′ through P perpendicular to L. The aggregate of such lines L′, in a space S_n form a S_{n-1}, which has that special position towards L by virtue of which it is called perpendicular to L in P.

To prove this theorem, which certainly holds if $n = 2$ or 3, let us assume that it is true when $n = k$; then it will also be true when $n = k+1$. Through P, in a space S_k which contains L and is contained by S_n, construct the S_{k-1} perpendicular to L. Any point not contained in the S_{k-1} and L determines a plane,