

of the teacher whose own heart is aglow with its inspiration. For these "cadences of the voice are the commentary of the emotions on the propositions of the intellect." But even if it were possible for the child to obtain through the cold array of printed words the beautiful and lofty thoughts to which the intellect inspired by the emotions may have given birth, it would not be possible, without a suitable cultivation of the organs of speech, to reproduce them in all their force and beauty.

(4) But it appears that "a defect in articulation can be cured by following exactly the same process by which a child learns to articulate." And what process is this? Why, he listens to articulations with close attention, and strives to imitate exactly what he hears. And so a

defect in articulation "is cured in exactly the same way"—*i.e.*, by close observation and persistent imitation of a perfect articulation. What then becomes of the luminous principle that there is to be no teaching by imitation—no model of correct elocution set before the child who is struggling with slovenly articulation, and kindred defects in vocal power? It should be permitted to pass "as the idle winds which we respect not." In learning to read, Nature will do something for us; but the true teacher is not Nature as she is, but Nature improved by an art which is itself penetrated with the spirit of Nature; or, as Shakspeare has it:

There is an art

Which does mend Nature, change it, rather,
but

The art itself is Nature.

A SCHOOL OF SCIENCE.

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IT is known by all who have given the subject careful consideration, that, other things being equal, the arts and manufactures flourish most vigorously in countries where liberal provision is made for diffusing a knowledge of the principles and applications of science. Many facts might be adduced to illustrate this. English calico printers have come to the conclusion that they are falling behind the United States manufacturers, and this is ascribed to the superior general and technical education of the American artisans. Probably the best instance is that of the sugar industry. Formerly, sugar was almost exclusively manufactured from the sugar-cane, which flourishes only in tropical countries. The process employed was a

comparatively rude and wasteful one. Very little progress was made—improvements suggested themselves very slowly to men who were not brought into competition with the ever-advancing methods of science. Then, the exigencies of European warfare gave rise to the beet-sugar manufacture. Liberal inducements were offered to men of science, and the problem was at least partially solved. But the method at first used for the extraction of sugar from the beet was very imperfect. France and Germany, ever in the front rank in encouraging scientific research, found men who were able to make great improvements in the machinery, and to suggest the adoption of new principles. But, note the unexpected directions in which a know-