

### Agricultural Societies.

The Act of Parliament that established Agricultural Societies was a step in the right direction for the advancement of the greatest interest in Canada—agriculture. The comparatively small grant that has been annually given for the encouragement and maintenance of these societies has, we believe, resulted most beneficially. Better stock, better crops have been the profit; the introduction and spread of the best labor-saving implements has been encouraged; the rapid strides in advancement never before known in the world have been the results. The numerous great Provincial and other great agricultural exhibitions have been an honor to our country. The smaller county and township exhibitions have also been adding to the progressive march, perhaps to a greater extent. The township exhibitions have brought forth the juvenile competitors, and have in their several localities done great good. Not only has this desire to excel each other in producing the best agricultural products been beneficial, but the fact that a day for mental agricultural improvement and social greetings is a great boon to each locality where these exhibitions have been properly conducted. Every honorable and honest farmer will, we believe, coincide in the foregoing remarks. We are on the eve of very great changes, and probably your voice or vote at the annual meeting may have some influence. We believe there will be a series of questions put to the meeting, and perhaps prepared speeches to advocate some particular measure or some new departure from the old regime. You should be present at the meeting, and before committing yourself to support any particular person or measure, weigh well in your mind the object of the measure; and also you should weigh well the character and position of every speaker. The first point to consider in any speaker should be this:—Is the speaker a really honorable person; has he the real agricultural interests foremost in his general transactions, or is he a mere fluent talker, having other and greater interests in view? Listen attentively to the few brief remarks made by any plain, honorable, reading or thinking farmer. Do not be led too much by a beautifully flowery, eloquent address from a glib speaker. Many of the soundest and best men we have known have not been gifted orators, and many of the most eloquent we have ever heard have been the most unprincipled villains.

You have, no doubt, noticed the attempts to destroy both the Township and the Provincial Exhibitions. We do not think that destroying either would be for the interest of agriculturists. Such a step might be deemed of benefit to large manufacturers, large stock importers, or city interests, but not for the real practical farmers. Do you not think it would be advantageous rather to increase the utility of the Provincial Association and of the Township Exhibitions than to destroy them? Could you not suggest some improvements in the existing management? Do you not think that it would be much cheaper and much better to improve than to destroy, and rebuild? Are not many of the new buildings now constructed of less utility and durability than the old solid stone walls of our ancestors? Were not the foundations of agricultural exhibitions on a solid and good foundation, and if so would it not be dangerous to build on drifting sand? Go to your annual meeting; endeavor to draw forth more light, and encourage more discussions on agricultural subjects. Ascertain why your representative voted against holding the Provincial Exhibition in Kingston this year. Enquire if he was aware that one of the members of the Board, without the knowledge or consent of the Board, promised to hold the Exhibition for two years in succession in To-

ronto. Should such a promise be binding on you? Should agricultural exhibitions be subservient to city interests, boat races, military and other processions, negro exhibitions, mermaids, aunt sallies or gambling institutions? Should the Provincial Exhibition be permanently located in Toronto, and placed under the control of a body of speculators, who have cunningly, and perhaps illegally, taken possession of property that did belong to the Provincial Association; whose object is and has been to make money out of the farmers, and compel exhibitors to remain in the city one week unnecessarily? Should the agricultural exhibition money, granted for agricultural encouragement, be expended for and by farmers, or not?

### Contagious Diseases of Domestic Animals.

We have read this valuable work with great interest. It elucidates very clearly the origin, nature and treatment of the contagious diseases that have become more prevalent throughout the continent than ever heretofore. We beg to thank the authorities of the Department of Agriculture at Washington, under whose authority the work is published, who have sent us an early copy for our editorial library.

Continued investigation has further confirmed the opinion now generally held, that many contagious diseases are produced by the great increase of bacteria, exceedingly minute organisms that exist either in the form of filaments or granules in all putrifying animal and vegetable matters, and that where these matters are excluded such matters may be preserved indefinitely. The danger of anthrax devastating our flocks and herds, and the spread of the contagion, are so imminent that no research can be deemed too persistent which will enable us to fathom the mysteries of such disease. Recent French publications contain the results of many important experiments relating to the cause and manner of the transmission of contagious diseases among domesticated animals.

"One of the most deadly diseases of cattle and sheep is the disease known as *charbon* which is now spreading over the continent. Most of the Departments of France have suffered severely from the ravages of this disease. There are a number of these districts where the losses reach annually into millions. Among the many flocks of sheep raised, there is possibly not one that is not attacked each year. Farmers consider themselves fortunate when the number of deaths does not exceed two or three per cent. of the total number of animals in the flock. This scourge is known to all countries. Whence comes this disease? How is it propagated? Is it not possible that further experiments may lead to measures which may be easily applied and suited for rapidly extinguishing this disease?"

Does a possibility of contagion exist after the animal dead from contagion is buried? On this point M. Pasteur, having produced the result of carefully conducted experiments, continues:—"As long as the bacteridium in the filiform state is deprived of air it tends to become resolved into compact dead and inoffensive granulations. Putrefaction places it precisely in condition for decomposition of its tissues. Since the animal at its death contains the parasite in its filiform condition, it is certain that putrefaction destroys it through the entire mass." In this stage it is generally believed there is no contagion.

In the course of his experiments, however, M. Pasteur, after having made an autopsy, buried a sheep spontaneously dead from *charbon*. Ten months and fourteen months later the earth of the grave was collected, and it was easy to determine in it the presence of germ corpuscles of bacteridia,

and by inoculation to communicate the *charbonaceous* disease to guinea pigs. Further experiments confirmed the existence of the germs in the surface of the grave, although in the interval this earth had not been stirred. At points remote from the graves, on the contrary, the soil refused to yield *charbon*.

"Will earth that is such a powerful filter allow the germs of microscopic beings to rise to the surface?"

Having shown that the vitality of bacteria in the buried animal may, from some circumstances, not have been destroyed, as, for instance, in consequence of the blood issuing at the time of the animal's death from its mouth and nostrils, which is a common characteristic of this disease, or the urine to be bloody, and other matters thus mixed with the surrounding aerated earth, they are no longer in the condition of putrefaction, but rather in that of a medium of culture suited to the formation of germs of bacteridia. Mr. Basteur proceeds to show that there still exists a danger.

"There is evidence that if the mellow earth of the surface of the graves of *charbonaceous* animals contains germs of *charbon*, and often in large quantity, these germs come from the little excrementitious cylinders of the worms by rain."

Earth worms bring to the surface of the ground other germs which would be no less offensive to these worms than those of *charbon*, and yet bearers of diseases affecting animals. It is a well established fact that they are constantly filled, and with all kinds, and those of *charbon* are always associated with germs of putrefaction.

Thus the surface of the soil becomes poisonous, and the fatal anthrax deal out disease and death to the flocks and herds feeding on the bad ground, and the plants growing thereon are poisonous to live stock.

Thus it is with worms as with many rather wisely-designed creatures, they may be productive of evil, though instruments of much good. Their operations in the soil tend to the admission and free circulation of air, moisture and heat, elements essential to vegetable growth.

### English Letter No. 33.

[FROM OUR OWN CORRESPONDENT.]

Liverpool, Dec. 5.

The past month has again been devoid of general matters of interest. Our weather has been exceptionally mild; but, according to the averages of an English winter, the mildness of November and December will be fully discounted by the lateness and severity of the spring. At present it is nothing unusual to find a household dispensing with fires in their sitting rooms. We have not even had a single November fog.

The shows of fat cattle, preliminary to Christmas markets, have already commenced, and the Birmingham show is a thing of the past, having achieved the distinction of being, in point of numbers, the most successful since the show was established, thirty-three years ago. Herefords won the distinction of producing the champion beast of the show. Class I.—Hereford Oxen, contained six entries. None of them were so huge as have been seen, yet they were all good specimens. It is an indisputable fact, that, as a rule, the judges now pay more attention to lean meat, and a beast which would formerly have taken a prize on account of its extraordinary fatness, would now be relegated to a second or third-rate position.

The Hon. J. H. Pope, your esteemed Minister of Agriculture, is setting a worthy example to the interests he specially represents. On many occasions I have had to report instances of his enterprise in importing choice stock into the Dominion, but I may safely say I have never had