

does not see them. With a thorough education he will recognize; for instance, many a man has tilled over a silver mine and not know it; he has walked over untold wealth and discoveries which he had no power to recognize. Give him now a knowledge of Chemistry, and he will understand the composition and nature of the soils that he works, and his brain will be alive with study and thought, while his hands plough.

He will know the nature and use of a mineral spring—what to do with a deposit of peat or marl. Indeed you have set him on a search, taught him to expect something, and you may be sure he will find something. Teach him Botany, open before him the organic world of plants, trees, and flowers. Every flower that is to another but as a grass spire, is to him a cup brimful of wisdom. Emerson sings, as he looks on the farmer's work,

One harvest from thy field
Homeward brought the oxen strong,
Another crop thine acres yield
Which I gather in a song."

There is no reason why the farmer should not be educated to see the beauty and the wisdom that receives his booted heel. Give him a thorough scholarship in horticulture, so that he can keep even pace with all improvements in varieties of fruits and vegetables, and try experiments himself in the origination of new varieties. It will bring his soul into quick thinking connection with such experimentors as Van Mons, Verschaffelt, Downing, Warder, President Wilder; it will lead him into sympathy and a comprehension of such princes of enquiry as Agassiz, and Tyndall, and Faraday. What matters it that he is on a farm? his very feet tread the volumes of nature, and these volumes are open books to him. He cannot go into his pasture, or his garden, or his orchard, but new truths meet him, and incite him. I do not know a pleasure much more exhilarating and healthy than that which comes from success in hybridizing, or by seedlings originating an improved fruit or flower. Last year I brought to bloom several seedlings of *Gladiolus*, one of them proved to be a variety hardly ever equalled. Do you know what pleasure, what a fresh draught of life that gave to me? I absorbed its life and beauty into my life, and felt for even that one flower my life had not been in vain. There are farmers who are every year by their experiments and scholarly zeal, proving themselves benefactors of their race. Take Dr. Kirtland of Cleveland, who started our Governor Wood and several others of the best cherries;—take Seth Boyden of Jersey City, who originated the Agriculturist, and more of the finest strawberries,—instance Boyers and Allan, Bary and Longworth, who, by patient care, have added much wealth to our list of grapes and pears. I think I should like to

have my name go round the world embodied in a strawberry, or labelled on a peach. No one who sucked the sweet juices but will breathe a blessing on me, and my immortality will be secured by the ever recurring spring, giving a new bloom to my cheek. That will be better than publishing a volume of priceless sermons, or being immortalized in Latin by two D's in capitals. Why, do you think farm life could have been dull, or production drudgery to Goodrich of Utica, who, after years of patient culture, gave us as the result, the Harrison, the Goodrich, the Garnet, the Cuzco, and the Gleason Potatoes? Such men are putting spurs to progress,—they are doing more than all gold miners to increase the material prosperity of the land, and they are doing only what every young man may do. The field is absolutely infinite. We need new apples and new pears still,—new strawberries and cherries. I prophesy that in ten years we shall have Quinces more soft and delicious and fragrant for eating than peaches,—berries that utterly supplant what we now use,—and such an advance in fruits and flowers as will make past progress seem to have been slow.

For one I hail the Agricultural Colleges with intense joy. I deprecate every attack upon them. Correct their errors, but give them every encouragement. Let us have rural schools of the first order of merit. It is not enough to educate our lawyers and ministers, educate also in the fullest sense your tillers. In England it is becoming quite common to educate the second son for a minister and the third for a professional agriculturist. That is it. Give us professional farmers; make farming as much and as truly a profession as law, and preaching, and healing.

Last fall, at our State Fair, one of the most interesting sights I saw, or have ever seen, was a collection of somewhere near a hundred varieties of potatoes, and some two or three score varieties of tomatoes from our State Agricultural College, each labeled, and all presided over by a young student, who was as well skilled in such roots as ever a classical student was in the roots of Latin and Greek. Now I do not care to eat tomatoes, but I can work very enthusiastic in raising them. Fejee, Early York, Tilden, Sim's Cluster, Cook's Favorite, Lester's Perfected. I like to know the origin, history, color, and solidity of each; just the shade of color, their prolific rank, and season of ripening. And really I esteem acquaintance with every new potato, from the old Western Red, at \$1.50 per barrel, to Early Rose at \$90, as much as my acquaintance with Cicero, Virgil, Sallust, and Homer.

Nor is there any reason why the farmer should not be taught astronomy. Thank God, one does not leave the stars behind when he leaves the city gas-light.

There is no reason why every farmer of moderate means should not have his small telescope mounted in an observatory on the roof, and with it take many a tour far wider and more useful than the tours of the wealthier tradesman. Whereas the one goes to buy dry goods, the other goes to buy truth; the one goes to the metropolitan towns of his native earth, the other visits the metropolitan worlds of space.

Let the idea be thoroughly adopted, that no one needs a more thorough education than the farmer, that he must have a thorough discipline of mind. Send him out into the fields to meet sciences, inventions, discoveries, art, poetry, and law, and you have utterly transformed him. You have turned the drudge into the king; you have made him Lord of the soil. Now you rarely find a farmer who has skill or information that goes farther than a well-covered mow, and a well-curried stall. His farm is only so many acres of pasture, and meadow, and woodland, out of which to get the heaviest crop and the best living.—*From the Gardeners' Monthly*,

FRUIT IN THE VICINITY OF MONTREAL.

The alluvial terraces surrounding the mountain in this part of the Province of Quebec have long been celebrated for the growth of fruit, especially apples, and in sheltered situations for pears and plums, while small fruits are grown successfully far north of Quebec city. Of the apples which succeed best in the vicinity of Montreal, I note the following in the order of their suitability, viz: Fameuse, St. Lawrence, Pomme-Gris, Alexander, Early Joe, Spanish Reinette, Autumn Strawberry, Duchesse d'Oldenburg, Red Astrachan, Bourassa, Dominic, Ribston Pippin, Blue Pearmain, Indian Rarieripe, Lady Apple, American Golden Russet, Keswick Codlin, Early Harvest, Primate, and Tetofsky; also, the Montreal Beauty, and Transcendent Crabs. All the above do well here if proper attention is given to pruning the trees after the leaves have begun to unfold in spring: some of them towards the end of my list, if pruned in winter (as is customary here) become affected with black or sap canker, which commences at the pruning, and spreads very often over the whole tree. This applies mostly to trees originated in warmer climates than ours, or rather where the winters are shorter.

The St. Lawrence apple originated in Montreal about fifty years ago, in the garden of the late Henry Schroden, from the seeds of some decayed apples thrown on a manure heap. Three others, seedlings of some merit (one of them a russet) originated from the same lot; but the St. Lawrence is the only one now in cultivation, and the original tree is still alive and healthy; or at any rate was a few years ago. I have given these few particulars, as the origin of the variety is not generally known. The first Northern Spy and Early Joe apples in this Province were fruited in my grounds from trees brought from Rochester, N. Y., over 22 years ago. Early Joe fruited at five years old, and has