

at least \$580 for that purpose, and reports upon its purchases to the council.

The Agricultural Society of Champlain desires to employ half the members' subscriptions for the purchase of phosphate of lime, the other half for the purchase of seed, and the government grant for the purchase of thoroughbred breeding stock.

Resolved: That the Agricultural Society of the county of Champlain be authorised, this year, to employ its funds in the purchase of thoroughbred stock, on condition that this society devote at least \$500 to this purpose, and report upon it to council. This condition fulfilled, the council approves the rest of the programme of this society.

The council approves the programme submitted by the Agricultural Society No. 1 of the county of Gaspé, offering to hold an exhibition of stock, and a competition for the best cultivated farms.

The Agricultural Society No. 1 of the county of Lotbinière desires to apply its funds to the purchase of a stallion, and the whole of its members' subscriptions to the purchase of seed.

Resolved: That the Agricultural Society No. 1 of the county of Lotbinière be permitted to buy a stallion, provided he be of pure breed, but it must conform literally to the rules of the council, which forbid the distribution of seed to the amount of more than half the members' subscriptions; the other half being intended to form a fund for the purchase of thoroughbred breeding stock.

The council then adjourned till the next day, March 17th at 10 a. m.

Session of March 17th, 10 a. m.

The same being present, except Messrs. Casgrain and Massie; Mr. Browning, seconded by Mr. Casavant, moved: That the societies for the cultivation of fruit of the counties of Islet, Brome and Shefford, be recognized, and that the grant for the past year be paid them, and \$50 to the Shefford Society; that leave be given to the counties of Rouville and Shefford to combine for the exhibition of fruits for the year 1881. (Carried).

Resolved: That the Agricultural Society of the county of Berthier be compelled to hold a competition for the best managed farms this year, on penalty of losing the government grant.

The council approves the programme of the operations for this year submitted by the Agricultural Society of the county of Chambly.

The council gives permission to the Agricultural Society No. 1 of the county of Wolf to give only \$75 in prizes for the competition for the best cultivated farms.

Mr. Browning asked, if the council had received any information from the government as to the manufacture of superphosphate of lime in this province, as to its distribution, or as to the means of obtaining it.

The secretary stated that the council had received no information on the subject since the conference between the ministers and some members of the council called together specially for that purpose, last September, about the time of the Exhibition, when the importation into this country of the "Goémon biphosphaté" was talked about, as well as the establishment of a factory for its preparation in this province.

Resolved: That the secretary be ordered to prepare a financial statement of the affairs of the council, and that the president be requested to present the statement to the government, requesting them to make up the deficiency, if there be one.

Resolved. That the secretary prepare, for the council, an extract from the minutes, showing the rules in force at the present time, pointing out those that refer to the schools, to

the agricultural societies, to the council, and so on, chapter by chapter.

Resolved. That the money derived from the "Prince of Wales' fund" be placed at the disposal of the five members of the council who form part of the permanent committee of the Exhibition, to be offered in prizes at the next provincial exhibition.

The council then adjourned

Approved this 4th of May, 1881,

L. H. MASSIE,
President.

[Certified copy],

GEORGES LECERC, Secretary.

Approved by the Lieutenant-Governor in council, May, 28th, 1881.

ERNEST GAGNON.

AGRICULTURE.

To the Illustrated Journal of Agriculture.

Paris, April, 20.

Mr. Pasteur is closely occupied with his experiments on the causes of contagion. He has already shown, that in the case of hen cholera, the malady was due to the animalcules, called microbes, a kind of life, recalling fungus, and belonging to the same class of infusoria as those under the designation of bacteria and vibrios. Science does not exactly know the complete history of these organisms, but which play an important rôle in fermentation, contagion, and decomposition. They appear as spores, in the form of minute particles, or as delicate threads, reproducing themselves with an extraordinary fecundity, and subsisting in their medium till they have exhausted all the elements necessary for their existence. The Oxygen of the air is the principal moderating agent on the action of these animalcules, which may, as a general term, be viewed as virus. How then can oxygen be made to diminish the terrible effects of virus in the cases of contagion, cattle plagues, for example? The germs have the power of propagating themselves by scission, independent of the presence of the parent spore or seed, similar as in the case of beer leaven, where the cellulæ of fermentation multiply themselves indefinitely without the presence of the parent seed, not unsimilar to those plants raised from slips or cuttings. In the case of the animalcule *bacteria*, ascertained to be the virus in the cattle pest known as *charbon*, its thread-like form is hardly multiplied during twenty-four or forty-eight hours, then they become transformed into egg-like particles, or seed germs. M. Pasteur demonstrates their wonderful vitality, he has preserved some of these bacteria since March 1877, in a glass tube, and when he places some of the germs in conditions favorable to be hatched or developed, they germinate with the same facility and rapidity, the same virulence, as the original seed which produced them four years ago. He prepared, artificially, a liquid, and exposed it to pure air during a month, and at a temperature between 108 and 109 degrees. Up to the last day the liquid was capable of reproducing germs, that is to say, after the month it completely lost the power of production. Still more singular, if bacteria be placed in this liquid, it loses after a residence therein of ten days, all its virulence at least in the sense that it is incapable of communicating the mortal effects of the plague to sheep and rabbits, animals the most liable to contract the disease. Since the virus can be thus rendered inoffensive, nothing, following M. Pasteur, is more simple than to inoculate sheep, cows and horses, and so prevent them from falling victims to the terrible disease? He has done so with marked success in the case of sheep, and, during the summer, intends practising inoculation on an extensive scale on flocks in the Beauce. As in the virus of hen-cholera, so in that of the *charbon* malady of cattle and