

In all these, and such like cases, there is a self-evident need of the exercise of the common gift of reason. That will teach a man to look for no miracle in any scheme; to expect no success without a previous fulfilment of the means; and farther to believe, that if success has been attained in even one case, it need not find a limit in ten thousand.

The process by which I carry out my plan is a very simple one; and is given in detail and at length in the following pages. Briefly, it is this: I divide my field into lands 5 feet wide. In the centre of each land I drop or drill my seed in triple rows one foot apart, thus leaving a fallow interval of 3 feet between each triple row. When the plant is up I trench the intervals with the fork, easily taking my spits about 3 inches from the wheat, and at spring and during summer I clean them with the blades of the sharp cutting horse-hoe, and keep them open with the tines of the scutiller. Every year, in short, I trench and cultivate  $2\frac{1}{2}$  feet out of the 5 for the succeeding crop, and leave the other  $2\frac{1}{2}$  for that which is growing.

One moiety of each acre is thus in wheat, and the other moiety fallow; and the average yield of that half acre is 34 bushels, grown without difficulty or danger in the execution, and surpassing the average yield of a whole acre on the common plan.

It will here be seen at a glance how I differ from Tull in practice;—how the fork takes the place of the plough, and does better work in a narrower compass,—how the fallow is reduced from four-fifths of the land to only one-half;—and how, in consequence, the produce is more than doubled at once.

But, the difference is far from ending here. I differ from Tull in this: I do not refuse manure. The essence of the scheme I propose, is, not that it dispenses with manure, but that, with manure, where required, it enables the farmer to draw from half an acre of land a produce beyond his now average produce from a whole acre. The wheat-land I am cultivating is unmanured: for one portion of it is clay; the other a gravelly loam. The former is fed sufficiently, and is safe. The latter, in parts, is hungry; and, as I dig deeper, shews symptoms of sharp gravel, and these I shall dress with clay.

#### WHEAT-CULTURE IN THE UNITED STATES AND CANADA.

France, and the United Kingdom of England, Wales, Scotland and Ireland, contain a population of about sixty-five millions, who are fast acquiring that higher standard of comfort which enables the masses to consume good wheat bread in place of much cheaper vegetable food. For indefinite ages the great body of the people in Europe have consumed, comparatively, little wheat; being compelled to subsist mainly on various kinds of pulse, potatoes, and other tubers, roots, and rye, oat, barley and corn meal. By

the discoveries and inventions in arts, and the advancement of sciences, their labor is far more productive now than it has ever before been, their wages are higher, and, consequently, they are able to live better, and are glad of an opportunity of so doing. Official returns made to Parliament show that the people of the United Kingdom have doubled their annual consumption of sugar in ten years—a remarkable fact, considering the comparatively small increase of population. In 1847, the British nation, before the discovery of gold in Australia and California, and when labor was not so well paid as it now is, imported for consumption 32,000,000 bushels of Indian corn and 4,464,757 quarters of wheat. In 1853, it imported 6,235,864 quarters of wheat, and only 14,168,856 bushels of corn. These figures show a decrease of the consumption of our Indian corn of more than half, and an increase in the consumption of wheat of about fifty per cent., in seven years. In Northern and Central Europe, in Italy, France and the United States, brown bread and corn bread are giving place to wheat bread whenever the former have long been eaten. “Rye and Indian” in New England, “hoe-cake” “pones” and “corn dodgers” at the South and South-west, are becoming historical. Place good wheat bread and that made of meal on the tables of the million, and the old habit of eating meal bread, or meal dumplings and porridge will in a few years cease to exist. The poor in Rochester pay eleven dollars a barrel for flour rather than consume meal at less than half the cost, because their wages are generally good, and they have always been in the practice of eating flour in this fine wheat growing district.

In the British West Indies, Cuba, Brazil and Central America, the consumption of our wheat flour is on the increase. We have before us the official Reports of all our exports and imports, of our commercial and other transactions with all nations, for several years, including the last. Attention is invited to the fact that the whole world took only \$1,374,077 worth of corn, and \$709,074 worth of meal, of this great corn-growing nation during the last fiscal year, ending June 30th, 1853; while it exported wheat and flour to the amount of \$20,000,000, within a small fraction.

Notwithstanding our pretty high duty on foreign wheat, Canada wheat-growers sold in the United States 1,297,131 bushels in the last fiscal year, and received for the same, according to custom house returns, only \$821,696. The returns for the present fiscal year, ending on the first of July, 1854, will doubtless show a much larger sale, and at a far better price.

To be a skillful and successful wheat-grower, one needs considerable professional knowledge. The most difficult points in the operation are to make the soil precisely what it ought to be, and to prevent its gradual deterioration by years of successive cropping. Where nature has made the land just right for the growth of wheat, its cultivation is as simple as any tillage possibly can be.

Many a soil abounds in both iron and alum salts (sulphates and phosphates of iron and