as an indication of prevalent philosophical tendencies in English-speaking lands. Save for the sporadic efforts of Coleridge and Carlyle in Britain, of Emerson and his group in this country, the English mind remained in long isolation from the transitive speculation of Europe, originated by Kant and Herder, cast abroad by Goethe, and systematized by Hegel. At length, in the sixties of the nineteenth century, thanks to Dr. Stirling, Wallace, the brothers Caird, Mr. W. T. Harris and the St. Louis circle, Hegel burst upon the Anglo-Saxon world, and threatened to carry all before him by the seventies. During the same years, the hypothesis of evolution, together with certain discoveries in physiology and physics, brought scientific men into contact with metaphysical problems which had been stilled awhile. Huxley's speculations, significant in their changes, Clifford's 'mind-stuff,' and similar so-called 'monistic' theories, were the result—a belated product being Haeckel's recent 'Riddle of the Universe.' While the immanent tendencies and animating problems happened to be much the same in both cases, it may be declared that the Hegelian and the Clifford-Huxley explanations could not be true together. As a matter of fact, each emphasized elements incident to the problem which the other minimized. A few of the younger men trained, like Mr. Royce, in the idealistic school, have come to clear consciousness of this situation; and, retaining the essential principle for which Hegel stands, have striven to rid themselves of his formalistic baggage, so affording opportunity for a fuller recognition of the scientific standpoint and—more important—of the scientific conscience. On the whole, then, these lectures are essentially mediating. This constitutes their strength now, and will prove their weakness twenty years hence. They cleave to the idealistic as opposed to the 'monistic' solution. On this ground I have no fault to find with them.

At the same time, I am by no means satisfied that the implications of 'monism' have been threshed out thoroughly, even if the discussion differ widely, as it does, from such cavalier treatment as that accorded, say, by Professor Pringle Pattison in the new 'Dictionary of Philosophy.' Moreover, I have very serious misgivings about the evident reversion to Fichte manifested by Mr. Royce. Nevertheless, his lectures constitute a thoroughly characteristic contribution—one that cannot be overlooked—to the very meaningful development within the English sub-Hegelian school. And if Mr. Royce appear to look back more than Mr. F. H. Bradley or Mr. Ellis McTaggart, one must perhaps hold the lecture-form of his work partly responsible. I am still haunted by the idea, to which I have given expression more than once, that it is a real misfortune that Mr. Royce should have produced so extended a series of books dominated by this method. For, as he himself says, 'In the public lecture-room the hearer has no time to meditate, and the speaker too little opportunity to be either concise or exhaustive.' We await the 'system' therefore. Like little girls, we believe in the man in the moon, but, like older girls, we would believe more in the man in the honeymoon.

R. M. Wenley.

University of Michigan.

SCIENTIFIC JOURNALS AND ARTICLES.

Popular Science Monthly for February is of more than usual interest for the general reader. The first article, on 'Stellar Evolution in the Light of Recent Research,' by George E. Hale, shows how much knowledge has been gained by the use of the camera and spectroscope. In 'Winged Reptiles' S. W. Williston tells of the pterodactyls, and particularly of the great American toothless species of the genus *Ornithostema,* which includes the largest flying animals. Appropriately following this is 'The Journeyings of Birds,' by F. H. Knowlton, which gives an excellent résumé of the subject of bird migration, and Otis T. Mason discusses 'Environment in Relation to Sex in Human Culture'; and R. H. Thurston, in 'The College Man as Leader in the World's Work,' expresses his belief that the educated man will in the future be even more in the front than now. Charles B. Dyke treats of 'Theology *versus* Thrift in the Black Belt,' believing that the religious teaching received

by the average negro is apt to make him care little for the things of this world, and is thus a drawback to him, while Lindley M. Keasbey intimates, in 'The Descent of Man,' that his physical inferiority to beasts of prey acted as a stimulus to his brain.

The Osprey for January begins a new series in a new garb, with new type. It contains 'The California Jay,' by D. A. Cohen; 'Random and Reminiscent Maine Bird Notes,' by W. C. Kendall; 'August Birds of Stony Man Mountain, Virginia,' by William Palmer; and a review of the 'Life and Ornithological Labors of Sir John Richardson,' by Theodore Gill. A review of 'Animals of the Past' includes reproductions of the restorations of *Phorochacos, Archæopteryx* and *Hesperornis*. Also, in the form of a supplement we have the first part of a 'General History of Birds,' starting with an interesting history of the etymology of bird.

The Museums Journal of Great Britain, for January, under the title 'The Man as Museum-Curator,' has an appreciative notice of Dr. G. Brown Goode in a review by F. A. Bather of the memorial volume published by the Smithsonian Institution. There is also a good article, 'On the Arrangement of Mineralogical Collections,' by J. G. Goodchild, and notes on 'New Zealand Museums' and 'Oxford Museums,' besides a long list of General Notes, which as a rule constitute a most, if not *the* most, interesting portion of scientific periodicals.

SOCIETIES AND ACADEMIES.

THE CHICAGO SECTION OF THE AMERICAN MATHEMATICAL SOCIETY.

THE tenth regular meeting of the Section was held at Northwestern University, Evanston, Illinois, on January 2 and 3, 1902. Four sessions were devoted to the reading and discussion of the following papers:

(1) Professor M. W. HASKELL: 'A fundamental theorem in the geometry of the tetrahedron.'

(2) Professor M. W. HASKELL: 'A theorem for the twisted cubic analogous to Pascal's theorem.'

(3) Professor M. W. HASKELL: 'A special cubic transformation in space.'

(4) Professor H. S. WHITE: 'Note on a twisted curve connected with an involution of pairs of points in a plane.'

(5) Dr. J. W. GLOVER: 'On the derivation of the asymptotes of an algebraic curve from the definition' (preliminary communication).

(6) Professor ARNOLD EMCH: 'Algebraic transformations of a complex variable realized by linkages.'

(7) Professor L. W. DOWLING: 'On the conformal representation of the isosceles triangle containing an angle of 120 degrees.'

(8) Professor E. H. MOORE: 'On Hilbert's plane desarguesian geometry.'

(9) Dr. F. R. MOULTON: 'A simple non-desarguesian geometry.'

(10) Dr. JACOB WESTLUND: 'Note on multiplying perfect numbers.'

(11) Dr. JACOB WESTLUND: 'On the class number of a particular cyclotomic number-field.'

(12) Dr. CHARLES L. BOUTON: 'The equivalence of linear differential equations for a transformation of the independent variable.'

(13) Dr. T. P. HALL: 'An algebra of space.'

(14) Professor J. B. SHAW: 'Commutivity of matrices and application to the theory of linear associative algebra.'

(15) Dr. H. G. KEPPEL: 'A cubic three-way locus in four-fold space.'

(16) Dr. J. C. FIELDS: 'An equivalent of Plücker's formulæ.'

(17) Professor H. B. NEWSON: 'On the product of linear substitutions.'

(18) Professor G. A. MILLER: 'On the groups of order p^m which contain operators of order p^{m-2}.'

(19) Professor L. E. DICKSON: 'Some simplifications in the theory of linear groups.'

A topic of a more distinctly pedagogical character was introduced by Professor Townsend, namely, the question of uniformity in the requirements for the Master's degree where mathematics is the major subject, and the allied question of equivalent credits for students migrating from one institution to another. After some discussion the matter was referred to a committee for report at the next meeting of the Section. An enjoyable feature of the meeting was the dinner served in one of the University buildings to the members present, and followed by an exhibition by Dr. Keppel of about fifty portraits of eminent mathematicians.