

tration of this part of his lecture, Mr. Hind produced a beautiful coral obtained in the Upper Silurian formation in the neighborhood of Woodstock, where he said fossils of singular beauty existed in such innumerable multitudes that the geologist was at a loss which to take first. Last summer he brought home with him from that district two or three hundred weight of different varieties of corals. To the Upper Silurian group succeeds the Devonian, the only one remaining to be spoken of as developed in Canada. During this period an immense number of rocks were deposited, but in Canada there were few representatives of them. This was a matter of very great importance, as the whole question of the presence of coal is dependent on the presence of certain rocks, belonging to the Devonian period. Unhappily, we find that, as developed in Canada, the Devonian rocks not only pass completely over the western portion of the country but extend into the United States several hundred miles. Above the Devonian group comes the Lower Carboniferous, that particular species of rock which was deposited before the formation of coal to any considerable extent, the anthracite coal, however, having been deposited long before the Lower Carboniferous group. The coal fields of North America repose in the centre of the great geological trough formerly described. There was no question, however, that at one time coal extended to Canada, and that it was found not only in the valley of the St. Lawrence, but developed to an enormous extent towards the north. Neither could there be any question that coal once existed to a great extent in the Hudson's Bay Territory, but all this vast deposit of coal, not only so far as this country was concerned, but also to a great extent so far as the United States was concerned, had been swept away by a vast system of denudation by the action of water. As had been proved in two distinct ways by Mr. Logan, the geological structure of the country was such that no hopes could now be entertained of the discovery of coal in Canada. Returning to the three systems of rocks, with the notice of which he commenced his lecture, Mr. Hind said there was not the least reason to suppose that the Laurentine mountains were formed after the great sea of which he had spoken existed, but every reason to suppose that they were formed before. This was known by the circumstance that all the rocks which he had described repose in perfect uniformity on the primitive granite of the Laurentine Mountains. Not so, however, with the Appalachian chain, or the Alleghanies. These were found to penetrate in a curious mode all the various groups of rocks to which he had called attention. Certain portions of the chain come through, uplift, pass over, and frequently overflow the Lower Silurian, Upper Silurian, Devonian, and Lower Carboniferous, so that several portions of the Kentucky coal-field were raised several thousand feet in the air. Finding that the coal beds no longer preserved their horizontality but were pushed up, some on one side, some on another, geologists inferred that that chain of mountains must have been called into existence after the formation of the coal. It had been ascertained that there were

six different mountain ages belonging to this continent. The oldest was the Laurentine. The next in order was that which gave its name to the County of Two Mountains in the valley of the Ottawa—a peculiar mountain which must have been uplifted immediately after the deposition of the Potsdam Sandstone, through which it had broken, but the Trenton Limestone lay conformably upon it, showing the precise period of its formation. The Montreal Mountain again was upheaved after the Trenton Limestone, but before the deposition of the Utica Slate. Then came the Green Mountains, which are ascertained to have been raised after the deposition of the Lorraine Shales. And so with the rest, the most recent being the upheaval of the Alleghanies. Independently of these vast movements, there had from time to time occurred movements of a lesser character, but of great importance to us, originating the mineral beds which were found to intersect the whole region north of Lake Superior and Lake Huron, and in fact the whole of the Laurentine Mountains. In travelling along the shores of Lake Huron or Superior we could scarcely go ten yards without coming across what is called a fault. We should discover veins of granite rock which had apparently been injected into the original granite rock. These are called dykes, and the phenomenon which has given rise to the dykes is called a dislocation. Suppose that some portion of a mountain by some force from below becomes slightly upheaved, it is clear that sinking down again to its original position the parts may not exactly fit into each other, and the consequence will be that there will be cavities produced between the lines where the rock has slipped. These cavities become filled with infiltrated matter, either with a substance in the form of a mineral or pure metal, on Lake Huron and Superior with copper for example, sometimes found perfectly pure. (Specimens of copper produced.) These dykes which are discovered to such an immense extent on the shores of Lake Superior and Lake Huron have occurred at different periods, but there was little question that almost all of them were anterior in their origin to the formation of coal. Mr. Hind then referred to three remarkable rocks, which still bore evidence that they constituted islands in the primitive Silurian Sea, and concluded by showing from certain appearances in the centre of the great American Geological trough, that an upheaval had taken place extending towards Canada, which rendered it impossible that the Michigan coal-field extended into Canada West.

SPRING.

For the Agriculturist.

"Tis a month before the month of May,
And the Spring comes slowly up this way."—Coleridge.

To the Canadian the month of April is not the most interesting; the weather is frequently unsettled, and the ground is not sufficiently dry to commence farming operations. The snow which had covered the fields gradually disappears,—the frost which had held every