

**SCENING.**—"Inquirer" asks:—"Do you consider it advantageous to subsoil light sandy and gravelly banks? If so, what kind of subsoil plough do you recommend for the purpose, and for clay loams, and where can they be had?"

**Ans.**—Light sandy soils, especially if they rest on gravelly beds, are generally porous enough to let moisture percolate freely through them, and it is often a matter of complaint that they "leach," as it is termed. There are, however, certain advantages obtained by stirring the soil, even though it is light, but the chief benefit of subsoiling is in the case of land which has a tenacious subsoil, or "hard pan" which impedes circulation, and forbids access to the roots of plants. Implement manufacturers in the United States, make subsoil ploughs for both light and heavy land, but such as are got up in Canada, are mostly suitable for heavy land, and generally speaking, are modelled after ploughs made in Britain, and meant to be drawn by three or four big farm horses. Subsoil ploughs made by George Bryce, of Mohawk; Atkinson & Brother, of Lambton, near Toronto; and Peter Malaby, of Weston, have been commended by correspondents of THE CANADA FARMER.

**PURE FINE WHEAT.**—"A Farmer" writes:—"In your number of Feb. 15th, I saw a statement respecting that valuable wheat called Fife wheat—that it was falling in its average number of bushels per acre, from what it has yielded in former years—and was considered to be degenerating on account of continual sowing. I think this can be remedied. I know that Mr. David Fife, the introducer of this wheat into the country, said in a company in Peterborough, that if the societies would pay his expenses, he would bring from the same place where the first came from any quantity the societies would need. The cost would be a very small item to each member of the societies through the Province. Now if some of our agriculturists would inquire of him through your columns, some information on the subject, might be gained for the benefit of the country. No kind of wheat has been introduced into the country, that has given better satisfaction generally, or been more remunerative than the Fife wheat. Its nature is suitable for low lands as it is free from rust; it yields a fair average, produces a good sample, takes the market and makes good flour."

**THE DELAWARE GRAPE.**—"A farmer's wife" writes from Nassageweya as follows:—"Will you tell me where I can get some Delaware grape vines, as I heard you say in your address at Milton, they were well adapted to our Canadian climate. I am very desirous to try grape growing on a small scale, but I cannot get my husband to believe that they will succeed here. Some of our neighbours got some grape vines two or three years ago, I do not know of what kind, and he says when I hear of fruit on them he will be willing to give them a trial. Now I do not like to be put off in this manner, so I have resolved to try them myself, and I think with the aid of your valuable FARMER, I can accomplish it. I can only get the best kind to begin with, I think the plan given on page 77 for this year, will be the best for me to pursue. But we are so far from any nursery, and the agents who travel through the country are not to be depended on to send the exact kind you may order, as I have proved by past experience in other things. So I thought I could get you to let me know through the medium of your paper at the earliest opportunity, where I can get them, what they will cost, and whether they will come best by mail or express; by so doing, you would greatly oblige."

**Ans.**—We should be glad if many of our farmer's wives were equally intent on grape-growing and other improvements with our correspondent. The Delaware grape is, we believe, the best single grape for general use in this country, but the Concord, Hartford Prolific, and Diana, are also recommended, and if "A farmer's wife" can afford it, we would suggest a trial with one of each. J. Fleming & Co., will supply the Delaware at 37½ cents per vine, post-paid. See his advertisement in this number. We hope our correspondent may soon sit under her own vine, and that we may some day have the pleasure of paying her a visit, and eating a bunch of grapes of her raising. Many attempts at grape-growing have proved failures, because improper varieties have been planted. Thus we have known the Catawba tried in some of the most northerly parts of Canada, where it is idle to expect that so tender a grape will ripen. We firmly believe that Canada will prove a grape-growing country, if such varieties as we have suggested are planted and well cared-for.

**OIL OF LEMON.**—"J. H. Thomas, of Brooklin, writes:—"Sometime since, I noticed an article in the FARMER, in which it was stated that a certain lady found, when she put too much oil of lemon in her cake that, after baking, it tasted like Spirits of Turpentine. Such is a mistake. No matter how much oil of lemon is put in. If it possess the flavour of lemon when it goes into the cake, it will have the same flavour after it is baked. The baking cannot affect a large quantity more than it can a little. The facts in the case are, that the oil of lemon used, had the taste of turpentine when put into the cake; and this taste it had acquired by long keeping. It may not be generally known, yet it is true, that oil of lemon kept in a common corked bottle will lose its flavour, and taste more like turpentine than lemon; and the same is true of essence of lemon. Merchants in the country that keep essences for sale, are sometimes censured for selling turpentine for essence of lemon. I was myself once censured for the same thing, when acting as clerk in a country store, a lady purchaser telling me that the "stuff" had spoiled her cake. Although I knew that I was innocent, yet at that time, I could not explain the mystery. I knew it was lemon when we purchased it; but from the lecture I received, I was fully convinced it was turpentine when I sold it. Even now I would not attempt to explain how the change is brought about, but simply state that such is the case, and leave the explanation for the chemist. As I have a quantity which has become changed, I will send you some as a specimen of that which lemon will become by keeping."

**NOTE BY ED. C. F.**—The sample forwarded by our correspondent, has the flavour of turpentine very decidedly.

## The Canada Farmer.

TORONTO, UPPER CANADA, APRIL 1, 1865.

### The Pungency and Permanence of Super-Phosphate.

Our respected contemporary, the *Genesee Farmer*, in his issue for March, questions the correctness of certain answers given by us to the inquiries of a correspondent respecting Coe's Super-Phosphate of Lime. His criticisms refer more especially to two statements of ours: First, "Care should be taken to incorporate the Super-Phosphate with the soil, as it is of so concentrated a nature that it ought not to come into direct contact with plant roots." On this piece of advice, our critic remarks:—"We have used Super-Phosphate for many years, and never knew of its injuring the roots of plants. It differs in this respect from Peruvian guano." In reply we would say, that our counsel was based partly on the manufacturer's directions for the use this fertilizer, and partly upon the fact that injury has in certain cases resulted from a too intimate contact with the seeds and roots to which it has been applied. Mr. Coe says in his advertising pamphlet:—"It must be remembered that this is a powerful and active manure, and in the different modes of application it must not be allowed to come directly in contact with seeds or plants; it should be incorporated with the soil or scattered around growing plants." There has been, to our knowledge, great complaint in various quarters, among Canadian farmers inexperienced in the use of this fertilizer, to the effect that it has injured seed and even grass. Sir W. Logan purchased a quantity for use on his farm in Lower Canada, and instructed his foreman to mix it intimately with the soil before putting in the seed. The man, wise in his own conceit, said it could do no harm, and applied it directly to corn, &c., the result being the destruction of the seed. Prof. Buckland, of University College, applied a quantity to grass land without taking the precaution to harrow it in, and killed nearly every tuft.

Our contemporary admits that this result often attends the incautious use of Peruvian guano. Prof. Croft, in his analysis of Coe's Super-Phosphate, finds 10 parts of salts of ammonia in it, and we believe the best guano only ranges from 12 to 15. The Professor pronounces it "a valuable substitute for guano." We are therefore inclined to think that our contemporary must have either used a very weak article of Super-Phosphate in those cases in which its direct contact with seeds and roots did no harm, or he must have administered it in homoeopathic doses.

The other point on which we are taken to task by the *Genesee Farmer* is in reference to the permanence of this fertilizer. We remarked, "Super-Phosphate is a permanent manure (in a comparative sense) if really good, and its effects will be observed for many years after its application." Our contemporary thus animadvert on this statement:—"Now the fact is that Super-Phosphate, 'if really good,' is not a permanent manure. The better the Super-Phosphate, the less permanent it is." And he proceeds to remark that the mode of preparing this fertilizer renders its elements soluble, and so of immediate virtue. Of the fact that Super-Phosphate acts quickly, there can be no doubt, but it does not follow from this that its efficacy is at once exhausted. Our critic says:—"You apply it to a crop, and get the whole effect (if a good article) the first year." Now this is hardly reasonable in itself, nor does it accord with the experience of those who have used this fertilizer for years. Hon. Marshall P. Wilder, of Massachusetts, says of it:—"As a quick, and also as a durable fertilizer, I have seen many proofs in past years." Hon. Amasa Walker, of the same State, in describing a successful experiment with Super-Phosphate five years previously, says; "the good effects of it were as visible last year as ever." The *Boston Journal* says:—"We learn from our numerous correspondence, that the phosphate is not only quicker in its effects than Peruvian guano, but much more durable, lasting from five to six years." Our contemporary lays it down as a principle of universal application to manures, that the better they are, the less permanent will be their results. We confess our inability to see this. A manure that will both act quickly and enduringly, must be better than one of which you "get the whole effect the first year."

While on this subject, we may state that the accounts we get from various quarters tend to confirm the good opinion we expressed some time since, respecting Coe's Super-Phosphate. We were especially struck with an instance given by the *Montreal Gazette*, of March 3, 1865. Mr. Cochrane, of the firm of Smith and Cochrane, Montreal, has a farm at Compton, in the Eastern Townships, to which he has made additions by purchase; and last season, on a piece of worn-out ground, which had been cropped for many years with buckwheat, without manure, he determined to try for a crop of turnips, using Super-Phosphate as the only fertilizer. The experiment excited much derision, but the result exceeded his most sanguine anticipations. He got a yield of four hundred bushels to the acre. He had like success with potatoes and Indian corn. The *Gazette* states that Mr. Cochrane has purchased 200 barrels for use this year,—very conclusive proof of his estimate of its value. Manure is the crying want of Canadian farms. The soil, like the horse-leech's two daughters, is continually crying "Give! Give!" but, unlike them, it will yield a liberal return for all that goes into its greedy mouth.

### Farm Accounts.

Among the many objections with which the farmer meets any scientific suggestion that of, "it may sound all very well, but it won't pay in this country," is one of the most prominent and constantly recurring. And it might be very naturally inferred, from the emphasis with which this dictum is generally pronounced, that farmers, as a class, possessed the exactest data for determining the precise source and