Hovey, of Dr. Salvatore Lo Bianco's detailed account of the methods employed at the Naples aquarium for preserving invertebrates. The many who have admired the beautiful specimens sent out from that institution will be glad to have this paper, although it is evident that the factor of patience must enter largely into most of the processes described. The article is prefaced by a brief account of the aquarium and its work.

THE publication is announced by Archibald Constable & Co., of a *Physical Atlas*, prepared under the direction of Mr. J. G. Bartholomew, of the Edinburgh Geographical Institute. The work will be in seven volumes as follows: I. Geology; II. Orography, Hydrography and Oceanography; III. Meteorology; IV. Botany; V. Zoology; VI. Ethnography and Demography; VII. General Cosmography and Terrestrial Magnetism. The atlas of Berghaus will to a certain extent be used, but the plates will be larger in size and special attention will be paid to phenomena of interest to English and American students. The volume on meteorology is promised for the present year and the others are expected to follow in rapid succession.

BOOKS RECEIVED.

Statistics and Economics. RICHMOND MAYO-SMITH. New York and London, The Macmillan Company. 1899. Pp. xiii+467. $3.00.

The Principles of Differential Diagnosis. FRED. J. SMITH. New York and London, The Macmillan Company. 1899. Pp. ix+353. $2.00.

Résistance électrique et fluidité. GOURÉ DE VILLEMONTÉE. Paris, Gauthier-Villars. 1899. Pp. 188. 3 fr.

Essais des huiles essentielles. HENRI LABBÉ. Paris, Gauthier-Villars. 1899. Pp. 108.

Le café culture—manipulation, production. HENRI LECOMTE. Paris, Georges Carré and C. Naud. 1899. Pp. vi+334. 5 fr.

SCIENTIFIC JOURNALS AND ARTICLES.

THE *National Geographic Magazine* for October opens with an illustrated article on 'Life on a Yukon Trail,' by Professor Arthur P. Dennis, of Northampton, Mass. Mr. Gifford Pinchot, the Forester of the U. S. Department of Agriculture, in an illustrated paper, 'The Relation of Forests and Forest Fires,' describes the effect of forest fires as modifiers of the composition and mode of life of the forest. A. J. Henry, Chief of the Division of Records, U. S. Weather Bureau, contributes a study of the fluctuations in the surface level of the Great Lakes, especially interesting at the present time owing to the near completion of the Chicago drainage canal. The contents of the number also include 'Tides of Chesapeake Bay,' by E. D. Preston; 'Calculations of Population in June, 1900,' by Henry Farquhar, a paper read before Section I. of the American Association for the Advancement of Science, Columbus, August 22d; 'Peary's Work and Prospects,' by H. L. Bridgeman, Secretary of the Peary Arctic Club. There are a number of briefer articles, 'Peary's Explorations in 1898–1899,' 'The Definite Location of Bouvet Island,' and 'The California and Nevada Boundary.'

Bird Lore for October has for its opening article an account of the origin and work of 'The American Ornithologists' Union,' by J. A. Allen, accompanied by a plate showing the founders of the society, comprising some of the men whose names are familiar to every student of American ornithology. 'American Bitterns' consists of two plates of the young, one and two weeks old, from photographs by E. H. Tabor and F. W. Chapman. Henry Van Dyke contributes a poem 'The Angler's Reveille,' Robert W. Hagner an article on 'The Prairie Horned Lark,' and C. F. Hodge notes 'A Pleasant Acquaintance with a Hummingbird.' H. M. Collins describes 'A Peculiarity of a Caged Skylark,' and Anna Harris Smith and C. F. Hodge describe 'The Ethics of Caging Birds.' Isabella McC. Lemmon writes of 'Oliver Twist, Catbird,' for young observers, and there are numerous notes and book reviews. Under the section devoted to Audubon Societies the wearing of quill feathers of the eagle and pelican is justly deprecated, and fac-simile and sketch of Audubon's seal, the wild turkey, is given.

DISCUSSION AND CORRESPONDENCE.

THE PROPOSED CARD CENTRALBLATT OF PHYSIOLOGY.

TO THE EDITOR OF SCIENCE: The volume of scientific literature is increasing at a rate that

is positively appalling. The difficulty encountered by a student seeking information in any important library to-day lies more in differentiating what he wants from the mass of material at hand than in integrating the results of his search. As a consequence, the sciences of classification and indexing are becoming daily more important, and have already reached a high pitch of development. But existing card catalogues (and none but *card* catalogues deserve to be considered in this connection), even when including a well-arranged subject-index, still leave an immense amount of labor which might be saved to the student if he could but get a bird's-eye view of the contents of the books whose titles he finds so admirably arranged in the index of the well-equipped modern library.

In making use of the magnificent Public Library of Boston I have often felt keenly the discouragement that comes from trying to find certain definite information—in my case usually relating to electrical matters—almost hopelessly concealed by the very wealth of the literature upon the general subject.

I wish, therefore, to lift up my voice—or typewriter—in the warmest support of the plan which was well and clearly set forth by Professor William Townsend Porter, of the Harvard Medical School, in the issue of SCIENCE for September 15, 1899. It contemplates a series of abstracts of books and periodicals devoted to physiology. These abstracts are to be printed upon standard cards, and will therefore take on all the well proved advantages of the card-index system—indeed, the abstracts themselves will constitute a complete card-index, as well as a most valuable bibliography, for the subject in hand. In many cases, moreover, the card abstracts will supply directly the information sought, and so will save much time by forestalling the need of going to the books themselves.

But it would be supererogatory for me to here go into a detailed explanation regarding the system itself. What I do wish to emphasize is the fact that the plan proposed is co-extensive in scope with science itself; and that it is proposed to make a beginning with the science of physiology because the generous interest taken by Professor Porter renders available to the plan a wider view of that subject than of any other, and gives assurance that the abstracts shall be so intelligently edited that the usefulness of the scheme shall have a fair trial.

The plan is laid down in such wise that it can be extended to deal with any other department of scientific knowledge without any change in its general features; and, in my earnest desire to see such a system applied to the literature of electrical science, I am most anxious to see the Physiological Index established. For I am convinced that as soon as a beginning is made which shall familiarize students with the idea, there will be so general an appreciation of the usefulness of the system that its rapid extension to other departments of knowledge will follow as a matter of course.

Science is classified knowledge, and the proposed scheme, as an advance in classification, is a service to science so important that I hope all who are loyal to SCIENCE will manifest such an interest in the proposition that the trustees of the Boston Public Library will have no hesitation in undertaking the publication of the Physiological Index.

PHILIP HENRY WYNNE.

SCIENCE AND SCHOLASTICISM.

PROFESSOR BROOKS' comment, in the current number of SCIENCE, on the remarks made by me concerning his review of Ward's *Naturalism and Agnosticism*, is most suggestive and stimulating. It amounts to a very positive declaration that 'naturalists' (and by this I understand him to imply scientific men in general) must expel all 'abstractions' from their methods and results. No one who has made an impartial effort to appreciate the course of scientific thought—'so-called,' as Brooks would probably say—can fail to assent heartily to this proposition; for, it signifies that the mechanical theory cannot be regarded as a legitimate inference from the evidence assembled by the sciences. So far as I am able to discover, Ward means no more than this. His objections are taken against theories which, though masquerading in the name of science, cannot be ranked as of its household. To be brief, my own complete accord with everything