

has been showing how nature has been working in regard to the support of marine animals by marine plants. So nature works on the land—on a plan of all for each and for all. You cannot detach any portion of its forces and perfect nature. The flame of fire that comes out of a cubic foot of wood or coal is exactly the same amount as the light and heat taken in from the sunshine in the form of leaves and roots, and now given out after a hundred thousand years. Thus lie in the farm inexhaustible magazines. The eternal rocks have held their oxygen and lime undiminished and entire as they were. No particle of oxygen can run away or wear out, but has the same energy as on the first morning. The great rocks seem to say, 'Patient waiters are no losers.' We have not lost so much as a spasm of the power we received.

The earth works for man. It is a machine which yields new service to every application of intellect. Every plant is a manufactory of soil. In the stem of the plant, development begins. The tree can draw on the whole air, the whole earth, or the rolling main. The tree is all suction pipe imbibing from the ground by its roots, from the air by its twigs, with all its might. The atmosphere is an immense distillery, drinking in the oxygen and carbon from plants, and absorbing the essence from every solid on the globe. It is a receptacle from which all things spring, and into which all return. The invisible air takes form and solid mass. Our senses are skeptical, and only believe the impression of the moment. They do not believe what is demonstrated to them, that these vast mountain chains are made of gasses and rolling wind. They do not believe, what is true, that one-half the rocks which compose the great globe, every solid substance, the soil we cultivate, are made up of animals and plants, and invisible oxygen. Nature is as subtle as she is strong. Her processes of decomposition and reconstruction might be followed on in high grades of existence; and to sentient beings. They burn internal fire which wastes while it works. The great agencies work in man as in all.

There is no power like gravitation who will bring down any weight which you cannot carry, and if he wants aid he knows how to find his laborers. Water works in masses, and sets his irresistible shoulder to your mills and shops, or transports vast boulders of rocks a thousand miles. But its far greater power lies in its capacity to enter the smallest holes and pores. By its agency the vegetable world exists, carrying in solution the elements needed for every plant. Water that daily miracle—a substance as explosive as gun-powder—the electric force contained in a drop of water being equal in amount to that discharged from a thunder cloud.

While the farmer has these grand fellow-laborers to assist him, and these majestic tools to work with, it must be owned that he is not quite competent to their directions. His servants are sometimes too strong for him. His tools are too sharp. But his inequality finds its remedy in practice. Experience gradually teaches him, and he is thoughtful. The farmer hates

innovation; he hates the hoe till he has tried, preferring to scratch with a stick; he will walk till he has tried the railway car; but the oldest fogies among us, now that steamers are running, would hardly set out to dispatch a letter across the ocean by swimming with it in his mouth. While such great energies are working for the farmer, he is also to recollect the great power that is in small things. It is very little that is required. Its internal force consists in a few simple arrangements. Look, for instance, at the power of chestnut rail. Look at the prairie hundreds of miles off, not a stick nor a stone upon it, except at rare intervals. Well, the farmers manage to put a rail fence, and at once seeds sprout and crops rise. It was only the browse and fire that kept them down. Plant a fruit tree by the roadside, and it will not produce, although it receives many hints from projected stones and sticks, that fruit is desired to come down, and though fruit has gone crude into the bowels of small boys. But put a fence around it; the boys will let it alone, and you will have fruit so large and luscious as to seem almost inviting you to take its picture before sent to the horticultural fair.

Women Farmers in Western New-York.

The following letter from H. C. Wright was read at a recent meeting of the Farmers' Club, New York. It bears date Pekin, Niagara Co., N.Y., May 20th, 1862. Mr. Wright says:

"I am in the family of Marvin and Pauline Roberts, farmers with three hundred and fifty acres of land, as good as any in the State. There are 8 children 7 daughters and 1 son—the latter 9 years old. They have been on this farm two years. The failure of their wheat crop the past year—they having sowed 100 acres, and only 20 being worth harvesting—has been a great hindrance to their progress in surrounding themselves with the beautiful and ornamental. The Spring work was begun on the 19th of April; since which time, four of the daughters, aged respectively 19, 15, 13, and 11 assisted by a niece aged 17, and by their mother, have accomplished the following labour, i. e. plowed 75 acres, dragged 100 acres, 3 times, sowed broadcast 100, and rolled 100. More plowing has been done, but the above amount of labor has been done exclusively by the mother and the five young daughters. They have now growing 45 acres of wheat, 15 of winter and 30 of Spring; 50 acres of oats; 30 acres of flax; and are to put in 10 acres of corn, 10 of beans, 3 of carrots, $\frac{3}{4}$ of an acre of onions, and 10 acres of potatoes.

To-day I saw one of the daughters plowing, aged 13, holding the plow and driving her own team. During the day she plowed one acre and a half, the usual labor of a day in plowing. Last Saturday, I saw two of the girls, one aged 17, the other 15, sowing wheat broadcast, and their sowing was done as well as any one would do it. I saw another, aged 13, dragging, and another aged 19 rolling, and another piling and burning brush with her father. These daughters have the care of their own teams. One of them, who is 17, is detailed to do the house work this season. She is as good at plowing, sowing, dragging and roll-