

Again, describe the ordinary wood-roads, rough and almost impassable in swampy places at other seasons, but in winter frozen over and packed in with deep snow.

What is the difference between green wood and dry? Which costs more? Why? How is the sap to be dried out of the wood? Sometimes the mother puts green-wood under the stove to dry, but does she like to have to do that? How many can tell hard-wood from soft? Which gives the more heat? Which is better for kindling? Why? Name some soft-wood trees, some hard-wood.

Tell of the care that must be taken by men felling trees in the woods. Describe the process of chopping off the limbs, splitting the trunk, and cutting it into sticks, usually four feet long. How is a pile of wood measured? How long is a cord of wood? How wide? How high?

COAL.—Where does our coal come from? Speak of it as one of the hidden treasures stored away by God for our use. He knew that some day wood would be scarce, and so He made the coal, hiding it away in the earth for men to find when they needed it. By looking closely at it, studying the places where it is got, and thinking carefully about it, wise men have found out how coal was made.

Long, long years ago, before there were any people in this world, there were great forests of tall trees, not like our maples and elms, but more like palms and giant ferns. There they grew in swampy, hot places, drinking in the air and bright sunshine until they became large and closely packed together. Showers of leaves and cones and seeds often fell to the ground; and, finally, the trees and giant ferns themselves, getting old and decayed, tipped over; and the whole tumbled down forest sank lower and lower in the soft, wet earth. Then the sea was allowed to roll in over these fallen forests, bringing with it great quantities of sand and mud or clay, which pressed the huge ferns and other plants into a solid mass, burying them out of sight. And there they lay in the hot, dark place, turning blacker and blacker, and harder and harder as the years went by.

After a long time a new forest began to grow in the earth which had buried the old one. Then when it got large and dense, it decayed and fell down, and the sea rolled in more sand and clay, pressing it into a hard mass. So it went on, forests growing, getting old and falling into the soft earth, then being pressed down by heavy layers of sand. Buried up in the dark where it was so damp and hot, the thick masses of plants were turned into what we call coal, and the layers of sand and clay themselves were pressed into stone or shale.

Sometimes as the moist clay or sand was pressed down hard, it took the picture of some little leaf or plant on which it lay. A little girl was walking one day along the north shore in Colchester County, N. S., and, looking down, she saw a flat piece of grey stone at her feet with a picture of a fern on it. It looked as if the fern-leaf had been laid on and pressed into it until it had made a bed for itself. But the stone was hard. She picked it up and wondered. Could you tell her how that picture got there?

Who digs the coal for us? What do you suppose the inside of a coal-mine is like? Think of a cellar without any windows, then of underground passages from it to other cellars. But a mine is deeper far than any cellar. Imagine ourselves going down a deep, deep well, down, down, down, until we are landed at the foot of the shaft in a hot, dark place, with only a small lamp to show us the way. At first we can scarcely see any thing, but after awhile our eyes get more used to the darkness, and we see the passages and rooms where the coal has been dug out. As we walk along we see the miners hard at work, digging away at the coal-walls with their pickaxes. When some of the coal is loosened and broken up it is shoveled into baskets to be emptied into a car, or it may be shoveled right into the car itself.

We notice the rails laid along the dark passages, and hear the noise of the cars as they run along, some filled with coal on its way to the mouth of the pit, and others returning for more. The rumbling noise near us makes us look up, and we see, away in the distance, a tiny light coming nearer and nearer until presently we find it belongs to a train of coal cars, with a merry-hearted boy for a driver sitting on the edge of the front car and singing at the top of his voice. No steam engines here, only horses to haul the cars. We wonder if the horses are ever home-sick for sunshine and fresh air, for, of course, they cannot go up at night and come down again in the morning as the men and boys do. They must just stay in the dark mine; but plenty of fresh water and good hay is taken down for them.

How does the miner get enough light? He needs both hands for his work, so very often he has a tiny lamp fastened to his cap. Sometimes, however, he has a lantern, which he hangs on some projecting piece of rock or coal; or, he may drive a pickaxe into the wall of coal and use its handle for a hook.

The miner's work often brings him into great danger. There are times when the air gets very bad, so that it is hard for him to breathe, and sometimes great masses of coal fall down suddenly from the roof or the walls, and again, if some one is careless, a fire may break out in the mine.