

Traveller.—You may sometimes journey across a desert without seeing either beast or bird, reptile or insect; but for all this there are wild beasts enough in Africa, of the most ferocious kind, as well as the most noxious reptiles. The woods abound with apes, baboons and monkeys, lions and buffalo, elephants and rhinoceroses, jackals, leopards and panthers, snakes, serpents and scorpions; the deserts, in many parts, are well supplied with lions; and the rivers are by no means deficient in crocodiles.

Gilbert.—I had rather go to any part of the world than to Africa.

Traveller.—Why so large a portion of this beautiful earth should be occupied with sandy and inhospitable deserts, is what we cannot understand. But He who has made nothing in vain, whose ways are not as our ways, can comprehend his own designs; and let us, among the countless wonders of his providence and grace, acknowledge with gratitude his goodness in fixing our abode where no wild beasts lie in wait for us in our paths, and no frowning deserts surround our habitations.

At this moment the party arrived at the wooden bridge, thrown across the rapid brook in the valley. "Now," said the traveller, "if this were an African river, we should have a fair prospect of seeing a crocodile."

"But as it is not," said Edmund, looking up at the traveller, "perhaps you will treat us with an account of the principal African and other rivers, which you have seen in your travels." Mr. Lovel laughed heartily at the traveller, Gilbert and Leonard joined in the request of their brother, and it was soon a settled thing with them, that, at an early opportunity, the traveller would give them some account of all the principal rivers in the world.

AGRICULTURE.

Farming in Holland and Belgium.

Holland and Belgium in early times were decidedly the poorest countries of Europe. Much of the former was a low sunken swamp or marsh, inaccessible to man, except through the rivers that traversed it; and the soil of the latter was in general so light and sandy as to be considered nearly barren. Now, there is no part of Europe where the fertility of the soil is so great, or agriculture has arrived at such a pitch of excellence as in these two kingdoms. By the indomitable perseverance and patience of the Hollanders the inundations of the sea and rivers have been stopped, the marshes have been reclaimed and drained, and the meadows and pastures that now furnish the greatest quantities and best qualities of butter and cheese have been literally made out of the morasses and quagmires of the region. In Belgium sandy plains that a century since were considered as worthless, are now rendered productive and fertile to an extent scarcely to be understood without examination. Belgium may now be considered in many respects the garden of Europe.

These results have been brought about by skill and perseverance. The Rev. Mr. Radcliff, who was sent out by the Farmer's Society of Ireland, to examine and report the modes of tillage practiced in Holland and Belgium, in the discharge of his duty has entered into the details and processes which have produced the present state of things there, and the record, to the farmer, is instructive and encouraging.

The first and great point in the agriculture of these countries is the saving and application of manure; and this is carried to an extent unequalled any where else. Every leaf, straw, and weed; the proceeds of the stables, including the urine, and the droppings of the yards; the refuse of the kitchen, the soap suds, and the washings of the roads, all to the general receptacle for manures, and mixed with earth, lime, or mud, as the different soils may require, is returned in fertilizing quantities to the crops that most require its action. The rotation of crops is here understood and practiced, and all lands that will admit of alternate courses are subjected to them. In no part of the world has the beneficial effects of clover been more fully tested or more highly appreciated than here, and the Flemish maxim, "no clover, no crops," shows the universal sentiment of the people respecting this plant. Deep ploughing has also lent its aid to fertilizing these countries, and where required, no expences are spared in draining and trenching. The soil is rendered as fine as possible by the plough and harrow, while root crops are extensively cultivated for winter feeding cattle, and clover, and lucerne for soiling. No system is adopted until experience has shown that it is the best for the sec-

tion of country, or the soil where it is to be used; and innovations are not allowed without convincing proofs of superior benefit and utility.

In some of the districts, principally those lying near the mouths of streams, and consequently reclaimed lands, the soil is a strong and heavy alluvial one, and wheat in these, forms the principal object of cultivation. Mr. Radcliff's analysis of some of the best of these soils, showed fifty-two parts of alumine or clay; twenty-one of silex or sand; nineteen of carbonate of lime, and seven or eight of oxide of iron. The course here includes wheat, horse beans, (the *vicia faba* we believe) barley, oats and roots, and the "rotation is so arranged as to have a root, bean or clover crop, between the wheat, barley or oat crops." In these districts the average product of wheat is twenty-eight bushels, beans nineteen, barley forty-seven, and oats sixty to the acre. There are other sections of the country devoted to turnips and rye. These soils contain great quantities of sand, usually from sixty-five to seventy-five parts in a hundred; but containing little or no lime. The introduction of the turnip culture, the use of marl where it can be procured, and where it cannot the liberal application of lime to the surface, and the distribution of liquid manure at the rate of twenty-five hundred gallons to an acre, have brought these sections into a rapid state of improvement, greatly aided by the clover and alternating system, adapted to the lighter nature of the soil.

Another excellent wheat soil is found in some parts, a rich sand loam, nearly destitute of lime, and where the farmer relies for wheat principally on manure and lime, applied as a dressing to the soil; indeed no where does the practice of liming land prevail to so great an extent, as in Belgium and some of the adjoining territory of France. The course here is: "1, wheat well manured; 2, clover, with a top dressing of ashes, 3, flax, with liquid manure; 4, wheat, with short dung sweepings, &c.; 5, potatoes or turnips with dung; 6, rye, with liquid manure; 7, rape seed; 8, potatoes or turnips with manure; 9, wheat, with dung; 10, clover, with ashes; 11, oats; 12, flax, with urine; 13, wheat, with manure; 14, beans, beets or tobacco." With such a course of manuring and crops, a corresponding amelioration of the soil must be expected.

Mr. Radcliff says the Flemings estimate that the liquid manure from forty-five to fifty head of cattle upon one farm, will serve to manure in the best manner upwards of twenty acres annually. It must be remembered however there is little or no pasture; the cattle and horses are fed in stables summer and winter, and are usually in the finest condition. Horses perform all the farm labor, their hay is always cut, and the grain ground, and usually given them mixed and wet. "Their daily food in winter, is fifteen pounds of hay, ten pounds of straw, and eight of oats; in summer clover is substituted for the hay." A span of horses are deemed capable, where the business of the farm is properly arranged, and the succession of labor on the different crops as it ought to be, of doing the work of fifty acres of cultivated land.

American farmers may, as British farmers have done, learn many useful lessons from those of Holland or Belgium. Driven by stern necessity to make the most of their land, they have endeavoured to adopt such modes of culture as shall give the greatest profit with the least expense. Want of land is not the difficulty in our country; the evil lies the other way; our husbandry is too expansive; we go over a great deal of land; half till it, and too frequently get half crops only as the reward. Land constantly cropped as some of our lands are, will grow poor rapidly, unless a system of crops which shall tend to obviate such a result is adopted, and a skilful and thorough course of manuring be followed. On the great subject of manures, we are yet in our A. B. C. We do not begin to understand their preparation, their application, or their value. Blessed by a kind Providence with a soil of the richest kind, we are scarcely beginning to feel its deterioration; and when such a thing does occur, and a farm produces less bountifully than formerly, instead of setting ourselves to remedy the failure, or improve the fertility, we pull up stakes and encounter the fatigues and hardships of subduing a new farm, rather than learn and practice the art of restoring the old one. Holland and Belgium have been justly termed the garden of Europe, but man by untiring industry has made it so.

Ploughing.

The difference in the amount of products between land that has been thoroughly tilled, and that which has only undergone an apology for tillage, must have at times arrested the attention of