introduction to an important form of mathematical procedure, and so it appears to us to possess just that "outlook value" that should be a dominating consideration in the choice of subject-matter for mathematical sixth forms.

Yours, etc., C. V. Durell and A. Robson.

POETS' CORNER.

To the Editor of the Mathematical Gazette.

SIR,—For some time I have collected specimens of verse (mostly light) on mathematical and astronomical themes. I should be glad if you could spare a little space to enable me to ask members of the Association to help in retrieving scattered masterpieces. It will be enough to give references to the books or journals in which they can be found, and the smallest contribution will be gratefully acknowledged. Yours faithfully, A. P. ROLLETT,

4 Oak Lane, Sevenoaks, Kent.

TEXTBOOKS AS TEACHERS.

To the Editor of the Mathematical Gazette.

SIR,—Would that they were! I speak of university student textbooks. Roughly, these are either class-books, designed as aids to the training of examinands in classes; or they are lectures without a lecturer.

In no case that I know of does any one of them, modern or not, solicitously regard and properly provide for the needs of the learner when he is alone with his books. Yet during that part of his learning time the learner has no help within reach except his books. And it is then that there occurs, for very many learners, an appalling waste of their time.

Responsibility for this wrong done to them divides between authors and publishers. A textbook, like a teacher, is under obligation to answer every question which a learner legitimately puts to it. Further, he must not be

needlessly delayed in getting his answer.

I have not space to set out separately here the multiple unnecessary compulsions to waste of time enforced upon a learner in solitude by every one of these textbooks. Each separate unnecessary one of these is in itself a wrong. The accumulated total of them piles up to a great evil. This evil is the more cruel in that the injuries which it inflicts are not merely according to weakness, but become harsher in steeply rising proportion to it. The nature and the hurt of each of these injuries I know by experience. The feelings of the weak concerning them I know from within, and I will voice them.

I am ready to justify my indictment by as many instances as may be desired from well-known current textbooks. The worst of the injuries arise from gross neglect of the mere mechanism of presentation, especially from almost unbelievable deficiency in: (1) references back to the book itself; (2) indexes; (3) reference to ancillary books. The multitude of other injuries I must leave unclassified and uncounted.

Finally, and it would be my best contribution, I believe that I can point out a remedy that would be efficacious, unobjectionable to authors, and yet cheap to publishers.

Yours, etc., Owen Madden.

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