

class and none at home. The right habit is the important thing to be gained.

Another class is reading "Little People of Asia." The subject was Turkey, and the way the little Turks are dressed. A doll, provided by the teacher, was taken home by one of the pupils to be transformed into a Turkish baby. The position assumed by the Turks in prayer was shown by the pupils, and the whole lesson made objective.

In another room a class was at work upon long measure. The foot-rule and yard-stick were used. The teacher drew upon the board an equilateral triangle. The pupils measured this figure, and found it to be twelve inches, or one foot, on each side. One of the pupils now wrote upon the board, 12 in. = 1 ft., as the beginning of the table. The teacher then asked the question, "How many inches around the triangle?" After measuring, it was declared to be thirty-six inches, or three feet. The yard-stick was next measured by the pupils, and found to be three feet, or one yard long. A pupil then wrote upon the board, 36 in. or 3 ft. = 1 yd.

The teacher gave this example: Eleven yards equal two rods: how many yards in one rod? The pupils measured off eleven yards on the floor, and discovered one rod one-half of eleven yards, or five and a half yards. $5\frac{1}{2}$ yds. = 1 rd., was then written upon the board. The class all worked together, and discovered step by step the table of long measure. The children seemed delighted with the lesson, and with the series of lessons which followed. The children like to do for themselves, and were greatly pleased and interested in making practical measurements.

In another class the pupils were engaged in mastering dry measure. The pint, quart, half peck, and peck measures were in use. A paper bag filled with bran was placed in the corner on sheets of paper spread out upon the floor to catch any bran that might be spilled. As soon as it was decided which was the pint, quart, and peck measure, such questions as these were asked: How many pints in a quart? A pupil filled the quart measure from the pint measure. Then the sentence, two pints makes one quart, was written upon the board. After this they found the number of quarts in a peck, and that was written on the board, and so on through the table. One of the weak pupils quite redeemed his reputation by performing the actual measurements in a careful, and thoughtful manner. After finding how many pecks in a half-bushel, the teacher asked, How many pecks in a bushel? The hands came up, and the bright eyes gave token of the clear seeing, for they had no bushel measure. After a course of ten or twelve lessons had been carefully given, the class was able to continue work in dry measure, changing from one form to another without difficulty. The little girl who discovered that the number of pints in eight quarts and the number of pints in one peck were the same, seemed very happy. The class worked steadily for many lessons upon dry measure with intense interest. Two boys were so pleased with their new number lessons, that they came every morning to ask the teacher if they might be allowed to bring the materials from the basement.

Lessons in honesty and neatness were also taught, for the teacher insisted upon exact measurements, and pouring the bran from one measure to another, training the hands to careful work.

A number lesson was given by Mr. L—— to a class of five pupils. The work was with different colored sticks, two inches in length. The children were told to close their eyes to tell how many sticks were given them, which was an excellent plan, as it cultivated the sense of touch as well as that of sight. They were taught one-half of four, one half of three; told to take enough more sticks to make six, and to find one-half of six, one-third of six, etc. The leading was so carefully done that the children discovered everything for themselves.

The class added to the six sticks one-third more, when they had eight. They found one-half of eight, telling each time what they had done in full sentences. They took one more stick, and then found one-half of nine sticks, by breaking one of them; one-third of nine was developed. There was a smoothness and unity about the lesson that was beautiful.

The children worked steadily and quietly, and seemed to get a certain fixed power from the manner of the teacher. He took time to let them think, and, what was very charming, he did not disturb them with useless questions when their little minds were engaged with the thing they were working out. The teacher had thought out his subject with reference to the growth of each child, and there was a regular order of steps by which those children were being strengthened in character by the example of the teacher, and in mind by their own exertion.

The drawing has been for some time in straight lines, but lately models made from cardboard have been placed before the classes. In one class it was refreshing to see the interest with which they went to work to draw. There is something about a house, a tent or anything of that kind, that gives a stimulus to the imagination never gained from simple geometrical figures. While the teacher was careful to train their eyes by having them draw the house as correctly as possible, she allowed them to add whatever their imaginations suggested, as trees, fences, etc. Criticisms were always made on the side of utility. For example, if the doors or windows were crooked, the child was asked how it would like to live in such a house; or, if the chimney leaned to one side, what would be likely to happen to it if the wind were to blow hard.

Miss Speer, of the Primary Department, said: A young teacher once said to me, "I like teaching, but I cannot govern my children." Why not? "Oh, they are doing all kinds of mischief, and are continually troubling me. I really dread going to school some days." I watched her at her work, and found that she actually had a dread and fear that the children would do or say something that would show her weakness. I told her next day that she was showing the children that she was weak, and they were taking advantage of it, and advised her to go before them with such a strong, self-reliant manner as to impress on them the idea that she had an immense amount of reserve power, and that she should act with promptness and decision whenever there was necessity for it. "But," she said, "I am not strong physically; almost every pupil in the class has more strength than I have." "So much more need for you to appear strong," said I. After considering the matter, she did as I suggested, and in time had a well disciplined school, and as she had a love for teaching, became a first-class teacher. She did not practice any deception upon her pupils, but was continually cultivating in herself the habit of self-reliance.

A child said to one of the practice teachers, in answer to a question as to whether her teacher was strict or not, "Yes, she is; that is why I like her. I hate a slimpsey teacher."—*Texas School Journal*.

INDUSTRIAL TRAINING.*

By Industrial Training I mean anything that will tend to enable the hand to represent more accurately in material form the thoughts of the mind. I accept as axioms the following statements: 1. It is possible to train the muscles of the fingers, the hand, and arm, to an almost unlimited extent. In other words, manual dexterity may be cultivated. 2. It is easier to train the hand of a child than that of an older person, and therefore: 3. The sooner the industrial training of a child begins, the more perfect will be his development.

I. If it be granted that the hand may be trained, the next question to settle is, should it be trained in school? To this question I answer "Yes," for the following reasons: 1. Because the muscles of children are more susceptible to training than those of older people: 2. Because the more extended use of the hand as a means of promoting real mental growth is in harmony with the foundation principles of education. "Children learn by doing" is a principle that admits of a much wider application than has yet been given to it. The hand is the agent of the mind, and forms one means by which the mind acquires knowledge, and makes the results of its thinking take a visible form. The hand acts only as it is directed by the mind. Before a child goes to school he has been learning more rapidly than he ever does afterwards. He has been learning through his activities, by doing and chiefly by doing with his hands. He has experimented indefatigably and almost incessantly with the vast quantity of material with which his Creator has surrounded him in nature. He has constructed an endless variety of things with the available building material at his disposal, sand, stones, sticks, etc.; he has broken his toys, when his parents have been foolish enough to give them

* A paper read by Mr. J. L. Hughes, Inspector of City Schools, Toronto, at the Ontario Provincial Teachers' Association, August, 1884.