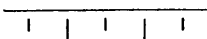


shall have 20 times as many shillings as there are pounds.' And so throughout the other weights and measures. Miscellaneous applied exercises now follow. In all cases the *rationale* of the process is explained.

PRACTICE.—This rule may be explained on the principle of 'partial payments;' thus, if for one acre I pay a pound, then 5s., then 6d., what do I pay in all? The name 'Practice' being new, the pupil thinks he is encountering new difficulties, whereas he is only applying 'first principles.' The first exercises in this rule may be given in full, in order to make the process clear; thus.

5128 articles at £3 5s. 10d. each.			
	s. d.		5128
5128 at £3 0 0	=		3
			15384
" at 0 5 0 = $\frac{1}{4}$			1282
" at 0 0 10 = $\frac{1}{8}$			213 13 4
<hr/>			
£16879 13 4 answer.			

VULGAR FRACTIONS.—Visible illustration again required. Divided lines are marked on black-board, and the pupil asked to write the fractions indicated and to draw lines indicating fractions written down. To prove that a fraction is not altered in value when its terms are each multiplied or divided by the same number; a line may be divided into three parts and then each part subdivided thus:



The working of addition and subtraction of fractions depends on this principle here illustrated. Fractions are so prepared for these two rules by reduction to equivalent ones. Mental exercises are required, such as $\frac{4}{9}$ and $\frac{3}{9}$, which bear the same names, and should be as easy added as 4 apples and 3 apples. In multiplication and division of fractions the same remark is applicable.

PROPORTION. It is difficult to children to conceive the relation of four numbers in a proportion. We may begin, thus 2 is the half of 4, and 4 is the half of 8, which is written as 2 : 4 :: 4 : 8. By induction from examples it is shown that the product of the means is equal to the product of the extremes. The higher rules are in general best studied by the help of *formule*. Cornwell's and Fitch's arithmetic is recommended as using *formule* for all, from the simplest operations.

To gain facility *practice* is necessary, into which mental arithmetic must largely enter. Exercises systematically given will strengthen the memory of the principles upon which the rule is based. During slate exercises a degree of watchfulness is required, to prevent whispering or copying. There are three criterions, correctness first, then rapidity, then neatness.

THOMAS CUMMING.

In *Irish Teachers' Journal*.

Passing of the Endowed Schools Bill Through Committee.

Despite the paramount interest created by the Lords' debate, the Endowed School Bill made good progress yesterday evening in committee of the Lower House. In answer to an appeal from Mr. Mowbray, the Premier pledged himself to announce at an early period the names of the Commissioners to be appointed under the Act; and after Mr. Forster had passed a well-deserved eulogy on the City of London School, Mr. Chambers agreed to withdraw his amendment to clause 11, which, if it had been adopted, would have practically exempted all civic schools from the operation of the Act. But the real interest of the discussion centered upon clause 12, which instructs the Commissioners, in making any arrangements for the redistribution of endowments, to consider how far they can be conveniently extended to girls. The proviso,

which had been the subject of much discussion in the select committee, was intended to impress upon the commission the importance of promoting female education; but by the more advanced advocates of the principle the clause was not thought sufficient for its purpose; and consequently Mr. Winterbotham had proposed to add to the clause the words, "equally with boys"—an addition which he advocated in a speech of singular force and earnestness. He dwelt upon the fact, that while some three to four hundred thousand pounds, derived from endowments in this kingdom, are spent annually in the education of about forty thousand scholars, less than a hundredth part of that amount is devoted to the tuition of girls. He urged, with much truth, that the principle of free trade in education, which may safely be applied in the case of boys, to whom learning represents direct money's worth, is not equally applicable in the case of girls. Two millions of women, he stated, are already employed in this country in scholastic and industrial pursuits; and he showed that the necessity of providing some better system of education for these women is a matter not so much of individual as of national interest. The strength of his powerful appeal was somewhat marred at the close by the introduction of certain sentimental considerations as to the efficacy of home influences; but the evident sincerity of the speaker caused the House to overlook the defect in the strict logic; and the counter-argument advanced by the Vice-President for not acceding to the amendment was virtually an apology for not complying with Mr. Winterbotham's demands. Mr. Forster pointed out that the clause, as amended, would necessarily be inoperative. Taking things as they stand, and making allowance for the force of national habits and institutions, it would be impossible to divide all endowments equally between the two sexes; and yet the enunciation of an abstract principle of equality would infallibly give rise to expectations that could never be realized. Warned, by leading members on both sides, that the success of his amendment would entail the appearance of defeat on a cause which they had at heart equally with himself, Mr. Winterbotham gave way; but not without drawing forth an acknowledgment, from almost every speaker in the debate, to the effect that to promote a higher standard of education among women was one of the most pressing duties of the State.—*Daily Telegraph*, June 15.

In order to obviate the objections which present themselves to any national system of education in which the denominational element is found, a clause has been introduced enabling parents to obtain for their children exemption from attendance at prayers or lessons of a religious character, and not the least important portion of this clause provides that no scholar shall, by reason of such exemption be deprived of any advantage or emolument to which he would otherwise have been entitled. It is also provided that no person shall be disqualified by reason of his religious opinions from being a member of the governing body of any endowed school. The other features of this measure, which may be described as the first serious attempt made of late years at establishing in this country a truly national system of education, have previously been dwelt upon in these columns. The general effect, when it becomes law, will be to utilize to the utmost the vast sums which are now, though nominally devoted to educational purposes, uselessly squandered. The whole system under which educational endowments are now turned to account will be harmonized, and those who are best entitled to benefit by them will be enabled to do so. Placed under the supervision of one central authority, and compelled, as the governing bodies will be, to conform to the general principles enunciated in the present measure, the sectarianism, the favoritism, the peculation, and the jobbery which has so long disgraced the management of these endowments will, it is to be hoped, speedily and finally disappear.—*Morning Post*, June 15.

Precepts for Youth.

As, in the succession of the seasons, each, by the invariable laws of Nature, affects the productions of what is next in course;