for systematic science teaching, but facts prove the contrary. An ordinarily intelligent boy or girl of this age is perfectly capable of understanding the broad differences between the animal, vegetable, and mineral kingdoms; that there are more gases than one in the world; that some of them are colorless, while others are brown or green; that some burn and others do not; that some plants grow from the inside, while others grow from the outside; that some animals have jointed backbones, that others have their bones outside their bodies, while others have none at all. Facts such as these are perfectly comprehensible to children even younger than those I have named. During the first two years of a child's school life, after he has learned to read and write, he should be carried through the whole range of physical science in a systematic manner. The fundamental truths of chemistry and physics should be first taught him: all theoretical considerations being left aside. As few definitions as possible should be given, the whole task of the teacher at the commencement being to cultivate the child's powers of observation to the utmost. Gradually the powers of induction and deduction may be developed, facts and phenomena should be compared, and conclusions drawn from them. Order in thought and description should be specially insisted upon, and occasional retracings of the ground already gone over should take place. The objects af this preliminary science-teaching should be two-fold: first and foremost, to train the mind and form the judgment; and secondly, to give the child a general idea of the object and scope of the natural sciences. At the age mentioned, the faculties are all fresh, and in full process of development; and such is the desire to exercise them in intelligent children, that their thoughts often run wild. There is nothing a child likes so much as investigation, or "finding out all about things," as he himself would phrase it. The boy in the nursery rhyme who cut the bellows open to see where the wind came from, is a type of his class. Unfortunately at the present time, scientific teachers for children are extremely rare, but let the want once arise, and the demand will soon be met. We have plenty of scientific teachers and lecturers for boys and men, but the child has hitherto been left out of consideration. Teachers, in the true sense of the word, are every day on the increase, and even the old-fashioned schoolmasters are beginning to see very plainly that they must alter their system of instruction, and yield to the pressure of the times. But it is not only upon these that I would urge the neccessity of beginning science-teaching at the earliest possible period, but also upon those who have already adopted science as part of the ordinary school curriculum for the older boys.—*Chas. W. Quin, in "Nature."*

To Train a Child.

A little tract issued for distribution by the Ladies' Sanitary Association of London, gives these wise suggestions for the nurture of children in health of body and spirit:

1. Never refuse a thing if it is harmless, give it, if you are able, without delay.

2. Never give anything because it is cried for that you have refused when asked for.

3. Be careful to observe real illness, and avoid causing bodily uneasiness from over-clothing or cold or unwholesome food, such as candy, sugar-plums, sour fruit, or giving buns or cakes to quiet the child.

4. Avoid false promises. They are sure to be found out false.

5. Avoid threats of all kinds. If believed, they make children timid, and injure both mind and body: it not believed, they are useless. Such threats as bogie, policeman, and black-man, are sure to be found out false, if the child lives.

6. Never say anything untrue to a child.

7. Do not wreak your own bad temper, or visit your own feelings of fatigue and trouble, on children, by being severe with them, or by saying, "You shan't have it" or "I won't give it to you," when there is no reason for refusal, except that you are yourself tired, or in trouble, or out of sorts.

8. Avoid giving orders, such as "Stand still," "Go on," "Hold your tongue," "Put it down," etc., unless you really mean that you should be obeyed; and the fewer orders you give, the better.

9. Neither give too much pity, nor yet be severe and unkind, when a child tumbles down and hurts itself.

10. Do not worry a child. Let it alone, and let it live in peace.

11. Teach it early to play alone, and amuse itself without your help. Let it alone, is a golden rule in nine cases out of ten.

To sum up all in a few words, try to feel like a child; to enter into its griefs and joys, its trials and triumphs. Then look forward to the time when it shall have numbered as many years as you have seen, and pray for help and strength to do your duty by it. You may fail, as we all may; but if you sow the seed with humility and faith, you will have done all that is permitted to us imperfect creatures; and if you have reared up a cheerful, loving, truthful, and brave spirit, in a healthy body, you have been working with him who told us it was "not the will of our Father in heaven that one of these little ones should perish."

Teaching by the Page.

Among the things which still cling to us as relics of fogyism is that of teaching and studying by the page, instead of by topics. There are perhaps no other two expressions in our pedagogical vocabulary of less meaning and more history than "going through the book" and "learning the book through."

If our text books were what they should be, there might possibly be a shade of meaning in these expressions, but notwithstanding the burdensome load of school text books which are continually heaped upon us, it is a fact, and one which speaks little credit for text-book makers, that, with but few exceptions, the mode of teaching suggested by them, and the manner in which subjects are presented, are more or less a failure. No teacher who studies to present subjects to his pupils in the most clear and comprehensive manner can fail to observe this deficiency. Our constant watchword should be, "from the known to the unknown;" and indeed this is, and can be, the only profitable and natural mode of procedure.

Further, it becomes necessary for every one who pretends to impart instruction successfully to understand the order of development of the faculties of the human mind. This knowledge may be acquired partly by observation and partly from our works on Mental Philosophy. Of late the subject is also treated in a limited way in almost all our works on the art of teaching.

These two things being agreed upon – first, that we must slowly and carefully proceed from the known to the unknown, and secondly, that a knowledge of the relative strength and the order of development of the child's mental powers is indispensable, who would for a moment think of—aye, who would not utterly shrink from—the idea of presenting a young pupil as their first lesson in English Grammar, the abstruse metaphysical enunciation that "Grammar is the science of language?" or, as some later writers, in order to simplify,we suppose, would have it, "the science and *art* of language." Following these very complete definitions comes such other interesting matter (to young minds) as a discussion of Philosophical Grammar, Philology, &c. If, after such an introduction into the "Elysian fields of English Grammar," the youthful disciple does not come to the usual conclusion that "he doesn't like it very well," or that "it's of no use," he must be hopelesssly dull. It is not proposed to deny the truth of the proposition that "Arithmetic is the science of numbers," or, "Our earth is one of the heavenly planets," but we deny the propriety of having such abstruse definitions as the introductory matter in our school text books on these branches.

The child that has succeeded in committing to memory that "Reading is the perusal of anything written or printed," or that "Arithmetic is the science of numbers," is none the wiser for it.