Commission, Brokerage, &c.

What will be the commission on goods worth £437, 5s. 2d., at 4 per cent.?

Commission on
$$£100=£4:$$

"
 $£1=\frac{4}{100}=£.:$
 $100=£4:$
 $£437.5s.2c.$
 $£437.5s.2d.=\frac{25}{100}$
 $£437.5s.2d.=\frac{25}{100}$

Simple Interest.

What is the interest of £26, 10s, at 5 per cent, per annum for 3 years?

Interest on £100 for 1 year =£5.

"£1" =£5.

100
8×3 3
"£1 for 3 years==
$$\frac{100}{20}$$
;

£26, 10s. "=£26, 10s. ×3

=£3, 10s. 6d. (Ans.)

Or, by decimals, £26. 10s. =£28.5.

Interest on £100 for 1 year =£5;

"£1" =£0.5;

£1 for 3 years=£0.5×3;

£26.5 "=£26.5×0.5×3
=£3.975
=£3, 19s. 6d. (Ans.)

Discount.

What is the true discount and present value of a bill of £700, payable in 9 months, at 5 per cent. discount?

Stocks.

What quantity of stock will £291 purchase, at 72‡ per cent., brokerage charged at ‡ per cent.?

Cost per cent. with brokerage=72 1×1=721=172.75: Amount of Stock for £72.75=£100;

" £1
$$=\frac{72.75}{72.75}$$
;
" £291 $=\frac{100\times291}{72.75}$ £.=£400. (Ans.)

Partnership or Fellowship.

A puts £720 into trade, B £340, and C £960, and they gain £47 by the traffic; what is the share of each?

Total sum in trade=£720+340+960=£2020, and the gain=Gain on £2020=£47;

47

" £1=£
$$\frac{47}{2020}$$
;
" £720=£ $\frac{720 \times 47}{2020}$ =£16, 15s. 0}d. $\frac{38}{101}$ =A's share:
" £310=£ $\frac{340 \times 47}{2020}$ =£7. 18s. 2}d. $\frac{46}{101}$ =B's share:
" £960=£ $\frac{960 \times 47}{2020}$ =£22, 6s. 8}d. $\frac{17}{101}$ =C's share.

Compound Interest.

What is the compound interest of £237 for 3 years at 6 per cent.?

Interest of £1 for 1 year=£00 Amount " =£106; " " 3 year=(106)3=£1·101010; " £237 " =£237×1·101016; =£282, 5s. 5d. Amount ...£282 5 5 Principal ...=237 0 0

The foregoing method of analysis is that chiefly used in solving questions in mental arithmetic. It is doubtless well adapted to beginners in the study of arithmetic; but we do not think it should be exclusively or chiefly used in the instruction of more advanced classes. At best, it is the hands-and-kness method, thoroughly safe, but cumbersome and slow. Mature thinking should be an aim in view as a result of mental processes; but mature thinking should be direct and comprehensive. Roundabout reasoning and wordy explanations do not tend to make thought quick and expression concise. By this wire-drawn syllogistic method, the pupil has little, if any, stimulus to original thinking, for the order of thinking is prescribed for him to the exclusion of all original methods. All the pupils in a class must work their examples by one and the same formula. This restriction of thought and expression to a single path can yield but a narrow discipline

On a recent visit to Canning we were informed that one of the pupils of the school, some ten years of age, shews a marked originality in his methods of solving arithmetical questions. Relations not obvious, are quickly discovered by him, and from his power of comprehension he masters examples rather by composition than decomposition. This power of getting at the centre of a problem, whence all its relations are seen comprehensively, should be the thing aimed at, rather than the mere ability to plod a beaten path around the circumference. We do not say a word against the employment of "unitary" analysis, but that this method, and this only, should be used, and used evermore, is altogether too much of a good thing. Any and every analysis has its limiting period, when the elements which it discovers should be comprehended as something complex indeed, yet single to the conception and to the use of the intellect, so that they may be employed as a single element in a higher analysis.

DISCUSSION AT THE EDUCATIONAL ROOM, BOSTON, ON THE TEACHING OF GEOGRAPHY.

MR. Atwood, of Milton, Chairman of the meeting, opened the discussion, saying that study is pursued with two objects in view. First, to secure a knowledge of places, and second, as a means of mental discipline. In order to accomplish the first end, some have deemed it sufficient to ask specific questions, which result in the attainment of isolated facts alone. Such an unsystematic method may be useful to mature minds, or may be advantageous in occasional reviews, but when the child is to pursue a course of study in this branch, it will tend to confusion and indefiniteness of ideas. In order to accomplish both the designs of this study, there must be a regular progress from the general to the particular, and also the contrary. In Germany, the children are first taught the geography of their own lecality; its elevations, levels and depressions; its waters, moisture, temperature and climate; its soil and its mineral, vegetable and animal productions; its people, with their occupations, condition and form of government. In addition to this, the earth as a whole should be studied, and its grand divisions so accurately known that correct outline maps could be readily drawn. Then, as the interior is learned, maps presenting the natural conditions of the country should be prepared, and as knowledge of the political divisions and location of prominent cities is acquired, the pupil