

receiving instruction either at home or in a private school. The effect of this measure was that the number of children at school in this province increased in a few years from 20,000 to 30,000. (1)

From the returns of 1864, it appears that there were then in the Netherlands 3,608 elementary schools, of which 2,549 were public schools, and 1,059 private, or one school to every 100 of population. The total number of scholars amounted to 391,407, of whom 208,735 were boys, and 182,672 girls, or 10 scholars to every 100 of population. Rather more than a third were receiving a gratuitous education. The schools, as in America, are mixed, and it is reported that the system of educating boys and girls in the same school is found to work most satisfactorily.—*Papers for the Schoolmaster.*

### On Teaching Geography.

I propose to consider the subject of geography—as it is taught, and one way—better, it seems to me—in which it might be taught. It is true that many of the subjects of *Physical Geography* are of such a nature, that, even if not taught on strict educational principles, the child can hardly fail to gain a moderately correct idea of what he recites. But alas for the unhappy urchins just transplanted from the primary schools, who are set to learning that the earth is round—that it has two motions, the daily and the yearly,—that the former is that in which it turns on its own axis, and the latter that in which it turns round the sun,—that the former motion produces the change from day to night, and the latter the change of seasons. These must, indeed, cause sore tribulation and vexation of spirit to the poor little victims! And not only are these difficult subjects generally taught by methods wholly at variance with the principles which should guide us in all our teaching, but, with most teachers, they precede many of the simple subjects of *Physical Geography*, and all of *Political Geography*. Go into one of our normal schools and test the young ladies' comprehension of the change of seasons,—I think the result would occasion some surprise; yet they studied the subject, or rather committed to memory the words, "The change of seasons is produced by the earth's motion round the sun," before they were ten years old.

This arrangement is a flagrant violation of more than one educational principle. First, this: "Not the order of the subject, but the order of Nature." Is it in the order of nature to teach a child that the earth is constantly revolving round the sun, and that this revolution produces the change of seasons, before teaching him, for instance, that the water he sees from the window is a bay, and that the land on which Fort Independence stands is an island? Is it in the order of nature to teach him that the revolution of the earth on its axis produces the change from day to night, before teaching him that he lives on the continent of North America?

"But," some one will say, "why should he not be taught the cause of these phenomena? He certainly observes them." Very true; so he observes the phenomena of twilight, and of the rainbow: would you, then, teach him the theory of the refraction and reflection of the sun's rays? He hears music: would you teach him to account for it on the undulatory theory?

This brings me to the second principle violated: "Proceed from the simple to the more difficult." The infraction of this is manifest. Would you compel a child of eight years to lift a hundred-pound weight for the purpose of strengthening his body? Why then do you require him to lift a hundred-pound *mental* weight for the purpose of strengthening his mind? What would be the effect on the *body* in the first instance? What, then, must be the effect on the *mind* in the second?

A very forcible argument against this method occurred in one of our city schools not long since: A class,—most of whom could

recite fluently the remarks contained in their books on latitude and longitude,—being asked at what place on the earth's surface there would be no latitude, replied, almost unanimously, "At the poles." Yet most of the class were considered by the teacher well prepared. There was one exception, however, which excited my risibles to a painful degree. A little girl, being asked to give the definition of latitude, replied, "Latitude is distance from the equator neither north or south." This definition, observe, is strictly correct, with the exception of one letter; but the introduction of that one letter, unfortunately, somewhat diminishes its value.

Taking it for granted, then, that the principles of Pestalozzi are correct, it is manifest that the arrangement generally adopted in the teaching of geography is unphilosophical and irrational. Now what arrangement can be found which shall not violate any principle, and which shall, the most truly, educate the child? One, it seems to me, which shall proceed from the most simple subjects of physical geography—as being, itself, the simplest of the three branches—through the more extended subjects of political geography, taking up mathematical geography as it is needed. First would come mountains, rivers, lakes, valleys, etc.—all those subjects which may be taught by means of pictures, without reference to maps or globes. Next to these we should wish to take up the more extensive ones of oceans and continents. These, however, cannot be taught by pictures without conveying false ideas of their size, as compared with islands and lakes. A globe, then, is necessary; but before using a globe, the child must understand why it is made of a spherical shape. Here comes in the subject of the form of the earth,—then continents and oceans,—next the political divisions of the continents; but, to study these properly, the subject of their representation on maps and globes must be understood, and here comes in the subject of latitude, longitude, division by circles, &c. From this point we may go on regularly with political geography.

As to the revolution of the earth on its axis and round the sun, and the consequent change from day to night, and from winter to summer, I would leave the consideration of those subjects until such time as the mind of the child should be ready to receive them without injury. This time, with the former, would be when he had completed his eleventh year, and with the latter, not before he had completed his thirteenth or fourteenth.

To go back now to the first part of this course: How may the subject of the simpler physical divisions of the earth be scientifically taught? Take this one, for example—a lake. We will suppose the lesson—in the giving of which the principle to be borne in mind is, "Develop the idea before giving the term"—to be in the hands of a teacher who endeavors in all things to make her teaching conform to what study and reflection have told her is right. By showing a picture of a lake, she easily gets from the children that it is "a piece of water with land all round it." Writing this description of the picture on the board, she asks how the sentence may be somewhat improved. They will probably give "surrounded" in place of all round, and if they do not give "body" in place of "piece," the teacher herself gives it. Now they have the idea of a lake expressed in good language. The teacher gives the term, and one more item of knowledge is added to the children's stock;—an item acquired, not by the exercise of memory alone, but by the exercise of the perceptive faculty, of their common-sense, and by calling on their previous information. With the other subjects she proceeds in a similar manner, until she arrives at the form of the earth. This subject, usually passed rapidly over, by requiring the children to commit to memory the statement contained in their book, is one, it seems to me, which affords an unusually good opportunity for strengthening the reasoning faculties.

The children may apply knowledge gained from previous information, and may be led to form a correct opinion of the shape of the earth before any statement of the actual fact is made by the teacher. How? I will endeavor to illustrate. Holding an orange before the class, the teacher takes a short lead-pencil, a key, or any other small object which may be at hand, and placing it on

(1) A regulation to the same effect has been in force since 1530, in the province of Drenth, and in that of Ober-Yssel since 1566. Canada has lately adopted a like measure, with the greatest success.