arithmetical problems without performing the operations yourselves, nor acquire a dexterous movement of hand without performing the acts through which the power is acquired. Now look how Nature does. She gives the child no laws, no rules, no principles, no formulas. She simply gives the material, the faculty, and the occasion for its exercise. There is much repetition in her teaching, in order that the difficulty may become easy and use become second nature. She does not tell the child, but prompts him to action and induces him to think what he is doing. She does not explain to him the difference between hard and soft, or between a hot stove and a cold one, but says, "feel them." Lay your facts, she says, side by side and compare them, find out where they are alike and unlike. Her business is the training of faculty and the development of power.

These two methods of acquiring knowledge may both be successful as respects the knowledge, but their effects upon the mind are very different. When the mind's activity consists in merely comprehending the thoughts of others, the truths which have been discovered and explained, it becomes a receptacle, a working one, it is true, working the nourishment into its own substance, but preparing it only for taking in more and making progress. The method which presents the material to the pupil for observation and reflection, and simply stimulates and directs the mind to an orderly plan of study, trains him to form his own ideas of things, to put forth his own efforts in the acquisition of knowledge. I do not mean to put the one method against the other, for both are necessary in our schools; pupils must have assigned lessons to learn from books, when they are sufficiently advanced to master them, but I do say that the one method is too generally followed to the exclusion of the other, the teacher in too many instances becomes a mere hearer of lessons, instead of a trainer.

There is a constantly increasing demand for results of greater commercial value from our school system; and the school must consider the question. If our boys had training in the elements that are common to all industrial pursuits, and our girls training in the principles of domestic economy, all resasonable demands would be met without disturbing the primary aim of the school or increasing the number of subjects in the course.

Such training should embrace industrial knowledge and manual dexterity. Industrial knowledge consists in an acquaintance with industrial materials and processes. Industrial materials are of course the various materials used in the industries, consisting of substances from the mineral, vegetable, or animal kingdom. Industrial processes are those operations by which raw materials are converted into forms for our use.

You have seen that we have in the course the subjects that form the elements of industrial knowledge. Instruction is required in minerals, plants, and animals, and their uses. With respect to the processes, a large number relating to the most useful industries are described in our Readers, and these lessons are required to be supplemented by oral instruction. Industrial drawing, the subject of Form and of Geometry, so far as taught, all bear directly upon many industries.

That they shall result in industrial gain will depend upon the mode of teaching them. Let me give you a few practical hints in the form of some examples.

The subject of Form, which is taught in the first two grades, may be made mainly constructive. During the first year, after the pupil has gained