

each successive generation of young trees came into existence under conditions more favorable to vigorous growth than the preceding.

But the reckless hand of man appeared upon the scene and soon all was changed. In a single generation many of our farms have been so ruthlessly plundered of the accumulations of long centuries that the soil which would sustain an oak that could defy a thousand tempests, will not now sustain a stalk of wheat in a July breeze, if indeed it produce it. What has been done by the hand of nature unaided, can surely be done by nature with the aid of man, so that when man appears upon the scene, instead of an ever increasing deterioration of the soil, culminating in barrenness, as is so often the case, the process should be reversed, and there should be instead a constant process of enrichment going on.

We are not sure that the past of any country affords an illustration of this, which, instead of dislodging us from the position assumed, brings an awful charge against the prodigality of the race. Britain, perhaps, makes the nearest approach, but we are by no means sure that Britain, under the rule of Queen Victoria, contains a larger store of the elements of fertility than under the rule of Julius Cæsar. Yet it need not be so, as Britain, with all her importations of artificial manures, throws vastly more of the elements of plant food into the Atlantic every year than are borne to her shores by the ships of nations, and dug from the bowels of the earth by her miners.

There is nothing, perhaps, of which men are so prodigal as of the elements of fertility. That hideous excrement on the society of the country, the miserly farmer, so penurious it may be that he will not drop a copper into the collection box on Sabbath, allows his manual resources in many instances to have their richness extracted by the winds, washed out by the rains, or devoured by that ravenous self-destroyer, fire-fang, the insatiable appetite of which is only appeased when the elements of plant food are gone. Men who would chafe over the loss of a lamb or a bird will allow streams of fertility to run away without any regard or concern.

Robbing the soil of the elements of her fertility is the greatest physical calamity that can come upon an agricultural country, worse than war, for after the frightful devastation of the battle-field, a patient peasantry in a fruitful country can soon remove every trace of its destructiveness. Worse than pestilence, for other people can build happy homes upon the graves of a decimated population. Worse than the earthquake and the tornado, for the pathway of destruction may soon be re-clothed, even by singing forests rejoicing in the rocking of the breezes. Worse than ignorance brooding over the land as a dark cloud, for aggressive influence from abroad may dispel this; and worse than the most scandalous misgovernment, for, from the death-throes of its latter end, the birth of complete renovation may be realized.

But once rob a country of its fertility and it becomes a desert. The old school definition for a desert ran thus: "A desert is a large tract of land or rock where nothing will grow," but with all due respect to Professor Morse, the compiler of that book, we hold the definition as very incomplete, as a desert need not be large, nor need it of necessity be composed of sand or rock. We think if the old man had said a desert is a piece of country destitute of vegetation, his definition would have been at once more complete and comprehensive. Gauged by this standard it is quite possible to make a desert of ordinary clay, or even of the alluvial deposit of river-beds. Any one who looks upon our language as extravagant has but to visit the wastes of Carolina and others of the Southern States, where hundreds upon hundreds of acres of soil, where the negro once "toiled amid the cotton and the cane," are now completely abandoned, as, through long years of successive robbery, they have become so sterile as to be considered unfit for cultivation.

Once cripple the productiveness of an agricultural country and you strike a severe blow at her prosperity, you tap the fountains of her great strength. The degree of the productiveness of her soil is the great tidal wave which floats the ship or leaves it on the strand. With manufactures it is different, for so long as the mountain torrent turns the wheel and there is an outlet for the goods, it matters not whether the hills contain stone or rock; but when the resources of the soil are the chief sources of strength, it becomes both the statesman and the peasant, each to do his utmost to retain the elements of plant food in the soil.

(To be continued.)

Rambling.

Cornwall, on the St. Lawrence, in the county of Stormont, is a thriving town. One of its two cotton factories is of large proportions, giving employment to about a thousand work hands. The canal, of the revenue tariff period, is a fine arrangement for the promotion of shipping of the larger classes. The town, numbering about 7,000, is pre-eminently one of soft maple shades, but the light soil in several of the streets is an annoyance in dry weather.

Strolling out of the town, we accosted an elderly old lady watering her cows. She said they gave each a pail of milk a day when fresh, but that now they get but little to eat, owing to the dryness. We believed her. Five hundred thousand dairy cows are in the same plight in the province—and why? Because the owners sowed no supplemental feed. This discouraging state of matters cannot be bettered now for this year, but let us live for the future. Many of us can largely profit by the advice given us by Mr. Hobson, in his paper on soiling in this number of the JOURNAL.

MONTREAL TO NEW YORK.

Leaving Cornwall on the evening of the 22d August a short run brought us to Montreal, with its quaint little old station-house, a long way older in its plan than railroads, but which is soon to give way to a better one of grand and imposing dimensions. Then there is the new station-house for the C. P. R., in connection with the new short line of that railroad to Toronto. For a good long distance westward the lines run side by side, the trains of which run rapid races, after the example set them by the mighty corporations of the Dominion. Getting on board the "Concord" 8.30 p. m., by line of railway, like thieves in the night, we entered the land of Uncle Sam. The amount of traffic done on this road, the Vermont Central, must be large. The locomotives did seem to tug so hard at stopping places to get under way, and the shrill whistle of our own locomotive seemed all the while like some fell demon of the night to torture the air and the sleepers in the train.

It is true that first impressions are lasting, and we shall never forget the impression made upon us by the first glimpse of the "Old Granite State." The train was about to cross the Connecticut at Bennet's Falls. The rain was falling fast and the gray mists were slowly lifting from the environments of the hills. Lying down in a land where the iron horse was setting fire to the fences, and the meadows were only brown, and awaking in one where the little rills were holding carnival, was surely a transition, and to us it did seem as though the grass in the river basin and the trees all around that clad the hills, were greener than green. Large mills and manufactories were on the river bank, as American enterprise is careful not to allow a waste of power within her domain.

On went the iron steed up one bank of the river, and ever and anon another marked its course in going down on the other side. The contrast to the Ontario landscape was striking. Fences have almost disappeared here and the prevailing agriculture consists mainly of corn and meadow on the river flats, with pumpkin vines creeping out stealthily like serpents into the bordering meadows. The soil is evidently laboring under disability or naturally weak, as the corn was short and light, and the numerous outcroppings of couch grass and of ragweed spoke of non-vigilance in methods of cultivation. But the farm houses were very chaste in their style, presenting an entire absence of barn-like appearance. On the other hand the barns were too house-like in their dimensions, indicative of leanness in the fields. The river fringes were so pretty—sometimes young butter-

nut, these again giving place to sumach with umbrella heads, and these in turn to locust or slender pines or graceful willows. Brakes and ferns and creeping vines all commingled, like the incorporating influences of the great American commonwealth.

But where were the grand old trees? Like the forest brave who had wooed his dusky mate beneath their boughs—gone—all gone, and though pyramidal shapes dot the landscape, here, there and everywhere, they are of a growth more modern than the settlement of the State. The farms on the farther bank were very pretty, but the jealous mists of the morning half hid the beauties of the mountains in the background. The landscape had quite softened in the direction of Springfield. The corn was nice and rank and strong, the potatoes well cultivated, and on all hands there were tokens of abundance of rain. But the veritable ragweed was as thick as ever in the meadow bottoms alongside the plots of tobacco, which even more obnoxious weed was making luxuriant growth.

Holyoke, the first stop short of Springfield, also on the Connecticut, is a wonderful instance of the business genius of the American people. Taking the advantage of a slight descent in the river bed, they have built a large, strong dam, which has raised the water several feet. It is then led along a system of canals, which enables it to be utilized no less than four times in succession. Here are located paper mills on an enormous scale, and everything seems in keeping in this beautiful town.

Hartford and New Haven, the capitals of Connecticut, are handsome-looking towns. They are connected with New York by the N. Y. N. H. and H. R., which follows the depression in the land so faithfully that the view of the country is much circumscribed. Around Hartford fruit finds a natural home, but on toward New Haven is a stretch of light soil, very light, on which in many parts only wild parsnips seemed to grow, and these appeared to be discouraged in the effort. Toward New Haven and beyond it were vast levels of saturated lands on which grows a coarse kind of marsh hay, with lower levels interspersed, where flags grow, and still lower levels, where the water broods the year round. Every summer the scytheman goes out scythe on shoulder to mow these meadows down, whether the "bobolinks" are there or not. Here is a task for American ingenuity to invent machines for mowing in the marshes where the mower's tread sinks. How the hay is put in stacks we could not learn, but these contain about a load or two each, and rest upon spiles about a foot higher than the ground, with a pole running up through the centre of each. Field after field of this meadow was on either hand, more particularly in the neighborhood of Long Island Sound.

The way from New Haven to New York leads over low stretches part of the way, and through depressions, which prevent our getting a fair view of the landscape. The size and abundance of the shades attest the age of the settlements, as many of them had attained a forest growth. As you advance toward New York the magnificent, the Jerseys in the milch cow line are the order of the day. They feed beneath the weeping willows in the pastures, hedged in by low stone fences not very carefully laid. If scrubs were put in such enclosures they would be quite oblivious of fences, and would be able to roam as in primeval days, over what would be to them a boundless common. "Castoria, for which children cry," in huge, light yellow characters, is the principal adornment of the ends of buildings, and is dispossessing "Suzodont" of its monopoly of the great stones and fences of the country, another evi-