things needed besides technical knowledge to make a good engineer.

Mr. Gotshall's work is distinctly the more ambitious of the two, in that it seeks rather to point out the general principles applicable to all cases of electric railway projection, whereas Mr. Gonzenbach confines himself to the consideration in outline of a particular case. The student will derive from Mr. Gotshall's book a good idea of the importance of every detail in the original scheme, and will see how greatly the operating costs and the dividends may be affected by careful design throughout. He will also be able to glean some useful hints on the methods of dealing with promoters, landowners, and so forth, with whom, if he is ever called upon to draw up a scheme for an electric railway, he is likely to have much to do. Many of the details and particulars in both books are naturally not applicable to this country, but this does not materially detract from their value. M. S.

The Pests and Blights of the Tea Plant. Second edition. By Sir G. Watt and H. H. Mann. Pp. xv+429. (Calcutta, 1903.)

THIS work first appeared in 1898 as a report of particular investigations on tours, but is now a large volume of more than 400 pages, with numerous illustrations. The amount of information collected is enormous, and one may understand that no tea-planter can dispense with the work, the more so since such subjects as hybridisation and the different races of tea seed, weeding, tilling and cultural operations generally, drainage and manuring of tea, pruning and plucking, &c., are fully dealt with, in addition to the enumeration and description of the multitude of insect and fungus enemies which the long suffering shrub harbours.

By means of conspicuous marginal notes the authors have undone most of the disadvantages inevitable from their general method of lumping together scraps of information derived from all kinds of sources, the relative value of which, moreover, is generally capable of being sifted because the references are given; in spite of this, however, and indispensable as the encyclopædic information is, we think much might be done in improving the style if the materials were better woven into a more narrative and continuous form. Why is it that the introductory sections on general physiology of plants—the fundamental study without which the sequel is useless—are so often badly done in such works as this? Does it mean that the great schools of science have even yet not impressed their learning on the officials entrusted with such important treatises, or is it that an older generation of workers not familiar with modern researches dominates the situation?

Highways and Byways in Sussex. By E. V. Lucas. With illustrations by Frederick L. Griggs. Pp. xx+416. (London: Macmillan and Co., Ltd., 1904.) Price 6s.

MR. LUCAS himself aptly describes his book. He tells the reader:—"My aim has been to gather a Sussex bouquet rather than to present the facts which the more practical traveller requires," and he has succeeded in writing a delightful, chatty account of a county in which Londoners have an especial interest. The history, architecture and folk-lore, the animal and plant life of the county, and the customs and characteristics of the people are all noticed by Mr. Lucas and skilfully woven into a pleasing narrative. The illustrations, of which there are nearly eighty, are excellent, and add greatly to the charm of the book.

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.*]

Learned Societies.

THERE are two other defects of the present system of reporting on papers to which I desire to direct attention. In the first place there are certain mathematicians who resemble the Athenians in the time of St. Paul, who "spent their time in nothing else, but either to tell, or to hear some new thing." They are consequently averse to reporting in favour of a paper unless it contains new results. Against this excessive craving after novelty I emphatically protest. Many interesting results frequently drop out incidentally in the course of a long and complicated investigation, whilst others have been originally obtained by some cumbrous, troublesome and antiquated process,[1] and in my judgment a paper which supplies concise, simplified and improved demonstrations of results of this character is quite as valuable as one which is devoted to the investigation of new results.

In the next place, as a general rule, none of the councillors present have read the paper unless any of them happen to be referees. Moreover, a good many of the councillors present, even if they had tried to understand the paper, would be quite incapable of expressing an opinion as to its merits, and I well recollect that I myself have sometimes experienced considerable embarrassment when invited to vote officially as a councillor against the publication of a paper which lay outside my own line of reading, and I have sometimes got over the difficulty by abstaining from voting.[2]

I regard Prof. Bryan's suggestions as altogether impracticable. In the first place no person possessing ordinary common sense would run the risk of adverse criticism by consenting to report on a paper relating to a subject with which he was only slightly acquainted. In the next place no author, except a very junior one, would consent to subject his papers to the extensive revision, which Prof. Bryan appears to contemplate, at the suggestion of an *unknown* and possibly a very junior referee. He would probably regard such suggestions as a piece of impertinence (and I recollect one such case in connection with a foreign mathematician), and he would make short work of them by insisting on the society printing his paper as it stands or returning the manuscript for publication elsewhere.

I believe that every Royal Academician possesses the privilege of hanging a certain number of his pictures every year, and I see no reason why a similar privilege should not be extended to members of learned societies with regard to the publication of their papers. A. B. BASSET.

Fledborough Hall, April 16.

Department of International Research in Terrestrial Magnetism of the Carnegie Institution.

THE trustees of the Carnegie Institution at their annual meeting last December authorised the establishment of what is to be known as the "Department of International Research in Terrestrial Magnetism." An allotment of twenty thousand dollars was made with the expectation that if the proposed work should be successfully organised, a similar sum would be granted annually for the period requisite to carry out the plan submitted by the writer, as endorsed by leading investigators, and published in "Year-book" No. 2 of the Carnegie Institution.

The undersigned has been appointed director of the department, and has been given full authority to organise it, beginning with April 1. Arrangements have also been made so that the magnetic survey and magnetic observatories of the United States, conducted under the Coast and Geodetic Survey, will remain in his charge as heretofore.

[1] The method by which Euler's equations for the rotation of a rigid body used to be proved is an example.

[2] A very glaring example of the imperfections of the present system will be found in the *Phil. Trans.*, A. 1892, in connection with Mr. J. J. Waterston's paper.