

to express the movement thereby given to the sun. Yet that motion can be proved to exist, and the algebraist's formula can represent its quantity. The position of every particle of matter at every instant of time, past, present, or to come, has been written in one short sentence which any man can read. And as each man can understand more or less of this formula of motion, according to his ability and his acquaintance with mathematical learning so we may conceive of intelligent beings, whose faculties are very far short of infinite perfection, who can read, in that sentence, the motions not only of the sun, but of all bodies which our senses reveal to us. Nay, if the mind of Newton has advanced in power since he entered heaven with a speed at all proportioned to his intellectual growth on earth, perhaps even he could now with great ease, assign to every star in the wide universe of God, the motion which it received from the fall of that apple which led him to his immortal discoveries.

Every moving thing on the earth, from the least to the greatest, is accompanied in its motion by all the heavenly spheres. The rolling planets influence each other on their path, and each is influenced by the changes on its surface. The starry systems, wheeling round their unknown centre, move in harmony with each other's courses, and each is moved by the planets which accompany it in its mighty dance. Thus does this law of motion bind all material bodies in one well-balanced system wherein not one particle can move, but all the uncounted series of worlds and suns must simultaneously move with it.

Thus may every deed on earth be instantly known in the farthest star, whose light, travelling with almost unbounded speed since creation's dawn, has not yet reached our eyes. It only needs in that star, a sense quick enough to perceive the motion, infinitely too small for human sense, and an analysis far reaching enough to trace that motion to its cause. The cloud of witnesses that ever encompass this area of our mortal life, may need no near approach to earthly scenes, that they may scan our conduct. As they journey from star to star and roam through the unlimited glories of creation, they may read in the motions of the heavens about them the ever faithful report of the deeds of men.

This sympathetic movement of the planets, like the mechanical impulse given by our words to the air, is ever daring.

The astronomer, from the present motion of the comet, learns all its former path, traces it back on its long round of many years, shows you when and where it was disturbed in its course by planets, and points out to you the altered movement which it assumed from the interferences of bodies unknown by any other means to human science. He needs only a more subtle analysis and a wider grasp of mind to do for the planets and the stars what he has done for the comet. Nay, it were a task easily done by a spirit less than infinite, to read in the present motion of any one star the past motions of every star in the universe, and thus of every planet that wheels round those stars, and of every moving thing upon those planets.

Thus considered, how strange a record does the star-gemmed vesture of the night present! There, in the seemingly fixed order of those blazing sapphires, is a living dance, in whose track is written the record of all the motions that ever man or nature made. Had we the skill to read it, we should there find written every deed of kindness, every deed of guilt, together with the fall of the landslide, the play of the fountain, the sporting of the lamb, and the waving of the grass. Nay, when we behold the superhuman powers of calculation exhibited sometimes by sickly children long before they reach man's age, may we not believe that man, when hereafter freed from the load of this mortal clay, may be able, in the movement of the planets or the sun, to read the errors of his own past life?

Thou who hast raised thy hand to do a deed of wickedness, stay thy arm! The universe will be witness of thine act, and hear an everlasting testimony against thee; for every star in the remotest heavens will move when thy hand moves, and all the fearful prayers thy soul can utter will never restore those moving orbs to the path from which thy deed has drawn them.

#### THE TEACHER'S PREPARATION.

The following excellent words of counsel are from a letter by an experienced teacher, to one just engaging in the cause. The letter from which this advice is an extract, is contained in the *Massachusetts Teacher*.

Let your habits out of school be such that you can go there in

a healthful state of body and mind. Often the wheels roll heavily in the afternoon, when a hearty dinner just before entering the school-room, may explain it all. One thinks the little noises in the room uncommonly frequent and annoying, when the previous long evening of unsound sleep has made him sensitive. Health alone can give constant cheerfulness, and enable one to see things as they are; so that a wrong to-day shall seem no worse than it seemed yesterday; and so that the teacher will feel willing to allow the same indulgence at all times.

Your pupils will be affected by the weather, and by the condition of your room, if you have not convenience for keeping it at a proper temperature, and well ventilated; but you must not yield to these influences. The evils are doubled, if the discomforts which make the pupil restless, make you impatient. Teachers must see and feel these things; they must, at such times, relax a little, rather than tighten the restraints. I need not, to you, speak of the physiological conditions of health; but if I were asked to express the most important, I would say:—temperance in diet, exercise in the open air, regular and sufficient sleep, and a generous use of cold water in the morning.

Cultivate a genial feeling towards your pupils. Let your countenance be spring like to them. Love to see them happy. Inquire concerning their pastimes as you meet them by the way-side, or about the school house door. Stern faithfulness will not do the teacher's work. The children are full of feeling, and the teacher must sympathize with it, and thereby gain the power of guiding and educating it. Teach pupils kindly, that there is a plain old-fashioned way—obedience, and that to know it and walk in it, is more important than to learn geography or arithmetic.

Prepare for school by reflection on the wants of your pupils.—This pre-supposes the careful study of their character to furnish the materials for reflection. This knowledge you will review, and review from each day's experience. You will find a distinct view of your pupils' wants, a strong incitement to exertion for them.—You will go to your school-room every day, with something in your mind by which you hope to benefit certain individuals whom you have found to need such care. This work must be done for individual pupils. It is in vain to think of doing it on the mass.

It is certainly as necessary for you to make preparations for your efforts to improve the dispositions, habits and feelings, of particular pupils, as it is that you know the intellectual condition of each, and go with particular topics in your mind on which you purpose to question them. You remember the principle in arithmetic which a boy did not understand, and watch opportunities for explaining and questioning:—much more should you seek favorable opportunities and the best methods for remedying, as far as you can, his moral deficiencies. In this you can be greatly assisted by an acquaintance with the parents of your pupils. If they have good notions of discipline, they will help you much. If they have not, you will know what you are to try to do alone.

You can, perhaps, by a modest defence of your own opinions, guide those parents who have not thought so much on early training as you have. The care you take to see parents, and to talk of the habits of their children, is evidence to them of your interest in your work. Assume in your conversation that parents inquire at night concerning the conduct and lessons of the day.

Visit schools, and read books on education. Almost every teacher has a good method of doing something. Seize upon it. No man writes a book without his good ideas in it. Seize upon that. Seize upon *maxims* and *theories* where you can find them; but take neither to your school-room in their crude state. As for your bodily health, food must be digested, assimilated to your system before it can nourish it, so the master's or the writer's plans must be assimilated to your general plan, and to your intellectual and moral constitution, before they are fit for use.

There is enough to learn, closely connected with the teacher's employment, to keep him from rusting. He is expected to teach the English language. Does he know it? He teaches history.—Is he master, not only of the text-book he uses, but of the period of which it treats? Has he connected historical and other incidents with geography? Does he know the anatomy and physiology of his own system? Has he knowledge, so that he can interest a boy by the way side, with remarks about a leaf, a bug, or a stone? Surely, a schoolmaster, as much as anybody, needs to have the book of knowledge open before him, so that the appropriate fact or illustration shall always be ready.