

Notes relating to school apparatus.

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Notes Relating to School Apparatus.

Here, the school begins at 9 A. M. The first half-hour is spent in general exercises. In the case of the more intelligent, these consist of singing with a piano accompaniment. In the case of the lower grade of pupils, of marching in various ways, with a piano, to give an idea of time.

At 9:30 all the pupils take their seats. Our school-rooms are so arranged that each child has a designated seat; and a desk or table in front.

Then the classes are called. The pupils, when not in class, are supplied with something to occupy the attention, at their seats; if possible, something to do.

The apparatus sent (if it is worthy the name) is designed for the lower grade of pupils.

1st. To cultivate the perceptive faculties;—developing ideas of form, size, position, color and combinations of form and color.

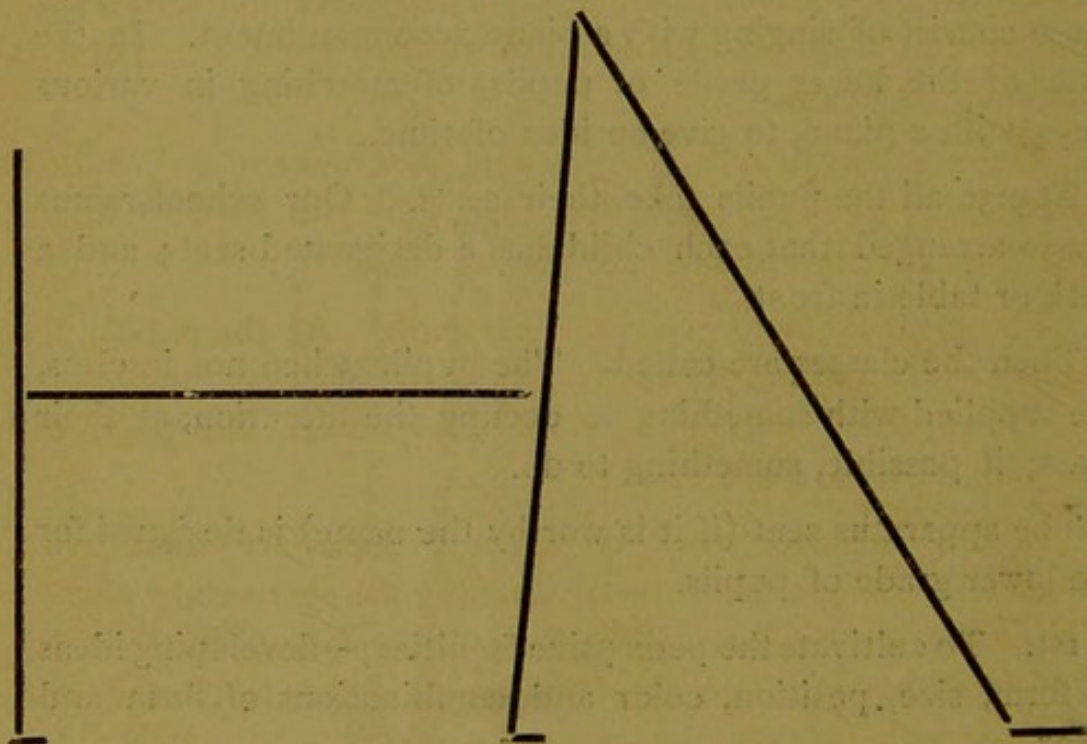
2nd. To give dexterity; the use of the hands and fingers.

3rd. To furnish some simple forms of occupation to the pupils when not in classes.

It is to be understood, that every pupil is in a class at the Gymnasium at least one half-hour (in the early stages of instruction, usually two half-hours,) every day, under a gymnast or drill-master. The object of the training is not to develop the muscular system, but to develop *the will*. Incidentally also, the imitative faculty. Standing in a row in front of the

teacher—or in some instances upon painted foot-marks on the floor, at regular distances, they follow the movements of the teacher. First, movements of the arms—up, down, folded, behind the back—in fact all the variations that can be played with the two arms. Then, movements of the legs. Then, of the head. Care is taken to introduce each movement, no faster than can be followed with some degree of precision, by the pupils.

We have also a series of ladders, arranged in form like the accompanying rude drawing. The fear of falling prompts the pupil to grasp the rounds firmly. This demands attention; develops the will.



In this arrangement, it will be seen that there is one perpendicular ladder, two inclined and one horizontal. The rounds are one-quarter inch in diameter and three feet long; and ten inches apart. This makes a ladder so wide that two boys can pass each other. The horizontal ladder is about six feet and a half from the floor. The perpendicular ladder should be at least two feet from the wall. The space at each end, between the last round of the horizontal ladder and the perpendicular and inclined ladder must be wide enough for the pupil to go down, through it.

Then we have a ladder to lie upon the floor, over which the children march, either stepping between the rounds, or upon them, as the master directs. The sides of this floor-ladder are made of plank—say 12 feet long and 2 inches by 4 inches. The “rounds” of the same are flat pieces—2 feet long, 1 inch thick and $3\frac{1}{2}$ wide, and 12 inches apart; mortised into the upper edge. There is also another device for calling the pupil's attention to his legs. Two strips of plank, like the sides of the above ladder, 12 feet long, are fastened together 5 inches apart, and the pupil walks between these. He has to pay attention—he has to balance himself.

The Gymnasium is provided with light wooden dumb-bells; also with a few iron dumb-bells. Then there are bean-bags, 6 inches by 8 inches; which are thrown from one pupil to another, like balls.

There is also in our Gymnasium, in constant use, a little platform, 3 feet by 2 and 2 feet high, with two steps leading to it. The children march over this.

The gymnast has a class in vocal drill. At the outset, this is in sounds and not in words. In some of these, progress is to be expected only in a class. In others, the pupil will require individual attention.

In Dr. Seguin's work on Idiocy, there are some good suggestions about the order of teaching the elementary sounds. Of course, the teacher will begin with the *labials*, for then, the pupil will have the benefit of his eye as well as ear, in the effort to imitate the sounds given by the teacher.

Before speaking of the apparatus in detail, I may say a word or two about the method of teaching language. More properly speaking, I should say the *comprehension of language*.

The pupil comes with absolutely no idea of language; perhaps not knowing his own name. In our experience this is not unfrequently the case.

The first step adopted here in communicating this idea, is in this way. I may state this in another form. Such children get their first idea of language by obeying simple commands,

as "stand up; sit down." The movement of the class and the sign or gesture of the teacher, suggesting to the pupil the meaning of the command, till, in time, they acquire the notion of the distinction in the sound of the command. Then may follow the command—Fold your arms! Down arms! Up arms! &c.

Next, two familiar objects are placed upon the teacher's table; like plate and spoon. He (for in this case the training must be individual, though the class may be looking on) is taught to distinguish the names of these; then of other familiar objects. Our teachers have a drawer-full of these. I will enumerate some I recall:—knife, fork, plate, spoon, mug, brush, comb, shoe, book, glove, ball, &c. They learn the names of the articles of furniture, of the windows and doors, the children's names.

At a more advanced stage, they are taught the names of qualities, &c; besides picking up, as ordinary children do, who have once acquired the idea of language, new words and new expressions. If his *advantages* are good, the pupil may possibly learn to swear, during the vacation period.

But to come to the apparatus. Pupils of the lower grade are wanting in the power of attention; wanting in dexterity. In the absence of anything to do requiring mental effort or attention, they acquire mechanical habits. To meet these conditions we use the peg-board. We have a good many in use.

Some children have to be taught to use this. They grope for the holes instead of looking for them, even after they get the idea that the pegs are to be placed in the holes. As the board is gradually filled they have to look, and learn to look. At first, they may need the constant spur of the teacher's voice to induce them to put in the pegs. In time, they come to filling up the whole board, when it is placed before them. The teacher turns it over to be filled again.

These boards thus develop the power of attention; they impart some dexterity; they furnish a very simple occupation.

Stringing button-moulds is another exercise of the same character, but a little more difficult. The pin-cushions are to

the same end—only requiring closer attention, more skill of fingers.

Next in order is the form-board. The child must first get the idea of putting the form in a depression in the board. Then two quite unlike forms; say a square and circle are given to the pupil and he is made to notice into which depression each form fits. This is followed, from day to day, till he learns to place all the forms properly.

The teacher is to understand that this is an exercise in perception of form—and not the names of forms. It might almost be said that pupils in such institutions as ours, should never be taught the names of the different forms, except, perhaps, *round* and square; words in common use.

After the form-board, will follow that to teach perceptions of size; to be used in a similar way.

Next in order, will follow the cups and balls. The judicious teacher will begin with two; say, red and white; teaching the pupil to place the ball of either color in the corresponding cup. And so on till the six colors are properly discriminated. A second exercise, more difficult, is to so arrange the balls in the cups as to require two changes to get them into their appropriate places.

As with reference to the forms, so with reference to color, the teacher is to remember that this is an exercise *in perception of color*, and not in the *names* of the colors. In fact, these exercises will precede training in language.

Then may be introduced exercises in combination of forms and colors. The teacher places two of the cards (geometrical forms) on the table and teaches the pupil to arrange two others in the same manner. A great variety of these can be made; I send only one or two patterns and a few card forms; as a suggestion.

I may mention here, that in our register, the mental condition of a pupil is sometimes indicated by remarks like these: "cannot distinguish form, color or size," meaning that when

tested by the apparatus referred to above, their inability was seen.

To cultivate attention, we also use blocks, in a lesson in position. The teacher takes two blocks, each child the same number. The teacher places them side by side, and requires the pupil to do the same—and so on in a great variety of positions. The same is done with three blocks. And so on.

Idea of number is developed by teaching the pupil to string colored beads, alternately; first singly, then in pairs, in threes and fours—in fact, as far as the pupil can go without knowing the names of the numbers. Counting, by the arbitrary names of the numbers, comes at a later stage.

It may be interesting to note that while this exercise cannot usually be carried beyond five or six beads, in a few instances the pupil will string alternately up to 20 or more; managing to keep the count in some mysterious way without the aid of the name or conventional sign of the numbers.

After the idea of form and color is mastered by the pupil, will come pictures of familiar objects, as chair, table, spoon, &c. It is well to begin with a very distinct picture, approximating the size of the object represented.

After a series of lessons on pictures, the next step is the conventional sign, or a printed word. One word, a name of an object, is given or laid on the table by the side of the object itself, and the effort is made to have the pupil associate these representations together. When this is attained, two words may be given—one long and one short, as, hand and wheelbarrow, if the child is familiar with the last object. Then a third word, and so on.

It is to be mentioned that the pupil is to be told nothing of the names of the letters composing the word. It is essential to the success of what is called "the Word Method" of learning to read, that the pupil at the outset, is not to be confused by any attempt to teach the letters at the same time. Teaching the names of the letters comes at a later stage of the process of learning to read.

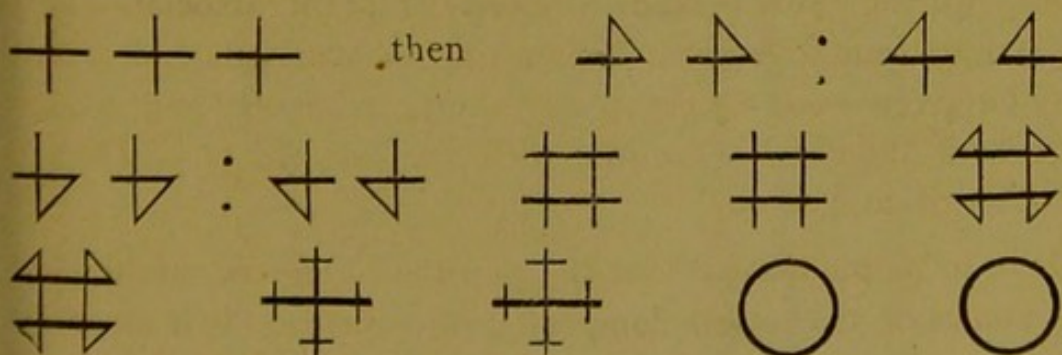
It will be found, in practice, that a child can learn fifty words more readily than ten letters.

After learning the names of numerous objects, it is important that they should be familiar objects, then the names of qualities, like good, bad, &c., may be introduced. Two words may then be put together; then a short sentence. The introduction of the verb will be found to be a pretty difficult step, and one requiring some patience on the part of the teacher. Verbs denoting action, that can be appreciated by the pupil, are to be selected, like walk, jump, &c.

I send with this a book that shows the further extension and application of the word-method. After a little time, individual letters may be given the pupil; they are shown how to form the words out of them. This will prove to be an interesting exercise, which the pupils will do by themselves at their desks.

In the experience of the teachers at this institution, little difficulty is found in introducing the written character. The teacher writes man, on the black-board or wall-slate, and then shows the word on the card; and so on, with other words, till the pupil is familiar with the written character.

As soon as possible, the pupils are brought to these black-boards, and with crayons they are taught to copy simple forms; beginning, perhaps, by merely drawing a line from one point to another. Then will follow:



Such lessons will be limited only by the degree of ingenuity of the teacher.

From these exercises are developed drawing and writing.

I send a card that will illustrate a form of needle-work, with perforated paper, much used in our school-room, to cultivate the attention and give dexterity. The pupil has already learned the use of the needle in stringing buttons; then farther advanced with coarse, plain sewing; next comes the perforated cards. It has always been regarded as a valuable exercise with us; and it is one in which the pupils are much interested. The sample cards sent will show the progressive steps and the different stitches. Some of the pupils are advanced from this, to work on canvass, with a pattern.

Of course we have numerous other devices of a similar character. These sent have been selected merely as suggestions, to be improved upon by the ingenuity of your teachers.

If I have not failed in my description of the methods of using the simple apparatus herewith sent, it will readily be seen how these may be made to precede and prepare the way for—and in fact run into—the elementary exercises of an ordinary primary school.

I send also the form of table used by our teachers, which we think has some advantages.

