

sopher to deny that we can penetrate the veil of appearance; but for such a one, the words "universe," "eternal," "ultimate," are unmeaning, or at best indicative of problems, not words to be lightly used in positive propositions. Mr. Wrench's phenomenism is, in short, a very thinly-disguised materialism.

As philosophy, then, the book has no great merit. Nor can it be said greatly to extend or clarify our psychological knowledge. Mr. Wrench's fundamental classification—that of the instincts as self-preservative, reproductive, gregarious—is familiar, but it should not be accepted as final without strict examination. His notion of "sub-instinct," a specific form of one of the main instincts, as, *e.g.*, patriotism is a specific gregariousness, is not without value, but it is scarcely conducive to clearness to apply this same term to the objective social custom which results from the interaction and mutual modification of the "forms the instincts take in the thought of the individual." Mr. Wrench's main practical inference from his analysis of human nature is that our present system of education should be inverted, and science given the predominant place, for, he says, "the process of abstraction is essentially gregarious." The intellectualistic fallacy in educational theory has been so often exposed that it is unnecessary to do more than notice this remarkable version of it.

In statement Mr. Wrench is clear and concise, and such purely scientific exposition as he gives in the course of his work is admirable.

LETTERS TO THE EDITOR.

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The Need of a Great Reference Library of Natural Science in London.

ANYONE desiring to see the new books in various branches of science who has had the use of the great libraries in Oxford or in Cambridge, and finds himself transferred to London as his habitation, must be astonished, as I have been, to find that there is no great scientific library in London, and that access to all the incomplete libraries of the various scientific societies does not enable him, even when he takes the large amount of trouble necessary to inquire at all of them, to see the important and necessary new books in various branches of work.

The deficiency is in regard to new "books" rather than in regard to periodicals. It must be noted that of late years, not only scientific periodicals, but large and costly separate scientific books or special memoirs, often expensively illustrated, have appeared, and are appearing, in increasing number. I could name several books in prehistoric archaeology, in comparative anatomy, and other subjects, which I have been unable to find in London within six months or a year of their publication, and others which are not likely to be purchased by any of our societies. The smaller societies devoted to special subjects have neither money nor house-room for a first-rate library. The larger societies neglect special subjects, on the theory that they are provided for by the special societies. The Royal Society has by no means such a library as might be expected in view of its age and dignity. It has insufficient funds and space, and, whilst aiming at completeness in periodicals and the publications of scientific societies, is a "broken reed" for one who leans on it as a help in the matter of books. It is true that the Linnean, the Zoological, the Geological, and the Chemical Societies, and the Society of Antiquaries have in their libraries many splendid books, and annually purchase a limited number of new books; but if their libraries are taken all together, in conjunction with that of the Royal Society, the Royal Medical Society, and the London Library, they do not

constitute that thing which is so necessary to the mature student of modern science, namely, a complete, or nearly complete, library of scientific publications, where the newest books may be seen and consulted as soon as published.

We are so behindhand in this matter that it is not possible in London even to see a new book from France or Germany with a view to its purchase. We ought to have in London a professedly *complete* library of modern scientific publications accessible to all mature students (whether on payment of subscription or otherwise), provided with a big reading-room where all the newest books can be seen and read. Such a library should not lend its books, but have them always ready for consultation. It should have a staff of really competent librarians able to help the reader to find what he wants, and it should be open until ten or eleven o'clock in the evening, and as late on Saturdays and all public holidays as on other days, for it is precisely at those hours when libraries are universally shut that a great number of eager students would find their only chance of using them.

It has been often suggested that such a library as I desire might be formed by the union and cooperation for this purpose of our various scientific societies, and I believe that might be so if a practical scheme were formulated. It would not be necessary for every society to give up its existing library, but it would be necessary for each society to contribute largely in money and books in order to constitute and maintain the new combined or central "consulting" library. Probably if the Government could be persuaded to give for this purpose the buildings formerly assigned to the University of London, and now occupied by the various examining bodies connected with the Civil Service and the Army, the National Scientific Reference Library could be at once constituted. In view of the urgent public necessity for such a library, the Government might be expected to provide a subsidy of two or three thousand pounds a year, and the scientific societies might contribute so much a head for their members and place their existing libraries at the service of the new institution without giving up their special rights to borrow certain books.

In order to move any further in the matter, it is clearly necessary to form, in the first place, an estimate of the minimum size of such a library and its reading-room, and of the annual expenditure necessary for the purchase of books, as well as for librarians, attendants, heating, and lighting.

I should be glad to receive any suggestions from those who feel the need of such a library. It seems to me that the essential points to be aimed at are:—(1) completeness, so that any and every book of scientific quality shall be on the table as soon as published; (2) accessibility of the library to readers until a late hour of the evening and on holidays and half-holidays, as well as on ordinary days.

The value of such a library to every kind of worker in science would be immense. It should be open to everyone on payment of a moderate annual subscription. It may be objected to any new library (such as I propose) that the library and reading-room of the British Museum supply the want. They do not, since books are not obtained there without delay. Many foreign books are not obtained there at all.

E. RAY LANKESTER.

Vapour-density and Smell.

IN a letter to NATURE of May 13 I made a statement to which Dr. Perman very naturally takes exception (May 27, p. 369). He cites ammonia, hydrocyanic acid, and hydrofluoric acid as instances of volatile bodies lighter than air, yet odorous. In considering the physiology of olfaction, however, certain conditions which might lead to misconception must be ruled out. In the first place, a very minute addition of impurity suffices to give odour to an otherwise odourless substance. Formalin was the substance of which I was writing. My judgment, based on sensory experience, absolutely declines to accept the somewhat fatty scent which I recognise with my nose close to a dish of formalin as a property of the vapour which irritates my conjunctiva when far beyond the range of