

such reading. It explains how Hegel's 'Phänomenologie,' 'Logik,' and other works came to be written, which is what the student of any system should desire to learn, first of all. In saying this, we are supposing that the student is not a neophyte in philosophy. When a man first takes up the study of philosophy, his difficulty, at the outset, is that he is already possessed by a crude system of metaphysics, and that, while he has a vague curiosity to know why others do not think as he does, he really has no desire to learn. After that first difficulty is conquered, he has to make a study of some one system of philosophy, which, however, it is impossible for him really to understand at this stage, because he does not comprehend the original state of mind of the author at the time his original studies were begun. In the case of Hegel he must, as a matter of course, understand Kant, and especially the deduction of the categories, not only as his doctrine appeared to Kant himself, in his two editions, but as it appeared to the young theological students who read it while it was fresh. He will necessarily make some study of Fichte's 'Wissenschaftslehre' and of some of the earlier writings of Schelling. He can then take up this book of Dr. Baillie's with profit, and thereafter the study of Hegel (in German, of course, for the 'Logik' is, in a sense, a dissertation on the German language) will not present any insuperable difficulties, unless Hegel's own inaccuracies be considered such. In particular, he should have carefully read Dr. Baillie's admirable concluding chapter, entitled "Criticism." His only danger will then be that of overlooking, what Hegel entirely overlooks and Dr. Baillie does not distinctly recognize, that thought and "immediacy" are not the only factors of experience. To avoid that danger he ought to be penetrated with the spirit of science, to understand English thought, that of Herbart, that of Fries, and be well acquainted with modern exact logic.

Hegel is a vast intellect. The properly prepared student cannot but feel that the mere contemplation of the problems he presents is good. But that the study of Hegelianism tends too much toward subjectivism, and is apt to break that natural power of penetrating fallacy which is common to all men except students of logic, especially of the German stripe—seems to be the result of experience.

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**Theory of Differential Equations. Part III. (Vol. IV.): Ordinary Linear Equations.**

By Andrew Russell Forsyth. Cambridge (Eng.) University Press; New York: Macmillan. 1902. 8vo, pp. xvi, 534.

CSP, identification: Haskell, *Index to The Nation*. See also: Burks, *Bibliography, List of Articles*; MS 1458 (draft).

The successor of Cayley here truly presents us with the fifth volume of his useful work on differential equations; for his more practical 'Treatise' on the same subject really forms an essential part of this. No further volume is promised; but the author does not declare that he will give no other, and we are inclined to think that one more will come. Certainly, enough topics have been passed over to fur-

nish forth two, and that richly. Although it cannot be called a complete handbook, the work has a tolerably definite plan and a judicious one. Whatever would more particularly interest an algebraist or student of the theory of groups is omitted. Whatever stood right across the path of a writer on Differential Equations is treated in a general way. Works of several American mathematicians are necessarily expounded in this volume. Prof. G. W. Hill's method forms the subject of one of the ten chapters, and that is meagre allowance. An unfinished MS treatise of the late Prof. Thomas Craig has been made use of. Theorems by Osgood, Bôcher, Van Vleck, and others appear. A peculiar sort of suggestiveness attaches to that of Bôcher.

Of course, such a book can have no interest to the generality of our readers except in this respect. The premises upon which pure mathematics rests are few and simple. So far as they are capable of definite numeration, there are about a score of them. The reasoning is wholly deductive. If, therefore, deductive reasoning were what the logic books represent it to be; if, as Kant says, it merely explicated what is confusedly thought in the premises; if, as Mill says, it merely registered what had already been accepted, then the total number of mathematical conclusions could not exceed the total number of possible combinations of premises—or, say, something like a million, including the most trivial. By this time, then, pure mathematics ought to be approaching exhaustion. Doubtless, the current impression among geometrical persons is that such is the case. Yet the four volumes of Professor Forsyth's 'Theory' present, in somewhat full outline, only about two-thirds of the discoveries made during the nineteenth century in a subject which has occupied about one-tenth of the total energy of mathematicians; and far from there being the slightest sign of exhaustion, the bulk of the new work is increasing in geometrical progression, while it is constantly growing more and more profound and broad. As many new *methods* of value now appear in a decade as there were born of new *theorems* in the same interval a hundred years ago. Here is a subject dealing with nothing but the abstract creations of the mind; a subject, too, in which comparatively few are able to make discoveries; and yet it may be doubted whether sixty volumes could give a very much fuller account of the mathematical discoveries of the nineteenth century than could be given in the same space of the discoveries in so rich and universally accessible a field as biology. At any rate, the fact that there is no utterly overwhelming discrepancy affords food for rumination.

**75 (18 December 1902) 485-486**

### ELLWANGER'S PLEASURES OF THE TABLE

**The Pleasures of the Table: An Account of Gastronomy from Ancient Days to Present Times.**

By George H. Ellwanger. Doubleday, Page & Co. 1902. 8vo, pp. 477.

CSP, identification: Haskell, *Index to The Nation*. See also: Burks, *Bibliography; List of Articles*; MSS L 159.219, L 159.221; MS 1459 (draft).