serious defect in the work, and may be passed over with this allusion.

Very interesting are two introductory chapters on the climatology and lithology of West Yorkshire, specially in relation to plant-life, which many persons would doubtless gladly possess, apart from the enumeration of the plants of the region. In the list of pelophilous (clay-loving) plants, we note *Spiræa Filipendula*, a plant so strictly associated with chalk in the south of England, that we are surprised to find it among those characteristic of clay and mud-soils. Perhaps it was a slip of the pen for *S. Ulmaria?*

The total number of species of vascular plants enumerated is 1042, whereof 995 are phanerogams, which is equal to the whole phanerogamic flora of New Zealand, even after allowing 40 off for "critical species" of various genera. On the other hand, the vascular cryptogams of West Yorkshire are only 47 against 138 in New Zealand, of which 120 are ferns. Fortunately for the New Zealanders, and Australians too, for that matter, they are free from the "horse-tails," which are such terrible pests to farmers in some districts of this country; but seven species are indigenous in West Yorkshire.

Cellular cryptogams are also included in Lees's "Flora," and occupy about 250 pages. The enumerations of some of the groups are exceedingly imperfect—imperfect in consequence of their not having been investigated—and it would have been much more convenient for the majority of workers had this class been reserved for a separate volume. W. B. H.

OUR BOOK SHELF.

A Manual of Practical Assaying. By John Mitchell, F.C.S. Edited by William Crookes, F.R.S. Sixth Edition. (London: Longmans, Green, and Co., 1888.)

MITCHELL'S "Assaying" is so well known to all whom the subject concerns, that it is hardly necessary at present to do more than announce the appearance of a new edition. In this edition, as Mr. Crookes explains, much new matter has been introduced, and matter which had become obsolete has been omitted. Among the more important of the additions are descriptions of the "automatic sampling-machine," invented by Mr. D. W. Brunton; many new gas-furnaces and burners for the laboratory, devised by Mr. Fletcher, Messrs. J. J. Griffin, and others; new blow-pipe reagents and operations; new processes, dosimetric, volumetric, and calorimetric, for the partial and complete assay of iron ores, iron, steel, spiegeleisen, &c. In the copper assay the American system of fire assay is here, for the first time in this country, fully described. In the assay of silver, the action of bismuth on the ductility of this metal has received adequate attention. Much has been added about gold ores; and improved modes of assaying the precious metal and detecting it in poor ores are given. The number of woodcuts has been increased from 188 in the last edition to 201 in the present edition.

Asbestos, its Production and Use. By Robert H. Jones. (London: Crosby Lockwood and Son, 1888.)

THIS little book, written in epistolary style, though possessing little or no scientific value, contains an interesting account of the "asbestos" mines of Canada, and of the methods pursued in working the mineral in that country. It is precisely ten years since the first Canadian chrysotile mines were opened, and the annual yield at the present time appears to be more than 2000 tons, so that the new locality is rapidly becoming an important rival to the older and better-known asbestos mines of the Italian Alps. The author gives a brief description of the mode of occurrence of the mineral in the Serpentine belt which traverses the provinces of Megantic and Beauce in Quebec, and prophesies a wider development of this industry in the future; he does not, however, supply any such details as would suggest either the origin or the probable extent of the Canadian "asbestos," and the book contains no original observations of any scientific importance. The author does not appear to be aware of the difference between asbestos and chrysotile. The pages most interesting to general readers are those which contain an account of the latest uses to which the mineral is now applied; among which may be mentioned fire-balloons, theatre-curtains, fire-proof paint, filters, and letter-paper.

Industrial Instruction. By Robert Seidel. Translated by Margaret K. Smith. (Boston: D. C. Heath and Co., 1888.)

IN the years 1882 and 1884 industrial instruction formed the subject of much discussion in the Synod of the Canton of Zürich. Herr Seidel, who had long devoted earnest attention to the question, carefully answered all the objections to industrial education which were raised in the course of these debates; and the substance of his replies is embodied in the work translated in the present volume. If there is still anyone who has doubts as to the value of manual training in schools, he would profit largely by reading this little book. Herr Seidel's main point is that such training is absolutely essential in the interests of true education, and in working out this view he displays great intellectual resource and a thorough appreciation of the laws of mental growth. He is not afraid that when the need for this "new departure" is generally recognized the task imposed upon teachers will be beyond their capacities. "The training of teachers for industrial instruction," he says, "offers no difficulty, and will not (as has been asserted) by any means involve the necessity for two kinds of teachers. The teacher can very well master the new task, and if his prejudice has disappeared, will very gladly undertake it. Probably the imparting of industrial instruction will become a favourite employment of the teacher, because the change refreshes and the labour gladdens him."

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.*]

Electric Fishes in the River Uruguay.

IN Sir Horace Rumbold's "Great Silver River" (London, 1887), the author, when on the Upper Uruguay above Uruguayana, speaks of a "kind of Electric Eel (*Gymnotus*) called here *Rayo* or Lightning, of the effects of contact with which, very curious and unrelateable stories are told."

The range of the *Gymnoti* is usually supposed to be confined to the waters of the Orinoco and Amazons and their affluents, so that it would be very desirable to ascertain what this supposed electric fish of the Rio Uruguay really is. Perhaps some of your readers in the Argentine Republic may be able to assist us in solving this problem, which would be best done by the transmission of specimens of the fish in question to the British Museum. P. L. SCLATER.

3 Hanover Square, London, W., June 8.

The Salt Industry in the United States.

MR. WARD in his letter to NATURE (May 10, p. 29), respecting the salt industry in the United States, makes no mention of the important and numerous contributions to the