

Dr. Clement A. Walker, Superintendent of the City Hospital for the Insane. Dr. George A. Stuart adds: "Of late years the majority of diseases seem to have assumed a nervous type, which in most cases may be traced to over-taxation of the mental powers of the young, both male and female." And Dr. J. B. Treadwell: "Hundreds of pupils of our public schools are ruined in health every year; this I know from personal observation." And Dr. H. F. Damon: "The amount of vital power has its limits, and these limits, in my judgment, are far exceeded by the present system of overtaking the pupils in our public schools." Dr. E. B. Moore writes that he has a son now in the insane asylum, "the result of excessive study and disappointed ambition."

We do not infer that such would everywhere be the inevitable results of the proposed extension of public schooling, but such results would be possible, indeed probable, unless the system were materially modified; and we ought to be very cautious in erecting a national god so likely to turn out a Moloch. If the choice lies between healthy ignorance and "an overtaxed brain, a dwarfed body, a weakened intellect, a variety of diseases, and a premature grave,"—which Dr. P. D. Waish says is the natural, or unnatural, result of the current system of schooling,—commend us to an abundance of healthy ignorance.

Even if much study were never a weariness to the flesh,—if the requirements of the schools could be complied with without any risk of broken health, the present cost of schooling would be needlessly great. The complaint that our schools are spoiling our more promising youth for work,—that they foster foolish ambitions and aversions to material pursuits, is not wholly without foundation. Ten or fifteen years of exclusive devotion to books is very apt to develop tastes and habits unfriendly to productive labor. The youth leaves school a young man (in his own estimation at least), and very likely with exaggerated notions of his own importance. He is too old, and too proud, and "too much of a gentleman" to begin at the bottom of any craft, and, by doing a boy's work, acquire that familiarity with details on which the mastery of any business depends. Besides, in most cases, he cannot afford the time for such an apprenticeship. He must begin to earn wages at once. The consequence is, the country is full of unprofitably "educated" men, who, having neither rude strength nor skilled hands, are glad to get employment at lower rates than are paid to common laborers. The loss to the country from this needless diverting of youth from productive labor is beyond estimation. It is due very largely to the unwise requirements of the schools in the matter of time. They suffer no rivals. Their pupils must give the best part of the day, regularly, to school-work, or withdraw. It may ruin their health, and deprive them of opportunity to acquire the practical business training on which their future happiness and usefulness will chiefly depend. No matter: the character of the school is at stake, and the school, not the student, is the primary consideration. The Boston Board admit this inversion of the proper order of things with unconscious frankness, in their refusal to lessen the amount of study required of the Latin School boys. "It would be impossible," they plead, "to point out any eminent school of this grade in which a less number of hours is found sufficient."

At the lower end of the social scale is another class of victims to the unwisdom of our school conductors. The records of our Board of Education show that half the children who enter the schools never pass beyond the primary grades; that is, they leave school before they can read a newspaper, or work a simple sum in fractions. Mrs. Holmes's "Children who Work," in our last number, tells what becomes of the most of them. Their sad condition justifies legislative interference; but it would be going to as injurious an extreme to compel them to stop work entirely, and go to school all day. They must live; and they must earn their living soon, if not now. The school of letters is to them a need, the school of labor is an absolute necessity: and, as things are, they cannot take both. Nevertheless, they could have, and should have, both; and we believe that the public schools ought

to take the first step toward making this consumption possible, by offering instruction at such times, and for such periods, as shall least conflict with the primary requirements of the children. The current six-hour system is destructive at both ends, and in the middle. It is ruinous to health, it prevents the practical education of the well-to-do, and it shuts out from school privileges that large class which cannot command the whole day for book-learning. A system so doubtfully adapted to the circumstances of the case needs very careful looking to before it is made absolute in power and dominion. Indeed, our Boards of Education are in urgent need of some scores of Huxleys to insist, as Professor Huxley did at a late meeting of the London School Board, on a reconsideration, not only of the subjects and methods of elementary instruction, but of the hours given to schooling. Our public schools may never become perpetual fountains at which all may draw as they have opportunity; but they will cease, we hope, to hedge themselves about with needless exactions and impassable barriers. They will not insist on six hours' attendance a day, when three hours are the limit of profitable study; nor will they insist on three hours' study or none when any number of children can command but one hour.

### The Elements of Science and Art in Schools.

(By E. T. CHAMBERS, TEACHER, STONEHAM.)

So much is now said and written about introducing into schools the elements of science and art as a subject of instruction, it may perhaps interest the readers of this journal to know in what way these subjects were taught in England a few years ago. Of late years through the introduction of an entirely different system of examinations by Her Majesty's Inspectors of Schools, these subjects have been somewhat put aside, but efforts are again being made for them to receive the attention due to their importance.

By the expression "Instruction in Science," "Common Things," &c., we understand the teaching the young child to observe and understand the most common objects of creation around him. earth, air, water, animals, vegetables, heat and light. The simple mechanical powers; food and how it is digested and the most important facts in agricultural chemistry for elder children. Of course these subjects cannot all be crammed into one session of school attendance. One course should be taken at a time at the discretion of the teacher.

It may be objected that these subjects will take up more time than can be spared for them, but it has been found that one hour per week devoted to them, if made interesting by experiments and illustrations, will give a large amount of useful knowledge which must be serviceable to the possessor. It has also been found that children are much more intelligent and quicker at their other lessons when they have been led to reason upon the properties and uses of things around them, and I have known lads, having the advantage of two or three years at these lessons, when leaving school take to the reading of scientific books and fit themselves for places of trust and usefulness. It is usual after these lessons to require the children to reproduce in writing as much as they can remember of them, which, besides fixing them in the mind, forms an excellent exercise in composition.

Much of the usefulness of these lessons will be lost if care is not taken in the method of imparting the instruction. It will not do to make them a mere exercise of memory. No task will be more distasteful to the child. Rather let it be a kind of conversational lecture. Let the class take part in the simple experiments. Take for illustration things with which they are most familiar. Have the lessons well graduated, and illustrate well with simple diagrams and experiments, which will not only make them interesting, but fix them upon the mind by the aid of the eye as well as the ear.

It will lead to great mistakes if the teacher is not careful to keep to simple things, equal to the understanding of those he has