

a large portion of the arithmetic. Thus, a discussion on Capital would lead to questions on interest; with the chapter on Companies should go the arithmetic of shares. Bills of Exchange would lead in their train questions on discount and on exchange. With Insurance we should have questions on premiums and annuities. Contracts would lead to calculations in which enter all, or some, of the elements of commission, insurance premium, freight and exchange. Telegraph Codes would take us to questions on combinations and permutations; and so on, and so on.

Commercial arithmetic suffers at present from a want of text books that are in touch with the actuality of transactions. Take, for instance, the little book on "Commercial Arithmetic" by Mr. Taylor, of Nottingham. It has run to a third edition, and is evidently extensively used. The book contains four examples on the finding of simple interest. The first has a period of $3\frac{1}{4}$ years, the second 12 years, the third 57 years, and the fourth $8\frac{1}{2}$ years. If the writer had had any notion of commercial operations, he would, of course, have turned his years into days. Then again, in nearly every example of compound interest we have the absurdity of interest being payable yearly, while the whole amount is made due before the expiration of the year. An example on stocks puts "Goschens" ($2\frac{3}{4}$ per cent.) at $96\frac{3}{8}, \frac{7}{8}$; and in a question on exchanges the price of silver is quoted at 5s. per ounce. (The date of the edition before me is 1896) There is a point in this connection which deserves special mention. We have no decimal coinage, but we can make one for the purposes of arithmetic. Facility in decimalizing money and evaluating the decimal is the secret of the commer-

cial ready reckoner. Strange to say, the books that make commercial arithmetic a specialty have all, to my knowledge, failed to grasp the simplicity of the little problem, although as long ago as 1870 Messrs. Sonnenschein and Nesbitt showed that the number of farthings is equal to the number of thousandths of a pound + $\frac{1}{12}$ of $\frac{1}{2}$ of that number.

I need not insist on the important part which modern languages must play in the curriculum; but I must part company with those who believe that the teaching of French and German should be mainly occupied with the translation of business letters. This practice in correspondence generally amounts to nothing more than words, words, words. It arouses neither enthusiasm nor interest; it is utterly barren. To sacrifice to this stuff a knowledge of some of the great French and German masterpieces is a cruel injustice to the boys. What I should do, if time permitted, would be to give through the medium of French and German a systematic account of the commercial methods, machinery and important laws of France and Germany.

In the conduct of a commercial form I do see a danger—the danger that its course of studies may degenerate into mechanical routine work. Care would have to be taken that general culture and those disciplines that are the bases of higher commercial studies received their due share; and equal care would have to be taken that the commercial department was not made an asylum for the outcast.

So far I have had in my mind second-grade Secondary Schools only. A system of commercial education will also include evening instruction, first-grade schools, and commercial institutions of university rank. The title of my paper precludes me from