

insoluble as carbon in cold water. This is shown by shaking up some starch powder in a little water and then filtering it to remove the starch that has not been dissolved; on testing the clear liquid that runs through, we find no trace of starch, showing that starch is insoluble in cold water. Before the starch can be removed from the leaf, therefore, another change must take place; the starch is changed into sugar, which is, of course, soluble and easily carried away.

What a wonderful little factory a simple leaf is, for here, as we have seen, carbonic acid gas is first of all decomposed, the carbon being converted into starch and stored up; then, as it is required, this store of starch is again changed into sugar and carried away. We might ask why the carbon is first changed into starch instead of being changed straight away to sugar. A moment's thought will show the beauty of this arrangement, for, if the leaves kept their store of food in the form of sugar, they would lose it during every shower of rain, hence these wonderful changes.

STEP III. ASSOCIATION.—Several points would be taken up during the lesson and associated with kindred ideas. Thus plants would be compared with animals in respect to the nature of their food and their method of feeding.

Attention would be drawn also to the wonderful balance that nature preserves, for by breathing into lime-water, we can show that animals breathe out carbonic acid gas, which would in course of time render the air quite unfit to support animal life unless some means were taken to remove it from the air. This, we have seen, is done by the plants, and thus the balance is preserved.

STEP IV. FORMULATION.—1. Plants are built up chiefly of water, carbon, and a little mineral matter.

2. The water and mineral matter are obtained by the roots from the earth.

3. The leaves supply the carbon; the chlorophyll in the leaves in sunlight decomposes carbonic acid gas and retains the carbon.

4. This carbon is converted into starch and stored up in the leaves.

5. The starch is changed to sugar when the plant requires nourishment.

STEP V. APPLICATION.—In an agricultural district the application of these lessons would be most important. Two points to be dealt with would be the use of manures, both natural and artificial, in supplying the necessary plant food, and also the fact that as plants do not all require these various food stuffs in the same proportion, it is necessary to vary the crops in order to obtain the greatest return from the soil.

The wind of May
Is sweet with breath of orchards, in whose boughs
The bees and every insect of the air
Make a perpetual murmur of delight.

—William Cullen Bryant.

New School Law.

Below is given the text of the recent addition to the New Brunswick School Law, known as "Regulation 48, Conveyance of Children to and from School."

In pursuance of sections 57 and 124, in reference to the conveyance of children to and from school, the following conditions and regulations are prescribed:

2. The trustees may purchase for the use of the district if in their opinion it is expedient to do so, a sufficient number of vans for the conveyance to and from school of children residing within the bounds of the district, but at a distance of over one mile and a half from the school; and shall make provision for the proper protection and care of said vans.

2. Children residing not further than one mile and a half from the school shall have no right of conveyance in the school vans, but the trustees, in their discretion, may permit the younger children who reside within one mile and a half of the school to be conveyed in the vans; provided it shall not be found necessary on that account to increase the number of vans otherwise required.

3. Pupils of the school not resident in the district, or temporarily resident therein for the purpose of attending the school, shall have no right to be conveyed in the school vans.

4. The trustees shall advertise for tenders for the conveyance of the children by posting notices in three public places within the bounds of the district at least fourteen days before the date assigned for the opening of such tenders; and also in a newspaper, if any, published in the county; such notices shall define the route or routes to be followed, shall state the approximate number of children to be carried, whether or not the contractor is to furnish a vehicle, and such other particulars as may place the tenderer in a position to form an intelligent judgment of the duties required of him in case his tender shall be accepted.

5. After the opening and consideration of the tenders received, the trustees may accept or reject any or all of such tenders, and may enter into a contract, in their discretion, with any person or persons for the performance of the duties required, whether such person or persons have previously sent tenders or otherwise.

6. All contracts for the conveyance of the children must be in writing; and each contractor shall give a bond to the trustees for the faithful performance of his contract in the sum of \$100.

7. Every contract shall, in addition to other matters agreed upon by the contracting parties, provide:

(a) That the contractor shall furnish necessary robes, blankets, etc., to keep the children comfortable; and in case the district does not provide the vans, that the contractor shall furnish a suitable vehicle or vehicles with sufficient seating capacity to convey all the pupils belonging to the route.

(b) The contractor shall provide a good and reliable horse or team of horses for each van required, and a trustworthy driver, who shall have the con-