

WILLIAM LIBBEY: 'Physical Geography of the Jordan Valley.'

LAWRENCE MARTIN: 'Observations Along the Front of the Rocky Mountains in Montana.'

A. LAWRENCE ROTCH: 'Proofs of the Existence of the Upper Anti-trades.'

R. S. TARR and LAWRENCE MARTIN: 'Observations on the Glaciers and Glaciation of Yakutat Bay, Alaska.'

P. S. SMITH: 'Practical Exercises in Physical Geography.'

F. P. GULLIVER: 'Home Geography.'

J. RUSSELL SMITH: 'The Place of Economic Geography in Education.'

MARTHA KRUG GENTHE: 'Some Remarks on the Use of Topographic Maps in Schools.'

D. W. JOHNSON: 'Drainage Modifications in the Southeastern Appalachians.'

President W. M. Davis presented brief summaries of papers by G. C. Curtis, on 'Glacial Erosion in the New Zealand Alps,' and by E. Huntington, on 'Border Belts of the Tarim Basin, Central Asia.' Professor Davis concluded the program with a paper bearing the title, 'Physiographic Notes on South Africa.' Many of the papers were illustrated with lantern views.

The association does not sustain any regular publication. Through the courtesy of the American Geographical Society, their bulletin for February of this year will be mainly devoted to the proceedings of the meeting.

The officers elected for 1906 are as follows:

President—Cyrus C. Adams.

First Vice-president—Angelo Heilprin.

Second Vice-president—William Libbey.

Secretary and Treasurer—Albert P. Brigham.

Councilors—Three years, W. M. Davis; two years, I. C. Russell; one year, H. C. Cowles.

A. P. B.

SCIENTIFIC BOOKS.

The Life of Reason, or the Phases of Human Progress. By GEORGE SANTAYANA. First volume, 'Introduction and Reason in Common Sense'; second volume, 'Reason in Society.' New York, Charles Scribner's Sons. 1905.

These two volumes, to be followed by three others upon 'Reason in Art, in Religion and in Science,' afford more than the promise, they afford the potency, of the most significant contribution, made in this generation, to philosophic revision. The volumes evade labeling by any of the nicknames of philosophic schools. Since probably they do this of conscious choice, it is discourteous to attempt a labeling. In calling the view set forth *naturalistic idealism*, I shall, accordingly, be understood to wish to phrase the impression left upon my own mind, and to suggest that impression to the reader, rather than to classify the author. That reason is real, that it is a life, that its life is the significant and animating principle of all distinctively human activity, that is, of commerce, government and social intercourse; of religion, art and science as well as of philosophy; that the life of reason so expressed is one with the reflective principle in its simplest, most direct expressions in common sense, that is, in the perception of objects, the acknowledgment of persons, and the entertaining of ideas—this may well be called idealism, in the classic, if not in the modern epistemologic, sense. But equally marked is Dr. Santayana's insistence that reason is natural and empirical; that it is a direct outgrowth of natural conditions, and that it refines and perfects the nature it expresses; it is not transcendental either in its origin, its objects—the material with which it occupies itself—or in purpose.

Nature shows itself in a life of sentience and of impulse. But some sentient moments mean more, satisfy more, and are at a deeper level, than others. The significance of such moments, persistently entertained, constitutes reason. For so entertained, they afford standards of estimation, of criticism, of construction; they become the starting-points of sustained effort to bring all experiences into harmony with themselves. Vital impulse gives moments of excellence; these excellences, grasped and held, modify vital impulse which now veers in sympathy with the judgments of past and the anticipations of the future. The first two of these are now (Jan., 1906) published.

tions of future thus instituted—just because reflection is a consciousness of relative worth, it perforce is a new attitude of will. These better moments, while they satisfy, or are agreeable, are not just pleasures; 'for a betterment in sentience would not be progress unless it were a progress in reason, and the increasing pleasure revealed some object which could please' (p. 4). Neither, of course, is reason the abstract formula of the intellectualist. It is the value of feeling consciously operative in the judging and reconstructing of experiences. In reason, the pleasures of sense are included in so far as they can be intelligently enjoyed and pursued.

In the Life of Reason, if it were brought to perfection, intelligence would be at once the universal method of practice and its continual reward (p. 5).

Again,

The Life of Reason is simply the unity given to all existence by a mind *in love with the good*.² In the higher reaches of human nature, as much as in the lower, rationality depends on distinguishing the excellent; and that distinction can be made, in the last analysis, only by an irrational impulse. As life is a better form given to force by which the universal flux is subdued to create and serve a somewhat permanent interest, so reason is a better form given to interest itself, by which it is fortified and propagated, and ultimately, perhaps, assured of satisfaction. * * * Rationality * * * requires a natural being to possess or to impute it. When definite interests are recognized and the values of things are estimated by that standard, action at the same time veering in harmony with that estimation, then reason has been born and a moral world has arisen (pp. 46-47).

This conception is made the basis of an appreciation of Greek philosophy, the wisest and most suggestive, though one of the briefest, known to the present writer; and of a criticism of liberalism (that is, of conventional naturalism—always a contradiction), for failing to see that meanings, values, ideas, are supremely real, are quintessentially, nat-

²The context shows that 'the good' is interpreted naturalistically and empirically. It is the persistent consciousness of one's most excellent experiences as these are standards of appraisal and of action.

ural; and of transcendentalism, for hypostatizing ideals into causes and substrates of the universe; for introducing mythology by translating meanings into underlying substances and efficient causes, and thus into physical, instead of moral realities, which have their energy and career in the aspiring and volitional life of thought which effects, and which is, human progress.

The working of this discriminative sense of excellence, and its increasing control of vital impulse, through union with it, is then traced through 'the discovery of natural objects,' 'the discovery of fellow minds,' the development of ideas, or of universals as themselves concretions, the relationship of things and ideas, and the sense in which (although consciousness is inefficient) thought practically operates, thus making a transition to the discussion of the ordinary practical life in which ends, purposes, are pursued. It is impossible to do justice to the volume, delicacy and justice of the observations herein contained, or to the pellucid, informed and pregnant style in which these observations have found their natural expression. A superficial reader, even the philosophic reader who does not think what he reads, may infer that there is a lack of system; the ordinary logical machinery is kept out of sight. But Dr. Santayana has not only swallowed logical formulæ; he has digested them. There are many books with much pretence of system and coherent argumentation that have not a fraction of the inevitableness and coherency of these chapters. In the main, Emerson's demand for a logic, so long that it may remain unspoken, is fulfilled.

Of course, disagreements, divergencies of estimation will arise. To me, for example, it seems that Dr. Santayana does scant justice to modern philosophy, to the Lockeian-Kantian movement; and that, in spite of his sympathy with and appropriation of Greek thought, Dr. Santayana's own position would be inconceivable, without this movement. One may believe (as the present writer is inclined to), that Dr. Santayana forces too far the doctrine of the inherently chaotic or maniacal character of consciousness by itself,

suggestive as is that idea, and ignored as has been the element of truth in it. One may also think that in failing to see *how* brute conflict naturally evokes thought, he underestimates the part played in the progress of mankind by the ventures and insinuations of just brute vital impulse, however uninformed; and that accordingly, at times, the pale cast of thought is too emphasized and the fear of individualistic assertion too acute. Again, it seems to me that he gives the indifference of facts to ideas, to purposes, too absolute a character, failing to see the full strength of the pragmatic doctrine that in a universe in which ends are developed in conception and insisted upon in action, thought must, as a part of the inherent machinery of such conception and realization, attribute indifference and disregard to the 'world of facts'—in order, that is, to free and multiply ends, and to liberate and vary the selection and use of means.

But, with whatever of criticism and qualification, those who think, as does the present writer, that the really vital problem of present philosophy is the union of naturalism and idealism, must gratefully acknowledge the extraordinary force and simplicity with which Dr. Santayana has grasped this problem, and the rich and sure way in which he has interpreted, in its light, the intricacies and depths of our common experiences. It is a work nobly conceived and adequately executed.

JOHN DEWEY.

COLUMBIA UNIVERSITY.

Economic Geology of the United States. By HEINRICH RIES, A.M., Ph.D., Assistant Professor of Economic Geology at Cornell University. New York, The Macmillan Company. 1905.

This book at once invites comparison with its predecessor of the same title, by the same publishers, and by an author from the faculty of the same institution. One is pleased to find that it is no revision, but an entirely new work, worthy of Dr. Ries, who has done so much good work in special reports in the field it covers. Though it contains fewer pages than Tarr's 'Economic Geology' (435 against 525); it contains quite as much matter on eco-

nomic geology, and a host of good and *illustrative* illustrations. This comes about in three ways. In the first place all general introductory geological or mineralogical matter is omitted. The reader is supposed to have acquired that. In the second place a slightly smaller type is used for less important matter. In the third place the style is condensed to the last degree.

This is not, however, at the expense of clearness, which is French. Indeed, the short crisp sentences often need qualification, which will (p. 230, l. 28) sometimes be found in an adjacent sentence or paragraph.

The author begins, inverting Tarr's order, with the lower priced but more important non-metallic substances. This is natural, as Dr. Ries's work has been mainly in this field, but it seems to the reviewer logically preferable also. He begins with the fuels. The bibliographic additions at the end of each chapter are noteworthy, giving the latest references, not cumbered up with a lot of obsolete matters, yet retaining the more important books of any age, and they enable the student, or the business man who cares, to pursue any subject farther readily and effectively. It seems to me they are decidedly preferable to a general list at the end of the volume.

From fuels he passes to building materials, and does not give a disproportionate treatment to clay, upon which he has done so much work. Indeed, he might well have let himself out a little. Thence he passes to salt, salines, gypsum (the order should logically be inverted), fertilizers, next to which soils and road materials might well have come, abrasives (here a little discussion of diamond and other drilling might have been appropriate) and water. This latter subject is handled in somewhat stepmotherly fashion, considering that at present in the work of the United States Geological Survey the Hydrographic Division is the tail that wags the dog. Evidently the author thinks that water power and irrigation are not properly handled in economic geology, or, perhaps, he thought that if once he started in he would not know where to stop. The second part, on 'Metallic Minerals and Ores,' begins with a clear and fair