

that of our Royal Agricultural Society—with its 11,000 or 12,000 subscribing members of the highest class—has been held and is over. I do not propose to refer to it in general, as it is much like the ordinary agricultural exhibitions of other countries, except that it is much larger and, perhaps, has the very best live stock which is ever seen. I desire, however, to refer to one or two new inventions which up-to-date Canadians should know about. In the first place, two new cream separators were shown for the first time. One is named the "Melotte," and it is claimed that it is the best in the market. As it was not entered for any of the silver medals given for "new implements, etc.," I prefer to say nothing about it. Possibly it will compete with older makes at coming shows, and then I shall see what it can and can not do. The other cream separator is named the "Centrator" and, unlike the Melotte, it entered for one of the medals referred to and, what is more, won it. It is claimed by the makers (and, having inspected the machine, I see no reason to doubt the claim) that the Centrator is easily worked by a boy (in the smallest sizes); that it is moderate in price; and that it can be easily cleaned. The makers, however, say that it separates the cream so perfectly that in the separated milk there remains only .05 to .09 per cent. of fat. If this is the fact then the machine has a future, and older ones will have to look to their laurels. Professors Robertson, Dean, etc., would do well to enquire into the matter. The British agents are Messrs. Vipan & Headly, of Leicester, England; but it emanates primarily from, I understand, Sweden, the home of another first class separator.

Another useful, small, and inexpensive article for the dairy farmer was a milk strainer. This is priced at 14s., and I was informed that the sediment, which is arrested, cannot be forced through, whilst the finest dirt is stopped. The makers in this case are the Dairy Supply Company, of London, and, as the strainer received a medal from the judges, the farmer and dairy-bacteriologist may assume that it possesses exceptional merit.

Three other medals were also awarded, viz., to Messrs. R. Boby, Keyworth, and to the Monorail Portable Railway Company. These firms showed respectively: (1) A machine which separates plantain, or rib, grass from clover seeds—a most useful invention; (2) a harrow seed-drill for broadcast sowing, and which users of such might find it advantageous to enquire further about; and (3) a very cheap form of railway plant, in which the power required is extremely small.

By the middle of August the British Parliament will be prorogued until next January or February, the usual date for opening. Nothing has been done this session, so far, for the agriculturist, and little or nothing is expected. Ireland, however, as usual, will, by August, be placed on the same footing as the rest of the United Kingdom in the matter of local government. Agriculturally speaking, the Irish farmers have advantages and privileges not possessed by any other tenant farmers under the face of the sun; and if the political agitators would leave them alone they would be happy. But in all countries there are agitators who make discontent, and who fatten on it.

Agricultural Illustration Stations in France.

There are about four thousand "example" or "illustration" plots of land in France which are used for agricultural experiments. It costs about \$60 a year to operate one of these plots. The land is usually given free of cost either by a private farmer, who is glad enough to have it tilled for him according to the best methods, or by the local agricultural association. Manufacturers of agricultural implements lend the newest machines free, and in this way the illustration plot becomes a sort of trial station for testing the productions of rival manufacturers. The local farmers give the labor free for the cultivation of these plots, and the state, the county councils and the agricultural

associations contribute between them towards the cost of the best seeds and manures, which the professor or instructor in charge may approve.

The field furnishes, as it were, a lecture ground for the professor, who is able to use it as an illustration and proof of his theories at each stage of the seasons. The children of the local primary schools and those of the upper primary schools are also brought to the illustration plots in connection with their course in agricultural teaching. The plots are usually placed on the most accessible spot available—generally by the side of the most frequented road—and on a notice board is displayed a written description of the various kinds of crops which are being tried, or the special methods of feeding which are being adopted for the stock which may be kept in connection with the plot.

As will be seen the French plan for conducting illustration plots is not unlike Professor Robertson's scheme for establishing "illustration stations" in Canada. In his proposed plan the Government is to assume the responsibility of their maintenance and operation, while in the French system individual farmers and local organizations assume a share if not all the responsibility, the Government, or some central authority, perhaps, overseeing the work. Though it may be necessary in the successful carrying out of the scheme to have some central authority assume complete control, we are inclined to the opinion that the French plan of securing the co-operation of individual farmers and local organizations would help to make it more popular and more effective. In fact we took this view when discussing Prof. Robertson's scheme a month or two ago, and pointed out that in carrying out the scheme for illustration stations in Canada the Government should secure the assistance of and utilize the various local and provincial organizations already existing for the benefit of the farmer.

The plan of utilizing the stations as is done in France, in connection with the study of agriculture in the Public Schools, should commend itself to those who are interested in the advancement of agricultural education in this country. If there were a place of this kind in every county or electoral district to which the classes taking up agriculture in the Public Schools could be taken, say once a month, for a practical demonstration of what can be done by better methods of farming, a distinct advantage would be gained for agricultural education in the rural schools.

The Farmer Should Count the Cost.

In conversation with an intelligent farmer from Western Ontario recently, he stated that some years ago he had an opportunity of renting his farm and going into some other line of business. Before deciding definitely in the matter he concluded to experiment a little while and find out what he was really making out of his farm. He accordingly kept track of every item that was spent upon the household and what it cost to live, with the result that his farm was not rented, and he has had no desire to leave it since. Though offered a good rental, and in addition a good salary to travel in the agricultural implement line, this farmer concluded that he would make more money to remain on the farm.

There is a valuable lesson in this for every farmer in the country. A great many, who leave the farm to engage in other pursuits, never stop to compare the cost of living on the farm and away from it. As a rule the farmer does not miss what he and his family eat, as the bulk of it is grown on the farm; but, if cash had to be paid out for every item of food as well as clothing, many a farmer would be more contented with his lot than he is at the present time. The man living in the city, even on a fair salary, is not as well off as the average farmer if everything is taken into account. Rent, heat, water, light, food, etc., have all to be paid for in the city, while the farmer can get the larger share of these without any cash outlay. It would be well, therefore, if everyone who contem-

plates leaving the farm would stop a moment and count the cost.

The World's Wheat Yield per Acre.

The following tabulated statement of the yield of the world's wheat crop, taken from the *Mark Lane Express Almanac* for 1898, opens up a wide field for thought:

	Bushels per acre.
Great Britain	30
New Zealand	26½
Manitoba	19½
Ontario	18½
Tasmania	18
France	17
New South Wales	15
Victoria	12½
United States	12½
Queensland	11½
West Australia	11½
Italy	10½
Germany	10½
India	9½
Russia	8
South Australia	7

The most striking feature of this table is that it is not the newest and most virgin soils which give the largest yields per acre. With the exception of New Zealand, Great Britain is far in advance of any of the other great wheat-growing countries. This is the more surprising when we consider that, in Britain, the same land has been under constant and intensive cultivation for centuries almost and before some of the wheat-growing countries of to-day were even thought of. People have been accustomed to talk so hopefully of the virgin prairie and fertile lands of the West as the place where big wheat yields are produced. Referring to the above table, we find that the yield per acre for Manitoba is only 19½ bushels per acre, as compared with 30 bushels for Great Britain. Even Russia and India, two of the world's greatest wheat producers, do not produce within one-third of what is produced in Great Britain per acre.

But let us come to Ontario. Comparatively speaking she stands up pretty well on the list, but is still 11½ bushels per acre less than Great Britain. Is there not food for thought in this comparison, and may we not well ask the reason for it? The time was, when Ontario averaged as much per acre as Great Britain does to-day. Why does she not do so now? The answer evidently is that the Ontario soil is not as productive as it once was, and that there is not sufficient nourishment and fertility in the land to enable it to produce as formerly. The system of farming carried on in this province is not such that serves to conserve and restore the fertility in the land.

If the same system of farming were followed in Great Britain as is followed here and in other countries the above list would soon be changed, and instead of finding Great Britain at the top of the list we would soon find her at the very bottom. It is because the British farmer practises *intense cultivation, a regular rotation of crops and purchases largely of artificial fertilizers* that he is able to keep up and restore the fertility on his farm, and produce more bushels of grain per acre than any other land in the world. Farmers in this country frequently say that it does not pay to buy manures for the land. But we fail to see why it would not pay the farmer here as well if not better than the farmer of Great Britain, who has to pay high rent and compete with the whole world in his own market.

The Cattle Trade in the Western States.

Mr. W. P. Dickenson, a prominent cattle drover of Fairbury, Nebraska, was in Toronto last week visiting friends. He reports the live stock interests in the Western States as having been very brisk during the past year or two. Kansas City, San Jose, and Omaha, are the chief shipping centres for Nebraska drovers. The business is done on a somewhat different basis from what it is here. The representatives of the great packing houses,