A short history is given in chapter viii. of the general development of triangulation from the time of Snellins to the present day, but it consists mainly in mentioning some of the more striking incidents connected with the subject, such, for instance, as the use of electric light in the work connecting Spain and Algiers.

The question of lateral refraction is gone very fully into, and a table is given showing the mean triangular errors proportional to triangles of different sizes. The deduction is then made that the effect of lateral refraction increases with the mean length of a side of a triangle up to about 90 kilometres, after which it begins to decrease again. This is a particularly interesting problem, and the table, which is taken from a recent triangulation in Germany, certainly confirms the deduction. It is of course assumed that the closing errors of triangles are due in most part to lateral refraction. The usual methods of calculating and computing triangulation are very thoroughly dealt with.

Precise levelling forms the greater part of chapter ix., but an exceedingly full and clear demonstration is given at the beginning of the various formulæ relative to atmospheric refraction and to trigonometrical differences in heights of stations. This is treated in a really very clear manner.

Three chapters are devoted to the theory of probability and its application to geodesy. The theoretical portion has been well demonstrated, and differs but little from the numerous text-books on this subject; but where the attempt is made to apply the method of least squares to a network of triangulation, the want of taking a practical example is at once felt. Clarke, in his " Geodesy," gives numerous examples of how to apply theory to practice, but Signor Pizzetti leaves the student utterly in the dark on this important point.

Perhaps the two most interesting chapters are left to the end. They deal with the subject of projections, which is gone into with every care. There is scarcely any well known projection which is not very fully explained.

Altogether this book is a distinct addition to any geodetic library.   W. J. JOHNSTON.

OUR BOOK SHELF.

The Food Inspector's Handbook. By Francis Vacher. Fourth edition. Pp. xvi+231; illustrated. (London : The Sanitary Publishing Co., 1905.) Price 3s. 6d. net.

THIS is a pocket volume intended for the use of sanitary and other officers concerned in the inspection of food. It describes, in simple, untechnical language, the naked-eye characters of the various foodstuffs met with in ordinary commerce, and points out the physical signs by which unwholesome food may be detected.

The first sixty pages deal chiefly with the statutory powers by virtue of which the food-supply of the community is supervised. They include a summary, with explanatory comments, of the various enactments —Public Health Act, Sale of Food and Drugs Acts, and so on—bearing upon the control of food from the inspector's point of view. Next follow chapters treat-

ing of meat, poultry, and fish. This is the most important part of the book, and the notes upon the *ante-* and *post-mortem* signs of those diseases which render flesh-food unfit for consumption, or which seriously depreciate its quality, will be especially valuable to sanitary officers who have had no veterinary experience. A subsequent chapter is allotted to fruit and vegetables, and one to milk ; the rest of the book gives short descriptions of cereals, dairy products, tea, sugar, spices, and so forth. This section, though of interest to the food inspector, is of less concern to him than the foregoing, the quality of the articles mentioned being generally a matter for decision by analysis, not for condemnation at sight.

The author gives sensible advice, and his little volume should be found very useful to those for whom it is written. The only inaccuracy we have noted is suggested in the statement that " Dutch cheese is below the standard per cent. as regards fat "; this might imply that there is a legal standard, which is not the fact.   C. S.

Manuale dell'Ingegnere Elettricista. By Attilio Marro. Pp. xv+689. (Milan : Ulrico Hoepli, 1905.) Price 7.50 lire.

THIS book forms one of the useful series of " Manuali Hoepli," which already comprises over 800 distinct treatises. Its aim is to give to engineers and electrical constructors most of the information and data that they are likely to require in practice. On this account it is not so much a text-book as a classified collection of rules and data ; but on account of its containing a large amount of explanatory matter it lies intermediate between a treatise on electrical engineering and a pocket book of electrical rules and tables. The type being small but clear, a very large amount of useful information is collected in a small compass. The numerical data have been obtained principally from recent papers published in the journals of electrical engineering, and are collected in 115 tables. The work is illustrated with 192 cuts and is furnished with a good index. Its size well adapts it to be a handy pocket book of reference, and it is likely to prove of considerable use.

Poisonous Plants of all Countries. By A. B. Smith. Pp. xvi+88. (Bristol : J. Wright and Co., 1905.) Price 2s. 6d. net.

THE author has collected a fairly representative list of poisonous plants, which he has arranged according to the action produced and the organs affected, but there is no mention made of the part or parts of the plant which furnish the poison. The descriptions, which form the main part of the text, are sufficient where reference is made to the whole plant, but the majority are too meagre to be diagnostic. The string of vernacular names which is quoted in several cases does not serve any useful purpose, whereas beyond the mere name of the toxic principle information which is much required is not given.

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.*]

The Constant of Radiation as Calculated from Molecular Data.

IN NATURE, May 18, I gave a calculation of the coefficient of complete radiation at a given absolute temperature for waves of great length on principles laid down in 1900, and it appeared that the result was eight times