

where military drill has been begun by new teachers. It is peremptory in English schools under inspection, and one is glad to see even this much of physical training demanded by Government. It is not asked in Scotch schools as yet, and no grants are offered for it there.

(4) *Systematic Physical Training.*—But military drill is very incomplete as representing physical training. It gives only a very partial exercise of the great muscular system, and almost exclusively of the legs and lower trunk. The extension motions connected with it certainly do exercise other muscles, but they do this only partially at the best. This is the opinion of those able to judge of the system. If physical training is to be scientific and thorough, it must give graduated and efficient exercise and training to every muscle, and this exercise should be "regular, continuous, and progressive," and should extend over the whole time a child is at school; and this training should be as carefully given, and marked for, as any other. It should, in short, exercise all parts of the body gradually, fully, and scientifically, and so develop the full physical powers of children into manhood and womanhood. There are several expositions of the subject in English. Dr. Roth, of London, has earnestly and persistently advocated Systematic Physical Education for above twenty years, and has written very good text books expounding the great system of Ling, of Sweden, the founder of Modern Scientific Gymnastics. The exposition which is best-known to me, and which seeks to do all this, is that of Mr. Maclaren, of the Oxford Gymnasium, in his "Physical Education," published in the Clarendon Press series. It aims at the scientific, gradual, uniform, and universal training of the physical powers by skilfully arranged exercises during the whole school course.

(5) *The General Manners and Deportment.*—I am sorry that I shall have to dismiss the remaining portions of my subject with the briefest suggestions. Another valuable part of Physical Education is the training of the general manners and deportment of the children. No education can be complete that does not train a child for mixing with ease comfort, and correctness in society. We must therefore, give a thorough training in the usages, customs, and manners of good society, and the courtesies of life. And this training in manner is largely physical, for it is a training of the body to certain movements. Our children should be exercised so as to have at all times an erect, free, well-balanced, healthy, and, as far as possible elegant bearing. The stiffness and constraint of military drill should be avoided, and the manner and style of good society and cultivated people followed.

The general attitudes of the children should, therefore, at all times receive careful attention. The common attitudes in our schools violate the principles of both physiology and taste, deteriorate the general bearing of the people, and injure the health, especially from the evil done to the chest and the spine. Every boy and girl in our Common Schools should leave school able to practice with ease all the courtesies of good society in the street, in the house, at table, and in all the manifold relations of life. Errors in habit that violate good manners should be pointed out, and corrected. Our upper classes rightly place great importance on this training, and to their children receiving it; I should like to see adequate stress put upon it in our Common Schools. By a tention to it, our elementary teachers could effect a reformation and improvement of national manners that would be surprising; and no general improvement in the manner and bearing of our people will be effected except through our Common Schools.

(6) *The training of the senses and other Physical Powers.*—A most important part of physical education is the full,

systematic, and scientific training of the Senses. On this subject I offer a few brief suggestions.

The *Eye* should be educated to distinguish, delight in, and name all varieties of colour and form, and in composition, proportion, and symmetry. The observing powers of children should be carefully trained, so as to give them clearness, correctness, and incisiveness of vision, and the power and habit of minute and accurate observation. Form and colour are well begun in our Infant School, but is should be perfected in our Elementary and Higher Schools, by systematic lessons during the school course. Children should also be taken out to Nature, and trained to the right use of their eyes in that wide and wondrous field.

The *Ear* should receive careful and graduated training. Music is the chief agent, and should be taught in all schools, and, where in can be heard, instrumental music should be played to the children and accompany their voices. Reading is another means of training the ear, which should be able to distinguish and appreciate correctness of sound, accent, modulation, expression, and the finer tones of feeling. Reading should be viewed, in part as a training of the ear. The general speech and utterance of the children should be well modulated and mild, as much as possible musical, clear, distinct, and sweet. The Music of Nature should also be heard and appreciated by our children, and they should be taken out to nature to hear and love it.

*Touch* can also receive training, and it can be educated to accuracy and delicacy of perception in our common children, as well as in the blind. Touch is one of our senses very little developed in our educational system. It can be educated in many ways, by lessons on objects, in which these should be handled, and the facts of touch carefully deduced and expressed. It is sometimes begun to be trained in Infant Schools.

*Taste* and *Smell* should receive similar exercise by lessons on things. They are senses little possessed by most people as they should and could be possessed. They may be made the sources of great and even refined pleasure.

In our training of the Senses, we should aim at giving our children correctness, keenness, strength, and delicacy. The senses of most people are rude and uncultivated, and can perceive only the ruder and stronger appeals made to them. We should aim at giving our children wider and firmer possession of their senses, and greater power of using to purpose and profit these "five gateways of knowledge."

Then the *Hand* should receive careful training, so as to give our children full power over that wonderful organ. It should be trained by writing, figuring, drawing, painting, cutting and carving, and in modelling, digging, gardening, and the use of tools. Technical Education, so much and so deservedly advocated, is in large measure a training of the hand. Our girl should further extend their hand-power by all kinds of industrial work, domestic economy and housewifery, and provision should be made for the practical teaching of these subjects.

The *Voice* should also be systematically trained. Music is again the chief agent here. But more care should be bestowed on the general speech and utterance of the children, and on the use of the voice in reading and recitation. Children should be taught to render all shades of strength, modulation, and expression. The scale of speech should receive practice like the musical scale, for the speaking voice has a scale of sounds as complete in its range as the singing voice. The cries of the playground should be encouraged; they are a valuable exercise, and should not be checked, but encouraged; they are a good means of training the voice. As Charles Kingsley says,