

or fractions of things. Much useful, if elementary, information is conveyed in small doses as the child is able to receive it, but there is nothing childish in the matter or the manner. We should say that the best way to use the book would be for the parent (or governess) to master each lesson well beforehand, so that there should be little or no reference to the book during lesson-time, except, perhaps, for the purpose of looking at the illustrative drawings. We feel sure that when the "good bye" is reached there will be few to call Arithmos unkind names and say "he is a horrid, cross old thing," and that "they hate him, and wish such a giant had never been made."

A Treatise on Elementary Trigonometry. By the Rev. J. B. Lock. (Macmillan, 1882.)
Introduction to Plane Trigonometry. By the Rev. T. G. Vyvyan. (Deighton, Bell, and Co., 1882.)

BOTH these works are elementary: their scope is in the main limited by the requirements of the Previous Examination at Cambridge, and of the Entrance Examinations for the army. Mr. Lock's is by far the fuller work, and is well adapted for a student who has not constantly at hand the assistance of a private tutor; in fact, such a reader, if of fair intelligence, might be independent of extraneous aid, if he have previously grounded himself carefully in geometry and elementary algebra. The work contains a very large collection of good (and not too hard) examples. The only fault—if we must grumble—is that there is too much, we think, for ordinary school teaching. As Mr. Vyvyan remarks, "in all public schools but a few hours a week can be given to mathematics by the generality of boys," and trigonometry has to take, in general, a very small portion of that limited time. But Mr. Lock is to be congratulated, when so many "Trigonometries" are in the field, on having produced so good a book, for he has not merely availed himself of the labours of his predecessors, but by his treatment of a well-worn subject has invested the study of it with interest. The figures are numerous, and are drawn so that the salient features arrest the eye at once.

Mr. Vyvyan's work also is well adapted to the end he has in view. He aims at producing a book which may fairly be mastered by any schoolboy of average ability, whose sole desire in studying this branch (or any other branch of mathematics) is to satisfy the University examiners in an early stage of residence, that so he may be free to read other subjects, and bid farewell to mathematics.

The matter is clearly, though somewhat concisely put, and is sufficient in quantity for Mr. Vyvyan's purpose, which is not to bring out a book that will render a schoolboy or other junior student independent of the assistance of a master—this he considers to be an impossible task. We ourselves have found that very much explanation is required by the generality of pupils. There is a sufficient collection and variety of exercises.

We cannot say that either text-book will supersede all other text-books, but each merits, and will no doubt secure a very fair circulation in schools. Mr. Lock's being the fuller, is likely to be the more generally acceptable.

An Elementary Treatise on Conic Sections. By Charles Smith, M.A. (London: Macmillan, 1882.)

A THOROUGHLY excellent elementary treatise. For a long time we have been exercised in mind when asked to recommend a book on Conics. To all its predecessors, with their varying shades of goodness and badness, we had some objection or other to urge. Mr. Smith has just met our want; his book is right up to the time, and is admirably adapted for the preparation of pupils for college scholarships; for students at the university it is a fitting introduction to that as yet unapproached work, Salmon's treatise on these curves. The text is excellent, full in

alternative proofs, and suggestive in its methods; the numerous worked-out exercises, in addition to those collected at the close of the several chapters, render the reader independent of any other work. We think the title-page should state that it is an "analytical" treatise on conics.

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. No notice is taken of anonymous communications.]
[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

The Darwin Memorial

THE note in NATURE, vol. xxvi. p. 87, on the Darwin memorial, says that there is to be a fund associated with the name of the great naturalist, which shall be devoted to the furtherance of biological science. Probably most biologists would agree that one of the best plans for effecting this object would be one, the idea of which originated with Mr. Sydney Hickson, of Downing College, Cambridge, who is at present on the staff of the Oxford Biological Laboratory. This plan is to establish out of the fund a marine zoological station somewhere on the English coast, that of Devonshire, for example. Mr. Hickson has advocated this course in a letter to the *Times*, where he pointed out that Italy, Austria, and France have zoological stations, while we have none, a fact which is one of the many signs that the teachings of Darwin have aroused more enthusiasm and activity abroad than at home. If you would give publicity to this suggestion it would be certain to come under the notice of the Memorial Committee and of biologists generally.

J. T. CUNNINGHAM

Cottons, Romford, May 27

Comet α 1882

OWING to recent bad weather, the only opportunity we have had here of observing the spectrum of the comet was on June 4. Unfortunately our view was obstructed by clouds just as it grew dusk, but at 11.30 I managed to obtain a glimpse for a few moments. The nucleus gave a very bright continuous spectrum, with a marked increase of luminosity and widening of the spectrum in the yellow. I could see no lines or bands. I was not able to make any further observations, as the comet was on the point of disappearing behind a tree.

A. PERCY SMITH

Temple Observatory, Rugby, June 6

THIS comet was distinctly visible to the naked eye, at 11 p.m. on Sunday, June 4, in the north-west, about 5° to 10° above the horizon (being in a hilly country, I could not estimate it correctly), with a bright nucleus, and a tail about $1\frac{1}{2}^{\circ}$ in length. The sky had been overcast and stormy all day, but cleared up before midnight. I observed it from a hill-side about 400 feet above sea-level.

F. T. MOTT

Leicester

Meteors

ABSENCE from home on business connected with the Transit of Venus Expeditions prevented me sending you earlier notice of a very brilliant meteor, which was seen here and at several distant stations.

On May 4, at 9h. 31m. p.m., Mr. Rooney, one of the assistants of the Observatory, saw a large fire-ball of a light purple tint. It was first observed near the star Arcturus, and then it moved towards the Great Bear, passing between δ and ϵ Ursæ. It burst just under α Ursæ, when its train changed in colour from a purple tint into a brilliant red. It was visible for about five seconds, and lit up the whole garden.

Another assistant, Mr. Cullen, saw the same body from a place not far distant, and his account agreed well with the above.

A note from a friend at Clitheroe informs me that the meteor was seen in that town by several persons, and was as brilliant as the full moon.