

see to distrust the positive assertions of those who found their system of cattle-feeding on the tables compiled by mere theorists. Four years ago, every pseudo-scientist who meddled with agriculture was crying up the superiority of the new-process linseed-oake over the old kind—oil was of little use in fattening animals, they said!—Now, a healthier state of things prevails, and oake, both linseed- and cotton-oake, is worth much or little in proportion to the amount of oil it contains; at least so says the market.

*Hoed crops.*—A short letter on this subject will be found on page of this number of the Journal. From a previous communication, I was half afraid that "Quebec" was opposed to the extension of the system in this province, either because he did not see his way clear to the obtaining of good workmen or workwomen, or because he did not sufficiently appreciate the value of roots as food for stock. In a late issue of the English Agricultural Gazette, Sir John Lawes has these irrefutable observations: "Summer-fallows or root-crops are the only mode of keeping land fairly clean, and to grow grain upon foul land is simply a waste of time and money." So we may as well make up our minds that until we can bring ourselves to employ one or other of these plans, we shall not see our farms as productive as they ought to be.

"Why is it that the average yield of wheat on the long-used soil of the United Kingdom last year amounted to 31 bushels an acre; while the average yield on the comparatively new soil of this country was only 10½ bushels? If prices, as seems likely, are to be lower here in future, won't it be necessary to force the soil to yield larger crops, or to abandon wheat-raising altogether, as a source of loss instead of profit?" This question was asked, editorially, in a late number of the Rural New Yorker. I made an observation to the same effect in a late number of this Journal; and, in reply, my excellent friend, Dr. Hoskins, was pleased to devote a column and a half of the Vermont Guardian to an exposition of the superior wisdom and economy of the American farmer who, by producing 10½ bushels of wheat per acre, grew wealthy, whereas his English brother found no profit from his trebly superior harvest. I fancy that the American farmer, in reckoning up his gains at the end of the year, imagines that, as the farm is his own, he pays no rent; but rent is rent, whether it is viewed as the interest of the cost of the land or otherwise. A farm which is worth, as many farms in the State of New-York are worth, say, twenty thousand dollars, is, in reality, rented at twelve hundred dollars a year,—money being worth, I presume, at least six per cent, to say nothing of the interest, at a much higher rate, on the capital invested in stock and implements.

*Milk which will not make butter.*—Every autumn, I hear complaints from farmers, that they have great difficulty in churning. This year, the trouble seems to have been greater than usual, for I have met with several letters, both in American and English papers, on the subject. Professor Sheldon, in a long communication to the Rural New Yorker, attributes the difficulty to the long period which has elapsed in most cases since the calving of the cows; and this, in some cases, may be the cause; but, how comes it then that I have frequently had to deal with the milk of a cow that has calved eighteen months, and yet have had no difficulty? Of the cause that milk treated in the usual fashion will not make butter I know nothing—I don't believe anybody does—but I do know that a cure exists and I place it at the service of my readers.

In November last, a gentleman of Sorel, told me that he

was in trouble about his cow. "She gives plenty of milk," said he, "and the cream is rich and abundant, but we can't get any butter from it, none at all: we have tried for *two months*, and not one bit will come, never mind how long we churn." I went and looked at the cow; a good half-bred shorthorn; looked like a milker, dairy clean, and churn all right. Food? two bundles of timothy a day. Here is the fault, thought I, and recommended the deduction of one-third of the hay and the substitution of four pounds of a mixture of peas, oats, and linseed. As soon as the cow became accustomed to the change of food, all difficulty vanished, and the proprietor told me that subsequently they made butter twice a week without any unusual trouble.

The next week I happened to be passing the house of M. Séraphin Guévremont, an improving young farmer, whose name has been mentioned with praise more than once in this periodical, when Madame, his wife accosted me, requesting me to walk into the yard and look at her cows, "for," said she, "we have been trying to make butter from their milk for the last nine weeks, and we can't get any!" Well, this was a stunner, for I knew very well that nothing could be better than the food these good people gave their cows—three in number—swedes, potatoes, hay, and *goudrôle*—sometimes called *gabourage*—that is, a mixture of peas and oats, and in no stinted quantity either. Madame, too, I knew to be a capital dairy-woman. Altogether, I was what is vulgarly called "floored"! However, I determined to try our old-fashioned plan of arranging the milk as practised in the West of England. Placing a pan of milk, after standing 24 hours, in a vessel of cold water on the stove, I allowed it to heat up gradually to 175° F. I then placed the pan of milk in the dairy to cool, and after skimming off the cream, and beating it for a few minutes in a bowl, the butter formed in grains, was washed in that state with three waters, made up with two wooden *spatula*, and was pronounced by the most prejudiced old woman I ever saw to be the best butter she ever tasted! The butter took eight minutes to "come," six minutes longer than usual, but the fact is that I was in a hurry, and did not allow the cream time to warm up to about 60° F. the proper temperature for this mode of working.

I am inclined to think that, though some of our farmers' wives may fancy that this system is a little *sidgelly*, it will be tried in many places next autumn when the difficulty of common churning is first felt. I know that in the parish of Saint-Justin it will be practised by several people, and if I did no other good by my visit to that place my time was not spent in vain.

#### OUR ENGRAVINGS.

*Elevator Ditching machine.*—This engraving was crowded out last month, so I can only repeat what I said about it then, viz., that a gentleman, who has seen it in operation, tells me that its work is very good.

*Two-row potato-planter.*—The most notable exhibit at Islington was the famous potato planter of Messrs. Murray & Co., Banff, N. B., the most successful in prize trials and practice of any yet brought out. It is made to plant one, two, or three rows at once, from one to three sizes of drills, and also with mould-boards to open the land and cover at the same operation. We give an illustration of the double form of it for two drills, from which it will be seen that the principle is a chain passing over wheels similar to the style of a threshing machine elevator or chain-pump, with little buckets or scoops attached at intervals. As these pass up through a hopper filled with the out "sets," one is lifted by each, carried up and dropped down in the drill, and this with unerring regularity and accuracy. For those farmers who plant a