

Unions" has recently been formed at the Society of Arts, to conduct similar examinations for candidates under sixteen. These last examinations were first held this year at forty-three different places; 425 candidates were examined, 227 received certificates. The examinations instituted by the Society of Arts attract annually a greater number of candidates, who are chiefly young people engaged in business or labour, and connected with mechanics' institutions, and evening classes. Their effect in promoting efforts for self-improvement among this important class has been very great. Nominations to compete for clerkships in the public service have been placed from time to time at the disposal of the Society of Arts, to encourage the candidates who have succeeded best in these examinations. To the late Mr. John Wood, to Earl Granville, and also to the Earl of Derby, and to Lord Palmerston, the thanks of the friends of education are due for this wise liberality. No young man thus nominated has failed to succeed in the competition, and the conduct of those who have been appointed has been all that could be desired.—*Educational Times*.

III. Papers on Practical Education.

1. THE LAWS OF CHILDHOOD.

[The following admirable Paper was read by Miss M. E. M. JONES, late of London, at the Convention of Educators called at Oswego, N. Y., some months since, to examine and test the system of "Object Teaching," so successfully introduced into the Public Schools of that city, through the energy of Mr. Sheldon, the Superintendent, and under the instructions of Miss Jones.* The article is the best and most instructive thing on the philosophy of Pestalozzian or natural method of teaching that we have seen]:

The merit of the Pestalozzian system is, that, recognizing the character of children, it adapts itself to this, doing invariably and systematically what all good parents and teachers do often and intuitively.

Pestalozzi recognized the nature of a child as threefold: physical, mental and moral. He demanded that this nature should be aided in developing itself, simultaneously, harmoniously and progressively. He noted the three-fold characteristics of this three-fold nature, and said: "The chief characteristics of a child's physical nature is activity; of his intellectual nature, love of knowledge; of his moral nature, sympathy. No educational system can suit him unless it works by these.

I. Activity is a law of childhood. Its abuse produces restlessness, love of mischief, etc. It were not too much to demand that the number of hours devoted by growing boys and girls to physical exercise, in some shape or other, should equal those devoted to intellectual exercises. This the teacher cannot secure. She can, however, insist (as a necessary condition of work) that her pupils shall have two recesses in the morning and one in the afternoon, each twenty minutes long; that during the time of recess they be not constrained to quietude; for children, unless asleep, cannot rest without they play, and they cannot play without making a noise; that they shall sit and stand alternately; that they shall have physical exercise between each lesson, unless singing or recess intervene, and that the remainder of the time be honestly occupied in school work. It is really a sad sight to see young children permitted neither to work nor play, but kept in their seats for two or three hours, under pretence of studying. Were schools instituted for the purpose of training little ones to the love of mischief and to idleness, they could hardly adopt better means to secure such an end. To divide a school into two sections, to take each alternately, and, while teaching one, to provide the other with something to do (the doing of which is to be tested), as copying printed columns of words, arranging patterns of forms and colors, weighing, measuring, working number exercises on slates or blackboards, drawing the school room to scale, reproducing on their own slates lessons in spelling or language—all this requires not only the necessary apparatus, but training, energy and moral influence on the part of the teacher. It is easier, to be sure, to remain in one's seat, calling up one class at a time, and hearing these read and spell in turn, while the rest are commanded to "keep studying."

Now that another method of keeping school is introduced consistently with the greater energy expended by teachers and children, the number of school hours ought to be diminished. It has been amply proved that the children of the Home and Colonial Schools, London, now attending school during five hours, make greater progress than they formerly did in six.

I shall not be surprised to find the number of hours reduced to four. Edwin Chadwick, J. Currie, and other educators, who can speak as having authority, declare that more than four hours in the

day cannot advantageously be spent in school by children less than eight years of age.

Even in the case of elder children, I should not be inclined to add to the four hours; but I would diminish, and at length dispense with the intervening physical exercises, recesses, etc. Gymnastic and drilling are good, but these can have another time set apart for them; and as soon as the scholar is able to work alone, he should be required to spend at first twenty minutes, and ultimately, perhaps, two hours in the performance of an appointed task, not merely in preparation for recitation, but in writing exercises, and in the reproduction of the oral lessons he receives from his teacher, etc.

To make these oral lessons worth recording—indeed, to insure them as being of any value at all—they must be well prepared. Much, if not all the time gained by the teacher will be devoted to this. In Germany or England, a trained teacher (and untrained teachers are not recognized) would no more think of addressing her pupils without preparation, than a lecturer his audience, or a minister his congregation.

II. *Love of knowledge* is a law of childhood. The abuse of this produces idle and impertinent curiosity. It is a simple fact that the appetite of a child for knowledge is as keen as his appetite for food. If we say we find it otherwise, it is because we give him words when he knows not what they express; signs when he knows not what they symbolize; the husk instead of the kernel; or if, indeed, the kernel is there, he cannot get at it through the shell. The maxims laid down by Pestalozzi for the training of children are as follows:

"1st. Reduce every subject to its elements. One difficulty at a time is enough for the mind of a child, and the measure of information is not what you can give, but what he can receive.

"2d. Begin with the senses. Never tell a child what he can discover for himself.

"3d. Proceed step by step. Take not the order of the subject, but the order of nature.

"4th. Go from the known to the unknown, from the idea to the word, from the signification to the symbol, from the example to the rule, from the simple to the complex."

Formerly we reversed all these rules. Our usual plan of teaching children to read and spell is a good example of their violation. Let us, on the contrary, follow these rules, and we ascend

From Form to Geometry;

" Place to Geography;

" Weight to Mechanics;

" Size to Proportion in Drawing and Architectural Designs;

" Numbers to Arithmetic and Algebra;

" Colour to Chromatography;

" Plants to Botany;

" Animals to Zoology;

" Human Body to Physiology;

" Objects to Mineralogy, Chemistry, &c.;

" Actions to Arts and Manufactures;

" Language to Grammar.

With reference to this ascent, Pestalozzi noted

First—The order in which the faculties are developed with respect to one another; and,

Secondly—The order in which each develops itself with respect to its objects:

1. First, the Perceptive Faculty;

Secondly, the Conceptive Faculty;

Thirdly, the Reasoning Faculty.

2. In the exercise of the Perceptive Faculty, the perception of likenesses precedes the perception of difference, and the perception of difference perceptions of order and proportion.

In the exercise of the Conceptive Faculty, concepts of things physical precede concepts of things imaginary, and concepts of things imaginary concepts of things metaphysical.

In the exercise of the Reasoning Faculty, the power of tracing effect from the cause is based, chiefly, on the perception of order; the power of tracing analogies on the perception of likeness; the judgment on the perception of difference.

III. *Sympathy* is a law of childhood. Pestalozzi argued that young children cannot be governed by appeals to conscience, veneration, or the love of the beautiful, because in them these sentiments are not yet developed. Still less are they governed by the excitements of emulation, as commonly understood, or of fear. True, the principle of emulation exists in the child, and a wise teacher will appeal to it, not with reference to his class fellows, but to his task. The lesson, and not the school mate, is to be overcome. The latter is to be recognized, not as an antagonist, but as a fellow worker. The prize of success is not for one, but for all.

The principle of fear, too, exists in the child. It is right that he should be afraid to incur the displeasure of his teacher; but the fear of bodily pain merely is the lowest of all motives. It is hardly possible to cultivate the conscience of a child who is brought up under its influence; for, if he do right from fear alone, he will cer-

*Many of the Object Lessons and other illustrations used by Mr. Sheldon were obtained by him at the Educational Depository, Toronto.