

20. However, push not a pupil beyond his strength. Neither over excite nor lull his faculties; but form and develop them with that temperate wisdom which nature dictates, by such means as she has furnished.

21. The first lessons are the most important. By them intellectual habits are formed, and the understanding is moulded. Let your first lessons, then, be simple and precise, clear and impressive, and the facts of the lessons repeated, and in the simplest language, till they receive a lodgment in the mind.

22. Advance slowly; that you may advance surely, but always advance.

23. And far from advancing rapidly, as many do, with a few of your pupils who take the lead, return often to FIRST STEPS with all. Drill on those with thoroughness; and especially with reference to the REAR part of the class or section. By repetitions only can impressions be deepened and the memory strengthened.—We give and repeat the giving, that the pupil may get and retain. We expound and illustrate that he may get and understand, and that what he thus gets he may be able to use as materials for working and improving his own mind.

24. But let me enlarge a little on these ideas. A rich educative vein here opens up.—Be not satisfied because your pupil's mind is enriching with ideas, and so linked as to become suggestive, each of the other. The value, the multifarious uses of the mental treasure so acquired have to be taught.—This part of teaching, to the intelligent, full minded teacher, who has a command over himself and has a command over his scholars, opens up a wide field of observation and consideration for exercising his skill, in showing the uses and applications of the truths taught and the principles expounded. When this part of the work is efficiently done, excellent training effects are produced. The faculties are brought out—strengthened and expanded—enriched and ennobled—enlightened and stimulated, and so growing in fitness, each for its work. No part of the work is of more importance than this; yet in many schools it is one of the most neglected. A fact is told me, a truth is explained to me, a principle is unfolded, a rationale is illustrated, and why?—All this doing must have an object—MANY objects in view. From the facts, the truths taught, lessons have to be drawn, and their uses pointed out; from principles applied and rationales expounded, the purposes and advantages of their application must, to render them valuable to the receiver, be clearly explained and well understood by examples, given first by the teacher, then by the scholar.—Many may object to this part of school training, on account of its difficulty.—But the question is not as to its difficulty, but as to its necessity.—The happiness, the improvement of society are linked with it; the onward march of the human mind and of the world make it all a necessity; and the difficulties which lie in the way, are difficulties which have very agreeable concomitants—concomitants which co-aid in producing highly beneficial effects, giving zest to enjoyment, and value to the results of labour.—Away then with the idea of difficulty! The Creator, and for purposes infinitely wise, has stamped difficulty on all man's labour. But he has linked with it innumerable enjoyments; and he makes the value of toil depend on it. Everything taught should be taught for an end or purpose; and this end or purpose should be well understood by the pupil as well as by the teacher; and he must be shown how to use his every faculty in conjunction with his teacher, in working out the object of his education; and to leave this to chance, or his own sagacity, is like sending a ship to sea without compass or helm.—To enable the scholar to master difficulties, he must be taught to master himself; to enable him to use his faculties, he must be taught command over them, and how to use and train each for its work. Yes, but how often are they so worked, so exercised as to produce weakness and dissipation instead of vigour and concentration of healthy effort, rendering them dull and dormant instead of sharp and acting? It is with the mind as with the body: some exercises weaken, not invigorate; some give health and life; others tend to generate weakness and disease, some sweeten life, others embitter it.—The considerate and skilful teacher, keeping these things in view, makes, therefore, this part of his duty the subject of much reflection, observation and inquiry. And he who disregards this duty, gives evidence that education has received but little of his consideration. Let us not deceive ourselves on this subject. In giving growth to the human mind, there is exhibited one of the grandest marvels of creation, wisdom and power. How it developed itself is a marvel; how its powers gradually strengthen, and ripen to manhood, is a marvel; how it receives and retains impression is as marvellous; and how it acts is most marvellous. It is fearfully and wonderfully made. He who first breathed it into being,—and He only, understands it.—Rightly to educate, to train so marvellous a creation—is it not a most noble work—a work that demands the highest consideration and skill of the human intellect?

I hope again soon to return to the subject of Hints to my co-workers in this noble cause.

JOHN BRUCE.

ARITHMETIC.

(Continued.)

COMPOUND RULES.—In teaching arithmetic, we should first carry the pupils through a *simple yet comprehensive* course of calculations, embodying all, or nearly all, the fundamental operations of numbers, before we begin to carry them through a full systematic course of arithmetic,—to give them expertness and skill in the manipulations of numbers, and by suitable drilling make them comprehend processes and principles as much as possible.

Such exercises will greatly help to waken and invigorate their faculties—teach them how to reason out processes—how variously principles may be applied—and give them a knowledge of the properties of numbers and their numerical value. Arithmetic is the *EUCLID* of elementary schools. Every step of advance can be converted into a demonstrative science not beyond the reasoning powers of children, and which should be used as an expedient in training them. It is one of our best branches to foster self-development, self instruction—and train to voluntary effort. To these views of our subject I have all along directed special attention. We are now entering on another part of our subject—compound rules.

In teaching these and training pupils upon their various processes, I recommend that the drill and questions, should extend the training on the examples, to adding, subtracting, multiplying, dividing, and reducing denominations. Wherever arithmetic is taught with any pretensions to be the means of education, it must lay the foundation of these fundamental operations broad and deep, in a full intelligence of principles. The character of all the subsequent teaching depends so much upon the manner in which the elementary parts are taught, that too much attention can scarcely be paid to it.

The following examples will illustrate the method I recommend in teaching compound rules. To give as much facility as possible in reckoning, let the oral practice be continued simultaneously with the written; and at each step of advance let principles be well evolved.

1.—Dollars.

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	75.14
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	182.80
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12)	2193.60
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	182.80
	27.16
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	155.64
	80.50
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	75.14
	75.14
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