

Penn to the commonwealth which he established. "Educate the people," was the last legacy of Washington to the republic he founded. "Educate the people," was the unceasing exhortation of Jefferson. "Educate the people," said Clay, Adams, Webster, and all their patriotic and illustrious predecessors and compeers. Educate, correctly and thoroughly, all the children of the state, is the demand of the prevailing sentiment, not only of our own nation, but of all civilized nations. The people, with united voice, say, "Give our sons and daughters a thorough and accomplished education." They require liberal, ample, and wise provision for this purpose. A full compliance with this demand is a cardinal element in every wisely constructed system of popular education. It is fundamental. It is the propelling power—the mainspring of the machinery. The establishment of teachers' seminaries throughout the United States, in character and number sufficient to qualify our almost one hundred thousand teachers, is one of the most desirable and important things of the age. It is the great reformation which should be made, and would be the crowning glory of these times.

POETRY.

"WHAT HAVE I?"

A CHILD'S QUESTION.

I have these eyes, these beaming eyes,
Which by my God are given,
To read his message from the skies,
And see his face in heaven.

I have a voice, a pleasant voice,
Which by my God is given,
To praise him here, and to rejoice
For evermore in heaven.

I have these hands, these busy hands,
Which by my God are given,
To do whatever he commands,
And strike my harp in heaven.

I have these feet, these nimble feet,
Which by my God are given,
To tread his paths with footstep fleet,
And pace the courts of heaven.

I have a soul, a precious soul,
Which by my God is given,
To know in part, but not in whole,
Until it gets to heaven.

If soul and body thus fulfil
The ends for which they're given,
Death parts them here, but soon they will
For ever meet in heaven.

A CHILD'S GRAMMAR.

1. Three little words you often see,
Are Articles—*a, an, and the*.
2. A noun's the name of any thing—
As *school or garden, hoop or swing*.
3. Adjectives tell the kind of noun—
As *great, small, pretty, white, or brown*.
4. Instead of Nouns, the Pronouns stand—
Her head, his face, your arm, my hand.
5. Verbs tell of something being done—
To read, write, count, sing, jump, or run.
6. How things are done, the Adverbs tell—
As *slowly, quickly, ill or well*.
7. Conjunctions join the words together—
As *men and women, wind or weather*.

8. The Preposition stands before
A Noun—as *in, or through, a door*.

9. The Interjection shows surprise—
As, *Oh! how pretty! Ah! how wise!*

The whole are called nine parts of speech,
Which reading, writing, speaking teach.

AGRICULTURE.

(From the Lower Canada Farmer's Journal.)

USE OF SNOW.

Snow is in Canada one of those over abundant gifts of Providence that, like the air we breathe and the water we drink, are too common often to excite our interest or our gratitude. Yet snow is a thing wonderful in its origin and structure, and having great and important uses in nature.

Snow differs from ice in its origin. Snow is frozen vapour, whereas mere ice is frozen water. Vapour in freezing, as we may see by looking at the frosted window panes, and the little tufts of icy needles that form in frosty weather on the heads of nails, forms delicate crystals, and these when produced in the air as snow flakes, are exceedingly thin, six-sided films of ice, often extended into stars by the projection of pointed or feathered expansions of their angles. In mild weather these stars become very large and being entangled together, form large loose flakes. The thinness and smoothness of the snow crystals, gives the slippery anti-friction surface of the polished sleigh track, and the lightness and the porosity of the mass renders it one of the best non-conductors of heat, and consequently enables it to protect the ground from excessive frost.

The snow is in truth a huge fleecy blanket spread over the surface, to protect tender plants and prevent the frost from penetrating too deeply into the soil. So true is this, that however cold the air above, the temperature under the snow will rarely be found much below the freezing point. Hence, under a deep covering of snow, the ground is frozen only very slightly: and when the snow is gone, vegetation is not retarded by the coldness of a frozen subsoil. Under snow the temperature is also equitable and the great injuries which result from alternate freezing and thawing of plants are prevented. Many plants can be imbedded in frozen soil without injury, but if alternately frozen and thawed they soon perish.

But snow is not only a covering, it is a manure, or rather a collector of manure. The old popular impression to this effect, is confirmed by chemical investigation. It has been ascertained by Liebig and Johnston that, while the composition of newly fallen snow is nearly identical with that of rain water, snow which has remained for some time on the ground, affords, when thawed, a quantity of ammonia not previously present in it. This is accounted for by the porous character of the material, which enables it to absorb ammoniacal or other vapors, thus purifying the air, and at the same time collecting one of the richest and most volatile of manures for the nutrition of vegetation in the spring. Ammonia is also known to enable plants to thrive with less light than they ordinarily require, hence it is not impossible that when under snow and plentifully supplied with this substance, they may actually grow. This, as well as the effect of a gradual thawing of the snow in preventing the leaves from being frost-bitten, may account for the bright green colour with grass often presents after the snow has left it.

Snow like rain falls on the lands of the just and the unjust. It benefits the bad as well as the good farmer. Yet the uses above stated, suggest the question—do we use all the means in our power to receive benefit from this useful gift of nature. Our ordinary clearing and cultivation tend to lay bare the land to the influence of winter storms, and to cause the snow to drift into piles, and to fill up water courses and hollows, instead of evenly covering the surface. In this way, much of its benefit is lost. In nature, on the other hand, the shelter of the forest, and even of the shrubs and withered herbage ensures a more even covering of snow. If possible, we should imitate nature in this, and by belts of trees or hedge rows shelter those places which by experience we find to drift bare of their natural winter covering. The benefits of such shelter are largely realised in Great Britain, and also on new farms in this country, while still sheltered by the forest; but the bare unsheltered surface of many of the older districts, has this want of protection from the destructive effects of the winter blasts, added to the other causes of its increasing sterility.

Other effects of the more or less equal distribution of snow are also worthy of notice. When parts of a field are bare and other parts