

promised that extensive correspondence with De Morgan, which will secure the attention of every lover of the "Budget of Paradoxes." At the close of our former notice we insisted on the duty which devolved on the University of Dublin of publishing in a collected form the mathematical writings of their illustrious son. This duty has not yet been discharged; let us hope that it will not be left to some foreign mathematician to undertake the work which it should be the glory of Trinity College to complete.

AN AGRICULTURAL NOTE-BOOK

An Agricultural Note-Book. By W. C. Taylor, Aspatria, Carlisle. (London: Longmans, 1885.)

IT is not often that note-books are published, and it is well. Notes are in their nature fragmentary, and disposed towards brevity, often lapsing into crudity. They are a sort of skeleton of imparted knowledge, or at least rather anatomical than living, moving, and breathing information. The least and the most that may be reasonably expected of them is that they should be correct. The small book which has just been published by Messrs. Longmans does not commend itself to our judgment. It is crude, fragmentary, and almost inarticulate or unintelligible. It purports to contain a body of teaching and of facts, but it really consists of disjointed sentences, the meaning of which it is often very difficult to gather. The grammatical construction of the sentences is also fearful and wonderful. To give an idea of this latest contribution to agricultural science, we select the opening passage, page 1, which reads as follows:—"The science of agriculture. Definitions and terms. Its definitions. Scientific truths taught by the practice of agriculture." "The practice of the farm teaching the science. The laws of agricultural science best learnt when thus taught, and lead to improvements in the application of science to farm practice." If this is a definition, much has been written in vain as to the difficulty of defining. It not only fails in definiteness, but is curiously involved, as well as untrue, for "the practice of the farm teaching the science" is an impossible and impracticable idea.

The word "its" before each paragraph of definitions and terms appears to bear reference to the general heading, "The Science of Agriculture," and cannot be supposed to bear a grammatical relation to "definitions and terms." Taking this view of Mr. Taylor's "notes," we read as follows:—

"Its character in the soil, as temper, will, and disposition. These to be noted: success of farmer depending much on his knowledge of above (sister sciences). *Hungry, sick, grateful, obstinate, kindly, tender, &c.*"

We defy any one to make any sense out of these utterances, whether taken with or without their context.

Next we have an attempt at further amplification. Thus "1 HUNGRY—constantly in want of food." Now, be it remarked that the subject is *soils*, and we are told that a soil is "hungry, constantly in want of food." Also that it is "sick." Here is indeed confusion of metaphor and blind guiding with a vengeance. Only let readers of NATURE endeavour to picture to their minds a hungry and sick soil! No wonder that Mr. Taylor in

the richness of his fancy can further enlarge upon its gratitude, tenderness, and kindness. Page 1 would itself furnish ample matter for review. It is as full of difficulties as the Moabitish stone, although it might so well repay deciphering.

Again we read: "Short supply of organic matter improved by adding clay, where practicable, and vegetable matter." While concurring with the last simply-given advice as remedying the fault in question, we deny that any amount of clay can help towards this end.

Turning p. 1, we come to p. 2, where we begin at the top as follows:—"3. TENDER.—Hard and baked. Improved by rain, drags and harrows at right time." This tender soil is then hard and baked, and it appears also that it is improved by certain natural and artificial agencies which we thought were not only and solely unfit for the amelioration of such tender, albeit hard and baked soils.

On the same page we are thus enlightened as to the primitive rocks:—"The primitive rocks differ from materials yielded by decay, which is accomplished by oxygen (O) and carbonic acid (CO₂), gases invisible and transparent. Both attack rocks and metals, however hard; seen in the mould-board of the plough reducing it (?) to a powder without noise. *Temperature and water*, other two *agents* acting on the *Traitor's iron* and *potash*, loosening particles from the hard rock." . . . These agents are the *friendly helpers* to the farmer. The italics are Mr. Taylor's own. We are irresistibly reminded of Mr. Weg and Mr. Venus, those two "friendly movers" in "Our Mutual Friend."

Passing onwards through the dreary succession of sentences devoid of subject, predicate, or copula, we arrive at p. 12, where instruction is given upon the various component parts of soils. Here we find the following information regarding alumina:—"Alumina. (1) Present in the soil, but not in plant food. (2) Double silicates are (1) silicate of alumina, (2) (a) lime, (b) potash, (c) or of soda, (d) or of ammonia. (3) Order of compounds, H₃N₁K₂CO₃, Na₂CO₃. The higher favourite puts out a lower and unites with the silicate of alumina. (4) The powers of vegetable life command an influence over each and all the second-rank partners. (5) Performs work of outdoor servant. (6) Reconstructs broken-up partnerships. (7) Amidst the faithless, constant only she. (8) Acts as purveyor of food for the plant."

We leave this extraordinary statement of the eight duties of alumina in the soil to the judgment of any sound scientific man or agriculturist, asking only why young people should be subjected to teaching so completely misleading, erroneous, and unintelligible, on the plea that they are obtaining insight into the principles of agricultural science?

THE PREVENTION OF BLINDNESS

The Causes and the Prevention of Blindness. By Dr. Ernst Fuchs, Professor of Ophthalmology in the University of Liège. Translated by Dr. R. E. Dudgeon. 8vo, pp. 23c. (London: Baillière, Tindall, and Cox, 1885.)

UNDER the title of "The Causes and Prevention of Blindness," Dr. Dudgeon has translated an essay, written by Dr. Fuchs, of Liège, under the conditions of a