in 1817. This part I. in turn is an abbreviated and annotated edition of the two-volume work entitled the 'Science of Logic,' 1812-1816. This larger Logic is the one which Professor W. T. Harris took as the basis for his Hegel's Logic in Grigg's Philosophical Classics.

Of Professor Wallace's two volumes entitled Hegel's Logic, the first is a translation with notes of the shorter Logic of the 'Encyclopedia of Sciences.' In the second volume are prolegomena to the whole of Hegel's philosophy as much as to the Logic.

Dr. Baillie's recent book on Hegel's Logic is a general introduction to Hegel's system not at all adapted however to give one a first insight into Hegel.

For this Professor Hibben's book is specially adapted and the glossary of philosophical terms in the appendix would indicate that he intended the book to be used as an accompaniment to the reading of Hegel in the original. Lucidity has apparently been his chief desire and therefore he is to be pardoned for his boldness in always trying to make Hegel say something intelligible. It is a greater injustice to Hegel to expound him so delicately that he remains unread than to run the risk of misinterpretation or underinterpretation while making clear his importance to us. Professor Hibben's book will do good service not only as an introduction but also as a stimulus to the reading of Hegel.

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Heredity and Social Progress. SIMON N. PATTEN. New York, Macmillans. 1903. Pp. vii + 214.

Readers of Professor Patten's former works will be prepared for audacious generalizations, but this book seems to offer a maximum of hypotheses with a minimum of supporting evidence. The fundamental thesis presented is that progress starts from a surplus rather than from a deficit, as is assumed by 'current biology and classical economics.' The problem as stated in the terms of economics is: How can the social surplus, wrung from nature by conscious effort in the face of diminishing natural returns, be transformed into mental traits that abide and become the basis of subsequent progress? Stated in biological terms, the problem is: How can acquired characters become natural?

The method is an attempted parallel between biological and psychical processes which will be likely to impress the psychologist

as based on analogies of the most superficial kind. Thus: memory implies related parts; it corresponds, therefore, to growth in the structure. Visualization is the mental struggle for complementary ideas; it corresponds, therefore, to a physical process of regeneration in a disrupted structure. "Memory and visualization are thus at opposite poles of thought."

Perhaps the most startling bit of psychology is found in the chapter on 'The Inner Organs of Expression.' The general thesis of the chapter is to the effect that, as there has been a parallel development between the outer body on the one hand, and an inner neural body on the other, we may expect the inner as well as the outer to retain some traits characteristic of more primitive stages, and these may become the organs for acquired characters. The physical basis of reasoning is sought for along this line: Reasoning is a process of rejecting dissimilars and accepting a similar. Now recoil from the dissimilar and the acceptance of the similar is a tendency of unicellular organisms, like the *amœba*. Reasoning has no new element. Here consciousness shows its elementary and primitive character, whereas digestion demands a hundred independent reactions. The naïveté with which the process of reasoning is here conceived is scarcely to be matched this side of the earliest efforts of the Greeks, and while there are many problems proposed throughout the book which challenge attention, the author's psychology is certain to awaken distrust as to his solutions. If they are right it is not because of his processes.

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HEARING.

Der Tonvariator. L. WILLIAM STERN. *Zeitschrift f. Psych. u. Physiol. d. Sinnesorgane*, 30 (5-6), 1902, pp. 422-432.

The instrument is a blown bottle, made of metal, without a bottom, but with a movable piston in its stead. The piston is moved by means of a spiral in such a way that the increase or decrease of the vibration rate is proportional to the angular velocity of the spiral. More than one bottle may be combined on the same stand. The range of a single bottle is usually about an octave; less, if the pitch of the bottle is very low. The instrument is doubtless a very useful source of sound for many purposes.

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