

minds are opened and the things of which they see so much and know so little are transformed for them.

"Farmers' children and others should know all about the birds, bugs, caterpillars, flies, spiders, weeds, plants, the flowers and common growths of their environments, and thus have matter that will be of value and an aid to them in their future life. This is very much better than cramming them with disconnected facts of history of far-off countries, incidents in the lives of kings and statesmen, that are not of much value. Of course the young should become as completely educated as possible, but they are to have one thing or the other, let them get, first of all, direct knowledge of their own environment.

"There is no reason, even in city schools, why similar work should not be done; though the country child has far greater advantages in the way of studying natural forms, the city child has many compensating advantages. Nearly all children can get from their homes and from their friends any of the simple common things in the way of leaves, plants, shells, animals, etc., that are the fundamentals of study, and with which we should first fill the mind of the child before we attempt to give higher thought studies.

"I can already see this change coming in many places, although so far it is mostly in the way of introduction of things that have utilitarian value alone,—trades similar to carpenter work, cooking and sewing, which to me simply consume the valuable time of the children without educating them. I think the time is near at hand when the true idea will be received. Institutions like the Drexel Institute, the Armour Institute, the Pratt Institute, are simply, in my mind, protests against the old methods of education. They are schools where the pupils *learn by doing*, and though in some cases, trades are taught, instead of real education being given I think the latter will be the next step.

"No one can see how newspapers and books are changing, with their endless pictures and illustrations; no one can see the improvements and means of getting better pictures in all directions, without realizing that this must have a great influence on the education of those to come. The same is true with regard to smooth roads, electric lights, the bicycle, etc., all influences that are tending to make life easier and better. Some of the papers and magazines to-day are real works of art. Continually they are pouring out on the multitude streams of visual information that must have an influence. The school is bound to keep in line with these things! Better methods and better text-books and appliances must be used. The old methods *have* to change, and the teachers, too.

"Appliances in the schoolroom that have been used for 20 years are still being used in the wrong way, and at the wrong time, such as