Chapter V. Oswego to Cincinnati.

CHAPTER V.

OSWEGO TO CINCINNATI.

Cincinnati, October 21, 1854.—I left Oswego yesterday morning, and my stages to the westward were, to Rochester, 90 miles; to Buffalo, 60; to Cleveland, 183; Bellefontaine, 140; Cincinnati, by Springfield, 117 miles. I arrived here late at night, after a week's travelling. As a general rule, few trains a day are run upon the American railways, especially in the Western States, where the population is thinly scattered. This is no doubt the most economical system, but as the trains are by no means punctual in arriving at the stated time, passengers are often detained for several hours at those towns where the lines of the different companies join, and thus there is frequently a good deal of time lost.

I travelled one night along the shores of Lake Erie, where all the carriages were so completely packed that many passengers had to stand. There are special trains which convey the European immigrants at lower fares than the ordinary trains, but the Americans do not mingle among these foreigners. The Lake Shore Railway is one of the great lines to the western settlements, and I found myself chiefly surrounded with farmers and their families who had sold out "down east," and had bought land in the west. The English language is spoken with great purity in the Atlantic towns, but some of the young women in the train made use of a ridiculous number of Americanisms, and had so much of the strong nasal twang, that at first one might have supposed that they were caricaturing this comical habit. The Americans are a good natured people, and fond of a joke. A lively merchant that sat beside me threw in a few words now and then to stir up the conversation, which in Scotland

I am sure would have been taken amiss, and considered very forward and impudent, but the young rural beauties to whom they were addressed were never at a loss for a happy and good-humoured rejoinder.

I remained for a night at Bellefontaine, as the train by which I expected to get on to Cincinnati had run off the rails. Several passengers were waiting patiently; none of them complained of the delay, but comforted themselves that they had got on safely, and that a little time lost was not of much consequence. In fact, this was sound philosophy, with which I afterwards often consoled myself in like circumstances. Certainly railway accidents are very common in this part of America, for almost every paper reported some casualty, and this same day I met two persons in the train who had met with serious accidents on two different lines. It is no wonder that the engines often run off the rails, for the roadway is badly kept, and the jolting in the carriages is excessive and most disagreeable when the speed is considerable.

The soil is sandy along the shores of Lake Erie, and not of very good quality. After reaching Cleveland, the railway takes a south-west direction through the State of Ohio. For a few miles south from the town it ascends over a slightly broken country, but it soon becomes very level with immense stretches, which have been cut as straight as an arrow through the forest. After getting six miles out of Cleveland, I did not see a railway cutting fifteen feet in depth as far as Bellefontaine.

For about one hundred miles south of Cleveland, the greater part of the country was under wood. Beech and elm were the principal trees, and their leaves were still on, showing a milder climate than I had left a week ago; but their colours were neither so bright nor so varied as upon the trees of the primary soils at St. Hilaire.

The soil on which the beech principally grows in this part of Ohio is a cream-coloured sandy clay of a close texture. It usually contains little vegetable matter a few inches below its surface; and it cannot be considered rich. The roots of the trees only descended a very short way

into the ground, and seemed to run along near the surface. In all probability, the shallow rooting habits of the beech enable that tree to thrive on those compact soils, which the deeper rooting oak and hickory cannot penetrate in consequence of the air being so much excluded. In some parts, however, the beech was growing where there was a considerable layer of black vegetable matter, or what is called "muck," that has no doubt accumulated from the yearly fall of leaves. This mould was most abundant where the soil was damp, and throughout Canada West and the north-western parts of the State of New York I was always told that the beech is the predominant tree on the soft surface-soils that are rich in vegetable matter, a description of land better adapted for Indian corn than wheat. But so far as I now recollect, the subsoils of the beech forests are generally compact, and not favourable to the roots of trees descending. From these facts, I am inclined to think that it is the nature of the subsoil which, in many instances, determines the growth of particular kinds of trees, that the mucky matter of the beech forests is a subsequent accumulation, and that its presence in quantity depends upon influences that retard its decomposition. The greater portion of the land south from Cleveland, though the beech grows upon it, is not well adapted for Indian corn, for it does not contain much vegetable matter, and therefore green wheat fields were common, having many stumps of trees in them.

At Bellefontaine the character of the land changes, and the oak and hickory are the chief trees in the forest. In some of the railway cuttings, the roots are seen thickly interspersed through the ground to the depth of from two to three feet. The soil upon which the oak and hickory grow is of a dark hazel colour; in fact, very much resembling the colour of the roots of these trees, or of their withered leaves. It appears to have been dyed during the lapse of ages by the decaying roots and leaves of the trees that have grown upon it. Oak and hickory forest covered large areas in Ohio, and where the land is cleared is productive of grass, wheat, and Indian corn. These soils, however, did not strike me as being particularly fertile; they consist either of a light sandy loam resting

upon limestone gravel, or of a friable drift clay, yet they are capable of raising excellent crops of Indian corn, which are often taken for several years in succession.

From the enquiries that I made, I learned that if the oak and hickory forests are cut down or otherwise destroyed, the same trees again spring up and occupy the ground. This also holds when the beech forest is cut down, for the beech again occupies the soil which seems to suit it, but on which the deeper rooted oak does not find the conditions suitable to its growth. It would thus appear there is no rotation of trees in this part of Ohio. I was afterwards informed by Professor Mather, Columbus, Ohio, that there are certain districts in the south-eastern part of the State where the soil is a cold clay and entirely under oaks, but on which pines at one time must have grown, as their resinous knots are found in the oak forests in such quantities that they are collected and used as fuel. I regretted that I did not see this soil upon which this rotation of trees had taken place.

Bellefontaine is a small village, and the accommodation for travellers is by no means first-rate, but everything being clean, there was no cause for complaint. In this little country place the levelling of class distinctions seemed to be complete. One of the boarders in the inn, a polite fellow and fully better dressed than any of our company, I found was a sort of gentleman swine herd, who paid three dollars a week for bed and board. After breakfast I took a walk with him for a mile into the country, to see a lot of 300 pigs, which were enclosed in a field of about three acres in extent. The forest had been lately cut down, and the stumps were standing thickly over the ground; the spot had been selected in consequence of a small stream of water running along one of its sides. A wooden bin stood in the centre containing Indian corn in the cob, which the feeder filled into a basket, and then scattered over the surface of the ground twice a day. The hogs were of good sorts, lazy good tempered looking brutes, and getting into prime condition; their average dead weight would be about 160 pounds. The usual allowance for one hundred pigs is eight bushels of shelled corn a day. It costs about thirty-five cents

(1s. 6d.) a week to feed a pig. I was afterwards introduced to the owner of this herd, a much rougher looking fellow than his help, for his beard was of a week's growth, his face unwashed, and his pants a little tattered. He was a good hearty fellow, however, and put upwards of 20,000 hogs every year through his hands. He buys them from the farmers, feeds with corn, and then exports them to the Atlantic towns.

The fact, however, of this hog merchant buying Indian corn and fattening pigs with it, and at the same time having no regard to the manure, shows that the value of Indian corn in Ohio is still regulated by the price which it is worth for feeding. The manuring of land is not yet appreciated, or rather, perhaps, a man's labour is as yet more valuable in clearing and cultivating land than in collecting and applying manure to it.

The soil is comparatively good in the neighbourhood of Bellefontaine, and rests upon drift gravel and clay. Oak is the principal tree in the forest. The wild grape is growing in great abundance, and throwing its vines over the tops of some of the trees. The frost had scorched the leaves, some of which had already dropped off. The south wind had once more brought a delightful temperature; the thermometer was as high as 60° at sunrise, and the day very warm. The first snow that I saw this season was two days ago, as I travelled south from Oswego, where all the windward sides of the trees had a coating; but the air was so dry and bracing that I had no idea it was so near the freezing point.

South of Bellefontaine the country becomes more rolling and covered with a sharp sandy loam, but in some parts it is too clayey for Indian corn being cultivated with advantage. To the eye of an agriculturist there can be few more pleasing spots in America than the district around West Liberty. The farms are from 200 to 300 acres in extent, and the houses have every air of comfort about them. The fields are of good size and well laid out, and the cattle would not be despised in the best breeding districts in Britain. The principal crops are clover, Indian corn, and wheat; and a short outline of the peculiarities of their culture in Southern Ohio may be here given.

If the physical conditions of the soil determine the kinds of trees which cover a country, the chemical conditions (over and above the mere presence of plant constituents) have much to do with the fitness of soils for the growth of clover and the grasses. The very genial nature of the soil and subsoil in the district around West Liberty, for the growth of clover and grass, is strikingly exhibited on some of the limestone gravels. On the railway embankments, amongst sand and gravel, I noticed plants of red clover which had from forty to fifty stalks from one root, and among the same materials the beautiful Kentucky blue stem grass was growing most luxuriantly. On the arable lands here the clovers were remarkably well planted, while on the clay soils to the north of Bellefontaine the pastures were generally miserable, being overgrown with annual weeds that were now withered, and from two to five feet in height according to the richness of the land. The Kentucky blue grass affords excellent pasture on the more friable loams of Southern Ohio, and when the fields are seeded down with it, the most of the noxious weeds are kept under, and the fertility of the land is soon restored after it has been reduced by cropping. Where wheat and Indian corn lands produce good grasses for pasturing, they may be considered as practically inexhaustible.

It is common in this part of Ohio to allow the land to lie in pasture for several years, and then to sow wheat and Indian corn alternately for a number of years, without any manuring. I first saw this mode of cropping in the neighbourhood of West Liberty. The causes that lead to this change in the system of farming are worthy of being inquired into. Somewhat to the south of Lake Erie, the climate admits of a different variety of Indian corn being cultivated. The kind chiefly grown in Canada and the Northern States is called Flint corn, and is extremely beautiful, its long cobs being filled with large yellow plump grains. It is cultivated in rows, at intervals of thirty to thirty-six inches, and the plants are from a foot and a half to two feet apart in the rows. As already stated, the objection which the farmers in the Northern States and Canada have to the raising of Indian corn, is the great amount of hand labour that is required to

keep the crop clean. But in Southern Ohio, the variety best suited to the climate is the Dent corn, which is not so plump as the Flint; indeed, the grain in the cob has the appearance of having been shrivelled by ripening prematurely. Here, however, and especially in Kentucky, it is the most productive variety, and what is more important still, it requires little hand labour in its cultivation. The habits of the Dent corn admit of its being planted very wide, so that the horse hoe and the plough can be freely used to keep down weeds. This, it appears to me, is the secret of the economical cultivation of Indian corn in Southern Ohio and Kentucky. The Dent corn is planted in squares of three feet, or in what is called "check rows" by the Ohio farmers. This allows the land to be ploughed and horse-hoed both ways, so that great execution is done among the weeds, for all the ground is stirred during the growth of the crop, except a small space around each stalk. The few weeds that escape the plough are readily extirpated by a touch of the hand-hoe.

The Dent variety of Indian corn is cultivated in all those States which export Indian corn or bacon to a great extent, and the "check-row" system of cultivation is universally followed. The farmer that I met at Batavia Station, after all, was not so far wrong when he told me, that a man and a boy would manage fifty acres of Indian corn in Ohio as easily as five acres on the wheat soils of New York State. From twenty to twenty-five acres of Indian corn is the common quantity allotted to a man in Ohio, and he will do all the work required in ten weeks. I have met with some Yankee farmers, who boasted that they could cultivate forty acres of maize on the prairies. In consequence of the finer climate in Southern Ohio it is also highly probable that this crop requires less manure to grow a given number of bushels than it does in the Northern States.

Indian corn is sown throughout the month of May in Southern Ohio, and ripens in the early part of September. Like the turnip, it thrives best in an easy loam, and frequent ploughings during the summer promote its growth, for a well-stirred soil absorbs moisture during the dewy nights. The stronger clay soils are not so well adapted for Indian corn,

for on these it is apt to suffer more when the drought is protracted. Indian corn yields from forty to seventy bushels to the acre, on the sandy loams, in the vicinity of West Liberty.

The natural yield of wheat is not so large in Southern Ohio as in Canada West and the Northern States, but the smaller yield is obtained at less expense. I was quite astonished at the easy way in which wheat is got in the neighbourhood of West Liberty, and I afterwards learned that the same system is followed in all those districts in which the Dent corn is cultivated. The wheat which was sown after the Indian corn was already beautifully green, though not quite so forward as what had been sown after clover, but the crop of Indian corn was still standing in round "shucks," in the field. The corn had been cut, and put up in rows in these shucks, which were about three feet in diameter at the bottom, and tapering to the top, were tied with pieces of the stalks. In this state, the Indian corn is secure from the influence of the weather, and might stand uninjured till spring, as the cob is completely protected by its sheath. In many instances, the fields upon which the Indian corn was thus standing had only got some harrowing to prepare it for the wheat, which had been either drilled or sown broadcast, and again harrowed to cover it, and the stubble of the Indian corn was seen over the fields from six to eight inches in height. By this system, the wheat is got early into the ground in autumn—a condition essential to its successful cultivation throughout America. The Indian corn is removed from the wheat fields in winter, and the small spots of ground upon which the "shucks" stood are sown with spring wheat.

Large herds of fine cattle were grazing on the meadows along the rivers betwixt Bellefontaine and Cincinnati. The railway runs through a portion of the rich Miami valley, where Indian corn is the staple crop. I noticed a few sheds adjoining the farm houses for drying tobacco.

There are now upwards of 160,000 inhabitants in Cincinnati, "the Queen of the West," and the numbers are still rapidly augmenting. The streets are wide, with rows of trees along the side walks, and many of the private dwellings, shops, and hotels, are built in a style of great magnificence. The streets,

however, have been long noted for their filthiness, and are still overrun with hungry pigs that feed upon the offal that is thrown out of doors. These brutes act the part of scavengers, and, belonging to no one, those who choose may catch and kill. The most of them, however, are lean and hungry looking, and do not tempt even the Irishmen who abound in the city to reduce their numbers. Nothing shows more strikingly the absence of an indigent class in the west, than the existence of this herd of stray pigs which infest the streets of Cincinnati.

I was considerably disappointed at the sight of the Ohio. The street by which I approached this river appeared to be a continuation of another in Covington, a town of 20,000 inhabitants on the opposite or Kentucky side; and on first looking across, I had no idea that the Ohio lay betwixt the two; but there it was confined within a narrower bed than usual, in consequence of the long continued drought. It did not seem to be more than 250 yards across, and though it had recently risen two feet, there was scarcely five feet of water in its deepest parts. From the lowness of the water, business had been greatly suspended. The difference betwixt high and low water is about sixty feet, and the houses along the wharf are built about high water mark; thus there was now a great extent of the muddy banks sloping down to the channel left dry, a circumstance which rendered this part of the city by no means prepossessing. The water of the Ohio is muddy, and of a dirty cream colour.

I had no distinct idea of the physical peculiarities of the valley of the Mississippi and its tributaries before visiting Cincinnati. The States of Ohio, Indiana, Illinois, and a large portion of Kentucky, Tennessee, Missouri, Iowa, Wisconsin, Michigan, and Upper Canada, may be regarded as forming a vast plateau from 700 to 900 feet above the level of the sea. As the Ohio river at Cincinnati is 432 feet above the level of the sea, it is therefore about 400 feet below the general level of the vast plateau that forms the surface of the States just mentioned. This table-land nearly corresponds with the regions traced on the map prefixed to this volume as forming the wheat and Indian corn regions

west of the Alleghany range. The Ohio and Mississippi have cut channels for themselves out of this table-land, the strata of which are nearly horizontal, and consist of thin beds of limestone alternating with soft aluminous shales. At Cincinnati the formations belong to the Trenton limestone, a member of the Lower Silurian, the softness of which has favoured the Ohio in excavating a deep channel. The escarpments on the Ohio and on the Kentucky side form steep banks to the river of 400 feet in height. The action of the side streams that flow into the Ohio has further served to cut out the country, from two to four miles on both sides of the river, into an innumerable series of rounded hills and valleys, covered with magnificent forests or fine pastures. Cincinnati lies in a hollow of a semicircular shape, and is sheltered on the north by the steep escarpment of the table-land. To the east of the town the observatory is built on an out-jutting portion of the plateau, which approaches the river more closely than usual.

"In tracing the Ohio to its source," says Mr. Elliot,* "we must regard the Alleghany river as its proper continuation. This noble tributary rises on the borders of Lake Erie, at an elevation of 1300 feet above the surface of the sea, and nearly 700 feet above the level of the lake. This plain along which the river flows is connected with no mountain range at its northern extremity, but continues its rise with great uniformity from the mouth of the Ohio to the brim of the basin which encloses Lake Erie. The sources of the tributary streams are generally diminutive ponds distributed along the edge of the basin of Lake Erie, but far above its surface, but so slightly separated from it, that they may all be drained with little labour down the steep slopes into that inland sea. From these remote sources, a boat may start with sufficient water within seven miles of Lake Erie, in sight sometimes of the sails which whiten the approach to the harbour of Buffalo, and float securely down the Connewango to the Alleghany, down the Alleghany to the Ohio, and thence uninterruptedly to the Gulf of Mexico. In all this distance of 2400 miles the descent is gentle."

* Smithsonian Contributions to Knowledge.

The distance in a direct line from the mouth of the Mississippi to the source of the Ohio near Buffalo is about 1250 miles, showing the slope of the country to be, on an average, about a foot in a mile. But the river in its sinuous course runs nearly double the distance. Its fall is greatest in its upper parts, and from Cincinnati to the sea, nearly 1700 miles, the average is scarcely three inches to a mile. By looking to the map it will be seen that the Alleghany river flows through the higher land that forms the terminating slope of the Alleghany mountains. On the other hand, the country due north from Cincinnati is so level, that—as Professor Twitchell, assistant at the observatory, assured me—there was scarcely a rise of 100 feet from the ground on which the observatory is built to the shore of Lake Erie; while to the west, as far as St. Louis, with the exception of the broken land arising from the denudation of the side streams, it is almost equally level. It is a characteristic feature of the table-land adjoining the large rivers flowing into the Mississippi, that it is everywhere broken into round hills by the action of the side streams.

Nowhere in America was I more struck with the beauty and magnificence of the country than from the brow of the hill upon which the observatory is built. The Ohio itself, a diminutive object, is soon lost sight of behind the broken and steep banks which it has formed in hollowing out its winding bed. The countless number of hills and dells on both sides of the river are covered with a rich carpet of grass, wherever the forest has been cleared. It is on the southern slopes of these hills that the cultivation of the Catawba grape is so rapidly extending for making wine. The distant horizon was everywhere bounded by the natural forest, the leaves of which were fast fading, and the red, yellow, and green tints were changing to the dull brown. The richness of the country, its apparently boundless extent, and the soft beauty of the landscape, lighted up by the setting sun, have served to render the view from the heights of Cincinnati one that is still fresh in my memory.

The few days that I remained in Cincinnati were spent among very agreeable company. I visited Mr. Longworth's

wine vaults, which have become one of the sights of the town. Great credit is due to this gentleman for his perseverance in introducing and promoting the cultivation of the native grape for the making of wine, which is now beginning to compete with the wines of Europe. As I by no means pretend to be a connoisseur, I cannot say how far the sparkling Catawba falls short of good champagne. To my taste it seemed to retain a little of the peculiar flavour which predominates to a disagreeable extent in the wild grape that is so abundant in the woods. The vineyards occupy the southern slopes of the rounded hills on the banks of the river. The soil is a tenacious loam, and is usually trenched two feet before the vines are planted. It only contains a moderate quantity of vegetable mould, which is said to be more abundant on the northern exposures of the hills than on the southern, in consequence of the accumulation being greater where the soil is less directly exposed to the action of the sun's rays.

It was reckoned that there were 1500 acres in Ohio exclusively devoted to grape-growing in 1853, of which 300 to 400 acres are in the vicinity of Cincinnati. On the Kentucky side a considerable quantity of land is likewise devoted to the grape, and its culture is also extending along the banks of the rivers in Illinois, Indiana, and Missouri. Some of the vineyards yield from 7000 to 8000 gallons. The culture of the grape, however, rarely furnishes a profitable investment for capital, if hired labour is wholly employed. The German settlers realize a good income from this source, as their families all assist. A piece of land from fifteen to twenty acres, with a house on it, is given to a German family, on condition that they plant a certain quantity of grapes every year, and pay the proprietor one half of the proceeds of the vineyard.

The rounded hillocks to the north of Cincinnati afford picturesque spots for residences, and many elegant villas and substantial mansions crown these heights. Among others, Mr. Buchanan's may be mentioned as laid out with great taste. Fine orchards of apples occupied the eastern and western slopes of a lengthened ridge running out towards the Ohio, while the vineyard covered the rounded bank in front, and the elegant mansion overlooked the whole.

The apples were fine and particularly large; some of the varieties ripened in June, while others were not yet ready to be gathered. This good clay loam bore the best grass that I had seen in America, with the exception of the Genesee flats.

There is something very fertile in the most of the soils that are formed from the decomposition of calcareous strata. I was informed by many parties that there is a great extent of land resting on the Trenton limestone in Kentucky, which affords the best pastures in the United States. It is rather remarkable that the region which produces the best grasses is also best adapted for Indian corn. Kentucky may be considered as the heart of the grass and maize region. The Dent variety of Indian corn, which is the most productive and most easily cultivated, appears to obtain in that State those conditions which are favourable to its yielding the greatest amount of grain. It is said that no less than 166 bushels of this grain have been raised upon an acre. No doubt the climate determines the productive powers of the maize, for its yield rapidly decreases as we go farther south, even on the richest soils of the Mississippi. But the chemical properties of the limestone soils of Kentucky seem to bestow their grass-producing qualities. Lieut. Maury informed me that the fine grazing lands in Ohio and Kentucky were confined to the limestone moulds, and he attributes their fertility to the power which the calcareous matter has of absorbing and retaining moisture. The elder Weld also, who travelled in America in the end of last century, notices the bad grazing qualities of the land in Virginia, unless upon the limestone. Indeed, the best land in the same latitudes on the Atlantic coast affords very poor pastures. The fertility of all soils that grow good grasses is enduring, for when temporarily exhausted, it is easily renewed and recruited under pasturage.

The forests are magnificent on the Trenton limestone formation of Southern Ohio and Kentucky. Where the soil is somewhat close in its texture, the beech predominates, but where marly and more open, there is a mixture of trees. The tulip-tree, the chestnut, the hickory, the beech, the oak, the elm, the locust, and the maple, grow in social equality, producing noble forests. The under-growth in these forests was cane-break when the country was first settled, but the

leaves of the cane furnished food much relished by cattle, and the cropping of them in summer had the effect of extirpating the cane. As it disappeared, fine grasses took possession of the soil, and afford what is known in Kentucky as "wood pastures." The powerful rays of the American sun render the grasses under trees not only nutritious, but palatable to cattle. I was also told by Lieut. Maury that the trampling of the ground in pasturing it with cattle had the effect of extirpating some kinds of trees in the wood pastures, furnishing an illustration of the influence of the physical conditions of soil in determining the growth of trees.

Cincinnati has increased its manufactures very much of late years. There are several cotton and tobacco factories, and also of cloth and furniture upon a large scale, besides upwards of forty iron foundries with machine shops. The curing of bacon is also carried on to an enormous extent. As the slaying or packing season was just commencing when I left town, the whole country in Southern Ohio seemed to be swarming with pigs, and long trains of trucks filled with them were pouring into the "Porkopolis," where upwards of half a million are slaughtered in the autumn. The pork trade is now a large one in almost every town in the southern part of the State.

When I was in Cincinnati there was a run for gold on several of the banks, and the excitement was great, as three or four had already suspended payment. While a friend went into one to draw some money, I intended to remain on the steps of the door with another gentleman, until he should join us. But one of the clerks of the establishment came and told us to come in, if we required any money, and get it, but not to stand about the door, as one or two might be the means of collecting a crowd, and causing a run upon them. This I thought revealed a deal of weakness, and at once I left the steps as if the walls of the house were about to fall. A few days after leaving town, I learned that all the banks in Cincinnati had suspended payment. During the time I was in Ohio, I met several parties who had been severe sufferers from these failures. Others, again, were rejoicing at the crisis, and blaming the democracy for the disgraceful state of the currency laws.