cross. Out of that cross, which was the world's requital of His love, He has built the throne of His empire over the hearts of men. In the cross He has supplied the eternal fire at which the torch of human love is kindled. Obedience to Christ springs out of love to Christ. Obedience is the tree with its leaves and fruit, love is the root. As the tree grows from the root, an obedient life will be the outgrowth of a loving heart.

TEACHER TRAINING

By Professor Walter C. Murray

IX. Mental Growth of the Child

In our previous studies we divided the periods of growth into Childhood, ending about the seventh year, Boyhood or Girlhood, ending about the fourteenth year, and Youth, ending about the twenty-first year. We found that the games of childhood resembled experiment, that those of boyhood were competitive, and that in those of youth the social instinct transformed the competition between individuals into competition between teams or groups of individuals. These games reveal the mental growth of the young. The child is a scientist; the boy a hunter and warrior; the youth a socialist.

The child is a scientist in the making. The facts, which the scientist examines, are appearances to the eye, ear, touch, taste and smell. For example, when the scientist breathes into clear lime water he notices a change. The lime water now appears milky white. The change in the color is the fact to be investigated.

The little child spends all its energies in acquiring such facts. He looks at, touches, tastes and smells everything that he can. Give him a new rattle, and he will look it over, run his hands over it, shake it, put it in his mouth. In all this he is seeking new sensations.

Again, the scientist seeks to discover what appearances go together. To take our old example. He wishes to find out if the breathing into the lime water is the cause of the change of color. So the child must handle what he sees, must put it in his mouth, to find out how it feels or tastes or sounds. As his knowledge increases, he can tell, from the color or light and shade of an object, how it will feel or how it will sound or taste. He has learned so well what sights, sounds, touches and tastes go together, that now from one he can predict what the others will be. From the look of an apple, a boy can foretell its taste, its size, its hardness or softness.

The scientist resorts to experiments to find out all the possible appearances and to make sure that certain appearances always go together. So the child in his plays is approaching things in many different ways. When he pounds his orange on the table, or throws it upon the floor, he is experimenting, and he finds that the orange appears differently to him. It changes shape; it becomes softer. The plays of the child are his experiments. To the savage the manœuvres of the experimenter, doubtless, look like the games of the child. They are on a smaller scale, perhaps, but do not differ more from the actions of the child than does ping-pong differ from tennis.

The child, like the scientist, is impelled by great curiosity. The curiosity of the scientist is controlled, and, consequently, restricted in range and more persistent. Otherwise there is little difference.

Recording is as necessary for the scientist as observing. He records his observations and reflections in various ways. Magazines, periodicals, books, photography, come to his assistance. The child is under even greater necessity to record his experience, but he thrusts the task upon memory. The child's memory is "prodigious." If we bear in mind the number and variety of the sounds, and the greater number and variety of the combinations of the sounds, that make up our spoken language (there are about 200,000 English words), also the number and variety of the muscular feelings necessary to produce those sounds, and remember that in two or three years the child has fairly mastered our spoken language, we can form some idea of his great capacity to retain and recall sensations. But what is true of the spoken language is true of his knowledge of the world of objects. The child's memory differs from that of the adult in its power of retaining all sorts of disconnected facts. His memory is