

The Field.

Wheat Growing.

To the Editor of THE CANADA FARMER :

SIR,—The staple crop of this country, it is needless to say, is wheat. The soil best adapted to the growth of wheat is clay; but it must be either naturally or artificially drained. Then follow the rich loams, alluvial soils, sand, &c., &c. Arable land cannot give a full return without a crop of fall wheat entering into rotation. How often it should occur in that rotation must be determined by our own experience of particular soils and climate. It should be, and I imagine is, at least the professed aim of every farmer to ensure the maximum yield of whatever crop he may be growing; and yet how many slovenly men do we see, who seem to think that their land still retains the extraordinary and intrinsic plant-growing properties of that virgin soil which, as Douglas Gerold so aptly expressed it, "has but to be tickled with a hoe to laugh into a crop." To ensure a good return, the land must be cultivated to the best known advantage, and seed must be adapted to the particular soil and climate with the most minute precision both as to quality and quantity.

Fall wheat, unlike barley or oats, or even its cousin the spring wheat, does not require a finely pulverised soil; but it is essential that it have a good solid seed bed, thus giving it a hard and sound foundation. The methods of seeding are much discussed amongst the best agriculturalists. The universal ways are divided between drilling or dibbling, and sowing broadcast or by hand. The Scotch, who in the old country at one time took very generally to the drill, are, I understand, returning to the old-fashioned broadcast. I think that the chief reason they give in favour of this method—and I do not, for the reason that we have not space to enter upon it now, consider it a very strong one—is, that that method is more in accordance with the laws of nature. Drilling, undoubtedly, buries the seed at a more uniform depth, more evenly, and also covers it better—the latter is, I think, of great advantage in our climate, where we expect to have heavy rains both in the fall and spring. Let us remember that ten, twenty, and in many cases fifty per cent. of wheat seed does not germinate.

An important operation in the process of wheat sowing is too often neglected—I allude to the picking of seed. First, it points out to us the bad grains, which may thus be removed, reducing the percentage of lost seed; and secondly, it strikes at the root of smut and other fungi; for it is these very imperfectly formed grains that are chiefly attacked by such parasites. Now smut is found in the imperfect grains, and in such small quantities (as botanists tell us), that it is absorbed in the root of the young plant,

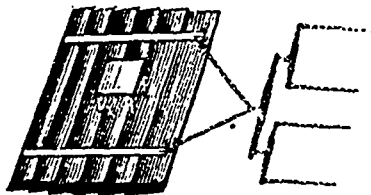
and bursting out a short time after the earing, throws upon it fungi, in the dark rusty form with which we are but too familiar. If we simply steep our wheat in water, the light grains which, though too heavy to be blown out by the fanning mill, are imperfect, will rise to the surface, and may be removed. If to this water we add lime, we shall kill all traces of smut, &c., &c., which may have clung to the otherwise sound seed by contagion with the infected grains. But let us remember, above all, that the most certain prescription for the securing of good crops, is a change of seed;—get your seed from a different variety of soil.

AN OLD COUNTRY MAN.

PARIS, C. W., May 15th, 1867.

Clod Crusher.

We illustrate a very cheap, simple, but efficient implement—first made and used, we believe, in England—for breaking lumps of earth on ploughed fields, and leaving the surface smooth and finely pulverized. It is a very good substitute for the roller to smooth the surface of the field and cover grass seed sown after spring grains. It is made in this wise:—Lay



two oak scantling, three by three inches square and three and a half feet long, parallel on the shop floor, three feet apart. Then spike a strip, two by two and five feet long, across two ends of the scantling; then four two-inch planks, eight inches wide and five feet long, spiking them on like clap-boarding, and finish with a plank fourteen inches wide for the front. Turn your crusher over, affix a stool for the driver, and the chains to the cross-pieces for the team to draw by, and the implement is completed.—*Rural New Yorker.*

Familiar Talks on Agricultural Principles,

MORE ABOUT FORESTS AND CLIMATE.

In proof and illustration of the statements made in our last issue on the above subjects, we will quote from an able and valuable paper, published in the yearly Report of the Maine Board of Agriculture for 1865, a few striking examples of the climatic influence of woods in various portions of the globe.

M. Blanqui, in his travels in Bulgaria, informs us that at Malta rain had become so rare, since the woods were cleared to make room for the growth of

cotton, that at the time of his visit, in October, 1841, not a drop of rain had fallen for three years. The terrible drought which desolated the Cape Verd Islands must also be attributed to the destruction of the forests. In the island of St. Helena, where the wooded surface has considerably extended within a few years, it has been observed that the rain has increased in the same proportion. It is now in quantity double what it was during the residence of Napoleon. In Egypt, recent plantations have caused rains, which hitherto were almost unknown.

Coulter thus argues:—The ocean, winds, and woods may be regarded as the several parts of a grand distillatory apparatus. The sea is the boiler, in which vapor is raised by the solar heat; the winds are the guiding tubes, which carry the vapor with them to the forests, where a lower temperature prevails. This naturally condenses the vapor, and showers of rain are thus distilled from the cloud masses which float in the atmosphere, by the woods beneath them. The wood is, further, like the mountain, a mechanical obstruction to the motion of rain clouds, and, as it checks them in their course, it gives them occasion to deposit their water.

Asbjornsen, after adducing the familiar theoretical arguments on this point, adds:—The rainless territories in Peru and North Africa establish this conclusion, and numerous other examples show that woods exert an influence in producing rain, and that rain falls where they are wanting: for many countries have, by the destruction of the forests, been deprived of rain, moisture, springs and watercourses. The narratives of travellers show the deplorable consequences of felling the woods in the islands of Trinidad, Martinique, San Domingo, and indeed in almost the entire West Indian group. In Palestine, and many other parts of Asia and Northern Africa, which in ancient times were the granaries of Europe, fertile and populous, similar consequences have been experienced. These lands are now deserts, and it is the destruction of the forests alone which has produced this desolation. In Southern France, many districts have, from the same cause, become barren wastes of stone, and the cultivation of the vine and the olive has suffered severely since the baring of the neighbouring mountains. Since the extensive clearings between the Spree and Oder, the inhabitants complain that the clover crop is much less productive than before. On the other hand, examples of the beneficial influence of planting and restoring the woods are not wanting. In Scotland, where many square miles have been planted with trees, this effect has been manifest, and similar observations have been made in several places in Southern France. In Lower Egypt, both at Cairo and near Alexandria, rain rarely fell in considerable quantity; for example, during the French occupation of Egypt, about 1798, it did not rain for sixteen months. But since Mehomet Ali and Ibrahim Pacha executed their vast plantations, (the former alone