



The Field.

Lowland Farming.

Col. Waring, who contributes to the columns of the *American Agriculturist* a series of articles entitled "Ogden Farm Papers," has been touring in Europe, and in the November number of the journal for which he writes, gives a very interesting account of the methods pursued in Holland, by which vast areas of low, wet, and at one time, submerged lands, have been transformed into smiling and productive fields. By these methods, the former abodes of fishes have become the seats of the most prosperous agriculture in Europe, and there can be no doubt they might be imitated to advantage in many parts of the western world. It would not require more energy than has already availed to turn vast spaces of dense forest into cleared and fruitful fields, to transform wide stretches of marsh and swamp into low districts of great value and utility.

The system adopted has been first to enclose low-lying and wet lands with dykes or earth walls, and then pump out the water by means of wind-mills, or steam-pumps. In some cases, after the water has been removed, only beds of barren peat, several feet or yards deep have been found. But such has been the perseverance of that hardy and industrious people, that by slow degrees the peat has been cut up, dried and made into fuel, shipped away in vessels, and return cargoes of soil and city refuse deposited in its place. Embanked canals, high above the level of the fields, furnish ready means of transportation for produce during the navigable season, and in winter, even the Dutch girls go to market on skates, carrying baskets full of eggs upon their heads, and balancing them with wonderful dexterity, as they perform the fancy movement so well known to fancy skaters as the "Dutch roll." To show on what a large scale these improvements have been, and are being effected Col. Waring says:—

"Arrangements are already being made for the drainage of the Zuyder Zee, a work which will cost over \$50,000,000, and which will take twelve years for its preparation alone. When the enormous dyke shall have been built, and new channels shall have been made for the rivers which flow into it, it will take the sixty-three enormous steam-engines several years (working night and day) to pump out its water, which has an area of about 500,000 acres, and an average depth of about ten feet. A survey has been made of the whole bottom, and the plan of improvement includes the division of the land, and the construction of the canals (for drainage and for communication) which are to serve the future generations which are to inhabit it. This scheme would seem wild and impossible were it not for the experience of Haarlem Lake, which lies within a few miles of it. This magnificent farming district was only twenty-five years ago a navigable sea, about sixteen miles long, and seven miles wide. It lay between the cities of Amsterdam and Haarlem, its surface nearly level with their streets, and threatening them both with

destruction during heavy storms. As a measure of safety it was determined to annihilate it. It was surrounded by two immense dykes over thirty miles long, inclosing a canal, and three engines with a combined force of 1,200 horse-power were set at work to pump out its waters. At the end of 3½ years of incessant activity, its bottom was laid dry, and now its 45,000 acres, lying about fourteen feet below the level of the sea, are busy with the production of food for the cities which the lake so lately menaced."

To illustrate the style of farming which is pursued, some account is given of a visit paid to the farm of a Mr. Wouter Sluis, which is situated near a neat old Dutch village, in the very centre of what was once the "Beenster Lake," drained 250 years ago, and furnishing about 17,000 acres of what is now among the richest dairy farming lands in Holland. This district lies about twelve feet below the level of the sea, and is surrounded by a canal, into which its drainage is pumped by fifty-four enormous wind-mills, which work only in winter, and after heavy rains. The farm visited consists of 123 acres, and is valued at \$500 per acre. Only twelve acres are ploughed each year, the remainder being kept in clover and grass. The fields are divided by ditches, which answer the twofold purpose of drains and manure canals, in which hay and manure are conveyed by means of boats. The stock consists of 45 cows, 24 head of young horned stock, 5 horses, 160 sheep, and about 19 swine. The cows are of the Dutch breed, bred and selected for dairy qualities, and judged when young, mainly according to the "escutcheon," or "milk-mirror" standard of Guenon, which is considered in Holland an unfailing index to the milk promise of a heifer calf. Such as, according to his rule, are thought inferior, are sent to the butcher. The sheep are of high excellence, being crossed with prize animals from English exhibitions.

The chief industry of this and the adjacent farms, is the production of the well known Dutch cheeses of commerce, weighing about four pounds each, and looking very much like cannon balls. We omit the Colonel's account of their manufacture, lest this article should grow tedious.

Mr. Sluis's farmstead is so unique, and so completely illustrative of what is common in Holland, that we cannot resist the temptation of quoting the description of it in full. It has one feature about it which was embodied in an engraving of a model Canadian farmstead, which appeared in this journal a short time since. We refer to the arrangement by which the dwelling and other farm buildings are connected, so that access can be had to all of them without going out-of-doors. We believe that for a climate such as ours, this is a very desirable arrangement, and far preferable to the common plan of having long distances between the house and barn, rendering the passage between them at inclement, stormy, and snow-drifting times, a most formidable undertaking. We do not advocate the Dutch plan precisely, of having all under one roof, but we are strongly in favor of connecting the buildings by sheds and covered passages, and having an enclosed area in the centre. Here is the description of Mr. Sluis's homestead:—

"One thing about this farm (and the same is true of nearly all farms in Holland) strikes the American

very oddly. There was but one building of any consequence on the whole farm—an enormous, broad building, with a "hooded" gable at the front and all covered with red tiles. The front part of the house—spacious and comfortable, and with a few bits of old furniture, and Japanese pottery, and some fine books, which gave it an air of decided respect. Back of this (and opening into it), occupying the whole width of the building, was the cow-stable, with two rows of mangers, and water-troughs and a central alley, which is floored with bricks. The troughs are simply depressions or gutters along the sides of this alley, and are also of brick. They are filled from a pump at one end, and the water is let off (as a pressure) at the other. The cows stand on a raised earthen floor, which has a brick wall to support its rear part. Behind them is a deep manure trough, which retains the solid droppings, and allows the urine to flow to a liquid-manure cistern, which accumulates all the liquid refuse of the establishment, and which has a pump for filling the tank-cart for sprinkling the meadows. During summer, when the cattle are constantly in the field, the earthen floor is covered with handsome Dutch tiles. At the time of our visit, this stable was so scrupulously clean and bright that we mistook it for a huge milk room. Back of the stable (in the loft over which the cheeses are seasoned) are the hay-loft, the cheese factory, horse stables, wagon house, tool sheds, etc. To our American ideas, this close contiguity of stable and dwelling seemed at least odd, but it is the universal custom in this almost absurdly clean and well-washed land, even among the wealthiest farmers, and there are many who count their riches by hundreds of thousands."

The implements, vehicles, and agricultural processes in vogue among the farmers of Holland, would seem to be rather primitive and rude, but the industry of the people makes up for all disadvantages, and while Canadian and American farmers complain that their's is an unprofitable business, with all the facilities nature has given them, these plodding Dutchmen manage to make their business pay, and many of them not only get a comfortable living, but actually grow rich. Col. Waring well remarks in concluding his instructive paper:—

"As farmers and as people we can learn from them one lesson of the utmost value—that is in the matter of making the waste wet places of the earth to blossom like the rose. The hundreds of thousands of acres of marsh lands along our sea-boards and our river-bottoms need far less outlay than the Dutch morasses to rival the wonderful fertility to which they have attained; and we can learn from them the best manner of making the reclamations."

ARE ALL POTATOES ALIKE LIABLE TO ATTACK.—During the course of our inspection, we frequently met with gardens and fields containing two or more kinds of potatoes, and observed in many instances one sort was very much more affected by the insect than the others. The *Meshannock* is particularly liable to attack, while the *Early Rose* and *Peach Blow* are less so; but where the latter are the only varieties planted, these insects do not hesitate to devour them. The only practical suggestion we can make in reference to this point is, that it might be well to plant a few of such sorts as are most liable to be injured, so as to attract the larger proportion of the insects to one spot, and thus enable the cultivator to destroy them with less labor and expense.—*Colonial Farmer*.