

side, you will find a good floor of sawed and, perhaps, planed lumber. It may be urged that many settlers have neither the means nor the skill to manage all that is desirable; but, generally speaking, by arranging an exchange of work with some skilful neighbour, the most important points might be secured. Elbow and head room, airiness, neatness, and workmanlike appearance, might surely be achieved from the outset. Even though a bark roof and a "dirt" floor must be borne with at first, they might soon be exchanged for shingles and planks. Sawing and planing are not needed about the exterior of a log house: with the axe alone a good wood-cutter will make very smooth, neat, and handsome work.

Our friend, the proprietor of the homestead in our engraving, has got on remarkably well for the short time he has been at it, and is what would be called rather a "forehanded" settler. He has not only put up a very decent-looking house, but a good barn. He has a yoke of oxen, a cow, waggon, pig, and chickens. There is a good rifle in the house which furnishes venison in plenty. The Spring is well advanced, and he has got a neighbour to help him in rail-splitting and fence-laying. He will pay him in exchange work by himself or his oxen, or both. There is much in his progress thus far, which needs to be explained to the uninitiated, but we must leave that to a future opportunity.

Coe's Superphosphate of Lime.

We have been perhaps culpably tardy in calling attention to the above valuable fertilizer, the manufacture of which is now carried on in Montreal and Toronto, and the sale of which is becoming an important item of business. So many worthless nostrums have been palmed off upon farmers in various parts of this continent under the name of superphosphates, that we have been purposely cautious not to commend without the most convincing proof of excellence. Such proof is now at hand. We used some of this artificial manure under very unfavourable circumstances during the past season, and though we are unable to speak of definite results, we are satisfied that it well deserves a fair trial from all tillers of the soil who are unable to make what manure they want. We found it extremely beneficial to potatoes, increasing the yield largely, and hastening maturity. Its effect on most garden crops was very marked. We hoped to have given it a trial with turnips, for which it is especially adapted, but from the extreme lightness of our soil and the drouth, did not succeed in getting a plant. We hope to try it the coming season under more propitious circumstances.

Many very decisive testimonies have reached us from various trustworthy quarters. The value of superphosphate as a dressing for Indian corn, turnips and flax has been set forth in letters which have appeared in our advertising columns recently. A communication certifying to its influence on oats, peas and buckwheat, appears elsewhere in this issue. As a top-dressing to wheat, it has been found most beneficial, producing longer and stronger straw, larger ears, a plumper sample of grain, and maturing the crop earlier. It has been found an excellent application for barley, and indeed for all grain crops. But all who have made trial of it with potatoes, concur in representing its effects as wonderful. It seems particularly suited to them, and in this respect supplies a long-felt lack, the usual manures developing a tendency to the rot. Mr. John Taylor, of Almonte, testifies that at the rate of 400 lbs. of superphosphate to the acre, no other manures being applied, his potato crop was at the rate of 750 bushels per acre—an almost incredible statement. We give extracts from two letters, written by parties, our knowledge of whom enable us to place the fullest confidence in their declarations. The first is from Mr. Wm. Whitlaw, late Warden of the County of Wellington, and one of the best farmers in that fine section of Canada. He says, in regard to a crop of turnips:—

"I had a field of ten acres which was manured—with the exception of one acre—at the rate of twelve loads of farm-yard manure per acre. On this acre I applied 300 lbs. of phosphate, and no other manure. At the gathering of the crop, it yielded 100 bushels more than any other acre of the field, the whole yield being 5,400 bushels. The phosphated acre appeared the best through the season, and what was very singular, an army worm which appeared in the fall and devoured the leaves of the turnips extensively on the field, scarcely touched that acre that had phosphate."

The manufacturer furnishes the following statement for 10 acres according to above experiment:—"With farm-yard manure alone, 10 acres, 120 loads, say \$120, yield 5,300 bushels. With phosphate alone:—10 acres, 3,000 lbs., \$50 per ton, \$75, freight say \$6, —\$81, yield 6,300 bushels. It is better to apply the phosphate with farm-yard manure. In this case, had the 120 loads and the 3,000 lbs. been all applied together, the crop would probably have exceeded 8,000 bushels."

The second quotation is from a letter by Captain John Taylor, Agent of the Hon. George Brown, at his farm near Bothwell:—

"We have, during the past season, made a very liberal use of your Super-Phosphate of Lime on the farm belonging to the Hon. George Brown, in the vicinity of this village; and while I am unable to say what the result would have been had said season been an ordinary one, I can with safety affirm that, without its application—taking the remarkable drouth into consideration—some of the crops, more especially those of corn and turnips, would have been poor indeed; whereas, notwithstanding the extraordinary dry weather we had, they have exceeded our (at one time) most sanguine expectations. We used the Super Phosphate in various ways, principally on the fields where the turnips, beets, carrots, beans and corn were sown and planted, and we also used it on a ten-acre field of oats, and on this last the effect was very marked."

Analyses of Coe's Super-Phosphate have been made by eminent chemists with the most satisfactory results. Dr. Thomas Anderson, Professor of Chemistry in the University of Glasgow, and Chemist to the Highland and Agricultural Society of Scotland, says:—

"I have analysed Coe's Super-Phosphate of Lime, manufactured in Montreal, Canada, which is clearly a well and carefully manufactured manure, made from excellent materials and thoroughly genuine."

Dr. Croft, Professor of Chemistry in University College, Toronto, and Chemist to the Board of Agriculture of Upper Canada, in reporting an analysis which he made of the Super-Phosphate in September, 1863, remarks:—

"The manure—containing in the insoluble portion, phosphate and sulphate of lime—and in the soluble portion so large a proportion of the salts of ammonia in such a form as to be readily assimilated by the plants, must be a very valuable substitute for Guano or other manure."

A more recent analysis by Prof. Croft is thus reported by that gentleman:—

"This artificial manure, which is now manufactured both in Montreal and Toronto, is coming into very general use as a substitute for Guano, and there can be little doubt that it will entirely supersede that manure. Several so-called Super-Phosphates which have come under my notice, contained little or no soluble phosphate, owing probably to an error in its manufacture, while Coe's Super-Phosphate contains a large proportion. A sample taken from several hundred barrels was lately analysed with the following result:—

Salts of Ammonia,.....	19
Soluble Phosphate,.....	13
Animal matter,.....	20
Bone Phosphate and Sulphate of Lime,.....	40
Water,.....	17
	100

"The large quantity of animal matter which, by its slow decomposition, will yield a very considerable amount of ammonia, the soluble and insoluble Phosphates will all tend to render this compound a very valuable manure."

The portable nature of this fertilizer, the ease with which it is handled, and its freedom from offensive odours, constitute very strong recommendations in its favour; and if it be kept up to its present quality, as we doubt not it will, we predict for it a greatly increased popularity.

Work for February.

Nor much can as yet be suggested in addition to the outlines of "Winter Work on the Farm," given in our issue of December 1. It is still winter, and such operations as were then enumerated, viz: the care of stock, manufacture of manure, preparation of fence material and fire-wood, making and mending various implements and conveniences, account-keeping, planning, and mental improvement, are nearly all that can be urged upon the farmer's attention. A few extra hints may however be thrown out. Cellars under buildings should be carefully examined and kept as clean as possible; apples, potatoes, and other roots, should be picked over, and those which are decayed or decaying removed. Ice-houses, if not filled already, should be filled during this month. Full directions on this subject will be found on p. 269, No. 17, Vol. I. of this journal. It is a good time to clean chimneys by burning them out while there is snow or frozen moisture on the roof. If scraping is preferred, the job ought to be done before the shingles become dry, as the soot may accidentally take fire and burning cinders falling on the roof set the house in a blaze. It is well to clean away the accumulations of snow from eave-troughs before thawing weather comes. This may be done with a ladder and long-handled hoe. During this month, orchards



should be examined with a view to destroying nests of caterpillar's eggs. Every shoot like that shown in the annexed cut, should be clipped off and destroyed. Each nest contains some hundreds of eggs, and it is easier to clear the trees now than after the eggs are hatched and the webby tents formed. A day when the sky is rather dark, is recommended for this work, as the eyes will be pained by constantly looking upward on a clear day. A pair of shears or knife a pole, and a basket hanging on the left arm, form an equipment for this job. Orchards may be top dressed with manure this month. Valuable time will also be saved by hauling manure to distant fields. Waste may be prevented by a slight covering of muck. Open drains or channels in wheat fields which have become choked by snow or ice, should be cleared out on the approach of thawing weather. Farm labourers, where needed, should be engaged in good season,—the best are apt to be spoken for early. If new tools or implements are wanted, get them at once,—time will be precious when spring work begins. If you think of planting fruit trees the coming season, send your orders to the nurseryman without delay. A supply of seed should also be provided in good time.

Drainage and the Law relating thereto.

To the Editor of THE CANADA FARMER:

SIR,—As THE FARMER penetrates every nook and corner of our land, and is, moreover, specially designed to advance and advocate the interests of the farming community, I deem it my duty to bring before the public, through its columns, a subject of great public interest, viz., Drainage and the law relative thereto. There can be no doubt but the question of proper drainage of the soil will henceforth receive from the farming community an amount of attention to which it has not hitherto been considered entitled, not because the subject was really less entitled to consideration in bygone years than now, but because the great mass of tillers of the soil have had their attention mainly engrossed with the clearing up of the primeval forest, and rendering it fit to yield a sustenance to the sons and daughters of toil. But now that in many parts of our land the stubborn soil has been broken up, the roots decayed, the stumps rapidly disappearing, if not already numbered among the things that were, a new subject is propounded for the consideration of our rural population, viz., How shall the lands which we have cleared