Handicap of Being a "Beau."

To the Editor "Farmer's Advocate":

I have been watching with some interest the progress of the discussion on the prevalence of bachelor farmers, now going on in your paper. The majority of your correspondents seem to be interested mainly in the farmer's son—the young man who is working for his father. Now, I think if any young man, after he is twenty-one, works at home for his father without compensation, and with no prospects ahead of him, he has only himself to blame. However, I would not advise him to act rashly in the matter. His father, most likely, is not in a position to buy more land, and cannot be expected to hand over the farm to his son; and, anyway, what business has he getting married as soon as he is out of short trousers?

I read with interest the letter in recent issue by "One of Them," who has undoubtedly handled the subject without gloves. There is food for thought in his letter, and, judging by the comments by some of the younger readers, he has struck somewhere near the mark, and has cut a pretty wide swath.

I read with some amusement the letter by "Farmer's Daughter" on the bashful bachelors. I am sure the Simcoe young men will appreciate her kindly interest in them. After all, it amuses me to see how some people will hang on to these fogy ideas. Let any young man who is inclined to be reticent on the subject in question—and sometimes he has a good reason to be reticent—pass the age of twenty-five without responding in a marked degree to the young ladies' liking, and his failure to do so is generally attributed to bashfulness. My observation has always taught me that the so-called bashful young man generally marries first. I venture to say that had the young men alluded to found their ideal, and had anything of a home to offer, we would soon hear the sweet bells chiming. However, if your fair correspondent wishes to know how to cure these young men of bashfulness, she might try the following recipe: To start with, take a wee bit o' "Sandy Fraser's" advice, add to it a few pointers taken from "One of Them's" letter, sprinkle liberally with genuine courtesy, and take daily. If this doesn't fix 'em at first, try again. The trouble is, in some cases that I know, if a young man acts as escort for a girl, and becomes thoroughly acquainted with her, she thinks he naturally has no right to act as escort for, or pay his addresses to, any other girl, which in short gives the young man a poor chance of finding a suitable companion. Intimate acquaintance is one thing; matrimony is another. Here some girls show little discrimination, and thereby stand in their own light and the young man's. Now, as I have never been particularly forward in discussing this all-important subject with the young ladies, and am still without that divine blessing, the better half, I suppose I shall have to sign— BASHFUL (?) BACHELOR.

Potato Rot.

Prof. F. C. Harrison.

The November (1904) crop bulletin of the Ontario Bureau of Industries stated that considerable rot had appeared on potatoes, especially where the crop was grown on heavy soils or on low-lying land. The extent of the loss was variously estimated at from 20 to 50 per cent. This "soft" or "wet" rot is quite distinct from the so-called "blight." At first sight most of the potatoes appear to be sound, but on examination the skin over certain areas is found to be discolored, and, on pressure, the part beneath is soft. On breaking the skin a turbid liquid can be easily pressed out. This liquid may contain gas bubbles, and turns black on exposure to air. The skin from affected parts easily peels away, and the newly-exposed flesh is watery and white, but soon discolors in the air, becoming almost black. Later, the flesh softens to a white, watery pulp, and becomes highly offensive, with a putrefactive odor. Finally, the potato becomes a mass of soft black pulp. The stem of the potatoes may or may not be affected. In the former case the base of the stem becomes discolored and black, then the leaves above wilt, and the entire stem falls over. If a piece of diseased stem is cut open, the fibrous strands in it (the fibrovascular bundles) will be found brown to black in color. The cause of the "blight" which particularly affects the leaves is a fungus, and the Bordeaux mixture, properly made and applied, will hold this disease in check, but the wet or soft rot cannot be managed by spraying with this mixture, because the disease is present in the roots and tubers, and hence cannot be got at. The cause of the "rot" disease is a bacterium, a minute rod about 1-20000 of an inch long, which grows with great rapidity in the tissues of the potato, and secretes a substance which has a dissolving action on the cell walls which hold the starch and other contents of the cell in place. When these cell walls are destroyed the potato becomes watery and soft, putrefaction sets in and the tuber is destroyed.

The Bacteriological Department of the Ontario Agricultural College, which has been studying the disease for the last year, would like to ascertain if the disease in various parts of Ontario is similar to the one with which it has been working and which caused so much damage last year, and hence would like farmers troubled with this disease to mail an affected potato and state at the same time if they were troubled with the soft or wet rot last year, and to what extent the rot is present in the present season's crop.

Smut a Plant.

Wheat-growers early learned that it was almost absolutely necessary to pickle wheat to ensure against smut. Sometimes the operation was neglected, with results like the following:

"We have a crop of wheat, sown last fall, but not treated with formalin or bluestone; result, an enormous amount of smut. Will you explain:

"1. What smut is?

"2. What is cause of its growth?

"3. How does formalin and bluestone prevent it?

"4. Anything else you can tell me about this nuisance? H. L."

Alberta.

In the strictest sense smut is a plant. It is a plant of the same nature as mushrooms, but of a lower order. One can easily trace the descent of plants to the lowest microscopic forms. Smuts being a lower order of plants, are not differentiated into root, branch and leaf, hence cannot convert the elements of plant food into a nutritious form, so must subsist upon food prepared for them. This they do by associating themselves with wheat or other grains.

We have spoken of smuts in the plural. There are several varieties of them, just as there are different kinds of grain, but they are all alike in general characteristics. Wheat is affected by two distinct varieties, barley by another, oats by another, corn by another, and so on, but if we describe the common form found on wheat, it will give our readers an intelligent idea of the pest.

Pair of Leicester Ewes.

First-prize winners in their respective sections at the Western Fair, London, 1905. The aged ewe was sweepstakes, and also won first at London last year. Property of John J. Woolacott, Kennicott, Ont.

Smuts, although they differ from the higher plants in their methods of obtaining nutrition, are somewhat analogous in their method of reproduction—that is, they produce by special organs somewhat resembling seeds, but called spores. These spores constitute the black spots or masses seen on the grain. The spores, when seen under a magnifying glass, resemble burrs, and cling to the kernel of wheat until it is sown. Then, when the wheat germinates, the spore also sends out its little shoot, and penetrates the tender tissues of the wheat blade. Once inside the wheat blade there is no more use for the spore, so it dies, while the new growth, living upon the sap of the wheat, grows up with the grain, all the time building up a network of tissue within the blade and stem, until the grain is in the milk stage, when the smut begins to appropriate the plant food, and produces its mass of black spores for future seeding.

From this knowledge of smut it is easy to understand how bluestone or formalin prevents its growth. The spores are always in contact with the seed wheat, and can consequently be treated. Bluestone and formalin being plant poisons, are used to poison the spores (which are thinner in the coats than the wheat kernels), their vitality is destroyed without injury to the wheat.

The treatment of seed wheat is absolutely necessary to ensure against an attack of smut. It should be given as near seeding time as possible, and should be thorough. Formalin, because it is easier handled and generally of more definite strength than bluestone, is becoming more commonly used. All that is required is to make a solution of a pound of the formalin in forty-five or fifty gallons of water and wet the wheat by the most convenient means. The easiest way is, perhaps, to spead the wheat out on a clean floor and sprinkle the solution over it, turning the pile over a few times to make sure the work is thoroughly done. After treating spread the grain out where it will thoroughly dry. Before putting it into bags to take to the field, boil these for a few minutes, as there are likely to be spores in them which will reinfect the grain.

DAIRY.

Canadian Dairy Trade Discussed at Liverpool.

The Liverpool Journal of Commerce reports at length a meeting of the Liverpool Produce Exchange, addressed by Mr. J. A. Ruddick, Canadian Dairy Commissioner, on September 26th, with reference to the imports of Canadian butter and cheese. Introducing the speaker, President Geo. Wall praised the uniformity of our cheese. During his early business career he remembered when there was frequently a difference of 10s. a cwt. between the best and worst produce of a single dairy. Now, under the factory system, there was not a difference of 2s. between the highest and the lowest output of the dairies of Canada. So with butter, whereas the produce of neighboring townships once varied by as much as 5s. per cwt., now Canada supplies butter equal to anything obtained there. Our creamery butter has been improved every year, and he did not think that they had ever received from Canada better butter than had come to hand since the first shipments this season.

Mr. Ruddick explained that his mission was to seek information as to the requirements and tendencies of the market, to study Old Country methods of manufacture, and to place Canadian produce as favorably as possible before the merchants there, showing what we were doing to improve in the manufacture and marketing of our products.

We could not, he said, hope to increase the cheese trade very materially, because we already send 75 to 80 per cent. of the cheese imported into Britain. The field for expansion was rather in butter, of which we now furnish but five or six per cent. of the total importations. Mr. Ruddick emphasized the purity and reliability of our fruit and dairy products, reminding his hearers that our legislation prohibits the manufacture or sale of oleomargarine and filled cheese, while another Act makes it a penal offense to mark any commodity, such as cheese, with other than the true date of manufacture. Later legislation defines what shall be called and marked creamery butter, and also dairy butter, and fixes the legal limit of water in butter at 16 per cent.

After referring to the Dominion Government's efforts in the inauguration of cool-curing rooms, as well as its success in obtaining provision by the railways of refrigerator cars to transport our goods to Montreal, and in the securing of cold-storage accommodation on Atlantic steamships, he described the Government's system of inspection and testing by qualified men of the condition in which perishable products were loaded on the steamers, and also of the method of storage at Montreal for shipment to England. He thought we were getting our goods carried across the Atlantic in fairly good condition.

He then referred to the complaint that butter had been left on the quays at Liverpool and at Glasgow, and to some extent in the railway sheds at Bristol, the consequence being that the goods suffered deterioration as a result of the higher temperature to which they were thus exposed. It was little use providing cold storage for ocean transport if the goods were to be left four or five days before reaching the consumer. In the Port of London two big steamship companies were able to discharge the butter into a temperature of 17 degrees, and the cheese into a temperature of 40, and it was the universal opinion that this had made a great improvement in the condition of these articles.

In seconding a vote of thanks to Mr. Ruddick, ex-President Sandie took occasion to point out