

bent, and also those who must be coaxed to try what they can do, there still remains a goodly army, which, if trained with an eye to the future, would justify even the most pessimistic in stating that the results would more than amply repay the efforts made to give the necessary training.

While many of Rousseau's theories were radical, few men have exercised greater influence on modern education, and the two principles which characterized his ideas of education are (a) that nature is to be studied and followed, and (b) that education is an unbroken unity extending from early childhood to maturity. One result to be derived from the lessons taught in the garden would be a new interest taken in the study of science to the lasting benefit of the student, because of the possible practical application of the ascertained facts to the work in hand, thus creating a desire to follow the subjects even after school-days are ended. One mother, whose children are so fortunate as to reside where school gardens flourish, remarked, "I can't understand why the children are so fascinated with the gardens. For years an Encyclopedia has been in the house and rarely opened, but now it's in daily use; the children are constantly consulting it to see what it says about vegetables, and insects and birds." This story obviously carries its own moral.

It is but a short step from gardening to another important department of education, viz.: Domestic Science, for what girl, or boy either, is not all alive as to the fate of his garden stuff which has been laid on the home altar. To increase an interest in the right preparation of food is to help to introduce a better class of living, and this leads to the improved health of the community.

There are parents who, when approached regarding granting their children some space for gardening, declare that if this becomes general, professional gardeners must suffer, though economists and investigation committees agree that "a greater production of foodstuffs is imperative," and the high cost of living is being bemoaned on every side. Home gardening—intensive home gardening—rightly understood and conducted, may be an important factor in helping to solve this problem.

John Locke believed that the right instruction in youth does not consist in cramming, but unfolding; that the child's mind should develop like the young tree, from the impulses of its own roots, and he said that a sound mind in a sound body was a short but full description of a happy state in this world. The attainment of this happy condition is the end of education. "A sound mind in a sound body" is then the desired end to be striven after when considering the child problem, and one of the most important questions to be solved to-day is that of dealing with the children who are more or less affected by the white plague.

The question of out-door work for all persons predisposed to tuberculosis—even those patients who have received their discharge from the Sanitarium as having been cured, or having the disease arrested—can be met by the development of gardening. In relation to this matter, a leading English writer says: "No one who has given the least attention to the advances made in the modern treatment of pulmonary tuberculosis can fail to recognize that the open-air treatment has proved of immense value to sufferers of consumption. Mr. Parsons, of Brampton Sanitarium, proves that even the success of the continental patterns of Sanitaria can be greatly enhanced by allowing the sufferers to work in the gardens. By giving them this healthy employment they harden themselves, and instead of being confirmed idlers, they leave the institution vigorous in muscle as well as healed of their lung trouble. All minor ailments, such as common colds, bronchitis, sore throats, headaches, etc., are remediable by means of a life regulated in accordance with the principle of the open window. It can hardly be doubted, therefore, that if those exercises which take the form of out-door games, are in part replaced by the more primitive and infinitely more profitable one of gardening, the same excellent effects will result."

Mr. Parsons in his book, "Children's Garden for Pleasure and Health," says: "In the garden is found work in the open air various enough to fit any degree of strength and activity, and producing

food for the body and delight for the soul of mankind. . . Those whose minds demand problems, nature quietly surrounds with her marvels and mysteries, and with general steps leads their intelligence from understanding to understanding, to bow at last with humble reverence before the Creator; and they find that in return for knowledge and obedience they are given a measure of control over wonderful forces, and go forth among their fellow-men thrice armed for success. The child comes naturally and gladly to this work, but the adult who has never known it is surrounded with walls of habit and misconception that shut out beauties and delights that strive to reach him on every hand. To-day the child plays in the garden. To-morrow it works as an adult. The direction given to its play to-day will decide how it will act with its work to-morrow. The garden teaches the child to think what he is doing, and the manner of doing it. It teaches him observation of how others work, and leads to application of better methods to his own work; it teaches him the value of orderliness and system for general economy and effectiveness, and the value of planning a series of actions to obtain a desired result. The garden is an excellent place to learn the differ-

neurologist says that exercise of the muscles is absolutely necessary to develop a healthy brain, "for all thought has a motor side or element."

Pestalozzi believed that "self-development begins with sensations received through the senses; sensations lead to perceptions, which registered in the mind as conceptions or ideas, constitute the basis of self-knowledge. Spontaneity and self-activity are the necessary conditions under which the mind educates itself and gains power and independence."

This thought permeates all the best education to-day, and the best education is that which strives for an harmonious development of head, heart and hand. In this new education, doing is the means employed, and character-building, rather than knowledge, is the goal desired.

Ruskin said, "What we like determines what we are; and to teach taste is inevitably to form character." It is an important fact, and apt to be overlooked frequently, that "much of life's course of study is furnished by environment, and that its enrichment makes possible nobler tastes and more refined ideals." The right application of nature study—and all that it embraces—to the education of children, is one of the most important developments of our day. We are learn-

growth because it can understand the lessons taught there. Then, too, not only does the garden serve to educate and train, but it supplies a kind of knowledge that is useful in the highest degree, and a taste is cultivated here for an honorable and remunerative vocation.

Thoughtful people see danger in the rush to the cities, and try, if possible, to counteract the disadvantages and undesirable results which inevitably follow. Work in the garden, if it does nothing else, at least acts as a corrective to the all too prevalent contempt for work on the land. In this age there is most undoubtedly a tendency to set up false standards of value, and all because of very erroneous notions as to the superior dignity and value of city occupations and ways.

Phillips Brooks' wise words are not enough heeded to-day—"Every occupation lifts itself with the enlarging life of him who practices it. The occupation that will not do this, no man has a right to occupy himself about."

Abram Cowley, who wrote "God the first garden made, and the first city Cain," said, "Behold the original and primitive nobility of all those great persons who are too proud now, not only to till the ground, but almost to tread upon it. We may talk what we please of lilies and lion's rampant, and spread eagles in fields d'or and d'argent, but, if heraldry were guided by reason, a plough in a field arable would be the most noble and ancient arms."

Miss Williams, in her admirable little book, "Gardens and Their Meanings," says, "There is indeed need for small beginnings, for it is these that convince a public. Even a tiny plot, hearth-rug size, can be made to do duty as a garden, inasmuch as in these days of intensive farming the size of the farm is the very least of its assets. Says an expert farmer, who heartily encourages the pocket edition gardens, 'No man knows yet the capacity for plant growth of one square yard of earth.' Large fields, then, may be dispensed with, but this cannot be said of large enthusiasms." Parents must be taught all these things—and more,—they must be shown that gardens are established because it is expected that these will in turn develop into "laboratories for the production of health, pleasure, and education," and all this means brighter homes and considerably reduced home expenses.

It is frankly stated that city life for children has come to be sadly empty of the real wholesome experiences such as trained the powers and developed the children of earlier generations. "School life deplorably reflects this barrenness of experience. Children cannot be made to grow into resourceful dynamic men and women by the study of books. If they are to do anything as adults, they must do something as children. One authority declares that "Children are by nature good and spontaneous, possessed of self-activity. Their play must be directed, and their work made attractive. Their education should come to them through close contact with nature, the using of the hands and directed play."

The child's garden, then, is really the training-ground helping to prepare that child to better play his part in the larger life of the world. Miss Williams writes (in Gardens and Their Meanings), "The sum total of experience shows that it is the trained man, whether working on a gigantic scale or on a small one, who, all other things being equal from an economic standpoint, wins out."

Mr. J. H. Smith, Inspector of Schools for Wentworth, in an address when urging the establishment of school gardens throughout the county, stated that while much had been said about the teaching of the three R's, he had been thinking of the three H's, and as he considered the school garden in relation to the child's education, there were three salient features, viz.: "It taught the Hand to work; the Head to plan and devise; the Heart to govern and control."

Some parents hesitate, fearing that gardening may prove to be such a fascination that other studies will suffer, but so far it can be shown that such fears are groundless, and experience proved that instead of impeding the progress of study, the garden has been the means of creating fresh and unexpected desires for the pursuit of knowledge before unknown.

Prof. Benedict, of the University of Cincinnati, in a recent address, spoke of



Child with Sea Gulls.

From a painting by Laura Muntz, A. R. C. A., exhibited at the Canadian National Exhibition, Toronto.

ence between true and false economy. By taking advantage of the child's desire for muscular activity in the open air in the age when the five senses are seeking expression and development, it can be led to acquire valuable and useful knowledge in this garden work, which appeals to it as play."

Froebel said, "I can convert children's activities, energies, amusements, occupations, all that goes by the name of play, into instruments for my purpose, and therefore transform play into work."

Gardens then stand for stronger bodies. This is the day of rush and hurry, and tuberculosis is not the only disease to be considered when studying the different problems connected with children's education and development, as nervous troubles are rapidly increasing. Those in a position to know, state that the most nervous children in the schoolroom show considerably more poise and balance in the gardens, and gain self-reliance there in a marked manner.

A celebrated English physician and

ling more and more that the first endeavor of a school is "to teach people to live. The two chief aims of education are to draw out individuality and personality. Although children are not conscious of the silent influences of the green plants and beautiful surroundings, this will be felt later in life, and manifest itself in various ways.

Those who work among the slums in the vacant-lot gardens, say that the very association with plants and flowers has a decided and remarkable influence on the children's language.

It cannot, then, be too frequently repeated or impressed upon those interested in child development that "the brain should be trained in childhood, not only by intellectual processes, but by the development of the smaller muscles, especially those of the hands, by the constant requisition upon sensory and motor nerves, and by constant quickening of the sense perception. The result is intellectual power."

In the garden the child's mind gets