factory than the "fiddling" involved in the other.

Here I close the book, without referring more particularly to the excellence of the sections on measurement of area and of solidity; or to his examination papers of 1,000 examples, which may be, for aught I know to the contrary, as excellent as they are said to be, for that does not concern our present purpose.

Shall we, as teachers, assist in this attempted displacement of the Rule of Three, and, observe, as a natural consequence, of the notions of Ratio and Proportion, from our arithmetic? Not I, for one. I find Proportion or Analogy existing as an Arithmetical *fact*. I have a great respect for facts, and am not easily to be whistled over to join a crusade against any member of the fraternity. I fear, fear! no—hope, perhaps—believe, yes, certainly, that the *fact* will prove harder than even those mathematical heads that are butting against it. Besides, I find that after addition, multiplication, etc., etc., the doctrine of Ratio comes in as a new, beautiful, and powerful instrument to be used in the elucidation of the science of Arithmetic, and consequently in its application to practice. Why then should I refuse its aid? If its beauty and power are denied (as they can be only by those who are blind to the one, and unable to estimate the other), it is still an essential part of Arithmetic, and thus has claims that cannot be set aside.

What shall we say as to this Unitary Method, which, by the way, is not new at all, but only a new name for an old method, viz., *Analysis*, which figures largely in some of the American arithmetics, also in Smith & MacMurchy's Arithmetics? In the best of these it is kept in its proper place, appointed its proper function, namely, to serve as a sort of arithmetical substitute for Algebra. Used in this way, it may be both interesting and useful in the solution of problems that do not range themselves easily under the ordinary heads of arithmetical processes. But used *generally* for such questions as we have been considering, it seems to me to be not only useless but mischievous. Useless, because it is a wearisome, round-about way of arriving at results that can be obtained by speedier and more direct ways. Is it not very much the same as if a scholar were obliged to prove Euclid's I. 47th, by tracing every assertion back to the Axioms and Postulates? We know that this, or something like it, is a good prescription occasionally, but no one advises it as a regular article of diet. It is mischievous, for, if it has any mental effect on the scholar, it must be in the direction of making him careless of the value of generalization. The two principles of the method (when applied in ordinary cases), appear to be, first, when a difficulty is met with, to go back to the beginning of the course, and retrace every step; second, to make as little use as possible of previously gained arithmetical knowledge.

We older fashioned people have thought it one of the best things we could do for our scholars in arithmetic, to shew them how each new fact was to serve as a stepping-stone to the next; that each new arithmetical truth gained was gained for good and all, and to be considered as now in our possession, to be used at once, and directly, in the search for, and investigation of, other such truths. In this connection, I must open the book again, and read another sentence from the preface. It is, "I cannot too earnestly set before my readers the fact that examiners do not assign so much credit to *results* as to the *processes* by which they are reached." Yes, he can too earnestly hold up the examiners to the view of the student. This preparing for examinations is a wretched sham. The reader of his book has nothing to do with examiners—his duty, and his whole duty, is learn arithmetic *thoroughly*. If he does this, he is prepared for any examiners, or there is something wrong with *them*. The author of the book has nothing to do with examiners—his duty is to lay the whole subject before his readers carefully and clearly; he ought to know nothing but his subject and his reader. The appearance of the examiner on the scene is an *impertinence*, if not worse. We will therefore not adopt the Unitary Method as here pronounced.