The book is well indexed and written in a clear style ; it will doubtless occupy a prominent place amongst the text-books of diseases of the lungs, and well deserves to do so.

F. W. T.

An Elementary Course of Infinitesimal Calculus. By Horace Lamb, M.A., F.R.S., Professor of Mathematics in the Owens College, formerly Fellow of Trinity College. Pp. xx + 616. (Cambridge : University Press, 1897.)

THE author states that his aim in this book is to teach those portions of the Calculus which are most useful for a student of physics or engineering. We fear that many an engineering student would be disheartened at the start-off by such sections as those in the first chapter on the upper or lower limit of a sequence and of an assemblage. On the other hand, there is surely room to doubt the wisdom of the limitation implied in the statement—"Imaginary quantities are nowhere employed in the book," seeing that this is a book of over 600 pages, and includes chapters on differential equations in which symbols of operation are freely used.

But although we think there is at once too much and too little for the needs of engineering students, and that it is to be regretted that the author has not permitted himself to use illustrations from such subjects as heat or electricity for the benefit of the students of physics he has in view, we are glad to recognise in the work before us merits of a very high order. Thus immediately after the rules for differentiation are established, we have applications to maxima and minima and to geometrical problems. The rules for integration are then introduced with applications to areas, volumes, moments of inertia, &c. The diagrams are numerous, always large and clear, and often drawn to scale. There are a great many easy, straightforward examples provided ; and care has been taken not to admit examples or processes involving difficult analysis or mere ingenious artifice.

Teachers in secondary schools and colleges will be well advised in using this as a text-book for beginners in the Calculus, although it is not in our opinion what is required in technical classes.

Radiography and the "X" Rays. By S. R. Bottone. Pp. x + 176. (London : Whittaker and Co., 1898.)

THIS is another of the now considerable series of more or less popular handbooks dealing with the applications of the Röntgen rays. Medical men, amateur experimenters and others who may wish to put Röntgen photography into practice will find it useful, lucid, and trustworthy. Within the compass of 172 pages the book contains many practical hints on the construction and working of induction coils, influence machines, Crookes' tubes, and fluorescent screens, and on general photographic and manipulatory details.

Ackworth Birds, being a List of Birds in the District of Ackworth, Yorkshire. By Major Walter B. Arundel. Pp. viii + 105. (London : Gurney and Jackson, 1898.)

IT may be well to remark at once that this is not merely an enumeration of the birds observed in Ackworth and the neighbourhood, but a collection of notes on the habits of the species described. On this account, the volume is not only of interest to local ornithologists, but is also a worthy contribution to the literature of bird-life.

Angling Days and an Angler's Books. By Jonathan Dale (I. E. Page). Pp. 160. (London : Elliot Stock, 1898.)

A COLLECTION of stories concerning anglers and angling. A few natural history notes are scattered through the pages ; but in the main the book consists of more or less commonplace remarks upon fishing experiences, and the expression of the author's sentiments upon landscapes and rural scenes in general.

NO. 1500, VOL. 58]

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts intended for this or any other part of NATURE. No notice is taken of anonymous communications.]

Liquid Hydrogen.

I SHOULD be inclined to let Prof. Dewar's manner of replying to my statements speak for itself were it not that he makes in his last letter imputations of an unwarrantable kind. He says, "Mr. Hampson got at my assistant behind my back." This expression is quite indefensible. I received an introduction to Mr. Lennox from the senior partner of a large chemical firm in London of the highest standing, who said that he had a familiar acquaintance with Prof. Dewar's assistant. Had he been sufficiently intimate with Prof. Dewar himself to offer me a confident hope of gaining that gentleman's attention directly, I should at that time have been still better pleased with an introduction to him. As it was, I went openly to the Royal Institution, in the busiest part of session, and between the hours of eleven and twelve in the morning. Surely, nothing would have been more natural under these circumstances than a chance meeting with Prof. Dewar himself. Is this the conduct of one who was plotting to "get at" his assistant "behind his back"? Whatever grounds Prof. Dewar may have for thinking his assistant capable of improper action, he has no right to use such abusive terms regarding the very simple and straightforward course that I took in the matter. Prof. Dewar says, "I infer from the public correspondence that he (Mr. Lennox) saw that they (the plans) would not work, and he told Mr. Hampson why they were unworkable." This inference of Prof. Dewar's is altogether false, as is best proved by a study of the correspondence itself. This correspondence took place in *Engineering* last spring. I am myself so satisfied with the conclusions to be drawn from it, that I have had the whole series of letters reprinted, and I will send a copy with pleasure to any one who desires to do me the justice of forming his own opinion on the merits of the case. It is strange that Prof. Dewar, having himself published his belief that his assistant is capable of being "got at" by a complete stranger, should in the very next line attach some importance to that gentleman's account of the transaction as given in those letters. The identity between the "unworkable" plan proposed by me to Mr. Lennox, and that subsequently, or, as Prof. Dewar puts it, "in the meantime," worked out with complete success by Dr. Linde, by myself, and by Messrs. Lennox and Dewar, does not depend on my statement only. All the points of the new combination were put together in the drawings submitted by me to Mr. Lennox, and an exact copy of these drawings was exhibited before the Society of Chemical Industry on May 2 last, when Mr. Lennox was present, as well as Prof. Dewar, and it appears with the published report of my paper. The same combination is found in no earlier drawings except some previous sketches of my own. Prof. Dewar, in his last letter, admits an inventor's property in "the particular combination to which he himself may give concrete form"; and I gave concrete form to this particular combination in the drawings submitted to Mr. Lennox. Prof. Dewar says that it took me "another year to perfect a provisional specification," "which is totally devoid of any plan or drawing of a workable apparatus." It only took five months, of which time half was spent in waiting for Mr. Lennox to fulfil his promise to experiment, and in trying to extract from him some information as to what was being done. It was my failure to obtain any satisfaction on this score that decided me to apply for provisional protection, for which drawings are not required, as Prof. Dewar well knows. My communications to Mr. Lennox were made in November and December 1894, my application for provisional protection in May 1895.

July 22.

W. HAMPSON.

The Distribution of Prepotency.

MR. GALTON has raised under this heading a most important point—or, rather, a series of most important points—in the problem of evolution. Perhaps I may be permitted to say a few words with regard to his views on evolution by sports and by normal variation. Mr. Galton's opinion, I think, is that sports are inherited in a higher degree than improbable normal variations, and that evolution must accordingly take place very largely